



Appendixes (Volume 2)

Final Environmental Impact Report for the Balboa Park Plaza de Panama Project

Project No. 233958

SCH No. 2011031074

May 3, 2012



THE CITY OF SAN DIEGO

APPENDIXES

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- D-2: Parking Demand Study
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APPENDIX F

Biological Resources Letter Report

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A Company of Specialists

January 12, 2012

Mr. Gordon Kovtun
KCM Group
1940 Garnet Avenue, Suite 300
San Diego, CA 92109

Reference: Balboa Park Plaza de Panama Project - Biological Resource Survey Letter
(Project Number 233958; RECON Number 6095)

Dear Mr. Kovtun:

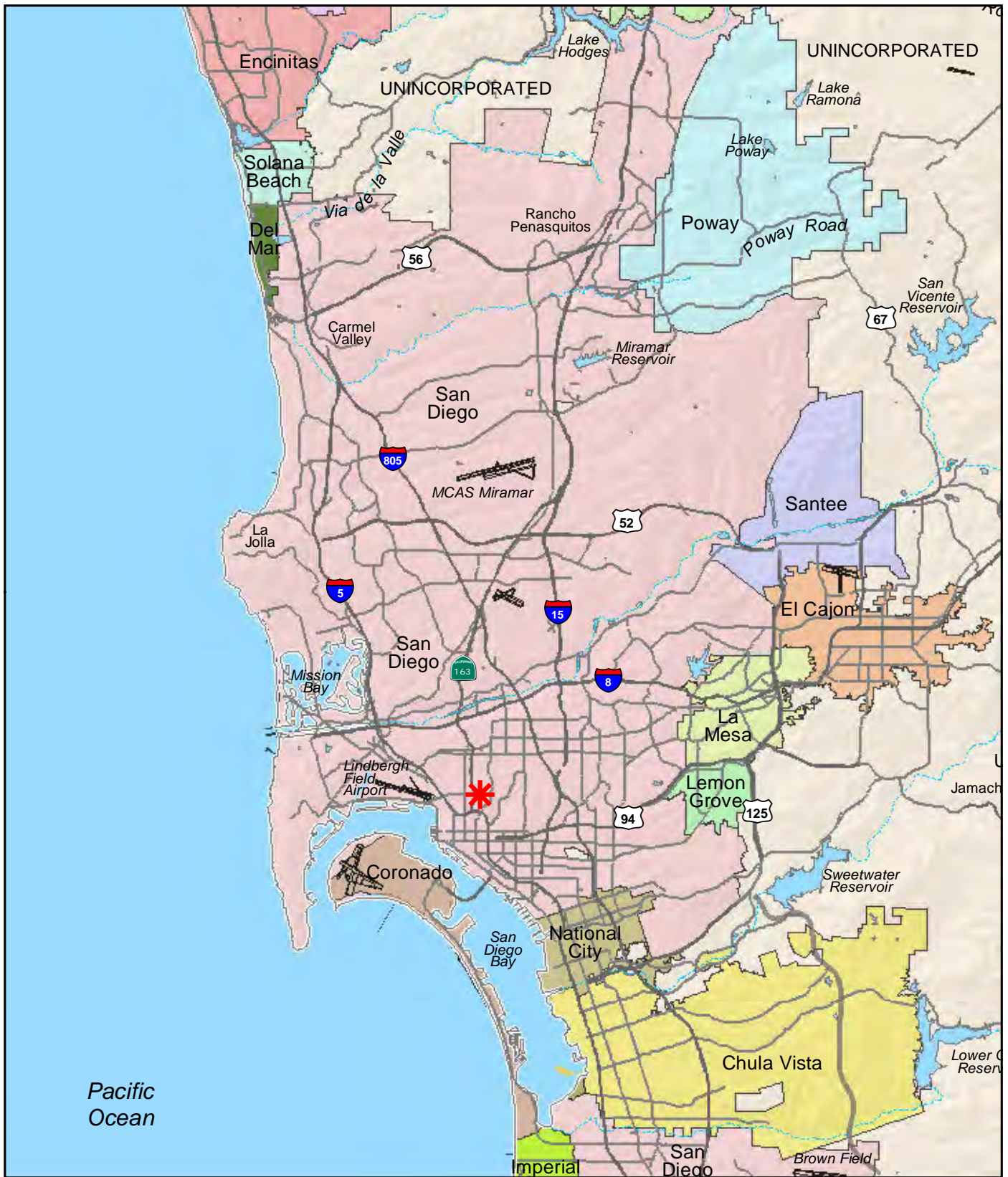
This letter survey report describes the results of RECON's biological resource survey conducted at the Balboa Park Plaza de Panama project area (project area) located in the center of Balboa Park, the temporary access road, and the off-site fill disposal site at the Arizona Street Landfill in the city of San Diego, California (Figure 1). The project area is located east of Sixth Avenue and south of Laurel Street within Balboa Park, and the Arizona Street Landfill is located between Florida Drive and Pershing Road (Figure 2). The project area consists of approximately 15.4 acres, the temporary access road consists of approximately 0.46 acre, and the Arizona Street Landfill consists of approximately 20.97 acres in an unsectioned portion of the Mission San Diego land grant, Township 16 South, Range 3 West, U.S. Geographical Survey (USGS) 7.5-minute topographic map Point Loma quadrangle (see Figure 2) (USGS 1996) and is shown on the City of San Diego, Engineering and Development, 800'-scale maps (Figure 3).

1.0 SURVEY METHODS

A general survey for existing biological resources was conducted within the survey area on April 4, 2011 by RECON biologists Erin McKinney and Gerry Scheid. A general survey for existing biological resources was conducted for the temporary access road on September 21, 2011, and within the Arizona Street Landfill on January 3, 2012 by RECON biologist Erin McKinney.

Floral nomenclature for common plants follows Hickman (1993) and for sensitive plants follows California Native Plant Society (CNPS 2007). Animal species observed directly or detected from calls, tracks, scat, nests, or other sign were noted. The wildlife surveys were limited by seasonal and temporal factors. Surveys were performed during the day; therefore, nocturnal animals were identified by sign that was apparent at the time of the surveys. Zoological nomenclature for birds is in accordance with the American Ornithologists' Union Checklist (1998) and Unitt (2004); for mammals with Baker et al. (2003) and Hall (1981); for amphibians and reptiles with Crother (2001) and Crother et al. (2003); and for invertebrates with Mattoni (1990), and Opler and Wright (1999).

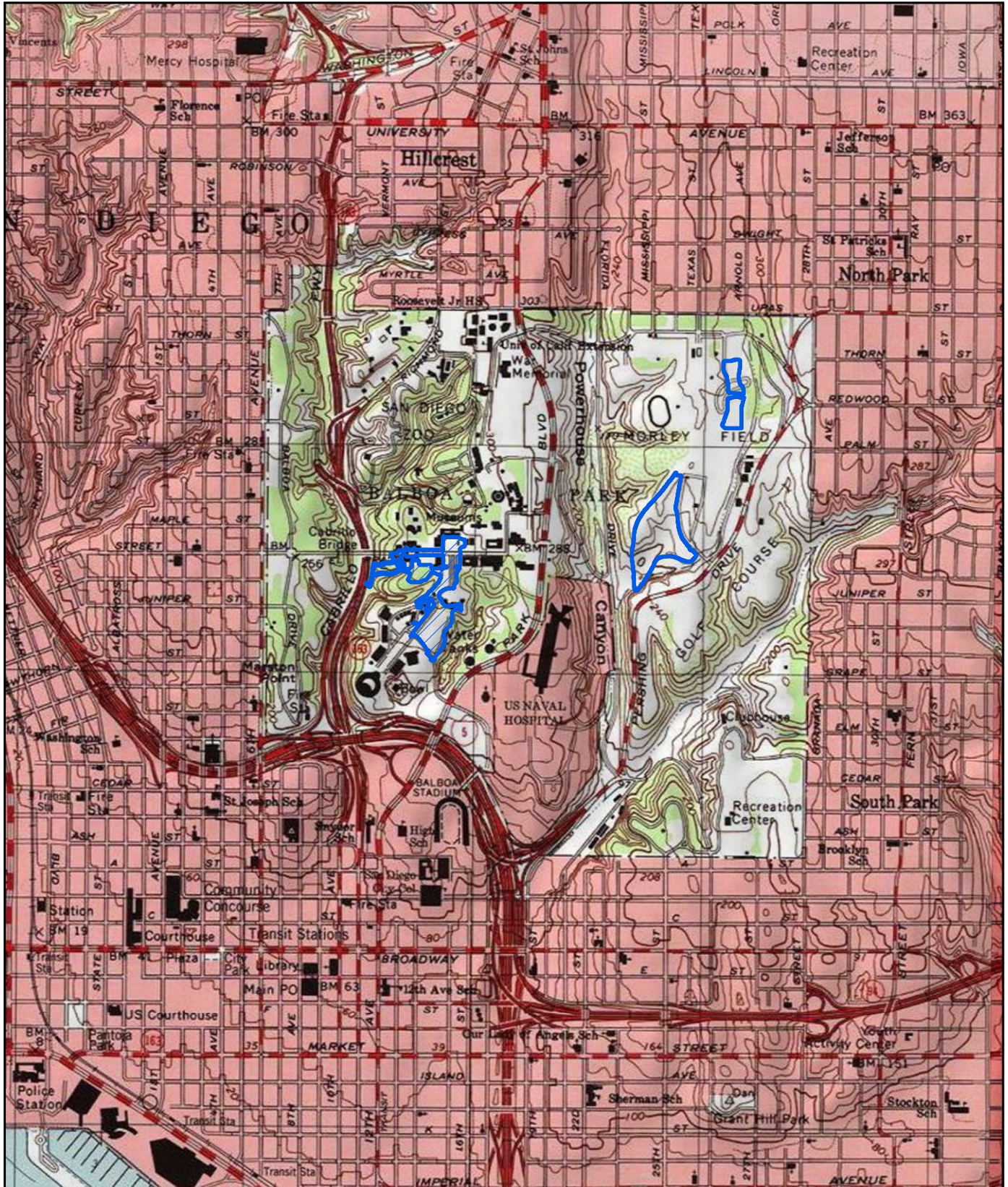
The general survey included a search for sensitive plants and animals that would have been apparent at the time of the survey. Determination of the potential occurrence for listed, sensitive, or noteworthy species is based upon known ranges and habitat preferences for the species (Jennings and Hayes 1994; Unitt 2004; CNPS 2007; Reiser 2001) and species occurrence



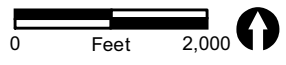
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 Project Location

FIGURE 1
Regional Location



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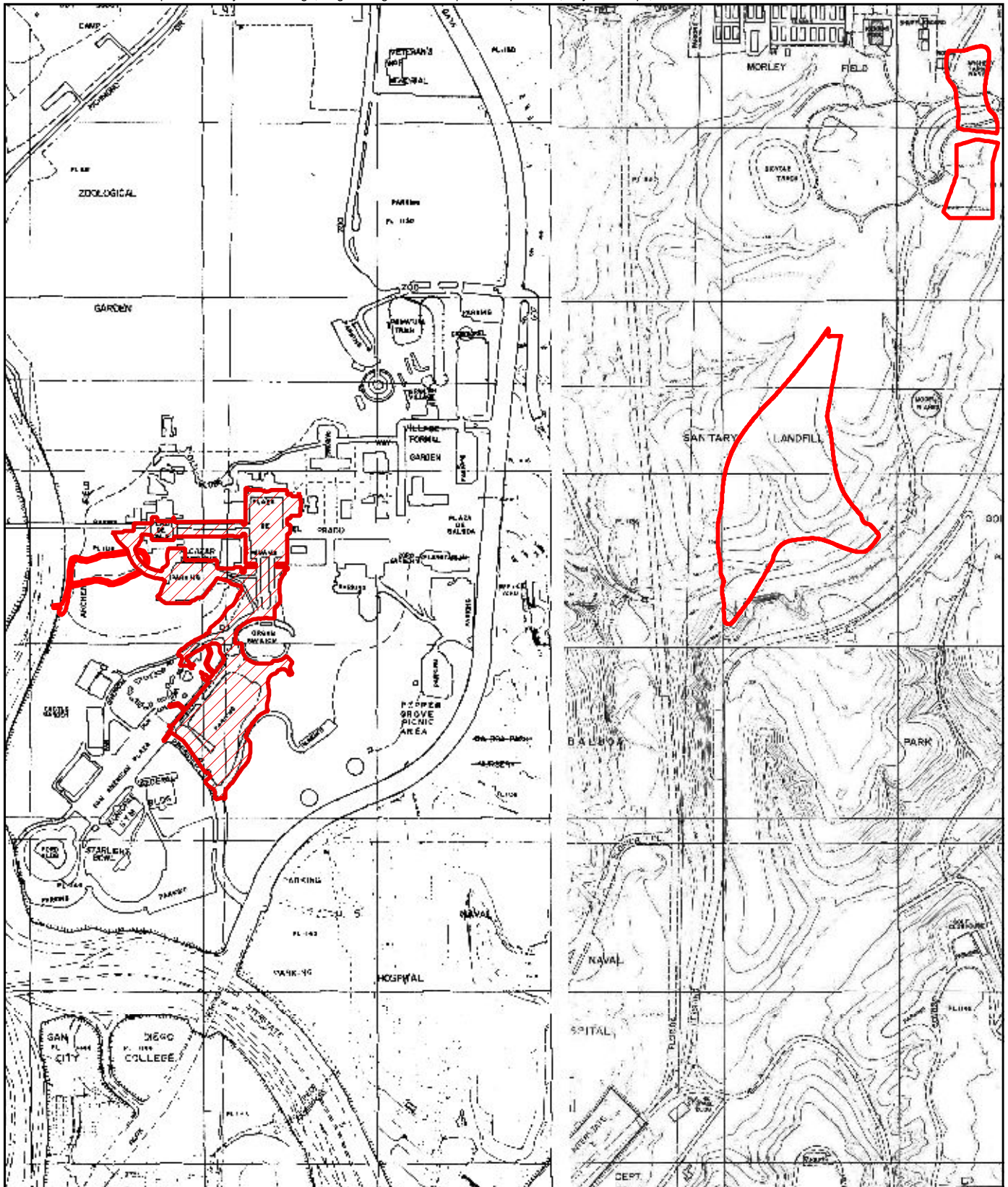
-  Project Area
-  Off-site Project Components

FIGURE 2
Project Location on USGS Map



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-  Project Area
-  Off-site Project Components

FIGURE 3
Project Location on City 800' Map

records from California Natural Diversity Database (CNDDDB; State of California 2009 and 2010a–d).

2.0 EXISTING CONDITIONS

The Plaza de Panama project area is located within Balboa Park and is surrounded by park lands, open space areas, and circulation roads (Figure 4a). A temporary access road would be utilized on the western end of the project, accessing from State Route 163 south of the Cabrillo Bridge (see Figure 4a). This temporary access road is located within Balboa Park and is surrounded by park lands and dirt roads. The Arizona Street Landfill would be utilized for soils disposal from the project area. The Arizona Street Landfill is located west of Florida Drive and east of Pershing Road (Figure 4b).

2.1 Topography and Soils

Elevations within the survey area vary from approximately 210 feet to 265 feet above mean sea level (AMSL). Five soil types, Gaviota Fine Sandy Loam (GaF), Made Land (Md), Redding Gravelly Loam (RdC), Terrace Escarpments (TeF), and Urban Land (Ur), as mapped by the U.S. Department of Agriculture (USDA; 1973), occurs within the survey area.

Gaviota Fine Sandy Loam (GaF) is a soil type that is 9 to 18 inches deep over sandstone and steep 30 to 50 percent slopes. Runoff is rapid with a high erosion hazard. The available water-holding capacity is 0.11 to 0.15 inches. Gaviota Fine Sandy Loam soils are mainly used for range and watershed (USDA 1973).

Made Land (Md) consists of smooth, level areas that have been filled with excavated and transported soil material, paving material, and soil material. Permeability is rapid, and the available water-holding capacity is 4 to 5 inches. The runoff is slow to medium, and the erosion hazard is slight to moderate (USDA 1973).

Redding Gravelly Loam (RdC) consists of 2 to 9 percent slopes undulating to gently rolling. The landscape is one of well drained to moderately well drained mima mounds and poorly drained swales. Available water-holding capacity is 1.5 to 2.5 inches. Permeability is very slow, and the hardpan is almost impervious. Runoff is slow to medium, and the erosion hazard slight to moderate (USDA 1973).

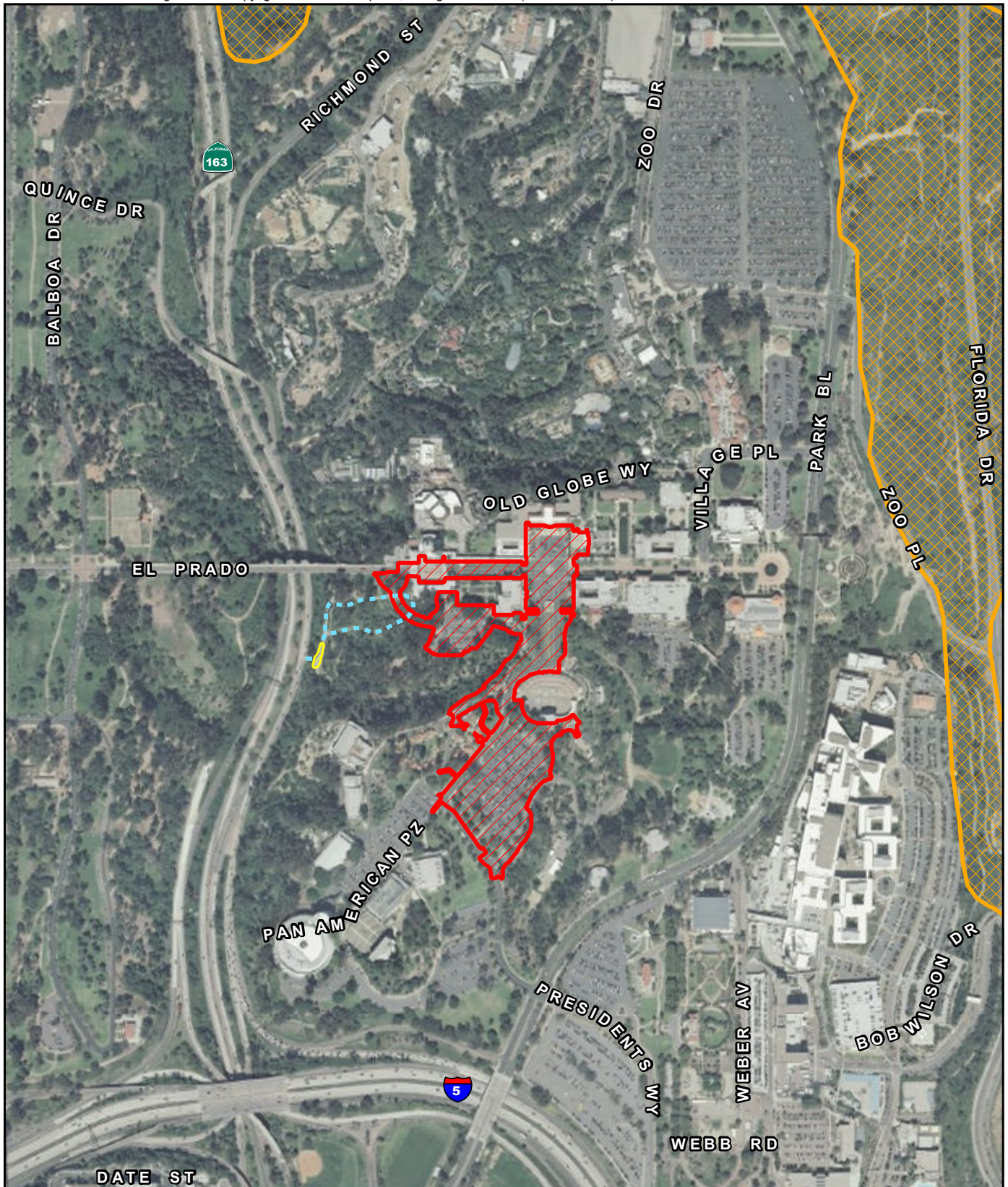
Terrace Escarpments (TeF) consists of steep – very steep escarpments and escarpment-like landscapes. Most places have 4 to 10 inches of loamy or gravelly soil over soft marine sandstone, shale, or gravelly sediments. These types of escarpments occur mainly on the coastal plain and as small areas in foothills and desert (USDA 1973).

Urban Land (Ur) characterizes soils within closely built up urban areas in cities. Buildings, streets, and sidewalks cover almost the entire surface. The soil has been so altered by urban works that identification is not feasible (USDA 1973).

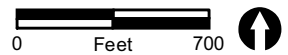
2.2 Habitats/Vegetation Communities

A total of 62 plant species were identified during the surveys conducted within the project area, temporary access road, and Arizona Street Landfill. Of this total, 13 species (20.9 percent) are native to southern California and 49 species (79 percent) are introduced (Attachment 1). The total number of plant species identified does not include the numerous other species of horticultural plants used in the gardens and other green areas of the park that would be part of the ornamental plantings land cover type.

The project site, temporary access road, and Arizona Street Landfill support six different vegetation communities/land cover types. Eucalyptus woodland, ornamental plantings, native



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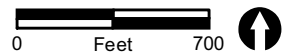
-  Project Area
 -  City of San Diego MHPA
 -  Existing Temporary Access Road
 -  Staging and Storage Area
- Off-site Project Components**

FIGURE 4a
Project Site on Aerial Photograph
Project Location and Temporary Impact Location



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-  Off-site Project Components
-  City of San Diego MHPA

FIGURE 4b
Project Site on Aerial Photograph
Off-site Fill Disposal Site at the Arizona Street Landfill

landscaping, and developed land are located within the project site and the temporary access road (Figure 5a). The Arizona Street Landfill contains disturbed land and non-native grassland (Figure 5b). Each of these vegetation communities/land cover types is described below. Vegetation community/land cover type classifications follow Holland (1986) as modified by Oberbauer (1996). Table 1 lists the vegetation communities with their respective sensitivity tiers (City of San Diego 2002) and acreages within the survey areas.

**TABLE 1
VEGETATION AND LAND COVER TYPES**

Vegetation and Land Cover Types	Tier	Project (acres)	Temporary Access Road (acres)	Arizona Street Landfill (acres)
Eucalyptus Woodland	IV	0.63	0.07	0.0
Ornamental Plantings	IV	4.33	0.11	0.0
Developed Land	IV	10.44	0.25	0.0
Disturbed Land	IV	0.0	0.0	13.96
Native Landscaping	IV	0.0	0.03	0.0
Non-native Grassland	IIIB	0.0	0.0	7.01
TOTAL		15.4	0.46	20.97

Eucalyptus woodland occurs to the south of the Laurel Street Bridge below the existing museum buildings and parking lots, totaling approximately 0.63 acre within the project area and 0.07 acre within the temporary access road. The woodland is dominated by various species of eucalyptus trees with a non-native herbaceous understory. A few scattered native shrubs and trees have been planted in the area.

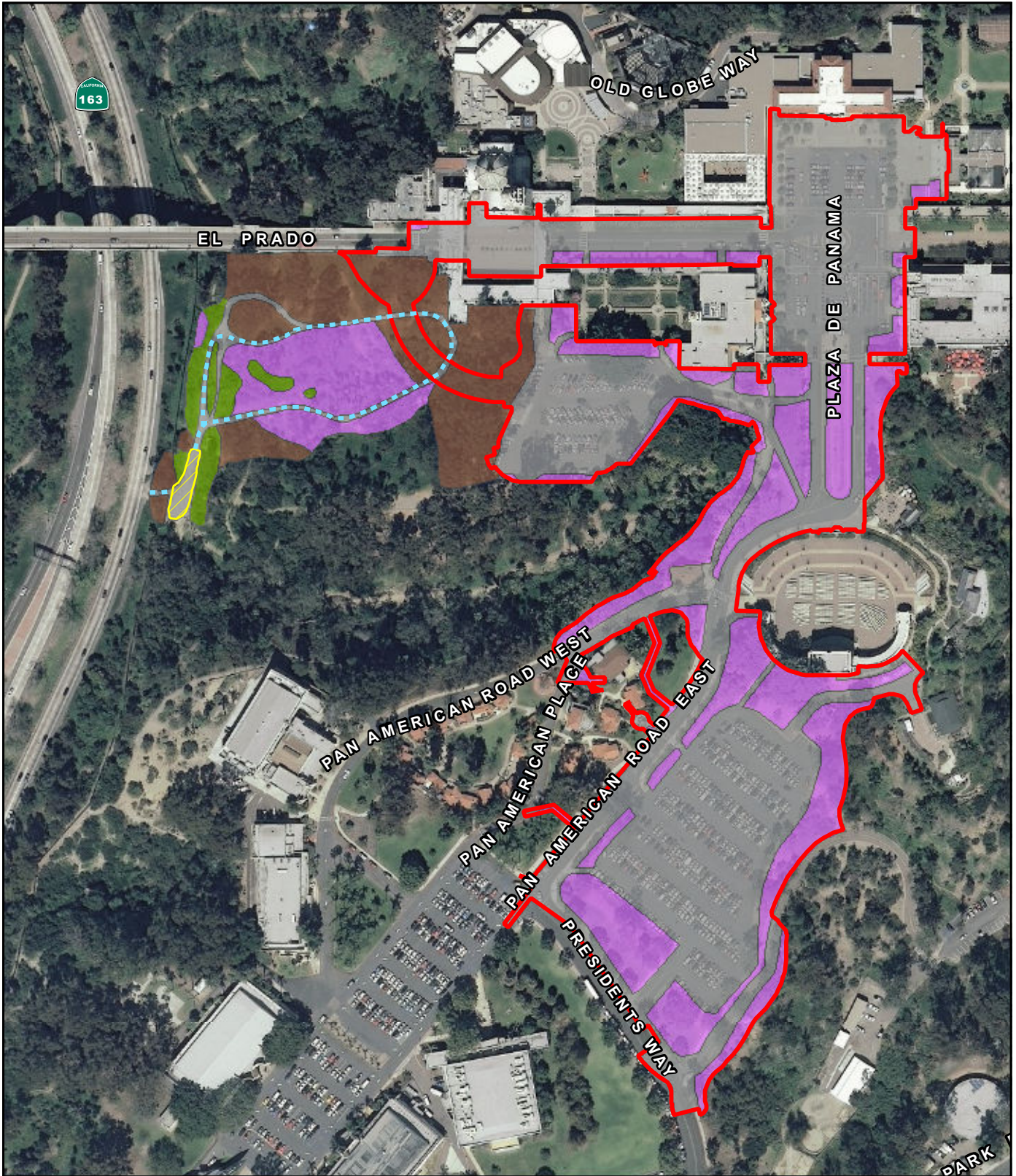
Ornamental plantings make up the majority of the vegetation within the project area and these areas include locations that have been landscaped with non-native species of tree, shrubs, and herbaceous plants. The ornamental plantings total approximately 4.33 acres throughout the project area and 0.11 acre within the temporary access road.

Native landscaping totals approximately 0.03 acre, located adjacent to the temporary access road to be utilized during the construction phase of the project south of Cabrillo Bridge and connecting to State Route 163. The native landscape community is dominated by planted Fremont cottonwood (*Populus fremontii*), western sycamore (*Platanus racemosa*), and coast live oak (*Quercus agrifolia*) species.

Disturbed land is found within the Arizona Street Landfill totaling approximately 13.96 acres. Areas that are dominated by non-native or weedy plant species are considered disturbed habitat. This area is also the main area in which the landfill is situated.

Developed land makes up approximately 10.44 acres within the project area and 0.25 acre within the temporary access road. Developed land includes paved roads, dirt roads, sidewalks, parking lots, and buildings of Balboa Park.

Non-native grassland is located within the Arizona Street Landfill. This is a Tier IIIB MSCP vegetation classification and totals approximately 7.01 acres. The non-native grassland is dominated by ripgut grass (*Bromus diandrus*) and wild oats (*Avena barbata*). Mulch was placed on the Arizona Street Landfill for erosion control purposes. In accordance with Order 97-11 "Waste Discharge Requirements for Post-closure Maintenance of Inactive Nonhazardous Waste Landfills in the San Diego Region" Item C 5, adopted by the San Diego Regional Water Quality



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- Project Area
- Off-site Project Components**
- Existing Temporary Access Road
- Staging and Storage Area

- Vegetation and Land Cover Types**
- Developed
 - Eucalyptus Woodland
 - Native Landscaping
 - Ornamental Plantings

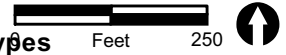
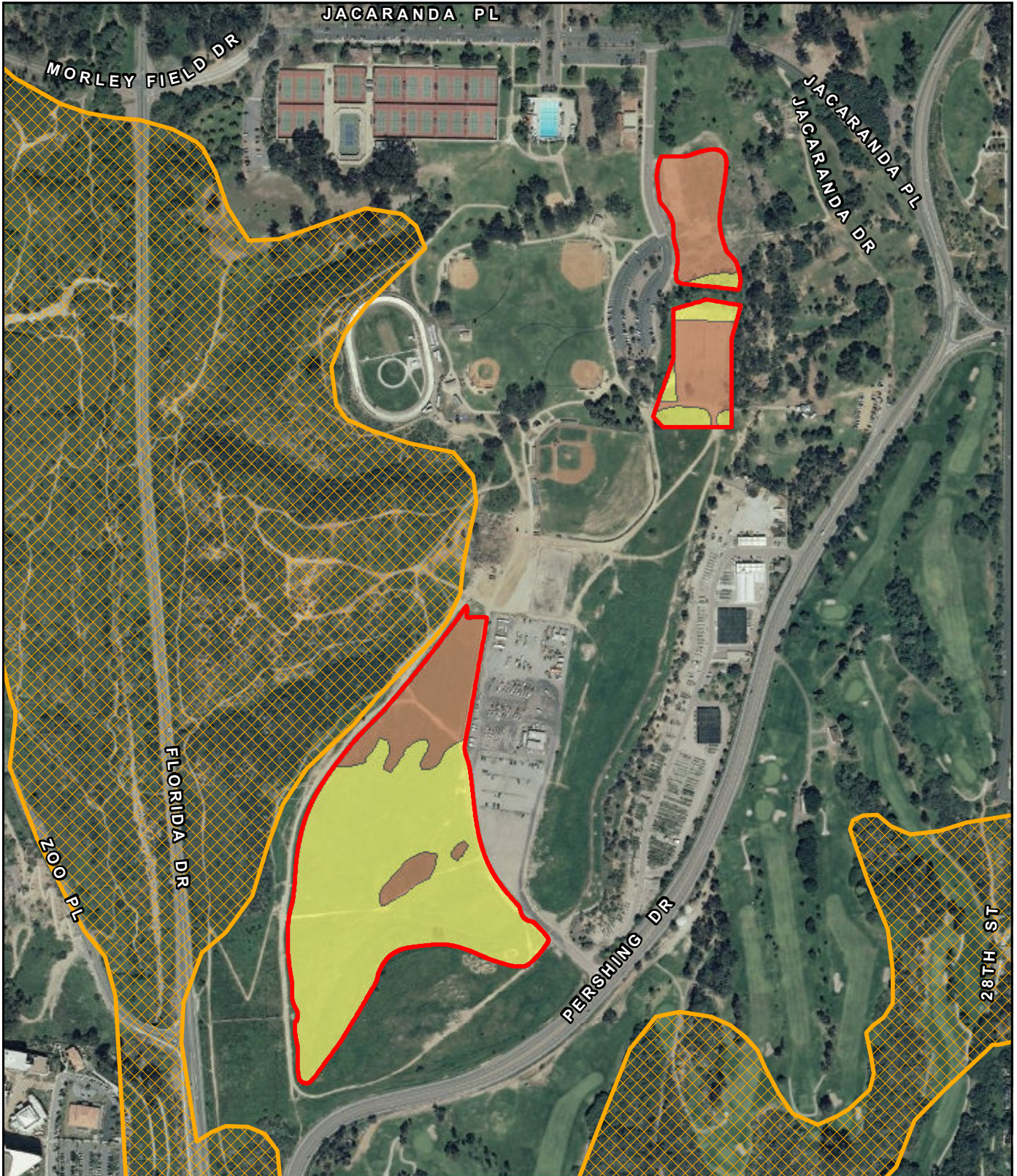
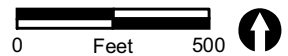


FIGURE 5a
Biological Resources
Project Site and Temporary Impact Location



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- | | | |
|---|-----------------------------|--|
|  | Off-site Project Components | Vegetation and Land Cover Types |
|  | City of San Diego MHPA |  Disturbed |
| | |  Non-native Grassland |

FIGURE 5b
Biological Resources
Off-site Fill Disposal Site at the Arizona Street Landfill

Control Board (includes Arizona Street Landfill), vegetation used after closure of the landfill was selected to require minimum irrigation and maintenance and not impair the integrity of the containment structures including the existing cover. Landscaping overlaying the landfill portion of the site included shallow rooted native grasses and shrubs suited for inland valleys of southern California.

2.3 Wetland and Non-wetland Jurisdictional Waters

No federal, state, or City of San Diego wetland or non-wetland jurisdictional waters are present within the project area, temporary access road, or the Arizona Street Landfill.

2.4 Wildlife

Wildlife species observed on-site include those adapted to urban residential areas. Examples of common wildlife species detected within the project area are provided below. Attachment 3 provides a complete list of wildlife species observed within the survey area.

Common bird species observed during the survey include Anna's hummingbird (*Calypte anna*), American crow (*Corvus brachyrhynchos hesperis*), and house finch (*Carpodacus mexicanus frontalis*). All of these species have adapted to residential and developed areas.

3.0 SENSITIVE BIOLOGICAL RESOURCES

3.1 Sensitivity Criteria

For purposes of this report, species will be considered sensitive if they are: (1) covered species or narrow endemic species under the City of San Diego Multiple Species Conservation Program (MSCP), (2) listed by state or federal agencies as threatened or endangered or are proposed for listing; (3) on List 1B (considered endangered throughout its range) or List 2 (considered endangered in California but more common elsewhere) of the CNPS *Inventory of Rare and Endangered Vascular Plants of California* (2007); or (4) considered rare, endangered, or threatened by the California Natural Diversity Data Base (State of California [CNDDDB] 2009, 2010a-d), the City of San Diego's Biology Guidelines (City of San Diego 2002), or local conservation organizations or specialists. Noteworthy plant species are considered to be those that are on List 3 (more information about the plant's distribution and rarity needed) and List 4 (plants of limited distribution) of the CNPS *Inventory*. Sensitive vegetation communities are those identified by the CNDDDB (Holland 1986) or identified by the City of San Diego (2002).

Raptors (birds of prey) and active raptor nests are protected by the California Fish and Game Code 3503.5, which states that it is "unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird" unless authorized. The Migratory Bird Treat Act of 1918 (MBTA) was established to provide protection to the breeding activities of migratory birds throughout the United States of America. The MBTA protects the take and harassment of migratory birds themselves and their breeding activities.

Assessments for the potential occurrence of sensitive species are based upon known ranges, habitat preferences for the species, species occurrence records from the CNDDDB, and species occurrence records from other sites in the vicinity of the survey area.

3.2 Sensitive Vegetation Communities

Non-native grassland, a Tier IIIB MSCP vegetation community, occurs within the Arizona Street Landfill site. As indicated in Section 2.2 above, the landfill site was covered with vegetation for erosion control purposes and non-native grassland established over time after the placement of mulch for erosion control purposes.

No sensitive vegetation communities occur within the Plaza de Panama project area or temporary access road.

3.3 Sensitive Plants

No sensitive plant species were observed within the Plaza de Panama project area or temporary access road and none are expected to occur in those areas. The potential for any narrow endemic species to be present in the project area are given in Attachment 4.

3.4 Sensitive Wildlife Species

All wildlife species known to occur in the project vicinity that are federally listed threatened or endangered or that have potential to occur based on species range are addressed in Attachment 5.

Coastal California Gnatcatcher (*Polioptila californica californica*). This species is federally listed as threatened, a California Department of Fish and Game species of special concern, and is a covered MSCP species (State of California 2009, 2010b, City of San Diego 2002). The coastal California gnatcatcher has a documented U.S. Fish and Wildlife Service location within approximately one mile of the survey area. This species was detected off-site adjacent to the Arizona Street Landfill area during general surveys.

3.5 Multiple Habitat Planning Area

As shown in Figure 4b, the Arizona Street Landfill is adjacent to the City of San Diego's Multiple Habitat Planning Area (MHPA) lands to the west, but does not cross into the MHPA. The project area and temporary access road are not within or adjacent to MHPA lands.

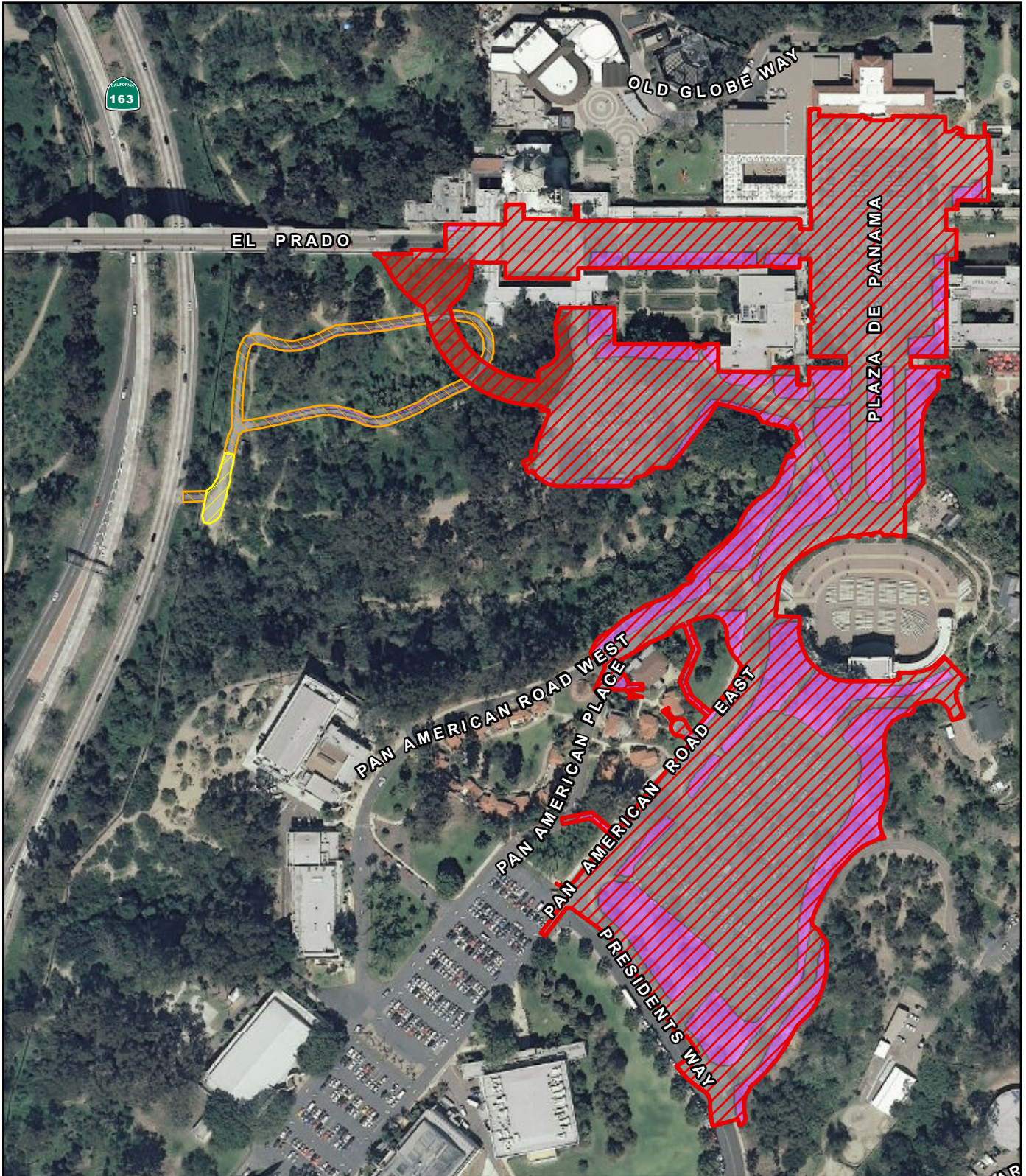
3.6 Wildlife Movement Corridor

Wildlife movement corridors are defined as areas that connect suitable wildlife habitat areas in a region otherwise fragmented by rugged terrain, changes in vegetation, or human disturbance. Natural features such as canyon drainages, ridgelines, or areas with vegetation cover provide corridors for wildlife travel. Wildlife movement corridors are important because they provide access to mates, food, and water; allow the dispersal of individuals away from high population density areas; and facilitate the exchange of genetic traits between populations (Beier and Loe 1992). Wildlife movement corridors are considered sensitive by resource and conservation agencies. The property is located at the top of an urban canyon system and adjacent to Florida Canyon. The areas do not appear to be part of a major wildlife movement corridor.




4.0 IMPACTS

The Plaza de Panama project includes the construction of a new Centennial Bridge off the Laurel Street Bridge, a parking structure, and associated circulation road and pedestrian path improvements. The project would impact 0.63 acre of eucalyptus woodland, 4.33 acres of ornamental plantings, and 10.44 acres of developed land, for a total impact area of 15.40 acres (Figure 6a; Table 2).

Impacts to vegetation communities adjacent to the temporary access road could result during construction in the event that construction activities should disrupt the adjacent vegetation. To assess this potential impact, an Area of Potential Effect (APE) was determined. The APE includes the area from the centerline of the access road extending 9 feet on either side (18 feet total). Potential impacts within the APE are estimated to be 0.07 acre of Eucalyptus woodland, 0.11 acre of ornamental plantings, 0.25 acre of developed land (the existing access road), and 0.03 acre of native landscaping (see Figure 6a).



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-  Project Impacts
-  Potential Temporary Access Road Impacts
-  Staging and Storage Area

Vegetation and Land Cover Types





-  Developed
-  Eucalyptus Woodland
-  Native Landscaping
-  Ornamental Plantings



FIGURE 6a
Proposed Impacts to Biological Resources
Project Site and Temporary Impact Location

Non-native grasslands are Tier IIIB under the MSCP. Temporary impacts to approximately 7.01 acres of non-native grassland would occur within the Arizona Street Landfill (Figure 6b). In addition, 13.96 acres of disturbed land would be temporarily impacted within the Arizona Street Landfill.

Impacts to non-native grassland (Tier IIIB) would be less than significant. Per the City of San Diego California Environmental Quality Act Significance Determination Thresholds (City of San Diego 2011), habitat mitigation is not required for impacts to areas that have been planted for the purpose of erosion control per a permit requirement. The non-native grassland that occurs within this area was allowed to establish following placement of mulch as an erosion control measure. Therefore, mitigation is not required for non-native grassland impacts within this site. As part of the project requirements, hydroseed would be placed on the fill disposal area following earthwork activities within the Arizona Street Landfill. Consistent with the “passive” park uses and the Park and Recreation land use goals for the Arizona Street Landfill, the hydroseeded areas would not be irrigated. The hydroseed mix would consist of native non-invasive species.

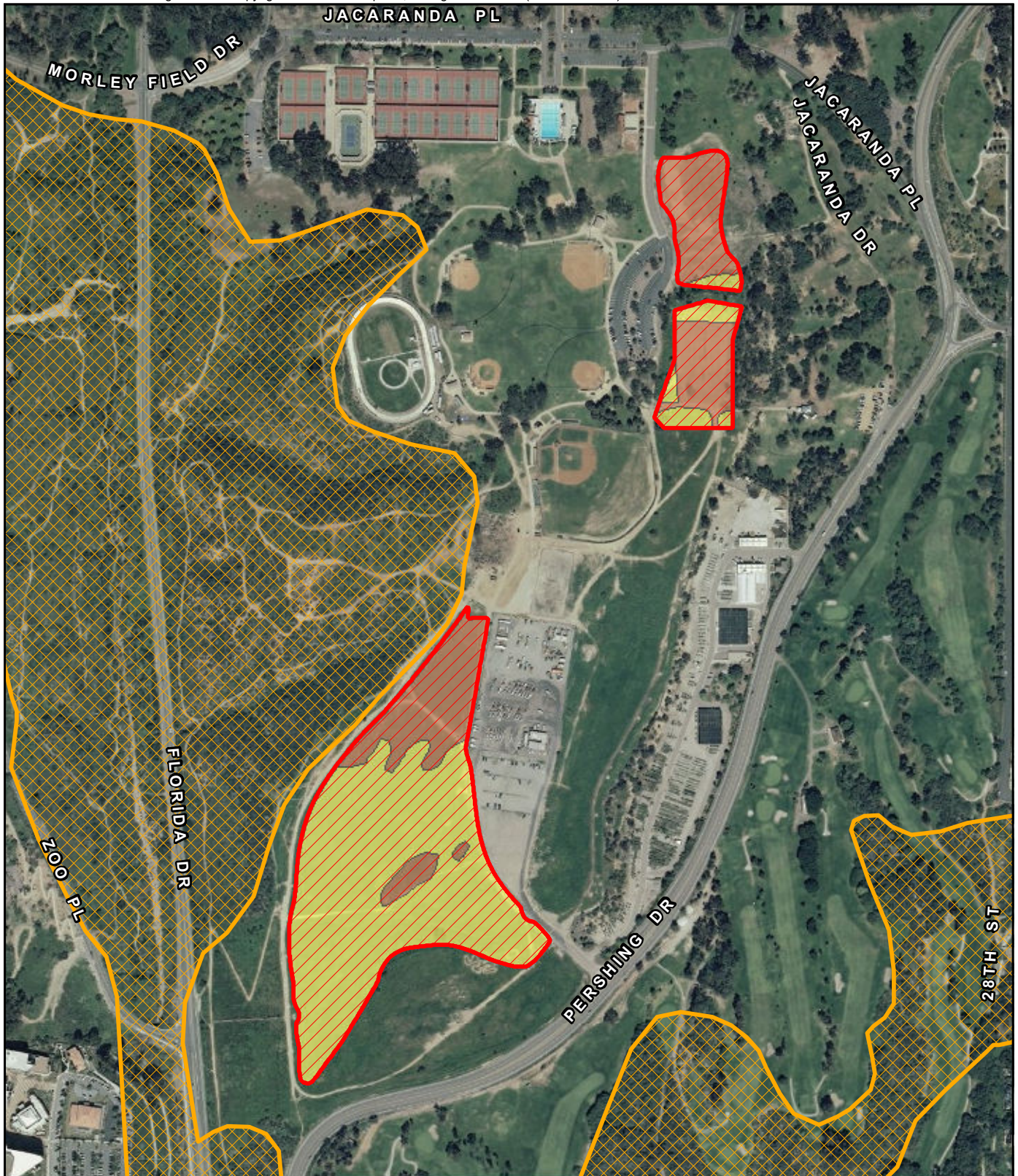
All other vegetation communities impacted by the project are within the Tier IV (other uplands) habitat types and would not be significant according to the City Thresholds. All project impacts are outside the MHPA.

The federally listed threatened coastal California gnatcatcher was detected off-site adjacent to the Arizona Street Landfill during general surveys. No clearing of coastal sage scrub or disturbed coastal sage scrub habitat would take place as part of this project; therefore, no direct impacts would occur to this species. In order to avoid potential indirect impacts to coastal California gnatcatcher, it is recommended that work within 300 feet of potential coastal California gnatcatcher habitat (coastal sage scrub) located within the MHPA be avoided during the breeding season (March 1 through August 15).

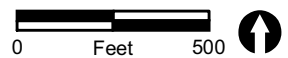
**TABLE 2
IMPACTS TO VEGETATION AND LAND COVER TYPES**

Vegetation and Land Cover Types	Tier	Project Area (acres)	Temporary Access Road (acres)	Arizona Street Landfill (acres)	Total Acres
Eucalyptus Woodland	IV	0.63	0.07	0	0.7
Ornamental Plantings	IV	4.33	0.11	0	4.44
Developed Land	IV	10.44	0.25	0	10.69
Disturbed Land	IV	0	0	13.96	13.96
Native Landscaping	IV	0	0.03	0	0.03
Non-native Grassland	IIIB	0	0	7.01	7.01
TOTAL		15.4	0.46		36.83

There are numerous trees within the project area that may serve as raptor nesting habitat. Impacts to nesting raptors, including removal of an active nest or causing nest abandonment during construction activities, would be considered significant and require mitigation. Direct impacts to migratory birds using the site could occur if construction activities disrupt breeding activities or inadvertently kill species covered under the MBTA. Any impacts to migratory or nesting birds would be considered significant.



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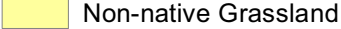
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|--|---|
|  Project Impacts | Vegetation and Land Cover Types |
|  City of San Diego MHPA |  Disturbed |
| |  Non-native Grassland |

FIGURE 6b
Proposed Impacts to Biological Resources
Off-site Fill Disposal Site at the Arizona Street Landfill

5.0 MITIGATION

Indirect impacts to the coastal California gnatcatcher within the adjacent MHPA near the Arizona Street Landfill area due to construction noise can be reduced to a level below significance by avoiding the breeding season of sensitive wildlife. If construction activities must occur during the breeding season of sensitive wildlife, then pre-construction surveys shall be conducted to determine if breeding or nesting activities are occurring within the adjacent MHPA. If breeding or nesting activities are present, appropriate buffers must be maintained around any breeding or nesting sites until the young have become independent of the adults. Noise attenuation may be required and can be achieved through the use of barriers that reduce noise levels reaching adjacent habitat or breeding areas.

To remain in compliance with the MBTA, no direct impacts shall occur to nesting birds, their eggs, chicks, or nests during the breeding season. If construction activities are to occur during the bird breeding season, pre-construction surveys would be necessary to confirm the presence or absence of breeding birds. If nests or breeding activities are located on-site, an appropriate buffer area around the nesting site shall be maintained until the young have fledged.

To avoid impacts to raptors, no grading activities would occur within 300 to 500 feet of a nest during their breeding season (February 1 through September 15). It is recommended that pre-construction surveys be conducted to determine if raptors are nesting in trees on or adjacent to the site. If nests are present, no construction would be allowed within 300 to 500 feet of any identified nest(s) until the young fledge.

The Arizona Street Landfill is adjacent to MHPA. Therefore, MHPA adjacency guidelines must be followed. Those guidelines include the following:

Drainage. All new and proposed parking lots and developed areas within and adjacent to the MHPA must not drain directly into the MHPA.

Toxics. Land uses, such as recreation and agriculture, that use chemicals or generate by-products, such as manure, that are potentially toxic or impactful to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by application or drainage of such materials into the MHPA.

Lighting. Lighting of all developed areas within and adjacent to the MHPA should be directed away from the MHPA.

Noise. Uses within or adjacent to the MHPA should be designed to minimize noise impacts.

Barriers. New developments within or adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation.

Invasives. No invasive plant species shall be introduced into areas within the MHPA.

Grading/Land Development. Manufactured slopes associated with the site development shall be included within the development footprint for projects within or adjacent to the MHPA.

Mr. Gordon Kovtun
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January 12, 2012

If you have any questions, please do not hesitate to contact me.

Sincerely,



Erin McKinney
Associate Restoration Biologist

EJM:sh

Attachments

6.0 REFERENCES CITED

- American Ornithologists' Union
1998 *Check-list of North American Birds*. 7th ed. Washington, D.C.
- Baker, R. J., L. C. Bradley, R. D. Bradley, J. W. Dragoo, M. D. Engstrom, R. S. Hoffmann, C. A. Jones, F. Reid, D. W. Rice, and C. Jones
2003 Revised Checklist of North American Mammals North of Mexico. Occasional Papers, Museum of Texas Tech University 229:1-24.
- Beier, P. and S. Loe
1992 A Checklist for Evaluating Impacts to Wildlife Movement Corridors. Wildlife Society Bulletin. 20:434-440.
- California, State of
2009 Special Animals. Natural Diversity Database. Department of Fish and Game. July.
2010a Natural Diversity Database. Nongame-Heritage Program, California Department of Fish and Game, Sacramento.
2010b State and Federally Listed Endangered, Threatened Animals of California. The Resources Agency, California Department of Fish and Game. July.
2010c Special Vascular Plants, Bryophytes, and Lichens List. Natural Diversity Database. Department of Fish and Game. October.
2010d State and Federally Listed Endangered, Threatened, and Rare Plants of California. The Resources Agency, California Department of Fish and Game. October.
- California Native Plant Society (CNPS)
2007 *Inventory of Rare and Endangered Plants of California* (7th edition). Online Edition. California Native Plant Society. Sacramento, CA.
- Crother, B. I., ed.
2001 *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in our Understanding*. Society for the Study of Amphibians and Reptiles Herpetological Circular 29.

Mr. Gordon Kovtun
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- Crother, B. I., J. Boundy, J. A. Campbell, K. De Quieroz, D. Frost, D. M. Green, R. Highton, J. B. Iverson, R. W. McDiarmid, P. A. Meylan, T. W. Reeder, M. E. Seidel, J. W. Sites, Jr., S. G. Tilley, and D. B. Wake
2003 Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico: Update. *Herpetological Review* 2003, 34(3): 196-203.
- Hall, E. R.
1981 *The Mammals of North America*. 2nd ed. 2 vols. John Wiley & Sons, New York.
- Garrett, K., and J. Dunn
1981 *Birds of Southern California: Status and Distribution*. Los Angeles Audubon Society, Artisan Press, Los Angeles.
- Hickman, J. C., ed.
1993 *The Jepson Manual: Higher Plants of California*. University of California Press, Berkeley and Los Angeles.
- Holland, R. F.
1986 Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, California Department of Fish and Game. October.
- Jennings, M. R. and M. P. Hayes
1994 Amphibian and Reptile Species of Special Concern in California. Final report submitted to the California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova, CA. Contract number 8023.
- Jones, C., R. S. Hoffman, D. W. Rice, M. D. Engstrom, R. D. Bradley, D. J. Schmidly, C. A. Jones, and R. J. Baker
1997 Revised Checklist of North American Mammals North of Mexico. *Occasional Papers, Museum of Texas Tech University* 173:1-19.
- Mattoni, R.
1990 *Butterflies of Greater Los Angeles*. The Center for the Conservation of Biodiversity/Lepidoptera Research Foundation, Inc. Beverly Hills, CA.
- Milne, L., and M. Milne
1980 *National Audubon Society Field Guide to North American Insects and Spiders*. A Chanticleer Press Edition. Alfred A. Knopf. New York. P. 876.
- Oberbauer, T.
1996 Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions. San Diego Association of Governments, San Diego.
- Opler, P. A. and A. B. Wright
1999 *A Field Guide to Western Butterflies*. Peterson Field Guide Series. Houghton Mifflin, Boston.
- Reiser, C. H.
2001 *Rare Plants of San Diego County*. Aquafir Press. July.

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San Diego, City of

2002 City of San Diego Biology Guidelines for the Environmentally Sensitive Lands Regulations (ESL), the Open Space Residential (OR-1-2) Zone, and the California Environmental Quality Act (CEQA).

2011 California Environmental Quality Act Significance Determination Thresholds. January.

Unitt, P.

2004 *San Diego County Bird Atlas*. Ibis Publishing Company.

U.S. Department of Agriculture (USDA)

1973 *Soil Survey, San Diego Area, California*. Soil Conservation Service and Forest Service. Roy H. Bowman, ed. San Diego. December.

U.S. Geological Service (USGS)

1996 La Jolla Quadrangle, CA 7.5-minute series topographic map.

ATTACHMENTS

ATTACHMENT 1
Plant Species Observed

**ATTACHMENT 1
PLANT SPECIES OBSERVED**

Scientific Name	Common Name	Habitat	Origin
GYMNOSPERMS			
PINACEAE	PINE FAMILY		
<i>Pinus</i> sp.	pine	OP	I
ANGIOSPERMS: DICOTS			
AIZOACEAE	FIG-MARIGOLD FAMILY		
<i>Mesembryanthemum crystallinum</i> L.	crystalline ice plant	OP	I
AMARANTHACEAE	AMARANTH FAMILY		
<i>Atriplex semibaccata</i> R. Br.	Australian saltbush	EW	I
<i>Chenopodium murale</i> L.	nettle-leaved goosefoot	EW	I
<i>Dysphania</i> [= <i>Chenopodium</i>] <i>ambrosioides</i> (L.) Mosyakin & Clemants	Mexican tea	EW	I
<i>Salsola tragus</i> L.	Russian thistle, tumbleweed	D, EW	I
ANACARDIACEAE	SUMAC OR CASHEW FAMILY		
<i>Malosma laurina</i> Nutt. ex Abrams	laurel sumac	EW	N
<i>Rhus integrifolia</i> (Nutt.) Benth. & Hook. f. ex Rothr.	lemonadeberry	EW	N
<i>Rhus lancea</i> L. f.	African sumac	OP	I
<i>Schinus terebinthifolius</i> Raddi	Brazilian pepper tree	OP	I
APIACEAE	CARROT FAMILY		
<i>Foeniculum vulgare</i>	<i>Fennel</i>	D	I
ARALIACEAE	GINSENG FAMILY		
<i>Hedera helix</i> L.	English ivy	OP	I
ASTERACEAE	SUNFLOWER FAMILY		
<i>Baccharis pilularis</i> DC.	coyote brush	EW	N
<i>Carduus pycnocephalus</i> L.	Italian thistle	EW	I
<i>Cotula coronopifolia</i>	brass buttons	D	I
<i>Encelia californica</i> Nutt.	common encelia	EW	N
<i>Gazania linearis</i> (Thunb.) Druce	treasure flower	OP	I
<i>Glebionis coronaria</i> (L.) Spach [= <i>Chrysanthemum coronarium</i>]	garland, crown daisy	EW, OP	I
<i>Heterotheca sessiliflora</i>	goldenaster	D	N
<i>Isocoma menziesii</i>	San Diego goldenbush	D	N
<i>Lactuca serriola</i> L.	prickly lettuce	EW	I
<i>Lasthenia californica</i> DC. Ex Lindl.	Goldfields	EW	N
<i>Sonchus asper</i> (L.) Hill ssp. <i>Asper</i>	prickly sow thistle	EW	I
<i>Sonchus oleraceus</i> L.	common sow thistle	EW	I

**ATTACHMENT 1
PLANT SPECIES OBSERVED
(continued)**

Scientific Name	Common Name	Habitat	Origin
<i>Xanthium strumarium</i>	cocklebur	D	N
BRASSICACEAE (CRUCIFERAE)	MUSTARD FAMILY		
<i>Brassica</i> sp.	mustard	D, EW	I
<i>Capsella bursa-pastoris</i>	shepherd's purse	D	I
<i>Hirschfeldia incana</i> (L.) Lagr.-Fossat	short-pod mustard	EW	I
<i>Sisymbrium altissimum</i> L.	tumble mustard, Jim Hill mustard	EW	I
<i>Sisymbrium orientale</i> L.	mustard	EW	I
CARYOPHYLLACEAE	PINK FAMILY		
<i>Stellaria media</i> (L.) Vill.	Common chickweed	EW,OP	I
CRASSULACEAE	STONECROP FAMILY		
<i>Crassula connata</i>	pygmy weed	D	N
EUPHORBIACEAE	SPURGE FAMILY		
<i>Ricinus communis</i>	castor bean	D	I
FABACEAE (LEGUMINOSAE)	LEGUME FAMILY		
<i>Acacia</i> sp.	Acacia	OP, D	I
<i>Medicago polymorpha</i> L.	California bur clover	EW	I
<i>Melilotus albus</i> Medik.	White sweet clover	D, EW	I
<i>Melilotus indicus</i> (L.) All.	Sourclover	D, EW	I
FAGACEAE	OAK FAMILY		
<i>Quercus agrifolia</i> Née	coast live oak, encina	EW,OP, NL	N
GERANIACEAE	GERANIUM FAMILY		
<i>Erodium cicutarium</i> (L.) L'Hér. Ex Aiton	red stemmed filaree	EW, D, NNG	I
LAMIACEAE	MINT FAMILY		
<i>Marrubium vulgare</i> L.	horehound	EW	I
MALVACEAE	MALLOW FAMILY		
<i>Malva parviflora</i> L.	cheeseweed, little mallow	EW	I
MORACEAE	MULBERRY FAMILY		
<i>Ficus</i> sp.	Fig	OP	I
MYRTACEAE	MYRTLE FAMILY		
<i>Eucalyptus</i> sp.	gum tree	EW,OP	I

**ATTACHMENT 1
PLANT SPECIES OBSERVED
(continued)**

Scientific Name	Common Name	Habitat	Origin
MYRSINACEAE			
<i>Anagallis arvensis</i> L.	scarlet pimpernel, poor-man's weatherglass	EW,OP	I
OXALIDACEAE			
<i>Oxalis pes-caprae</i> L.	OXALIS FAMILY Bermuda buttercup	EW,OP	I
PLATANACEAE			
<i>Platanus racemosa</i> Nutt.	PLANE TREE OR SYCAMORE FAMILY western sycamore	OP, NL	N
POLYGONACEAE			
<i>Rumex crispus</i>	BUCKWHEAT FAMILY Curly dock	D	I
ROSACEAE			
<i>Prunus ilicifolia</i> (Nutt. ex Hook. & Arn.) Walp. ssp. <i>ilicifolia</i>	ROSE FAMILY holly-leaved cherry, islay	EW	N
SALICACEAE			
<i>Populus fremontii</i> S. Watson ssp. <i>fremontii</i>	WILLOW FAMILY Fremont cottonwood, alamo	NL	N
SOLANACEAE			
<i>Nicotiana glauca</i> Graham	NIGHTSHADE FAMILY tree tobacco	EW	I
<i>Solanum rostratum</i> Dunal	buffalo berry	EW	I
URTICACEAE			
<i>Urtica urens</i> L.	NETTLE FAMILY dwarf nettle	EW,OP, D	I
ANGIOSPERMS: MONOCOTS			
ARECACEAE			
<i>Phoenix dactylifera</i> L.	PALM FAMILY date palm	EW,OP	I
<i>Washingtonia robusta</i> H. Wendl.	Washington fan palm	EW,OP	I
POACEAE (GRAMINEAE)			
<i>Avena barbata</i>	GRASS FAMILY wild oat	NNG	I
<i>Bromus diandrus</i> Roth	ripgut grass	EW, OP, NNG	I
<i>Bromus hordeaceus</i> L.	soft chess	EW, OP	I
<i>Bromus madritensis</i> L. ssp. <i>rubens</i> (L.) Husnot	red brome	EW, OP	I
<i>Echinochloa crus-galli</i> (L.) P. Beauv.	barnyard grass	EW, OP	I
<i>Hordeum murinum</i> L.	wild barley	EW, OP	I

**ATTACHMENT 1
PLANT SPECIES OBSERVED
(continued)**

Scientific Name	Common Name	Habitat	Origin
<i>Lamarckia aurea</i> (L.) Moench	goldentop	EW	I
<i>Pennisetum setaceum</i> (Forssk.) Chiov.	fountain grass	OP, D	I
<i>Vulpia myuros</i> (L.) C.C. Gmel var. <i>myuros</i>	rattail fescue	EW	I

SOURCES: Jepson Online Interchange <<http://ucjeps.berkeley.edu/interchange.html>> (2009); K. N. Brenzel (editor), *Sunset Western Garden Book* (Sunset Publishing, Menlo Park, CA, 2001); John P. Rebman and Michael G. Simpson, *Checklist of the Vascular Plants of San Diego County*, 4th ed. (San Diego Natural History Museum, San Diego, CA, 2006); USDA Plants Database <<http://plants.usda.gov/>> (2008).

HABITATS

EW = Eucalyptus Woodland
 OP = Ornamental Planting
 NL = Native Landscaping
 NNG = Non-native Grassland
 D = Disturbed Land

ORIGIN

N = Native to locality
 I = Introduced species from outside locality

ATTACHMENT 2

Wildlife Species Observed/Detected on the Balboa Park Plaza de Panama Site

ATTACHMENT 2
WILDLIFE SPECIES OBSERVED/DETECTED ON THE BALBOA PARK PLAZA DE PANAMA SITE

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
INVERTEBRATES (Nomenclature from Eriksen and Belk 1999; Milne and Milne 1980; Mattoni 1990; and Opler and Wright 1999)				
NYPHALIDAE <i>Danaus plexippus</i>	BRUSH-FOOTED BUTTERFLIES monarch	EU	C	O
REPTILES (Nomenclature from Crother 2001 and Crother et al. 2003)				
IGUANIDAE <i>Sceloporus occidentalis</i>	IGUANID LIZARDS western fence lizard	EU/H	C	O
ANGUIDAE <i>Elgaria multicarinata webbia</i>	ALLIGATOR LIZARDS San Diego alligator lizard	EU	C	O
BIRDS (Nomenclature from American Ornithologists' Union 1998 and Unitt 2004)				
ACCIPITRIDAE <i>Buteo jamaicensis</i> <i>Buteo lineatus elegans</i>	HAWKS, KITES, & EAGLES red-tailed hawk red-shouldered hawk	F F	C/Y F/Y	O/V O/V
FALCONIDAE <i>Falco sparverius sparverius</i>	FALCONS & CARACARAS American kestrel	F/D/NNG	C/Y	O/V
CHARADRIIDAE <i>Charadrius vociferus vociferus</i>	LAPWINGS & PLOVERS killdeer	NNG/D	C/Y	O/V
LARIDAE <i>Larus sp.</i>	GULLS, TERNS, & SKIMMERS seagull	F	C/Y	O/V
COLUMBIDAE <i>Zenaida macroura marginella</i>	PIGEONS & DOVES mourning dove	EU/H	C/Y	O/V
STRIGIDAE <i>Megascops kennicottii cardonensis</i>	TYPICAL OWLS western screech owl	EU	F/Y	O

ATTACHMENT 2
WILDLIFE SPECIES OBSERVED/DETECTED ON THE BALBOA PARK PLAZA DE PANAMA SITE
(continued)

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
TROCHILIDAE	HUMMINGBIRDS			
<i>Calypte anna</i>	Anna's hummingbird	EU/H	F/Y	O/V
<i>Selasphorus sasin</i>	Allen's hummingbird	H	U/M	O/V
PICIDAE	WOODPECKERS & SAPSUCKERS			
<i>Picoides nuttallii</i>	Nuttall's woodpecker	H	F/Y	O/V
TYRANNIDAE	TYRANT FLYCATCHERS			
<i>Sayornis nigricans semiatra</i>	black phoebe	EU/H	C/Y	O/V
<i>Sayornis saya</i>	Say's phoebe	D/NNG	C/W	O/V
<i>Tyrannus vociferans vociferans</i>	Cassin's kingbird	EU/H	C/Y	O/V
CORVIDAE	CROWS, JAYS, & MAGPIES			
<i>Corvus brachyrhynchos hesperis</i>	American crow	EU/H	C/Y	O/V
<i>Corvus corax clarionensis</i>	common raven	EU/H	C/Y	O/V
AEGITHALIDAE	BUSHTIT			
<i>Psaltriparus minimus minimus</i>	bushtit	EU/H	C/Y	O/V
TROGLODYTIDAE	WRENS			
<i>Troglodytes aedon parkmanii</i>	house wren	EU/H	C/Y	O/V
TIMALIIDAE	BABBLERS			
<i>Chamaea fasciata henshawi</i>	wrentit	D	C/Y	O/V
TURDIDAE	THRUSHES			
<i>Sialia mexicana occidentalis</i>	western bluebird	H	F/W	O/V
PARULIDAE	WOOD WARBLERS			
<i>Dendroica coronata</i>	yellow-rumped warbler	EU/H	F/W	O/V
EMBERIZIDAE	EMBERIZIDS			
<i>Melospiza melodia</i>	song sparrow	EU/H	C/Y	O/V
<i>Pipilo crissalis</i>	California towhee	EU/H	C/Y	O/V

ATTACHMENT 2
WILDLIFE SPECIES OBSERVED/DETECTED ON THE BALBOA PARK PLAZA DE PANAMA SITE
(continued)

Scientific Name	Common Name	Occupied Habitat	On-site Abundance/ Seasonality (Birds Only)	Evidence of Occurrence
ICTERIDAE		BLACKBIRDS & NEW WORLD ORIOLES		
<i>Icterus cucullatus nelsoni</i>	hooded oriole	H	F/S	
FRINGILLIDAE		FINCHES		
<i>Carpodacus mexicanus frontalis</i>	house finch	EU/H	C/Y	O/V
<i>Sturnella neglecta</i>	western meadowlark	NNG	C/Y	O/V
MAMMALS (Nomenclature from Baker et al. 2003)				
SCIURIDAE		SQUIRRELS & CHIPMUNKS		
<i>Sciurus niger</i>	Fox Squirrel	EU/H	U	O/V
<i>Spermophilus beecheyi</i>	California ground squirrel	EU/H	C	O/V

(I) = Introduced species

HABITATS

EU= Eucalyptus Woodland
H = Horticultural
F = Flying overhead
D = Disturbed
NNG = Non-native grasses

ABUNDANCE (based on Garrett and Dunn 1981)

C = Common to abundant; almost always encountered in proper habitat, usually in moderate to large numbers
F = Fairly common; usually encountered in proper habitat, generally not in large numbers
U = Uncommon; occurs in small numbers or only locally

SEASONALITY (birds only)

M = Migrant; uses site for brief periods of time, primarily during Spring and fall months
S = Spring/summer resident; probable breeder on-site or in vicinity
W = Winter visitor; does not breed locally
Y = Year-round resident; probable breeder on-site or in vicinity

EVIDENCE OF OCCURRENCE

B = Burrow
C = Carcass/remains
D = Den site
S = Scat
T = Track

ATTACHMENT 3

Sensitive Plant Species Observed or with the Potential for Occurrence

**ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE**

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
BRYOPHYTES					
SPHAEROCARPACEAE					
<i>Geothallus tuberosus</i> Campbell's liverwort	-/-	1B	-	Ephemeral liverwort; mesic coastal sage scrub, vernal pools; elevation below 2,000 feet. Recently reported from Camp Pendleton, likely extirpated elsewhere in urbanized San Diego County.	Low potential to occur on-site due to lack of suitable habitat.
<i>Sphaerocarpos drewei</i> bottle liverwort	-/-	1B	-	Ephemeral liverwort; openings in chaparral and coastal sage scrub; elevation 300–2,000 feet.	Low potential to occur on-site due to lack of suitable habitat.
ANGIOSPERMS: DICOTS					
AMARANTHACEAE AMARANTH FAMILY					
<i>Aphanisma blitoides</i> aphanisma	-/-	1B	NE, MSCP	Annual herb; coastal bluff scrub, coastal sage scrub; sandy soils; blooms March–June; elevation less than 1,000 feet.	Low potential to occur on-site due to lack of suitable habitat.
<i>Atriplex coulteri</i> Coulter's saltbush	-/-	1B	-	Perennial herb; coastal bluff scrub, coastal dunes, coastal sage scrub, valley and foothill grassland, alkaline or clay soil; blooms Mar.–Oct.; elevation less than 1,050 feet.	Low potential to occur on-site due to lack of suitable habitat.
ASTERACEAE SUNFLOWER FAMILY					
<i>Ambrosia pumila</i> San Diego ambrosia	-/FE	1B	NE, MSCP	Perennial herb; chaparral, coastal sage scrub, valley and foothill grassland, creek beds, vernal pools, often in disturbed areas; blooms May–Sept.; elevation less than 1,400 feet. Many occurrences extirpated in San Diego County.	Low potential to occur on-site. This species was not observed on-site.

**ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE
(continued)**

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
<i>Baccharis vanessae</i> Encinitas baccharis	CE/FT	1B	NE, MSCP	Deciduous shrub; chaparral; maritime, sandstone; blooms Aug.–Nov.; elevation less than 2,500 feet. Known from fewer than 20 occurrences.	Low potential to occur on-site. This species was not observed on-site.
<i>Deinandra</i> [= <i>Hemizonia</i>] <i>conjugens</i> Otay tarplant	CE/FT	1B	NE, MSCP	Annual herb; coastal sage scrub, valley and foothill grassland, clay soils; blooms May–June, elevation less than 1,000 feet.	Low potential to occur on-site. This species was not observed on-site.
BRASSICACEAE				MUSTARD FAMILY	
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's peppergrass	–/–	1B	–	Annual herb; coastal sage scrub, chaparral; blooms Jan.–July; elevation less than 1,700 feet.	Low potential to occur on-site. This species was not observed on-site.
CACTACEAE				CACTUS FAMILY	
<i>Cylindropuntia californica</i> [= <i>Opuntia californica</i> var. <i>californica</i> , <i>O. parryi</i> var. <i>serpentina</i>] snake cholla	–/–	1B	NE, MSCP	Succulent shrub; chaparral, coastal sage scrub; blooms April–May; elevation 100–500 feet.	Low potential to occur on-site. This species was not observed on-site.
CRASSULACEAE				STONECROP FAMILY	
<i>Dudleya brevifolia</i> [= <i>D. blochmaniae</i> ssp. <i>brevifolia</i>] short-leaved dudleya	CE/–	1B	NE, MSCP	Perennial herb; southern maritime chaparral, coastal sage scrub on Torrey sandstone; blooms in April; elevation less than 1,000 feet. Known from fewer than five occurrences in the Del Mar and La Jolla areas of San Diego.	Low potential to occur on-site. This species was not observed on-site.
<i>Dudleya variegata</i> variegated dudleya	–/–	1B	NE, MSCP	Perennial herb; openings in chaparral, coastal sage scrub, grasslands, vernal pools; blooms May–June; elevation less than 2,000 feet.	Low potential to occur on-site. This species was not observed on-site.

ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE
(continued)

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
FABACEAE					
				LEGUME FAMILY	
<i>Astragalus tener</i> var. <i>titi</i> coastal dunes milk-vetch	CE/FE	1B	NE, MSCP	Annual herb; coastal bluff scrub, coastal dunes, sandy soils, mesic coastal prairie; blooms March–May; elevation less than 1,000 feet.	Low potential to occur on-site due to lack of suitable habitat.
FAGACEAE					
				OAK FAMILY	
<i>Quercus dumosa</i> Nuttall's scrub oak	–/–	1B	–	Evergreen shrub; closed-cone coniferous forest, coastal chaparral, coastal sage scrub, sandy and clay loam soils; blooms Feb.–March; elevation less than 1,300 feet.	Low potential to occur on-site due to lack of suitable habitat.
LAMIACEAE					
				MINT FAMILY	
<i>Acanthomintha ilicifolia</i> San Diego thornmint	CE/FT	1B	NE, MSCP	Annual herb; chaparral, coastal sage scrub, and grasslands on friable or broken clay soils; blooms April–June; elevation less than 3,100 feet.	Low potential to occur on-site due to lack of suitable habitat.
<i>Pogogyne abramsii</i> San Diego mesa mint	CE/FE	1B	NE, MSCP	Annual herb; vernal pools; blooms April–July; elevation 300–700 feet.	Low potential to occur on-site due to lack of suitable habitat.
<i>Pogogyne nudiuscula</i> Otay mesa mint	CE/FE	1B	NE, MSCP	Annual herb; vernal pools; blooms May–July; elevation 300–800 feet. Known from six occurrences in Otay Mesa.	Low potential to occur on-site due to lack of suitable habitat.
RHAMNACEAE					
				BUCKTHORN FAMILY	
<i>Adolphia californica</i> California adolphia	–/–	2	–	Deciduous shrub; Diegan coastal sage scrub and chaparral; clay soils; blooms Dec.–May; elevation 100–1,000 feet.	Low potential to occur on-site due to lack of suitable habitat.
<i>Ceanothus verrucosus</i> wart-stemmed ceanothus	–/–	2	MSCP	Evergreen shrub; chaparral; blooms Dec.–April; elevation less than 1,300 feet.	Low potential to occur on-site due to lack of suitable habitat.

**ATTACHMENT 3
SENSITIVE PLANT SPECIES
OBSERVED (†) OR WITH THE POTENTIAL FOR OCCURRENCE
(continued)**

Species	State/Federal Status	CNPS List	City of San Diego	Habitat/Blooming Period	Comments
STERCULIACEAE					
CACAO FAMILY					
<i>Fremontodendron mexicanum</i> Mexican flannelbush	CR/FE	1B	–	Evergreen shrub; closed-cone coniferous forest, chaparral, cismontane woodland; Otay Mountain; blooms March–June; elevation less than 1,600 feet.	Low potential to occur on-site due to lack of suitable habitat.
LILIACEAE					
LILY FAMILY					
<i>Agave shawii</i> Shaw's agave	–/–	2	NE, MSCP	Succulent shrub; coastal bluff scrub, coastal sage scrub, maritime succulent scrub; blooms Sept.–May; elevation less than 250 feet.	Low potential to occur on-site. This species was not observed on site.
POACEAE					
GRASS FAMILY					
<i>Orcuttia californica</i> California Orcutt grass	CE/FE	1B	NE, MSCP	Annual herb; vernal pools; blooms April–August; elevation 50–2,200 feet.	Low potential to occur on-site due to lack of suitable habitat.

FEDERAL CANDIDATES AND LISTED PLANTS

FE = Federally listed endangered
FT = Federally listed threatened

STATE LISTED PLANTS

CE = State listed endangered

CALIFORNIA NATIVE PLANT SOCIETY LISTS

1B = Species rare, threatened, or endangered in California and elsewhere. These species are eligible for state listing.
2 = Species rare, threatened, or endangered in California but more common elsewhere. These species are eligible for state listing.

CITY OF SAN DIEGO

NE = Narrow endemic
MSCP = Multiple Species Conservation Program covered species

ATTACHMENT 4

Sensitive Wildlife Species Occurring or with the Potential to Occur on the Balboa Park Plaza de Panama Site

ATTACHMENT 4
SENSITIVE WILDLIFE SPECIES OCCURRING OR WITH THE POTENTIAL TO OCCUR ON THE BALBOA PARK PLAZA DE PANAMA SITE

Species	Status	Habitat	Occurrence/Comments
BIRDS (Nomenclature from American Ornithologists' Union 1998 and Unitt 1984)			
SYLVIIDAE			
GNATCATCHERS			
Coastal California gnatcatcher <i>Polioptila californica californica</i>	FT, CSC, MSCP	Coastal sage scrub, maritime succulent scrub. Resident.	Coastal California gnatcatcher was not observed on-site, but was observed off-site immediately outside of the property boundary. This species has a low potential to occur within the survey area due to the lack of suitable breeding habitat.
MAMMALS (Nomenclature from Jones et al. 1997 and Hall 1981)			
PHYLLOSTOMIDAE			
NEW WORLD LEAF-NOSED BATS			
Mexican long-tongued bat <i>Choeronycteris mexicana</i>	CSC	Sightings in San Diego County very rare. Migratory.	This species was not observed and has a low potential to occur within the survey area.
MOLOSSIDAE			
FREE-TAILED BATS			
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	CSC	Normally roost in crevice in rocks, slopes, cliffs. Lower elevations in San Diego and Imperial Counties. Colonial. Leave roosts well after dark.	This species was not observed and has a low potential to occur within the survey area.
Big free-tailed bat <i>Nyctinomops macrotis</i>	CSC	Rugged, rocky terrain. Roost in crevices, buildings, caves, tree holes. Very rare in San Diego County. Colonial. Migratory.	This species was not observed and has a low potential to occur within the survey area.

STATUS CODES

Listed/Proposed

FT = Listed as threatened by the federal government

CSC = California Department of Fish and Game species of special concern

MSCP = Multiple Species Conservation Program covered species

APPENDIX G
Geotechnical Investigation

**PRELIMINARY
GEOTECHNICAL INVESTIGATION**

**PLAZA DE PANAMA
BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA**



GEOCON
INCORPORATED

GEOTECHNICAL
ENVIRONMENTAL
MATERIALS

PREPARED FOR

**PLAZA DE PANAMA COMMITTEE
c/o KCM GROUP
SAN DIEGO, CALIFORNIA**

**MAY 16, 2011
PROJECT NO. G1346-42-01**



Project No. G1346-42-01
May 16, 2011

Plaza De Panama Committee
c/o KCM Group
1940 Garnet Avenue, Suite 300
San Diego, California 92109

Attention: Mr. Kevin Horst

Subject: PRELIMINARY GEOTECHNICAL INVESTIGATION
PLAZA DE PANAMA
BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA

Dear Mr. Horst:

In accordance with your request and our proposal (LG-10328, dated November 23, 2010), we herein present the results of our preliminary geotechnical investigation for the subject site. We performed a soil and geologic reconnaissance and subsurface investigation to evaluate geologic conditions and potential geologic hazards at the site to assist in the design of the proposed improvements. The accompanying report presents the results of our study with conclusions and preliminary recommendations pertinent to the geotechnical aspects of the project. The site is considered suitable for development provided the recommendations of this report are followed.

Should you have questions regarding this update report, or if we may be of further service, please contact the undersigned at your convenience.

Very truly yours,

GEOCON INCORPORATED

Rodney C. Mikesell
GE 2533



RCM:GWC:dmc

(6) Addressee

Garry W. Cannon
RCE 56468
CEG 2201



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PRELIMINARY GEOTECHNICAL INVESTIGATION

1. PURPOSE AND SCOPE

This report has been prepared to provide preliminary geotechnical recommendations for the Plaza De Panama project in Balboa Park. We understand plans are to restore pedestrian areas in Balboa Park including Plaza de Panama, West El Prado Promenade, California Plaza, and the Organ Pavilion Esplanade. To return these areas to pedestrian use, a new bridge, access roadways, and a parking structure will be constructed. The purpose of this geotechnical investigation is to evaluate surface and subsurface soil conditions, general site geology, and to identify geotechnical constraints that may impact development of the property.

To aid in the preparation of this geotechnical investigation, we reviewed the following plan and reports:

1. *Proposed Site Plan for Plaza de Panama Committee, Balboa Park Plaza*, prepared by Rick Engineering Company, dated February 24, 2011.
2. *Geotechnical Investigation, Japanese Friendship Gardens, Balboa Park, San Diego, California*, prepared by Geocon Incorporated, dated February 24, 1997 (Project Number 05881-42-01).
3. *Geotechnical Investigation, House of Iran, House of Puerto Rico and House of Spain, Balboa Park, San Diego, California*, prepared by Geocon Incorporated, dated November 14, 2000 (Project No. 06610-22-01).
4. *Report of Preliminary Geotechnical Investigation, Proposed El Prado Promenade, El Prado Street, Balboa Park, San Diego, California*, prepared by Christian Wheeler, dated March 29, 2003 (CWE 203.138.2).

The scope of our investigation included a review of stereoscopic aerial photographs and readily available published and unpublished geologic literature, performing a soil and geologic reconnaissance and subsurface investigation. The subsurface investigation included drilling 15 exploratory borings to a maximum depth of approximately 51 feet. The approximate locations of the exploratory borings are depicted on the Geologic Map, Figure 2 (map pocket).

We performed laboratory tests on selected soil samples obtained during the field investigation to evaluate pertinent physical properties for engineering analyses and to assist in providing recommendations for site grading and foundation design criteria. Logs of the exploratory borings and a detailed discussion of the field investigation are presented in Appendix A. Details of the laboratory testing and a summary of the test results are presented in Appendix B. Logs and pertinent laboratory testing from the referenced geotechnical investigations (References 2 through 4) are presented in Appendix C.

We used an untitled base map, provided by Rick Engineering Company, to plot site geology and boring locations. Recommendations presented in this report are based on our knowledge of the site geology, discussions with you, and our understanding of proposed development as shown on Figure 2. If development plans change significantly from that shown on the plans, Geocon Incorporated should be contacted to review the plans and determine if additional analyses and recommendations are required.

2. SITE DESCRIPTION AND PROPOSED PROJECT DEVELOPMENT

The Plaza De Panama project is located in the south-central portion of Balboa Park in San Diego, California (see Vicinity Map, Figure 1). The project is generally located south of El Prado and north of Presidents Way. A majority of the planned improvements will be constructed along Pan American Plaza East and the Alcazar parking lot. Elevations at the site vary from approximately 210 feet to 265 feet Mean Sea Level (MSL). Cut/fill slopes with heights ranging from approximately 45 feet exist throughout the site. Cut slopes (20 to 40 feet high) that transition into native hillside slopes exist on the north and east sides of the site.

Our review of the preliminary plans indicates the project will consist of restoring pedestrian use to Plaza de Panama, West El Prado Promenade, California Plaza and the Organ Pavilion Esplanade. We expect site improvements in the new pedestrian areas will consist of removing existing roadways and parking lots and constructing concrete hardscape and landscape areas.

The project will also including constructing a bridge that extends from just east of the Cabrillo Bridge to the west side of Alcazar parking lot. Structural plans for the bridge are unavailable, but the preliminary plans show a single-span structure that is approximately 265 feet long and 30 feet wide. Currently, the area where the bridge is planned is open space with trees and brush and is currently utilized as an archery range. We expect the bridge will require abutment retaining walls/wing walls with heights of approximately 20 to 45 feet.

As part of the project the Alcazar parking lot will be reconstructed by raising grades across the existing parking lot by 1 to 7 feet, including new fill slopes along the west, south and east perimeters of the parking lot.

A two-level parking structure is planned south of the Organ Pavilion. Plans are to have a garden on the rooftop of the parking structure. Currently, this area is an asphalt paved on-grade parking lot and serves as one of the main parking areas for park visitors. The parking-structure finish floor will have an elevation of 213 MSL at its lowest level. This will require excavation up to approximately 38 feet from existing grades. Cut and fill slopes will be constructed along the east side of the parking

structure. Retaining walls are also planned along the south, west and north sides of the parking structure.

A new access road extending from Alcazar parking lot to the new parking structure will be constructed. Additionally, a new pedestrian raised wood walkway connecting to an existing pedestrian raised wood walkway will be constructed along the west side of the new access road.

The site description and proposed development are based on a site reconnaissance, review of the referenced plans, and discussions with KCM Group and Rick Engineering. If development plans differ from those described herein, Geocon Incorporated should be contacted for review of the plans and potential revisions to this report.

3. SOIL AND GEOLOGIC CONDITIONS

The site is underlain by undocumented fill, Lindavista Formation (also known as very old paralic deposits), and the San Diego Formation. A description of each of these units is provided below. The approximate lateral and vertical extent of each of the soil and geologic units is depicted on the Geologic Map, Figure 2 (map pocket). Logs of exploratory borings are presented in Appendix A.

3.1 Undocumented Fill (Qudf)

We encountered fill in exploratory borings B-1, B-2, B-5 through B-11, and B-13 through B-15. The undocumented fill was likely placed during previous site development and improvements for Balboa Park. An as-graded report documenting the fill was not available for our review; therefore, fill soil encountered is deemed undocumented. Based on our exploratory borings, undocumented fill thickness is approximately 8 to 19 feet in the area south of the existing Organ Pavilion parking lot (see Borings B-1 and B-2). In other areas of the site the fill was approximately 1 to 6 feet thick. With the exception of the fill at the south end of the Organ Pavilion parking lot, the lateral extent of the undocumented fill is not shown on the Geologic Map (Figure 2) due to the limited amount of data. The undocumented fill generally consists of silty to clayey sand, with few gravel and cobble. The near surface soils (material within approximately 3 feet of existing grade) generally consist of *very low* to *low* expansive materials. Undocumented fill is unsuitable for support of settlement-sensitive structures and will require remedial grading. We expect the undocumented fill in the area of the parking structure will be removed to achieve lower level parking structure grade.

3.2 Very Old Paralic Deposits (Qvop)

We encountered very old paralic deposits in borings B-2 through B-7 and B-9 at depths ranging from at grade to 8 feet below existing grade. Based on our investigation, this deposit consists of dense, moist, reddish brown and yellowish brown to light reddish brown, silty sand with gravel and cobble.

The very old paralic deposits are considered suitable for support of structural fill and settlement-sensitive structures.

3.3 San Diego Formation (Tsd)

Tertiary-aged San Diego Formation underlies the undocumented fill and very old paralic deposits throughout the site. The San Diego Formation is exposed at grade in the open space area west of Alcazar parking lot. The unit generally consists of dense, mottled olive brown to yellowish brown and light gray to light grayish brown, fine sand and sandy silt and is generally massive. The San Diego Formation is considered suitable for the support of structural fill and settlement-sensitive structures.

4. GROUNDWATER

We did not encounter groundwater at the time of this investigation. However, it is not uncommon for groundwater or seepage conditions to develop where none previously existed. Groundwater elevations are dependent on seasonal precipitation, irrigation, and land use, among other factors, and vary as a result. Proper surface drainage will be important to future performance of the project.

5. GEOLOGIC HAZARDS

5.1 Faulting and Seismicity

Review of the *City of San Diego Seismic Safety Study, Geologic Hazards and Faults (April 2008)*, indicates that the site is categorized as *Zone 51: Level Mesas – underlain by terrace deposits and bedrock nominal risk* and *Zone 52: Other level areas, gently sloping to steep terrain, favorable geologic structure, Low risk*. Based on a review of geologic literature and experience with the soil and geologic conditions in the general area, it is our opinion that no known active, potentially active, or inactive faults are located at the site. The potentially active Florida Canyon Fault and Texas Street Fault are located approximately 1,850 feet and 5,440 feet to the east of the site, respectively.

According to the computer program *EZ-FRISK (Version 7.52)*, seven known active faults are located within a search radius of 50 miles from the property. The nearest known active fault is the Rose Canyon Fault, located approximately 1 miles west of the site. The Rose Canyon Fault is the dominant source of potential ground motion. Earthquakes that might occur on the Rose Canyon Fault Zone or other faults within the southern California and northern Baja California area are potential generators of significant ground motion at the site. The estimated deterministic maximum earthquake magnitude and peak ground acceleration for the Rose Canyon Fault are 7.2 and 0.57 g, respectively. Table 5.1.1 lists the estimated maximum earthquake magnitude and peak ground acceleration for the most dominant faults in relationship to the site location. We calculated peak ground acceleration (PGA)

using Boore-Atkinson (2008), Campbell-Bozorgnia (2008), and Chiou-Youngs (2008) acceleration-attenuation relationships.

**TABLE 5.1.1
DETERMINISTIC SPECTRA SITE PARAMETERS**

Fault Name	Distance from Site (miles)	Maximum Earthquake Magnitude (Mw)	Peak Ground Acceleration		
			Boore-Atkinson 2008 (g)	Campbell-Bozorgnia 2008 (g)	Chiou-Youngs 2008 (g)
Rose Canyon	1	7.2	0.48	0.46	0.57
Coronado Bank	14	7.6	0.21	0.16	0.21
Newport-Inglewood (offshore)	34	7.1	0.09	0.07	0.08
Elsinore (Julian)	41	7.1	0.08	0.06	0.05
Elsinore (Temecula)	45	6.8	0.06	0.05	0.04
Earthquake Valley	45	6.5	0.05	0.04	0.03
Elsinore (Coyote Canyon)	49	6.8	0.05	0.04	0.03

We used the computer program *EZ-FRISK* to perform a probabilistic seismic hazard analysis. The computer program *EZ-FRISK* operates under the assumption that the occurrence rate of earthquakes on each mapped Quaternary fault is proportional to the fault slip rate. The program accounts for earthquake magnitude as a function of fault rupture length. Site acceleration estimates are made using the earthquake magnitude and distance from the site to the rupture zone. The program also accounts for uncertainty in each of following: (1) earthquake magnitude, (2) rupture length for a given magnitude, (3) location of the rupture zone, (4) maximum possible magnitude of a given earthquake, and (5) acceleration at the site from a given earthquake along each fault. By calculating the expected accelerations from considered earthquake sources, the program calculates the total average annual expected number of occurrences of site acceleration greater than a specified value. We utilized acceleration-attenuation relationships suggested by Boore-Atkinson (2008), Campbell-Bozorgnia (2008), and Chiou-Youngs (2008) in the analysis. Table 5.1.2 presents the site-specific probabilistic seismic hazard parameters including acceleration-attenuation relationships and the probability of exceedence.

**TABLE 5.1.2
PROBABILISTIC SEISMIC HAZARD PARAMETERS**

Probability of Exceedence	Peak Ground Acceleration		
	Boore-Atkinson, 2008 (g)	Campbell-Bozorgnia, 2008 (g)	Chiou-Youngs, 2008 (g)
2% in a 50 Year Period	0.63	0.62	0.75
5% in a 50 Year Period	0.41	0.42	0.50
10% in a 50 Year Period	0.27	0.29	0.33

The California Geologic Survey (CGS) has a program that calculates the ground motion for a 10 percent of probability of exceedence in 50 years based on an average of several attenuation relationships. Table 5.1.3 presents the calculated results from the Probabilistic Seismic Hazards Mapping Ground Motion Page from the CGS website.

**TABLE 5.1.3
PROBABILISTIC SITE PARAMETERS FOR SELECTED FAULTS
CALIFORNIA GEOLOGIC SURVEY**

Calculated Acceleration (g) Firm Rock	Calculated Acceleration (g) Soft Rock	Calculated Acceleration (g) Alluvium
0.27	0.29	0.33

While listing peak accelerations is useful for comparison of potential effects of fault activity in a region, other considerations are important in seismic design, including frequency and duration of motion and soil conditions underlying the site. Seismic design of the structures should be evaluated in accordance with the California Building Code (CBC) guidelines.

5.2 Ground Rupture

The risk associated with ground rupture hazard is very low due to the absence of active faults at the subject site.

5.3 Tsunamis and Seiches

The site is not located near the ocean or downstream of any large bodies of water. Therefore, the risk of tsunamis or seiches associated with the site is low.

5.4 Liquefaction and Seismically Induced Settlement

The risk associated with soil liquefaction hazard at the site is low due to the shallow and dense nature of near surface formational soil and lack of permanent, shallow groundwater.

5.5 Landslides

Based on our review of published geologic maps for the site vicinity, it is our opinion landslides are not present at the property or at a location that could impact the site.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 General

- 6.1.1 No soil or geologic conditions exist at the site that would preclude development of the proposed buildings and improvements as presently planned provided the recommendations of this report are followed.
- 6.1.2 We encountered undocumented fill at various locations at the site to depths ranging from 2 to 19 feet. We expect the undocumented fill in the area of the proposed parking structure will be removed during grading. Remedial grading will be required in areas of undocumented fill to support proposed improvements. We encountered very old paralic deposits underlying the undocumented fill or at grade. The San Diego Formation underlies the undocumented fill and/or very old paralic deposits to the maximum depths explored. The San Diego Formation is exposed at grade along the northwest portion of the site. The very old paralic deposits and the San Diego Formation are considered suitable for support of structural fill and/or structural loading.
- 6.1.3 We did not encounter groundwater in the exploratory borings. We expect any new excavations made for the project will be relatively shallow; therefore, groundwater is not expected to affect construction as currently proposed.
- 6.1.4 With the exception of possible strong seismic shaking, no significant geologic hazards were observed or are known to exist on the site that would adversely affect the site. No special seismic design considerations, other than those recommended herein, are required.
- 6.1.5 The planned structures can be supported on conventional shallow foundation system founded in formational soil or properly compacted fill.
- 6.1.6. Subsurface conditions observed may be extrapolated between the exploratory borings to reflect the general soil/geologic conditions; however, some variations in subsurface conditions during grading should be expected.

6.2 Excavation and Soil Characteristics

- 6.2.1 Excavation of the undocumented fill and native formational material will require moderate to heavy effort using conventional heavy-duty equipment during grading. Proposed excavations, particularly those for deeper utilities, may encounter strong cemented zones that may generate difficult excavating conditions and oversize material that will necessitate special rock handling and placement procedures during site development.

6.2.2 The soil encountered in the field investigation is considered to be “non-expansive” (expansion index [EI] of 20 or less) as defined by 2010 California Building Code (CBC) Section 1803.5.3. Table 6.2 presents soil classifications based on the expansion index. Based on the laboratory test results, a majority of the soil encountered is expected to possess a “very low” to expansion potential.

**TABLE 6.2
SOIL CLASSIFICATION BASED ON EXPANSION INDEX**

Expansion Index (EI)	Soil Classification
0 – 20	Very Low
21 – 50	Low
51 – 90	Medium
91 – 130	High
Greater Than 130	Very High

6.2.3 We performed laboratory tests on samples of the site materials to evaluate the percentage of water-soluble sulfate content. Results from the laboratory water-soluble sulfate content tests are presented in Appendix B and indicate that the on-site materials at the locations tested possess “negligible” sulfate exposure to concrete structures as defined by 2010 CBC Section 1904.3 and ACI 318-08 Sections 4.2 and 4.3. The presence of water-soluble sulfates is not a visually discernible characteristic; therefore, other soil samples from the site could yield different concentrations. Additionally, over time landscaping activities (i.e., addition of fertilizers and other soil nutrients) may affect the concentration.

6.2.4 We performed laboratory tests on samples of selected samples to check the corrosion potential to subsurface metal structures. A site is considered corrosive if the chloride concentration is 500 part per million (ppm) or greater, sulfate concentration is 2,000 ppm (0.2%) or greater, or the pH is 5.5 or less according to Caltrans *Corrosion Guidelines*, dated September 2003. The laboratory test results are presented in Appendix B. Based on the laboratory test results, it is our opinion the site is not corrosive with respect to concrete or buried metals with the exception of sample B12-4. The chloride content for sample B12-4 yielded results of 1,548 ppm or 0.155 percent.

6.2.5 Geocon Incorporated does not practice in the field of corrosion engineering. Therefore, if improvements that could be susceptible to corrosion are planned, further evaluation by a corrosion engineer should be performed.

6.3 Temporary Excavations

- 6.3.1 Temporary slopes should be made in conformance with OSHA requirements. The undocumented fill should be considered Type B soil (Type C where groundwater or seepage is encountered) and the very old paralic deposits and San Diego Formation can be considered a Type A Soil (Type B where groundwater or seepage is encountered). It is the responsibility of the contractor to provide a safe excavation during the construction of the proposed project. In general, no special shoring requirement will be necessary if temporary excavations will be less than 4 feet high. Temporary excavations greater than 4 feet high should be laid back at an appropriate inclination. Surcharge loads should not be permitted within a distance equal to the height of the excavation from the top of the excavation. The top of the excavation should be at least 15 feet from the edge of existing improvements. Excavations steeper than those recommended or closer than 15 feet from an existing surface improvement should be shored in accordance with applicable OSHA codes and regulations.
- 6.3.2 This report assumes construction of retaining walls will be performed by laying back the slope to a safe inclination to construct and backfill the walls. If vertical shoring, soil nail or tieback walls will be required due to impact of the adjacent site, Geocon Incorporated should be contacted to provide geotechnical design and construction recommendations.

6.4 Grading

- 6.4.1 Grading should be performed in accordance with the *Recommended Grading Specifications* in Appendix D. Where the recommendations of this section conflict with those of Appendix D, **the recommendations of this section take precedence**. Earthwork should be observed and fill tested for proper compaction by Geocon Incorporated.
- 6.4.2 A pre-construction conference should be held at the site with the owner or developer, grading contractor, civil engineer, and geotechnical engineer in attendance. Specific geotechnical recommendations for the project and the grading plans can be discussed at that time.
- 6.4.3 Grading of the site should commence with the removal of existing improvements from the areas to be graded. Deleterious debris should be exported from the site and should not be mixed with the fill soil. Existing underground improvements within the proposed structure areas should be removed and the resulting depressions properly backfilled in accordance with the procedures described herein.

- 6.4.4 Undocumented fill should be completely removed and recompacted within the proposed parking structure footprint and below bridge foundations and site retaining walls. Based on planned parking structure pad grade elevations, we expect undocumented fill will be removed to achieve pad grade. We also expect excavations for bridge abutments will extend to native formational soils. We estimate remedial undocumented fill removal depths outside of the parking structure pad and bridge area to be on the order of 2 to 6 feet.
- 6.4.5 Where new fill slopes will be constructed, undocumented fill and surficial soils within fill slope keyways and slope zone areas should be completely removed to expose the underlying native very old paralic deposits or San Diego Formation.
- 6.4.6 Within new roadway improvement areas, pedestrian concrete hardscape areas, and Alczar parking lot, we recommend the upper 2 feet of existing fill be removed and the base of the excavations observed to assess soil conditions. If cuts are made the upper 2 feet of undocumented fill below cut grade elevation should be removed. Pot holes should be performed to assess the condition of the undocumented fill at the base of removals for support of surface improvements. In-place density tests should be performed in the fill, and if the existing fill has a relative compaction of at least 90 percent of the maximum dry density with moisture contents near optimum moisture content, the fills can remain in-place and new fill placed and compacted. Where soil with a compaction less than 90 percent is encountered, or unsuitable soil is observed, deeper removals may be required. . . Recommendations can be provided by the geotechnical engineer in the field during grading.
- 6.4.7 Prior to placing fill soil, the upper 12 inches of the exposed soil should be scarified, moisture conditioned as necessary, and properly compacted. Excavated soil should then be placed in layers of approximately 8 inches thick using conventional heavy-duty grading equipment to allow for proper bonding and compaction, until proposed finish grades are achieved. The existing site soils are suitable for reuse as compacted fill provided they are generally free of debris and deleterious material. Fill soil should be compacted to a dry density of at least 90 percent of the laboratory maximum dry density near to slightly above optimum moisture content in accordance with ASTM D 1557.
- 6.4.8 Imported fill, if required, should consist of granular material with a “very low” to “low” expansion potential (EI of 50 or less), generally free of deleterious material and rocks larger than 6 inches, and should be compacted as recommended herein. Geocon Incorporated should be notified of the import source and should perform laboratory testing of import soil samples prior to its arrival at the site to evaluate its suitability as fill material.

6.5 Grading (Bridge)

- 6.5.1 An update report specific to the bridge should be provided once the location, size and type of bridge is determined and plans prepared. General grading recommendations for the bridge are provided below.
- 6.5.2 All grading should be performed in conformance with Sections 6-3, 19-3, 19-5, and 19-6 of the Caltrans Standard Specifications. The recommendations of this report take precedence where in conflict with Caltrans Standard Specifications.
- 6.5.3 Backfill material placed behind the abutment and retaining walls should be *low* expansive (EI less than 50) as determined per ASTM D 4829. Select grading may need to be performed to provide *low* expansive material. The extent and placement of select materials (*low* expansive) should conform to Caltrans Standard Specifications 19-5.03. Ponding or jetting of backfill is not permitted.
- 6.5.4 Site preparation should begin with the removal of all deleterious material and vegetation within areas of planned grading. The depth of removal should be such that material exposed in cut areas or soils to be used as fill are relatively free of organic matter, and meet the requirements of *Caltrans Standard Specification* except that 6 inches should be the maximum particle dimension. Material generated during stripping and/or site demolition should be exported from the site.
- 6.5.5 All potentially compressible surficial soils (undocumented fill, topsoil and alluvium) within areas of the planned grading should be removed to firm natural ground and properly compacted prior to placing additional fill and/or structural loads. The base of excavations should be scarified to a depth of at least 12 inches, moisture conditioned as necessary, and compacted to at least 95 percent relative compaction prior to placing additional fill. The actual extent of remedial grading should be determined in the field by the geotechnical engineer or engineering geologist. Overly wet surficial materials, if encountered, will require drying and/or mixing with drier soils to facilitate proper compaction.
- 6.5.6 The site should be brought to final subgrade elevations with structural fill placed and compacted in layers. In general, soils native to the site are suitable for re-use as fill if free from vegetation, debris, oversize rock, and other deleterious material. Layers of fill should be no thicker than will allow for adequate bonding and compaction. All fill, including wall and trench backfill, and scarified ground surfaces, should be compacted to at least 95 percent of maximum dry density at or slightly above optimum moisture content, as determined per ASTM D 1557.

6.6 Slopes

- 6.6.1 Cut and fill slopes with maximum heights of 30 feet and 25 feet, respectively, are planned along the southwest portion of the Alcazar parking lot and east and northeast side of the proposed parking structure. The planned slopes are considered grossly stable with factors of safety in excess of 1.5 with respect to both deep seated and surficial instability. Slope stability analyses are shown on Figures 3 through 5.
- 6.6.2 All roadway drainage should be directed to appropriate collection and discharge facilities so that run-off does not flow over the tops of slopes.
- 6.6.3 All fill slope keyways should be observed during grading by an engineering geologist to verify soil and geologic conditions are consistent with those expected. If adverse conditions are exposed, recommendations for mitigation can be provided at that time.

6.7 Seismic Design Criteria

- 6.7.1 We used the computer program *Seismic Hazard Curves and Uniform Hazard Response Spectra*, provided by the USGS. Table 6.6 summarizes site-specific design criteria obtained from the 2010 California Building Code (CBC; Based on the 2009 International Building Code [IBC]), Chapter 16 Structural Design, Section 1613 Earthquake Loads. The short spectral response uses a period of 0.2 second. The parking structure should be designed using a Site Class C.

TABLE 6.7
2010 CBC SEISMIC DESIGN PARAMETERS

Parameter	Value	2010 CBC Reference
Site Class	C	Table 1613.5.2
Spectral Response – Class B (short), S_S	1.563 g	Figure 1613.5(3)
Spectral Response – Class B (1 sec), S_1	0.606 g	Figure 1613.5(4)
Site Coefficient, F_A	1.0	Table 1613.5.3(1)
Site Coefficient, F_V	1.3	Table 1613.5.3(2)
Maximum Considered Earthquake Spectral Response Acceleration (short), S_{MS}	1.563 g	Section 1613.5.3 (Eqn 16-36)
Maximum Considered Earthquake Spectral Response Acceleration – (1 sec), S_{M1}	0.788 g	Section 1613.5.3 (Eqn 16-37)
5% Damped Design Spectral Response Acceleration (short), S_{DS}	1.042 g	Section 1613.5.4 (Eqn 16-38)
5% Damped Design Spectral Response Acceleration (1 sec), S_{D1}	0.526 g	Section 1613.5.4 (Eqn 16-39)

6.7.2 Conformance to the criteria in Table 6.7 for seismic design does not constitute any kind of guarantee or assurance that significant structural damage or ground failure will not occur if a large earthquake occurs. The primary goal of seismic design is to protect life, not to avoid all damage, since such design may be economically prohibitive.

6.8 Shallow Conventional Foundations and Concrete Slab-on-Grade

6.8.1 The foundation recommendations assume the parking structure will be entirely supported on a conventional shallow foundation system bearing on native formational or very old terrace materials. Foundations for structures should not be partially supported on compacted fill and partially on native soils. We expect foundations for retaining walls to be supported by formational soils/very old terrace materials and/or compacted fill.

6.8.2 Conventional foundations for the parking structure should consist of continuous strip footings and/or isolated spread footings. Continuous footings should be at least 18 inches wide and extend at least 18 inches below lowest adjacent pad grade. Isolated spread footings should have a minimum width of 2 feet and should extend at least 18 inches below lowest adjacent pad grade. Steel reinforcement for continuous footings should consist of at least four, No. 5 steel, reinforcing bars placed horizontally in the footings, two near the top and two near the bottom. The project structural engineer should design concrete reinforcement for the footings. A Wall/Column Footing Dimension Detail is presented on Figure 6.

6.8.3 The minimum reinforcement recommended above is based on soil characteristics only (expansion index of 50 or less) and is not intended to replace reinforcement required for structural considerations.

6.8.4 The recommended allowable bearing capacity for foundations with minimum dimensions described above is 3,000 pounds per square foot (psf) for footings bearing in formational and very old terrace materials and 2,000 psf for footings bearing on compacted fill. This soil bearing pressure may be increased by 300 psf and 500 psf for each additional foot of foundation width and depth, respectively, up to a maximum allowable soil bearing of 8,000 psf for formational and very old terrace materials and 4,000 psf for compacted fill.

6.8.5 The allowable soil bearing pressure is for dead plus live loads only. The allowable pressures may be increased by up to one-third when considering transient loads such as those due to wind or seismic forces.

- 6.8.6 For foundations designed as recommended in this report, it is estimated that the total and/or differential settlement will be less than $\frac{3}{4}$ inches due to foundation loads.
- 6.8.7 Foundation excavations should be observed by the geotechnical engineer (a representative of Geocon Incorporated) prior to the placement of reinforcing steel and concrete to verify that the exposed soil conditions are consistent with those anticipated and that they have been extended to the appropriate bearing strata. If unanticipated soil conditions are encountered, foundation modifications may be required.
- 6.8.8 Where buildings or other improvements are planned near the top of a slope steeper than 3:1 (horizontal:vertical), special foundations and/or design considerations are recommended due to the tendency for lateral soil movement to occur.
- For fill slopes less than 20 feet high or cut slopes regardless of height, footings should be deepened such that the bottom outside edge of the footing is at least 7 feet horizontally from the face of the slope.
 - When located next to a descending 3:1 (horizontal:vertical) fill slope or steeper, the foundations should be extended to a depth where the minimum horizontal distance is equal to $H/3$ (where H equals the vertical distance from the top of the fill slope to the base of the fill soil) with a minimum of 7 feet but need not exceed 40 feet. The horizontal distance is measured from the outer, deepest edge of the footing to the face of the slope. An acceptable alternative to deepening the footings would be the use of a post-tensioned slab and foundation system or increased footing and slab reinforcement. Specific design parameters or recommendations for either of these alternatives can be provided once the building location and fill slope geometry have been determined.
 - Although other improvements, which are relatively rigid or brittle, such as concrete flatwork or masonry walls, may experience some distress if located near the top of a slope, it is generally not economical to mitigate this potential. It may be possible, however, to incorporate design measures that would permit some lateral soil movement without causing extensive distress. Geocon Incorporated should be consulted for specific recommendations.
- 6.8.9 The parking structure concrete slab-on-grade should be at least 5 inches thick. Concrete slabs on grade should be underlain by at least 4 inches of clean sand to reduce the potential for differential curing, slab curl, and cracking. A vapor retarder should be placed near the middle of the sand layer beneath slabs that may receive moisture-sensitive floor coverings or may be used to store moisture-sensitive materials. The project architect or developer should specify the type of vapor retarder used based on the type of floor covering that will be installed. The vapor retarder design should be consistent with the guidelines presented in Section 9.3 of the American Concrete Institute's (ACI) Guide for Concrete Slabs that Receive Moisture-Sensitive Flooring Materials (ACI 302.2R-06).

- 6.8.10 No special subgrade presaturation is deemed necessary prior to placement of concrete. However, the slab and foundation subgrade should be sprinkled as necessary, to maintain a moist condition as would be expected in any such concrete placement.
- 6.8.11 Exterior concrete flatwork not subject to vehicular traffic should be a minimum of 4 inches thick and when in excess of 8 feet square should be reinforced with 6x6-W2.9/W2.9 (6x6-6/6) welded wire mesh to reduce the potential for cracking. In addition, concrete flatwork should be provided with crack-control joints to reduce and/or control shrinkage cracking. Crack-control spacing should be determined by the project structural engineer based upon the slab thickness and intended usage. Criteria of the American Concrete Institute (ACI) should be taken into consideration when establishing crack-control spacing. Subgrade soil for exterior slabs not subjected to vehicle loads should be compacted in accordance with criteria presented in the grading section.
- 6.8.12 Where exterior flatwork abuts the structure at entrant or exit points, the exterior slab should be thickened and dowelled into the structure's foundation stemwall. This recommendation is intended to reduce the potential for differential elevations that could result from differential settlement or minor heave of the flatwork. The project structural engineer should provide the dowelling details.
- 6.8.13 The recommendations presented herein are intended to reduce the potential for cracking of slabs and foundations resulting from differential movement. However, even with the incorporation of the recommendations presented herein, foundations and slabs-on-grade will still crack. The occurrence of concrete shrinkage cracks is independent of the soil supporting characteristics. Their occurrence may be reduced and/or controlled by; 1) limiting the slump of the concrete; 2) the use of crack-control joints and; 3) by proper concrete placement and curing. Crack-control joints should be spaced at intervals no greater than 12 feet. The Portland Concrete Association (PCA) and American Concrete Institute (ACI) recommendations for proper concrete mix, construction and curing practices, and should be incorporated into project design and construction.

6.9 Bridge Foundations

- 6.9.1 The proposed bridge can be supported by a shallow foundation system bearing entirely on competent formational or very old terrace deposits.
- 6.9.2 Continuous footings should have a minimum width of 12 inches and a minimum embedment depth below lowest adjacent grade of 18 inches. Spread footings should be at least 2 foot wide and founded at least 18 inches below lowest adjacent grade. Footings so

proportioned can be designed for an allowable bearing pressure of 3,000 pounds per square foot (psf). This soil bearing pressure may be increased by 300 psf and 500 psf for each additional foot of foundation width and depth, respectively, up to a maximum allowable soil bearing of 8,000 psf. Settlement of footings imposing the maximum allowable bearing pressure is expected to be less than $\frac{3}{4}$ inches.

6.9.3. The bottom outside edge of the abutment footing should be positioned a minimum of 7 feet from the surface of the adjacent slope, measured horizontally.

6.9.4 Foundation excavations should be observed by a representative of Geocon Incorporated prior to the placement of reinforcing steel and concrete to check that the exposed soil conditions are consistent with those anticipated. If unanticipated conditions are encountered, foundation modifications may be required.

6.9.5 Resistance to lateral loads for footings can be calculated using either 100 percent passive, 100 percent friction, or a combination of 50 percent passive resistance plus 50 percent friction. A passive pressure exerted by an equivalent fluid weight of 350 pounds per cubic foot (pcf) should be used for design of footings or shear keys poured neat against native formational materials. The upper one-foot of material in areas not protected by pavement should not be included in design for passive resistance. If friction is to be used to resist lateral loads, an allowable coefficient of friction between the soil and concrete of 0.45 should be used for design.

6.9.6 The size of the footing and steel reinforcement of the foundation should be designed by the project structural engineer.

6.10 Retaining Walls/Wingwalls

6.10.1 Retaining walls that are allowed to rotate more than $0.001H$ (where H equals the height of the retaining portion of the wall in feet) at the top of the wall and having a level backfill surface should be designed for an active soil pressure equivalent to the pressure exerted by a fluid having a density of 35 pounds per cubic foot (pcf). Where the backfill will be inclined at no steeper than 2:1 (horizontal:vertical), an active soil pressure of 50 pcf is recommended. These soil pressures assume that the backfill materials within an area bounded by the wall and a 1:1 plane extending upward from the base of the wall are sandy soils with suitable shear characteristics and an EI of 20 or less. Laboratory tests should be performed on soils to be used as wall backfill to assess their suitability for use.

- 6.10.2 Where walls are restrained from movement at the top and are 8 feet or less in height, an additional uniform pressure of $7H$ psf should be added to the above active soil pressure. Where the wall height exceeds 8 feet, the additional uniform pressure should be increased to $14H$ psf.
- 6.10.3 Resistance to lateral loads will be provided by friction along the base of the wall foundation or by passive earth pressure against the side of the footing. Allowable coefficients of friction of 0.40 and 0.35 are recommended for footings in formational materials and compacted fill, respectively. Passive earth pressure may be taken as 150 pcf for walls founded on a 2:1 slope, and 350 pcf for horizontal ground in front of the wall. The upper 1 foot of soil in front of the wall should not be relied on for passive resistance unless the ground surface is covered with asphalt or concrete.
- 6.10.4 Retaining walls founded on formational or very old terrace materials can be designed for an allowable bearing pressure of 3,000 psf for a 12-inch wide and 18-inch deep footing. If the retaining walls are founded on properly compacted fill, an allowable bearing pressure of 2,000 psf should be used. The allowable soil bearing pressure can be increased by 300 psf and 500 psf for each additional foot of foundation width and depth, respectively, up to a maximum allowable soil bearing of 8,000 psf for footings founded on native formational materials and 4,000 psf for footings bearing in compacted fill. These values can be increased by $1/3$ for seismic loading. Settlement of walls imposing the maximum allowable bearing pressure is not expected to exceed 1 inch.
- 6.10.5 The structural engineer should determine the seismic design category for the project and if retaining walls need to incorporate seismic lateral loads. A seismic load of $19H$ should be used for design. The seismic load is dependent on the retained height where H is the height of the wall, in feet, and the calculated loads result in pounds per square foot (psf) exerted at the base of the wall and zero at top of the wall. We used a horizontal peak ground acceleration of $0.29g$ calculated using $S_{DS}/2.5$ USGS and applying a pseudo-static coefficient of 0.33.
- 6.10.6 Retaining walls should be provided with a drainage system adequate to prevent the buildup of hydrostatic forces and waterproofed as required by the project architect. The soil immediately adjacent to the backfilled retaining wall should be composed of free draining material completely wrapped in Mirafi 140 (or equivalent) filter fabric for a lateral distance of 1 foot for the bottom two-thirds of the height of the retaining wall. The upper one-third should be backfilled with less permeable compacted fill to reduce water infiltration. The use of drainage openings through the base of the wall (weep holes) is not recommended where the seepage could be a nuisance or otherwise adversely affect the property adjacent

to the base of the wall. The recommendations herein assume a properly compacted granular (EI of 50 or less) free-draining backfill material with no hydrostatic forces or imposed surcharge load. Figure 7 presents a typical retaining wall drain detail. If conditions different than those described are expected or if specific drainage details are desired, Geocon Incorporated should be contacted for additional recommendations.

- 6.10.7 The proximity of the foundation to the top of a slope steeper than 3:1 could impact the allowable soil bearing pressure. Therefore, retaining wall foundations should be deepened such that the bottom outside edge of the footing is at least 7 feet horizontally from the face of the slope.
- 6.10.8 The recommendations presented herein are generally applicable to the design of rigid concrete or masonry retaining walls having a maximum height of 20 feet. In the event that walls higher than 20 feet or other types of walls (such as crib-type walls) are planned, Geocon Incorporated should be consulted for additional recommendations.
- 6.10.9 Unrestrained walls will move laterally when backfilled and loading is applied. The amount of lateral deflection is dependant on the wall height, the type of soil used for backfill, and loads acting on the wall. The retaining walls and improvements above the retaining walls should be designed to incorporate an appropriate amount of lateral deflection as determined by the structural engineer.

6.11 Preliminary Pavement Recommendations

6.11.1 Preliminary pavement design sections are provided below. Final pavement sections for the roadways and parking lots should be based on the R-Value of the subgrade soil encountered at final subgrade elevation. We expect the pavement sections will need to meet City of San Diego Schedule “J”. We have assumed an R-Value between 20 and 30. Preliminary flexible pavement sections are presented in Table 6.11.

**TABLE 6.11
PRELIMINARY FLEXIBLE PAVEMENT SECTION**

Street Classification	Max ADT	Max Traffic Index	Asphalt Concrete (inches)	Cement Treated Base (inches)
Local	1,200	6	3	8
Local	2,200	6.5	3	9
Collector	3,500	7	3	10

- 6.11.2 Cement treated base should conform to Section 301-3.3 of the *Standard Specifications for Public Works Construction (Greenbook)*. Base materials should be compacted to a dry density of at least 95 percent of the laboratory maximum dry density near to slightly above optimum moisture content. Asphalt concrete should conform to Section 203-6 of the Greenbook specifications. Asphalt concrete should be compacted to a density of at least 95 percent of the laboratory Hveem density in accordance with ASTM D 2726.
- 6.11.3 Prior to placing base materials, the subgrade soil should be scarified, moisture conditioned as necessary, and recompact to a dry density of at least 95 percent of the laboratory maximum dry density near to slightly above optimum moisture content as determined by ASTM D 1557. The depth of compaction should be at least 12 inches.
- 6.11.4 The performance of pavement is highly dependent on providing positive surface drainage away from the edge of the pavement. Ponding of water on or adjacent to the pavement will likely result in pavement distress and subgrade failure. Drainage from landscaped areas should be directed to controlled drainage structures. Landscape areas adjacent to the edge of asphalt pavements are not recommended due to the potential for surface or irrigation water to infiltrate the underlying permeable aggregate base and cause distress. Where such a condition cannot be avoided, consideration should be given to incorporating measures that will significantly reduce the potential for subsurface water migration into the aggregate base. If planter islands are planned, the perimeter curb should extend at least 6 inches below the level of the base materials.

6.12 Drainage

- 6.12.1 Adequate site drainage is critical to reduce the potential for differential soil movement, erosion and subsurface seepage. Under no circumstances should water be allowed to pond adjacent to footings. The site should be graded and maintained such that surface drainage is directed away from structures in accordance with 2010 CBC 1804.3 or other applicable standards. In addition, surface drainage should be directed away from the top of slopes into swales or other controlled drainage devices. Roof and pavement drainage should be directed into conduits that carry runoff away from the proposed structure.
- 6.12.2 Basement walls or building walls functioning as retaining walls should be provided with a drainage system similar to that recommended for retaining walls. The drainage system should include a perforated, Schedule 40, PVC drain pipe placed below the floor slab elevation and drained to an appropriate discharge area. The project architect or civil engineer should provide detailed specifications on the plans for all waterproofing and drainage including discharge points.

6.12.3 Utility and irrigation lines should be checked periodically for leaks for early detection of water infiltration and detected leaks should be repaired promptly. Detrimental soil movement could occur if water is allowed to infiltrate the soil for a prolonged period of time.

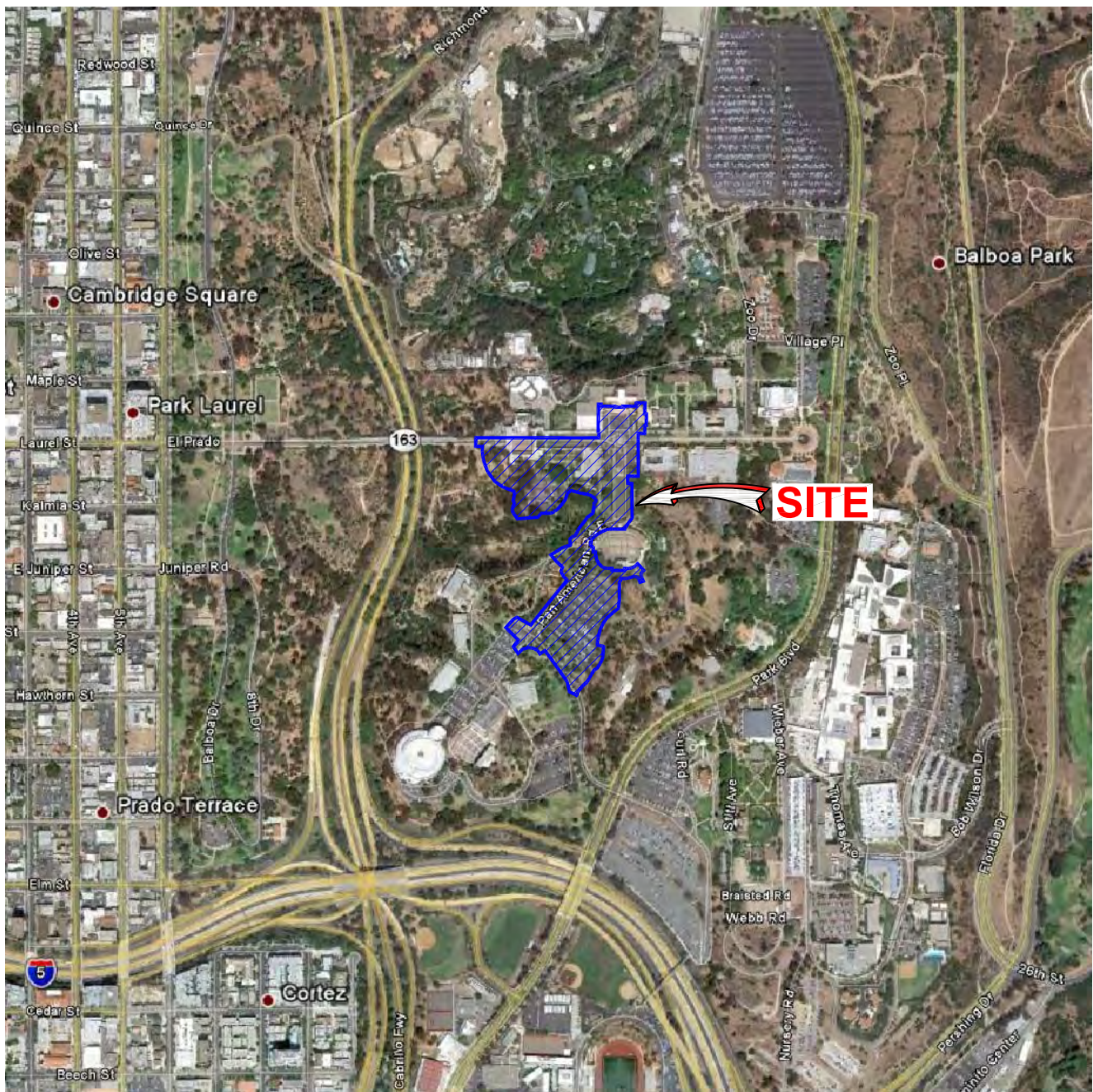
6.12.4 Landscaping planters adjacent to paved areas are not recommended due to the potential for surface or irrigation water to infiltrate the pavement's subgrade and base course. We recommend that subdrains to collect excess irrigation water and transmit it to drainage structures, or impervious above-grade planter boxes be used. In addition, where landscaping is planned adjacent to the pavement, we recommend construction of a cutoff wall along the edge of the pavement that extends at least 6 inches below the bottom of the base material.

6.13 Plan Review

6.13.1 Geocon Incorporated should review the foundation plans for the bridges and parking structure prior to being finalized to determine if additional geotechnical recommendations are needed.

LIMITATIONS AND UNIFORMITY OF CONDITIONS

1. The recommendations of this report pertain only to the site investigated and are based upon the assumption that the soil conditions do not deviate from those disclosed in the investigation. If any variations or undesirable conditions are encountered during construction, or if the proposed construction will differ from that anticipated herein, Geocon Incorporated should be notified so that supplemental recommendations can be given. The evaluation or identification of the potential presence of hazardous or corrosive materials was not part of the scope of services provided by Geocon Incorporated.
2. This report is issued with the understanding that it is the responsibility of the owner or his representative to ensure that the information and recommendations contained herein are brought to the attention of the architect and engineer for the project and incorporated into the plans, and that the necessary steps are taken to see that the contractor and subcontractors carry out such recommendations in the field.
3. The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether due to natural processes or the works of man on this or adjacent properties. In addition, changes in applicable or appropriate standards may occur, whether they result from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of three years.
4. The firm that performed the geotechnical investigation for the project should be retained to provide testing and observation services during construction to provide continuity of geotechnical interpretation and to check that the recommendations presented for geotechnical aspects of site development are incorporated during site grading, construction of improvements, and excavation of foundations. If another geotechnical firm is selected to perform the testing and observation services during construction operations, that firm should prepare a letter indicating their intent to assume the responsibilities of project geotechnical engineer of record. A copy of the letter should be provided to the regulatory agency for their records. In addition, that firm should provide revised recommendations concerning the geotechnical aspects of the proposed development, or a written acknowledgement of their concurrence with the recommendations presented in our report. They should also perform additional analyses deemed necessary to assume the role of Geotechnical Engineer of Record.



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NO SCALE

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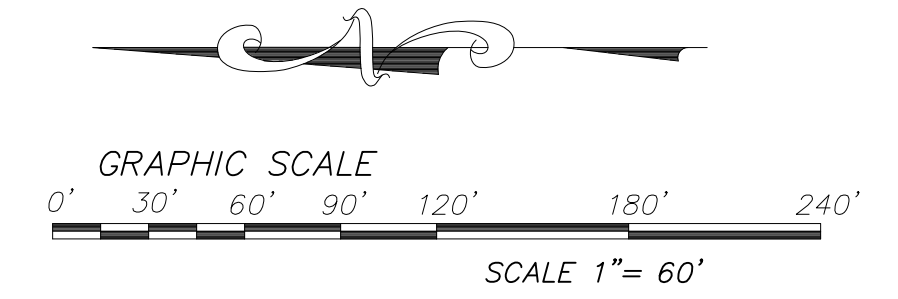
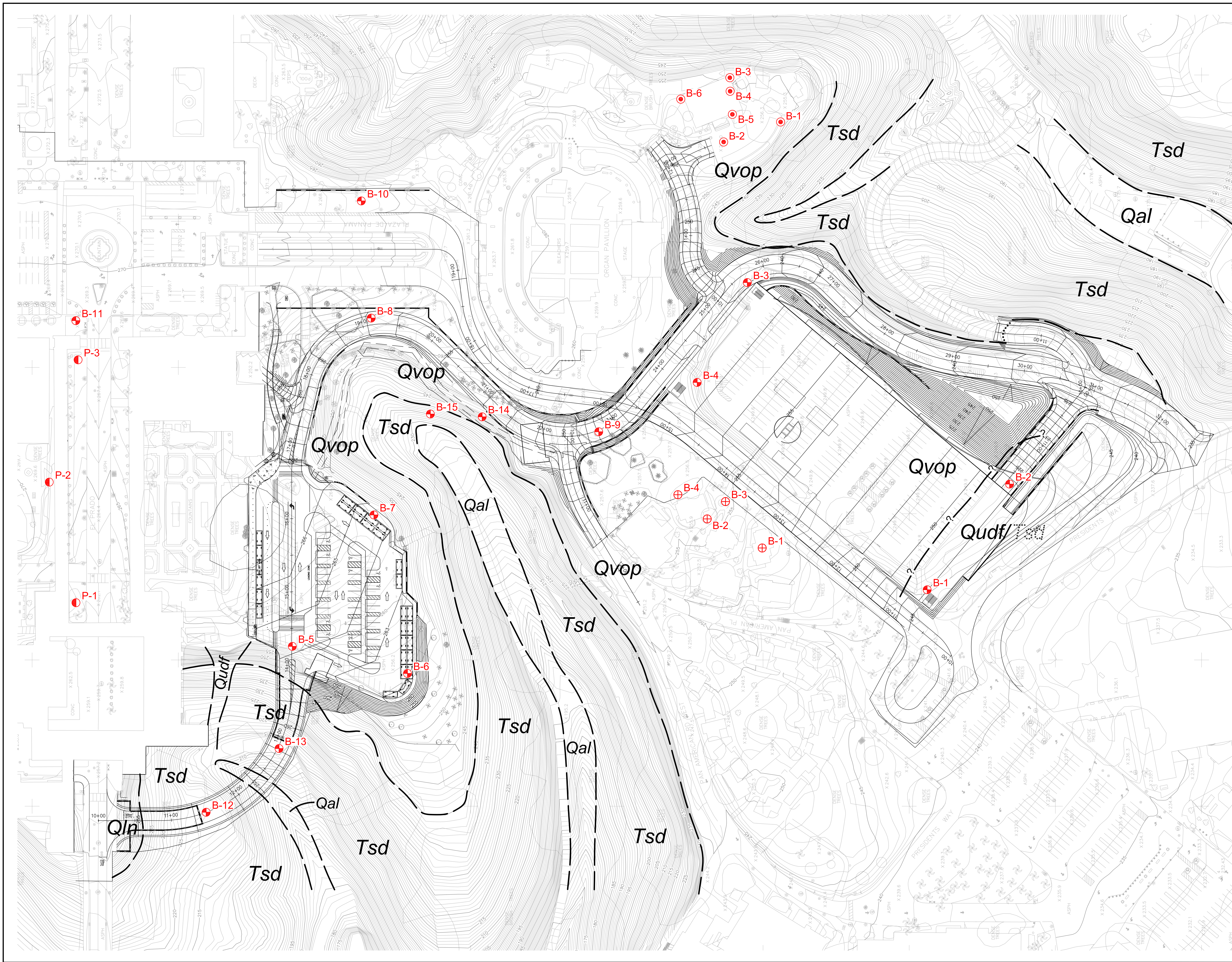
VICINITY MAP

PLAZA DE PANAMA
BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA

DATE 05 - 16 - 2011

PROJECT NO. G1346 - 42 - 01

FIG. 1



GEOCON LEGEND

- Qudf UNDOCUMENTED FILL
- Qal ALLUVIUM
- Qvop VERY OLD PARALIC DEPOSITS
- Tsd SAN DIEGO FORMATION
- - - - - APPROX. LOCATION OF GEOLOGIC CONTACT
(Dotted Where Buried, Queried Where Uncertain)
- B-15 APPROX. LOCATION OF EXPLORATORY BORING
- B-4 APPROX. LOCATION OF EXPLORATORY BORING
(Geocon, 11-14-2000)
- B-6 APPROX. LOCATION OF EXPLORATORY BORING
(Geocon, 02-24-1997)
- P-3 APPROX. LOCATION OF EXPLORATORY BORING
PERFORMED BY CHRISTIAN WHEELER
(05-29-2003)

GEOLOGIC MAP		
PLAZA DE PANAMA BALBOA PARK PLAZA SAN DIEGO, CALIFORNIA		
GEOCON INCORPORATED GEO TECHNICAL CONSULTANTS 6940 SANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974 PHONE 619 558-6900 - FAX 619 558-6159	 SCALE 1" = 60' DATE 05 - 16 - 2011 PROJECT NO. G1346 - 42 - 01 SHEET 1 OF 1	FIGURE 2 DATE

Y:\PROJECTS\1346-42\1346-42-01\BIBO\PAV\BIBO\G1346-42-01 Map.dwg

ASSUMED CONDITIONS :

SLOPE HEIGHT	H = 30 feet
SLOPE INCLINATION	2 : 1 (Horizontal : Vertical)
TOTAL UNIT WEIGHT OF SOIL	γ_t = 130 pounds per cubic foot
ANGLE OF INTERNAL FRICTION	ϕ = 31 degrees
APPARENT COHESION	C = 230 pounds per square foot
NO SEEPAGE FORCES	

ANALYSIS :

$\gamma_{c\phi}$ = $\frac{\gamma_H \tan\phi}{C}$	EQUATION (3-3), REFERENCE 1
FS = $\frac{NcfC}{\gamma_H}$	EQUATION (3-2), REFERENCE 1
$\gamma_{c\phi}$ = 10.1	CALCULATED USING EQ. (3-3)
Ncf = 32	DETERMINED USING FIGURE 10, REFERENCE 2
FS = 1.9	FACTOR OF SAFETY CALCULATED USING EQ. (3-2)

REFERENCES :

- 1.....Janbu, N., Stability Analysis of Slopes with Dimensionless Parameters, Harvard Soil Mechanics, Series No. 46, 1954
- 2.....Janbu, N., Discussion of J.M. Bell, Dimensionless Parameters for Homogeneous Earth Slopes, Journal of Soil Mechanics and Foundation Design, No. SM6, November 1967.

SLOPE STABILITY ANALYSIS - CUT SLOPES

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FIG. 3

ASSUMED CONDITIONS :

SLOPE HEIGHT	H = 30 feet
SLOPE INCLINATION	2 : 1 (Horizontal : Vertical)
TOTAL UNIT WEIGHT OF SOIL	γ_t = 130 pounds per cubic foot
ANGLE OF INTERNAL FRICTION	ϕ = 26 degrees
APPARENT COHESION	C = 700 pounds per square foot
NO SEEPAGE FORCES	

ANALYSIS :

$\gamma_{c\phi}$ = $\frac{\gamma_H \tan \phi}{C}$	EQUATION (3-3), REFERENCE 1
FS = $\frac{NcfC}{\gamma_H}$	EQUATION (3-2), REFERENCE 1
$\gamma_{c\phi}$ = 2.7	CALCULATED USING EQ. (3-3)
Ncf = 14	DETERMINED USING FIGURE 10, REFERENCE 2
FS = 2.5	FACTOR OF SAFETY CALCULATED USING EQ. (3-2)

REFERENCES :

- 1.....Janbu, N., Stability Analysis of Slopes with Dimensionless Parameters, Harvard Soil Mechanics, Series No. 46, 1954
- 2.....Janbu, N., Discussion of J.M. Bell, Dimensionless Parameters for Homogeneous Earth Slopes, Journal of Soil Mechanics and Foundation Design, No. SM6, November 1967.

SLOPE STABILITY ANALYSIS - FILL SLOPES

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FIG. 4

ASSUMED CONDITIONS :

SLOPE HEIGHT	H	=	Infinite
DEPTH OF SATURATION	Z	=	3 feet
SLOPE INCLINATION			2 : 1 (Horizontal : Vertical)
SLOPE ANGLE	i	=	26.7 degrees
UNIT WEIGHT OF WATER	γ_w	=	62.4 pounds per cubic foot
TOTAL UNIT WEIGHT OF SOIL	γ_t	=	130 pounds per cubic foot
ANGLE OF INTERNAL FRICTION	ϕ	=	31 degrees
APPARENT COHESION	C	=	230 pounds per square foot

SLOPE SATURATED TO VERTICAL DEPTH Z BELOW SLOPE FACE

SEEPAGE FORCES PARALLEL TO SLOPE FACE

ANALYSIS :

$$FS = \frac{C + (\gamma_t - \gamma_w) Z \cos^2 i \tan \phi}{\gamma_t Z \sin i \cos i} = 2.1$$

REFERENCES :

- 1.....Haefeli, R. *The Stability of Slopes Acted Upon by Parallel Seepage*, Proc. Second International Conference, SMFE, Rotterdam, 1948, 1, 57-62
- 2.....Skempton, A. W., and F.A. Delory, *Stability of Natural Slopes in London Clay*, Proc. Fourth International Conference, SMFE, London, 1957, 2, 378-81

SURFICIAL SLOPE STABILITY ANALYSIS

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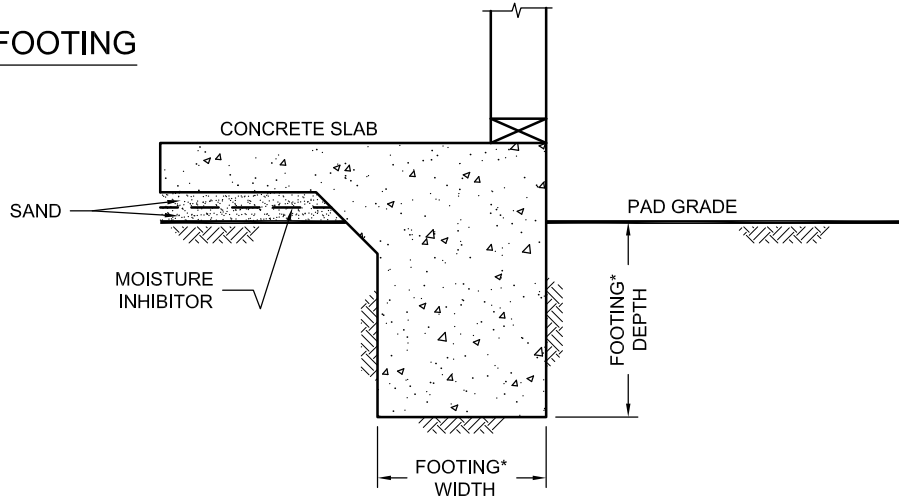
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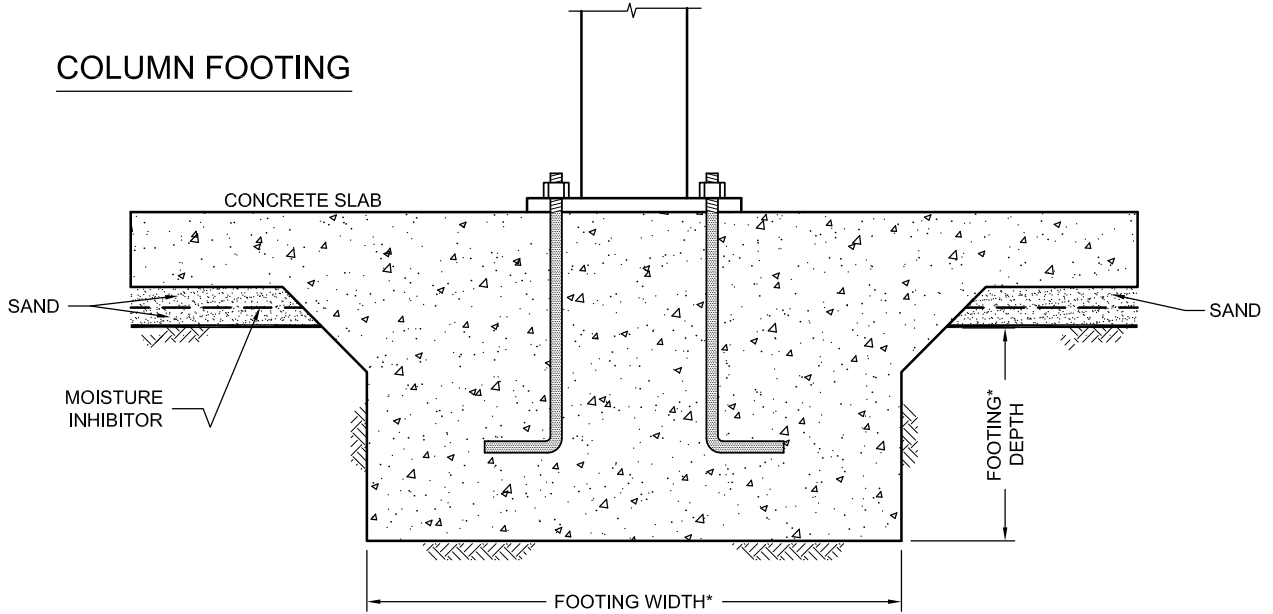
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FIG. 5

WALL FOOTING



COLUMN FOOTING



NO SCALE

*...SEE REPORT FOR FOUNDATION WITHD AND DEPTH RECOMMENDATION

WALL / COLUMN FOOTING DIMENSION DETAIL

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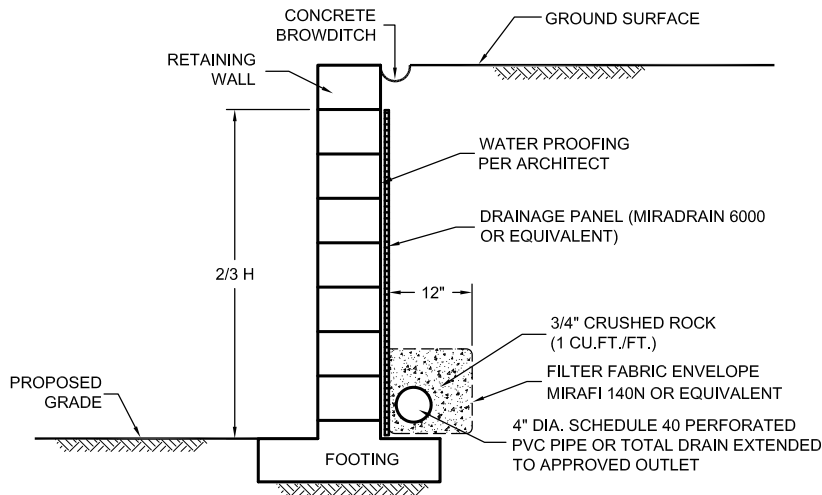
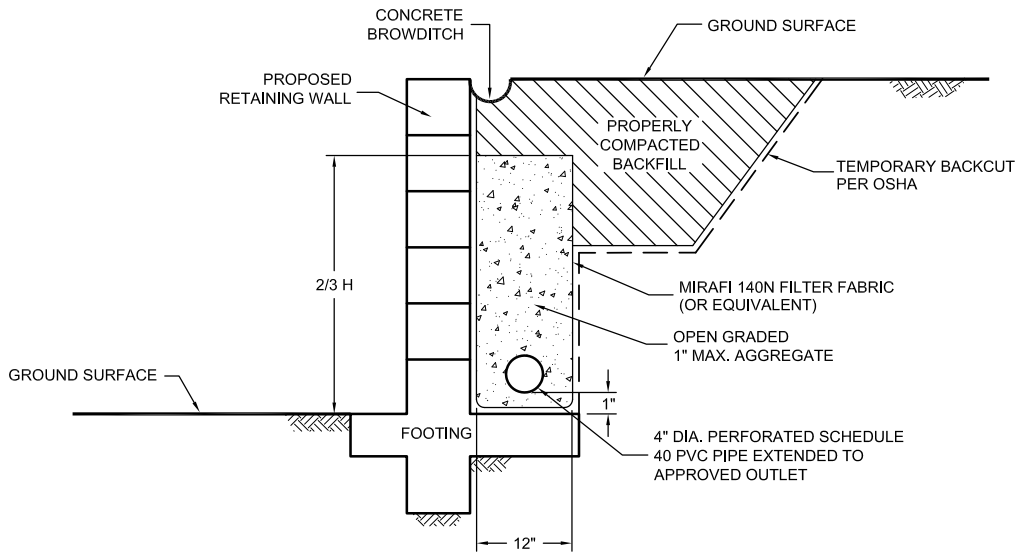
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FIG. 6



NOTE :

DRAIN SHOULD BE UNIFORMLY SLOPED TO GRAVITY OUTLET
OR TO A SUMP WHERE WATER CAN BE REMOVED BY PUMPING

NO SCALE

TYPICAL RETAINING WALL DRAIN DETAIL

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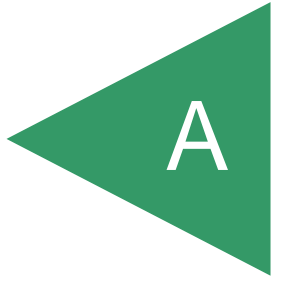
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FIG. 7

APPENDIX

A



APPENDIX A

FIELD INVESTIGATION

Fieldwork for our investigation included a geologic reconnaissance and subsurface exploration. Our subsurface exploration consisted of drilling 15, small-diameter exploratory borings to depths ranging from approximately 2 to 51 feet. The approximate locations of the exploratory borings are shown on the Geologic Map, Figure 2 (Map Pocket). Boring logs and an explanation of the geologic units encountered are presented on Figures A-1 through A-15. The boring locations were determined in the field using a measuring tape and existing reference points. Therefore, actual boring locations may deviate slightly.

We performed our field investigation on March 28, March 29, and the geologic reconnaissance on April 11, 2010. Borings B1 through B-13 were drilled using CME 55 or Ingersoll-Rand A-300 truck-mounted drill rig equipped with 8-inch-diameter, hollow-stem augers. Borings B-14 and B-15 were drilled using a hand auger. We obtained samples during our subsurface exploration in the borings using a California-modified Split-spoon sampler. We collected relatively undisturbed soil samples at various depths and transported them to the laboratory for testing.

The sampler was driven 12 inches into the bottom of the excavation using a 140-pound hammer dropped 30 inches. The penetration resistances are shown on the boring logs in blows per foot. The values indicated on the boring logs are the sum of the last 12 inches of the sampler. If the sampler was not driven for 12 inches, an approximate value is calculated in terms of blows per foot or the final 6-inch interval is reported. These values are not to be taken as N-values as adjustments have not been applied. Borings were backfilled at the completion of the drilling.

The soil encountered in the borings were visually examined, classified, and logged in general accordance with American Society for Testing and Materials (ASTM) practice for Description and Identification of Soils (Visual-Manual Procedure D 2488). The logs depict the soil and geologic conditions observed and the depth at which samples were obtained.













DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 1		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>246'</u>	DATE COMPLETED <u>03-28-2011</u>			
					EQUIPMENT <u>CME 55</u> BY: <u>N. BORJA</u>				
					MATERIAL DESCRIPTION				
0				SC	UNDOCUMENTED FILL (Qudf)				
	B1-1			SM/SC	Loose, moist, dark brown, Clayey, fine to medium SAND				
2				SM	Loose, moist, reddish brown to yellowish brown, Silty to Clayey, fine to medium SAND				
4					Loose, moist, grayish brown to olive brown, Silty, fine to medium SAND				
6	B1-2				4	105.6	20.9		
8				SM/SC	Medium dense, moist, dark reddish brown, Silty to Clayey, fine to medium SAND; few gravel				
10	B1-3				11	100.9	30.8		
12	B1-4								
14				SM	Loose, moist to very moist, dark brown, Silty, fine to medium SAND; trace gravel				
16	B1-5				6	96.8	24.2		
18									
20	B1-6			SM	SAN DIEGO FORMATION (Tsd) Very dense, moist, mottled olive brown and yellowish brown, Silty, fine-grained SAND; some mica flakes				
22					77/11				
24									
26	B1-7				44	113.3	9.9		
28									
					-Becomes medium dense, mottled, light gray and yellowish brown, fine-to medium-grained; trace gravel				
					-Becomes dense, light grayish brown				

Figure A-1,
Log of Boring B 1, Page 1 of 2

G1346-42-01.GPJ

SAMPLE SYMBOLS			
	... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST
	... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE
			... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 1		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	
					ELEV. (MSL.) <u>246'</u>	DATE COMPLETED <u>03-28-2011</u>				
					EQUIPMENT <u>CME 55</u> BY: <u>N. BORJA</u>					
MATERIAL DESCRIPTION										
30	B1-8						74			
32	B1-9									
34										
36	B1-10					-Becomes very dense, damp, yellowish brown	85/10 1/2"			
38										
40	B1-11					-Becomes light olive brown to light gray, fine-grained	77/10"	99.5	17.2	
42										
44										
46	B1-12					-Becomes yellowish brown to olive brown	76/10"			
48										
50	B1-13						79/9"			
					BORING TERMINATED AT 51 FEET No groundwater Backfilled with 17.8 ft³ of bentonite slurry					

Figure A-1,
Log of Boring B 1, Page 2 of 2

G1346-42-01.GPJ

SAMPLE SYMBOLS		
	... SAMPLING UNSUCCESSFUL	
	... DISTURBED OR BAG SAMPLE	
		... STANDARD PENETRATION TEST
		... DRIVE SAMPLE (UNDISTURBED)
		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 2		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>248'</u>	DATE COMPLETED <u>03-28-2011</u>			
					EQUIPMENT <u>CME 55</u> BY: <u>N. BORJA</u>				
					MATERIAL DESCRIPTION				
0									
0 - 2	B2-1			SM	UNDOCUMENTED FILL (Qudf) Medium dense, damp to moist, reddish brown to brown, Silty, fine to coarse SAND, little gravel and cobble				
2 - 6	B2-2				-Becomes moist, dark reddish brown		24		
6 - 10	B2-2 B2-3			SM	VERY OLD PARALIC DEPOSITS (Qvop) Dense, damp, reddish brown to yellowish brown, Silty, fine-to medium SAND; few gravel and cobble				
10 - 14					-Very difficult drilling at 13 feet		75	107.5	7.0
14 - 16	B2-5			SM	SAN DIEGO FORMATION (Tsd) Dense, moist, yellowish brown to olive brown, Silty, fine-grained SAND; some mica flakes				
16 - 20					-No recovery at 15 feet; resampled at 16 feet		60		
20 - 21	B2-6						50	105.7	18.4
					BORING TERMINATED AT 21 FEET No groundwater Backfilled with bentonite and cuttings				

Figure A-2,
Log of Boring B 2, Page 1 of 1

G1346-42-01.GPJ







SAMPLE SYMBOLS	... SAMPLING UNSUCCESSFUL	... STANDARD PENETRATION TEST	... DRIVE SAMPLE (UNDISTURBED)
	... DISTURBED OR BAG SAMPLE	... CHUNK SAMPLE	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 3		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>251'</u>	DATE COMPLETED <u>03-28-2011</u>			
					EQUIPMENT <u>CME 55</u> BY: <u>N. BORJA</u>				
MATERIAL DESCRIPTION									
0				SM	VERY OLD PARALIC DEPOSITS (Qvop) Dense, dry to damp, reddish brown and yellowish brown, Silty, fine-to medium SAND; few gravel and cobble				
2					-Becomes dense to very dense				
4					-No recovery				
6	B3-1						50/3"		
6	B3-2								
8					-Becomes reddish brown				
10	B3-3				-Becomes dense, reddish brown to yellowish brown; trace gravel and cobble		71/11½"		
12									
14					-Becomes fine to coarse				
16	B3-4						60		
18									
20	B3-5			ML	SAN DIEGO FORMATION (Tsd) Very stiff, damp, light yellowish brown to light gray, Sandy SILT; some mica flakes		47	92.7	6.0
22									
24									
26	B3-6				-Becomes very stiff to hard		77/10½"		
					BORING TERMINATED AT 26 FEET No groundwater Backfilled with bentonite and cuttings				

Figure A-3,
Log of Boring B 3, Page 1 of 1

G1346-42-01.GPJ

SAMPLE SYMBOLS	 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
	 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 4 ELEV. (MSL.) <u>252'</u> DATE COMPLETED <u>03-28-2011</u> EQUIPMENT <u>CME 55</u> BY: <u>N. BORJA</u>	PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	
MATERIAL DESCRIPTION									
0				SM	VERY OLD PARALIC DEPOSITS (Qvop) Dense, moist, reddish brown, Silty, fine-to coarse SAND; some gravel and cobble -Difficult drilling at 4 feet; blow count not accurate due to rock -No recovery -Becomes damp to moist, light reddish brown to yellowish brown				
2									
4	B4-1						50/5½"		
6									
10	B4-2					64			
12									
14									
16	B4-3					72/11"			
18									
20	B4-4			SM	SAN DIEGO FORMATION (Tsd) Dense, damp, yellowish brown to light grayish brown, Silty, fine-grained SAND; some mica flakes	78/11½"			
BORING TERMINATED AT 21 FEET No groundwater Backfilled with bentonite and cuttings									

Figure A-4,
Log of Boring B 4, Page 1 of 1

G1346-42-01.GPJ

SAMPLE SYMBOLS	<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input type="checkbox"/> ... STANDARD PENETRATION TEST	<input type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/> ... CHUNK SAMPLE	<input type="checkbox"/> ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 5		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>259'</u>	DATE COMPLETED <u>03-28-2011</u>			
					EQUIPMENT <u>IR-300</u>		BY: <u>N. BORJA</u>		
MATERIAL DESCRIPTION									
0	B5-1			SM	UNDOCUMENTED FILL (Qudf) Medium dense, damp, brown, Silty, fine to medium SAND; some gravel and cobble				
2						VERY OLD PARALIC DEPOSITS (Qvop) Very dense, dry, light reddish brown to yellowish brown, Silty, fine-to medium SAND; some gravel and cobble			
4					-No recovery		50/2"		
6	B5-2								
8									
					BORING TERMINATED AT 9 FEET No groundwater Backfilled with bentonite and cuttings				

Figure A-5,
Log of Boring B 5, Page 1 of 1

G1346-42-01.GPJ

SAMPLE SYMBOLS	... SAMPLING UNSUCCESSFUL	... STANDARD PENETRATION TEST	... DRIVE SAMPLE (UNDISTURBED)
	... DISTURBED OR BAG SAMPLE	... CHUNK SAMPLE	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

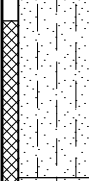







DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 6		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	
					ELEV. (MSL.) <u>256'</u>	DATE COMPLETED <u>03-28-2011</u>				
					EQUIPMENT <u>IR-300</u> BY: <u>N. BORJA</u>					
					MATERIAL DESCRIPTION					
0	B6-1			SM	UNDOCUMENTED FILL (Qudf) Medium dense, moist, brown to dark reddish brown, Silty, fine to medium SAND; few gravel and cobble					
2										
4	B6-2			SM	VERY OLD PARALIC DEPOSITS (Qvop) Very dense, dry to damp, reddish brown to yellowish brown, Silty, fine-to medium SAND; few gravel and cobble -Poor recovery		50/3 1/2"			
					BORING TERMINATED AT 5.5 FEET No groundwater Backfilled with bentonite and cuttings					

Figure A-6,
Log of Boring B 6, Page 1 of 1

G1346-42-01.GPJ

SAMPLE SYMBOLS	 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
	 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 7		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	
					ELEV. (MSL.) 264'	DATE COMPLETED 03-28-2011				
					EQUIPMENT IR-300 BY: N. BORJA					
					MATERIAL DESCRIPTION					
0				SM	UNDOCUMENTED FILL (Qudf) Medium dense, damp, brown to dark brown, Silty, fine to medium SAND; some gravel and cobble					
2				SM	VERY OLD PARALIC DEPOSITS (Qvop) Very dense, dry, light reddish brown to yellowish brown, Silty, fine-to medium SAND; few gravel and cobble					
4	B7-1				BORING TERMINATED AT 5.5 FEET No groundwater Backfilled with bentonite and cuttings		50/5½"			

Figure A-7,
Log of Boring B 7, Page 1 of 1

G1346-42-01.GPJ

SAMPLE SYMBOLS	<input type="checkbox"/>	... SAMPLING UNSUCCESSFUL	<input type="checkbox"/>	... STANDARD PENETRATION TEST	<input type="checkbox"/>	... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/>	... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/>	... CHUNK SAMPLE	<input checked="" type="checkbox"/>	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 8		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) 262'	DATE COMPLETED 03-28-2011			
					EQUIPMENT IR-300 BY: N. BORJA				
					MATERIAL DESCRIPTION				
0	B8-1			SM	UNDOCUMENTED FILL (Qudf) Medium dense, moist, brown to grayish brown, Silty, fine to medium SAND; little gravel and cobble				
2									
4	B8-2				-Becomes brown to reddish brown -Poor recovery		50/4"		
					BORING TERMINATED AT 5.5 FEET No groundwater Backfilled with bentonite and cuttings				

Figure A-8,
Log of Boring B 8, Page 1 of 1

G1346-42-01.GPJ

SAMPLE SYMBOLS	... SAMPLING UNSUCCESSFUL	... STANDARD PENETRATION TEST	... DRIVE SAMPLE (UNDISTURBED)
	... DISTURBED OR BAG SAMPLE	... CHUNK SAMPLE	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 9		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) 258'	DATE COMPLETED 03-28-2011			
					EQUIPMENT IR-300 BY: N. BORJA				
MATERIAL DESCRIPTION									
0				SM	UNDOCUMENTED FILL (Qudf) Loose, moist, brown, Silty, fine to medium SAND; few gravel and cobble, some roots				
2				SM	VERY OLD PARALIC DEPOSITS (Qvop) Very dense, damp, reddish brown to yellowish brown, Silty, fine-to medium SAND; few gravel and cobble				
4							50/3"		
6	B9-1 B9-2								
8									
10	B9-3						50/4"		
					BORING TERMINATED AT 10.5 FEET No groundwater Backfilled with bentonite and cuttings				

Figure A-9,
Log of Boring B 9, Page 1 of 1

G1346-42-01.GPJ

SAMPLE SYMBOLS	<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input type="checkbox"/> ... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/> ... CHUNK SAMPLE	<input checked="" type="checkbox"/> ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

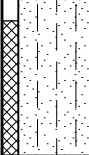






DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 10		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)	
					ELEV. (MSL.) <u>266'</u>	DATE COMPLETED <u>03-29-2011</u>				
					EQUIPMENT <u>CME 55</u> BY: <u>N. BORJA</u>					
					MATERIAL DESCRIPTION					
0 2	B10-1			SM	UNDOCUMENTED FILL (Qudf) Medium dense, moist, brown, Silty, fine to coarse SAND; little gravel and cobble					
					BORING TERMINATED AT 3.5 FEET No groundwater Backfilled with cuttings					

Figure A-10,
Log of Boring B 10, Page 1 of 1

G1346-42-01.GPJ

SAMPLE SYMBOLS	 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
	 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

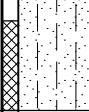






DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 11		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>269'</u>	DATE COMPLETED <u>03-29-2011</u>			
					EQUIPMENT <u>CME 55</u> BY: <u>N. BORJA</u>				
					MATERIAL DESCRIPTION				
0	B11-1			SM	UNDOCUMENTED FILL (Qudf) Medium dense, moist, brown to dark brown, Silty, fine to coarse SAND; some gravel and cobble				
2					BORING TERMINATED AT 3.5 FEET No groundwater Backfilled with cuttings				

Figure A-11,
Log of Boring B 11, Page 1 of 1

G1346-42-01.GPJ

SAMPLE SYMBOLS	 ... SAMPLING UNSUCCESSFUL	 ... STANDARD PENETRATION TEST	 ... DRIVE SAMPLE (UNDISTURBED)
	 ... DISTURBED OR BAG SAMPLE	 ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 12		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>223'</u>	DATE COMPLETED <u>03-29-2011</u>			
					EQUIPMENT <u>CME 55</u>		BY: <u>N. BORJA</u>		
MATERIAL DESCRIPTION									
0				ML	SAN DIEGO FORMATION (Tsd) Very stiff, moist, yellowish brown, Sandy SILT; some mica flakes				
2	B12-1								
6	B12-2				-Becomes damp, yellowish brown and light gray, fine-grained		43	86.2	14.8
10	B12-3				-Becomes yellowish brown		47	93.0	17.1
12	B12-4								
16	B12-5				-Becomes hard, light olive brown to light gray		71/11 1/2"		
20	B12-6			SM	Dense, moist, yellowish brown to light olive brown, Silty, fine-grained SAND; excavates with white stringers		57	95.1	11.9
26	B12-7				-Becomes light gray to light yellowish brown		77/11"		
28									

Figure A-12,
Log of Boring B 12, Page 1 of 2

G1346-42-01.GPJ

SAMPLE SYMBOLS					
	... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
	... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.


DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 12		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>223'</u>	DATE COMPLETED <u>03-29-2011</u>			
					EQUIPMENT <u>CME 55</u> BY: <u>N. BORJA</u>				
					MATERIAL DESCRIPTION				
30	B12-8				-Becomes very dense		84/10"		
					BORING TERMINATED AT 31 FEET No groundwater Backfilled with 10.8 ft³ of bentonite slurry				

Figure A-12,
Log of Boring B 12, Page 2 of 2

G1346-42-01.GPJ

SAMPLE SYMBOLS	<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input type="checkbox"/> ... STANDARD PENETRATION TEST	<input type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input type="checkbox"/> ... CHUNK SAMPLE	<input type="checkbox"/> ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 13		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) <u>210'</u>	DATE COMPLETED <u>03-29-2011</u>			
					EQUIPMENT <u>CME 55</u> BY: <u>N. BORJA</u>				
					MATERIAL DESCRIPTION				
0	B13-1			SM	UNDOCUMENTED FILL (Qudf) Loose to medium dense, moist, brown to dark brown, Silty, fine to coarse SAND; few gravel and cobble				
2					-Becomes yellowish brown, trace gravel				
4									
6	B13-2			SM	SAN DIEGO FORMATION (Tsd) Medium dense to dense, damp, yellowish brown and light gray, Silty, fine-grained SAND; some mica flakes		17		
8									
10	B13-3				-Becomes dense		59	89.5	5.8
12									
14					-Becomes light gray and light reddish brown				
16	B13-4				-Becomes yellowish brown		78/11"		
18									
20	B13-5				-Becomes very dense, light gray		96/9"		
					BORING TERMINATED AT 21 FEET No groundwater Backfilled with 10.8 ft³ of bentonite slurry				

Figure A-13,
Log of Boring B 13, Page 1 of 1

G1346-42-01.GPJ

SAMPLE SYMBOLS	... SAMPLING UNSUCCESSFUL	... STANDARD PENETRATION TEST	... DRIVE SAMPLE (UNDISTURBED)
	... DISTURBED OR BAG SAMPLE	... CHUNK SAMPLE	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	BORING B 14		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
				ELEV. (MSL.) <u>245'</u>	DATE COMPLETED <u>03-29-2011</u>			
					EQUIPMENT <u>HAND AUGER</u> BY: <u>N. BORJA</u>			
MATERIAL DESCRIPTION								
0		[Pattern]		SC	UNDOCUMENTED FILL (Qudf) Loose, moist, dark brown to dark brown, Clayey, fine to medium SAND; trace gravel; some roots			
2			SM	Loose, moist, gray to dark olive brown, Silty, fine-to medium SAND; few gravel; few roots				
4			-Becomes moist to wet, brown to dark olive brown					
					BORING TERMINATED AT 4.5 FEET No groundwater Backfilled with cuttings			

Figure A-14,
Log of Boring B 14, Page 1 of 1

G1346-42-01.GPJ

SAMPLE SYMBOLS	<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input type="checkbox"/> ... STANDARD PENETRATION TEST	<input type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/> ... CHUNK SAMPLE	<input type="checkbox"/> ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

APPENDIX

B

APPENDIX B

LABORATORY TESTING

We performed laboratory tests in accordance with generally accepted test methods of the American Society for Testing and Materials (ASTM) or other suggested procedures. We tested selected samples for their in-place dry density and moisture content, maximum dry density and optimum moisture content, expansion index, shear strength, water-soluble sulfate characteristics, pH and resistivity, chloride ion content, resistance value (R-Value), sand equivalent, and gradation characteristics. The results of our laboratory tests are presented in Tables B-I through B-VII. A graphical presentation of the gradation characteristics is presented in Figure B-1. The in-place dry density and moisture content test results are presented on the exploratory boring logs in Appendix A.

**TABLE B-I
SUMMARY OF LABORATORY MAXIMUM DRY DENSITY
AND OPTIMUM MOISTURE CONTENT TEST RESULTS
ASTM D 1557**

Sample No.	Description	Maximum Dry Density (pcf)	Optimum Moisture Content (% dry wt.)
B1-1	Reddish brown, Clayey, fine to medium SAND; little gravel	130.2	9.5
B9-2	Reddish brown, Clayey, fine to medium SAND; little gravel	133.4	7.8

**TABLE B-II
SUMMARY OF LABORATORY EXPANSION INDEX TEST RESULTS
ASTM D 4829**

Sample No.	Moisture Content (%)		Dry Density (pcf)	Expansion Index	Expansion Classification
	Before Test	After Test			
B1-9	9.6	18.4	110.6	0	Very Low
B10-1	8.8	15.2	114.2	3	Very Low

**TABLE B-III
SUMMARY OF LABORATORY DIRECT SHEAR TEST RESULTS
ASTM D 3080**

Sample No.	Dry Density (pcf)	Moisture Content (%)		Unit Cohesion (psf)	Angle of Shear Resistance (degrees)
		Initial	Final		
B2-3	107.5	7.0	17.6	500	31
B9-2*	119.9	7.9	12.9	700	26
B12-2	86.8	14.8	41.2	230	32

*Sample was remolded to 90 percent of the maximum dry density and optimum moisture content.

**TABLE B-IV
SUMMARY OF LABORATORY WATER-SOLUBLE SULFATE TEST RESULTS
CALIFORNIA TEST NO. 417**

Sample No.	Water-Soluble Sulfate (%)	Classification
B1-9	0.001	Negligible
B12-4	0.043	Negligible

**TABLE B-V
SUMMARY OF LABORATORY POTENTIAL OF HYDROGEN (pH) AND RESISTIVITY TEST RESULTS
CALIFORNIA TEST NO. 643**

Sample No.	pH	Minimum Resistivity (ohm-centimeters)
B9-2	6.4	650
B12-4	7.7	280

**TABLE VI
SUMMARY OF LABORATORY CHLORIDE ION CONTENT TEST RESULTS
AASHTO T 291**

Sample No.	Chloride Ion Content (ppm)	Chloride Ion Content (%)
B1-9	37	0.004
B12-4	1548	0.155

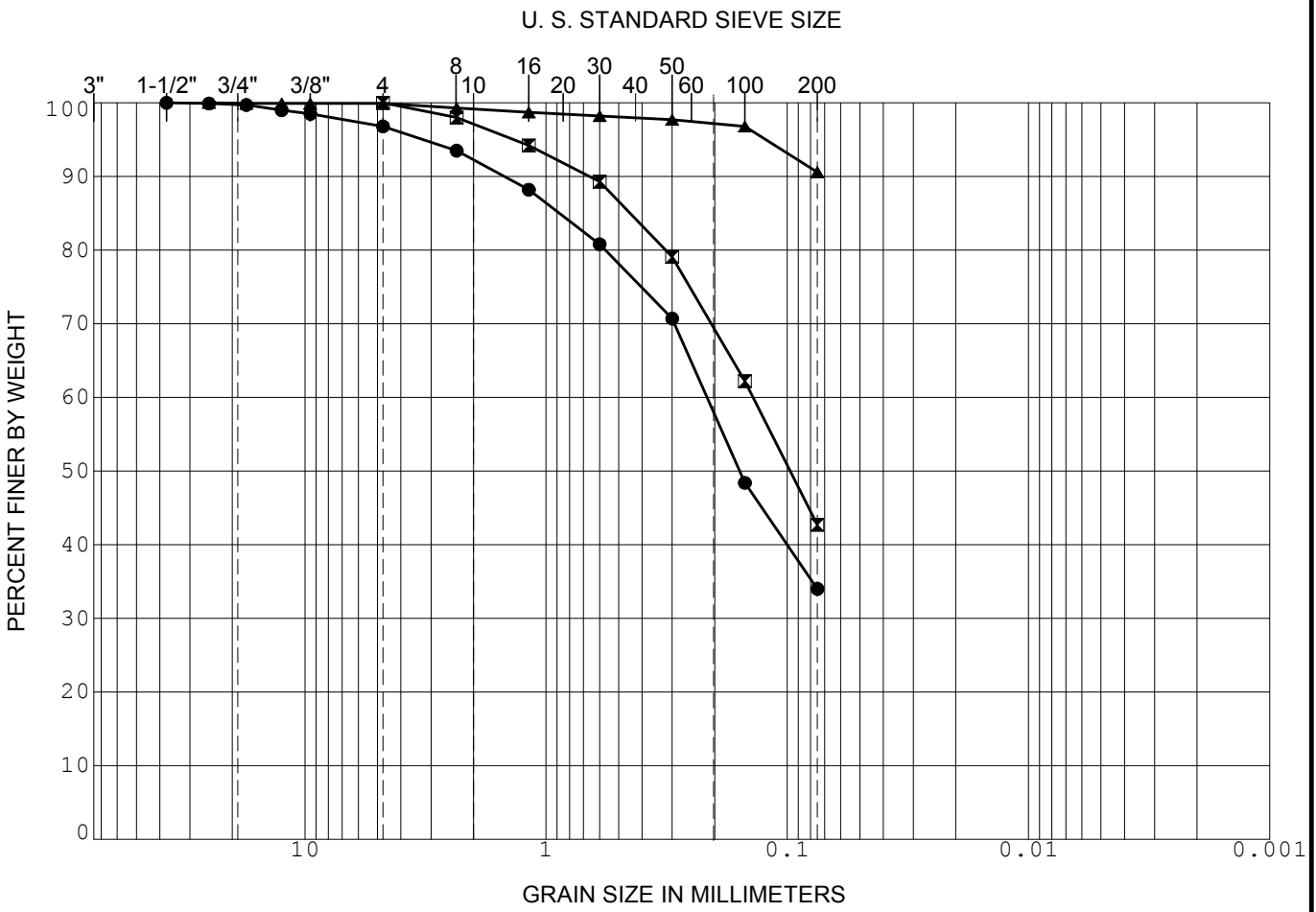
**TABLE B-VII
SUMMARY OF LABORATORY RESISTANCE VALUE (R-VALUE)
AND SAND EQUIVALENT TEST RESULTS
ASTM D 2844**

Sample No.	R-Value
B5-1	53
B8-1	28

**TABLE B-VIII
SUMMARY OF LABORATORY SAND EQUIVALENT TEST RESULTS
ASTM D 2419**

Sample No.	Sand Equivalent
B1-4	16
B3-2	13
B12-4	3

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	

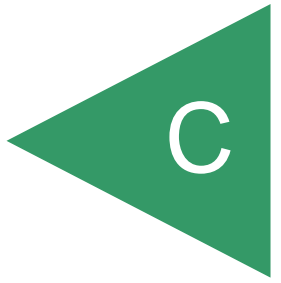


	SAMPLE	DEPTH (ft)	CLASSIFICATION	NAT WC	LL	PL	PI
●	B1-4	12.0	SC - Clayey SAND				
⊠	B3-2	6.0	SM - Silty SAND				
▲	B12-4	11.0	ML - SILT				

GRADATION CURVE

PLAZA DE PANAMA
BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA

APPENDIX



APPENDIX C

BORING LOGS FROM PREVIOUS STUDIES

FOR

**PLAZA DE PANAMA
BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA**

PROJECT NO. G1346-42-01

PROJECT NO. 06610-22-01












DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 1		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) _____	DATE COMPLETED <u>10/23/00</u>			
					EQUIPMENT <u>IR A300</u>				
					MATERIAL DESCRIPTION				
0	B1-1			ML	UNDOCUMENTED FILL Dense, moist, brown, Sandy SILT		56		
2	B1-2								
4	B1-3				LINDAVISTA FORMATION Very dense, moist, reddish-brown, Silty SAND with gravel/cobbles		50/4"		
6									
8									
10					BORING TERMINATED AT 10 FEET				

Figure A-1, Log of Boring-B 1

HPR

SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.
















DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 2		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) _____	DATE COMPLETED <u>10/23/00</u>			
						EQUIPMENT <u>IR A300</u>			
MATERIAL DESCRIPTION									
0	B2-1				SM	UNDOCUMENTED FILL Moderately dense, moist, brown, Silty SAND	32		
2	B2-2								
4	B2-3				ML	LINDAVISTA FORMATION Very dense, moist, reddish-brown, Silty SANDSTONE	81		
6									
8									
10	B2-4					Very dense, tan, Clayey SAND/Sandy SILT with gravel	32/2"		
12									
14									
16	B2-5						61		
BORING TERMINATED AT 16 FEET									

Figure A-2, Log of Boring-B 2

HPR

SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 3		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) _____	DATE COMPLETED <u>10/23/00</u>			
						EQUIPMENT <u>IR A300</u>			
MATERIAL DESCRIPTION									
0	B3-1								
2	B3-2			SM	UNDOCUMENTED FILL Dense, moist, brown, Silty SAND with gravel		52		
6	B3-3			ML	LINDAVISTA FORMATION Very dense, moist, Sandy SILT with gravel		50/5"		
10	BORING TERMINATED AT 10 FEET								

Figure A-3, Log of Boring-B 3

HPR

SAMPLE SYMBOLS	<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input type="checkbox"/> ... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/> ... CHUNK SAMPLE	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

PROJECT NO. 06610-22-01

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 4			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.) _____	DATE COMPLETED	10/23/00			
					EQUIPMENT					
					IR A300					
MATERIAL DESCRIPTION										
0	B4-1									
2	B4-2			SM	FILL Moderately dense, moist, brown, Silty SAND with gravel		48			
4	B4-3			SM	LINDAVISTA FORMATION Very dense, moist, light brown, Silty SAND with gravel		50/6"			
6										
8										
10	B4-4						50/3"			
BORING TERMINATED AT 10.5 FEET										

Figure A-4, Log of Boring-B 4

HPR

SAMPLE SYMBOLS	... SAMPLING UNSUCCESSFUL	... STANDARD PENETRATION TEST	... DRIVE SAMPLE (UNDISTURBED)
	... DISTURBED OR BAG SAMPLE	... CHUNK SAMPLE	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	BORING B 1		PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
				ELEV. (MSL.) 255	DATE COMPLETED 2/7/97			
				EQUIPMENT I.R. A-300				
MATERIAL DESCRIPTION								
0				LINDAVISTA FORMATION Very dense, moist, dark reddish brown to orange, Silty, fine to coarse SAND with gravel -Highly weathered, dark brown, very Silty from 0 to 2.5 feet -Becomes humid, moderately cemented with small cobbles at 5 feet				
	B1-1							
2	B1-2					60/11"	121.3	5.4
4								
6	B1-3					87/9"	105.0	5.2
8								
10	B1-4			50/1"				
12								
14	B1-5			50/0"				
BORING TERMINATED AT 15 FEET								

Figure A-1 Log of Boring B 1, page 1 of 1

JFG

SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 2			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.)	DATE COMPLETED	EQUIPMENT			
					ELEV. (MSL.)	258	DATE COMPLETED	2/7/97		
					EQUIPMENT	I.R. A-300				
MATERIAL DESCRIPTION										
0					LINDAVISTA FORMATION Very dense, humid, brown to orange, Silty, fine to coarse SAND with gravel and cobbles, moderately cemented -Highly weathered, dark brown, very Silty, fine to medium grained from 0 to 2 feet					
2	B2-1									
4										
6	B2-2						82	104.2	5.6	
8										
					BORING TERMINATED AT 9.5 FEET - REFUSAL					

Figure A-2 Log of Boring B 2, page 1 of 1

JFG

SAMPLE SYMBOLS		... SAMPLING UNSUCCESSFUL		... STANDARD PENETRATION TEST		... DRIVE SAMPLE (UNDISTURBED)
		... DISTURBED OR BAG SAMPLE		... CHUNK SAMPLE		... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 3			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.)	DATE COMPLETED	EQUIPMENT			
					ELEV. (MSL.)	256	DATE COMPLETED	2/7/97		
					EQUIPMENT	I.R. A-300				
MATERIAL DESCRIPTION										
0	B3-1			SM	UNDOCUMENTED FILL Medium dense, very moist, dark reddish brown, Silty, fine to coarse SAND with gravel					
2	B3-2		13			109.5	7.0			
4	B3-3				LINDAVISTA FORMATION Very dense, humid to moist, orange, Silty, fine to coarse SAND with gravel and cobbles Highly weathered, dark brown, very Silty from 3 to 4 feet					
6	B3-4		50/6"							
8					BORING TERMINATED AT 8.5 FEET - REFUSAL					

Figure A-3 Log of Boring B 3, page 1 of 1

JFG

SAMPLE SYMBOLS	... SAMPLING UNSUCCESSFUL	... STANDARD PENETRATION TEST	... DRIVE SAMPLE (UNDISTURBED)
	... DISTURBED OR BAG SAMPLE	... CHUNK SAMPLE	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 4			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.)	DATE COMPLETED	EQUIPMENT			
					ELEV. (MSL.) 256	DATE COMPLETED 2/7/97				
					EQUIPMENT I.R. A-300					
					MATERIAL DESCRIPTION					
0					UNDOCUMENTED FILL Medium dense, very moist, dark reddish brown, Silty, fine to medium SAND					
2	B4-1				LINDAVISTA FORMATION Very dense, humid, yellowish/orangish brown, Silty, fine to coarse SAND, moderately cemented			23	118.5	3.0
4	B4-2				Highly weathered, dark brown, very Silty from 1.5 to 3 feet					
					BORING TERMINATED AT 5.5 FEET			80/7"		

Figure A-4 Log of Boring B 4, page 1 of 1

JFG

SAMPLE SYMBOLS	<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input type="checkbox"/> ... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/> ... CHUNK SAMPLE	<input checked="" type="checkbox"/> ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

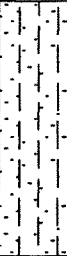

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 5			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)
					ELEV. (MSL.)	DATE COMPLETED	EQUIPMENT			
					ELEV. (MSL.)	258	DATE COMPLETED	2/7/97		
					EQUIPMENT		I.R. A-300			
MATERIAL DESCRIPTION										
0					LINDAVISTA FORMATION Medium dense to very dense, humid, orange, Silty, fine to medium SAND					
2	B5-1			SM	Highly weathered, dark brown, very Silty from 0 to 2.5 feet			70/9"		
BORING TERMINATED AT 3.75 FEET										

Figure A-5 Log of Boring B 5, page 1 of 1

JFG

SAMPLE SYMBOLS

<input type="checkbox"/> ... SAMPLING UNSUCCESSFUL	<input type="checkbox"/> ... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/> ... DRIVE SAMPLE (UNDISTURBED)
<input checked="" type="checkbox"/> ... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/> ... CHUNK SAMPLE	 ... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

DEPTH IN FEET	SAMPLE NO.	LITHOLOGY	GROUNDWATER	SOIL CLASS (USCS)	BORING B 6			PENETRATION RESISTANCE (BLOWS/FT.)	DRY DENSITY (P.C.F.)	MOISTURE CONTENT (%)		
					ELEV. (MSL.)	DATE COMPLETED	EQUIPMENT					
					ELEV. (MSL.) <u>257</u>	DATE COMPLETED <u>2/7/97</u>						
					EQUIPMENT <u>I.R. A-300</u>							
0					MATERIAL DESCRIPTION							
					UNDOCUMENTED FILL Medium dense, very moist, brown, Silty, fine to coarse SAND with gravel							
2	B6-1				LINDAVISTA FORMATION Very dense, moist, orange, Silty, fine to coarse SAND with gravel, moderately cemented					64/8"	111.5	5.7
					BORING TERMINATED AT 3 FEET							

Figure A-8 Log of Boring B 6, page 1 of 1

JFG

SAMPLE SYMBOLS	<input type="checkbox"/>	... SAMPLING UNSUCCESSFUL	<input type="checkbox"/>	... STANDARD PENETRATION TEST	<input checked="" type="checkbox"/>	... DRIVE SAMPLE (UNDISTURBED)
	<input checked="" type="checkbox"/>	... DISTURBED OR BAG SAMPLE	<input checked="" type="checkbox"/>	... CHUNK SAMPLE	<input type="checkbox"/>	... WATER TABLE OR SEEPAGE

NOTE: THE LOG OF SUBSURFACE CONDITIONS SHOWN HEREON APPLIES ONLY AT THE SPECIFIC BORING OR TRENCH LOCATION AND AT THE DATE INDICATED. IT IS NOT WARRANTED TO BE REPRESENTATIVE OF SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND TIMES.

LOG OF TEST PIT NUMBER P-1

Date Excavated: 5/1/2003
 Equipment: Hand Tools
 Existing Elevation: N/A
 Finish Elevation: N/A

Logged by: TSW
 Project Manager: CHC
 Depth to Water: N/A
 Drive Weight: N/A

DEPTH (feet)	GRAPHIC LOG	SUMMARY OF SUBSURFACE CONDITIONS					SAMPLES		MOISTURE (%)	DRY UNIT WT. (pcf)	LABORATORY TESTS
		SAMPLE TYPE	BULK	PENETRATION (blows/foot)	PENETRATION (blows/foot)	PENETRATION (blows/foot)					
1		Artificial Fill (Qaf): Medium to reddish-brown, moist, loose to medium dense, SILTY SAND (SM), with gravels. Abundant roots from 0 to 3 feet.									SA MD
2											
3		Lindavista Formation (Qln): Reddish-brown and light brown, moist, medium dense, CLAYEY SAND (SC). Moderately weathered from 2½ to 3½ feet.									
4		Reddish-brown, damp to moist, dense to very dense, SILTY SAND (SM), with gravel. Test pit terminated at 4 feet.					CK		8.4	115.7	
5											
6											
7											
8											
9											
10											



CHRISTIAN WHEELER
ENGINEERING

PROPOSED EL PRADO PROMENADE Balboa Park, San Diego, California

BY: HF	DATE: May 2003	
JOB NO. : 203.138	PLATE NO.:	2

LOG OF TEST PIT NUMBER P-2

Date Excavated: 5/2/2003
 Equipment: Hand Tools
 Existing Elevation: N/A
 Finish Elevation: N/A

Logged by: TSW
 Project Manager: CHC
 Depth to Water: N/A
 Drive Weight: N/A

DEPTH (feet)	GRAPHIC LOG	SUMMARY OF SUBSURFACE CONDITIONS				
		SAMPLES	PENETRATION (blows/foot)	MOISTURE (%)	DRY UNIT WGT. (pcf)	LABORATORY TESTS
1		Artificial Fill (Qaf): Medium to reddish-brown, moist, medium dense, SILTY SAND (SM) and CLAYEY SAND (SC), with gravels.				
2		CK	██████████	6.5	117.2	
3		30% gravels from 1½ to 2 feet. Test pit terminated at 2½ feet.				
4						
5						
6						
7						
8						
9						
10						



CHRISTIAN WHEELER
ENGINEERING

PROPOSED EL PRADO PROMENADE Balboa Park, San Diego, California

BY: HF	DATE: May 2003
JOB NO.: 203.138	PLATE NO.: 3

LOG OF TEST PIT NUMBER P-3

Date Excavated: 5/1/2003
 Equipment: Hand Tools
 Existing Elevation: N/A
 Finish Elevation: N/A

Logged by: TSW
 Project Manager: CHC
 Depth to Water: N/A
 Drive Weight: N/A

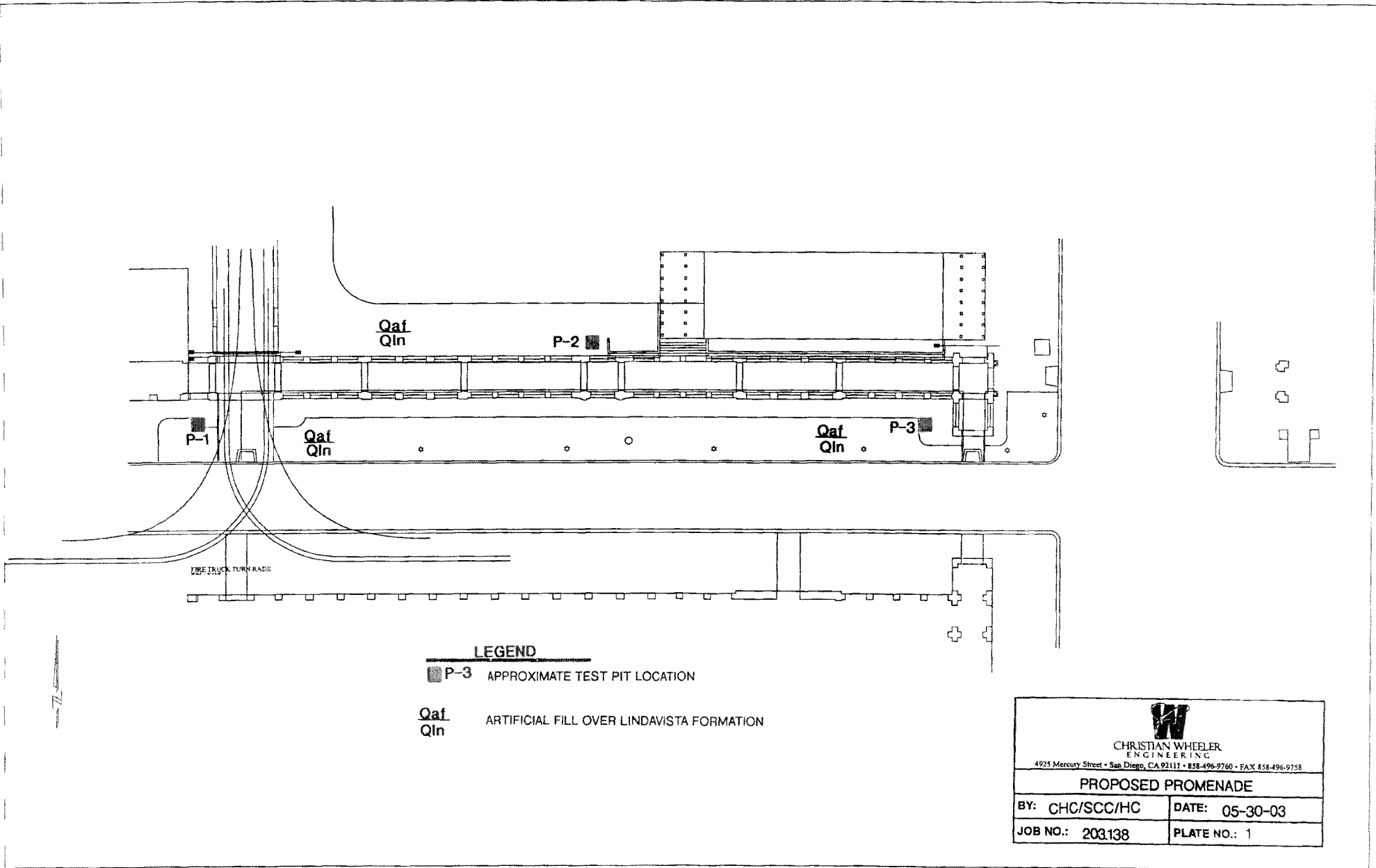
DEPTH (feet)	GRAPHIC LOG	SUMMARY OF SUBSURFACE CONDITIONS					
		SAMPLE TYPE	BULK	PENETRATION (blows/foot)	MOISTURE (%)	DRY UNIT WT. (pcf)	LABORATORY TESTS
1		<p>Artificial Fill (Qaf): Medium to reddish-brown, moist, medium dense, SILTY SAND (SM), with gravels and cobbles. Well cemented chunks of Lindavista Formation (Qln) up to 8" in diameter.</p>					
2							
3		CK			10.4	103.4	SA MD
4							
5		<p>Lindavista Formation (Qln): Reddish-brown, moist, dense, GRAVELLY SILTY SAND (SM).</p>					
6							
7							
8							
9							
10							



CHRISTIAN WHEELER
ENGINEERING

PROPOSED EL PRADO PROMENADE Balboa Park, San Diego, California


BY: HF	DATE: May 2003
JOB NO.: 203.138	PLATE NO.: 4



LEGEND

■ P-3 APPROXIMATE TEST PIT LOCATION

Qaf
Qln ARTIFICIAL FILL OVER LINDAVISTA FORMATION

 CHRISTIAN WHEELER ENGINEERING <small>4925 Mercury Street • San Diego, CA 92111 • 858-496-9760 • FAX 858-496-9758</small>	
PROPOSED PROMENADE	
BY: CHC/SCC/HC	DATE: 05-30-03
JOB NO.: 203.138	PLATE NO.: 1

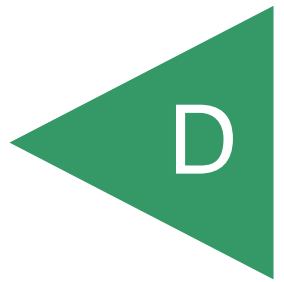
- a) **CLASSIFICATION:** Field classifications were verified in the laboratory by visual examination. The final soil classifications are in accordance with the Unified Soil Classification System.
- b) **MOISTURE-DENSITY:** In-place moisture contents and dry densities were determined for representative soil samples. This information was an aid to classification and permitted recognition of variations in material consistency with depth. The dry unit weight is determined in pounds per cubic foot, and the in-place moisture content is determined as a percentage of the soil's dry weight. The results are summarized in the test pit logs attached herein as Plate Nos. 2 through 4.
- c) **COMPACTION TEST:** The maximum dry density and optimum moisture content of a typical soil were determined in the laboratory in accordance with ASTM Standard Test D-1557, Method A. The results of this test are presented below.

Sample Number:	Test Pit P-1 @ 0-2½'	Test Pit P-3 @ 0-3'
Sample Description:	Reddish-brown, SM	Reddish-brown, SM
Maximum Density:	126.0 pcf	127.1 pcf
Optimum Moisture:	8.7 %	8.4 %

- d) **GRAIN SIZE DISTRIBUTION:** The grain size distributions were determined from representative soil samples in accordance with ASTM D422. The results of these tests are presented below.

Sample Number:	Test Pit P-1 @ 0-2½'	Test Pit P-3 @ 0-3'
Sieve Size	Percent Passing	Percent Passing
# 4	100	100
# 8	97	96
# 16	92	92
# 30	79	81
# 50	56	53
# 100	33	30
# 200	22	21

APPENDIX



APPENDIX D

RECOMMENDED GRADING SPECIFICATIONS

FOR

**PLAZA DE PANAMA
BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA**

PROJECT NO. G1346-42-01

RECOMMENDED GRADING SPECIFICATIONS

1. GENERAL

- 1.1 These Recommended Grading Specifications shall be used in conjunction with the Geotechnical Report for the project prepared by Geocon Incorporated. The recommendations contained in the text of the Geotechnical Report are a part of the earthwork and grading specifications and shall supersede the provisions contained hereinafter in the case of conflict.
- 1.2 Prior to the commencement of grading, a geotechnical consultant (Consultant) shall be employed for the purpose of observing earthwork procedures and testing the fills for substantial conformance with the recommendations of the Geotechnical Report and these specifications. The Consultant should provide adequate testing and observation services so that they may assess whether, in their opinion, the work was performed in substantial conformance with these specifications. It shall be the responsibility of the Contractor to assist the Consultant and keep them apprised of work schedules and changes so that personnel may be scheduled accordingly.
- 1.3 It shall be the sole responsibility of the Contractor to provide adequate equipment and methods to accomplish the work in accordance with applicable grading codes or agency ordinances, these specifications and the approved grading plans. If, in the opinion of the Consultant, unsatisfactory conditions such as questionable soil materials, poor moisture condition, inadequate compaction, adverse weather, result in a quality of work not in conformance with these specifications, the Consultant will be empowered to reject the work and recommend to the Owner that grading be stopped until the unacceptable conditions are corrected.

2. DEFINITIONS

- 2.1 **Owner** shall refer to the owner of the property or the entity on whose behalf the grading work is being performed and who has contracted with the Contractor to have grading performed.
- 2.2 **Contractor** shall refer to the Contractor performing the site grading work.
- 2.3 **Civil Engineer** or **Engineer of Work** shall refer to the California licensed Civil Engineer or consulting firm responsible for preparation of the grading plans, surveying and verifying as-graded topography.

- 2.4 **Consultant** shall refer to the soil engineering and engineering geology consulting firm retained to provide geotechnical services for the project.
- 2.5 **Soil Engineer** shall refer to a California licensed Civil Engineer retained by the Owner, who is experienced in the practice of geotechnical engineering. The Soil Engineer shall be responsible for having qualified representatives on-site to observe and test the Contractor's work for conformance with these specifications.
- 2.6 **Engineering Geologist** shall refer to a California licensed Engineering Geologist retained by the Owner to provide geologic observations and recommendations during the site grading.
- 2.7 **Geotechnical Report** shall refer to a soil report (including all addenda) which may include a geologic reconnaissance or geologic investigation that was prepared specifically for the development of the project for which these Recommended Grading Specifications are intended to apply.

3. MATERIALS

- 3.1 Materials for compacted fill shall consist of any soil excavated from the cut areas or imported to the site that, in the opinion of the Consultant, is suitable for use in construction of fills. In general, fill materials can be classified as *soil* fills, *soil-rock* fills or *rock* fills, as defined below.
- 3.1.1 **Soil fills** are defined as fills containing no rocks or hard lumps greater than 12 inches in maximum dimension and containing at least 40 percent by weight of material smaller than $\frac{3}{4}$ inch in size.
- 3.1.2 **Soil-rock fills** are defined as fills containing no rocks or hard lumps larger than 4 feet in maximum dimension and containing a sufficient matrix of soil fill to allow for proper compaction of soil fill around the rock fragments or hard lumps as specified in Paragraph 6.2. **Oversize rock** is defined as material greater than 12 inches.
- 3.1.3 **Rock fills** are defined as fills containing no rocks or hard lumps larger than 3 feet in maximum dimension and containing little or no fines. Fines are defined as material smaller than $\frac{3}{4}$ inch in maximum dimension. The quantity of fines shall be less than approximately 20 percent of the rock fill quantity.

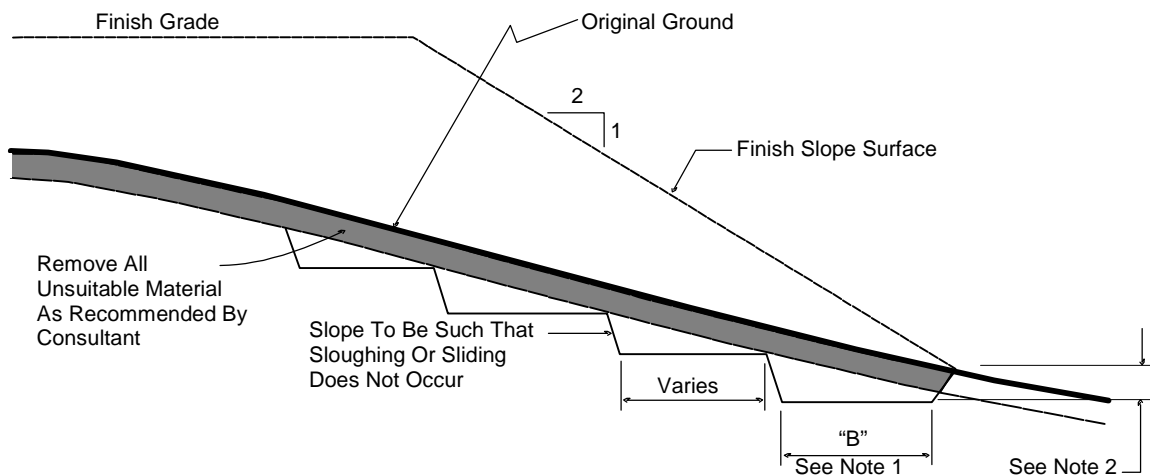
- 3.2 Material of a perishable, spongy, or otherwise unsuitable nature as determined by the Consultant shall not be used in fills.
- 3.3 Materials used for fill, either imported or on-site, shall not contain hazardous materials as defined by the California Code of Regulations, Title 22, Division 4, Chapter 30, Articles 9 and 10; 40CFR; and any other applicable local, state or federal laws. The Consultant shall not be responsible for the identification or analysis of the potential presence of hazardous materials. However, if observations, odors or soil discoloration cause Consultant to suspect the presence of hazardous materials, the Consultant may request from the Owner the termination of grading operations within the affected area. Prior to resuming grading operations, the Owner shall provide a written report to the Consultant indicating that the suspected materials are not hazardous as defined by applicable laws and regulations.
- 3.4 The outer 15 feet of *soil-rock* fill slopes, measured horizontally, should be composed of properly compacted *soil* fill materials approved by the Consultant. *Rock* fill may extend to the slope face, provided that the slope is not steeper than 2:1 (horizontal:vertical) and a soil layer no thicker than 12 inches is track-walked onto the face for landscaping purposes. This procedure may be utilized provided it is acceptable to the governing agency, Owner and Consultant.
- 3.5 Samples of soil materials to be used for fill should be tested in the laboratory by the Consultant to determine the maximum density, optimum moisture content, and, where appropriate, shear strength, expansion, and gradation characteristics of the soil.
- 3.6 During grading, soil or groundwater conditions other than those identified in the Geotechnical Report may be encountered by the Contractor. The Consultant shall be notified immediately to evaluate the significance of the unanticipated condition

4. CLEARING AND PREPARING AREAS TO BE FILLED

- 4.1 Areas to be excavated and filled shall be cleared and grubbed. Clearing shall consist of complete removal above the ground surface of trees, stumps, brush, vegetation, man-made structures, and similar debris. Grubbing shall consist of removal of stumps, roots, buried logs and other unsuitable material and shall be performed in areas to be graded. Roots and other projections exceeding 1½ inches in diameter shall be removed to a depth of 3 feet below the surface of the ground. Borrow areas shall be grubbed to the extent necessary to provide suitable fill materials.

- 4.2 Any asphalt pavement material removed during clearing operations should be properly disposed at an approved off-site facility. Concrete fragments that are free of reinforcing steel may be placed in fills, provided they are placed in accordance with Section 6.2 or 6.3 of this document.
- 4.3 After clearing and grubbing of organic matter and other unsuitable material, loose or porous soils shall be removed to the depth recommended in the Geotechnical Report. The depth of removal and compaction should be observed and approved by a representative of the Consultant. The exposed surface shall then be plowed or scarified to a minimum depth of 6 inches and until the surface is free from uneven features that would tend to prevent uniform compaction by the equipment to be used.
- 4.4 Where the slope ratio of the original ground is steeper than 5:1 (horizontal:vertical), or where recommended by the Consultant, the original ground should be benched in accordance with the following illustration.

TYPICAL BENCHING DETAIL



No Scale

- DETAIL NOTES:
- (1) Key width "B" should be a minimum of 10 feet, or sufficiently wide to permit complete coverage with the compaction equipment used. The base of the key should be graded horizontal, or inclined slightly into the natural slope.
 - (2) The outside of the key should be below the topsoil or unsuitable surficial material and at least 2 feet into dense formational material. Where hard rock is exposed in the bottom of the key, the depth and configuration of the key may be modified as approved by the Consultant.

- 4.5 After areas to receive fill have been cleared and scarified, the surface should be moisture conditioned to achieve the proper moisture content, and compacted as recommended in Section 6 of these specifications.

5. COMPACTION EQUIPMENT

- 5.1 Compaction of *soil* or *soil-rock* fill shall be accomplished by sheepsfoot or segmented-steel wheeled rollers, vibratory rollers, multiple-wheel pneumatic-tired rollers, or other types of acceptable compaction equipment. Equipment shall be of such a design that it will be capable of compacting the *soil* or *soil-rock* fill to the specified relative compaction at the specified moisture content.
- 5.2 Compaction of *rock* fills shall be performed in accordance with Section 6.3.

6. PLACING, SPREADING AND COMPACTION OF FILL MATERIAL

- 6.1 *Soil* fill, as defined in Paragraph 3.1.1, shall be placed by the Contractor in accordance with the following recommendations:
- 6.1.1 *Soil* fill shall be placed by the Contractor in layers that, when compacted, should generally not exceed 8 inches. Each layer shall be spread evenly and shall be thoroughly mixed during spreading to obtain uniformity of material and moisture in each layer. The entire fill shall be constructed as a unit in nearly level lifts. Rock materials greater than 12 inches in maximum dimension shall be placed in accordance with Section 6.2 or 6.3 of these specifications.
- 6.1.2 In general, the *soil* fill shall be compacted at a moisture content at or above the optimum moisture content as determined by ASTM D 1557-02.
- 6.1.3 When the moisture content of *soil* fill is below that specified by the Consultant, water shall be added by the Contractor until the moisture content is in the range specified.
- 6.1.4 When the moisture content of the *soil* fill is above the range specified by the Consultant or too wet to achieve proper compaction, the *soil* fill shall be aerated by the Contractor by blading/mixing, or other satisfactory methods until the moisture content is within the range specified.

- 6.1.5 After each layer has been placed, mixed, and spread evenly, it shall be thoroughly compacted by the Contractor to a relative compaction of at least 90 percent. Relative compaction is defined as the ratio (expressed in percent) of the in-place dry density of the compacted fill to the maximum laboratory dry density as determined in accordance with ASTM D 1557-02. Compaction shall be continuous over the entire area, and compaction equipment shall make sufficient passes so that the specified minimum relative compaction has been achieved throughout the entire fill.
- 6.1.6 Where practical, soils having an Expansion Index greater than 50 should be placed at least 3 feet below finish pad grade and should be compacted at a moisture content generally 2 to 4 percent greater than the optimum moisture content for the material.
- 6.1.7 Properly compacted *soil* fill shall extend to the design surface of fill slopes. To achieve proper compaction, it is recommended that fill slopes be over-built by at least 3 feet and then cut to the design grade. This procedure is considered preferable to track-walking of slopes, as described in the following paragraph.
- 6.1.8 As an alternative to over-building of slopes, slope faces may be back-rolled with a heavy-duty loaded sheepsfoot or vibratory roller at maximum 4-foot fill height intervals. Upon completion, slopes should then be track-walked with a D-8 dozer or similar equipment, such that a dozer track covers all slope surfaces at least twice.
- 6.2 *Soil-rock* fill, as defined in Paragraph 3.1.2, shall be placed by the Contractor in accordance with the following recommendations:
- 6.2.1 Rocks larger than 12 inches but less than 4 feet in maximum dimension may be incorporated into the compacted *soil* fill, but shall be limited to the area measured 15 feet minimum horizontally from the slope face and 5 feet below finish grade or 3 feet below the deepest utility, whichever is deeper.
- 6.2.2 Rocks or rock fragments up to 4 feet in maximum dimension may either be individually placed or placed in windrows. Under certain conditions, rocks or rock fragments up to 10 feet in maximum dimension may be placed using similar methods. The acceptability of placing rock materials greater than 4 feet in maximum dimension shall be evaluated during grading as specific cases arise and shall be approved by the Consultant prior to placement.

- 6.2.3 For individual placement, sufficient space shall be provided between rocks to allow for passage of compaction equipment.
- 6.2.4 For windrow placement, the rocks should be placed in trenches excavated in properly compacted *soil* fill. Trenches should be approximately 5 feet wide and 4 feet deep in maximum dimension. The voids around and beneath rocks should be filled with approved granular soil having a Sand Equivalent of 30 or greater and should be compacted by flooding. Windrows may also be placed utilizing an "open-face" method in lieu of the trench procedure, however, this method should first be approved by the Consultant.
- 6.2.5 Windrows should generally be parallel to each other and may be placed either parallel to or perpendicular to the face of the slope depending on the site geometry. The minimum horizontal spacing for windrows shall be 12 feet center-to-center with a 5-foot stagger or offset from lower courses to next overlying course. The minimum vertical spacing between windrow courses shall be 2 feet from the top of a lower windrow to the bottom of the next higher windrow.
- 6.2.6 Rock placement, fill placement and flooding of approved granular soil in the windrows should be continuously observed by the Consultant.
- 6.3 *Rock* fills, as defined in Section 3.1.3, shall be placed by the Contractor in accordance with the following recommendations:
- 6.3.1 The base of the *rock* fill shall be placed on a sloping surface (minimum slope of 2 percent). The surface shall slope toward suitable subdrainage outlet facilities. The *rock* fills shall be provided with subdrains during construction so that a hydrostatic pressure buildup does not develop. The subdrains shall be permanently connected to controlled drainage facilities to control post-construction infiltration of water.
- 6.3.2 *Rock* fills shall be placed in lifts not exceeding 3 feet. Placement shall be by rock trucks traversing previously placed lifts and dumping at the edge of the currently placed lift. Spreading of the *rock* fill shall be by dozer to facilitate *seating* of the rock. The *rock* fill shall be watered heavily during placement. Watering shall consist of water trucks traversing in front of the current rock lift face and spraying water continuously during rock placement. Compaction equipment with compactive energy comparable to or greater than that of a 20-ton steel vibratory roller or other compaction equipment providing suitable energy to achieve the

required compaction or deflection as recommended in Paragraph 6.3.3 shall be utilized. The number of passes to be made should be determined as described in Paragraph 6.3.3. Once a *rock* fill lift has been covered with *soil* fill, no additional *rock* fill lifts will be permitted over the *soil* fill.

- 6.3.3 Plate bearing tests, in accordance with ASTM D 1196-93, may be performed in both the compacted *soil* fill and in the *rock* fill to aid in determining the required minimum number of passes of the compaction equipment. If performed, a minimum of three plate bearing tests should be performed in the properly compacted *soil* fill (minimum relative compaction of 90 percent). Plate bearing tests shall then be performed on areas of *rock* fill having two passes, four passes and six passes of the compaction equipment, respectively. The number of passes required for the *rock* fill shall be determined by comparing the results of the plate bearing tests for the *soil* fill and the *rock* fill and by evaluating the deflection variation with number of passes. The required number of passes of the compaction equipment will be performed as necessary until the plate bearing deflections are equal to or less than that determined for the properly compacted *soil* fill. In no case will the required number of passes be less than two.
- 6.3.4 A representative of the Consultant should be present during *rock* fill operations to observe that the minimum number of “passes” have been obtained, that water is being properly applied and that specified procedures are being followed. The actual number of plate bearing tests will be determined by the Consultant during grading.
- 6.3.5 Test pits shall be excavated by the Contractor so that the Consultant can state that, in their opinion, sufficient water is present and that voids between large rocks are properly filled with smaller rock material. In-place density testing will not be required in the *rock* fills.
- 6.3.6 To reduce the potential for “piping” of fines into the *rock* fill from overlying *soil* fill material, a 2-foot layer of graded filter material shall be placed above the uppermost lift of *rock* fill. The need to place graded filter material below the *rock* should be determined by the Consultant prior to commencing grading. The gradation of the graded filter material will be determined at the time the *rock* fill is being excavated. Materials typical of the *rock* fill should be submitted to the Consultant in a timely manner, to allow design of the graded filter prior to the commencement of *rock* fill placement.
- 6.3.7 *Rock* fill placement should be continuously observed during placement by the Consultant.

7. OBSERVATION AND TESTING

- 7.1 The Consultant shall be the Owner's representative to observe and perform tests during clearing, grubbing, filling, and compaction operations. In general, no more than 2 feet in vertical elevation of *soil* or *soil-rock* fill should be placed without at least one field density test being performed within that interval. In addition, a minimum of one field density test should be performed for every 2,000 cubic yards of *soil* or *soil-rock* fill placed and compacted.
- 7.2 The Consultant should perform a sufficient distribution of field density tests of the compacted *soil* or *soil-rock* fill to provide a basis for expressing an opinion whether the fill material is compacted as specified. Density tests shall be performed in the compacted materials below any disturbed surface. When these tests indicate that the density of any layer of fill or portion thereof is below that specified, the particular layer or areas represented by the test shall be reworked until the specified density has been achieved.
- 7.3 During placement of *rock* fill, the Consultant should observe that the minimum number of passes have been obtained per the criteria discussed in Section 6.3.3. The Consultant should request the excavation of observation pits and may perform plate bearing tests on the placed *rock* fills. The observation pits will be excavated to provide a basis for expressing an opinion as to whether the *rock* fill is properly seated and sufficient moisture has been applied to the material. When observations indicate that a layer of *rock* fill or any portion thereof is below that specified, the affected layer or area shall be reworked until the *rock* fill has been adequately seated and sufficient moisture applied.
- 7.4 A settlement monitoring program designed by the Consultant may be conducted in areas of *rock* fill placement. The specific design of the monitoring program shall be as recommended in the Conclusions and Recommendations section of the project Geotechnical Report or in the final report of testing and observation services performed during grading.
- 7.5 The Consultant should observe the placement of subdrains, to verify that the drainage devices have been placed and constructed in substantial conformance with project specifications.
- 7.6 Testing procedures shall conform to the following Standards as appropriate:

7.6.1 Soil and Soil-Rock Fills:

- 7.6.1.1 Field Density Test, ASTM D 1556-02, *Density of Soil In-Place By the Sand-Cone Method.*
- 7.6.1.2 Field Density Test, Nuclear Method, ASTM D 6938-08A, *Density of Soil and Soil-Aggregate In-Place by Nuclear Methods (Shallow Depth).*
- 7.6.1.3 Laboratory Compaction Test, ASTM D 1557-02, *Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-Pound Hammer and 18-Inch Drop.*
- 7.6.1.4. Expansion Index Test, ASTM D 4829-03, *Expansion Index Test.*

7.6.2 Rock Fills

- 7.6.2.1 Field Plate Bearing Test, ASTM D 1196-93 (Reapproved 1997) *Standard Method for Nonreparative Static Plate Load Tests of Soils and Flexible Pavement Components, For Use in Evaluation and Design of Airport and Highway Pavements.*

8. PROTECTION OF WORK

- 8.1 During construction, the Contractor shall properly grade all excavated surfaces to provide positive drainage and prevent ponding of water. Drainage of surface water shall be controlled to avoid damage to adjoining properties or to finished work on the site. The Contractor shall take remedial measures to prevent erosion of freshly graded areas until such time as permanent drainage and erosion control features have been installed. Areas subjected to erosion or sedimentation shall be properly prepared in accordance with the Specifications prior to placing additional fill or structures.
- 8.2 After completion of grading as observed and tested by the Consultant, no further excavation or filling shall be conducted except in conjunction with the services of the Consultant.

9. CERTIFICATIONS AND FINAL REPORTS

- 9.1 Upon completion of the work, Contractor shall furnish Owner a certification by the Civil Engineer stating that the lots and/or building pads are graded to within 0.1 foot vertically of elevations shown on the grading plan and that all tops and toes of slopes are within 0.5 foot horizontally of the positions shown on the grading plans. After installation of a section of subdrain, the project Civil Engineer should survey its location and prepare an *as-built* plan of the subdrain location. The project Civil Engineer should verify the proper outlet for the subdrains and the Contractor should ensure that the drain system is free of obstructions.
- 9.2 The Owner is responsible for furnishing a final as-graded soil and geologic report satisfactory to the appropriate governing or accepting agencies. The as-graded report should be prepared and signed by a California licensed Civil Engineer experienced in geotechnical engineering and by a California Certified Engineering Geologist, indicating that the geotechnical aspects of the grading were performed in substantial conformance with the Specifications or approved changes to the Specifications.

LIST OF REFERENCES

1. Boore, D. M., and G. M Atkinson (2006), *Boore-Atkinson NGA Ground Motion Relations for the Geometric Mean Horizontal Component of Peak and Spectral Ground Motion Parameters*, Report Number PEER 2007/01, May 2007.
2. Brain S. J. Chiou and Robert R. Youngs, *A NGA Model for the Average Horizontal Component of Peak Ground Motion and Response Spectra*, preprint for article to be published in NGA Special Edition for Earthquake Spectra, Spring 2008.
3. *City of San Diego Seismic Safety Study Geologic Hazards and Fault Maps*, 2008, Sheet 17.
4. California Department of Conservation, Division of Mines and Geology, *Probabilistic Seismic Hazard Assessment for the State of California*, Open File Report 96-08, 1996.
5. California Geological Survey, *Seismic Shaking Hazards in California*, Based on the USGS/CGS Probabilistic Seismic Hazards Assessment (PSHA) Model, 2002 (revised April 2003). 10% probability of being exceeded in 50 years.
<http://redirect.conservation.ca.gov/cgs/rghm/pshamap/pshamain.html>
6. Campbell, K. W., Y. Bozorgnia, *NGA Ground Motion Model for the Geometric Mean Horizontal Component of PGA, PGV, PGD and 5% Damped Linear Elastic Response Spectra for Periods Ranging from 0.01 to 10 s*, Preprint of version submitted for publication in the NGA Special Volume of Earthquake Spectra, Volume 24, Issue 1, pages 139-171, February 2008.
7. Kennedy, M. P. and S. S. Tan, 2005, *Geologic Map of the San Diego 30'x60' Quadrangle, California*, USGS Regional Map Series Map No. 3, Scale 1:100,000.
8. Risk Engineering, *EZ-FRISK (version 7.52.003)*, 2011.
9. Unpublished reports and maps on file with Geocon Incorporated.
10. USGS computer program, *Seismic Hazard Curves and Uniform Hazard Response Spectra (version 5.1.0.)*, February 10, 2011.

APPENDIX H

Greenhouse Gas Emissions Analysis



Greenhouse Gas
Emissions Analysis
for the
Balboa Park Plaza de
Panama Project,
City of San Diego
Project No. 233958

Prepared for

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P 619.308.9333 F 619.308.9334
RECON Number 6095
April 25, 2012 (Revised)

A handwritten signature in black ink that reads "Jessica Fleming".

Jessica Fleming, Air Quality Analyst

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ATTACHMENTS

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Executive Summary

The project is located in Balboa Park in the City of San Diego. The Balboa Park Plaza de Panama project proposes to return pedestrian uses at locations throughout the park, including the Plaza de Panama, El Prado, California Plaza, and the Mall. This will be achieved by making a variety of circulation and parking structural improvements to reclaim these locations in the park for pedestrians by removing vehicular access.

The project is consistent with the goals and strategies of local and state plans, policies, and regulations aimed at reducing GHG emissions from land use and development. The project would include installation of energy- and water-efficient lighting and irrigation systems, and the parking structure would not require mechanical equipment. The project would not generate an increase in traffic volumes; nor would it alter the general external trip distribution patterns within the study area. The construction and implementation of the project would result in a net increase of 396.52 metric tons of carbon dioxide equivalent (MTCO₂E) greenhouse gas (GHG) emissions annually, which is less than the City's screening threshold of 900. Impacts would be therefore be less than significant.

1.0 Introduction

This report evaluates the significance of the project's contribution of GHG emissions to statewide GHG emissions and GHG emissions reduction targets. To evaluate the incremental effect of project development on statewide and global climate change, it is important to have a basic understanding of the nature of the global climate change problem.

1.1 Understanding Global Climate Change

Global climate change is a change in the average weather of the earth, which can be measured by wind patterns, storms, precipitation, and temperature. The earth's climate is in a state of constant flux with periodic warming and cooling cycles. Extreme periods of cooling are termed "ice ages," which may then be followed by extended periods of warmth. For most of the earth's geologic history, these periods of warming and cooling have been the result of many complicated interacting natural factors that include: volcanic eruptions that spew gases and particles (dust) into the atmosphere; the amount of water, vegetation, and ice covering the earth's surface; subtle changes in the earth's orbit; and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone.

With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, natural gas, and biomass. Industrial processes have also created emissions of substances not found in nature. This in turn has led to a marked increase in the emissions of gases shown to influence the world's climate. These gases, termed "greenhouse" gases, influence the amount of heat trapped in the earth's atmosphere. Because recently observed increased concentrations of GHGs in the atmosphere are related to increased emissions resulting from human activity, the current cycle of "global warming" is generally believed to be largely due to human activity. Of late, the issue of global warming or global climate change has arguably become the most important and widely debated environmental issue in the United States and the world. Because it is the collective of human actions taking place throughout the world that contributes to climate change, it is quintessentially a global or cumulative issue.

1.2 Greenhouse Gases of Primary Concern

There are numerous GHGs, both naturally occurring and manmade. Table 1 summarizes some of the most common. Each GHG has variable atmospheric lifetime and global warming potential.

**TABLE 1
GLOBAL WARMING POTENTIALS (GWPs) AND ATMOSPHERIC LIFETIMES (YEARS)**

Gas	Atmospheric			
	Lifetime	100-year GWP	20-year GWP	500-year GWP
Carbon dioxide (CO ₂)	50–200	1	1	1
Methane (CH ₄) [*]	12±3	21	56	6.5
Nitrous oxide (N ₂ O)	120	310	280	170
HFC-23	264	11,700	9,100	9,800
HFC-32	5.6	650	2,100	200
HFC-125	32.6	2,800	4,600	920
HFC-134a	14.6	1,300	3,400	420
HFC-143a	48.3	3,800	5,000	1,400
HFC-152a	1.5	140	460	42
HFC-227ea	36.5	2,900	4,300	950
HFC-236fa	209	6,300	5,100	4,700
HFC-43-10mee	17.1	1,300	3,000	400
CF ₄	50,000	6,500	4,400	10,000
C ₂ F ₆	10,000	9,200	6,200	14,000
C ₃ F ₈	2,600	7,000	4,800	10,100
C ₄ F ₁₀	2,600	7,000	4,800	10,100
c-C ₄ F ₈	3,200	8,700	6,000	12,700
C ₅ F ₁₂	4,100	7,500	5,100	11,000
C ₆ F ₁₄	3,200	7,400	5,000	10,700
SF ₆	3,200	23,900	16,300	34,900

SOURCE: U.S. EPA 2010a, Annex 6.

^{*}The methane global warming potential (GWP) includes the direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.

The atmospheric lifetime of the GHG is the average time the molecule stays stable in the atmosphere. Most GHGs have long atmospheric lifetimes, staying in the atmosphere hundreds or thousands of years. The potential of a gas to trap heat and warm the atmosphere is measured by its global warming potential (GWP). Specifically, GWP is defined as (U.S. Environmental Protection Agency [EPA] 2010a):

the cumulative radiative forcing—both direct and indirect effects—integrated over a period of time from the emission of a unit mass of gas relative to some reference gas.

The reference gas for establishing GWP is carbon dioxide (CO₂), which—as shown in Table 1—consequently has a GWP of 1. As an example, methane (CH₄), while having a shorter atmospheric lifetime than carbon dioxide, has a 100-year GWP of 21, which means that it has a greater global warming effect than carbon dioxide on a molecule-by-molecule basis.

Of the gases listed in Table 1, CO₂, CH₄, and nitrous oxide (N₂O) are produced by both biogenic (natural) and anthropogenic (human) sources. The remaining gases occur solely as the result of human processes. Hydrofluorocarbons (HFCs) are synthetic, man-made chemicals used as substitutes for ozone-depleting chlorofluorocarbons used in air conditioners and as refrigerants. Perfluorocarbons (PFCs) such as tetrafluoromethane (CF₄) are used primarily in aluminum production and semiconductor manufacture. Sulfur hexafluoride (SF₆) is used for insulation in electric power transmission and distribution equipment. HFCs, PFCs, and sulfur hexafluoride are not of primary concern to the project.

CO₂, CH₄ and N₂O are the GHGs of primary concern in this analysis. Carbon dioxide would be emitted by the project due to the combustion of fossil fuels in vehicles (including construction equipment), from electricity generation and natural gas consumption, water use, and from solid waste disposal. Smaller amounts of methane and nitrous oxide would be emitted from the same project operations.

More information on the background of global warming and GHGs is contained in Attachment 1, Understanding Global Climate Change.

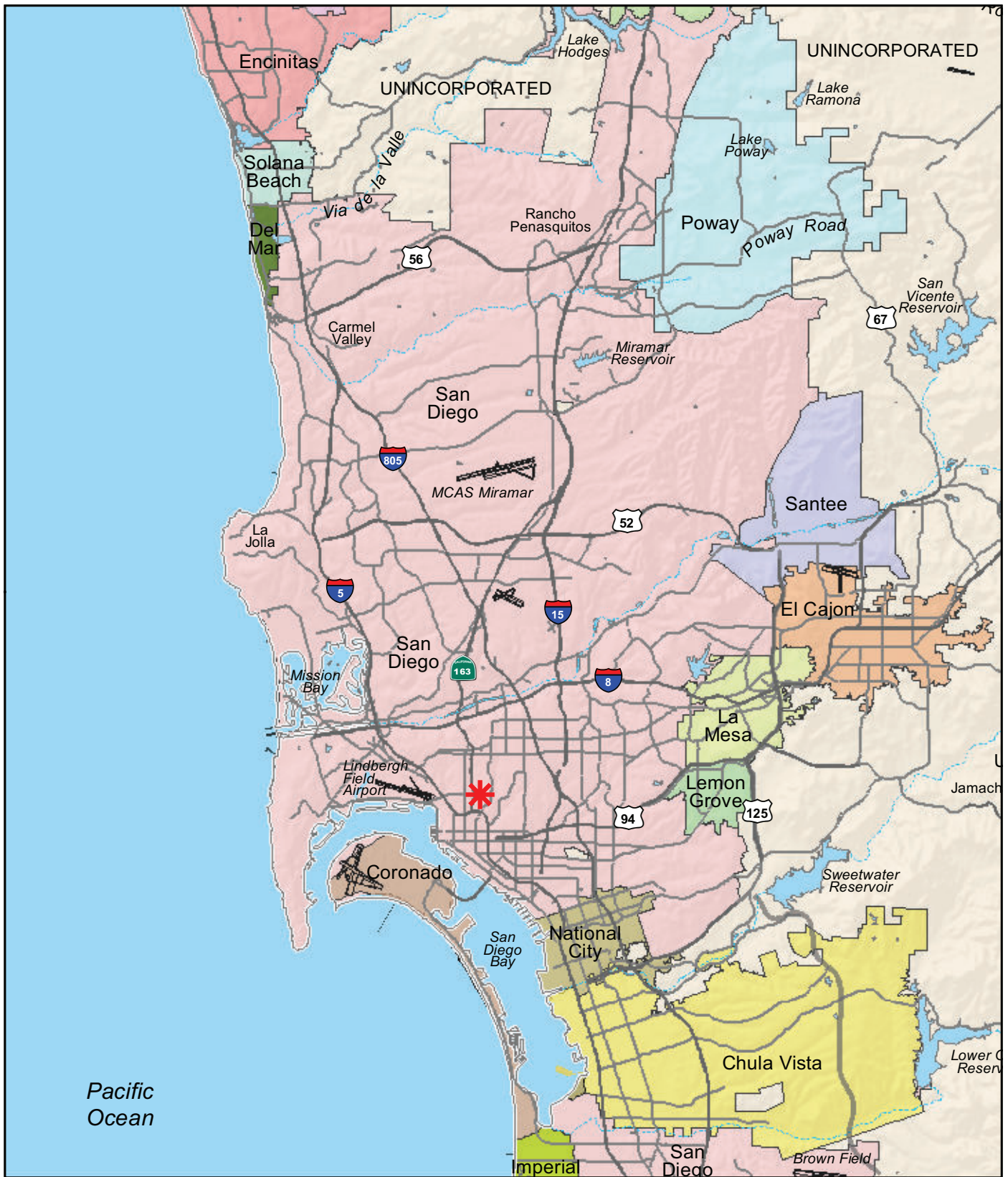
2.0 Project Description

The Balboa Park Plaza de Panama project proposes to return pedestrian uses at locations throughout the park, including the Plaza de Panama, El Prado, California Plaza, and the Mall. The main objectives of the project include the following:

- Remove vehicles from the Plaza de Panama, El Prado, Plaza de California, the Mall, and Pan American Road East while maintaining public and proximate vehicular access to the institutions which are vital to the park's success and longevity.
- Restore pedestrian and park uses to El Prado, Plaza de Panama, Plaza de California, the Mall, and the California Gardens behind the Organ Pavilion.
- Improve access to the Central Mesa through the provision of additional parking, while maintaining convenient drop-off, disabled access, and valet parking, and a new tram system with the potential for future expansion.
- Improve the pedestrian link between the Central Mesa's two cultural cores: El Prado and the Palisades.
- Implement a funding plan including bonds that provides for construction of a self-sustaining paid parking structure intended to fund the structure's operation and maintenance, the planned tram operations, and the debt service on the structure only.
- Complete all work prior to January 2015 for the 1915 Panama-California Exposition centennial celebration.

Figure 1 shows the regional location of the project. Figure 2 shows an aerial photograph of the project and vicinity. Figure 3 shows the conceptual master plan. Figure 4 shows the proposed site plan. The specific improvements are detailed below. The numbers below correspond to the numbered areas shown in Figure 4.

1. **Plaza de Panama:** Consistent with the approved Balboa Park Master Plan and 1992 Central Mesa Precise Plan, parking would be removed from the Plaza de Panama and the Plaza would be rehabilitated for pedestrian use. The Precise Plan permitted automobile traffic and a drop-off at the southwest corner of the Plaza, which is inconsistent with the historic use. This project improves upon the Precise Plan concept by eliminating automobile traffic from the Plaza and adjacent promenades.
2. **El Prado and Plaza de California:** The historic uses of El Prado and Plaza de California were for pedestrian circulation and open space. El Prado is the primary east-west spine that runs the length of the Central Mesa, from the Cabrillo Bridge at the west to the Plaza de Balboa at the east. The Plaza de California is the small plaza encircled by the California Building. The project would remove vehicle traffic from El Prado.

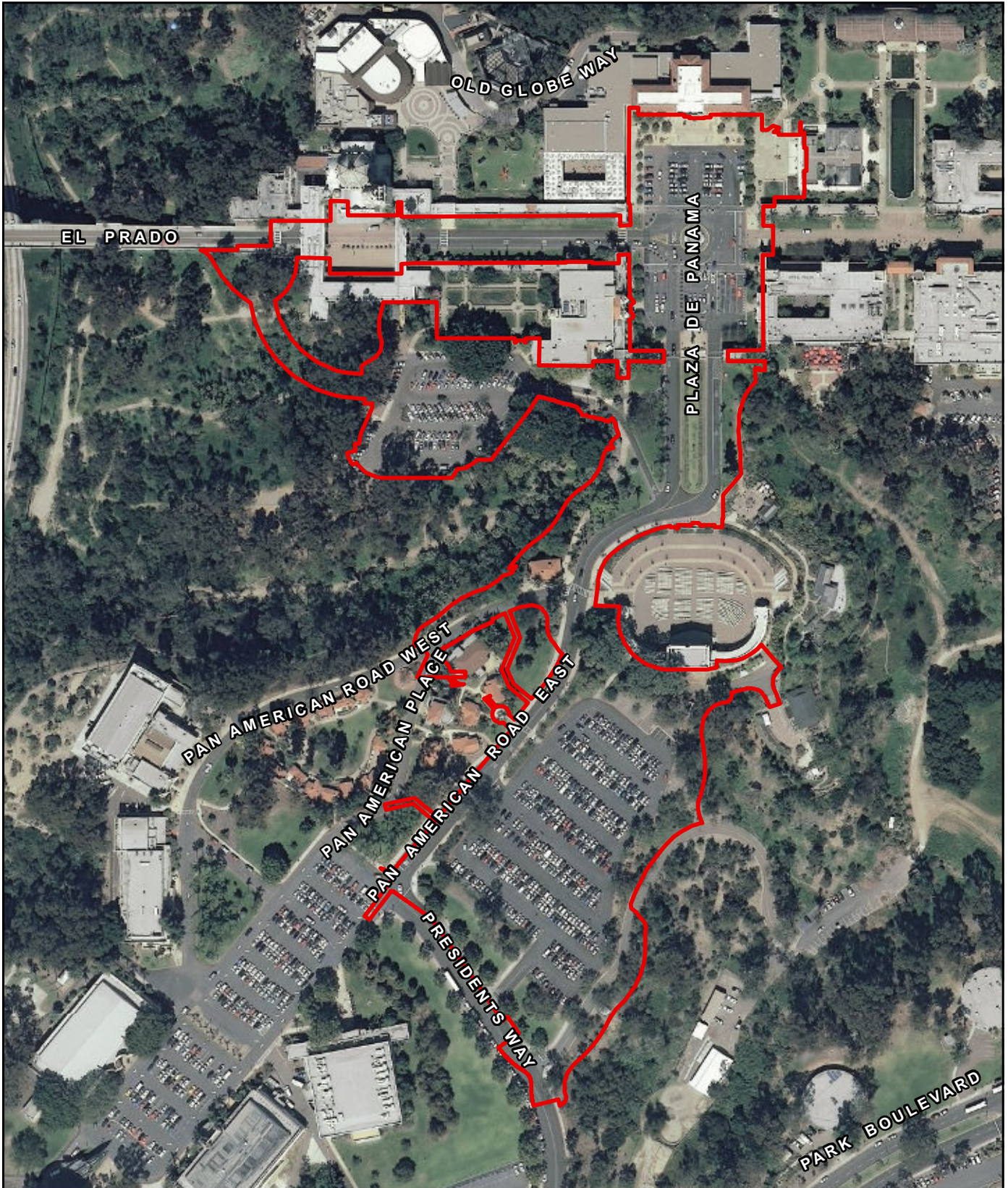


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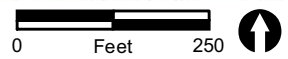


***** Project Location

FIGURE 1
Regional Location

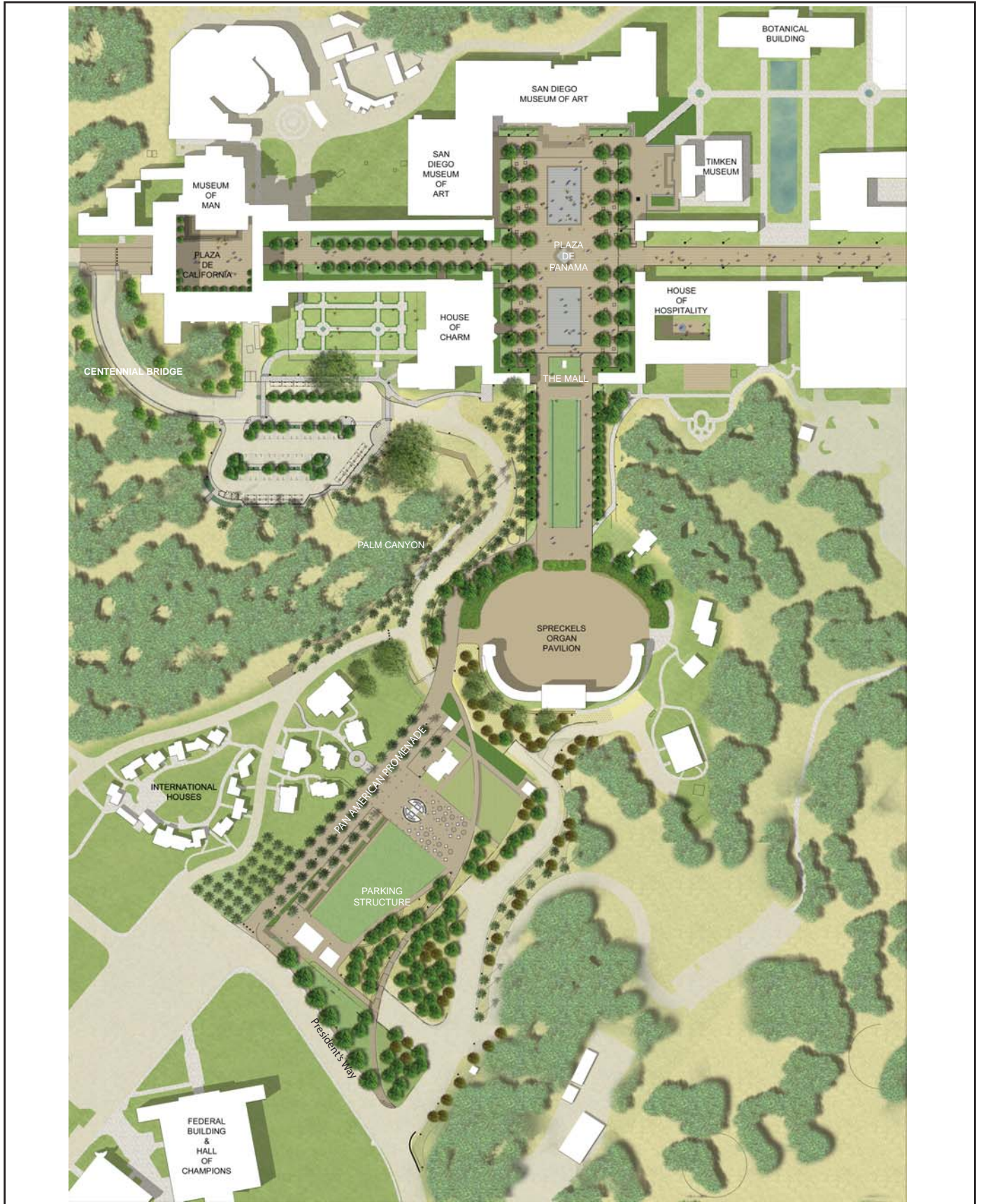


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 Project Area

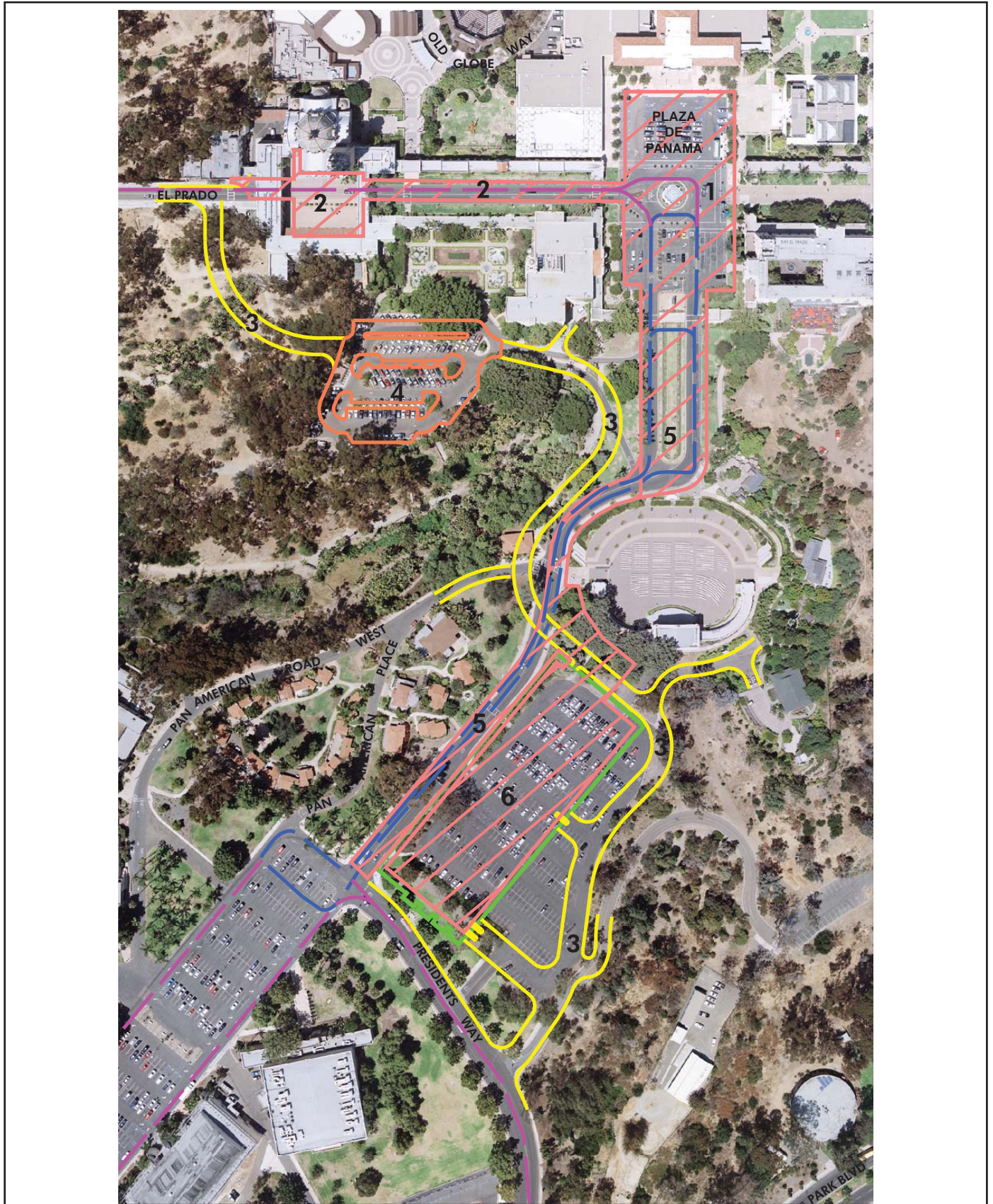
FIGURE 2
Aerial Photograph of Project Site and Vicinity








No Scale



FIGURE 3
Conceptual Master Plan



-  Proposed Plaza Tram/Shuttle Route
-  Proposed Organ Pavilion Parking Structure
-  Proposed Pedestrian Restoration
-  Proposed Roadways
-  Alcazar Parking Lot
-  Existing Park-wide Tram Route

- 1 Plaza de Panama
- 2 El Prado and Plaza de California
- 3 Centennial Bridge and Centennial Road
- 4 Alcazar Parking Lot
- 5 The Mall and Pan American Promenade
- 6 Parking Structure and Rooftop Park

No Scale



FIGURE 4
Site Plan

3. **Centennial Bridge and Road:** A new Centennial Bridge and Road are proposed to divert vehicular traffic from the center of Balboa Park, allowing El Prado to be used by pedestrians. The new two-way bridge/road would provide a connection beginning at the east end of the Cabrillo Bridge and would continue through the eucalyptus grove around the southwest corner of the Museum of Man.
4. **Alcazar Parking Lot:** The existing Alcazar parking lot would be redesigned to provide additional accessible parking as well as passenger drop-off, museum loading, and valet. The proposed lot includes 32 Americans with Disabilities Act (ADA) stalls, approximately 16 valet stacking spaces with a small valet booth (36 square feet), and a passenger drop-off area adjacent to the historic Alcazar Garden. There would also be a small valet booth. Parking for other vehicles would not be permitted in this lot. Most cars would continue east on the bypass route and would park in the Organ Pavilion parking structure that is discussed below.
5. **The Mall and Pan American Promenade:** The Mall is the roadway and landscaped median between the Plaza de Panama and the Spreckels Organ Pavilion. Pan American Road is the segment of street that connects the Mall to Presidents Way. The Mall and Pan American Road are currently used for vehicular circulation. Pedestrian access is limited to sidewalks at both sides of the road. The project would reclaim both the Mall and Pan American Road for pedestrian access by rerouting vehicle traffic west of Pan American Road. The new route would then pass below Pan American Road to access the north side of the new parking structure discussed below.
6. **Parking Structure and Rooftop Park:** A new parking structure and park top would be constructed at the location of the existing Organ Pavilion surface lot. The new structure would allow pedestrian and vehicular traffic to be safely separated. In addition, the new multi-level underground structure would allow reclamation of open space for landscape and pedestrian/park use on the top of the parking structure. The proposed 265,242-square-foot underground parking structure would provide 798 parking spaces on three levels with a 2.2-acre rooftop park. Vehicle access to and from the new structure would be provided on the north side of the structure from the new bypass road. Vehicle access will be graded separated from pedestrian traffic, eliminating the current pedestrian/vehicular conflicts. The vehicle road would continue along the east side of the structure to a secondary parking entrance/exit, and the road would continue to Presidents Way and Park Boulevard.

3.0 Existing Conditions

3.1 Environmental Setting

3.1.1 State and Regional GHG Inventories

The California Air Resources Board (CARB) performs statewide GHG inventories. The inventory is divided into nine broad sectors of economic activity: agriculture, commercial, electricity generation, forestry, high GWP emitters, industrial, recycling and waste, residential, and transportation. Emissions are quantified in million metric tons of CO₂ equivalent (MMTCO₂E). Table 2 shows the estimated statewide GHG emissions for the years 1990, 2000, 2004, and 2008.

**TABLE 2
CALIFORNIA GHG EMISSIONS BY SECTOR IN 1990, 2000, 2004, AND 2008**

Sector	1990 Emissions in MMTCO ₂ E (% total) ¹	2000 Emissions in MMTCO ₂ E (% total) ¹	2004 Emissions in MMTCO ₂ E (% total) ¹	2008 Emissions in MMTCO ₂ E (% total) ¹
Sources				
Agriculture	23.4 (5%)	25.44 (6%)	28.82 (6%)	28.06 (6%)
Commercial	14.4 (3%)	12.80 (3%)	13.20 (3%)	14.68 (3%)
Electricity Generation	110.6 (26%)	103.92 (23%)	119.96 (25%)	116.35 (24%)
Forestry (excluding sinks)	0.2 (<1%)	0.19 (<1%)	0.19 (<1%)	0.19 (<1%)
High GWP	--	10.95 (2%)	13.57 (3%)	15.65 (3%)
Industrial	103.0 (24%)	97.27 (21%)	90.87 (19%)	92.66 (19%)
Recycling and Waste	--	6.20 (1%)	6.23 (1%)	6.71 (1%)
Residential	29.7 (7%)	30.13 (7%)	29.34 (6%)	28.45 (6%)
Transportation	150.7 (35%)	171.13 (37%)	181.71 (38%)	174.99 (37%)
Unspecified Remaining ²	1.3 (<1%)	--	--	--
Subtotal	433.3	458.03	483.89	477.74
Sinks				
Forestry Sinks	-6.7 (--)	-4.72 (--)	-4.32 (--)	-3.98 (--)
Total	426.6	453.31	479.57	473.76

SOURCE: CARB 2007, 2010a.

¹ Percentages may not total 100 due to rounding.

² Unspecified fuel combustion and ozone depleting substance (ODS) substitute use, which could not be attributed to an individual sector.

As shown in Table 2, statewide GHG emissions totaled 433 MMTCO₂E in 1990, 458 MMTCO₂E in 2000, 484 MMTCO₂E in 2004, and 478 MMTCO₂E in 2008. According to data from the CARB, it appears that statewide GHG emissions peaked in 2004 and are now beginning to decrease (CARB 2010a). Transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

The forestry sector is unique because it not only includes emissions associated with harvest, fire, and land use conversion (sources), but also includes removals of atmospheric CO₂ (sinks) by photosynthesis, which is then bound (sequestered) in plant tissues. As seen in Table 2, the forestry sector consistently removes more CO₂ from the atmosphere statewide than it emits. As a result, although decreasing over time, this sector represents a net sink, removing a net 6.5 MMTCO₂E from the atmosphere in 1990, a net 4.5 MMTCO₂E in 2000, a net 4.1 MMTCO₂E in 2004, and a net 3.8 MMTCO₂E in 2008.

A San Diego regional emissions inventory was prepared by the University of San Diego School of Law, Energy Policy Initiative Center (EPIC) that took into account the unique characteristics of the region. Their 2006 emissions inventory for San Diego is duplicated below in Table 3. The sectors included in this inventory are somewhat different from those in the statewide inventory.

**TABLE 3
SAN DIEGO COUNTY GHG EMISSIONS BY SECTOR IN 2006**

Sector	2006 Emissions in MMTCO ₂ E (% total) ¹	
Agriculture/Forestry/Land Use	0.7	(2%)
Waste	0.7	(2%)
Electricity	9.0	(25%)
Natural Gas Consumption	3.0	(8%)
Industrial Processes & Products	1.6	(5%)
On-Road Transportation	16.0	(45%)
Off-Road Equipment & Vehicles	1.3	(4%)
Civil Aviation	1.7	(5%)
Rail	0.3	(<1%)
Water-Borne Navigation	0.127	(<0.5%)
Other Fuels/Other	1.1	(3%)
Total	35.5	

SOURCE: University of San Diego 2008.

¹Percentages may not total 100 due to rounding.

Similar to the statewide emissions, transportation-related GHG emissions contributed the most countywide, followed by emissions associated with energy use.

3.1.2 Environmental Sustainability Strategic Plan for Balboa Park

The Balboa Park Cultural Partnership (BPCP) established a park-wide sustainability program that includes 26 cultural institutions, the City of San Diego, San Diego Gas & Electric (SDG&E), and many other community stakeholders. The BPCP compiled the 2010–2012 Economic and Environmental Sustainability Strategic Plan for Balboa Park. The plan identifies energy efficiency and conservation goals, formalizes sustainability strategies, identifies sustainability focus areas, details information programs, and

identifies funding. Its goal is to reduce Balboa Park electric bills by \$1.5 million per year, increase water conservation by 50 percent, and increase recycling at Balboa Park by 50 percent.

Specifically, the BPCP has initiated the following programs:

- Ø BPCP benchmarks facilities and tracks weather normalized energy use intensity, respective GHG emissions, and water consumption using EPA's Portfolio Manager tool to better understand how efficiently energy is used and to develop and implement a plan to reduce energy.
- Ø Leadership in Energy and Environmental Design (LEED) Certification: In partnership with SDG&E, the BPCP facilitated the LEED for Existing Building Certification process and encouraged facility directors to examine their buildings and initiatives and consider applying for certification.
- Ø Implemented a Waste Recovery program to encourage facilities to divert solid waste and recycle, reuse, and reduce waste.
- Ø Established group purchasing programs to encourage a Park-wide sustainable purchasing plan to reduce costs and identify sustainable products.
- Ø Energy Efficiency Programs:
 - § SDG&E's On-Bill Financing Program: BPCP participates with SDG&E and implements its on-bill financing program; facility directors learned how to implement this zero-financing option for qualifying energy efficient business improvements.
 - § Energy Management Control Systems (EMCS): Six institutions installed the system prior to 2010 and five more were scheduled to install the system in 2010/2011. EMCS displays real-time energy monitoring so staff and visitors can see the current and past electricity production of the 100kW SDG&E-owned photovoltaic system on the building's roof.
 - § Lighting optimization and installation of LED induction street lights and indoor lighting
 - § Smart metering
 - § Building retrofits
 - § Solar technology.

Ø Education and Training Programs

- § Contractors' Educational Seminars: Implemented a series of seminars designed to educate staff on sustainable products and specifically on ways to use/apply the products for energy efficiency and cost savings.
- § Lunch and Learns: These monthly meetings bring together staff to share lessons learned and find creative ways to work together to save energy. The group was informally established as an offshoot of the BPCP Collective Business Operations.
- § SDG&E and City of San Diego Educational Seminars: These sessions are designed to help attendees streamline energy efficiency processes and understand reporting requirements, invoicing procedures, and regulatory and policy updates.
- § Sustainability Workshops: Two major workshops, attended by more than 500 people, were held in 2008 and 2010 to educate all stakeholders on sustainability practices and principles.

3.1.3 Existing On-Site Emissions

The project site is located in Balboa Park. The footprint of the project is currently the Organ Pavilion parking lot, the Alcazar parking lot, internal roadways, and an undeveloped portion of the archery range. The existing sources of GHG emissions in the area of Balboa Park affected by the project are vehicles and exterior lighting. To establish the existing baseline, GHG emissions associated with these sources was calculated. Then, to determine the project's GHG impacts, the "baseline plus project" GHG emissions were compared to the baseline GHG emissions.

The traffic impact analysis prepared for the project calculated the existing weekend and weekday vehicle trips within the project area. There are 6,500 average daily trips (ADT) on a typical weekday and 7,600 ADT on a typical weekend day (Rick Engineering 2011a). This value, multiplied by the existing regional average trip length of 5.8 miles (SANDAG 2009), results in 14,425,843 vehicle miles traveled (VMT) annually. This equates to a total of 6,894 MTCO₂E of GHGs that are being emitted by vehicles associated with existing on-site area.

There is also existing exterior lighting within the project area. There are currently 155 50-watt lights that are on for an average of 12 hours per day in the evening and nighttime hours. This consumes 33,945 kWh per year. This equates to the emission of 12 MTCO₂E per year.

Water is currently used in the study area. A preliminary water demand analysis was prepared for the project (Rick Engineering 2011b). The analysis calculates the estimated existing study area uses 2.99 acre-feet per year. The embodied energy demand associated with this water use of 8.28 MWh/year was converted to GHG emissions with the same electrical grid coefficients as the other purchased electricity. The resulting emissions amount to 2.95 MTCO₂E per year.

3.1.4 Consequences of Global Climate Change

CARB projects a future statewide GHG emissions increase of more than 23 percent (from 2004) by 2020 given current trends (CARB 2008a). The 2008 EPIC study predicts a countywide increase to 43 MMTCO₂E, or roughly 20 percent (from 2006) by 2020, given a BAU trajectory. Global GHG emissions forecasts also predict similar substantial increases, given a BAU trajectory.

The potential consequences of global climate change on the San Diego region are far reaching. The Climate Scenarios analysis report, published in 2006 by the California Climate Change Center, uses a range of emissions scenarios to project a series of potential warming ranges (low, medium, or high temperature increases) that may occur in California during the 21st century. Throughout the state and the region, global climate and local microclimate changes could cause an increase in extreme heat days; higher concentrations, frequency, and duration of air pollutants; an increase in wildfires; more intense coastal storms; sea level rise; impacts to water supply and water quality through reduced snowpack and saltwater influx; public health impacts; impacts to near-shore marine ecosystems; reduced quantity and quality of agricultural products; pest population increases; and altered natural ecosystems and biodiversity.

3.2 Regulatory Background

In response to rising concern associated with increasing GHG emissions and global climate change impacts, several plans and regulations have been adopted at the international, national, and state levels with the aim of reducing GHG emissions.

3.2.1 International

3.2.1.1 Montreal Protocol on Substances that Deplete the Ozone Layer

Human caused effects on the global atmosphere first became widely known to the public at large in the mid-1970s when it was discovered that a number of substances, particularly chlorofluorocarbons (CFCs) used in refrigeration, when released into the atmosphere, could cause the breakdown of significant quantities of the earth's protective

ozone (O₃) in the stratosphere (i.e., the “ozone layer”). Somewhat concurrent with this was the discovery of the now well documented “ozone hole” over Antarctica. The ozone layer filters out most of the ultraviolet-B (UV-B) radiation reaching the earth. Therefore, destruction of the ozone layer would allow more UV-B radiation to reach the earth’s surface potentially leading to increases in skin cancer and other effects such as crop damage and adverse effects on marine phytoplankton.

In response to these concerns, the Coordinating Committee on the Ozone Layer was established by the United Nations Environment Programme (UNEP) in 1977, and UNEP’s Governing Council adopted the World Plan of Action on the Ozone Layer. Continuing efforts led to the signing in 1985 of the Vienna Convention on the Protection of the Ozone Layer. This led to the creation of the Montreal Protocol on Substances That Deplete the Ozone Layer (Montreal Protocol), an international treaty designed to protect the stratospheric ozone layer by phasing out production of ozone depleting substances. The Montreal Protocol was adopted on September 16, 1987 and was enacted on January 1, 1989. The Protocol has been amended four times since 1989: the London Amendment in 1990, Copenhagen Amendment in 1992, Montreal Amendment in 1997, and most recently the Beijing Amendment in 1999 (U.S. EPA 2010b).

This treaty is considered one of the most successful international treaties on environmental protection in the world, with ratification by 191 countries including the United States. By the end of 2006, the 191 parties to the treaty had phased out over 95 percent of ozone depleting substances (UNEP 2007). Because of this success, scientists are now predicting that the ozone hole will “heal” later this century.

The elimination of these ozone-depleting substances also has benefits relative to global climate change because most of these substances are also potent GHGs, with very high GWPs ranging from 4,680 to 10,720 (UNEP 2007; Australian Government 2007). However, the phasing out of ozone depleting substances has led to an increase in the use of non-ozone depleting substances such as hydrofluorocarbons (HFCs) which, although not detrimental to the ozone layer, are also potent GHGs. As shown in Table 1, these substances have GWPs ranging from 140 to 11,700.

3.2.1.2 Intergovernmental Panel on Climate Change

In response to growing concern about pollutants in the upper atmosphere and the potential problem of climate change, the World Meteorological Organization and the UNEP established the Intergovernmental Panel on Climate Change (IPCC) in 1988. The IPCC was tasked with assessing the scientific, technical, and socioeconomic information relevant to understanding the scientific basis for human-induced climate change, its potential impacts, and options for adaptation and mitigation. The most recent reports of the IPCC have emphasized the scientific consensus that real and measurable changes to the climate are occurring, that they are caused by human activity, and that significant

adverse impacts on the environment, economy, and human health and welfare are unavoidable.

3.2.1.3 United Nations (UN) Framework Convention on Climate Change

In 1994, the United States joined a number of other nations in signing an international treaty known as the United Nations Framework Convention on Climate Change (UNFCCC). The UNFCCC recognized that global climate is a shared resource that can be affected by industrial and other emissions of GHGs and set an overall framework for intergovernmental efforts to tackle the challenges posed by global climate change.

As with the Montreal Protocol, UNFCCC was ratified by 191 countries including the United States. Under this treaty, governments were to (UNFCCC 2007a):

- Gather and share information on GHG emissions, national policies, and best practices;
- Launch national strategies for addressing GHG emissions and adapting to expected impacts; and
- Cooperate with other nations in preparing for adaptation to the impacts of climate change.

The UNFCCC divided countries into three main groups according to differing commitments based on economic strength, vulnerability to adverse climate change impacts, and capacity to respond or adapt to climate change effects. The stronger economic nations, including the United States, were to provide financial and technological support to developing countries to enable them to undertake emissions reduction activities and to help them adapt to adverse effects of climate change.

The UNFCCC was enacted in March 1994; however, it generally lacked powerful, legally binding measures. This led to the development of the Kyoto Protocol.

3.2.1.4 Kyoto Protocol to the UNFCCC

Knowing that the UNFCCC did not contain the legally binding measures that would be required to meaningfully address global climate change, a conference of the UNFCCC signatory nations was held in Berlin in 1995 that launched a new round of discussions to determine more detailed and stronger commitments for industrialized countries (the Berlin Mandate). After 2.5 years of negotiations, the Kyoto Protocol was adopted in December 1997 (UNFCCC 2007b). While the 1997 Kyoto Protocol shared the UNFCCC's objectives, it committed signatories to individual, legally binding targets to

limit or reduce their GHG emissions. By March 1999, 84 countries, including the United States, had signed the Kyoto Protocol (UNFCCC 2009).

Only Parties to the UNFCCC that have also become Parties to the Kyoto Protocol are bound by the Kyoto Protocol's commitments. Governments become Parties to the Protocol by ratifying, accepting, approving, or acceding to it. Because of the complexity of the negotiations and uncertainty associated with the rules or how they would operate, several of the signing countries, including the United States, were reluctant to actually ratify the Protocol. Therefore, a new round of negotiations was undertaken to flesh out the Kyoto Protocol's rulebook. These negotiations concluded with the adoption of the Marrakesh Accords in 2001. With the adoption of the Marrakesh Accords, the Protocol was enacted in February 2005, and by July 2009 184 governments had become Parties to the Protocol (UNFCCC 2007b, 2009). In December 2009, a Copenhagen Accord was held to address global climate change issues in the future; however, no further measures were adopted. The most recent UN Climate Change Conference occurred in Cancun, Mexico from November 29 to December 10, 2010 and resulted in 26 agreements related to GHG emission reductions (Cancun Accords).

Although a signer to the Kyoto Protocol, the U.S. has not ratified the Kyoto Protocol to date because it does not mandate emissions reductions from all countries including several developing countries whose GHG emissions are expected to exceed emissions from developed countries within the next 25 years (U.S. EPA 2007a).

3.2.2 National

3.2.2.1 Clean Air Act, Title VI—Stratospheric Ozone Protection

Similar to the Montreal Protocol discussed above, Title VI of the Clean Air Act was established to protect stratospheric ozone by phasing out the manufacture of ozone-depleting substances and by restricting their use and distribution (U.S. EPA 2007b). Also similar to the Montreal Protocol, while successful in phasing out ozone depleting substances, Title VI has inadvertently led to an increase in the production and use of non-ozone depleting substitutes such as HFCs that are global warming gases with high GWPs and relatively long atmospheric lifetimes.

3.2.2.2 Climate Change Action Plan

Adopted in 1993, the U.S. Climate Change Action Plan (CCAP) consists of voluntary actions to reduce all significant GHGs from all economic sectors. Backed by federal funding, the CCAP supports cooperative partnerships between the government and the private sector in establishing flexible and cost-effective ways to reduce GHG emissions. The CCAP encourages investments in new technologies, but also relies on previous actions and programs focused on saving energy, reducing transportation emissions,

improving forestry management, and reducing waste. With respect to energy and transportation-related GHG emissions reductions, the CCAP includes the following:

- Energy Demand Actions to accelerate the use of existing energy saving technologies and encourage the development of more advanced technologies. Commercial actions focus on installing efficient heating and cooling systems in commercial buildings and upgrading to energy-efficient lighting systems (the Green Lights program). The State Buildings Energy Incentive Fund provides funding to states for the development of public building energy management programs. Residential actions focus on developing new residential energy standards and building codes and providing money-saving energy efficient options to homeowners.
- Energy Supply Actions to reduce emissions from energy supply. These actions focus on increasing the use of natural gas, which emits less CO₂ than coal or oil, and investing in renewable energy sources, such as solar and wind power, which result in zero net CO₂ emissions. Energy supply strategies also focus on reducing the amount of energy lost during distribution from power plants to consumers.
- Transportation Actions to reduce transportation-related emissions are focused on investing in cleaner fuels and more efficient technologies, and reducing vehicle miles traveled (VMT). In addition, the U.S. EPA and Department of Transportation (DOT) are to draft guidance documents for reducing VMTs for use in developing local clean air programs.

3.2.2.3 GHG Emissions Intensity Reduction Programs

The GHG Emissions Intensity is the ratio of GHG emissions to economic output. In 2002, the U.S. GHG Emissions Intensity was 183 metric tons per million dollars of gross domestic product (GDP; U.S. EPA 2007c). In February 2002, the U.S. set a goal to reduce this GHG Emissions Intensity by 18 percent by 2012 through various reduction programs. A number of ongoing voluntary programs have thus been instituted to reduce nationwide GHG emissions. These include (U.S. EPA 2007c):

- **Climate VISION Partnership:** In 2003, this program established a partnership between 12 major industries and the U.S. Department of Energy (U.S. DOE), the U.S. EPA, the DOT and the U.S. Department of Agriculture. The involved industries include electric utilities; petroleum refiners and natural gas producers; automobile, iron and steel, chemical and magnesium manufacturers; forest and paper producers; railroads; and cement, mining, aluminum, and semiconductor industries. These industries are working with the four agencies to reduce their GHG emissions by developing cost-effective solutions, measuring and reporting emissions, developing strategies for the adoption of advanced technologies, and implementing voluntary mitigation actions.

- **Cleaner Energy–Environment State Partnership:** This program established a partnership between federal and state agencies to support states in implementing strategies and policies to promote renewable energy, energy efficiency, and other cost-effective clean energies. States receive technical assistance from the U.S. EPA.
- **Climate Leaders:** The Climate Leaders program was established in 2002. Climate Leaders is a U.S. EPA's voluntary program that establishes partnerships with individual companies. Together they establish individual corporate goals for GHG emissions reduction and monitor their emissions to measure progress. On September 15, 2010, the EPA announced that the Climate Leaders program will phase down the services it offers because climate programs operated by states are now robust enough to service individual companies that wish to continue to advance climate leadership through reporting and reduction goals.
- **Energy Star:** Energy Star was established in 1992 by the U.S. EPA and became a joint program with the U.S. DOE in 1996. Energy Star is a program that labels energy efficient products with the Energy Star label. Energy Star enables consumers to choose energy-efficient and cost-saving products. More than 1,400 manufacturers use Energy Star labels on their energy-efficient products.
- **Green Power Partnership:** This program establishes partnerships between the U.S. EPA, and companies and organizations that have bought or are considering buying green power, which is power generated from renewable energy sources. The U.S. EPA offers recognition and promotion to organizations that replace electricity consumption with green power.

3.2.2.4 Corporate Average Fuel Economy Standards

The federal Corporate Average Fuel Economy (CAFE) standards determine the fuel efficiency of certain vehicle classes in the U.S. While the standards had not changed since 1990, as part of the Energy and Security Act of 2007, the CAFE standards were increased in 2007 for new light-duty vehicles to 35 miles per gallon (mpg) by 2020. In May 2009, President Obama announced further plans to increase CAFE standards to require light duty vehicles to meet an average fuel economy of 35.5 mpg by 2016. With improved gas mileage, fewer gallons of transportation fuel would be combusted to travel the same distance, thereby reducing nationwide GHG emissions associated with vehicle travel.

3.2.2.5 Mandatory Reporting of GHGs Rule

Starting January 1, 2010, large emitters of heat-trapping gases began collecting GHG data and reporting their annual GHG emissions to the U.S. EPA. The first reports were generally due March 31, 2011, with extensions available under certain circumstances to

September 30, 2011. Under this reporting rule, approximately 10,000 facilities are covered, accounting for nearly 85 percent of the nation's GHG emissions. This mandatory reporting applies to fossil fuel and industrial GHG suppliers, motor vehicle and engine manufacturers, and facilities that emit 25,000 MTCO₂E or more per year. Vehicle and engine manufacturers outside of the light-duty sector are required to begin phasing in their GHG reporting starting with engine/vehicle model year 2011.

3.2.3 State

The State of California has adopted a number of plans and regulations aimed at identifying statewide and regional GHG emissions caps, GHG emissions reduction targets, and actions and timelines to achieve the target GHG reductions.

3.2.3.1 EO S-3-05—Statewide GHG Emission Targets

This executive order (EO) signed by Governor Schwarzenegger on June 1, 2005, established the following GHG emission reduction targets for the state of California:

- By 2010, reduce GHG emissions to 2000 levels
- By 2020 reduce GHG emissions to 1990 levels
- By 2050 reduce GHG emissions to 80 percent below 1990 levels.

This executive order also directs the secretary of the California EPA (CalEPA) to oversee the efforts made to reach these targets, and to prepare biannual reports on the progress made toward meeting the targets and on the impacts to California related to global warming, including impacts to water supply, public health, agriculture, the coastline, and forestry. With regard to impacts, the report shall also prepare and report on mitigation and adaptation plans to combat the impacts. The first Climate Action Team Assessment Report was produced in March 2006 and has been updated every two years.

3.2.3.2 AB 32—California Global Warming Solutions Act

In response to Executive Order S-3-05, the California legislature passed Assembly Bill (AB) 32 (Nuñez), the "California Global Warming Solutions Act of 2006," which was signed by the governor on September 27, 2006. It requires the CARB to adopt rules and regulations that would reduce GHG emissions to 1990 levels by 2020. The CARB is also required to publish a list of discrete GHG emission reduction measures.

Specifically, AB 32, the California Global Warming Solutions Act of 2006, requires CARB to (State of California 2006):

- Establish a statewide GHG emissions cap for 2020, based on 1990 emissions by January 1, 2008.
 - ü In December 2007, CARB approved a 2020 emission limit of 427 million metric tons of CO₂ equivalent.
- Adopt mandatory reporting rules for significant sources of GHGs by January 1, 2009.
 - ü In December 2007, CARB adopted regulations requiring the largest industrial sources to report and verify their GHG emissions. Facilities began tracking emissions in 2008 and reports were due June 1, 2009. Emissions reporting for 2008 was allowed to be based on best available data. Beginning in 2010, emissions reports became more rigorous and subject to third-party verification.

This action builds on the earlier Senate Bill (SB) 177 (Sher) enacted in 2000, which established a nonprofit California Climate Action Registry for the purpose of administering a voluntary GHG emissions registry.
- Adopt a plan by January 1, 2009 indicating how emission reductions will be achieved from significant GHG sources via regulations, market mechanisms, and other actions.
 - ü A Climate Change Scoping Plan (Scoping Plan) was approved on December 12, 2008. The Scoping Plan contains the main strategies California will implement to achieve a reduction of 174 million MTCO₂E GHG emissions, or approximately 29 percent from the state's projected 2020 emission level of 596 million MTCO₂E under a BAU scenario. The Scoping Plan is discussed in detail in Section 3.2.3.3 below.
- Adopt regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG, including provisions for using both market mechanisms and alternative compliance mechanisms.
- Convene an Environmental Justice Advisory Committee and an Economic and Technology Advancement Advisory Committee to advise CARB.
 - ü In January 2007, the CARB appointed a 10-member Environmental Justice Advisory Committee and appointed members to the Economic and Technology Advancement Advisory Committee.
- Ensure public notice and opportunity for comment for all CARB actions.
 - ü A number of CARB documents, including the 2020 Emissions Forecast, the Scoping Plan, and the Draft Recommended Approaches for Setting Interim Significance Thresholds, have been circulated for public review and comment.

- Prior to imposing any mandates or authorizing market mechanisms, CARB must evaluate several factors, including but not limited to impacts on California's economy, the environment, and public health; equity between regulated entities; electricity reliability; conformance with other environmental laws; and ensure that the rules do not disproportionately impact low-income communities.

3.2.3.3 Climate Change Scoping Plan

As directed by AB 32, the Climate Change Scoping Plan prepared by CARB in December 2008 includes measures to reduce statewide GHG emissions to 1990 levels by 2020. These reductions are what CARB identified as necessary to reduce forecasted BAU 2020 emissions. CARB will update the Scoping Plan at least once every 5 years to allow evaluation of progress made and to correct the Scoping Plan's course where necessary.

As indicated in Table 4, the majority of reductions is directed at the sectors with the largest GHG emissions contributions—transportation and electricity generation—and involve statutory mandates affecting vehicle or fuel manufacture, public transit, and public utilities. The two measures most applicable to land use planning and development are the Regional Transportation Related GHG Targets and the Energy Efficiency measures. Implementing these two measures accounts for reduction of 31.3 MMTCO₂E emissions, or 21 percent, of the total 146.7 MMTCO₂E in reductions needed for capped sectors.

CARB also lists several other recommended measures which will contribute toward achieving the 2020 statewide reduction goal, but whose reductions are not (for various reasons, including the potential for double counting) additive with the measures listed in Table 4. These include state and local government operations measures, green building, mandatory commercial recycling and other additional waste and recycling measures, water sector measures, and methane capture at large dairies.

The Scoping Plan reduction measures and complementary regulations are described further in the following sections, and are grouped under the two headings of Transportation-related Measures and Non-Transportation-Related Measures as representative of the sectors to which they apply.

3.2.3.4 Transportation-related Emissions Reductions

Transportation accounts for the largest share of the state's GHG emissions. Accordingly, a large share of the reduction of GHG emissions from the recommended measures comes from this sector. To address emissions from vehicles, CARB is proposing a comprehensive three-prong strategy: reducing GHG emissions from

**TABLE 4
CARB SCOPING PLAN-RECOMMENDED GHG REDUCTION MEASURES**

Recommended Reduction Measures	Reductions Counted Towards 2020 Target In MMTCO ₂ E (% total) ²				
ESTIMATED REDUCTIONS RESULTING FROM THE COMBINATION OF CAPPED SECTORS AND COMPLEMENTARY MEASURES	146.7				
California Light-Duty Vehicle Greenhouse Gas Standards	31.7	(22%)			
· Implement Pavley Standards					
· Develop Pavley II light-duty vehicle standards					
Energy Efficiency	26.3	(18%)			
· Building/appliance efficiency, new programs, etc.					
· Increase CHP generation by 30,000 gigaWatts (GWh)					
· Solar Water Heating (AB 1470 goal)					
Renewables Portfolio Standard (RPS) (33% by 2020)	21.3	(14%)			
Low Carbon Fuel Standard	15.0	(10%)			
Regional Transportation-related GHG Targets ¹	5.0	(4%)			
Vehicle Efficiency Measures	4.5	(3%)			
Goods Movement	3.7	(3%)			
· Ship Electrification at Ports					
· System-Wide Efficiency Improvements					
Million Solar Roofs	2.1	(2%)			
Medium/Heavy Duty Trucks	1.4	1.0	0.3	34.4	(23%)
ESTIMATED REDUCTIONS RESULTING FROM UNCAPPED SECTORS	27.3				
Industrial Measures (for sources not covered under cap & trade program)	1.1				
· Oil and Gas Extraction and Transmission					
High Global Warming Potential Gas Measures	20.2				
Sustainable Forests	5.0				
Recycling and Waste (landfill methane capture)	1.0				
TOTAL REDUCTIONS COUNTED TOWARDS 2020 TARGET	174.0³				

SOURCE: Table 2 of CARB 2008b.

¹This number represents an estimate of what may be achieved from local land use changes. It is not the SB 375 regional target. CARB will establish regional targets for each Metropolitan Planning Organization following input of the Regional Targets Advisory Committee and a public stakeholders' consultation process per SB 375.

²Percentages are relative to the capped sector subtotal of 146.7 MMTCO₂E, and may not total 100 due to rounding.

³The total reduction for the recommended measures slightly exceeds the 169 MMTCO₂E of reductions estimated in the BAU 2020 Emissions Forecast. This is the net effect of adding several measures and adjusting the emissions reduction estimates for some other measures.

vehicles, reducing the carbon content of the fuel these vehicles burn, and reducing the miles these vehicles travel.

a. AB 1493—Pavley GHG Vehicle Standards

AB 1493 (Pavley) enacted July 2002, directed CARB to adopt vehicle standards that lowered GHG emissions from passenger vehicles and light duty trucks to the maximum extent technologically feasible, beginning with the 2009 model year. CARB adopted regulations in 2004 and applied to the U.S. EPA for a waiver under the federal Clean Air Act to implement them. Termed “Pavley I,” these regulations cover Model Years 2009 to 2016.

Under federal law, California is the only state allowed to adopt its own vehicle standards, but it cannot implement them until the U.S. EPA grants an administrative waiver. In December 2004, the Alliance of Automobile Manufacturers sued CARB to block implementation of the new regulations and ultimately, in December 2007, a federal judge decided the case in favor of the CARB (*Sacramento Bee* 2007). Despite this ruling, on December 19, 2007 the U.S. EPA announced that it would deny CARB’s waiver request. In January 2008, the State of California sued the U.S. EPA in an attempt to overturn the U.S. EPA’s denial (Marten Law Group 2008).

On June 30, 2009, the U.S. EPA rejected its earlier waiver denial reasoning and granted California the authority to implement these GHG emissions reduction standards for new passenger cars, pickup trucks, and sport utility vehicles. CARB adopted amendments to its new regulations in September 2009 that would enforce AB 1493 but provide vehicle manufacturers with new compliance flexibility.

With these actions, it is expected that the new regulations (Pavley I) will reduce GHG emissions from California passenger vehicles by about 22 percent in 2012 and about 30 percent in 2016 (CARB 2010b) for a total reduction of 31.7 MMTCO₂E counted toward the total statewide reduction target (CARB 2008b) (see Table 4). These reductions are to come from improved vehicle technologies such as small engines with superchargers, continuously variable transmissions, and hybrid electric drives.

CARB planned to adopt sometime in 2010 a second, more stringent, phase of the Pavley regulations, termed “Pavley II” [now known as “Low Emission Vehicle (LEV) III ”], that would cover Model Years 2017 to 2025. Several public workshops on LEV III GHG have been held by the CARB, but to date new regulations have not been adopted.

b. EO S-01-07—Low Carbon Fuel Standard

This executive order signed by Governor Schwarzenegger in January 2007 directed that a statewide goal be established to reduce the carbon intensity of California’s transportation fuels by at least 10 percent by 2020 through a Low Carbon Fuel Standard

(LCFS). CARB adopted the LCFS as a discrete early action measure pursuant to AB 32 in April 2009 and includes it as a reduction measure in its Scoping Plan (see Table 4).

The LCFS is a performance standard with flexible compliance mechanisms intended to incentivize the development of a diverse set of clean, low-carbon transportation fuel options. Its aim is to accelerate the availability and diversity of low-carbon fuels such as biofuels, electricity, and hydrogen, by taking into consideration the full life cycle of GHG emissions. A 10 percent reduction in the intensity of transportation fuels is expected to equate to a reduction of 16.5 MMTCO₂E in 2020. However, in order to account for possible overlap of benefits between LCFS and the Pavley GHG standards, CARB has discounted the contribution of LCFS to 15 MMTCO₂E (CARB 2008b).

c. Regional Transportation-related GHG Targets

The Regional Transportation-Related GHG Targets measure included in the Scoping Plan identifies policies to reduce transportation emissions through changes in future land use patterns and community design, as well as through improvements in public transportation, that reduce VMT. By reducing the miles vehicles travel, vehicle emissions will be reduced. Improved planning and the resulting development are seen as essential for meeting the 2050 emissions target (CARB 2008b p. 20). CARB expects that this measure will reduce transportation-related GHG emissions by about 5 MMTCO₂E or 4 percent of the total statewide reductions attributed to the capped sectors (see Table 4). Specific regional reduction targets established through SB-375 (see discussion below) will determine more accurately what reductions can be achieved through this measure.

d. SB 375—Regional Emissions Targets

The SB 375 was signed in September 2008 and requires CARB to set regional targets for reducing passenger vehicle GHG emissions in accordance with the Scoping Plan measure described above. Its purpose is to align regional transportation planning efforts, regional GHG reduction targets, and land use and housing allocation to reduce GHG emissions by promoting high-density, mixed-use developments around mass transit hubs.

The CARB, in consultation with the Metropolitan Planning Organizations (MPOs), was required to provide each affected region with passenger vehicle GHG emissions reduction targets for 2020 and 2035 by September 30, 2010. The San Diego Association of Governments (SANDAG) is the San Diego region's MPO. On August 9, 2010 CARB released the staff report on the proposed reduction target, which was subsequently approved by CARB on September 23, 2010. The San Diego region will be required to reduce greenhouse gas emissions from cars and light trucks 7 percent per capita by 2020 and 13 percent by 2035 (SANDAG 2010).

The reduction targets are to be updated every 8 years, but can be updated every 4 years if advancements in emissions technologies affect the reduction strategies to achieve the targets.

Once reduction targets are established, each of California's MPOs must prepare and adopt a Sustainable Communities Strategy (SCS) that demonstrates how the region will meet its greenhouse gas reduction targets through integrated land use, housing, and transportation planning. Enhanced public transit service combined with incentives for land use development that provides a better market for public transit will play an important role in the SCS. After the SCS is adopted by the MPO, the SCS will be incorporated into that region's federally enforceable regional transportation plan (RTP). SANDAG is currently completing work on the 2050 RTP, the first such plan in the state that will include an SCS (CARB 2010c; SANDAG 2010). SANDAG released a Draft 2050 RTP, including a SCS, on April 22, 2011. Public review of this Draft ended June 30, 2011.

CARB is also required to review each final SCS to determine whether it would, if implemented, achieve the greenhouse gas emission reduction target for its region. If the combination of measures in the SCS will not meet the region's target, the MPO must prepare a separate Alternative Planning Strategy (APS) to meet the target. The APS is not a part of the RTP.

As an incentive to encourage implementation of the SCS and APS, developers can obtain relief from certain requirements under the California Environmental Quality Act (CEQA) for those projects that are consistent with either the SCS or APS (CARB 2010c).

e. EO S-7-04/SB 1505—California Hydrogen Highway Network

This executive order signed in 2004 designated California's 21 interstate freeways as the California Hydrogen Highway Network, and directed the CalEPA and all other relevant state agencies to plan and build a network of hydrogen-fueling stations along these roadways and in the urban centers. This EO also called for the CalEPA and others to develop by January 1, 2005 a California Hydrogen Economy Blueprint Plan (Blueprint Plan; CalEPA 2005) for the rapid transition to a hydrogen economy in California. The Blueprint Plan was delivered to the Governor in May 2005.

In response to this EO, SB 1505 (Lowenthal), chaptered on September 30, 2006, required the CARB to adopt regulations to ensure that the production and use of hydrogen for transportation purposes contributes to the reduction of GHGs and other air contaminants (Union of Concerned Scientists 2007). The regulation, referenced as the Environmental and Energy Standards for Hydrogen Production, is currently in the development process and is expected to be approved by CARB before the end of 2010. To date this has not occurred.

3.2.3.5 Non-transportation-related Emissions Reductions

In the energy sector, Scoping Plan measures aim to provide better information and overcome institutional barriers that slow the adoption of cost-effective energy-efficiency technologies. They include enhanced energy-efficiency programs to provide incentives for customers to purchase and install more efficient products and processes and building and appliance standards to ensure that manufacturers and builders bring improved products to market. Over the long term, the recommended measures will increase the amount of electricity from renewable energy sources and improve the energy efficiency of industries, homes, and buildings. While energy efficiency accounts for the largest emissions reductions from this sector, other applicable land development measures such as water conservation, materials use and waste reduction, and green building design and development practices, achieve additional emissions reduction.

a. Renewables Portfolio Standard

The Renewables Portfolio Standard (RPS) promotes diversification of the state's electricity supply. Originally adopted in 2002 with a goal to achieve a 20-percent renewable energy mix by 2020, the goal has been accelerated and increased, most recently so by EOs S-14-08 and S-21-09 to a goal of 33 percent by 2020. Its purpose is to achieve a 33-percent renewable energy mix statewide; providing 33 percent of the state's electricity needs met by renewable resources by 2020 (CARB 2008b). The RPS is included in CARB's Scoping Plan list of reduction measures (see Table 4). Increasing the RPS to 33 percent is designed to accelerate the transformation of the electricity sector, including investment in the transmission infrastructure and systems changes to allow integration of large quantities of intermittent wind and solar generation. Renewable energy includes (but is not limited to) wind, solar, geothermal, small hydroelectric, biomass, anaerobic digestion, and landfill gas. Increased use of renewables would decrease California's reliance on fossil fuels, thus reducing emissions of GHGs from the electricity sector. CARB estimates that full achievement of the RPS would decrease statewide GHG emissions by 21.3 MMTCO₂E (CARB 2008b).

b. Million Solar Roofs Program

The Million Solar Roofs Program was created by SB 1 in 2006 and includes the California Public Utilities Commission's (CPUC's) California Solar Initiative and California Energy Commission's (CEC's) New Solar Homes Partnership. It requires publicly owned utilities to adopt, implement, and finance solar-incentive programs to lower the cost of solar systems and help achieve the goal of installing 3,000 megaWatts (MW) of new solar capacity by 2020. The Million Solar Roofs Program is one of CARB's GHG-reduction measures identified in the 2008 Scoping Plan (see Table 4). Achievement of the program's goal is expected to equate to a reduction of 2.1 MMTCO₂E in 2020 statewide BAU emissions (CARB 2008b).

c. SB 1368—Public Utility Emission Standards

The SB 1368 (Parata), passed in 2006, requires the CEC to set GHG-emission standards for entities providing electricity in the state. The bill further requires that the CPUC prohibit electricity providers and corporations from entering into long-term contracts, if those providers and corporations do not meet the CEC's standards (Union of Concerned Scientists 2007).

d. CCR, Title 24, Part 6—California Energy Code

The California Code of Regulations, Title 24, Part 6 is the California Energy Code. This code, originally enacted in 1978 in response to legislative mandates, establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California's energy consumption. The Energy Code is updated periodically to incorporate and consider new energy-efficiency technologies and methodologies as they become available. The most recent amendments to the Energy Code, known as 2008 Title 24, or the 2008 Energy Code, became effective January 1, 2010. 2008 Title 24 requires energy savings of 15–35 percent above the former 2005 Title 24 Energy Code. At a minimum, residential buildings must achieve a 15-percent reduction in their combined space heating, cooling, and water heating energy compared to the 2005 Title 24 standards. Incentives in the form of rebates and tax breaks are provided on a sliding scale for buildings achieving energy efficiency above the minimum 15 percent reduction over 2005 Title 24. The reference to 2005 Title 24 is relevant in that many of the State's long-term energy and GHG reduction goals identify energy-saving targets relative to Title 24 2005. By reducing California's energy consumption, emissions of statewide GHGs may also be reduced.

New construction and major renovations must demonstrate their compliance with the current Energy Code through submission and approval of a Title 24 Compliance Report to the local building permit review authority and the CEC. The compliance reports must demonstrate a building's energy performance through use of CEC-approved energy performance software that shows iterative increases in energy efficiency given selection of various HVAC, sealing, glazing, insulation, and other components related to the building envelope. Title 24 governs energy consumed by the built environment, by the major building envelope systems such as space heating, space cooling, water heating, some aspects of the fixed lighting system, and ventilation. Non-building energy use, or "plug-in" energy use (such as appliances, equipment, electronics, plug-in lighting), are independent of building design and are not subject to Title 24.

e. CCR, Title 24, Part 11—California Green Building Standards

In 2007, Governor Schwarzenegger directed the California Building Standards Commission to work with state agencies on the adoption of green building standards for residential, commercial, and public building construction for the 2010 code adoption

process. A voluntary version of the California Green Building Standards Code, referred to as CalGreen, was added to Title 24 as Part 11 in 2009. The 2010 version of CalGreen took effect January 1, 2011 and instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial and low-rise residential buildings, state-owned buildings, schools, and hospitals. It also includes voluntary tiers (I and II) with stricter environmental performance standards for these same categories of residential and non-residential buildings. Local jurisdictions must enforce the minimum mandatory requirements and may also adopt the Green Building Standards with amendments for stricter requirements.

The mandatory standards require:

- 20 percent mandatory reduction in indoor water use relative to specified baseline levels;
- 50-percent construction/demolition waste diverted from landfills;
- mandatory inspections of energy systems to ensure optimal working efficiency; and
- requirements for low-pollutant emitting exterior and interior finish materials such as paints, carpets, vinyl flooring, and particleboards.

The voluntary standards require:

- Tier I — 15 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 65 percent reduction in construction waste, 10 percent recycled content, 20 percent permeable paving, 20 percent cement reduction, cool/solar reflective roof; and
- Tier II — 30 percent improvement in energy requirements, stricter water conservation requirements for specific fixtures, 75 percent reduction in construction waste, 15 percent recycled content, 30 percent permeable paving, 30 percent cement reduction, cool/solar reflective roof.

Similar to the compliance reporting procedure described above for demonstrating energy code compliance in new buildings and major renovations, compliance with the CalGreen water reduction requirements must be demonstrated through completion of water use reporting forms for new low-rise residential and non-residential buildings. The water use compliance form must demonstrate a 20 percent reduction in indoor water use by either showing a 20 percent reduction in the overall baseline water use as identified in CalGreen or a reduced per-plumbing-fixture water use rate.

Related to CalGreen are the earlier 2000 Sustainable Building Goal (EO D-16-00) and 2004 Green Building Initiative (EO S-20-04). The 2000 Sustainable Building Goal instructed that all state buildings be constructed or renovated and maintained as models of energy, water, and materials efficiency. The 2004 Green Building Initiative recognized further that significant reductions in GHG emissions could be achieved through the

design and construction of new green buildings as well as the sustainable operation, retrofitting, and renovation of existing buildings.

The CARB Scoping Plan includes a Green Building Strategy with the goal of expanding the use of green building practices to reduce the carbon footprint of new and existing buildings. Consistent with CalGreen, the Scoping Plan recognized that GHG reductions would be achieved through buildings that exceed minimum energy-efficiency standards, decrease consumption of potable water, reduce solid waste during construction and operation, and incorporate sustainable materials. Green building is thus a vehicle to achieve the Scoping Plan's statewide electricity and natural gas efficiency targets, and lower GHG emissions from waste and water transport sectors.

In the Scoping Plan, CARB projects that an additional 26 MMTCO₂E could be reduced through expanded green building (CARB 2008b, p.17). However, this reduction is not counted toward the BAU 2020 reduction goal to avoid any double counting, as most of these reductions are accounted for in the electricity, waste, and water sectors. Because of this, CARB has assigned all emissions reductions that occur because of green building strategies to other sectors for meeting AB 32 requirements, but will continue to evaluate and refine the emissions from this sector.

f. SB 97—CEQA GHG Amendments

SB 97 (Dutton), passed by the legislature and signed by the governor on August 24, 2007, required the office of Planning and Research (OPR) on or before July 1, 2009, to prepare, develop, and transmit to the Resources Agency amendments to the CEQA guidelines (Guidelines) to assist public agencies in the evaluation and mitigation of GHGs or the effects of GHGs as required under CEQA, including the effects associated with transportation and energy consumption. SB 97 required the Resources Agency to certify and adopt those guidelines by January 1, 2010. Proposed amendments to the state CEQA Guidelines for GHG emissions were submitted on April 13, 2009, adopted on December 30, 2009, and became effective March 18, 2010.

Section 15064.4 of the amended Guidelines includes the following requirements for determining the significance of impacts from GHG emissions:

(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate, or estimate the amount of GHG emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to:

(1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The

lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or

(2) Rely on a qualitative analysis or performance-based standards.

While the amendments require calculation of a project's contribution, they clearly do not establish a standard by which to judge a significant effect or a means to establish such a standard.

3.2.4 Local

3.2.4.1 San Diego Sustainable Community Program

In 2002, the San Diego City Council unanimously approved the San Diego Sustainable Community Program (SCP) and requested that an *Ad Hoc* Advisory Committee be established to provide recommendations that would decrease GHG emissions from City operations. Actions identified in the SCP include:

1. Participation in the International Council for Local Environmental Initiatives (ICLEI) Cities for Climate Protection (CCP) Campaign to reduce GHG emissions, and in the California Climate Action Registry;
2. Establishment of a reduction target of 15 percent by 2010, using 1990 as a baseline (Note: this reduction target was not met); and
3. Direction to use the recommendations of the *Ad Hoc* Advisory Committee as a means to expand the GHG Emission Reduction Action Plan for the City organization and broaden its scope to include community actions.

3.2.4.2 Cities for Climate Protection

As a participant in the ICLEI Cities for Climate Protection Program, the City made a commitment to voluntarily decrease its GHG emissions by 2030. The Program includes five milestones: (1) establish a CCP campaign, (2) engage the community to participate, (3) sign the U.S. Mayors Climate Protection Agreement, (4) take initial solution steps, and (5) perform a GHG audit. The City has advanced past Milestone 3 by signing the Mayor's agreement and establishing actions to decrease City Operations' emissions.

3.2.4.3 Climate Protection Action Plan

In July 2005, the City of San Diego developed a Climate Protection Action Plan (CPAP) that identifies policies and actions to decrease GHG emissions from City operations.

Recommendations included in CPAP for transportation included measures such as increasing carpooling and transit ridership, improving bicycle lanes, and converting the City vehicle fleet to low-emission or non-fossil-fueled vehicles. Recommendations in the CPAP for energy and other non-transportation emissions reductions included increasing building energy efficiency (i.e., requiring that all City projects achieve the U.S. Green Building Council's LEED Silver standard); reducing waste from City operations; continuing use of landfill methane as an energy source; reducing the urban heat island by avoiding dark roofs and roads which absorb and retain heat; and increasing shade tree and other vegetative cover plantings.

Because of City actions implemented earlier between 1990 and 2002, moderate GHG emissions reductions were reported in the CPAP. City actions taken to capture methane gas from solid waste landfills and sewage treatment plants resulted in the largest decrease in GHG emissions. Actions taken thus far to incorporate energy efficiency and alternative renewable energy reached only 5 percent of the City's 2010 goal. The transportation sector remains a significant source of GHG emissions in 2010 and has had the lowest GHG reductions, reaching only 2.2 percent of the goal for 2010. The City of San Diego General Plan includes a Policy CE-A.13 to regularly monitor and update the CPAP.

3.2.4.4 Sustainable Building Policies

In several of its policies, the City aims to reduce GHG emissions by requiring sustainable development practices in City operations and incentivizing sustainable development practices in private development. In Council Policy 900-14—Green Building Policy, adopted in 1997, Council Policy 900-16—Community Energy Partnership, and the updated Council Policy 900-14—Sustainable Buildings Expedite Program, last revised in 2006, the City establishes a mandate for all City projects to achieve the U.S. Green Building Council's LEED Silver standard for all new buildings and major renovations over 5,000 square feet. Incentives are also provided to private developers through the Expedite Program, which expedites project review of green building projects and discounts project review fees.

The City has also enacted codes and policies aimed at helping the City achieve the State's 50-percent waste diversion mandate, including the Refuse and Recyclable Materials Storage Regulations (Municipal Code Chapter 14, Article 2, Division 8), Recycling Ordinance (O-19678 Municipal Code Chapter 6, Article 6, Division 7), and the Construction and Demolition (C & D) Debris Deposit Ordinance (O-19420 & O-19694 Municipal Code Chapter 6, Article 6, Division 6).

3.2.4.5 General Plan

The City of San Diego 2008 General Plan includes several climate change-related policies aimed at reducing GHG emissions from future development and City operations. For example, Conservation Element policy CE-A.2 aims to “reduce the City’s carbon footprint” and to “develop and adopt new or amended regulations, programs, and incentives as appropriate to implement the goals and policies set forth” related to climate change. The Land Use and Community Planning Element, the Mobility Element, the Urban Design Element, and the Public Facilities, Services and Safety Element also identify GHG reduction and climate change adaptation goals. These elements contain policy language related to sustainable land use patterns, alternative modes of transportation, energy efficiency, water conservation, waste reduction, and greater landfill efficiency. The overall intent of these policies is to support climate protection actions, while retaining flexibility in the design of implementation measures, which could be influenced by new scientific research, technological advances, environmental conditions, or state and federal legislation.

Cumulative impacts of GHG emissions were qualitatively analyzed and determined to be significant and unavoidable in the 2008 Program Environmental Impact Report (PEIR) for the General Plan. A PEIR Mitigation Framework was included that indicated “for each future project requiring mitigation (measures that go beyond what is required by existing programs, plans and regulations), project-specific measures will [need to] be identified with the goal of reducing incremental project-level impacts to less than significant; or the incremental contributions of a project may remain significant and unavoidable where no feasible mitigation exists.”

3.2.4.6 Climate Mitigation and Adaptation Plan

A citywide Climate Mitigation and Adaptation Plan (CMAP) is currently under development to provide a mechanism for the City to achieve the goals of AB 32 and the CARB Scoping Plan at a program level. The CMAP elements are being prepared pursuant to guidance from the amended CEQA Guidelines and CARB recommendations for what constitutes an effective GHG reduction plan, as follows.

Section 15183.5 of the amended Guidelines includes the following requirements for plans that serve to tier and streamline the analysis of GHG emissions.

- (a) Lead agencies may analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in a general plan, a long-range development plan, or a separate plan to reduce GHG emissions. Later project-specific environmental documents may tier from and/or incorporate by reference that existing programmatic review. ...

(b) Plans for the Reduction of GHG Emissions. Public agencies may choose to analyze and mitigate significant GHG emissions in a plan for the reduction of GHG emissions or similar document. A plan to reduce GHG emissions may be used in a cumulative impact analysis as set forth below. Pursuant to sections 15064 (h)(3) and 15130(d), a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable, if the project complies with the requirements in a previously adopted plan or mitigation program under specified circumstances.

(1) Plan Elements. A plan for the reduction of GHG emissions should:

- (A) Quantify GHG emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area.
- (B) Establish a level, based on substantial evidence, below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable.
- (C) Identify and analyze the GHG emissions resulting from specific actions or categories of actions anticipated within the geographic area.
- (D) Specify measures or a group of measures including performance standards that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specific emissions level.
- (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels.
- (F) Be adopted in a public process following environmental review.

(2) Use with Later Activities. A plan for the reduction of GHG emissions, once adopted following certification of an EIR or adoption of an environmental document, may be used in the cumulative impacts analysis of later projects. An environmental document that relies on a GHG reduction plan for a cumulative impacts analysis must identify those requirements specified in the plan that apply to the project, and, if those requirements are not otherwise binding and enforceable, incorporates those requirements as mitigation measures applicable to the project. If there is substantial evidence that the effects of a particular project may be cumulatively considerable notwithstanding the project's compliance with the specified

requirements in the plan for the reduction of GHG emissions, an EIR must be prepared for the project.

- (c) Special Situations. As provided in the Public Resource Code sections 21155.2 and 21159.28, environmental documents for certain residential and mixed-use projects and transit priority projects, as defined in section 21155, that are consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in an applicable sustainable communities strategy or alternative planning strategy [refer to Section 3.2.3.4.d] need not analyze global warming impacts resulting from cars and light duty trucks. A lead agency should consider whether such projects may result in GHG emissions from other sources, however, consistent with these Guidelines.

As a Climate Mitigation and Adaptation Plan it is anticipated that the City's CMAP will contain measures that address both the causes of climate change (i.e., through mitigation) and the effects of climate change (i.e., through adaptation). It is anticipated that the City's CMAP would thus offer both proactive options (mitigation) and also a plan to live with the consequences (adaptation) of global warming. The City's CMAP is anticipated to be completed in early 2012. Once adopted, discretionary and ministerial projects within the City's jurisdiction would be evaluated through an Initial Study or similar review to determine conformance with the measures identified in the CMAP.

3.2.4.7 Regional Climate Action Plan

The SANDAG Regional Climate Action Plan (RCAP) is a long-range policy (year 2030) that focuses on transportation, electricity, and natural gas sectors. It is a complement to the Regional Energy Strategy 2030 Update and feeds into the SANDAG Regional Transportation Plan (RTP) and Regional Comprehensive Plan (RCP). It is currently in process of being prepared.

As indicated above, per the requirements of SB 375 the San Diego region will be required to reduce greenhouse gas emissions from cars and light trucks 7 percent per capita by 2020 and 13 percent by 2035 (SANDAG 2010). These reduction targets have been incorporated into the 2050 RTP and SCS for the San Diego region.

4.0 Significance Criteria and Analysis Methodologies

4.1 Determining Significance

The current CEQA Guidelines Appendix G Environmental Checklist includes the following two questions regarding assessment of GHG emissions:

- 1) Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- 2) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of GHGs?

As stated in the Guidelines, these questions are “intended to encourage thoughtful assessment of impacts and do not necessarily represent thresholds of significance” (Title 14, Division 6, Chapter 3 Guidelines for Implementation of the CEQA, Appendix G, VII Greenhouse Gas Emissions). To date, there have been no local, regional, state, or federal regulations establishing a threshold of significance to determine project-specific impacts of GHG emissions. The CEQA Guidelines require Lead Agencies to adopt GHG thresholds of significance. When adopting these thresholds, the amended Guidelines allow Lead Agencies to consider thresholds of significance adopted or recommended by other public agencies, or recommended by experts, provided that the thresholds are supported by substantial evidence, and/or to develop their own significance threshold.

The City has not adopted its own GHG Thresholds of Significance for CEQA and is following guidance from the California Air Pollution Control Officers Association (CAPCOA) report *CEQA & Climate Change*, dated January 2008, for interim screening criteria to determine when a GHG analysis would be required and information from the CARB Scoping Plan and BAU 2020 Forecast to determine when a cumulatively significant contribution of GHGs has occurred (CAPCOA 2008).

Although the criteria discussed below are interim guidance, they represent a good faith effort to evaluate whether GHG impacts from a project are significant, taking into account the type and location of the proposed development, the best available scientific data regarding GHG emissions, and the current statewide goals and strategies for reduction of GHG emissions. It is also important to note that the San Diego Air Pollution Control District (SDAPCD) has not provided guidance on the quantification of GHG emissions or emissions thresholds for the San Diego Region.

4.1.1 900 MTCO₂E Screening Criterion

A 900-metric-ton screening criterion for determining when a detailed GHG reduction analysis is required was chosen by the City based on available guidance from the CAPCOA report. The CAPCOA report references the 900-metric-ton guideline as a conservative threshold for requiring further analysis and mitigation. This emission level is based on the amount of vehicle trips, the typical energy and water use, and other factors associated with projects. CAPCOA identifies the following project types shown in Table 5 that are estimated to emit approximately 900 metric tons or MTCO₂E of GHGs annually as shown. Projects that meet the following criteria are not required by the City to prepare a GHG technical analysis report.

**TABLE 5
PROJECT TYPES THAT REQUIRE A GHG ANALYSIS AND MITIGATION**

Project Type	Project Size that Generates Approximately 900 Metric Tons of GHGs per Year
Single-Family Residential	50 units
Apartments/Condominiums	70 units
General Commercial Office Space	35,000 square feet
Retail Space	11,000 square feet
Supermarket/Grocery Space	6,300 square feet

4.1.2 Further Analysis Demonstrating a 28.3 Percent Reduction in BAU

The City of San Diego uses the 900 MTCO₂E net increase “trigger” for determining when a project is required to demonstrate a GHG reduction when compared to BAU. For projects that do not meet the criteria outlined in Table 5 or emit a net increase of GHGs in excess of 900 MTCO₂E annually, the City requires a GHG emissions analysis to demonstrate that the project design achieves a 28.3 percent reduction relative to BAU GHG emissions. As demonstrated below, net emissions are not project to exceed the City’s GHG screening criterion of 900 MMTCO₂E annually, and further analysis to determine the project’s reduction compared to the BAU 2020 model is not warranted (City of San Diego 2008).

4.2 Methodology

Emission estimates were calculated for the three GHGs of primary concern (CO₂, CH₄, and N₂O) that would be emitted from project construction and from the project’s five sources of operational emissions: on-road vehicular traffic, electricity generation, natural gas consumption, water usage, and solid waste disposal. Construction GHG emissions were estimated using the California Emissions Estimator Model (CalEEMod) Version

2011.1.1 released by CARB in March 2011. GHG emissions due to the other operational sources were estimated using estimated energy and water use and GHG emission factors obtained from a variety of sources. Emissions were estimated in terms of total metric ton CO₂ equivalent (MTCO₂E). CO₂-equivalent emissions are the preferred way to assess combined GHG emissions because they give weight to the GWP of a gas. The GWP, as described above in Section 1.1, is the potential of a gas to warm the global climate in the same amount as an equivalent amount of emissions of CO₂. Carbon dioxide (CO₂) thus has a GWP of 1. Methane (CH₄) has a GWP of 21 and nitrous oxide (N₂O) has a GWP of 310, which means they have a greater global warming effect than CO₂.

The methodologies, assumptions, and calculations for each GHG emission source are discussed in detail in Section 5.1.

5.0 Impact Analysis

5.1 GHG Emissions

Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?

5.1.1 Impacts

The following is a discussion and quantification of the GHG emissions that would occur as a result of the project due to the following GHG sources: (1) vehicles, (2) electricity generation, (3) natural gas combustion, (4) water use, (5) solid waste generation, and (6) construction.

5.1.1.1 Vehicle Emissions

Transportation-related GHG emissions comprise the largest sector contributing to both inventoried and projected statewide GHG emissions, accounting for 38 percent of the projected total statewide 2020 BAU emissions (CARB 2008a). On-road vehicles alone account for 35 percent of forecasted 2020 BAU emissions. GHG emissions from vehicles come from the combustion of fossil fuels (primarily gasoline and diesel) in vehicle engines. The quantity and type of transportation fuel consumed determines the amount of GHGs emitted from a vehicle. Therefore, not only are vehicle engine and fuel technology of importance, but so are also the amount of vehicle trips and trip distances that motorists travel.

A Traffic Impact Analysis was prepared to determine any traffic-related impacts within the study area roadways and intersections due to the project. While future traffic volumes would be greater than the existing condition due to regional growth, the project would not generate an increase in traffic volumes and the project does not propose to alter the general external trip distribution patterns within the study area (Rick Engineering 2011a). Therefore, there would be no net increase in vehicle emissions due to the project. Existing and future vehicle GHG emissions under the project would be the same as the existing and future vehicle GHG emissions under No Project. The existing vehicle GHG emissions of 6,894 MTCO₂E per year calculated above in Section 3.1.3 would also apply to the “baseline plus project” scenario.

5.1.1.2 Electricity Emissions

Electric power generation accounts for the second largest sector contributing to both inventoried and projected statewide GHG emissions, comprising 24 percent of the projected total 2020 statewide BAU emissions (CARB 2008a). Buildings use electricity for lighting, heating and cooling. GHGs are generated during the generation of electricity from fossil fuels at off-site in power plants. A building’s electricity use is thus associated with the off-site or indirect emission of GHGs at the source of electricity generation (power plant).

The project would include the construction of a parking structure as well as several park amenities, including a visitor center, valet station, and restrooms. Electricity would be required for the parking structure, these amenity buildings, and exterior lighting.

GHG emissions from electricity generation were calculated by multiplying the total consumption in kilowatt hours (kWh) by electricity GHG emission factors applicable to the project location and utility provider. The utility provider for the project area is SDG&E. The SDG&E GHG emission factors are summarized in Table 6.

**TABLE 6
SAN DIEGO GAS & ELECTRIC INTENSITY FACTORS**

GHG	Intensity Factor ¹ (lbs/MWh)
Carbon Dioxide (CO ₂)	780.79
Methane (CH ₄)	0.029
Nitrous Oxide (N ₂ O)	0.011

¹SOURCE: CalEEMod Version 2011.1.1., CARB 2011

lbs = pounds

MWh = megaWatt hour

These energy intensity values were obtained from the CalEEMod program and are based on CARB’s Local Government Operations Protocol (LGOP) (for CO₂) and E-Grid (for CH₄ and N₂O) values.

The parking structure would consume 660,000 kWh of electricity per year (Kuhn pers. comm. 2011). This equates to the emission of 235 MTCO₂E per year.

The total electricity requirement for the visitor center (1,400 square feet), valet station (36 square feet for enclosed portion), and restrooms (1,585 square feet) is not known at this time. To quantify GHG emissions due to electricity consumption associated with these buildings, it was assumed that the electricity consumption would be similar to an average commercial use. The average electricity consumption rate for commercial uses was obtained from consumption data published by the United States Energy Information Administration (U.S. EIA). The average annual consumption rate for commercial uses is 14.1 kWh per square foot per year (U.S. EIA 2006). This rate was multiplied by the total square footage of the buildings to obtain the total annual electricity consumption of 42,596 kWh. This equates to the emission of 15 MTCO₂E per year.

The project would also require exterior lighting not associated with the parking structure or any other proposed structures. The project would install 233 50-watt lights that would be on for an average of 12 hours per day in the evening and nighttime hours. This would consume 51,027 kWh per year. This equates to the emission of 18 MTCO₂E per year.

Table 7 summarizes the total electricity consumption and the associated GHG emissions for the project. Electricity GHG emission calculations are contained in Attachment 2.

**TABLE 7
TOTAL ELECTRICITY CONSUMPTION AND ASSOCIATED GHG EMISSIONS**

Source	Electricity Consumption (kWh)	Electricity GHG Emissions (MTCO ₂ E per Year)
Parking Structure	660,000	235
Visitor Center	19,740	7
Valet Station	508	0
Restrooms	22,348	8
Exterior Lighting	51,027	18
TOTAL	753,623	268

5.1.1.3 Natural Gas Emissions

Buildings combust natural gas primarily for heating and cooking purposes, resulting in the emission of GHGs. GHG emissions from natural gas combustion were calculated by multiplying the total consumption in million cubic feet by natural gas GHG emission factors. The natural gas GHG emission factors are summarized in Table 8.

TABLE 8
NATURAL GAS EMISSION FACTORS

GHG	Natural Gas Combustion Emission Factors (pound/million ft ³)
Carbon Dioxide (CO ₂)	120,000
Methane (CH ₄)	2.3
Nitrous Oxide (N ₂ O)	2.2

SOURCE: U.S. EPA 1998.

It was assumed that natural gas would be used only in the amenity buildings discussed above. Like electricity, the total natural gas requirement for the visitor center, valet station, and restrooms is not known at this time. To quantify GHG emissions due to natural gas combustion for these buildings, it was assumed that the natural gas consumption would be similar to an average commercial use. The natural gas consumption rate for a commercial consumer was assumed to be 1.2 thousand British thermal units per square foot per year (CARB 2011). This rate was multiplied by the total square footage of the buildings to obtain the total annual natural gas consumption of 3,554 cubic feet per year (1 cubic foot is approximately equivalent to 1,020 BTU). This equates to the emission of 0.19 MTCO₂E per year. Natural gas GHG emission calculations are contained in Attachment 2.

5.1.1.4 Water Emissions

The provision of potable water consumes large amounts of energy associated with source and conveyance, treatment, distribution, end use, and wastewater treatment. This type of energy use is known as embodied energy. The GHG emissions associated with water use are calculated by multiplying the embodied energy in a gallon of potable water by the total number of gallons projected to be consumed by the project and then by the electricity generation GHG emissions factors shown in Table 6. For these estimates, it is assumed that water delivered to the project site would have an embodied energy of 2,779 kWh/acre foot, or 0.0085 kWh/gallon (Torcellini 2003).

A preliminary water demand analysis was prepared for the project (Rick Engineering 2011b). The analysis calculates the estimated increase in total water use for the project. The project would use 8.85 acre-feet per year. This is a net increase of 5.85 acre-feet per year. The embodied energy demand associated with 8.85 acre-feet of water is 24.51 MWh/year. This was converted to GHG emissions with the same electrical grid coefficients as the other purchased electricity. The resulting emissions amount to 8.73 MTCO₂E per year. Water use GHG emission calculations are contained in Attachment 2.

5.1.1.5 Solid Waste Emissions

The disposal of solid waste produces GHG emissions from anaerobic decomposition in landfills, incineration, and transportation of waste. A preliminary Waste Management Plan was prepared for the project. The expected annual waste to be generated during the completion of the project would be consistent with the annual waste that is generated today, which varies day to day. There would be no significant increase in solid waste generation (Rick Engineering 2011c). Therefore, there would be no net increase in GHG emissions associated with solid waste.

5.1.1.6 Construction Emissions

Construction activities emit GHGs primarily through combustion of fuels (mostly diesel) in the engines of off-road construction equipment and through combustion of diesel and gasoline in on-road construction vehicles and in the commute vehicles of the construction workers. Smaller amounts of GHGs are also emitted through the energy use embodied in any water use (for fugitive dust control) and lighting for the construction activity. Every phase of the construction process, including demolition, grading, paving, and building, emits GHG emissions in volumes proportional to the quantity and type of construction equipment used. The heavier equipment typically emits more GHGs per hour of use than the lighter equipment because of their greater fuel consumption and engine design.

Construction GHG emissions were calculated using the construction module of the CalEEMod program. CalEEMod was developed by the CARB and an air quality consultant, with the participation of several state air districts, including the South Coast Air Quality Management District and the SDAPCD. In brief, the model estimates criteria air pollutants and GHG emissions by multiplying emission source intensity factors by estimated quantities of emission sources.

CalEEMod estimates construction emissions for each year of construction activity based on the annual construction equipment profile and other factors determined as needed to complete all phases of construction by the target completion year. As such, each year having reported construction emissions has varying quantities of GHG emissions. However, the Association of Environmental Professionals (AEP) has recommended that total construction GHG emissions resulting from a project be amortized over 30 years and added to operational GHG emissions (AEP 2010). Estimates of the total emissions from construction activities estimated by CalEEMod were thus divided by 30, in accordance with the AEP recommendations.

The project is scheduled for a 24-month overall construction duration. This schedule is based on “typical working hours” with hours of operation between 7:00 A.M. and 7:00 P.M., Monday through Friday. Specific activities, such as extensive on-road equipment operations, underground utility tie-ins, utility shutdowns, and roadway disruptions, would

occur outside “typical working hours” in order to minimize impacts to park visitors, park operations, and surrounding operations. Activities scheduled outside the noted “typical working hours” would occur in coordination and with the authorization of City Development Services Department/City Park and Recreation staff approval. The actual after hours work would be flexible to remain responsive to the schedule of a particular evening’s event. The project’s construction includes a total of four phases, described as follows:

Phase I – Utility Relocation and Restroom Demolition Road Construction: Phase I would entail underground wet and dry utility relocation east of the proposed parking structure and along Presidents Way with emphasis on maintaining required services and access. Also, the north access point to Pan American Road West would be widened for temporary (Phase II) traffic circulation. ~~consist of demolishing the existing restroom facility in the Alcazar parking lot and relocating the existing utilities throughout project footprint.~~ This stage of the project is expected to begin October 2012, take approximately two months for completion, and require between 25 to 30 workers on-site per day. On-site construction equipment would include 1 Bobcat, 5 backhoes, 1 loader, 5 forklifts, and 1 mobile crane. Temporary construction equipment used for material deliveries would include flatbed trucks (23 total trips), concrete trucks (29 total trips), dump trucks (21 total trips), and pickup trucks (44 total trips). There is estimated to be approximately 117 total truck trips for purposes of material delivery and pickup. On average, construction would occur during “typical working hours.”

Phase II – Centennial Bridge and Parking Structure Construction: Phase II consists of constructing Centennial Bridge and the Organ Pavilion parking structure. ~~off the existing Cabrillo Bridge, a new three-level, 798-stall parking structure at the location of the current Organ Pavilion parking lot, and a rooftop park above the parking structure.~~ Phase II would occur in two stages: Phases IIa and IIb. Phase IIa (approximately six months) would involves the construction of the west portion of the pedestrian promenade that passes over the Centennial Road tunnel, to allow temporary traffic circulation during Phase IIb (approximately eight months), while also starting the site preparation for the parking structure. This stage of the project is expected to take approximately 14 months for completion and require between 120 to 135 workers on-site per day at the peak of activity. On-site construction equipment would include 8 Bobcats, 3 backhoes, 8 loaders, 9 forklifts, 1 skytrack forklift, 2 excavators, 1 drill rig, 8 compressors, 3 concrete pumps, 1 paving machine, 18 generators, 31 trucks, 12 scissor lifts, 2 boom lifts, 4 mobile cranes, 1 tower crane, and 1 man lift. Temporary construction equipment used for material delivery/pickup would include flatbed trucks (1,077 total trips), concrete trucks (1,745 total trips), dump trucks (10,400 total trips), and pickup trucks (total trips discussed below). On average, construction would occur during “typical working hours.”

The schedule duration for the parking structure excavation and export activity would be approximately 40 consecutive working days using dual shifts. Soil export hauling would be coordinated to occur outside the peak traffic hours. On average, the operation would require a fleet of 20 to 25 double bottom dump trucks cycling every 45 to 60 minutes between the project site and the Arizona Street Landfill. This would equate to 13,600 to 17,000 round trips over a distance of approximately 2.8 miles, or 76,160 to 95,200 total hauling miles traveled.

In an effort to minimize impacts to park visitors, parking, and general park operations, work on portions of the parking structure may be accelerated by a two shift operation, with the first shift working from 1:00 A.M. to 9:30 A.M. and second shift working from 9:30 A.M. to 6:00 P.M. Activities intended for dual-shift may include excavation and export, concrete formwork, reinforcing steel placement, and concrete placement and finishing. Activities scheduled outside the “typical working hours” would occur only as coordinated with and granted by the City Park and Recreation staff

Phase III – Alcazar Parking Lot and Pan American Promenade Construction:

Phase III would begin once the new parking structure is operational. Phase III would involve demolition of the existing restroom structure (with the permanent facilities operational on top of the parking structure), utility realignments at the intersection of Pan American Road and Pan American Road West, demolition, regrading for ADA requirements, and replacement of the existing Alcazar parking lot, including tie-in to the new Centennial Bridge roadway; realignment of the connector road from the Alcazar parking lot to Pan American Road; associated retaining walls to allow grade separation between the vehicular roadway and pedestrian/tram promenade; and improvements to Pan American Road East fronting the new parking structure. This stage of the project is expected to take approximately four months for completion and require between 30 to 40 workers on-site per day. On-site construction equipment would include 5 bobcats, 1 loader, 1 concrete pump, 1 paving machine, and 6 trucks. Temporary construction equipment used for material delivery/pickup would include flatbed trucks (25 total trips), concrete trucks (15 total trips), dump trucks (18 total trips), and pickup trucks (53 total trips). There is estimated to be approximately 111 total truck trips for purposes of material delivery/pickup. On average, construction would occur during “typical working hours.”

Phase IV – The Pedestrian/Tram Promenade, Mall, and Plaza Improvements:

Phase IV would consist of staged demolition of existing pavement, hardscape, landscape, and fixtures; finish grading; site utilities; and site improvements, including hardscape and landscape to complete finishes along the pedestrian/tram promenade and to rehabilitate the Plaza de California, El Prado, Plaza de Panama, and the Mall. This stage of the project is expected to take approximately four months for completion and require between 40 to 50 workers on-site per day. On-site construction equipment would include 8 Bobcats, 3 backhoes, 5 loaders, 2 forklifts, 2 concrete pumps, 8 trucks,

and 1 mobile crane. Temporary construction equipment used for material delivery/pickup would include flatbed trucks (301 total trips), concrete trucks (224 total trips), dump trucks (247 total trips), and pickup trucks (279 total trips). There is estimated to be approximately 1,051 total truck trips for purposes of material delivery/pickup. On average, construction would occur during “typical working hours.”

Table 9 summarizes the CalEEMod construction equipment parameters for each phase. Only the equipment anticipated to operate simultaneously was entered into CalEEMod. For example, as discussed under Phase II above, there would be 18 generators on-site. However, not all 18 generators would operate at one time.

**TABLE 9
CONSTRUCTION EQUIPMENT PARAMETERS**

Phase	Length (Days)	Equipment Type	Amount	Horsepower	Load Factor
Phase I	45	Cranes	1	208	0.43
		Forklifts	5	149	0.30
		Skid Steer Loaders	1	37	0.55
		Tractors/Loaders/Backhoes	6	75	0.55
Phase II	305	Aerial Lifts	2	34	0.46
		Air Compressors	4	78	0.48
		Bore/Drill Rigs	1	82	0.75
		Cranes	5	208	0.43
		Excavators	2	157	0.57
		Forklifts	5	149	0.30
		Generator Sets	4	84	0.74
		Grader	1	162	0.61
		Pavers	1	89	0.62
		Pumps	3	84	0.74
		Skid Steer Loaders	8	37	0.55
		Tractors/Loaders/Backhoes	11	75	0.55
		Phase III	85	Pavers	1
Pumps	1			84	0.74
Skid Steer Loaders	5			37	0.55
Tractors/Loaders/Backhoes	1			75	0.55
Phase IV	85	Cranes	1	208	0.43
		Forklifts	2	149	0.30
		Pumps	2	84	0.74
		Skid Steer Loaders	8	37	0.55
		Tractors/Loaders/Backhoes	8	75	0.55

SOURCE: Horst, personal communication 2011.

Since a subcontractor has not yet been selected for the project, the exact make, model, and age of the equipment cannot be known at this time. Equipment with model year 2008 or later will have Tier 3 or Tier 4 engines. For the purposes of this analysis, it was assumed that equipment would be older and have Tier 2 engines.

Additionally, emissions due to export hauling activities discussed above were modeled. The number of trips would be distributed evenly over the 40-day hauling period. This

would result in a total of 340 to 425 trips per day so 425 trips per day was used as a worst-case analysis.

Table 10 summarizes the estimated GHG emissions due to construction activities. CalEEMod input and output are provided in Attachment 3.

**TABLE 10
CONSTRUCTION GHG EMISSIONS
(metric tons)**

Year	CO ₂	CH ₄	N ₂ O	MTCO ₂ E
2012	362.10	0.04	0.00	363.00
2013	2,917.79	0.33	0.00	2,924.69
2014	741.16	0.08	0.00	742.84
<i>TOTAL</i>	<i>4,021.05</i>	<i>0.45</i>	<i>0.00</i>	<i>4,030.53</i>
Amortized Over 30 Years	134.04	0.02	0.00	134.35

As shown, the project would result in approximately 134 MTCO₂E when amortized over 30 years.

5.1.1.7 Total Emissions

Table 11 summarizes the existing study area emissions without the project, the study area emissions with the project, and the net increase in emissions due to implementation of the project.

**TABLE 11
SUMMARY OF BASELINE AND PROJECT GHG EMISSIONS
(MTCO₂E)**

Emission Source	Study Area Emissions without the Project	Study Area Emissions with the Project	Net Increase in GHG Emissions due to the Project
Vehicles	6,893.63	6,893.63	0.00
Electricity	12.08	268.27	256.19
Natural Gas	0.00	0.19	0.19
Water	2.95	8.73	5.78
Solid Waste	0.00	0.00	0.00
Construction	N/A	134.35	134.35
TOTAL	6,908.67	7,305.18	396.52

5.1.2 Significance of Impacts

As shown in Table 11, without implementation of the project, the study area emits approximately 6,909 MTCO₂E annually. Most of this is due to vehicle traffic through the study area. The total emissions after implementation of the project would be approximately 7,305 MTCO₂E annually. As shown, the vehicle emissions are the same as the “without project.” This is because the project would not result in an increase in vehicle traffic. Finally, as shown in Table 11, the project would result in a net total of approximately 397 MTCO₂E per year. This increase is due to additional exterior lighting, additionally energy use in the parking garage and other structures, and additional water use. This is less than the City’s screening criteria of 900 MTCO₂E per year. Therefore, no additional analysis is required and impacts would be less than significant.

5.2 Project Consistency with Adopted GHG Plans, Policies, and Regulations

Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHGs?

5.2.1 Impacts

The regulatory plans and policies discussed in Section 3.2 above aim to reduce federal, state, and local GHG emissions by primarily targeting the largest emitters of GHGs: the transportation and energy sectors. Plan goals and regulatory standards are thus largely focused on the automobile industry and public utilities. For the transportation sector, the reduction strategy is generally three pronged: to reduce GHG emissions from vehicles by improving engine design; to reduce the carbon content of transportation fuels through research, funding, and incentives to fuel suppliers; and to reduce the miles these vehicles travel through land use change and infrastructure investments.

For the energy sector, the reduction strategies aim to: reduce energy demand; impose emission caps on energy providers; establish minimum building energy and green building standards; transition to renewable non-fossil fuels; incentivize homeowners and builders; fully recover landfill gas for energy; expand research and development; and so forth.

As discussed above, the project would not result in an increase in traffic on area roadways. Sustainable design that would be incorporated into the project to reduce the project’s overall demand for energy include installation of energy- and water-efficient lighting and irrigation systems. In addition, the parking structure was designed such that it is naturally ventilated without the need for mechanical equipment and has access to natural lighting during the day.

5.2.2 Significance of Impacts

The project is consistent with the goals and strategies of local and state plans, policies, and regulations aimed at reducing GHG emissions from land use and development. The project would include installation of energy- and water-efficient lighting and irrigation systems, and the parking structure would not require mechanical equipment. Additionally, the project would result in less than a 900 MTCO₂E net increase in GHG emissions. Impacts would be less than significant.

6.0 Conclusions and Recommendations

As summarized in Table 11 above, implementation of the project would result in a net increase of approximately 397 MTCO₂E per year. This is less than the City's screening threshold of 900 MTCO₂E. Therefore, emissions would not be significant. Additionally, the project is consistent with the goals and strategies of local and state plans, policies, and regulations aimed at reducing GHG emissions from land use and development.

7.0 References Cited

Association of Environmental Professionals (AEP)

2010 Spring 2010 Advanced CEQA Workshop. San Diego Chapter. May 13.

Australian Government

2007 *Montreal Protocol on Substances that Deplete the Ozone Layer*. Department of the Environment and Water Resources (DEWR). Obtained from the DEWR website at <http://www.environment.gov.au/atmosphere/ozone/legislation/montp.html> on July 27, 2007.

California Air Pollution Control Officers Association (CAPCOA)

2008 CEQA and Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act. January.

California Air Resources Board (CARB)

2007 California 1990 Greenhouse Gas Emissions Level and 2020 Emissions Limit. November 16.

- 2008a California 2020 GHG Emissions Forecast. Accessed June 1, 2010 from the CARB website at <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>. Last updated October 2008; last reviewed May 28, 2010.
- 2008b Climate Change Scoping Plan: A Framework for Change. Accessed from the CARB website April 15, 2010 at http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. December.
- 2010a *Climate Car Standards – Pavley, Assembly Bill 1493*. Obtained from the CARB website at <http://www.arb.ca.gov/cc/ccms/ccms.htm>, last reviewed March 10, 2010, on April 22.
- 2010b *Senate Bill 375 – Regional Targets*. Obtained from the CARB website at <http://www.arb.ca.gov/cc/sb375/sb375.htm> on October 29.
- 2010c *Senate Bill 375 – Regional Targets*. Obtained from the CARB website at <http://www.arb.ca.gov/cc/sb375/sb375.htm> on October 29.
- 2011 California Emissions Estimator model (CalEEMod). User's Guide Version 2011.1. Prepared for the South Coast Air Quality Management district by ENVIRON International Corporation. February.
- California Environmental Protection Agency (CalEPA)
- 2005 California Hydrogen Blueprint Plan. Volume 1 Draft Final Report. March.
- California, State of
- 2006 *Press Release - Gov. Schwarzenegger Signs Landmark Legislation to Reduce Greenhouse Gas Emissions*. Office of the Governor. September 27. Obtained from the Governor's website at <http://gov.ca.gov/index.php?/press-release/4111/> on May 24, 2007.
- Horst, Kevin
- 2011 Personal communication via email to Lance Unverzagt, RECON. Project Manager, KCM Group. April 21.
- Kuhn, Steve
- 2011 Personnel communication via email to Lance Unverzagt, RECON. Innovative Design Group. August 29.
- Marten Law Group
- 2008 *California Sues EPA over Vehicle Emissions Standards*. Accessed May 19, 2008 at: <http://www.martenlaw.com/news/?20080109-calif-sues-epa>.

Rick Engineering

- 2011a Balboa Park Plaza de Panama Circulation and Parking Structure Project Traffic Analysis. Job Number 16325. September 14.
- 2011b Preliminary Water Demand Analysis for the Balboa Park Plaza de Panama Project. City of San Diego Project #233598. May 3.
- 2011c Preliminary Waste Management Plan for the Balboa Park Plaza de Panama Project. City of San Diego Project #233598. May 3.

Sacramento Bee

- 2007 "California gets a win on emissions-cut law." By Dale Kasler, December 13. Accessed May 19, 2008 at: http://www.shns.com/shns/g_index2.cfm?action=detail&pk=CAL-EMISSIONSCUT-12-13-07.

San Diego Association of Governments (SANDAG)

- 2009 Transportation: Roads and Highways. Accessed from the SANDAG website at <http://www.sandag.org/index.asp?subclassid=10&fuseaction=home.subclasshome>. November 13.
- 2010 Greenhouse Gas Reduction Targets Set. News story accessed from the SANDAG website at <http://www.sandag.org/index.asp?newsid=666&fuseaction=news.detail> on October 29.

San Diego, City of

- 2008 Memorandum Addressing Greenhouse Gas Emissions from Projects Subject to CEQA. From Cecilia Gallardo. March 19.

Torcellini, P., Long, N., and Judkoff, R.

- 2003 Consumptive Water Use for U.S. Power Production. Technical Report # NREL-TP-550-33905. National Renewable Energy Laboratory. Golden, CO.

Union of Concerned Scientists (UCS)

- 2007 *SB 1368 (Perata) Greenhouse Gas Emissions Performance Standard for Major Power Plant Investments – A Fact Sheet of the Union of Concerned Scientists*. Obtained from the UCS web site at http://www.ucsusa.org/assets/documents/global_warming/SB-1368-Perata-fact-sheet.pdf on June 7, 2007.

United Nations Environment Programme (UNEP)

- 2007 *Achievements in Stratospheric Ozone Protection, The Montreal Protocol on Substances that Deplete the Ozone Layer, Progress Report 1987–2007*. Obtained from the UNEP website at http://ozone.unep.org/Publications/MP_Achievements-E.pdf on May 23, 2007.

The United Nations Framework Convention on Climate Change (UNFCCC)

2007a *The United Nations Framework Convention on Climate Change*. Obtained from the UNFCCC website at http://unfccc.int/essential_background/convention/items/2627.php on May 23, 2007.

2007b *Kyoto Protocol*. Obtained from the UNFCCC website at http://unfccc.int/kyoto_protocol/items/2830.php on May 24, 2007.

2009 *Status of Ratification*. Obtained from the UNFCCC website at http://unfccc.int/kyoto_protocol/background/status_of_ratification/items/2613.php on July 24, 2009.

United States Energy Information Administration (U.S. EIA)

2006 2003 Commercial Buildings Energy Consumption Survey: Consumption and Expenditures Tables. Table C14. Electricity Consumption and Expenditure Intensities for Non-Mall Buildings.

United States Environmental Protection Agency (U.S. EPA)

1998 AP 42, Fifth Edition, Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources, Section 1.4, Natural Gas Combustion. July.

2007a *International Cooperation*. Obtained from the EPA Climate Change website at <http://www.epa.gov/climatechange/policy/internationalcooperation.html> on May 24, 2007.

2007b *Ozone Depletion Rule and Regulations*. Obtained from the EPA Ozone Depletion website at <http://www.epa.gov/ozone/title6/index.html> on May 23, 2007.

2007c *U.S. Climate Policy and Actions*. Obtained from the EPA Climate Change website at <http://www.epa.gov/climatechange/policy/index.html> on May 25, 2007.

2010a *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2008*. U.S. Greenhouse Gas Inventory Program, Office of Atmospheric Programs. 430-R-10-006. April 15.

2010b *Amendments to the Montreal Protocol*. Obtained from the EPA website at <http://www.epa.gov/ozone/intpol/history.html> on December 28.

University of San Diego

2008 Greenhouse Gas Inventory: An Analysis of Regional Emissions and Strategies to Achieve AB 32 Targets. Prepared by the University of San Diego School of Law, Energy Policy Initiative Center (EPIC), and available online at <http://www.sandiego.edu/epic/ghginventory/>. September.

ATTACHMENTS

ATTACHMENT 1

Understanding Global Climate Change



Understanding Global Climate Change

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Understanding Global Climate Change

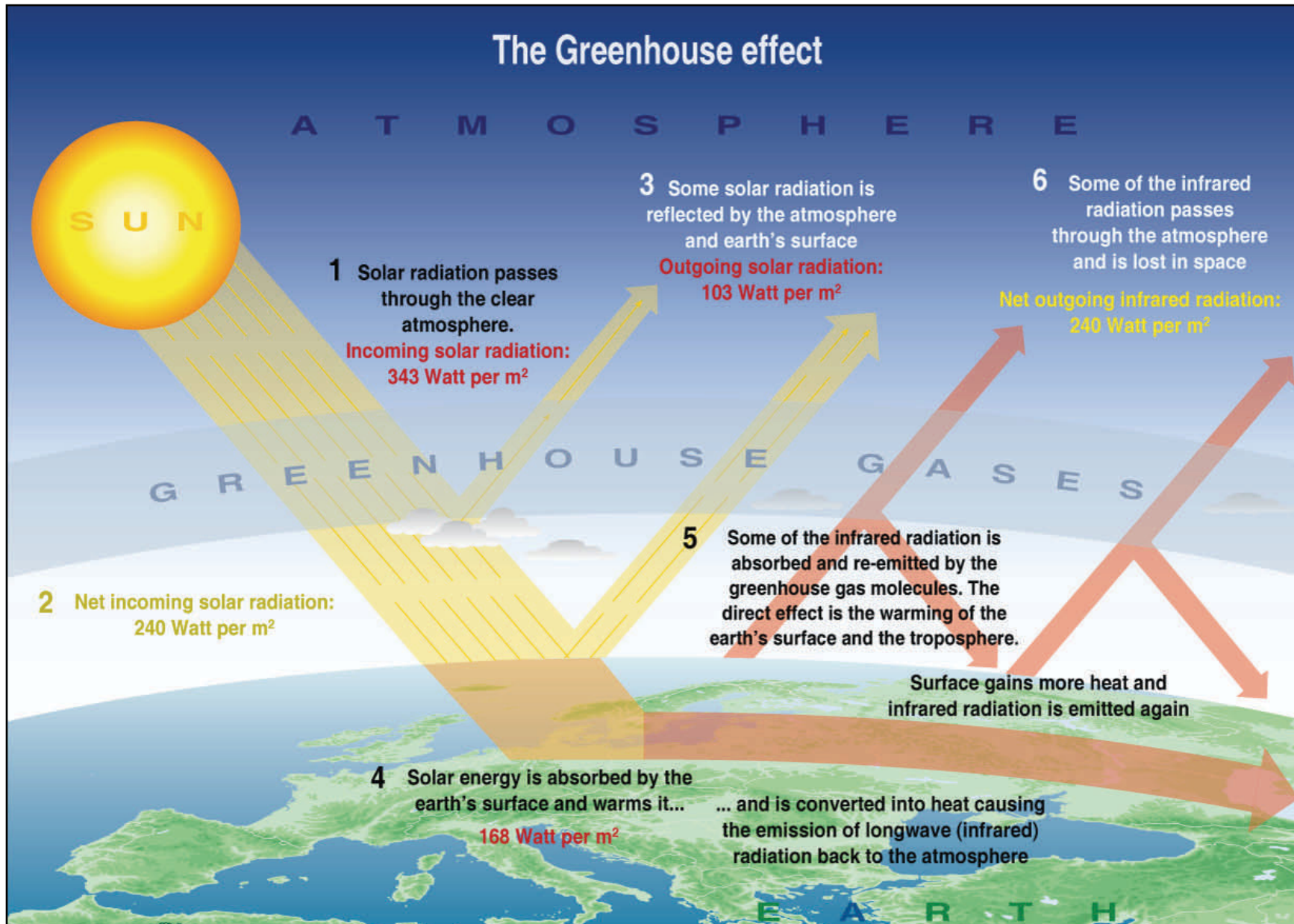
The earth's climate is in a state of constant flux with periodic warming and cooling cycles. Extreme periods of cooling are termed "ice ages," which may then be followed by extended periods of warmth. For most of Earth's geologic history, these periods of warming and cooling have been the result of many complicated, interacting natural factors that include volcanic eruptions which spew gases and particles (dust) into the atmosphere, the amount of water, vegetation, and ice covering the earth's surface, subtle changes in the Earth's orbit, and the amount of energy released by the sun (sun cycles). However, since the beginning of the Industrial Revolution around 1750, the average temperature of the Earth has been increasing at a rate that is faster than can be explained by natural climate cycles alone.

With the Industrial Revolution came an increase in the combustion of carbon-based fuels such as wood, coal, oil, and "biofuels." Industrial processes have also created emissions of substances that are not found in nature. This in turn has led to a marked increase in the emissions of gases that have been shown to influence the world's climate. These gases, termed "greenhouse gases," influence the amount of heat that is trapped in the earth's atmosphere. Because recently observed increased concentrations of GHGs in the atmosphere are related to increased emissions resulting from human activity, the current cycle of "global warming" is generally believed to be largely due to human activity. Of late, "global warming" has arguably become the most important and widely debated environmental issue in the United States and the world.

1.0 The Greenhouse Effect

The presence of natural GHGs in the atmosphere is necessary for life on earth as we know it. The Earth absorbs and reflects incoming solar radiation. The Earth also emits terrestrial (thermal) radiation back out into space. On average, the absorbed solar radiation is balanced by the emitted thermal radiation, thus keeping the Earth at a relatively stable temperature. However, GHGs in the atmosphere absorb a portion of the terrestrial thermal radiation, thus "trapping" heat. The warming of the Earth's surface and atmosphere caused by this trapped heat is known as the "natural greenhouse effect" (United States Environmental Protection Agency [U.S. EPA] 2002). Figure 1 illustrates the "Greenhouse Effect."

Because GHGs "trap" heat in the atmosphere, the Earth's surface is warmer than it would be without the gases. Estimates indicate that without these natural GHGs, the Earth's surface would be about 60 degrees Fahrenheit (°F) colder (U.S. EPA 2007a).



2.0 Greenhouse Gases (GHGs)

There are numerous GHGs, both naturally occurring and manmade. Table 1 summarizes some of the most common.

**TABLE 1
GLOBAL WARMING POTENTIALS (GWPs) AND ATMOSPHERIC LIFETIMES (YEARS) USED
IN THE INVENTORY**

Gas	Atmospheric Lifetime	100-year GWP ^a	20-year GWP	500-year GWP
Carbon Dioxide (CO ₂)	50-200	1	1	1
Methane (CH ₄) ^b	12±3	21	56	6.5
Nitrous oxide (N ₂ O)	120	310	280	170
HFC-23	264	11,700	9,100	9,800
HFC-125	32.6	2,800	4,600	920
HFC-134a	14.6	1,300	3,400	420
HFC-143a	48.3	3,800	5,000	1,400
HFC-152a	1.5	140	460	42
HFC-227ea	36.5	2,900	4,300	950
HFC-236fa	209	6,300	5,100	4,700
HFC-4310mee	17.1	1,300	3,000	400
CF ₄	50,000	6,500	4,400	10,000
C ₂ F ₆	10,000	9,200	6,200	14,000
C ₄ F ₁₀	2,600	7,000	4,800	10,100
C ₆ F ₁₄	3,200	7,400	5,000	10,700
SF ₆	3,200	23,900	16,300	34,900

Source: U.S. EPA 2002.

^a GWPs used here are calculated over 100 year time horizon.

^b The methane GWP includes the direct effects and those indirect effects due to the production of tropospheric ozone and stratospheric water vapor. The indirect effect due to the production of CO₂ is not included.

Of the gases listed in Table 1, carbon dioxide, methane, and nitrous oxide are produced by both natural and anthropogenic (human) sources. The remaining gases (hydrofluorocarbons [HFCs; such as HFC-23], perfluorocarbons [PFCs; such as CF₄], and sulfur hexafluoride [SF₆]) are the result of human processes.

The potential of a gas to trap heat and warm the atmosphere is measured by its “global warming potential” or GWP. Specifically, GWP is defined as the cumulative radiative forcing—both direct and indirect effects—integrated over a period of time from the emission of a unit mass of gas relative to some reference gas (U.S. EPA 2002).

GHGs breakdown or are absorbed over time. Thus the potential of a gas to contribute to global warming is limited by the time it is in the atmosphere, its “atmospheric lifetime.” To account for these effects, GWPs are calculated over a specific period of time, such as 20, 100, or 500 years. The parties to the United Nations (UN) Framework Convention on Climate Change (UNFCCC) agreed to use consistent GWPs based upon a 100-year time horizon

(U.S. EPA 2002). Because of its relative abundance in the atmosphere and its relatively long atmospheric lifetime, carbon dioxide (CO₂) has been designated the reference gas for comparing GWPs. Thus the 100-year GWP of CO₂ is equal to 1 (see Table 1).

The importance of these gases to climate change is expressed in terms of the amount (concentration) in the atmosphere and the gas' GWP. For comparison, emissions of all GHGs are often expressed in terms of teragrams of carbon dioxide equivalent (Tg CO₂ Eq.). The relationship between gigagrams (Gg) of a gas and Tg CO₂ Eq. is determined by the following (U.S. EPA 2002):

$$Tg\ CO_2\ Eq. = (Gg\ of\ gas) \times (GWP) \times \left(\frac{Tg}{1,000\ Gg} \right)$$

where:

Tg CO ₂ Eq.	=	teragrams of carbon dioxide equivalents
Gg	=	gigagrams (equivalent to a thousand metric tons)
GWP	=	global warming potential
Tg	=	teragrams

In addition to those shown in Table 1, there are other GHGs typically not considered when evaluating the effects on global climate change. These are short-lived gases such as carbon monoxide, water vapor, tropospheric ozone, tropospheric aerosols (e.g. sulfur dioxide products and black carbon), and other ambient air pollutants such, as NO_x and non-methane volatile organic compounds (NMVOCs). Because they are short-lived, concentrations of these gases tend to vary spatially and it is difficult to determine their global radiative forcing impacts. Therefore, GWPs are typically not attributed to these short-lived, spatially inhomogeneous atmospheric gases (U.S. EPA 2002).

Descriptions of the main GHGs follow.

2.1 Non-Fluorinated Gases

These GHGs are created and emitted through both natural and human-associated activities.

2.1.1 Carbon Dioxide (CO₂)

Carbon dioxide is the most prevalent GHG. It is both emitted and absorbed through the "carbon cycle" whereby living organisms both utilize and expel CO₂. CO₂ is also emitted through the combustion of carbon based fuels, wildfires, and other processes. Deforestation contributes to increased atmospheric concentrations of CO₂ by removing CO₂ "sinks." In addition, certain specialized industrial production processes and product uses such as

mineral production, metal production and the use of petroleum-based products can also lead to CO₂ emissions (U.S. EPA 2007b).

Processes that absorb CO₂ are known as “sinks,” while processes that emit CO₂ are “sources.” The primary “non-natural” source of CO₂ emissions is combustion of carbon-based fuels. The primary natural sources of CO₂ emissions are (U.S. EPA 2007b):

- Plant respiration, by which plants convert oxygen and nutrients into CO₂ and energy;
- Ocean–atmosphere exchange, in which the oceans absorb and release CO₂ at the sea surface; and
- Volcanic eruptions, which release carbon from rocks deep in the Earth’s crust (this source is very small).

Humans and animals also produce CO₂ that is expelled during respiration (breathing). Natural sinks of CO₂ include:

- carbon dioxide used in plants during photosynthesis; and
- the exchange of CO₂ between the atmosphere and the oceans.

When in balance, natural sources and sinks keep CO₂ concentrations in the atmosphere relatively steady. However, since the Industrial Revolution, human activities have increased CO₂ concentrations in the atmosphere by about 35 percent relative to pre-Industrial Revolution levels, primarily related to carbon-based fuel combustion (U.S. EPA 2007b).

In addition to methods for directly reducing CO₂ emissions to the atmosphere (e.g., burning less fuel), a number of programs are being developed that are designed to remove CO₂ from the atmosphere. These human-influenced or -created carbon sinks include (U.S. EPA 2007b):

- *Geologic sequestration.* Rather than releasing CO₂ emissions to the atmosphere, CO₂ emissions from industrial or energy-related sources are separated and captured, transported to a storage location, and then injected deep underground for long-term isolation (storage) from the atmosphere.
- *Carbon sequestration.* In this process agricultural and forestry practices are used to remove CO₂ from the atmosphere. Plants on agricultural and forestry lands act as sinks that absorb CO₂ through natural photosynthesis. However, agricultural and forestry practices can also release CO₂ and other GHGs to the atmosphere. Sequestration activities can help prevent global climate change by enhancing carbon storage in trees and soils, preserving existing tree and soil carbon, and by reducing emissions of CO₂,

methane (CH₄) and nitrous oxide (N₂O). This sequestration generally only lasts as long as the plants are alive, after which their carbon may be released during decay.

2.1.2 Methane (CH₄)

Human-related sources of methane include fossil fuel production, animal husbandry (enteric [intestinal] fermentation in livestock and manure management) and other agricultural activities, rice cultivation, biomass burning, waste management (landfills), natural gas and petroleum systems, coal mining, stationary and mobile combustion, wastewater treatment, and certain industrial processes. It is estimated that 60 percent of global methane emissions to the atmosphere are related to these human-related activities. Natural sources of methane include wetlands (biomass decomposition), gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires (U.S. EPA 2007c).

2.1.3 Nitrous Oxide (N₂O)

The primary human-related sources of N₂O are agricultural soil management (e.g., fertilizers), animal manure management, sewage treatment, mobile and stationary fuel combustion, adipic acid production (primarily used for the production of nylon), and nitric acid production. N₂O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests (U.S. EPA 2007d).

2.2 Fluorinated Gases

The remaining gases listed in Table 1 are fluorinated gases that are solely created and emitted through human activities. These gases, also known as “High GWP Gases,” are considered the most potent because they have both high GWPs and extremely long atmospheric lifetimes. The result of these long atmospheric lifetimes is the essentially irreversible accumulation of these gases in the atmosphere once they are emitted (U.S. EPA 2007e). However, current concentrations of these gases in the atmosphere are relatively low.

2.2.1 Hydrofluorocarbons (HFCs)

HFCs are man-made chemicals primarily developed as alternatives to ozone-depleting substances for industrial, commercial, and consumer products. As seen in Table 1, the global warming potentials of HFCs range from 140 (HFC-152a) to 11,700 (HFC-23), while the atmospheric lifetime for HFCs varies from just over a year (HFC-152a) to over 260 years (HFC-23). Most of the commercially used HFCs have atmospheric lifetimes less than 15 years. For example, the atmospheric lifetime of HFC-134a, which is used in automobile air conditioning and refrigeration, is 14 years (U.S. EPA 2007e).

The only significant emissions of HFCs before 1990 were of the chemical HFC-23. Between 1978 and 1995, HFC-23 concentrations increased from 3 to 10 parts per trillion (ppt) and continue to rise. Since 1990, when it was almost undetectable, global average concentrations of HFC-134a have risen significantly to almost 10 ppt (parts per trillion). The abundance of certain HFCs is expected to continue to rise in line with their increasing use, particularly as refrigerants around the world (U.S. EPA 2007e).

2.2.2 Perfluorocarbons (PFCs)

The largest known man-made sources of PFCs are primary aluminum production and semiconductor manufacturing. PFCs are also minor substitutes for ozone depleting substances. PFCs are particularly troublesome as GHGs because, in addition to their high GWPs, they also have extremely stable molecular structures and are largely immune to the chemical processes in the lower atmosphere that break down most atmospheric pollutants. It is not until they reach the upper atmosphere (approximately 37 miles above the earth) that they are broken down by high-energy ultraviolet rays from the sun. Thus they have extremely long atmospheric lifetimes (up to tens of thousands of years). Recent relative rates of increase in atmospheric concentrations for two of the most important PFCs are 1.3 percent per year for CF_4 and 3.2 percent per year for C_2F_6 (U.S. EPA 2007e).

2.2.3 Sulfur Hexafluoride (SF_6)

Sulfur hexafluoride is considered the most potent GHG because it has a 100-year GWP of 23,900 coupled with an atmospheric lifetime of 3,200 years. Because of its excellent dielectric properties, SF_6 is used for insulation and current interruption in electric power transmission and distribution equipment. It is also used in the magnesium industry to protect molten magnesium from oxidation and potentially violent burning, in semiconductor manufacturing to create circuitry patterns on silicon wafers, and as a tracer gas for leak detection. Measurements of SF_6 show that its global average concentration has increased by about 7 percent per year during the 1980s and 1990s, from less than 1 ppt in 1980 to almost 4 ppt in the late 1990s (U.S. EPA 2007e).

3.0 Human Induced Climate Change

In 1988, in response to growing concern about the problem of potential global climate change, the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) established the Intergovernmental Panel on Climate Change (IPCC). The IPCC is open to all members of the UN and WMO.

The role of the IPCC is (IPCC 2007a):

to assess on a comprehensive, objective, open and transparent basis the scientific, technical and socio-economic information relevant to understanding the scientific basis of risk of human-induced climate change, its potential impacts and options for adaptation and mitigation. The IPCC does not carry out research nor does it monitor climate related data or other relevant parameters. It bases its assessment mainly on peer reviewed and published scientific/technical literature.

The IPCC recently published its findings that it is highly likely that observed increases in the globally averaged temperature since the mid-20th century are due to human-caused increases in measured GHG concentrations (IPCC 2007b).

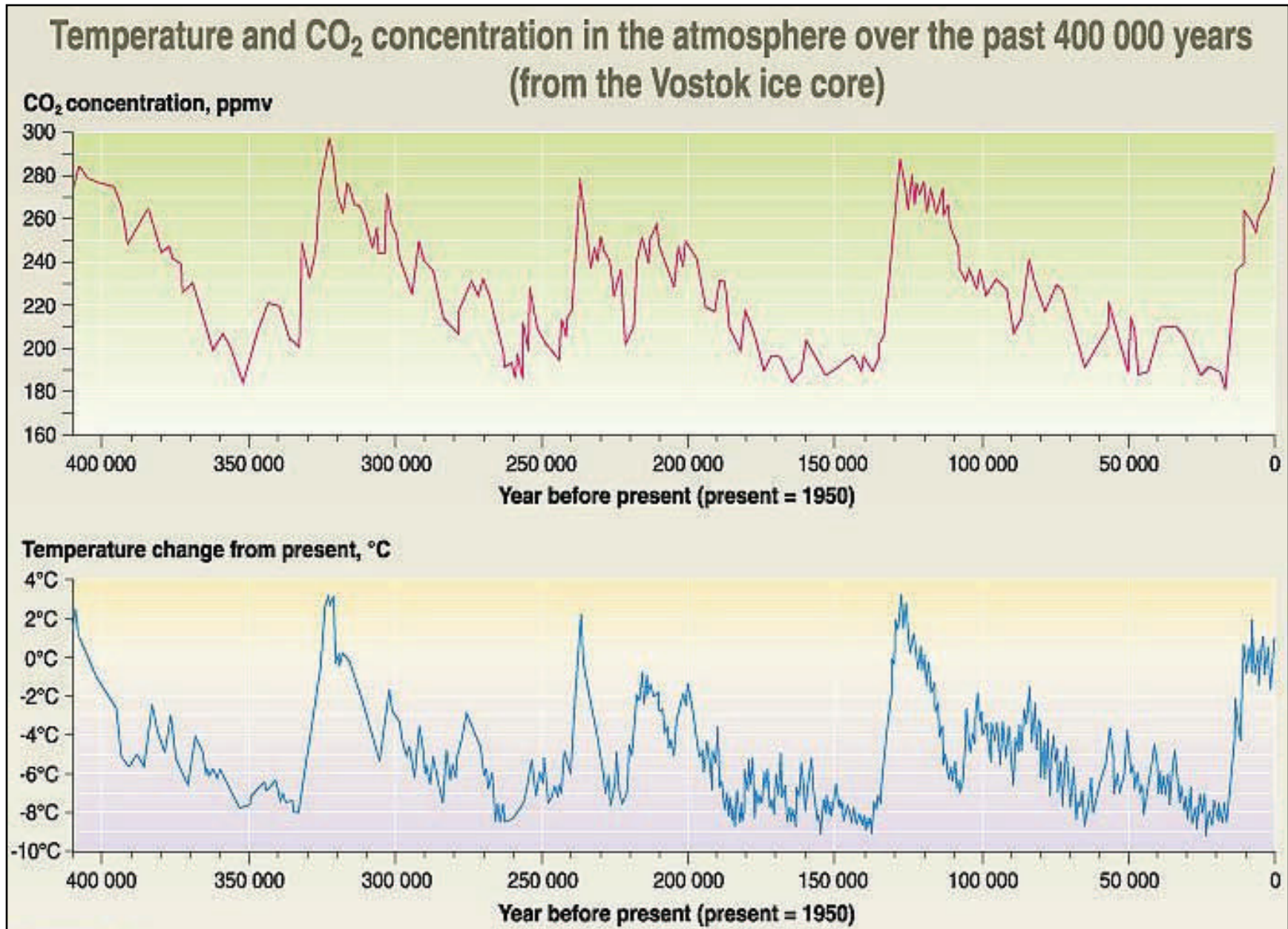
As indicated, GHGs are necessary to life as we know it, because they keep the planet's surface warmer than it otherwise would be. For example, Figure 2 shows how the average earth temperature has varied with CO₂ concentrations in the atmosphere over the last 400,000 years. As also evident by the data shown in this figure, there is a strong correlation between CO₂ concentrations in the atmosphere and the average global temperature.

However, concentrations of GHGs are continuing to increase in the atmosphere and it has been observed that the Earth's temperature is climbing above typical past levels. According to National Oceanic and Atmospheric Administration (NOAA) and National Aeronautics and Space Administration (NASA) data, the following observations have been made (U.S. EPA 2007f; NASA 2007):

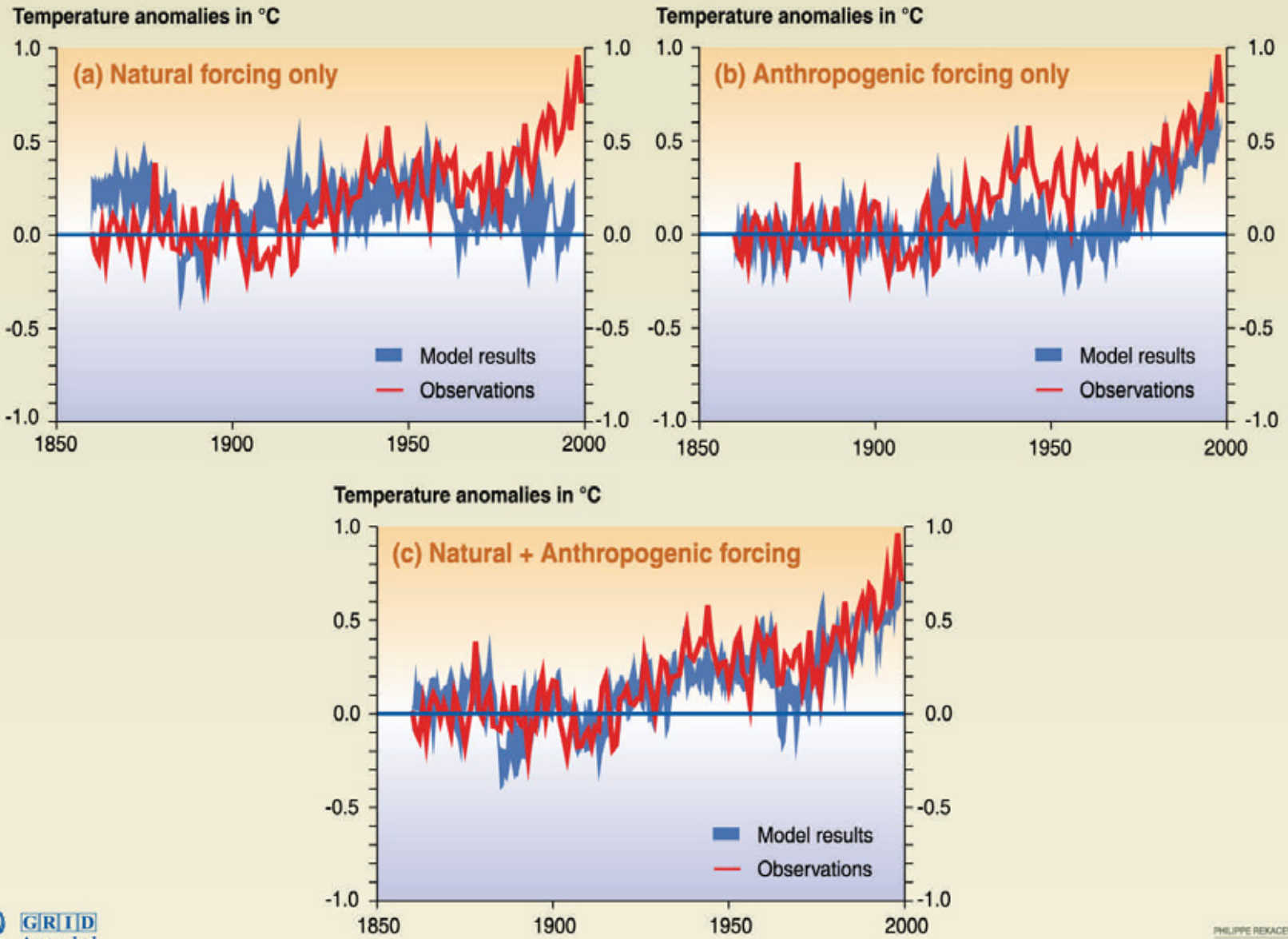
- Since 1900, the average surface temperature has warmed by about 1.2–1.4 °F.
- Since the mid 1970s, the average surface temperature has warmed about 1 °F.
- The Earth's surface is currently warming at a rate of about 0.32 °F/decade or 3.2 °F/century.
- The five warmest years over the last century have likely been (in order from hottest to coolest): 2005, 1998, 2002, 2003, 2006. The top 10 warmest years have all occurred since 1990.

In addition to temperature increase, other aspects of the global climate are also changing such as rainfall patterns, snow and ice cover, and average sea levels.

In an attempt to evaluate and predict the relationship between GHG emissions and global temperature changes, atmospheric models have been created to simulate the atmospheric temperature changes that occur from both natural and human created emissions of GHGs. Figure 3 shows the results of some such simulations.



Comparison between modeled and observations of temperature rise since the year 1860



In Figure 3, simulation (a) only includes natural forcings: solar radiation and volcanic activity. As seen, when only natural forcings are included, modeled temperatures do not correlate well with observations, particularly since 1950. Simulation (b) only includes human-caused forcings: GHGs and sulfate aerosols. In this simulation the recent observed rise in temperature matches the modeled temperature fairly well, but modeled temperatures do not match observations around 1950.

Simulation (c) includes both natural and human-caused forcings. As seen, the best match occurs when both natural and human forcings are included.

The relationships between GHG emissions and global climate change are very complex. Therefore, much controversy and debate continues regarding the extent to which human caused GHG emissions are influencing global climate change. Nevertheless, as a result of observations and modeling simulations such as those indicated above, the IPCC has concluded that it is highly likely that most of the warming observed in recent decades is the result of human activities (IPCC 2007b).

4.0 Future Projections of Climate Change

In order to project anticipated future climate changes resulting from human-caused emissions of GHGs, the IPCC developed a series of GHG emission scenarios for use in driving global circulation models for developing climate change scenarios. The emission scenarios were originally released by the IPCC in 1992 and are referred to as the “IS92” scenarios. Subsequent re-evaluation of the scenarios in response to new understanding of possible future GHG emissions and their relationship to climate change led to the development and release of new emission scenarios in 2000. The emission scenarios are based on a number of very complex factors and include not only emission baselines, but also (IPCC 2000):

- Include the latest information on economic restructuring throughout the world;
- Examine different rates and trends in technological change; and
- Expand the range of different economic-development pathways, including narrowing of the income gap between developed and developing countries.

Thus the emissions scenarios cover a wide range of the main driving forces of future emissions, including demographic, technological, and economical factors. As required by IPCC assumptions, none of the scenarios include future policies aimed specifically at climate change. It is intended that the emissions scenarios developed encompass the range of possible emissions of all relevant GHGs, sulfur, and their driving forces (IPCC 2000). The development of the emission scenarios is documented in the IPCC Special Report on Emissions Scenarios (SRES; IPCC 2000). Emissions were developed using four qualitative

“storylines” that yielded four sets of scenarios called “families”: A1, A2, B1, and B2. The process resulted in a total of 40 SRES emission scenarios. The 40 emission scenarios were grouped into six scenario groups. All emission scenarios are considered equally valid with no assigned probability of occurrence (IPCC 2000). Figure 4 presents a schematic and narrative of the main characteristics of the SRES emission scenarios.

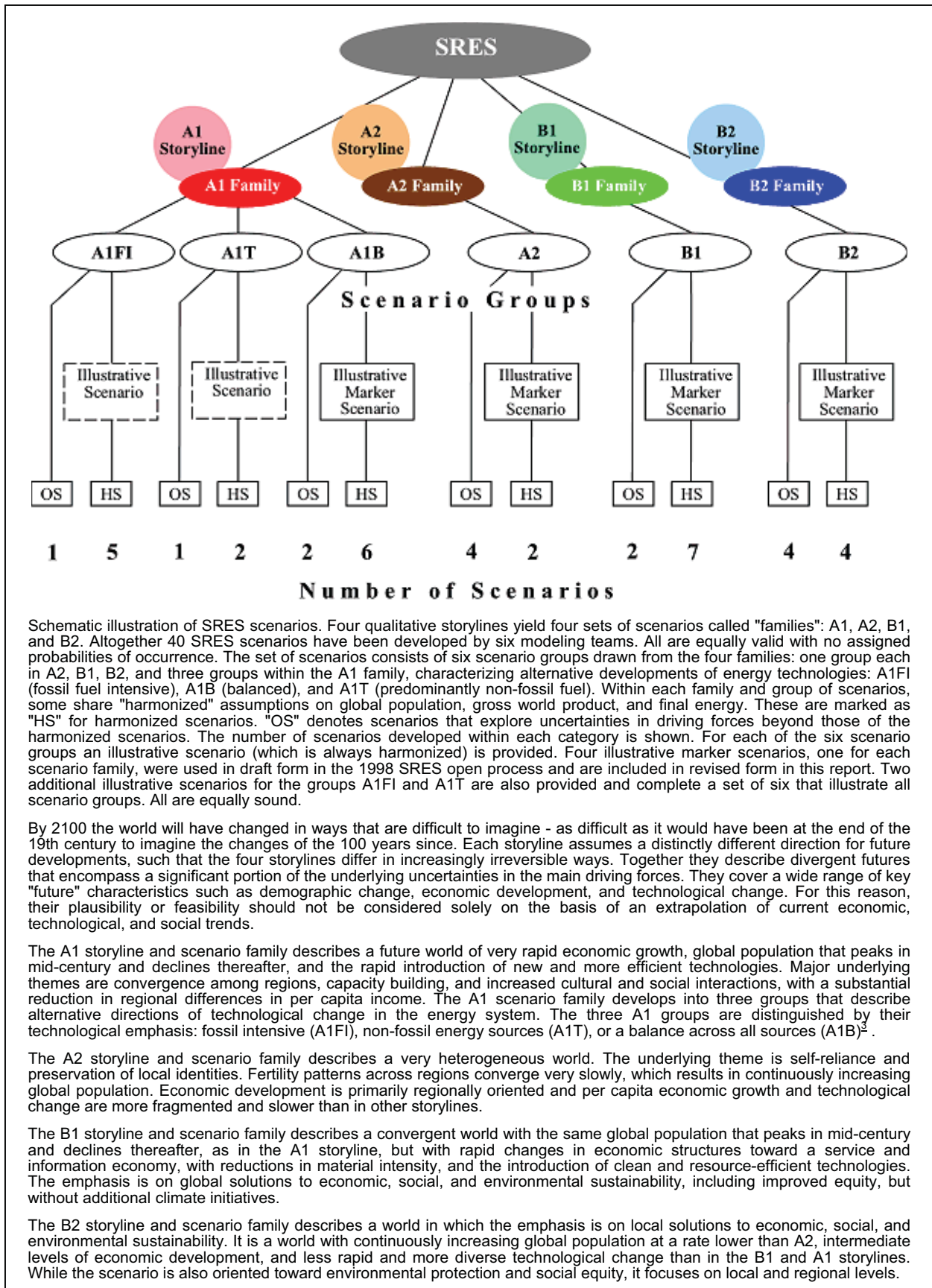
The emission scenario groups are used to estimate the future CO₂ and other GHG concentrations in the atmosphere. Figure 5 shows the past and projected CO₂ concentrations from the years 1000 to 2100. As seen in this figure, all scenarios project a marked increase in CO₂ concentrations by 2100 relative to past conditions. Figure 6 shows the projected variations in the earth’s temperature, relative to the 1990 temperature, that correspond to the emission scenario groups. The results shown in this figure indicate that under best-case emissions, the earth’s average temperature is projected to increase by approximately another 2.5 °F by the year 2100. Under worst-case emissions, the earth’s average temperature is projected to increase by as much as 10 °F.

5.0 Implications of Climate Change

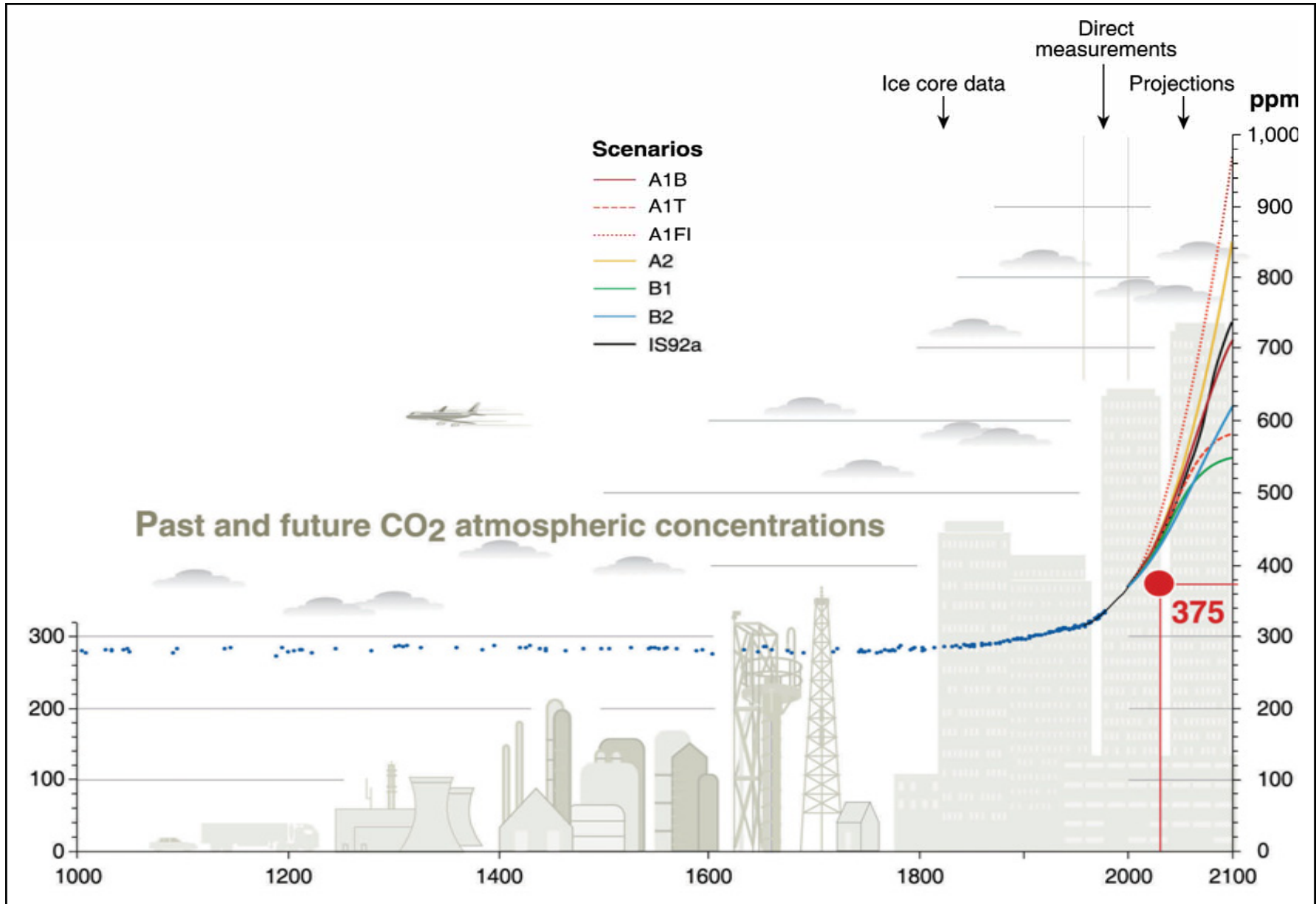
The increase in the earth’s temperature is expected to have wide ranging effects on the environment. Although global climate change is anticipated to affect all areas of the globe, there are numerous implications of direct importance to California. Statewide average temperatures are anticipated to increase by between 3 and 10.5 °F by 2100. Some climate models indicate that this warming may be greater in the summer than in the winter. This could result in widespread adverse impacts to ecosystem health, agricultural production, water use and supply, and energy demand. A report prepared by the California Climate Change Center focuses on these potential impacts, which are summarized below (State of California 2006a).

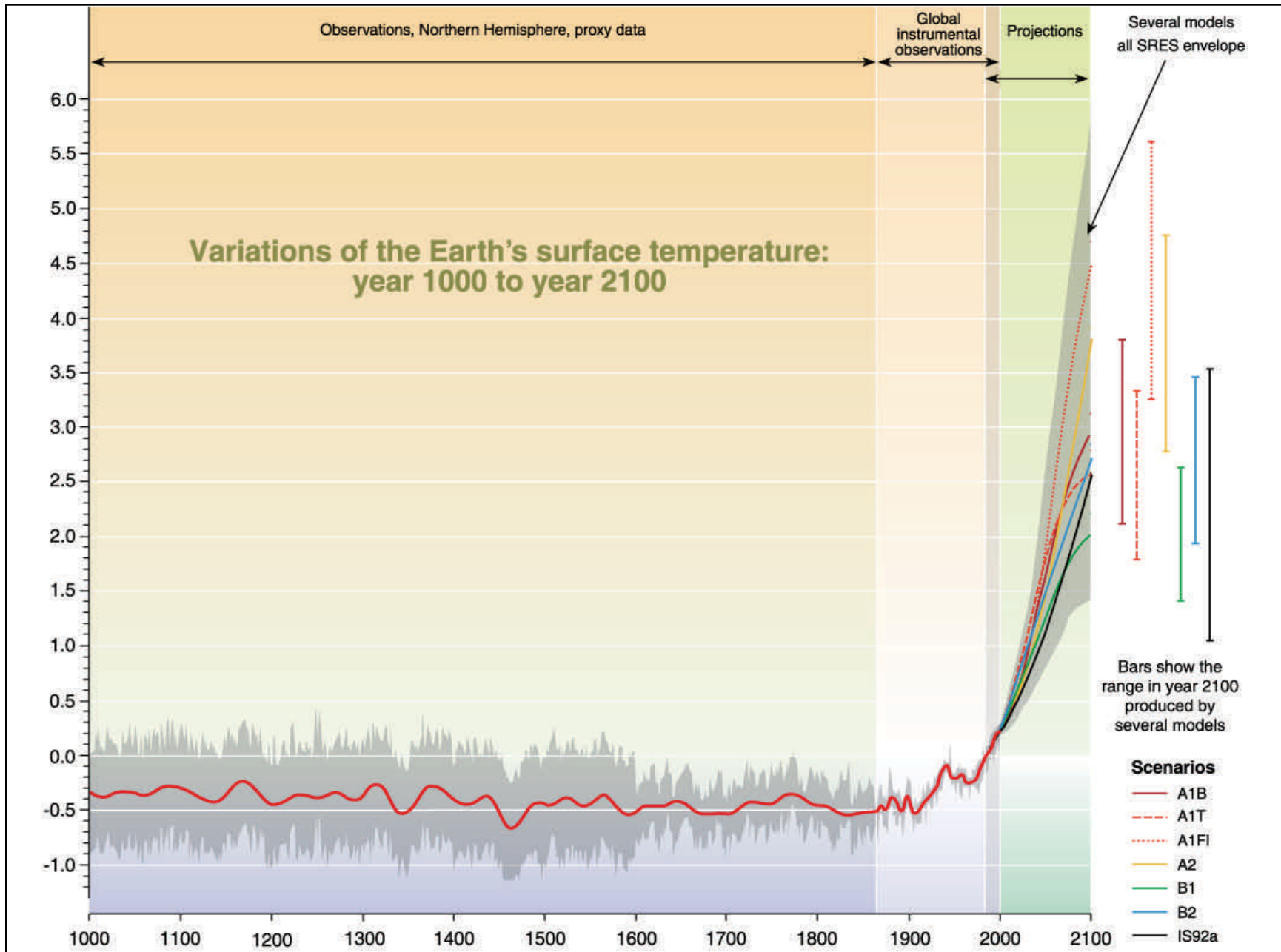
- **Precipitation and Water Resources.** Projections indicate that total annual precipitation and rainfall statewide patterns are anticipated to change little over the next century. The predominantly Mediterranean precipitation pattern of most precipitation occurring in the winter months is expected to continue. It is also possible that the intensity and frequency of extreme storm events could increase, thus affecting the balance between water storage and the need for flood control.

Although most of the precipitation falls during the winter months, water demand is greatest during the summer months. Much of California is reliant on the winter Sierra Nevada snowpack. If temperatures continue to rise as expected, more precipitation will fall as rain instead of snow. Further, that snow which does fall will melt earlier reducing the spring snowpack by as much as 70 to 90 percent. This has potentially major implications for water supply, agriculture, and hydropower generation. This also would adversely impact the economies of communities reliant on winter recreational activities.



Source: UNEP/GRID-Adrenal 2005a





Water supplies could also be adversely affected by saltwater intrusion associated with anticipated sea level rises (see below).

- **Public Health.** Although the change in statewide average temperature may not appear to be large, the incidence of extreme temperature events, particularly high temperatures, is anticipated to increase. It is these extreme conditions that pose the greatest health risk. Higher temperatures are expected to increase the frequency, duration, and severity of conditions conducive to the formation of air pollutants, particularly ozone. Furthermore, increased temperatures will be favorable for conditions that lead to increases in wildfires, which emit large quantities of particulate matter.

By 2100, models indicate that under the worst-case emission trends there could be up to 100 more days with temperatures over 90 °F in Los Angeles and over 95 °F in Sacramento. Such temperature extremes, particularly in densely populated urban centers, could cause a marked increase in heat-related death, particularly due to dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory diseases. Increased demand for air conditioning would put additional stresses on the state's energy supplies. Increased temperatures could also lead to increases in disease vectors such as mosquitoes.

- **Agriculture.** California agriculture is the largest and most diverse industry in the nation producing more than half of the country's fruits and vegetables. The anticipated climate changes will have widespread affects on the quantity and quality of agricultural products produced in the state. Many fruit and nut trees are particularly sensitive to changes in temperature. High temperatures can stress dairy cows reducing milk production. Rising temperatures will affect the State's ecosystems and will likely shift or increase the range of noxious and invasive weeds. Further, increased temperatures would be beneficial to certain pests and pathogens that otherwise do not survive the winter months, thus leading to an increase in areas subject to infestation as well as increasing the frequency and severity of damaging outbreaks.
- **Forests and Landscapes.** Global climate change is expected to increase the frequency and severity of wildfires, and to alter the distribution and character of natural vegetation. Alpine and sub-alpine ecosystems are the most threatened in the state and are expected to decline by as much as 60 to 80 percent by the end of the century as temperatures continue to increase. Conifer forests may decline by as much as 18 percent by the end of the century, with corresponding economic impacts resulting from decreased forest production and recreation. Overall, much of California's native ecosystems may transition to plants and animals more suited to warmer conditions.
- **Sea Level Rise.** California has more than 1,100 miles of coastline along the Pacific Ocean. These coastlines are also home to unique ecosystems that are considered some of the world's most threatened. These regions will be increasingly threatened by rising sea levels, more intense coastal storms, and warmer water temperatures. Sea

levels have risen about seven inches in the last century. Projections indicate that with increased global temperatures sea levels could rise between 22 and 35 inches by the end of the century. Sea level increases of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and vital habitats.

Increased sea levels combined with storm surges from severe storms could cause widespread damage along the coast, including levee breaches in low-lying areas such as the San Francisco Bay Delta. Rising sea levels will also reduce beach areas. Increased storms could also accelerate beach erosion leading to significant monetary expenditures on beach replenishment projects in an attempt to maintain the beaches.

It is also important to note that even if GHG emissions were to be eliminated or dramatically reduced, it is projected that the effect of those emissions would continue to affect global climate for centuries. Figure 7 schematically illustrates this persistence effect.

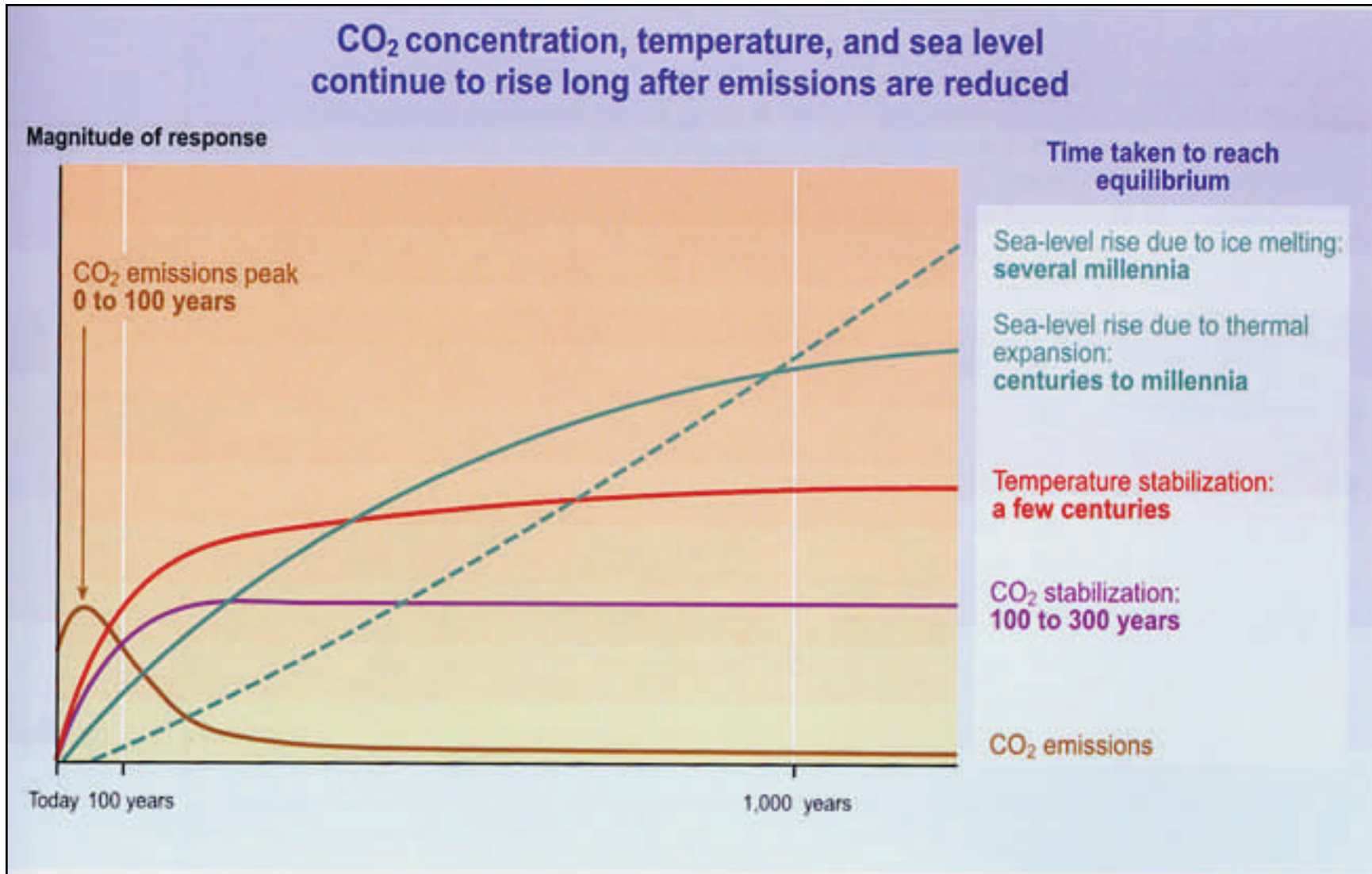
All of the effects outlined above could dramatically impact the economy of the State through increased costs associated with water management strategies, public health costs, agricultural losses or increased pest management costs, and damage resulting from severe storms, wildfires, and sea level rises. Such effects are not limited to the state and similar or related effects are anticipated for other parts of the country and around the earth. These effects are anticipated to impact both national and worldwide population distributions and economies as populations attempt to shift from areas that become uninhabitable or infertile, or in response to disease outbreaks and shortages. Overall, continued global climate change will likely affect every person on the planet in some way.

6.0 Global, National, and State GHG Emissions

Estimates of global emissions of GHGs are provided by the UNFCCC for nations that are and are not included in Annex I to the Convention (Annex I and Non-Annex I Parties; see discussion in Section 3.1 below). Given the complexity of estimating global emissions, emission estimates are not available for all countries for all years. Table 2 shows the total equivalent CO₂ emissions for all parties included in Annex I to the Convention (Annex I Parties, made up of 41 nations) for the years 1990, 1995, and 2000 through 2004 (UNFCCC 2006).

TABLE 2
TOTAL AGGREGATE ANTHROPOGENIC EMISSIONS OF CO₂, CH₄, N₂O, HFCs, PFCs, AND SF₆ INCLUDING EMISSIONS/REMOVALS FROM LAND USE, LAND-USE CHANGE, AND REFORESTRY (Tg CO₂ Equivalent)

1990	1995	2000	2001	2002	2003	2004
16,516	15,500	15,709	15,538	15,267	15,291	16,077



After CO₂ emissions are reduced and atmospheric concentrations stabilize, surface air temperature continues to rise by a few tenths of a degree per century for a century or more. Thermal expansion of the ocean continues long after CO₂ emissions have been reduced, and melting of ice sheets continues to contribute to sea-level rise for many centuries. This figure is a generic illustration for stabilization at any level between 450 and 1,000 ppm, and therefore has no units on the response axis. Responses to stabilization trajectories in this range show broadly similar time courses, but the impacts become progressively larger at higher concentrations of CO₂.

Land-use change and forestry often act as sinks, thus reducing a nation’s total GHG emissions. Because nations that are not included in Annex I to the Convention (Non-Annex I Parties comprised of 122 nations) are largely developing countries, emissions data for these countries are more sporadic and incomplete. The most recent emissions data from non-Annex I Parties indicate that total emissions from these nations were approximately 11,931 Tg CO₂ equivalent, including land use-change and forestry (UNFCCC 2005). As such, using the most recent data available for Annex I and Non-Annex I Parties, 2004 global emissions of GHGs were approximately 28,008 Tg CO₂ equivalent, including land-use change and forestry.

Each year, the U.S. EPA prepares an inventory of GHG emissions and sinks report. The report provides information on GHG emissions and sink sources and is used to develop policies and track progress. Inventories are submitted to the UN. The most recent final report, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2007*, was completed in April 2009 (U.S. EPA 2009). The 2010 update is currently undergoing public review. The U.S. EPA also provides guidance for states to develop GHG inventories. The *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004* completed in December 2006, including subsequent revisions to the in-state electricity production estimates, is the most recent report for California (State of California 2006b, 2007). Tables 3 and 4 summarize the national GHG emissions in 1990, 1995, 2000, and 2005 through 2007, and State GHG emissions from 1990 through 2004, respectively.

TABLE 3
NET NATIONAL GHG EMISSIONS
(Tg CO₂ Equivalent)

Year	CO₂	CH₄	N₂O	HFCs, PFCs, and SF₆¹	Total²	National Population³	Total (Mg CO₂ Eq) per Capita
1990	4,235.3	616.6	315.0	90.5	5,257.3	249,464,396	21.1
1995	4,556.9	615.8	334.1	105.5	5,612.3	262,803,276	21.4
2000	5,237.7	591.1	329.2	132.8	6,290.7	282,194,308	22.3
2005	4,968.1	561.7	315.9	140.2	5,985.9	295,895,897	20.2
2006	4,964.4	582.0	312.1	142.1	6,000.6	298,754,819	20.1
2007	5,040.8	585.3	311.9	149.5	6,087.5	301,621,157	20.2

SOURCE: U.S. EPA 2009

¹Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride

²Totals may vary from the sum of the sources due to independent rounding

³U.S. Census Bureau 2009

Tg = terragrams = one million metric tons; Mg = megagrams = one metric ton

TABLE 4
NET CALIFORNIA GHG EMISSIONS
(Tg CO₂ Equivalent)

Year	CO ₂	CH ₄	N ₂ O	HFCs, PFCs, and SF ₆ ¹	Total ²	California Population ³	Total (Mg CO ₂ Eq) per Capita
1990	301.6	26.0	32.7	7.1	367.4	29,950,111	12.3
1991	293.4	24.9	30.4	7.4	356.1	30,414,114	11.7
1992	299.9	23.8	30.5	7.9	362.2	30,875,920	11.7
1993	295.3	25.4	31.5	8.4	360.5	31,147,208	11.6
1994	313.9	25.4	30.0	8.9	378.2	31,317,179	12.1
1995	297.7	26.2	31.9	9.3	365.1	31,493,525	11.6
1996	302.3	25.5	30.8	11.4	370.0	31,780,829	11.6
1997	312.3	24.2	28.8	12.6	378.0	32,217,708	11.7
1998	330.3	25.3	29.2	8.9	393.7	32,682,794	12.0
1999	333.3	26.3	29.4	9.9	398.9	33,145,121	12.0
2000	352.6	26.4	31.4	10.5	420.9	34,004,051	12.4
2001	357.8	26.7	30.8	11.2	426.5	34,525,902	12.4
2002	351.0	27.1	34.5	12.0	424.6	34,963,856	12.1
2003	328.4	27.5	33.9	12.9	402.7	35,376,833	11.4
2004	342.9	27.9	33.3	14.2	418.3	35,721,991	11.7

SOURCE: State of California 2007

¹Hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride

²Totals may vary from the sum of the sources due to independent rounding

³US Census Bureau 2009

Tg = terragrams = one million metric tons; Mg = megagrams = one metric ton

Net GHG emissions are gross emissions minus GHG sinks. As seen in Tables 3 and 4, in 2000, California emitted approximately 421 million metric tons of GHGs compared to approximately 6,291 million metric tons of GHG emissions for the nation as a whole, or about 6.7 percent of the nation's emissions. Tables 3 and 4 also illustrate that although California emits a substantial portion of the nation's GHGs, California's per capita emissions are roughly half the national average. In fact, as illustrated in Figure 8, California has the fourth lowest emission per capita of CO₂ in the nation. According to the data presented in Tables 3 and 4, per capita emissions over the 15-year period illustrated have remained relatively flat. This would imply that the increase in total GHG emissions over time is primarily a result of the increasing population of the state and country, and not due to increased per capita emissions.

Figure 8 compares total GHG emissions from California and the United States to other major emitting countries in the world.

As seen in Figure 9, in 2002 the United States was the largest emitter of GHGs in the world, with China ranking second and California ranking as the 16th largest emitter of GHGs globally. Recent data indicate that China may have surpassed the United States as the greatest emitter of GHGs globally (Environmental News Network 2007), although on a per

Source: State of California 2006b

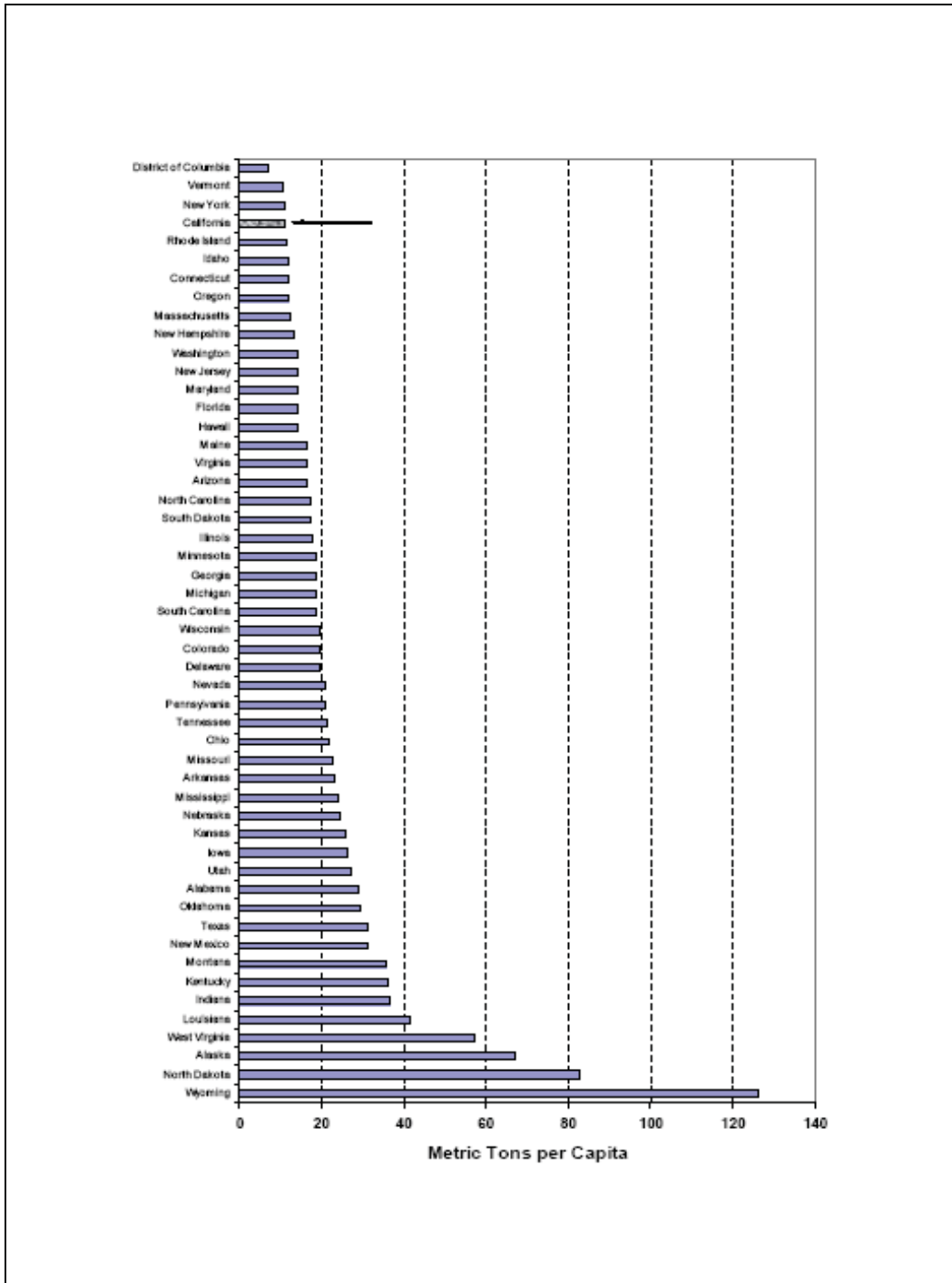


FIGURE 8
CO₂ Emissions from
Fossil Fuels per Capita (2001)

Source: State of California 2006b

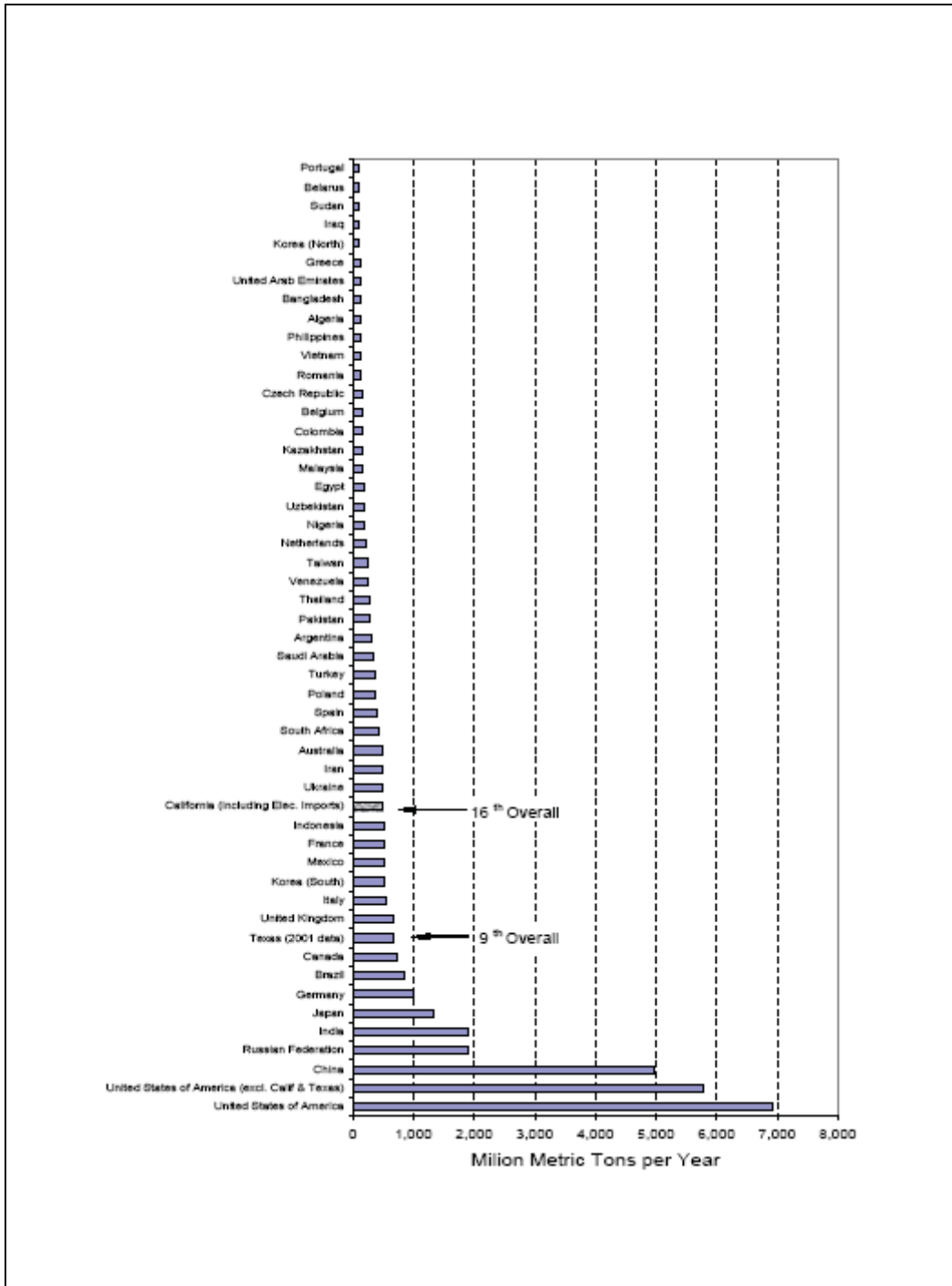


FIGURE 9
Global Greenhouse Gas
Emission Comparison (2002 data)

capita basis China remains well below the United States and California with a per capita CO₂ emission rate around 3 metric tons per year in 2001 (State of California 2006b).

It is important to note that given the global nature of global climate change, it is the total emissions of GHGs to the atmosphere that is important, not necessarily the per capita or total emissions from any single country. However, per capita emissions provide a relative benchmark by which to evaluate emissions.

7.0 References Cited

California, State of

2006a *Our Changing Climate – Assessing the Risks to California*. California Energy Commission, California Climate Change Center. CEC-500-2006-077. July.

2006b *Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004*. CEC-600-2006-013-SF. Fuels and Transportation Division, California Energy Commission. December. Obtained from the State of California website at <http://www.climatechange.ca.gov/inventory/index.html> on July 23, 2009.

2007 Memorandum: Revisions to the 1990 to 2004 Greenhouse Gas Emissions Inventory Report, Published in December 2006 (CEC 600-2006-013). Fuels and Transportation Division, California Energy Commission. December. Obtained from the State of California website at <http://www.climatechange.ca.gov/inventory/index.html> on July 23, 2009.

Environmental News Network (ENN)

2007 *China Overtakes U.S. as Top CO₂ Emitter*. June 21 by Reuters. Obtained from the ENN website at <http://www.enn.com/globe.html?id=1700> on July 31, 2007.

Intergovernmental Panel on Climate Change (IPCC)

2000 *Emissions Scenarios, Summary for Policymakers*. A special report of the IPCC Working Group III.

2001 *Climate Change 2001: Synthesis Report. A Contribution of Working Groups I, II, and III to the Third Assessment Report of the Intergovernmental Panel on Climate Change* [Watson, R.T. and the Core Writing Team (eds.)]. Cambridge University Press, Cambridge, United Kingdom, and New York, NY, USA, 398 pp. Obtained from the IPCC Website at http://www.grida.no/climate/ipcc_tar/vol4/english/042.htm#figspm52 on May 21, 2007.

2007a *About IPCC*. Obtained from the IPCC website at <http://www.ipcc.ch/about/about.htm> on July 31, 2007.

2007b *Climate Change 2007: The Physical Science Basis, Summary for Policymakers*. February.

National Aeronautics and Space Administration (NASA)

2007 *2006 Was Earth's Fifth Warmest Year*. Accessed from the NASA Goddard Space Flight Center Website at http://www.nasa.gov/centers/goddard/news/topstory/2006/2006_warm.html on May 21, 2007. February 8.

United Nations Environment Programme (UNEP)/GRID-Arendal

2000 *Temperature and CO₂ concentration in the atmosphere over the past 400 000 years*. UNEP/GRID-Arendal Maps and Graphics Library, http://maps.grida.no/go/graphic/temperature_and_co2_concentration_in_the_atmosphere_over_the_past_400_000_years (Accessed 16 May 2007)

2002a *Greenhouse effect*. UNEP/GRID-Arendal Maps and Graphics Library, http://maps.grida.no/go/graphic/greenhouse_effect (Accessed 18 May 2007)

2002b *Comparison between modeled temperature rise and observations of temperature since 1860*. UNEP/GRID-Arendal Maps and Graphics Library, http://maps.grida.no/go/graphic/comparison_between_modeled_temperature_rise_and_observations_of_temperature_since_1860 (Accessed 16 May 2007)

2005a *Past and future CO₂ concentrations*. UNEP/GRID-Arendal Maps and Graphics Library, http://maps.grida.no/go/graphic/past_and_future_co2_concentrations (Accessed 18 May 2007)

2005b *Temperature trends and projections*. UNEP/GRID-Arendal Maps and Graphics Library, http://maps.grida.no/go/graphic/temperature_trends_and_projections1 (Accessed 21 May 2007)

The United Nations Framework Convention on Climate Change (UNFCCC)

2005 *Sixth Compilation and Synthesis of Initial National Communications from Parties not Included in Annex I to the Convention*. FCCC/SBI/2005/18/Add.2. October 25.

2006 *National Greenhouse Gas Inventory Data for the Period 1990-2004 and Status of Reporting*. FCCC/SBI/2006/26. October 19.

United States Environmental Protection Agency (U.S. EPA)

2002 *Greenhouse Gases and Global Warming Potential Values – Excerpt from the Inventory of U.S. Greenhouse Emissions and Sinks: 1990-2000*. U.S. Greenhouse Gas Inventory Program, Office of Atmospheric Programs. April.

- 2007a *Greenhouse Effect*. Obtained from the EPA Climate Change website at <http://www.epa.gov/climatechange/kids/greenhouse.html> on May 9, 2007.
- 2007b *Carbon Dioxide*. Obtained from the EPA Climate Change website at <http://epa.gov/climatechange/emissions/co2.html> on May 18, 2007.
- 2007c *Methane – Sources and Emissions*. Obtained from the EPA Climate Change website at <http://www.epa.gov/methane/sources.html> on May 15, 2007.
- 2007d *Nitrous Oxide – Sources and Emissions*. Obtained from the EPA Climate Change website at <http://www.epa.gov/nitrousoxide/sources.html> on May 15, 2007.
- 2007e *High GWP Gases and Climate Change*. Obtained from the EPA Climate Change website at <http://www.epa.gov/highgwp/scientific.html> on May 18, 2007.
- 2007f *Temperature Changes*. Obtained from the EPA Climate Change website at <http://www.epa.gov/climatechange/science/recenttc.html> on May 18, 2007.
- 2009 Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2007. April 15.

ATTACHMENT 2

GHG Emissions Calculations—Electricity, Natural Gas, Water

Balboa Park GHG Emission Calculations

BALBOA PARK GHG EMISSIONS

EXISTING EMISSIONS

	CO2	CH4	N2O	CO2Eq
Construction	0.00	0.00	0.00	0.00
Exterior Lighting	12.02	0.01	0.05	12.08
Electricity (Other than Exterior Lighting)	0.00	0.00	0.00	0.00
Natural Gas	0.00	0.00	0.00	0.00
Water	0.00	0.00	0.00	0.00
Vehicles	6,867.82	4.05	21.76	6,893.63
Solid Waste	0.00	0.00	0.00	0.00
TOTAL	6,879.84	4.06	21.82	6,905.72

PROPOSED EMISSIONS

	CO2	CH4	N2O	CO2Eq
Construction	123.06	0.01	0.00	123.36
Exterior Lighting	18.07	0.01	0.08	18.16
Electricity (Other than Exterior Lighting)	248.83	0.19	1.09	250.11
Natural Gas	0.19	0.00	0.00	0.19
Water	5.77	0.00	0.03	5.80
Vehicles*	6,867.82	4.05	21.76	6,893.63
Solid Waste**	0.00	0.00	0.00	0.00
TOTAL	7,263.75	4.28	22.96	7,291.27

*The proposed project would not result in an increase in vehicle trips or vehicle miles traveled. Existing and future vehicle emissions same as No Project.

**It was assumed that the proposed project would not result in a significant increase in operational solid waste generated by park visitors.

Balboa Park GHG Emission Calculations

BALBOA PARK CONSTRUCTION EMISSIONS

Year	CO ₂	CH ₄	N ₂ O	MTCO ₂ E
2012	403.71	0.05	0.00	404.73
2013	2,900.35	0.33	0.00	2,907.24
2014	387.88	0.04	0.00	388.77
TOTAL	3,691.94	0.42	0.00	3,700.74
Amortized Over 30 Years	123.06	0.01	0.00	123.36

Balboa Park GHG Emission Calculations

BALBOA PARK EXISTING VEHICLE EMISSIONS

Parameters

Average Fuel Economy: 18.64 miles per gallon (mpg)
 Weekday ADT: 6,500.00 trips
 Weekend ADT: 7,600.00 trips
 Annual ADT: 2,487,214.29 trips
 Average Trip Length: 5.80 miles
 VMT per Year: 14,425,842.86 miles
 Total Gallons of Fuel: 773,918.61 gallons

Vehicle Emission Factors (pounds/gallon)

CO2 19.56400
 CH4 0.00055
 N2O 0.00020

Vehicle Emissions

	Pounds	Pounds per Metric Ton	Metric Tons	GWP	CO2 Eq
CO2	15,140,943.65	2,204.62	6,867.82	1.00	6,867.82
CH4	425.66	2,204.62	0.19	21.00	4.05
N2O	154.78	2,204.62	0.07	310.00	21.76
TOTAL metrics tons of CO2 Eq per Year:					6,893.63

Balboa Park GHG Emission Calculations

BALBOA PARK EXTERIOR LIGHTING EMISSIONS

	Number of Lights	Watts per Light	Hours per Year	kWh per Year
Existing (No Project)	155	50	4,380	33,945
Project	233	50	4,380	51,027

Existing Lighting:	33.95 MWh
Proposed Lighting:	51.03 MWh

Electricity Generation Emission Factors (pounds/MWh)

CO2	780.7900
CH4	0.0290
N2O	0.0110

Emissions due to Existing Exterior Lighting

Emissions	Pounds	Pounds per Metric Ton	Metric Tons	GWP	MTCO2E
CO2	26,503.92	2,204.62	12.02	1.00	12.02
CH4	0.98	2,204.62	0.00	21.00	0.01
N2O	0.37	2,204.62	0.00	310.00	0.05
TOTAL metrics tons of CO2 Eq per Year:					12.08

Emissions due to Proposed Exterior Lighting

Emissions	Pounds	Pounds per Metric Ton	Metric Tons	GWP	MTCO2E
CO2	39,841.37	2,204.62	18.07	1.00	18.07
CH4	1.48	2,204.62	0.00	21.00	0.01
N2O	0.56	2,204.62	0.00	310.00	0.08
TOTAL metrics tons of CO2 Eq per Year:					18.16

Balboa Park GHG Emission Calculations

BALBOA PARK ELECTRICITY EMISSIONS (OTHER THAN EXTERIOR LIGHTING)

Parking Structure

Total Parking Structure Consumption: 660,000 kWh per Year

Miscellaneous Structures

Visitors Center: 1,400 square feet
 Restroom: 1,385 square feet
 Valet Station (enclosed portion): 36 square feet
 Alcazar Restroom: 200 square feet
 Total Square Footage: 3,021 square feet
 Annual Average Commercial Consumption: 14.1 kWh per square foot per year
 Total Miscellaneous Structure Consumption: 42,596.1 kWh per Year

Total Annual Consumption: 702,596.1 kWh
 Total Annual Consumption: 702.6 MWh

Electricity Generation Emission Factors (pounds/MWh)

CO2 780.7900
 CH4 0.0290
 N2O 0.0110

Emissions	Pounds	lbs per Metric	Metric Tons	GWP	MTCO2E
CO2	548,580.01	2,204.62	248.83	1.00	248.83
CH4	20.38	2,204.62	0.01	21.00	0.19
N2O	7.73	2,204.62	0.00	310.00	1.09
TOTAL metrics tons of CO2 Eq per Year:					250.11

Balboa Park GHG Emission Calculations

BALBOA PARK NATURAL GAS EMISSIONS

Miscellaneous Structures

Visitors Center:	1,400 square feet
Restroom:	1,385 square feet
Valet Station (enclosed portion):	36 square feet
Alcazar Restroom:	200 square feet
Total Square Footage:	3,021 square feet
Consumption per Year:	1.20 kBTU per square foot per year
Conversion Factor:	1,020.00 BTU per cubic foot
Total Consumption:	3,625,200.00 BTU per year
Total Consumption:	3,554.12 cubic feet per year
Total Consumption:	0.003554118 million cubic feet per year

Natural Gas Combustion Emission Factors (pounds/million cubic feet)

CO2	120,000.0
CH4	2.3
N2O	2.2

Emissions	Pounds	Pounds per Metric Ton	Metric Tons	GWP	MTCO2E
CO2	426.49	2,204.62	0.19	1.00	0.19
CH4	0.01	2,204.62	0.00	21.00	0.00
N2O	0.01	2,204.62	0.00	310.00	0.00
TOTAL metrics tons of CO2 Eq per Year:					0.19

Balboa Park GHG Emission Calculations

BALBOA PARK WATER USE EMISSIONS

Proposed Water Use:	5,255 gallons/day
Proposed Water Use:	1,918,075 gallons/year
Gallons per Acre Foot:	325,851 gallons
Proposed Landscape Demand:	8.85 acre feet/year
Current Landscape Demand:	2.99 acre feet/year
Additional Landscape Demand:	5.86 acre feet/year
Embodied Energy:	0.0085 kWh per gallon
Total Water Energy Use (kWh):	16,303.64 kWh
Total Water Energy Use (MWh):	16.30 MWh

Electricity Generation Emission Factors (pounds/MWh)

CO2	780.7900
CH4	0.0290
N2O	0.0110

	Pounds	Pounds per Metric Ton	Metric Tons	GWP	MTCO2E
CO2	12,729.72	2,204.62	5.77	1.00	5.77
CH4	0.47	2,204.62	0.00	21.00	0.00
N2O	0.18	2,204.62	0.00	310.00	0.03
TOTAL metrics tons of CO2 Eq per Year:					5.80

ATTACHMENT 3

CalEEMod Input/Output—Project Construction

CalEMod, 2011.1.1

Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Project Characteristics

Project Detail

Project Name: 6095 Balboa Park Plaza de Panama

Project Location: Air Basin: San Diego

Windspeed (m/s): 2.6

Precipitation Frequency (days): 40

Climate Zone: 13

Land Use Setting: Urban

Operational Year: 2015

Utility Information

*If "User Defined" is selected, user must specify data source in Remarks

Select Utility Company: San Diego Gas & Electric

CO2 Intensity Factor (lb/MWh): 780.79

CH4 Intensity Factor (lb/MWh): 0.029

N2O Intensity Factor (lb/MWh): 0.011

Pollutants

Select All Clear All

Pollutant Selection	Pollutant Full Name
<input checked="" type="checkbox"/>	Reactive Organic Gases (ROG)
<input checked="" type="checkbox"/>	Nitrogen Oxides (NOx)
<input checked="" type="checkbox"/>	Carbon Monoxide (CO)
<input checked="" type="checkbox"/>	Sulfur Dioxide (SO2)
<input checked="" type="checkbox"/>	Particulate Matter 10um (PM10)
<input checked="" type="checkbox"/>	Particulate Matter 2.5um (PM2.5)
<input checked="" type="checkbox"/>	Fugitive PM10um (PM10)
<input checked="" type="checkbox"/>	Fugitive PM2.5um (PM2.5)
<input checked="" type="checkbox"/>	Total Organic Gases (TOG)
<input checked="" type="checkbox"/>	Lead (Pb)
<input checked="" type="checkbox"/>	Biogenic Carbon Dioxide (CO2)
<input checked="" type="checkbox"/>	Non-Biogenic Carbon Dioxide (CO2)
<input checked="" type="checkbox"/>	Carbon Dioxide (CO2)
<input checked="" type="checkbox"/>	Methane (CH4)
<input checked="" type="checkbox"/>	Nitrous Oxide (N2O)
<input checked="" type="checkbox"/>	CO2 Equivalent GHGs (CO2e)

Next >>

Remarks

CalEMod, 2011.1.1

Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Land Use

Import csv Default Undo

Land Use Type	Land Use Subtype	Unit Amount	Size Metric	Lot Acreage	Square Feet	Population
Parking	Other Non-Asphalt Surfaces	15.7	Acre	13.5	0	0
Parking	Parking Structure	799	Space	2.2	265,242	0
Recreational	City Park	2.2	Acre	2.2	0	0

Population: 0

Lot Acreage: 17.9

Remarks

265,242 square feet with 799 parking spaces on three levels and 97,000 square foot rooftop park
 The total project footprint is 17.9 acres. All construction other than the parking structure and rooftop park were modeled as "Other Non-Asphalt Surfaces"

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CalEEMod, 2011.1.1

Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Construction

Construction Phase Off-Road Equipment Dust from Material Movement Demolition Trips And VMT On-Road Fugitive Dust Architectural Coatings

*Make sure that the operational year is later than the final construction year

Import csv Default Undo

Phase Name	Phase Type	Start Date	End Date	Days/Week	Total Days	Phase Description
Phase I	Demolition	10/01/2012	11/23/2012	5 Days/Week	40	Demolishing restroom, relocating ...
Phase II	Grading	11/26/2012	12/20/2013	5 Days/Week	280	Constructing by-pass bridge, park...
Phase III	Building Construction	11/11/2013	02/07/2014	5 Days/Week	65	Pedestrian bridge, landscaping, ro...
Phase IV	Paving	02/10/2014	06/06/2014	5 Days/Week	85	2-way roadway and renovations t...

Remarks

Phase I - Begin October 2012 and take approximately 2 months
 Phase II - Begin November 2012 and take approximately 12 months
 Phase III - Begin November 2013 and take approximately 3 months
 Phase IV - Begin February 2014 and take approximately 4 months

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Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Construction

Construction Phase Off-Road Equipment Dust from Material Movement Demolition Trips And VMT On-Road Fugitive Dust Architectural Coatings

Select Construction Phase

Phase Name Phase I << Previous Phase Next Phase >>

Import csv Default Undo

Equipment Type	Unit Amount	Hours/Day	HorsePower (HP)	Load Factor
Concrete/Industrial Saws	0	8	81	0.73
Excavators	0	8	157	0.57
Rubber Tired Dozers	0	8	358	0.59
Skid Steer Loaders	1	8	37	0.55
Tractors/Loaders/Backhoes	6	8	75	0.55
Forklifts	5	8	149	0.3
Cranes	1	8	208	0.43

Remarks

Construction equipment requirements provided by KCM Group

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CalEEMod, 2011.1.1

Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Construction

Construction Phase Off-Road Equipment Dust from Material Movement Demolition Trips And VMT On-Road Fugitive Dust Architectural Coatings

Select Construction Phase

Phase Name Phase II << Previous Phase Next Phase >>

Import csv Default Undo

Equipment Type	Unit Amount	Hours/Day	HorsePower (HP)	Load Factor
Aerial Lifts	2	8	34	0.46
Air Compressors	4	8	78	0.48
Bore/Drill Rigs	1	8	82	0.75
Cranes	5	8	208	0.43
Excavators	2	8	157	0.57
Forklifts	5	8	149	0.3
Generator Sets	4	8	84	0.74
Graders	1	8	162	0.61
Pavers	1	8	89	0.62
Pumps	3	8	84	0.74
Rubber Tired Dozers	0	8	358	0.59
Scrapers	0	8	356	0.72
Skid Steer Loaders	8	8	37	0.55
Tractors/Loaders/Backhoes	11	8	75	0.55

Remarks

Construction equipment requirements provided by KCM Group

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Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Construction

Construction Phase Off-Road Equipment Dust from Material Movement Demolition Trips And VMT On-Road Fugitive Dust Architectural Coatings

Select Construction Phase

Phase Name Phase III << Previous Phase Next Phase >>

Import csv Default Undo

Equipment Type	Unit Amount	Hours/Day	HorsePower (HP)	Load Factor
Cranes	0	7	208	0.43
Forklifts	0	8	149	0.3
Generator Sets	0	8	84	0.74
Tractors/Loaders/Backhoes	1	8	75	0.55
Welders	0	8	46	0.45
Skid Steer Loaders	5	8	37	0.55
Pumps	1	8	84	0.74
Pavers	1	8	89	0.62

Remarks

Construction equipment requirements provided by KCM Group

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Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Construction

Construction Phase | Off-Road Equipment | Dust from Material Movement | Demolition | Trips And VMT | On-Road Fugitive Dust | Architectural Coatings

Select Construction Phase

Phase Name: Phase IV

<< Previous Phase | Next Phase >>

Import csv | Default | Undo

Equipment Type	Unit Amount	Hours/Day	HorsePower (HP)	Load Factor
Pavers	0	8	89	0.62
Paving Equipment	0	8	82	0.53
Rollers	0	8	84	0.56
Skid Steer Loaders	8	8	37	0.55
Tractors/Loaders/Backhoes	8	8	75	0.55
Forklifts	2	8	149	0.3
Pumps	2	8	84	0.74
Cranes	1	8	208	0.43

Remarks

Construction equipment requirements provided by KCM Group

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Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Construction

Construction Phase | Off-Road Equipment | Dust from Material Movement | Demolition | Trips And VMT | On-Road Fugitive Dust | Architectural Coatings

Import csv | Default | Undo

Phase Name	Material Imported	Material Exported	Size Metric	Material Import/Export Phased?	Mean Vehicle Speed (mph)	Total Acres Disturbed	Material Moisture Content (%) Bulldozing	Material Moisture Content (%) Truck Loading	Material Silt Content (%)
Phase II	0	0		<input type="checkbox"/>	7.1	2.23	7.9	12	6.9

Remarks

Parking structure footprint - 2.23 acres

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Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Construction

Construction Phase | Off-Road Equipment | Dust from Material Movement | Demolition | **Trips And VMT** | On-Road Fugitive Dust | Architectural Coatings

Import csv Default Undo

Phase Name	Size Metric	Unit Amount
Phase I	Building Square Footage	500

Remarks

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Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Construction

Construction Phase | Off-Road Equipment | Dust from Material Movement | Demolition | **Trips And VMT** | On-Road Fugitive Dust | Architectural Coatings

Import csv Default Undo

Phase Name	# Trips Worker (/day)	# Trips Vendor (/day)	Total # Trips Hauling	TripLength Worker (miles)	TripLength Vendor (miles)	TripLength Hauling (miles)	Vehicle Class Worker	Vehicle Class Vendor	Vehicle Class Hauling
Phase I	60	3	0	10.8	7.3	20	LDA,LDT1,LDT2	HHDT,MHDT	HHDT
Phase II	270	17	8	10.8	7.3	10	LDA,LDT1,LDT2	HHDT,MHDT	HHDT
Phase III	80	2	0	10.8	7.3	20	LDA,LDT1,LDT2	HHDT,MHDT	HHDT
Phase IV	100	13	0	10.8	7.3	20	LDA,LDT1,LDT2	HHDT,MHDT	HHDT

Remarks

Construction trips provided by KCM Group. Soil will be hauled to Arizon Reclaimed Landfill 3 driving miles away. Worst case scenario, soil will be hauled 10 miles away

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Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Construction

Construction Phase Off-Road Equipment Dust from Material Movement Demolition Trips And VMT On-Road Fugitive Dust Architectural Coatings

Import csv Default Undo

Phase Name	% Pave Worker	% Pave Vendor	% Pave Hauling	Road Silt Loading (g/m2)	Material Silt Content (%)	Material Moisture Content (%)	Average Vehicle Weight (tons)	Mean Vehicle Speed (mph)
Phase I	100	100	100	0.1	8.5	0.5	2.4	40
Phase II	100	100	100	0.1	8.5	0.5	2.4	40
Phase III	100	100	100	0.1	8.5	0.5	2.4	40
Phase IV	100	100	100	0.1	8.5	0.5	2.4	40

Remarks

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Home Project Characteristics Land Use Construction Operational Vegetation Mitigation Reporting Help

Construction

Construction Phase Off-Road Equipment Dust from Material Movement Demolition Trips And VMT On-Road Fugitive Dust Architectural Coatings

Import csv Default Undo

Phase Name	Residential Interior VOC (g/L)	Residential Interior Area (sqft)	Residential Exterior VOC (g/L)	Residential Exterior Area (sqft)	Non Residential Interior VOC (g/L)	Non Residential Interior Area (sqft)	Non Residential Exterior VOC (g/L)	Non Residential Exterior Area (sqft)

Remarks

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Mitigation

Construction Traffic Area Energy Water Solid Waste

Off-Road Equipment

Default Undo

Equipment Type	Fuel Type	Engine Tier	Number of Equipments Mitigated	Total Number Of Offroad Equipments	DPF Level	Using Oxidation Catalyst (%Reduction)
Aerial Lifts	Diesel	Tier 2	0	8		0
Air Compressors	Diesel	Tier 2	0	4		0
Bore/Drill Rigs	Diesel	Tier 2	0	1		0
Concrete/Industrial Saws	Diesel	Tier 2	0	0		0
Cranes	Diesel	Tier 2	0	7	No Change	0
Excavators	Diesel	Tier 2	0	2	No Change	0
Forklifts	Diesel	Tier 2	0	12	No Change	0

Fugitive Dust

Soil Stabilizer for Unpaved Roads

PM10 (% Reduction)

PM2.5 (% Reduction)

Replace Ground Cover of Area Disturbed

PM10 (% Reduction)

PM2.5 (% Reduction)

Water Exposed Area

Frequency (per day)

PM10 (% Reduction)

PM2.5 (% Reduction)

Unpaved Road Mitigation

Moisture Content (%)

Vehicle Speed (mph)

Clean Paved Road

% PM Reduction

**The mitigation should be applicable to land use project evaluated.
Remarks box should contain percent reduction justification.

Remarks

% Reduction obtained from URBEMIS 2007

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**6095 Balboa Park Plaza de Panama
San Diego Air Basin, Annual**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	799	Space
City Park	2.2	Acre
Other Non-Asphalt Surfaces	15.7	Acre

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Utility Company	San Diego Gas & Electric
Climate Zone	13	Precipitation Freq (Days)	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - 265,242 square feet with 799 parking spaces on three levels and 97,000 square foot rooftop park
The total project footprint is 17.9 acres. All construction other than the parking structure and rooftop park were modeled as "Other Non-Asphalt Surfaces"

Construction Phase - Phase I - Begin October 2012 and take approximately 2 months

Phase II - Begin November 2012 and take approximately 12 months

Phase III - Begin November 2013 and take approximately 3 months

Phase IV - Begin February 2014 and take approximately 4 months

Off-road Equipment - Construction equipment requirements provided by KCM Group

Off-road Equipment - Construction equipment requirements provided by KCM Group

Off-road Equipment - Construction equipment requirements provided by KCM Group

Off-road Equipment - Construction equipment requirements provided by KCM Group

Trips and VMT - Construction trips provided by KCM Group

Soil will be hauled to Arizon Reclaimed Landfill 3 driving miles away. Worst case scenario, soil will be hauled 10 miles away

Demolition -

Grading - Parking structure footprint - 2.23 acres

Vehicle Trips - Proposed project would not generate additional trips

Construction Off-road Equipment Mitigation - % Reduction obtained from URBEMIS 2007

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2012	0.59	3.98	2.66	0.00	0.03	0.27	0.30	0.00	0.27	0.27	0.00	403.71	403.71	0.05	0.00	404.73
2013	4.03	27.07	18.90	0.03	0.22	1.81	2.04	0.00	1.81	1.81	0.00	2,900.35	2,900.35	0.33	0.00	2,907.24
2014	0.52	3.25	2.76	0.00	0.05	0.22	0.27	0.00	0.22	0.22	0.00	387.88	387.88	0.04	0.00	388.77
Total	5.14	34.30	24.32	0.03	0.30	2.30	2.61	0.00	2.30	2.30	0.00	3,691.94	3,691.94	0.42	0.00	3,700.74

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2012	0.59	3.98	2.66	0.00	0.03	0.27	0.30	0.00	0.27	0.27	0.00	403.71	403.71	0.05	0.00	404.73
2013	4.03	27.07	18.90	0.03	0.22	1.81	2.03	0.00	1.81	1.81	0.00	2,900.35	2,900.35	0.33	0.00	2,907.24
2014	0.52	3.25	2.76	0.00	0.05	0.22	0.27	0.00	0.22	0.22	0.00	387.88	387.88	0.04	0.00	388.77
Total	5.14	34.30	24.32	0.03	0.30	2.30	2.60	0.00	2.30	2.30	0.00	3,691.94	3,691.94	0.42	0.00	3,700.74

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	1.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.47	3.47	0.00	0.00	3.47
Waste						0.00	0.00		0.00	0.00	0.04	0.00	0.04	0.00	0.00	0.09
Water						0.00	0.00		0.00	0.00	0.00	10.31	10.31	0.00	0.00	10.37
Total	1.34	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	13.78	13.82	0.00	0.00	13.93

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	tons/yr										MT/yr						
Area	1.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mobile	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.47	3.47	0.00	0.00	0.00	3.47
Waste						0.00	0.00		0.00	0.00	0.04	0.00	0.04	0.00	0.00	0.00	0.09
Water						0.00	0.00		0.00	0.00	0.00	10.31	10.31	0.00	0.00	0.00	10.37
Total	1.34	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04	13.78	13.82	0.00	0.00	0.00	13.93

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Use DPF for Construction Equipment
- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 Phase I - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.15	1.05	0.69	0.00		0.07	0.07		0.07	0.07	0.00	105.49	105.49	0.01	0.00	105.75
Total	0.15	1.05	0.69	0.00	0.00	0.07	0.07	0.00	0.07	0.07	0.00	105.49	105.49	0.01	0.00	105.75

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.48	1.48	0.00	0.00	1.48
Worker	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	6.01	6.01	0.00	0.00	6.02
Total	0.00	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.49	7.49	0.00	0.00	7.50

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.15	1.05	0.69	0.00		0.07	0.07		0.07	0.07	0.00	105.49	105.49	0.01	0.00	105.75
Total	0.15	1.05	0.69	0.00	0.00	0.07	0.07	0.00	0.07	0.07	0.00	105.49	105.49	0.01	0.00	105.75

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.48	1.48	0.00	0.00	1.48
Worker	0.00	0.00	0.05	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	6.01	6.01	0.00	0.00	6.02
Total	0.00	0.01	0.06	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	7.49	7.49	0.00	0.00	7.50

3.3 Phase II - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.43	2.87	1.78	0.00		0.20	0.20		0.20	0.20	0.00	271.30	271.30	0.03	0.00	272.03
Total	0.43	2.87	1.78	0.00	0.00	0.20	0.20	0.00	0.20	0.20	0.00	271.30	271.30	0.03	0.00	272.03

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.44	5.44	0.00	0.00	5.44
Worker	0.01	0.01	0.11	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.97	13.97	0.00	0.00	13.99
Total	0.01	0.05	0.14	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	19.42	19.42	0.00	0.00	19.44

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	0.43	2.87	1.78	0.00		0.20	0.20		0.20	0.20	0.00	271.30	271.30	0.03	0.00	272.03
Total	0.43	2.87	1.78	0.00	0.00	0.20	0.20	0.00	0.20	0.20	0.00	271.30	271.30	0.03	0.00	272.03

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00	0.01
Vendor	0.00	0.04	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.44	5.44	0.00	0.00	5.44
Worker	0.01	0.01	0.11	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.97	13.97	0.00	0.00	13.99
Total	0.01	0.05	0.14	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	19.42	19.42	0.00	0.00	19.44

3.3 Phase II - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	3.82	26.12	17.19	0.03		1.75	1.75		1.75	1.75	0.00	2,650.41	2,650.41	0.31	0.00	2,656.91
Total	3.82	26.12	17.19	0.03	0.00	1.75	1.75	0.00	1.75	1.75	0.00	2,650.41	2,650.41	0.31	0.00	2,656.91

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.14	0.14	0.00	0.00	0.14
Vendor	0.03	0.36	0.23	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	53.22	53.22	0.00	0.00	53.25
Worker	0.09	0.10	0.98	0.00	0.17	0.01	0.18	0.00	0.01	0.01	0.00	133.62	133.62	0.01	0.00	133.80
Total	0.12	0.46	1.21	0.00	0.20	0.02	0.22	0.00	0.02	0.02	0.00	186.98	186.98	0.01	0.00	187.19

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Off-Road	3.82	26.12	17.19	0.03		1.75	1.75		1.75	1.75	0.00	2,650.41	2,650.41	0.31	0.00	2,656.91
Total	3.82	26.12	17.19	0.03	0.00	1.75	1.75	0.00	1.75	1.75	0.00	2,650.41	2,650.41	0.31	0.00	2,656.91

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.14	0.14	0.00	0.00	0.14
Vendor	0.03	0.36	0.23	0.00	0.02	0.01	0.03	0.00	0.01	0.01	0.00	53.22	53.22	0.00	0.00	53.25
Worker	0.09	0.10	0.98	0.00	0.17	0.01	0.18	0.00	0.01	0.01	0.00	133.62	133.62	0.01	0.00	133.80
Total	0.12	0.46	1.21	0.00	0.20	0.02	0.22	0.00	0.02	0.02	0.00	186.98	186.98	0.01	0.00	187.19

3.4 Phase III - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.09	0.47	0.37	0.00		0.04	0.04		0.04	0.04	0.00	43.74	43.74	0.01	0.00	43.89
Total	0.09	0.47	0.37	0.00		0.04	0.04		0.04	0.04	0.00	43.74	43.74	0.01	0.00	43.89

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.00	0.00	0.91
Worker	0.01	0.01	0.13	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	18.31	18.31	0.00	0.00	18.33
Total	0.01	0.02	0.13	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	19.22	19.22	0.00	0.00	19.24

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.09	0.47	0.37	0.00		0.04	0.04		0.04	0.04	0.00	43.74	43.74	0.01	0.00	43.89
Total	0.09	0.47	0.37	0.00		0.04	0.04		0.04	0.04	0.00	43.74	43.74	0.01	0.00	43.89

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91	0.91	0.00	0.00	0.91
Worker	0.01	0.01	0.13	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	18.31	18.31	0.00	0.00	18.33
Total	0.01	0.02	0.13	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	19.22	19.22	0.00	0.00	19.24

3.4 Phase III - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.06	0.34	0.27	0.00		0.03	0.03		0.03	0.03	0.00	33.10	33.10	0.00	0.00	33.20
Total	0.06	0.34	0.27	0.00		0.03	0.03		0.03	0.03	0.00	33.10	33.10	0.00	0.00	33.20

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0.69	0.00	0.00	0.69
Worker	0.01	0.01	0.09	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.56	13.56	0.00	0.00	13.58
Total	0.01	0.01	0.09	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	14.25	14.25	0.00	0.00	14.27

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.06	0.34	0.27	0.00		0.03	0.03		0.03	0.03	0.00	33.10	33.10	0.00	0.00	33.20
Total	0.06	0.34	0.27	0.00		0.03	0.03		0.03	0.03	0.00	33.10	33.10	0.00	0.00	33.20

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.69	0.69	0.00	0.00	0.69
Worker	0.01	0.01	0.09	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	13.56	13.56	0.00	0.00	13.58
Total	0.01	0.01	0.09	0.00	0.02	0.00	0.02	0.00	0.00	0.00	0.00	14.25	14.25	0.00	0.00	14.27

3.5 Phase IV - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.43	2.80	2.20	0.00		0.19	0.19		0.19	0.19	0.00	307.23	307.23	0.03	0.00	307.96
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.43	2.80	2.20	0.00		0.19	0.19		0.19	0.19	0.00	307.23	307.23	0.03	0.00	307.96

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.08	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.64	13.64	0.00	0.00	13.65
Worker	0.01	0.01	0.14	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.66	19.66	0.00	0.00	19.69
Total	0.02	0.09	0.19	0.00	0.03	0.00	0.04	0.00	0.00	0.00	0.00	33.30	33.30	0.00	0.00	33.34

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.43	2.80	2.20	0.00		0.19	0.19		0.19	0.19	0.00	307.23	307.23	0.03	0.00	307.96
Paving	0.00					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.43	2.80	2.20	0.00		0.19	0.19		0.19	0.19	0.00	307.23	307.23	0.03	0.00	307.96

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vendor	0.01	0.08	0.05	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	13.64	13.64	0.00	0.00	13.65
Worker	0.01	0.01	0.14	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	19.66	19.66	0.00	0.00	19.69
Total	0.02	0.09	0.19	0.00	0.03	0.00	0.04	0.00	0.00	0.00	0.00	33.30	33.30	0.00	0.00	33.34

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.47	3.47	0.00	0.00	3.47
Unmitigated	0.00	0.01	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.47	3.47	0.00	0.00	3.47
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.50	3.50	3.50	7,468	7,468
Parking Structure	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	3.50	3.50	3.50	7,468	7,468

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
City Park	9.50	7.30	7.30	33.00	48.00	19.00
Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Electricity Unmitigated						0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	tons/yr										MT/yr					
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
City Park	0					0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Parking Structure	0					0.00	0.00	0.00	0.00
Total						0.00	0.00	0.00	0.00

Mitigated

	Electricity Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	kWh	tons/yr				MT/yr			
City Park	0					0.00	0.00	0.00	0.00
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Parking Structure	0					0.00	0.00	0.00	0.00
Total						0.00	0.00	0.00	0.00

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Unmitigated	1.34	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.31					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.04					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.35	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.31					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Consumer Products	1.04					0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	1.35	0.00	0.00	0.00		0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

7.0 Water Detail

7.1 Mitigation Measures Water

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr				MT/yr			
Mitigated					10.31	0.00	0.00	10.37
Unmitigated					10.31	0.00	0.00	10.37
Total	NA	NA	NA	NA	NA	NA	NA	NA

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
City Park	0 / 2.62126					10.31	0.00	0.00	10.37
Other Non-Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
Total						10.31	0.00	0.00	10.37

Mitigated

	Indoor/Outdoor Use	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	tons/yr				MT/yr			
City Park	0 / 2.62126					10.31	0.00	0.00	10.37
Other Non-Asphalt Surfaces	0 / 0					0.00	0.00	0.00	0.00
Parking Structure	0 / 0					0.00	0.00	0.00	0.00
Total						10.31	0.00	0.00	10.37

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
	tons/yr				MT/yr			
Mitigated					0.04	0.00	0.00	0.09
Unmitigated					0.04	0.00	0.00	0.09
Total	NA	NA	NA	NA	NA	NA	NA	NA

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
City Park	0.19					0.04	0.00	0.00	0.09
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Parking Structure	0					0.00	0.00	0.00	0.00
Total						0.04	0.00	0.00	0.09

Mitigated

	Waste Disposed	ROG	NOx	CO	SO2	Total CO2	CH4	N2O	CO2e
Land Use	tons	tons/yr				MT/yr			
City Park	0.19					0.04	0.00	0.00	0.09
Other Non-Asphalt Surfaces	0					0.00	0.00	0.00	0.00
Parking Structure	0					0.00	0.00	0.00	0.00
Total						0.04	0.00	0.00	0.09

9.0 Vegetation

**6095 Balboa Park Plaza de Panama
San Diego Air Basin, Summer**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	799	Space
City Park	2.2	Acre
Other Non-Asphalt Surfaces	15.7	Acre

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Utility Company	San Diego Gas & Electric
Climate Zone	13	Precipitation Freq (Days)	40		

1.3 User Entered Comments

Project Characteristics -

Land Use - 265,242 square feet with 799 parking spaces on three levels and 97,000 square foot rooftop park

The total project footprint is 17.9 acres. All construction other than the parking structure and rooftop park were modeled as "Other Non-Asphalt Surfaces"

Construction Phase - Phase I - Begin October 2012 and take approximately 2 months

Phase II - Begin November 2012 and take approximately 12 months

Off-road Equipment - Construction equipment requirements provided by KCM Group

Off-road Equipment - Construction equipment requirements provided by KCM Group

Off-road Equipment - Construction equipment requirements provided by KCM Group

Off-road Equipment - Construction equipment requirements provided by KCM Group

Trips and VMT - Construction trips provided by KCM Group

Demolition -

Grading - Parking structure footprint - 2.23 acres

Vehicle Trips - Proposed project would not generate additional trips

Construction Off-road Equipment Mitigation - % Reduction obtained from URBEMIS 2007

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2012	33.80	224.70	147.79	0.26	1.80	15.49	17.29	0.02	15.48	15.50	0.00	24,735.52	0.00	3.04	0.00	24,799.28
2013	36.32	236.07	172.65	0.31	3.27	16.03	19.29	0.04	16.01	16.06	0.00	28,532.56	0.00	3.27	0.00	28,601.20
2014	10.60	68.21	56.28	0.10	1.47	4.57	5.38	0.02	4.56	4.57	0.00	8,868.44	0.00	0.95	0.00	8,888.33
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2012	33.80	224.70	147.79	0.26	1.79	15.49	17.28	0.02	15.48	15.50	0.00	24,735.52	0.00	3.04	0.00	24,799.28
2013	36.32	236.07	172.65	0.31	3.26	16.03	19.29	0.04	16.01	16.06	0.00	28,532.56	0.00	3.27	0.00	28,601.20
2014	10.60	68.21	56.28	0.10	1.47	4.57	5.38	0.02	4.56	4.57	0.00	8,868.44	0.00	0.95	0.00	8,888.33
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.2 Overall Operational - Not Applicable; Deleted from Output File

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Use DPF for Construction Equipment
- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 Phase I - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00						0.00
Off-Road	7.46	52.47	34.56	0.06		3.62	3.62		3.62	3.62		5,815.97		0.67		5,830.02
Total	7.46	52.47	34.56	0.06	0.01	3.62	3.63	0.00	3.62	3.62		5,815.97		0.67		5,830.02

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.05	0.55	0.32	0.00	0.03	0.02	0.05	0.00	0.02	0.02		81.64		0.00		81.69
Worker	0.21	0.24	2.44	0.00	0.43	0.01	0.45	0.01	0.01	0.02		352.61		0.02		353.10
Total	0.26	0.79	2.76	0.00	0.46	0.03	0.50	0.01	0.03	0.04		434.25		0.02		434.79

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	7.46	52.47	34.56	0.06		3.62	3.62		3.62	3.62	0.00	5,815.97		0.67		5,830.02
Total	7.46	52.47	34.56	0.06	0.00	3.62	3.62	0.00	3.62	3.62	0.00	5,815.97		0.67		5,830.02

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.05	0.55	0.32	0.00	0.03	0.02	0.05	0.00	0.02	0.02		81.64		0.00		81.69
Worker	0.21	0.24	2.44	0.00	0.43	0.01	0.45	0.01	0.01	0.02		352.61		0.02		353.10
Total	0.26	0.79	2.76	0.00	0.46	0.03	0.50	0.01	0.03	0.04		434.25		0.02		434.79

3.3 Phase II - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00						0.00
Off-Road	32.77	220.68	137.25	0.25		15.33	15.33		15.33	15.33		23,010.81		2.94		23,072.52
Total	32.77	220.68	137.25	0.25	0.01	15.33	15.34	0.00	15.33	15.33		23,010.81		2.94		23,072.52

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.01	0.01	0.00	0.09	0.00	0.09	0.00	0.00	0.00		1.22		0.00		1.22
Vendor	0.27	3.14	1.80	0.00	0.16	0.10	0.26	0.00	0.10	0.10		462.64		0.01		462.92
Worker	0.76	0.87	8.73	0.01	1.54	0.05	1.59	0.02	0.05	0.07		1,260.85		0.08		1,262.61
Total	1.03	4.02	10.54	0.01	1.79	0.15	1.94	0.02	0.15	0.17		1,724.71		0.09		1,726.75

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	32.77	220.68	137.25	0.25		15.33	15.33		15.33	15.33	0.00	23,010.81		2.94		23,072.52
Total	32.77	220.68	137.25	0.25	0.00	15.33	15.33	0.00	15.33	15.33	0.00	23,010.81		2.94		23,072.52

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.01	0.01	0.00	0.09	0.00	0.09	0.00	0.00	0.00		1.22		0.00		1.22
Vendor	0.27	3.14	1.80	0.00	0.16	0.10	0.26	0.00	0.10	0.10		462.64		0.01		462.92
Worker	0.76	0.87	8.73	0.01	1.54	0.05	1.59	0.02	0.05	0.07		1,260.85		0.08		1,262.61
Total	1.03	4.02	10.54	0.01	1.79	0.15	1.94	0.02	0.15	0.17		1,724.71		0.09		1,726.75

3.3 Phase II - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00						0.00
Off-Road	30.06	205.76	135.36	0.25		13.82	13.82		13.82	13.82		23,010.81		2.69		23,067.27
Total	30.06	205.76	135.36	0.25	0.01	13.82	13.83	0.00	13.82	13.82		23,010.81		2.69		23,067.27

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.01	0.00	0.00	0.09	0.00	0.09	0.00	0.00	0.00		1.23		0.00		1.23
Vendor	0.25	2.90	1.66	0.00	0.16	0.10	0.25	0.00	0.09	0.09		463.42		0.01		463.68
Worker	0.70	0.80	8.03	0.01	1.54	0.05	1.59	0.02	0.05	0.07		1,234.40		0.08		1,236.04
Total	0.95	3.71	9.69	0.01	1.79	0.15	1.93	0.02	0.14	0.16		1,699.05		0.09		1,700.95

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	30.06	205.76	135.36	0.25		13.82	13.82		13.82	13.82	0.00	23,010.81		2.69		23,067.27
Total	30.06	205.76	135.36	0.25	0.00	13.82	13.82	0.00	13.82	13.82	0.00	23,010.81		2.69		23,067.27

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.01	0.00	0.00	0.09	0.00	0.09	0.00	0.00	0.00		1.23		0.00		1.23
Vendor	0.25	2.90	1.66	0.00	0.16	0.10	0.25	0.00	0.09	0.09		463.42		0.01		463.68
Worker	0.70	0.80	8.03	0.01	1.54	0.05	1.59	0.02	0.05	0.07		1,234.40		0.08		1,236.04
Total	0.95	3.71	9.69	0.01	1.79	0.15	1.93	0.02	0.14	0.16		1,699.05		0.09		1,700.95

3.4 Phase III - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.63	25.51	19.86	0.03		2.00	2.00		2.00	2.00		2,607.01		0.41		2,615.72
Total	4.63	25.51	19.86	0.03		2.00	2.00		2.00	2.00		2,607.01		0.41		2,615.72

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.34	0.20	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.52		0.00		54.55
Worker	0.66	0.75	7.55	0.01	1.45	0.05	1.50	0.02	0.05	0.07		1,161.17		0.07		1,162.72
Total	0.69	1.09	7.75	0.01	1.47	0.06	1.53	0.02	0.06	0.08		1,215.69		0.07		1,217.27

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.63	25.51	19.86	0.03		2.00	2.00		2.00	2.00	0.00	2,607.01		0.41		2,615.72
Total	4.63	25.51	19.86	0.03		2.00	2.00		2.00	2.00	0.00	2,607.01		0.41		2,615.72

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.34	0.20	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.52		0.00		54.55
Worker	0.66	0.75	7.55	0.01	1.45	0.05	1.50	0.02	0.05	0.07		1,161.17		0.07		1,162.72
Total	0.69	1.09	7.75	0.01	1.47	0.06	1.53	0.02	0.06	0.08		1,215.69		0.07		1,217.27

3.4 Phase III - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.14	24.09	19.50	0.03		1.79	1.79		1.79	1.79		2,607.01		0.37		2,614.83
Total	4.14	24.09	19.50	0.03		1.79	1.79		1.79	1.79		2,607.01		0.37		2,614.83

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.32	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.61		0.00		54.64
Worker	0.61	0.69	6.94	0.01	1.45	0.05	1.50	0.02	0.05	0.07		1,136.87		0.07		1,138.31
Total	0.64	1.01	7.12	0.01	1.47	0.06	1.53	0.02	0.06	0.08		1,191.48		0.07		1,192.95

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.14	24.09	19.50	0.03		1.79	1.79		1.79	1.79	0.00	2,607.01		0.37		2,614.83
Total	4.14	24.09	19.50	0.03		1.79	1.79		1.79	1.79	0.00	2,607.01		0.37		2,614.83

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.32	0.18	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.61		0.00		54.64
Worker	0.61	0.69	6.94	0.01	1.45	0.05	1.50	0.02	0.05	0.07		1,136.87		0.07		1,138.31
Total	0.64	1.01	7.12	0.01	1.47	0.06	1.53	0.02	0.06	0.08		1,191.48		0.07		1,192.95

3.5 Phase IV - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	10.13	65.82	51.79	0.09		4.48	4.48		4.48	4.48		7,970.65		0.91		7,989.68
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	10.13	65.82	51.79	0.09		4.48	4.48		4.48	4.48		7,970.65		0.91		7,989.68

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.17	2.06	1.17	0.00	0.12	0.07	0.19	0.00	0.06	0.07		354.96		0.01		355.14
Worker	0.29	0.33	3.31	0.01	0.69	0.02	0.72	0.01	0.02	0.03		542.83		0.03		543.52
Total	0.46	2.39	4.48	0.01	0.81	0.09	0.91	0.01	0.08	0.10		897.79		0.04		898.66

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	10.13	65.82	51.79	0.09		4.48	4.48		4.48	4.48	0.00	7,970.65		0.91		7,989.68
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	10.13	65.82	51.79	0.09		4.48	4.48		4.48	4.48	0.00	7,970.65		0.91		7,989.68

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.17	2.06	1.17	0.00	0.12	0.07	0.19	0.00	0.06	0.07		354.96		0.01		355.14
Worker	0.29	0.33	3.31	0.01	0.69	0.02	0.72	0.01	0.02	0.03		542.83		0.03		543.52
Total	0.46	2.39	4.48	0.01	0.81	0.09	0.91	0.01	0.08	0.10		897.79		0.04		898.66

**6095 Balboa Park Plaza de Panama
San Diego Air Basin, Winter**

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric
Parking Structure	799	Space
City Park	2.2	Acre
Other Non-Asphalt Surfaces	15.7	Acre

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)		Utility Company	San Diego Gas & Electric
Climate Zone	13		2.6		
		Precipitation Freq (Days)			

1.3 User Entered Comments

40

Project Characteristics -

Land Use - 265,242 square feet with 799 parking spaces on three levels and 97,000 square foot rooftop park

The total project footprint is 17.9 acres. All construction other than the parking structure and rooftop park were modeled as "Other Non-Asphalt Surfaces"

Construction Phase - Phase I - Begin October 2012 and take approximately 2 months

Phase II - Begin November 2012 and take approximately 12 months

Phase III - Begin November 2013 and take approximately 3 months

Phase IV - Begin February 2014 and take approximately 4 months

Off-road Equipment - Construction equipment requirements provided by KCM Group

Off-road Equipment - Construction equipment requirements provided by KCM Group

Off-road Equipment - Construction equipment requirements provided by KCM Group

Off-road Equipment - Construction equipment requirements provided by KCM Group

Trips and VMT - Construction trips provided by KCM Group

Soil will be hauled to Arizon Reclaimed Landfill 3 driving miles away. Worst case scenario, soil will be hauled 10 miles away

Demolition -

Grading - Parking structure footprint - 2.23 acres

Vehicle Trips - Proposed project would not generate additional trips

Construction Off-road Equipment Mitigation - % Reduction obtained from URBEMIS 2007

2.0 Emissions Summary

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2012	33.88	224.84	147.57	0.26	1.80	15.49	17.29	0.02	15.48	15.50	0.00	24,635.48	0.00	3.03	0.00	24,699.19
2013	36.46	236.27	172.09	0.30	3.27	16.03	19.30	0.04	16.01	16.06	0.00	28,344.75	0.00	3.26	0.00	28,413.28
2014	10.63	68.27	56.26	0.10	1.47	4.57	5.38	0.02	4.56	4.57	0.00	8,823.84	0.00	0.95	0.00	8,843.71
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2012	33.88	224.84	147.57	0.26	1.79	15.49	17.28	0.02	15.48	15.50	0.00	24,635.48	0.00	3.03	0.00	24,699.19
2013	36.46	236.27	172.09	0.30	3.26	16.03	19.29	0.04	16.01	16.06	0.00	28,344.75	0.00	3.26	0.00	28,413.28
2014	10.63	68.27	56.26	0.10	1.47	4.57	5.38	0.02	4.56	4.57	0.00	8,823.84	0.00	0.95	0.00	8,843.71
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.36	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.02	0.03	0.15	0.00	0.02	0.00	0.03	0.00	0.00	0.00		20.71		0.00		20.74
Total	7.38	0.03	0.15	0.00	0.02	0.00	0.03	0.00	0.00	0.00		20.71		0.00	0.00	20.74

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	7.36	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Energy	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Mobile	0.02	0.03	0.15	0.00	0.02	0.00	0.03	0.00	0.00	0.00		20.71		0.00		20.74
Total	7.38	0.03	0.15	0.00	0.02	0.00	0.03	0.00	0.00	0.00		20.71		0.00	0.00	20.74

3.0 Construction Detail

3.1 Mitigation Measures Construction

- Use Cleaner Engines for Construction Equipment
- Use DPF for Construction Equipment
- Use Soil Stabilizer
- Replace Ground Cover
- Water Exposed Area
- Reduce Vehicle Speed on Unpaved Roads

3.2 Phase I - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00						0.00
Off-Road	7.46	52.47	34.56	0.06		3.62	3.62		3.62	3.62		5,815.97		0.67		5,830.02
Total	7.46	52.47	34.56	0.06	0.01	3.62	3.63	0.00	3.62	3.62		5,815.97		0.67		5,830.02

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.05	0.57	0.35	0.00	0.03	0.02	0.05	0.00	0.02	0.02		81.01		0.00		81.06
Worker	0.23	0.27	2.32	0.00	0.43	0.01	0.45	0.01	0.01	0.02		325.64		0.02		326.12
Total	0.28	0.84	2.67	0.00	0.46	0.03	0.50	0.01	0.03	0.04		406.65		0.02		407.18

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	7.46	52.47	34.56	0.06		3.62	3.62		3.62	3.62	0.00	5,815.97		0.67		5,830.02
Total	7.46	52.47	34.56	0.06	0.00	3.62	3.62	0.00	3.62	3.62	0.00	5,815.97		0.67		5,830.02

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.05	0.57	0.35	0.00	0.03	0.02	0.05	0.00	0.02	0.02		81.01		0.00		81.06
Worker	0.23	0.27	2.32	0.00	0.43	0.01	0.45	0.01	0.01	0.02		325.64		0.02		326.12
Total	0.28	0.84	2.67	0.00	0.46	0.03	0.50	0.01	0.03	0.04		406.65		0.02		407.18

3.3 Phase II - 2012

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00						0.00
Off-Road	32.77	220.68	137.25	0.25		15.33	15.33		15.33	15.33		23,010.81		2.94		23,072.52
Total	32.77	220.68	137.25	0.25	0.01	15.33	15.34	0.00	15.33	15.33		23,010.81		2.94		23,072.52

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.01	0.01	0.00	0.09	0.00	0.09	0.00	0.00	0.00		1.21		0.00		1.21
Vendor	0.28	3.20	2.01	0.00	0.16	0.11	0.26	0.00	0.10	0.10		459.05		0.01		459.34
Worker	0.82	0.95	8.30	0.01	1.54	0.05	1.59	0.02	0.05	0.07		1,164.41		0.08		1,166.11
Total	1.10	4.16	10.32	0.01	1.79	0.16	1.94	0.02	0.15	0.17		1,624.67		0.09		1,626.66

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	32.77	220.68	137.25	0.25		15.33	15.33		15.33	15.33	0.00	23,010.81		2.94		23,072.52
Total	32.77	220.68	137.25	0.25	0.00	15.33	15.33	0.00	15.33	15.33	0.00	23,010.81		2.94		23,072.52

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.01	0.01	0.00	0.09	0.00	0.09	0.00	0.00	0.00		1.21		0.00		1.21
Vendor	0.28	3.20	2.01	0.00	0.16	0.11	0.26	0.00	0.10	0.10		459.05		0.01		459.34
Worker	0.82	0.95	8.30	0.01	1.54	0.05	1.59	0.02	0.05	0.07		1,164.41		0.08		1,166.11
Total	1.10	4.16	10.32	0.01	1.79	0.16	1.94	0.02	0.15	0.17		1,624.67		0.09		1,626.66

3.3 Phase II - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.01	0.00	0.01	0.00	0.00	0.00						0.00
Off-Road	30.06	205.76	135.36	0.25		13.82	13.82		13.82	13.82		23,010.81		2.69		23,067.27
Total	30.06	205.76	135.36	0.25	0.01	13.82	13.83	0.00	13.82	13.82		23,010.81		2.69		23,067.27

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.01	0.01	0.00	0.09	0.00	0.09	0.00	0.00	0.00		1.22		0.00		1.22
Vendor	0.26	2.96	1.87	0.00	0.16	0.10	0.25	0.00	0.09	0.09		459.75		0.01		460.02
Worker	0.76	0.87	7.62	0.01	1.54	0.05	1.59	0.02	0.05	0.07		1,139.74		0.08		1,141.32
Total	1.02	3.84	9.50	0.01	1.79	0.15	1.93	0.02	0.14	0.16		1,600.71		0.09		1,602.56

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.00	0.00	0.00	0.00	0.00	0.00						0.00
Off-Road	30.06	205.76	135.36	0.25		13.82	13.82		13.82	13.82	0.00	23,010.81		2.69		23,067.27
Total	30.06	205.76	135.36	0.25	0.00	13.82	13.82	0.00	13.82	13.82	0.00	23,010.81		2.69		23,067.27

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.01	0.01	0.00	0.09	0.00	0.09	0.00	0.00	0.00		1.22		0.00		1.22
Vendor	0.26	2.96	1.87	0.00	0.16	0.10	0.25	0.00	0.09	0.09		459.75		0.01		460.02
Worker	0.76	0.87	7.62	0.01	1.54	0.05	1.59	0.02	0.05	0.07		1,139.74		0.08		1,141.32
Total	1.02	3.84	9.50	0.01	1.79	0.15	1.93	0.02	0.14	0.16		1,600.71		0.09		1,602.56

3.4 Phase III - 2013

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.63	25.51	19.86	0.03		2.00	2.00		2.00	2.00		2,607.01		0.41		2,615.72
Total	4.63	25.51	19.86	0.03		2.00	2.00		2.00	2.00		2,607.01		0.41		2,615.72

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.35	0.22	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.09		0.00		54.12
Worker	0.72	0.82	7.17	0.01	1.45	0.05	1.50	0.02	0.05	0.07		1,072.13		0.07		1,073.61
Total	0.75	1.17	7.39	0.01	1.47	0.06	1.53	0.02	0.06	0.08		1,126.22		0.07		1,127.73

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.63	25.51	19.86	0.03		2.00	2.00		2.00	2.00	0.00	2,607.01		0.41		2,615.72
Total	4.63	25.51	19.86	0.03		2.00	2.00		2.00	2.00	0.00	2,607.01		0.41		2,615.72

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.35	0.22	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.09		0.00		54.12
Worker	0.72	0.82	7.17	0.01	1.45	0.05	1.50	0.02	0.05	0.07		1,072.13		0.07		1,073.61
Total	0.75	1.17	7.39	0.01	1.47	0.06	1.53	0.02	0.06	0.08		1,126.22		0.07		1,127.73

3.4 Phase III - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.14	24.09	19.50	0.03		1.79	1.79		1.79	1.79		2,607.01		0.37		2,614.83
Total	4.14	24.09	19.50	0.03		1.79	1.79		1.79	1.79		2,607.01		0.37		2,614.83

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.32	0.20	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.17		0.00		54.20
Worker	0.67	0.75	6.57	0.01	1.45	0.05	1.50	0.02	0.05	0.07		1,049.47		0.07		1,050.85
Total	0.70	1.07	6.77	0.01	1.47	0.06	1.53	0.02	0.06	0.08		1,103.64		0.07		1,105.05

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	4.14	24.09	19.50	0.03		1.79	1.79		1.79	1.79	0.00	2,607.01		0.37		2,614.83
Total	4.14	24.09	19.50	0.03		1.79	1.79		1.79	1.79	0.00	2,607.01		0.37		2,614.83

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.03	0.32	0.20	0.00	0.02	0.01	0.03	0.00	0.01	0.01		54.17		0.00		54.20
Worker	0.67	0.75	6.57	0.01	1.45	0.05	1.50	0.02	0.05	0.07		1,049.47		0.07		1,050.85
Total	0.70	1.07	6.77	0.01	1.47	0.06	1.53	0.02	0.06	0.08		1,103.64		0.07		1,105.05

3.5 Phase IV - 2014

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	10.13	65.82	51.79	0.09		4.48	4.48		4.48	4.48		7,970.65		0.91		7,989.68
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	10.13	65.82	51.79	0.09		4.48	4.48		4.48	4.48		7,970.65		0.91		7,989.68

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.18	2.09	1.33	0.00	0.12	0.07	0.19	0.00	0.06	0.07		352.09		0.01		352.28
Worker	0.32	0.36	3.14	0.01	0.69	0.02	0.72	0.01	0.02	0.03		501.10		0.03		501.76
Total	0.50	2.45	4.47	0.01	0.81	0.09	0.91	0.01	0.08	0.10		853.19		0.04		854.04

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	10.13	65.82	51.79	0.09		4.48	4.48		4.48	4.48	0.00	7,970.65		0.91		7,989.68
Paving	0.00					0.00	0.00		0.00	0.00						0.00
Total	10.13	65.82	51.79	0.09		4.48	4.48		4.48	4.48	0.00	7,970.65		0.91		7,989.68

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00		0.00		0.00
Vendor	0.18	2.09	1.33	0.00	0.12	0.07	0.19	0.00	0.06	0.07		352.09		0.01		352.28
Worker	0.32	0.36	3.14	0.01	0.69	0.02	0.72	0.01	0.02	0.03		501.10		0.03		501.76
Total	0.50	2.45	4.47	0.01	0.81	0.09	0.91	0.01	0.08	0.10		853.19		0.04		854.04

4.0 Mobile Detail

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.02	0.03	0.15	0.00	0.02	0.00	0.03	0.00	0.00	0.00		20.71		0.00		20.74
Unmitigated	0.02	0.03	0.15	0.00	0.02	0.00	0.03	0.00	0.00	0.00		20.71		0.00		20.74
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
City Park	3.50	3.50	3.50	7,468	7,468
Parking Structure	0.00	0.00	0.00		
Other Non-Asphalt Surfaces	0.00	0.00	0.00		
Total	3.50	3.50	3.50	7,468	7,468

4.3 Trip Type Information

Land Use	Miles			Trip %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW
City Park	9.50	7.30	7.30	33.00	48.00	19.00
Parking Structure	9.50	7.30	7.30	0.00	0.00	0.00
Other Non-Asphalt Surfaces	9.50	7.30	7.30	0.00	0.00	0.00

5.0 Energy Detail

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
NaturalGas Unmitigated	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU	lb/day										lb/day					
City Park	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Other Non-Asphalt Surfaces	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Parking Structure	0	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00
Total		0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.36	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Unmitigated	7.36	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.68					0.00	0.00		0.00	0.00						0.00
Consumer Products	5.68					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	7.36	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	1.68					0.00	0.00		0.00	0.00						0.00
Consumer Products	5.68					0.00	0.00		0.00	0.00						0.00
Landscaping	0.00	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00
Total	7.36	0.00	0.00	0.00		0.00	0.00		0.00	0.00		0.00		0.00		0.00

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Vegetation

APPENDIX I

Phase I Environmental Site Assessment



PREPARED FOR:

**KCM GROUP
1940 GARNET AVENUE, SUITE 300
SAN DIEGO, CALIFORNIA 92109**

PREPARED BY:

**GEOCON CONSULTANTS, INC
6960 FLANDERS DRIVE
SAN DIEGO, CALIFORNIA 92121-2974**





Project No. 09871-06-01
May 26, 2011
Revised May 31, 2011

Plaza de Panama Committee
c/o KCM Group
1940 Garnet Avenue, Suite 300
San Diego, California 92109

Attention: Mr. Kevin Horst

Subject: BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA
PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Horst:

As you requested on behalf of the Plaza de Panama Committee, we have performed a Phase I Environmental Site Assessment (ESA) for a portion of Balboa Park referred to as Balboa Park Plaza (the Site) in the City of San Diego, California. The Site is further identified by a portion of County of San Diego Assessor's Parcel Number (APN) 534-450-08.

The Plaza de Panama Committee requested the performance of a Phase I ESA at the Site to obtain information regarding the potential for existing hazardous material/waste impacts at the Site prior to the construction of a parking structure and hardscape improvements. The assessment revealed no evidence of recognized environmental conditions on the Site as defined by the American Society for Testing and Materials Designation E 1527-05, *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*.

We appreciate the opportunity to have performed this Phase I ESA for the Plaza de Panama Committee. Please contact us if you have any questions concerning this report or if we may be of further service.

Sincerely,

GEOCON INCORPORATED

Matthew Lesh
Project Geologist

Joseph J. Vettel
GE 2401

MWL:JVV:eh
(2) Addressee

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1. Site Location Map
2. Site Vicinity Map
3. Site Plan

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APPENDICES

- A. Geocon Proposal No. EP-2011-011
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- E. EDR Historical Aerial Photographs
- F. EDR Historical Topographic Maps
- G. EDR City Directory Abstract

PHASE I ENVIRONMENTAL SITE ASSESSMENT

1.0 INTRODUCTION

This report presents the results of a Phase I Environmental Site Assessment (ESA) of a portion of Balboa Park referred to as Balboa Park Plaza (the Site) in the City of San Diego, California (Figure 1). The Site is further identified by a portion of County of San Diego Assessor's Parcel Number (APN) 534-450-08. The Plaza de Panama Committee (the Client) requested the performance of a Phase I ESA at the Site to obtain information regarding the potential for existing hazardous material/waste impacts at the Site prior to the construction of a parking structure and hardscape improvements.

1.1 Purpose and Objectives

The purpose of the Phase I ESA was to identify "recognized environmental conditions" (RECs) and "historical RECs" as defined by the American Society for Testing and Materials (ASTM) Designation E 1527-05 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*. Section 1.1.1 of the ASTM Standard E 1527-05 defines a REC as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property." The term as further defined by ASTM "is not intended to include de minimis conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." Section 3.2.39 defines "Historical REC" as an "environmental condition, which in the past would have been considered a REC, but which may or may not be considered a REC currently."

The Phase I ESA was also conducted in general accordance with the requirements of 40 Code of Federal Regulations (CFR) Part 312 titled *Standards and Practices for All Appropriate Inquiries*, as required under Sections 101(35)(B)(ii) and (iii) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The purpose of conducting an all appropriate inquiries investigation into the previous ownership and uses of a property is to meet the provisions necessary for the landowner, contiguous property owner, and/or bona fide prospective purchaser to qualify for certain landowner liability protections under CERCLA.

The main components of this report and their objectives, as specified by the referenced standards, include the following:

- **Physical Setting:** The objective of reviewing physical setting references was to obtain information concerning the topographic, geologic, and hydrogeologic characteristics of the Site and vicinity. Such information may be indicative of the direction and/or extent that a contaminant could migrate in the event of a spill or release.
- **Records Review:** The objective of the records review was to obtain information that could potentially help identify RECs at or potentially affecting the Site. We reviewed publicly available federal, state, and local regulatory agency records for the Site.
- **Site History:** The objective of consulting historical references was to assess previous uses of the Site and surrounding area to identify those that could have led to RECs on or near the Site. Historical sources reviewed included aerial photographs, topographic maps, and city directories. In addition, we conducted interviews with persons who were expected to be reasonably knowledgeable about historical uses of the Site.
- **Site Reconnaissance:** The objective of the site reconnaissance was to observe site conditions and activities for indications of evidence of RECs. Offsite properties and features were also viewed, but solely from the vantage of the Site and public thoroughfares.

1.2 Scope of Services

The scope of services was performed in general accordance with ASTM Designation E 1527-05 and our Proposal No. EP-2011-011 dated March 21, 2011. A copy of our proposal is in Appendix A.

1.3 Report Limitations

The Phase I ESA report has been prepared exclusively for the Client. The information obtained is only relevant for the dates of the records reviewed or as of the date of the latest site visit. Therefore, the information contained herein is only valid as of the date of the report and will require an update to reflect recent records/site visits.

The Client should recognize that this report is not a comprehensive site characterization and should not be construed as such. The findings and conclusions presented in this report are predicated on the site reconnaissance, a review of the specified regulatory records, and a review of the historical usage of the Site, as presented in this report. The Client should also understand that wetlands, asbestos-containing building materials, lead-containing paint, lead in drinking water, radon, mercury related to mining activities, methane, and mold surveys were not included in the scope of services for this Phase I ESA. Assessment for potential naturally occurring hazards such as asbestos and arsenic also was not included.

Therefore, the report should only be deemed conclusive with respect to the information obtained. No guarantee or warranty of the results of the ESA is implied within the intent of this report or any

subsequent reports, correspondence or consultation, either express or implied. We strived to conduct the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.

1.4 Data Gaps

A data gap is defined by ASTM Standard E 1527-05 as “a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information.” Data gaps could include such things as insufficient historical information, the inability to interview persons with direct site knowledge (e.g., the owner(s), past owner(s), tenants, workers, etc.) or the lack of access to all parts of a site during the site reconnaissance. We did not identify any data gaps during the performance of this assessment.

2.0 SITE DESCRIPTION

This section provides information regarding the location and physical characteristics of the Site including its size, topography, geologic, soil, and hydrogeologic conditions.

2.1 Location and Legal Description

The approximately 13.5-acre Site includes existing roads, parking lots, and other infrastructure along El Prado and Pan American Drive East within Balboa Park located to the northeast of downtown San Diego. The Site occupies a portion of the County of San Diego Assessor’s Parcel Number 534-450-08.

The Site is depicted in portions of Section 36 of Township 16 South, Range 3 West, and Section 1 of Township 17 South, Range 3 West, San Bernardino Base and Meridian on the United States Geological Survey’s (USGS) *Point Loma California, 7.5-minute Topographic Map* (USGS, 1996).

2.2 Site and Vicinity General Characteristics

The Site is currently developed with three parking lots and adjacent landscaped areas, southwest of the Spreckels Organ Theater, south of the San Diego Museum of Art, and south of the Mingei International Museum, and asphalt paved roadways including El Prado and Pan American Drive East.

The site vicinity is characterized as mixed use including recreational, and medical, zoo, and museum structures. A Site Vicinity Map depicting the Site and surrounding features is presented as Figure 2.

2.2.1 Topography

Information concerning the topography was obtained from a review of the United States Geological Survey (USGS) topographic map of the *Point Loma, California Quadrangle* (USGS, 1996). According to the map, the site elevation is approximately 265 feet above mean sea level (MSL). The Site is situated on a low mesa with topography that appears to slope away from the Site to the east, south, and west.

2.2.2 Geologic Conditions

The Site is located in the Peninsular Ranges geomorphic province of Southern California (Norris and Webb, 1990). This geomorphic province encompasses an area that extends 125 miles from the Transverse Ranges and the Los Angeles Basin south to the Mexican Border and beyond another 775 miles to the tip of Baja California. In general, the province consists of rugged mountains underlain by Mesozoic igneous and metamorphic rocks to the east, and a dissected coastal plain underlain by Cenozoic sediments to the west. The province varies in width from approximately 30 to 100 miles, and is traversed by a group of faults and fault zones trending roughly northwest.

Information concerning the surface geologic conditions at and in proximity to the Site was obtained from a review of the *Geology of the Point Loma Quadrangle* (Kennedy and Peterson, 1975). The geologic map indicates that the Site is underlain by Pleistocene sediments of the Lindavista Formation. The formation consists of nearshore marine and nonmarine sediments deposited on a wave-cut platform composed of reddish brown interbedded sandstone and cobble/gravel conglomerate.

We obtained information concerning the soil conditions in proximity to the Site from review of the Natural Resources Conservation Service (NRCS), Soil Data Mart digital map of the Soil Survey of San Diego County, 2007 (<http://soildatamart.nrcs.usda.gov/>). The soil survey indicates that the site soil to a depth of 5 feet is characterized as 2 soil units: Gaviota fine sand loam, 30 to 50 percent slopes (Unit GaF); and Urban land (Unit Ur).

In general, Gaviota fine sand loam soil is located along the northern and western site boundaries. This well-drained soil unit is found on hill slopes and is generally characterized by fine sandy loam to a depth of approximately 16 inches, underlain by unweathered bedrock. Urban land consists of areas of soils that are so altered or obscured by urban works and structures that identification of the soils is not feasible; however it is likely that the Site was originally underlain by the Gaviota fine sandy loam soil unit or Terrace escarpment soils located adjacent east of the Site.

2.2.3 Hydrologic and Hydrogeologic Conditions

No perennial or ephemeral surface water bodies exist on the Site. Intermittent streams are present approximately 2,000 feet east of the Site within Powerhouse Canyon and two intersecting tributary canyons. San Diego Bay is approximately 1.25 miles west and southwest of the Site.

We reviewed groundwater information available from the California State Water Resources Control Board (SWRCB) for the vicinity of the Site. The Site is located within the San Diego Mesa hydrologic area (908.2) of the Pueblo San Diego hydrologic unit (908.0) (SWRCB, 2002). The Pueblo San Diego watershed is the smallest hydrologic unit in San Diego County, encompassing approximately 60 square miles of predominantly urban landscape. Approximately 75 percent of the watershed is urban development and land used for transportation corridors. The watershed consists of a group of relatively small local creeks and pipe conveyances, many of which are concrete-lined and drain directly into San Diego Bay (<http://www.projectcleanwater.org/>). The creeks are highly impacted by urban runoff, some of which are contaminated with various trace metals. Beneficial water uses within the Pueblo watershed as designated by the SWRCB's San Diego Region Basin Plan include municipal and domestic supply, recreation, freshwater and wildlife habitat, and industrial service supply.

Based on local topography, it is anticipated that groundwater would be encountered at a depth of approximately 50 or more feet with flow direction away from the Site toward local ravines/drainages to the east, south, and west.

2.3 Current and Planned Uses of the Site

Currently, the property consists of asphalt parking lots and adjacent landscaped areas and paved roadways. We understand the future plans for the Site are to construct a new bridge, roadways, and a two level parking structure as part of reclaiming the Plaza de Panama for pedestrian use. A more detailed description of the current use of and conditions on the Site is presented in Section 6.0.

2.4 Descriptions of Structures, Roads, Other Improvements on the Site

We observed three parking lots, southwest of the Spreckels Organ Theater, south of the San Diego Museum of Art, and south of the Mingei International Museum, and asphalt paved roadways including El Prado and Pan American Drive East. No structures were observed on the Site.

2.5 Current Uses of Adjoining Properties

Adjoining properties are either undeveloped or developed with various structures and that are a part of Balboa Park including museums, an outdoor theater, and gardens. Figure 2 depicts the Site and various features in Balboa Park in the general vicinity of the Site.

3.0 USER-PROVIDED INFORMATION

This section provides responses to inquiries made to a representative of the City of San Diego Park and Recreation Department that currently manages Balboa Park (which includes the Site) for site information. The Client requested that inquiries were made to this department as they would most likely have the most knowledge regarding the site history. The representative was asked if he was aware of previous environmental reports or documents that may exist and, if so, whether copies could be provided. He was also asked if he has knowledge of legal or administrative proceedings involving the Site.

3.1 Title, Appraisal and Sale Agreement Records

The representative or Client did not provide a preliminary title report for the Site. The representative or Client did not provide appraisal or sale agreement records for the Site. He indicated that Site is a portion of Balboa Park that established as City of San Diego Park in 1868.

3.2 Environmental Liens or Activity and Use Limitations

The representative stated that he was unaware of any environmental liens on, or uses limitations for, the Site.

3.3 Specialized Knowledge

The representative indicated that he was aware of a previous Environmental Impact Report (EIR) prepared as part of the Balboa Park Master Plan (R-274089) and a Supplemental EIR prepared as part of the Central Mesa Precise Plan (R-280919).

3.4 Commonly Known or Reasonably Ascertainable Information

The representative provided no commonly known information or reasonably ascertainable information unique to the Site.

3.5 Valuation Reduction for Environmental Issues

The representative indicated that he was not aware of any environmental conditions on the Site, which could lead to a potential valuation reduction of the Site.

3.6 Owner, Property Manager, and Occupant Information

We interviewed a representative of City of San Diego Park and Recreation Department. The representative also completed a site questionnaire (Appendix B). Interview information is in Section 7.0.

3.7 Reason for Performing Phase I ESA

A Phase I ESA was requested by the Client to obtain information regarding the potential for existing hazardous substances/petroleum hydrocarbon impacts at the Site prior to the construction of a parking structure and hardscape improvements.

4.0 RECORDS REVIEW

This section summarizes our review of readily available agency records for the Site and properties and facilities in the surrounding vicinity.

4.1 Standard Environmental Records Sources

Environmental Data Resources, Inc. (EDR) performed a search of federal, state, and local databases for the Site and surrounding area. The search distance for the review extended one mile from the Site. A copy of the report entitled *The EDR Radius Map Report with GeoCheck*, dated March 24, 2011 is in

Appendix C. The following table shows those databases that had listings and the number of facilities listed.

Database Name	Search Radius (Mile)	Adjacent Property Listings
FEDERAL DATABASES		
RCRA – SQG (RCRA – Small Quantity Generators)	¼	1
STATE/LOCAL DATABASES		
ENVIROSTOR	1	8
LUST (SWRCB Leaking Underground Storage Tank Reports)	½	8
SLIC (Spills, Leaks, Investigation, and Cleanup Program)	½	1
SAN DIEGO CO. SAM (Environmental Case Listings)	½	2
WMUDS/SWAT (Waste Management Unit Database)	½	1
SWEEPS UST (SWEEPS UST Listing)	¼	1
HIST CORTESE	½	4
Notify 65 (Proposition 65 Records)	1	16

Note: Sites may be listed in more than one database

4.1.1 Site

The Site is not referenced on any database searched by EDR.

4.1.2 Offsite Properties

The following discussion provides additional information regarding 6 of the 42 database listings summarized in the table above. These 6 listings are associated with four facilities located less than ¼-mile from the Site, the status of their listings and their potential, if any, to impact the Site. Referenced distances are based on field observations and may differ from those reported by EDR. The additional 36 listings are associated with properties greater than ¼ mile from the Site, and therefore are not likely to negatively impact the Site.

- **Balboa Art Conservation Center, 1649 El Prado (approximately 328 feet east of the Site)** – This facility is listed on the following databases:
 - **RCRA-SQG** – The facility was listed in 1996 and no violations were reported. This database includes selective information on facilities which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small Quantity Generators (SQG) generate between 100 kilograms (kg) and 1,000 kg of hazardous waste per month. No violations are referenced in the RCRA-SQG database for this facility.
 - **FINDS** – This facility was listed on the FINDS database associated with the Registry ID: 110006469632. The FINDS database is part of the California Hazardous Waste Tracking System that provides California with information on hazardous waste

shipments for generators, transporters, and treatment, storage, and disposal facilities. This database lists registry ID numbers, but does not provide information regarding violations associated with the facilities.

- **HAZNET** – This facility was listed in the HAZNET database as facility ID CAD981376296. The database references the disposal of total of 0.05 tons of oxygenated solvents (acetone, butanol, ethyl acetate, etc.). The HAZNET database does not provide information for violations associated with the facilities.
- **Naval Hospital San Diego Facility Mgmt. 12, 1900 Park Blvd. (approximately 619 feet south-southeast of the Site)** –
 - **SWEEPS UST** - This facility was listed in the Statewide Environmental Evaluation and Planning System (SWEEPS) underground storage tank (UST) database February 29, 1988 for a total of five USTs (four for vehicle fueling and one for waste oil). The SWEEPS UST database does not provide information for violations associated with the facilities.
 - **San Diego Co. HMMD** - The facility also had five USTs listed in the San Diego Co. Hazardous Materials Management Division (HMMD). No Violations were reported in San Diego Co. HMMD database for the Site. No violations are referenced in the San Diego Co. HMMD database for this facility.
- **San Diego Zoo Inc., 2920 Zoo Drive (approximately 933 feet north-northwest of the Site)** This facility was listed in the Notify 65 database. The Notify 65 database does not provide information for violations associated with the facilities.
- **Arizona Street Landfill, (address unknown) (approximately 1005 feet north-northwest of the Site)** – This facility was listed in the Waste Management Unit Database System/Solid Waste Assessment Test (WMUDS/SWAT) database as a Solid Waste Site-Class III for non-hazardous solid wastes. The WMUDS/SWAT database does not provide information for violations associated with the facilities.

Based on the distances of these four facilities from the Site, the nature of listings, and the information provided in the referenced databases, the likelihood of these facilities negatively impacting the Site appears to be low.

4.1.3 Orphan Summary

The Orphan Summary identifies 19 properties that have incomplete address information and could not be specifically plotted. Based on the partial addresses and location descriptions provided, it appears that none of the properties are located within ¼ mile of the Site. No significant adverse impact to the Site is expected from the properties identified on the Orphan Summary based on information provided in the report for the listed properties, their locations, and the databases on which the properties are listed.

4.2 Additional Environmental Record Sources

Additional environmental record sources, including files available on the State Water Resource Control Board (SWRCB) GeoTracker webpage, were reviewed for information regarding nearby facilities. No additional properties were identified within ¼ mile of the Site.

4.3 Additional Environmental Record Sources

We performed a search of additional readily available environmental record sources. The search distance for the review extended approximately one mile from the Site. A summary of our findings is presented below.

4.3.1 State of California Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR)

The State of California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) website (<http://www.conservation.ca.gov/dog/Pages/Index.aspx>) does not depict any active wells within approximately 1 mile of the Site.

4.3.2 County of San Diego Department of Agriculture, Weights and Measures

We submitted a request to the County of San Diego, Department of Agriculture, Weights and Measures-Pesticide Use Enforcement Division regarding restricted pesticide use at the Site. According to the County, no records are on file for the parcel associated with the Site.

4.3.3 San Diego Air Pollution Control District

We submitted a request to the San Diego Air Pollution Control District (APCD) for records pertaining to the Site. According to the Air Pollution Control District, no records are on file for the parcel associated with the Site.

4.3.4 County of San Diego – Department of Environmental Health

We submitted a request to the County of San Diego – Department of Environmental Health (DEH) for records pertaining to the parcel associated with the Site. According to DEH, records were associated with the site parcel but were associated with a release from a former UST at Balboa Municipal Golf Course, 2600 Golf Course Drive, approximately 1 mile southeast of the Site. According to the records reviewed, the release affected soil only and the UST case was closed in July 2001. Based on the closed

status of the UST case and the distance of this facility from the Site, no adverse impact to the Site is expected.

4.4 Previous Environmental Documents/Reports

No previous environmental documentation regarding the Site was provided.

5.0 HISTORICAL USE

This section summarizes information obtained from a variety of sources regarding the historical uses of the Site and identifies historical uses that could have led to RECs. The sources of information included historical Sanborn maps, historical aerial photographs, and historical topographic maps provided by EDR.

5.1 Sanborn, Inc. Fire Insurance Maps

According to EDR's Sanborn Map Report dated March 24, 2011 (Appendix D), Sanborn maps were available from 1921 to 1971 in approximately 5 year intervals. The maps were reviewed for indications of past land uses that had the potential to have impacted the Site through the use, storage or disposal of hazardous substances and/or petroleum. The following table summarizes the observations of the Site and adjacent properties on the Sanborn maps.

Year	Observations	
	Site	Adjacent Properties
1921	<p>The “Plaza de Panama” is depicted in the northeast portion and the “Plaza de California” is depicted in the northwestern portion of the Site in generally their present day configurations.</p> <p>A roadway with a grassy median is depicted directly south of the “Plaza de Panama”. No structures or improvements are depicted on the southern portion of the Site.</p>	<p>Properties to the north of the Site are depicted with various museum and park structures including the “California Building” in the present day location of the Museum of Man and the art studios/Indian Arts Building in the present day location of the Museum of Art. Adjacent to the west of the Site was the Museum Science of Man in the present day location of the Mingei International Museum, marine corps barracks, and gardens. Barracks and are also depicted to the south of the Site as is the Spreckels Organ Theater. Marine corps offices, a vacant structure, the Natural History Museum, and a gymnasium were depicted to the east of the Site. The remainder of the site vicinity was developed with various park structures (amphitheater, exhibit halls, and maintenance facilities).</p>
1950	<p>The Site generally appears to have been similar to that depicted on the 1921 map. The Plaza de Panama was renamed to the “Plaza del Pacifico”. The roadway to the south of the plaza is noted as El Prado and continued to the southwestern portion of the Site.</p>	<p>Properties to the north were generally the same as depicted on the 1921 map with the exception of the California Building that was noted as the Museum of Archaeology, the art studios/Indian Arts Building that was noted as a fine arts gallery/exhibit building. The Museum Science of Man adjacent to the west of the Site was noted as an exhibit building. The marine barracks, offices, and gymnasium were no longer depicted adjacent to the Site. The Natural History Museum adjacent to the east was noted as the House of Hospitality and the vacant structure was noted as the American Legion Building.</p>
1956 to 1962	<p>The Site generally appeared similar to that depicted on the 1950 map.</p>	<p>Adjacent properties generally appear to have been similar to that depicted on the 1950 map.</p>
1965	<p>The Site generally appeared similar to that depicted on the 1962 map.</p>	<p>The site vicinity generally appeared similar to that depicted on the 1962 map with the exception of the western portion of the fine arts gallery/exhibit building which appears to have been demolished and reconstructed with a meeting hall (West Wing Room) and a library. In addition, the American Legion Building was noted as the Timkin Art Gallery and the exhibit building adjacent to the west of the Site was noted as the Hall of Champions.</p>
1970 and 1971	<p>The Site generally appeared similar to that depicted on the 1965 map.</p>	<p>Adjacent properties generally appear to have been similar to that depicted on the 1965 map.</p>

No direct evidence of RECs was observed on the Sanborn maps.

5.2 Aerial Photographs

Historical aerial photographs provided by EDR for the years 1953, 1964, 1974, 1989, 1994, 2002, and 2005 (Appendix E) were reviewed for indications of past land uses that had the potential to have impacted the Site through the use, storage or disposal of hazardous substances and/or petroleum. The following table summarizes the observations of the Site and adjacent properties on the aerial photographs.

Year	Observations	
	Site	Adjacent Properties
1953 (1" = 555')	Hardscape areas appear to have been in the northeast and northwest portions of the Site at the present day locations of the Plaza de Panama and adjacent to the south of the Museum of Man. El Prado appeared to be a paved roadway and Pan American Road East appeared to be unpaved. Undeveloped land appeared in the present day location of the parking lot in the central portion of the Site. The parking lot in the southern portion of the Site appeared to be a dirt lot.	Properties to the north of the Site appear to have been developed with structures including the Museum of Man and Museum of Art in generally their present day configurations. Adjacent to the west of the Site was a structure in the present day location of the Mingei International Museum. The Spreckels Organ Theater, structures in the present day location of the Model Railroad Museum and Timkin Museum of Art appeared adjacent to the east of the Site. The remainder of the site vicinity was developed with park associated structures of varying sizes, many in their present day configurations.
1964 (1" = 555')	The Site appears to have been generally the same as in the 1953 photograph with the exception the construction of a parking lot in the previously undeveloped central portion of the Site. The parking lot in the southern portion Site and Pan American Road East appeared to be paved.	Adjacent properties appear to have been generally the same as in the 1964 photograph. The Timkin Museum of Art structure appeared in its present day configuration.
1974 (1" = 600')	The Site appears to have been generally the same as in the 1964 photograph.	Adjacent properties appear to have been generally the same as in the 1964 photograph.
1989 (1" = 666')	The Site appears to have been generally the same as in the 1974 photograph.	Adjacent properties appear to have been generally the same as in the 1974 photograph.
1994 (1" = 666')	The Site appears to have been generally the same as in the 1989 photograph.	Adjacent properties appear to have been generally the same as in the 1989 photograph.
2002 (1" = 666')	The Site appears to have been generally the same as in the 1994 photograph.	Adjacent properties appear to have been generally the same as in the 1994 photograph.
2005 (1" = 604')	The Site appears to have been generally the same as in the 2002 photograph.	Adjacent properties appear to have been generally the same as in the 2002 photograph.

No direct evidence of RECs was observed on the aerial photographs.

5.3 Topographic Maps

Historical topographic maps provided by EDR for the years 1904, 1930, 1942, 1953, 1967, 1975, and 1996 (Appendix F) were reviewed. The following table summarizes the observations of the Site and adjacent properties on the historical topographic maps.

Year	Observations	
	Site	Adjacent Properties
1904 (1: 250,000)	The Site is depicted to the northeast of the urban area of downtown San Diego. Due to the scale of the map, individual structures are not depicted.	It appears that undeveloped land and urban development were adjacent to the Site. Due to the scale of the map, individual structures are not depicted.
1930 (1:62,500)	El Prado is depicted in the northern portions of the Site. The remainder of the Site is depicted as undeveloped.	Several small structures are depicted to the north and south of El Prado and two large rectangular structures are depicted adjacent to the southwest of the Site.
1942 (1:31,680)	El Prado and Pan American Road East are depicted as paved, medium-duty, roadways. No structures are depicted in the present day locations of the Plaza de Panama and adjacent to the south of the Museum of Man. Otherwise the Site is as depicted on the 1930 map.	Additional larger structures are depicted to the north and south of El Prado. The rectangular structures to the southwest have been replaced by several small structures. A structure in the present day location of the Spreckels Organ Theater is depicted adjacent to the east of the Site.
1953 (1:24,000)	Information on the map is generally the same as on the 1942 map.	Information on the map is generally the same as on the 1942 map.
1967 (1:24,000)	Information on the map is generally the same as on the 1953 map.	Structures noted as museums are noted to the north of El Prado.
1975 (1:24,000)	Information on the map is generally the same as on the 1967 map.	Information on the map is generally the same as on the 1967 map.
1996 (1:24,000)	Information on the map is generally the same as on the 1996 map.	Information on the map is generally the same as on the 1996 map.

No direct evidence of RECs was observed on the topographic maps.

5.4 City Directories

EDR prepared an abstract of city directories including city, cross-reference, and telephone directories. The directories were reviewed at approximately five-year intervals, if available, from 1903 to 2006. No records were provided from 1903 to 1956. A copy of the EDR city directory abstract including information regarding offsite facilities is presented in Appendix G.

The Site was not referenced as there are no physical addresses associated with the Site. 1454 to 1554 El Prado (adjacent to the northern portion of the Site) were referenced as residences in 1960. The remaining addresses of properties adjacent to the Site were referenced as structures associated with Balboa Park from 1976 to 2006.

6.0 SITE RECONNAISSANCE

This section summarizes observations of the Site and surrounding properties made during the site reconnaissance.

6.1 Methodology and Limiting Conditions

We performed the site reconnaissance on April 8, 2011. We were not accompanied during the reconnaissance by a site representative but were provided access to all areas of the Site with the exception of the chain link fenced canyon area adjacent to the west of the parking lot to the south of El Prado. The offsite survey was performed by making observations of adjacent properties from the Site and adjacent public streets. Weather on the day of the site reconnaissance was cool with scattered showers and temperatures in the 60s. There were no limiting conditions to our ability to observe the Site or surrounding properties. Photos of various site features and offsite properties are appended.

6.2 General Site Setting

The Site consists of hardscape improvements within Balboa Park. Balboa Park is located east of State Route 163, north of Presidents Way, west of Park Boulevard, and south of the San Diego Zoo. In general the Site is located in an urban cultural park adjacent to residential homes.

6.3 Onsite Survey

The Site mainly consists of asphalt concrete roadways and three parking lots that provide access to multiple structures within Balboa Park. El Prado crosses the northern portion of the Site from east to west and terminates in the northeast parking lot (Photograph Nos. 1 and 2). Pan American Road East heads south from the northeast parking lot and provides access to two additional parking lots, the northwest parking lot and the southeastern parking lot (Photograph Nos. 3 through 7). This road continues south from the southeastern parking lot and intersects with Presidents Way (Photograph Nos. 8 and 9).

The future pedestrian walkway proposed as part of site improvements connects El Prado on the western portion of the Site to the northwestern parking lot southwest of Mingei International Museum (Photograph Nos. 10 and 11). A center median currently exists in the roadway north of Spreckels Organ Theater. North of the center median is the Plaza de Panama, that contains a water fountain in the center of a traffic roundabout (Photograph Nos. 12 and 13). Portions of the Site include landscaped areas adjacent to the asphalt concrete roadways and parking lots. We did not observe staining on the

Site. No evidence of waste disposal, pits, USTs, ASTs, stressed vegetation, or any other RECs was observed on the Site.

6.4 Offsite Survey

Properties within the site vicinity are developed with urban cultural parks and museums. Residential homes are located within the site vicinity.

6.4.1 North

The northern portion of the Site is adjacent to the San Diego museum of Man, the Old Globe, and the San Diego Museum of Art (Photograph Nos. 2, 14, and 15).

6.4.2 South

The southern portion of the Site is adjacent to the San Diego Automotive Museum, the San Diego Air and Space Museum, and the Starlight Theater (Photograph Nos. 4 and 16).

6.4.3 East

The eastern portion of the Site is adjacent to the Timken Museum of Art, the Model Railroad Museum, the Museum of Photographic Arts, the Reuben H. Fleet Science Center, and the San Diego Natural History Museum. The Japanese Friendship Garden and Spreckels Theatre are east of the center portion of the Site.

6.4.4 West

The western portion of the Site is directly adjacent to public restrooms, International Cottages, the House of Iran, and the Balboa Park Club (Photograph No. 4). The Mingei International Museum is west of the northeast parking lot (Photograph Nos. 18 and 19). El Prado Road crosses the Site then continues west (Photograph Nos. 1 and 20).

Evidence of RECs was not observed during our offsite reconnaissance.

7.0 INTERVIEWS

This section provides responses to inquiries made to a representative of the City of San Diego Park and Recreation Department that currently manages Balboa Park (which includes the Site) for site

information. Additionally, the representative completed a questionnaire regarding past and current site use (Appendix B).

According to the representative, the Site is a portion of Balboa Park that has been used a city park beginning in 1868. The park consists of numerous cultural and community institutions, dining facilities, gardens, and parking areas. He indicated that the Site has always been used as a city park with the exception of during World War I and II, when the U.S. Navy used the park for a hospital and training facility.

The representative stated that the Arizona Landfill is located to the east of the Site but is not within influence of the proposed improvements at the Site. He stated that he is not aware of hazardous substances, petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or other waste materials dumped, buried, or burned at the Site. The representative also stated that he was not aware of the import of any fill soils, or of pits, ponds, or lagoons, stained soil, ASTs, USTs, fill or vent pipes, floor drains, or wells onsite.

8.0 SUMMARY OF FINDINGS

We have performed a Phase I ESA, in general conformance with the scope and limitations of ASTM E 1527-05, for a portion of Balboa Park referred to as Balboa Park Plaza (the Site) in the City of San Diego, California. The Site is currently consists of existing roads, parking lots, and other infrastructure along El Prado and Pan American Drive East within Balboa Park.

Assessment Category	REC (Y/N)	Recommended Actions
Hazardous Substances/Petroleum Products	N	NFA
Hazardous Wastes	N	NFA
Non-Hazardous Wastes	N	NFA
Aboveground/Underground Storage Tanks	N	NFA
Unidentified Substance Containers	N	NFA
Equipment Potentially Containing PCBs	N	NFA
Wastewater Systems	N	NFA
Evidence of Releases	N	NFA
Pools of Liquid, Pits, Ponds, Lagoons	N	NFA
Wells	N	NFA
Other Site Issues	N	NFA
Nearby Properties	N	NFA
Historical Land Use – Site	N	NFA
Historical Land Use – Nearby Properties	N	NFA

Recommended Action:

- NFA = No further action required at this time.
- DM = De minimis condition where additional activities do not appear warranted at this time.
- REC = Historical REC where additional activities appear warranted at this time.

9.0 CONCLUSIONS AND RECOMMENDATIONS

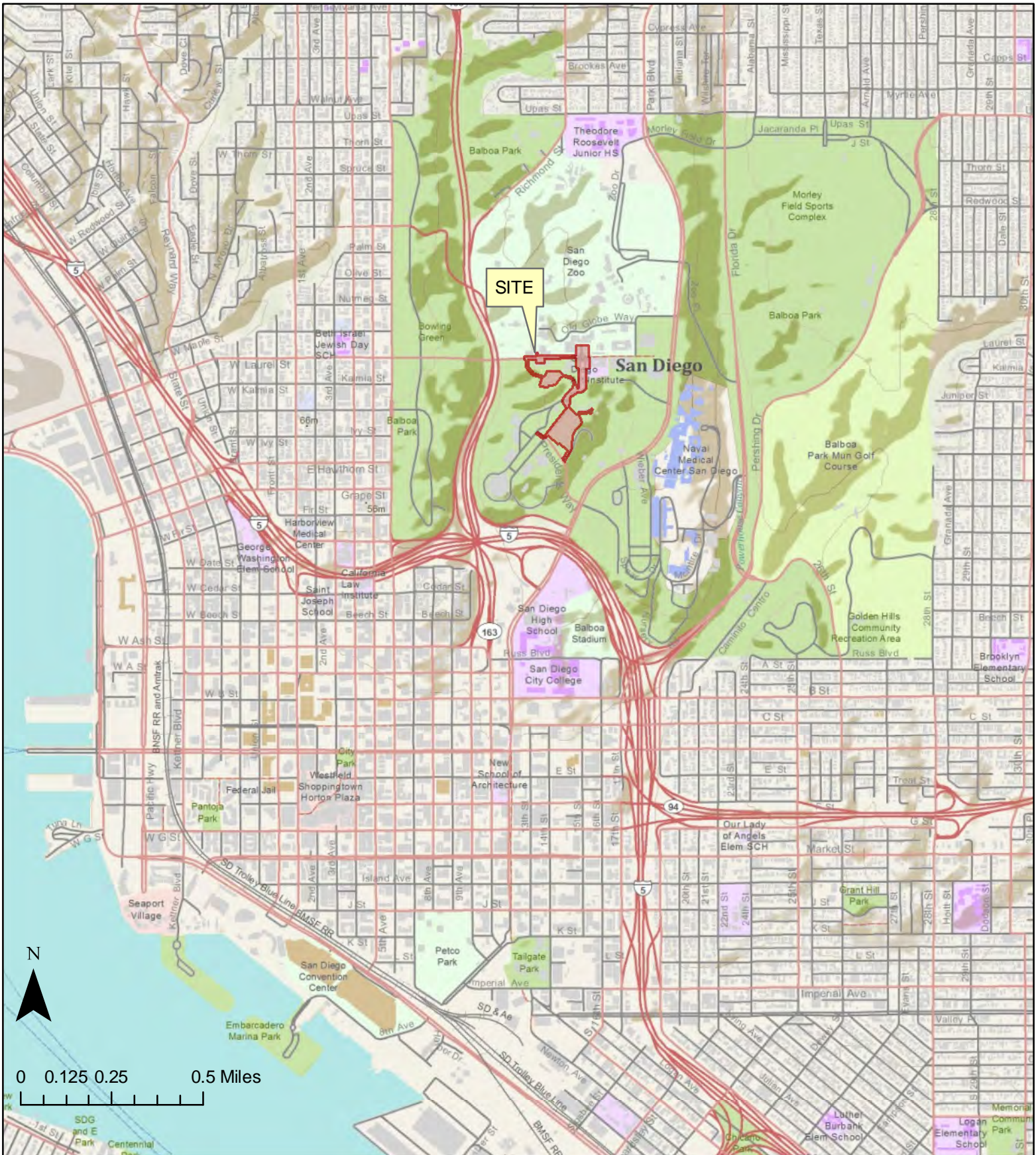
We have performed a *Phase I Environmental Site Assessment* in conformance with the scope and limitations of ASTM Practice E 1527 of the for a portion of Balboa Park referred to as Balboa Park Plaza in the City of San Diego, California, the *property*. Any exceptions to, or deletions from, this practice are described in Section 1.4 of this *report*. A review of the information sources referenced herein and the results of our site reconnaissance indicate that hazardous substances/petroleum hydrocarbons have not been historically used, generated, and/or stored at the Site. This assessment has revealed no evidence of *recognized environmental conditions* in connection with the *property*.

10.0 REFERENCES

- American Society for Testing and Materials (ASTM) Designation E 1527-05 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process*, 2005.
- California Department of Water Resources. (1967). *Groundwater Occurrence and Quality: San Diego Region, Bulletin 106-2, California*.
- California Department of Water Resources Water Data Library Homepage (<http://www.water.ca.gov/waterdatalibrary/>), accessed April 2011.
- California State Water Resources Control Board, Watershed Management Approach for the San Diego Region, http://www.swrcb.ca.gov/rwqcb9/water_issues/programs/wmc/index.shtml, January 2002.
- California State Water Resources Board, GeoTracker website: <http://geotracker.swrcb.ca.gov/>, accessed April 2011.
- Division of Oil, Gas & Geothermal Resources – DOGGR Home Page, State of California Department of Conservation, <http://maps.conservation.ca.gov/doms/index.html>, accessed April 2011.
- Kennedy, M.P., and Peterson, G.L., *Geology of the Point Loma Quadrangle, California: California Division of Mines and Geology Bulletin 200*, 1975.
- United States Department of Agriculture, Natural Resources Conservation Service (NRCS), Soil Data Mart digital map of the Soil Survey of San Diego County, 2007, <http://soildatamart.nrcs.usda.gov/>.
- United States Geological Survey, *Geologic Map of the San Diego 30'x60' Quadrangle, California*, 2005.
- United States Geological Survey, *Point Loma, California Quadrangle Topographic Map (7.5', 1:24,000)*, 1996.

11.0 QUALIFICATIONS

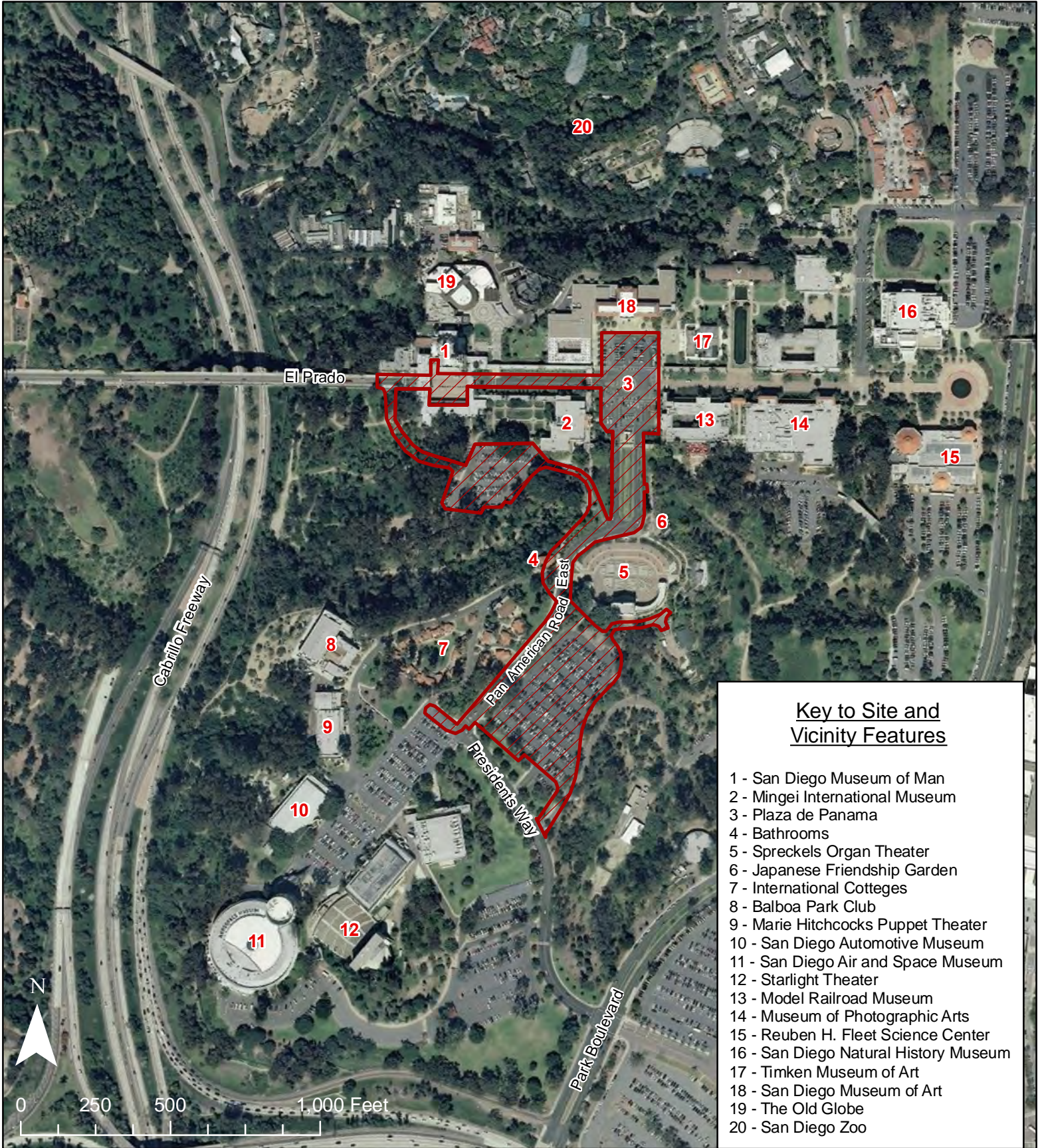
This Phase I ESA report was prepared by Mr. Joe Vettel and Mr. Matthew Lesh. We declare that, to the best of our professional knowledge and belief, we meet the definition of environmental professionals as defined in §312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all-appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.



**SITE LOCATION MAP
BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA**

**JOB NO. 09871-06-01
MAY 2011
FIGURE 1**





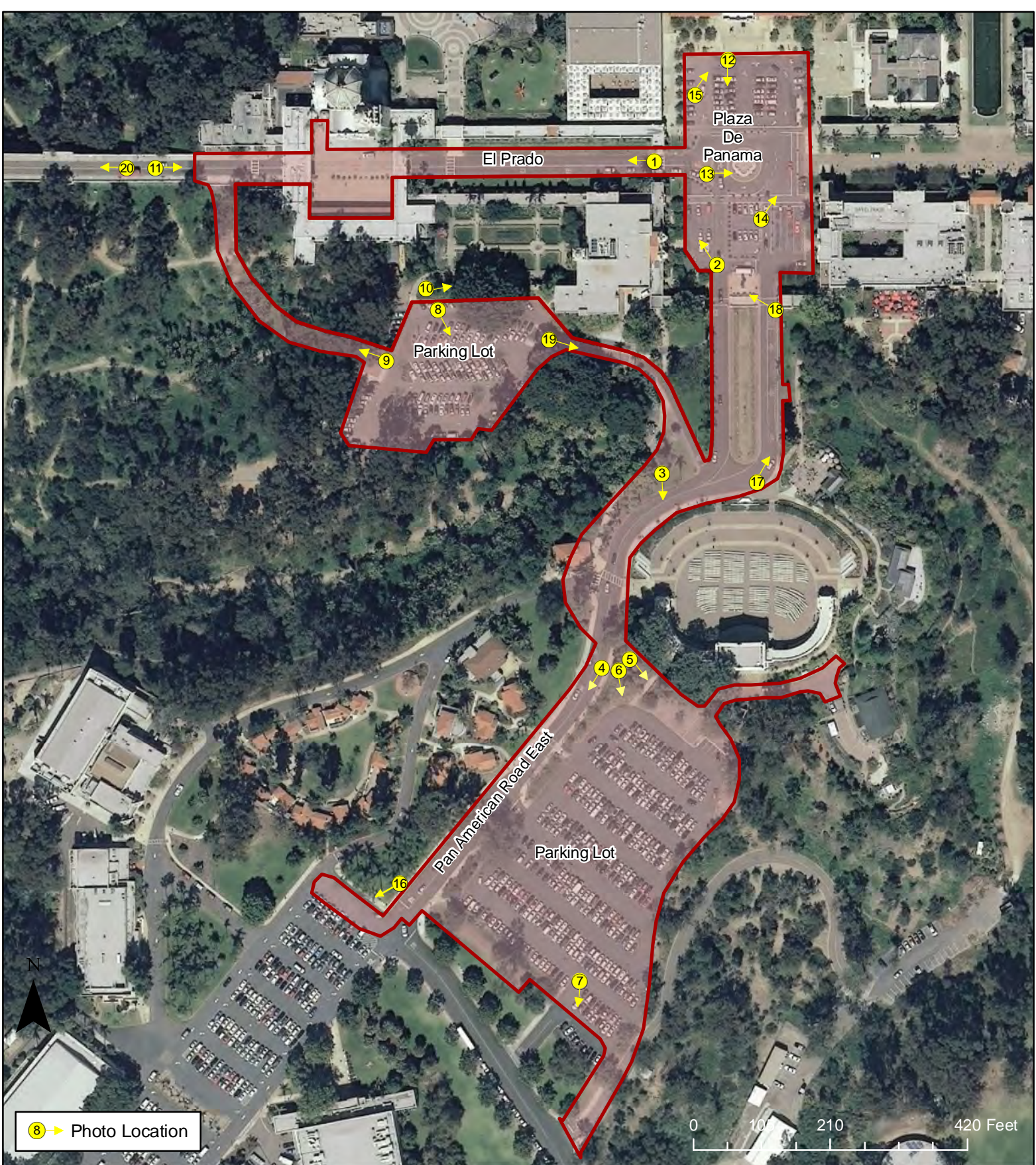
Key to Site and Vicinity Features

- 1 - San Diego Museum of Man
- 2 - Mingei International Museum
- 3 - Plaza de Panama
- 4 - Bathrooms
- 5 - Spreckels Organ Theater
- 6 - Japanese Friendship Garden
- 7 - International Cottages
- 8 - Balboa Park Club
- 9 - Marie Hitchcocks Puppet Theater
- 10 - San Diego Automotive Museum
- 11 - San Diego Air and Space Museum
- 12 - Starlight Theater
- 13 - Model Railroad Museum
- 14 - Museum of Photographic Arts
- 15 - Reuben H. Fleet Science Center
- 16 - San Diego Natural History Museum
- 17 - Timken Museum of Art
- 18 - San Diego Museum of Art
- 19 - The Old Globe
- 20 - San Diego Zoo

**SITE VICINITY MAP
BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA**



JOB NO. 09871-06-01
MAY 2011
FIGURE 2



SITE PLAN
 BALBOA PARK PLAZA
 SAN DIEGO, CALIFORNIA

JOB NO. 09871-06-01
 MAY 2011
 FIGURE 3





Photograph #1
View to the west of El Prado.



Photograph #2
View to the north of the northeast parking lot and the adjacent San Diego Museum of Art.

GEOCON
INCORPORATED



GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 2974
PHONE 858 558-6900 - FAX 858 558-6159

EAH

SITE PHOTOGRAPHS

BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA

PROJECT NO. 09871-06-01



Photograph #3

View to the south of Pan American Road East and of the Spreckels Organ Pavilion adjacent to the east of the Site.



Photograph #4

View to the southwest of Pan American Road East and the international cottages adjacent to the west.

GEOCON
INCORPORATED



GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 858 558-6900 - FAX 858 558-6159

EAH

SITE PHOTOGRAPHS

**BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA**

PROJECT NO. 09871-06-01



Photograph #5
View to the southeast of the northern portion of the southern parking lot.



Photograph #6
View to the south of the central portion of the southern parking lot.

GEOCON
INCORPORATED



GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 858 558-6900 - FAX 858 558-6159

EAH

SITE PHOTOGRAPHS

**BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA**

PROJECT NO. 09871-06-01



Photograph #7

View to the south of the southern portion of the south parking lot and Presidents Way.



Photograph #8

View to the south of the northwest parking lot.

GEOCON
INCORPORATED



GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 858 558-6900 - FAX 858 558-6159

EAH

SITE PHOTOGRAPHS

**BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA**

PROJECT NO. 09871-06-01



Photograph #9
View west of the canyon adjacent to the northwest parking lot.



Photograph #10
View to the northeast of the Mingei International Museum north of the northwest parking lot.

GEOCON
INCORPORATED



GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 858 558-6900 - FAX 858 558-6159

EAH

SITE PHOTOGRAPHS

BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA

PROJECT NO. 09871-06-01



Photograph #11
View east of El Prado from the west portion of the Site.



Photograph #12
View to the south of the Plaza De Panama/water fountain and adjacent Timken Museum of Art and Model Railroad Museum.

GEOCON
INCORPORATED



GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121 - 2974
PHONE 858 558-6900 - FAX 858 558-6159

EAH

SITE PHOTOGRAPHS

BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA

PROJECT NO. 09871-06-01



Photograph #13

View to the east of the northeast parking lot, and the adjacent Mingei International Museum.



Photograph #14

View to the northeast of the northeast parking lot and adjacent Model Railroad Museum.

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GEOTECHNICAL ■ ENVIRONMENTAL ■ MATERIALS
6960 FLANDERS DRIVE - SAN DIEGO, CALIFORNIA 92121-2974
PHONE 858 558-6900 - FAX 858 558-6159

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SITE PHOTOGRAPHS

**BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA**

PROJECT NO. 09871-06-01



Photograph #15

View to the northeast of the San Diego Museum of Art adjacent to the north of the Site.



Photograph #16

View to the southwest of a parking lot adjacent to the southern portion of the Site.

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SITE PHOTOGRAPHS

**BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA**

PROJECT NO. 09871-06-01



Photograph #17

View to the northeast of the Japanese Friendship Garden adjacent to the east of the Site.



Photograph #18

View to the northwest of the Mingei International Museum adjacent to the west of the Site.

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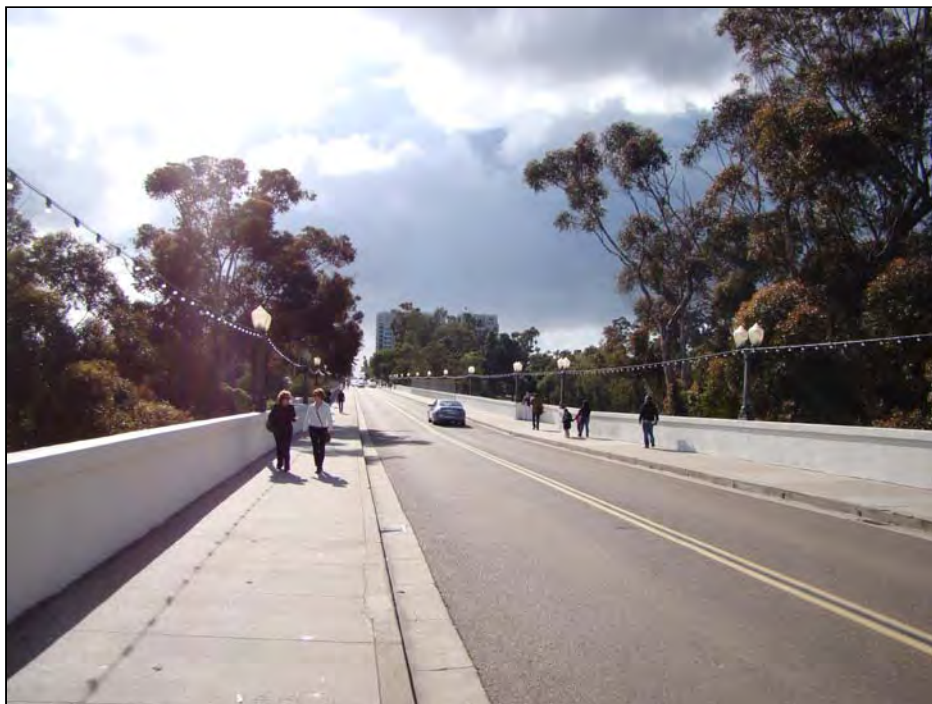
SITE PHOTOGRAPHS

**BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA**

PROJECT NO. 09871-06-01



Photograph #19
View to the east of the entrance to the northwest parking lot.



Photograph #20
View to the west of the El Prado bridge.

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SITE PHOTOGRAPHS

BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA

PROJECT NO. 09871-06-01

APPENDIX

A



Proposal No. EP-2011-011
March 21, 2011

BY E-MAIL ONLY

KCM Group
1940 Garnet Avenue, Suite 300
San Diego, California 92109

Attention: Mr. Eric Gradyan

Subject: BALBOA PARK PLAZA
SAN DIEGO, CALIFORNIA
PROPOSAL FOR PHASE I ENVIRONMENTAL SITE ASSESSMENT

Dear Mr. Gradyan:

In accordance with your request on behalf of KCM Group (the Client), we present this proposal to conduct a Phase I Environmental Site Assessment (ESA) for a portion of Balboa Park referred to as the Plaza De Panama in the City of San Diego, California (the Site). The Client is requesting a Phase I ESA be performed to provide information regarding the potential for existing hazardous material/waste impacts at the Site prior to the commencement of construction activities at the Site. The property is further identified by a portion of County of San Diego Assessor's Parcel Number (APN) 534-450-08. Currently, the property consists of three parking lots (southwest of the Spreckels Organ Pavilion, south of the San Diego Museum of Art, and south of the House of Charm) and asphalt paved roadways connecting the parking lots. We understand the future plans for the Site are to construct a new bridge, roadways, and a two level parking structure as part of reclaiming the Plaza de Panama for pedestrian use.

PURPOSE AND SCOPE OF SERVICES

We propose to perform a site reconnaissance and preliminary research to estimate the potential for existing impacts to the Site (i.e., levels of hazardous materials/wastes likely to warrant mitigation pursuant to current regulatory guidelines) from the presence of hazardous materials/wastes on or within the vicinity of the Site. The guidelines used for the definition of hazardous materials/wastes are referenced in the California Code of Regulations (CCR), Title 22, Division 4.5. The proposed scope of services for the Phase I ESA will be conducted in general accordance with the American Society for Testing and Materials (ASTM) *Standard Practice E 1527-05*. The Phase I ESA also will be conducted in general accordance with the requirements of 40 Code of Federal Regulations (CFR) Part 312 titled *Standards and Practices for All Appropriate Inquiries*, as required under Sections 101(35)(B)(ii) and (iii) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The purpose of conducting an All Appropriate Inquiries (AAI) investigation into the previous ownership and uses of a property is to meet the provisions necessary for the landowner, contiguous property owner, and/or bona fide prospective purchaser to qualify for certain landowner liability protections under CERCLA.

In order to perform the Phase I ESA in accordance with ASTM and AAI guidelines, we request that, if possible, the Client provide the following information:

- Permission to enter the Site.
- Names and telephone numbers of persons familiar with the Site. A description of the planned use of the Site.
- Any specialized knowledge regarding the Site.
- Any commonly known or reasonably ascertainable information regarding the Site.
- Any site-related documents.
- An historical chain-of-title report from a title company (as an alternative, we can order an environmental lien report for an additional fee).
- An evaluation of the relationship of the purchase price of the Site to the fair market value of the Site if the Site was not affected by hazardous substances.

The specific scope of work to be conducted for the Phase I ESA is discussed below.

- Perform a visual survey of the adjacent properties from the Site and from public thoroughfares to observe general types of existing land use surrounding the Site. Perform a visual reconnaissance of the Site for indicators of hazardous materials, hazardous wastes, or soil and/or groundwater impacts on the Site. The indicators referenced include, but are not limited to, 55-gallon drums, underground and aboveground storage tanks, chemical containers, waste storage and disposal areas, industrial facilities, discolored surface soil, electrical transformers that may contain polychlorinated biphenyls (PCBs), and areas conspicuously absent of vegetation. The Client will be responsible for providing us with a site plan that clearly depicts the site boundary. The Client will also be responsible for obtaining permission for our personnel to enter the Site. Our ability to complete the assessment described herein may be hindered if access is unavailable to any portion of the Site. Provisions for an assessment of wetlands, earthquake faults, asbestos, lead-containing paint, lead in drinking water, mold, burn ash, radon gas, methane gas, and building vapor intrusion are not included in this scope of services.
- Perform a visual survey of the adjacent properties from the Site and from public thoroughfares to observe general types of existing land use surrounding the Site.
- Review and interpret U. S. Geological Survey (USGS) topographic maps to obtain information relative to the topography and physical setting of the Site, and previous development and uses of the Site and properties within approximately 1/4-mile of the Site.
- Review pertinent and reasonably obtainable information sources to evaluate physiographic, geologic, and hydrogeologic conditions in the vicinity of the Site. The review will not include or address earthquake faults on the Site or in the Site's vicinity.

- Review publicly-available historical sources of information pertaining to the Site and nearby properties. Such sources of information may include the following: aerial photographs, building permits, historical city directories, topographic maps, and Sanborn fire insurance maps. Research of these sources will be conducted from the present back to when the property first contained structures or was used for residential, agricultural, commercial, industrial, or governmental purposes.
- Conduct interviews by telephone or in writing with representatives of the current owner(s) and occupant(s) of the Site to evaluate if present or past occupants have used, generated, stored, or disposed of hazardous materials/wastes onsite. In order to obtain information regarding the past occupants and uses of the Site, it may be necessary for us also to interview past owners and/or occupants of the Site. The names and telephone numbers of the contacts for the above interviews are to be provided by the Client.
- Review documents provided by the Client, and at the Client's discretion. Potentially useful documents may include previously prepared geotechnical, geologic, and environmental reports; site plans; plot plans; tenant lists; and correspondence with regulatory agencies. The Client is required to provide the following information/documentation for the Phase I ESA, if available: information regarding liens recorded against the Site for environmental cleanup activities; documentation regarding any land use or activity limitations pertaining to the Site (e.g., building restrictions, water treatment systems); any specialized knowledge pertaining to environmental conditions associated with the Site, based on the Client's knowledge of the Site or the area in which the Site is located; and information regarding whether the purchase price for the Site is significantly different from the fair market value and, if so, the reason for the difference.
- If requested, review recorded land title records for the Site in accordance with the requirements identified in *40 CFR Part 312*. A 50-year chain-of-title report must be obtained from a title company by the Client, and at the Client's expense, if we are to perform this task. The purpose of obtaining a chain-of-title report is to assess whether any requirements regarding engineering and institutional controls have been recorded for the Site, and whether any land use restrictions and/or environmental cleanup liens are associated with the Site.
- Conduct a search of federal, state, and local databases for the Site and surrounding area to obtain information regarding the potential presence of hazardous materials/wastes on the Site or on properties located within the approximate distances specified by *ASTM Standard Practice E 1527-05* and *40 CFR Part 312*. The records searched will include registries or publicly available lists of recorded engineering and institutional controls, and recorded land use restrictions that may impact the Site.
- Contact local public agencies by telephone or in writing to acquire readily obtainable information regarding underground storage tank permits, agriculturally-related permits and violations, air emission permits and violations, source of water and method of sewage disposal, location and depth of nearest drinking water wells, and electrical transformers. The information will be obtained for the Site only. The agencies contacted may include, but will not necessarily be limited to, the local fire department, air pollution control agency, agriculture department, water and sewer agencies, and gas and/or electric utility companies.
- Review reasonably obtainable regulatory agency files for the Site, if available, and/or properties in the vicinity of the Site whose environmental conditions might potentially impact

the Site. These properties will be identified based on our review of the above-referenced databases and our visual reconnaissance activities. We will review regulatory agency files for up to four (4) properties of potential environmental concern located in/near the boundaries of the Site. If we determine that additional file review activities are warranted, the Client will be contacted for authorization prior to performing the additional activities and our fee will be adjusted accordingly.

- Prepare a report summarizing the findings of the Phase I ESA. The report will qualitatively describe the potential for environmental impairment at the Site. If necessary, the report will also provide recommendations for additional environmental services (e.g., a Phase II ESA), based on the findings of the Phase I ESA. The report will identify any “data gaps” (i.e., lack of or inability to obtain information required by *ASTM Standard Practice E 1527-05* and *40 CFR Part 312*). If the data gaps influence our ability to render an opinion regarding the environmental condition of the Site, the report will comment on the significance of the data gap(s).

Please note that *40 CFR Part 312* requires that, in addition to the Phase I ESA, the activities described below be conducted by the prospective purchaser of the property in order for the purchaser to qualify for liability protection under CERCLA. It is the responsibility of the prospective purchaser to:

1. conduct a search for the existence of environmental cleanup liens against the Site filed or recorded under federal, tribal, state, or local law;
2. consider the specialized knowledge they have of the Site, the area surrounding the Site, the conditions of adjoining properties, and any other experience relevant to the environmental condition of the Site;
3. consider the relationship of the purchase price of the Site to the value of the Site if it were not contaminated; and
4. consider commonly known or reasonably ascertainable information within the local community about the Site to the extent not otherwise obtained during the preparation of the Phase I ESA.

If approved by the client, we can provide item no. 1 for an additional cost (see Proposed Fee and Schedule). We will inquire with the prospective purchaser regarding their knowledge of item nos. 2 through 4 through a questionnaire.

PROPOSED FEE AND SCHEDULE

We propose to complete the Phase I ESA on a “lump sum” basis for a fee of _____, not including an environmental lien report, which will cost an additional _____ per parcel number. If site conditions significantly different than those provided to us for purposes of preparing this proposal are identified or as additional information is obtained, it may become necessary to revise the scope of services and associated fee.

The fee is valid for a period of 60 days from the date of this proposal. The fee includes the submittal of two hardcopies and an electronic copy of the final report. Additional copies of the final report may

be requested for an additional administrative fee. The final report will be provided to you within approximately 20 business days after receipt of written authorization to proceed.

Consultation services rendered after the issuance of the report and/or charges required for reviewing and copying regulatory records would be billed on a "time and materials" basis in accordance with the enclosed *2009 Schedule of Fees for Environmental Services/Terms and Conditions*, which are incorporated into and made a part of this proposal, and would be additive to the proposed fee.

It is mutually agreed between us and the Client that all services afforded and work we perform are provided pursuant to Civil Code Section 2782, *et. seq.*, and such agreement is expressly integrated into and made a part of any and all contracts or agreements entered into between the parties.

EXECUTION OF CONTRACT

Please carefully review the contents of this proposal and the enclosed *Terms and Conditions for Performance of Services (Terms)*. If they meet with your approval, execute both copies of the *Terms* and return both copies to our office. We will then endorse the documents and return one fully executed copy to you. We will commence with the scope of services outlined herein upon receipt of your written authorization. Services we provide will be pursuant to the *Terms* and *2006 Schedule of Fees for Environmental Services* until or unless a mutually agreed upon, negotiated contract is finalized.

We appreciate the opportunity to assist you on this project. Please call us if you have any questions.

Very truly yours,

GEOCON INCORPORATED

A handwritten signature in green ink, appearing to read 'Matthew Lesh', is written over the typed name.

Matthew Lesh
Project Geologist

MWL:dmc

Enclosures: Terms; 2006 Schedule of Fees

APPENDIX



B

**PROPERTY BACKGROUND INFORMATION QUESTIONNAIRE FOR SITE
OWNER, OCCUPANT, OR REPRESENTATIVE**

SITE:

***Please elaborate on any question answered “yes.” If the question does not apply to the site, please answer “N/A”.**

1) Describe the current uses of the Site.

The site is currently used as a developed regional park (parkland). The site is home to numerous cultural institutions (museums, theaters, youth groups, etc.), dining facilities, gardens, civic facilities (public meeting rooms, gymnasiums, botanical facilities, etc.), sports facilities, open parkland, parking, pedestrian and auto circulation, native open space and numerous other uses.

2) How long has the Site been used for these purposes?

The site has been used as a City park since its establishment in 1868.

3) How long have you occupied the Site?

The City has occupied the site since its establishment as a City park in 1868.

4) List the existing structures on the property and their age.

Please see the attached architectural inventory. In addition, the House of Charm was reconstructed in 1996 and the House of Hospitality was reconstructed in 1997. The West Arcade, located along the north side of El Prado just west of the Plaza de Panama, was constructed in 2004.

5) Describe the past uses, owners, and operators of the Site. (Be as detailed as possible and note approximate time periods.)

The site has always been used as a City park. While occupants have changed over the years, the basic uses have been as described in #1 above. Occupation by the U.S. Navy as a hospital and training facility during both World Wars interrupted these uses.

6) Utilities including electricity, natural gas, water, sewer, and trash removal are provided to the Site by which utility/companies.

Water – City of San Diego

Sewer – City of San Diego

Electricity – SDG&E

Natural Gas – SDG&E

Trash – Varies by institution: City of San Diego, Waste Management, Allied Waste and Edco

7) What type of heating, ventilating, and air conditioning (HVAC) system is located at the Site and how is the HVAC system powered?

Varies by building. In general, heating systems are gas powered and air conditioning is electrical powered.

8) Have the Site or adjoining properties been used for industrial activities, such the following? (Please note that an adjoining property is a property that is contiguous with, or directly across the street from the Site.)

Gasoline Station	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Printing Facility	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Metal Plating Manufacturing	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Landfill	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Motor Repair Facility	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Dry Cleaners	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Junkyard	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Waste Treatment	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Storage, Disposal, or Recycling Facility	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Describe other industrial activities, if any.

The Arizona Landfill is located on the East Mesa of Balboa Park and not within the influence of this project.

9) Have any hazardous substances, petroleum products, unidentified waste materials, tires, automotive or industrial batteries, or other waste materials been dumped aboveground, buried, or burned on the Site?

Yes No

10) Have any of the following items been stored on the Site in containers greater than 5 gallons?

Paint	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Chemicals	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Pesticides	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

None in the immediate area of the project.

11) Are hazardous wastes generated at the Site? If yes, describe the means of disposal and frequency of disposal.

Yes No

12) Have petroleum products been stored on the Site or transferred across the Site in pipelines, either above or belowground?

Yes No

13) Has fill dirt been brought onto the Site from an offsite source?

Yes No

No fill dirt has been brought into the immediate vicinity of the project.

14) Is there evidence that the fill dirt in Question 13 may be contaminated?

Yes No N/A

15) Are there currently any pits, ponds, or lagoons on the Site?

Yes No

16) Have any pits, ponds, or lagoons previously existed on the Site?

Yes No

Not in the immediate vicinity of the project site.

17) Are there currently areas on the Site with stained soil?

Yes No

18) Have stained soils previously existed on the Site?

Yes No

19) Do chemical-containing underground or aboveground storage tanks exist, or have they existed previously on the Site?

Yes No

20) Do fill pipes, vent pipes, or access ways indicating the presence of current or former underground storage tanks exist on the Site?

Yes No

21) Have fill pipes or vent pipes which may indicate the presence of a current or former underground storage tank been removed from the Site?

Yes No

22) Are floor drains stained with anything other than water in any area on the Site?

Yes No

23) Do floor drains on the Site emit foul odors?

Yes No

24) Is the Site served by a private well or a non-public water source?

Yes No

25) Are contaminants known to exist in any private well or non-public water system serving the Site?

Yes No N/A

26) Does the Site discharge wastewater, other than domestic wastewater or storm water, into the sewer?

Yes No

27) Other than permission for domestic hookup, have any city, county, or local permits for wastewater discharge been issued to the Site?

Yes No

28) Does a septic tank exist, or has one existed previously on the Site?

Yes No

29) Do cesspools or cisterns currently exist on the Site?

Yes No

30) Have cesspools or cisterns previously existed on the Site?

Yes No

31) Other than storm water, does the Site discharge waste water onto the neighboring Site?

Yes No

32) Is there a transformer or capacitor that may contain PCBs on the Site?

Yes No

33) Is there hydraulic equipment such as automobile lifts or elevators on the Site?

Yes No

34) Are PCBs contained in hydraulic oil associated with hydraulic equipment located on the Site?

Yes No N/A

35) Has an asbestos and/or lead-based paint survey been conducted at the Site? If so, what were the findings?

Yes No

Lead and asbestos testing has been done on various buildings on the site. However, none of these buildings are impacted by this project.

36) Other than small quantities of legal pesticides used for landscape maintenance (e.g., Roundup), have pesticides, herbicides, or insecticides been applied on the Site?

Yes No

Over the course of over 100 years it is impossible to state what chemicals may have been used for weed and pest control. The City's current maintenance practices comply with environmental standards.

37) Are you aware of any environmental liens against the Site that are filed or recorded under federal, tribal, state, or local law?

Yes No

38) Have any environmental violations or citations associated with activities conducted on the Site been issued?

Yes No

39) Has the Site been included in other environmental assessments? If so, can copies of the reports be provided?

Yes No

An Environmental Impact Report was prepared for the Balboa Park Master Plan (R-274089). A Supplemental EIR was prepared for the Central Mesa Precise Plan (R-280919).

40) Have other environmental assessments identified hazardous substances or petroleum products that exist, or may have existed on the Site?

Yes No

41) Are there any pending law suits that involve the release or threatened release of hazardous substances associated with the Site?

Yes No

42) Are you aware of any activity and land use limitations, such as engineering controls, land use restrictions or institutional controls that are in place on the Site and/or have been filed or recorded in a registry under federal, tribal, state or local law?

Yes No

Land use is limited to parkland by the City Charter.

43) Are you aware of any commonly known or reasonably ascertainable information about the Site that would help the environmental professional to identify conditions indicative of hazardous substance releases or threatened hazardous substance releases?

Yes No

44) Do you have any specialized knowledge or experience related to the Site or nearby properties, including the knowledge of the chemicals and processes used by this type of business?

Yes No

45) Based in your knowledge or experience related to the Site, are there any obvious indicators that point to the presence or likely presence of contamination at the Site?

Yes No

46) If the purchase price of the Site was below fair market value, did this occur because contamination was/is known or believed to be present on the Site?

Yes No N/A

NAME (IN PRINT)

DATE

SIGNATURE

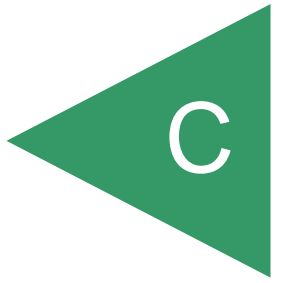
Owner Occupant Owner Representative

Please feel free to contact me if you have any questions.

When complete, return the questionnaire via email or fax:

Mr. Matthew Lesh
Geocon Incorporated
lesh@geoconinc.com
(858) 558-6900 PHONE
(858) 558-6159 FAX

APPENDIX

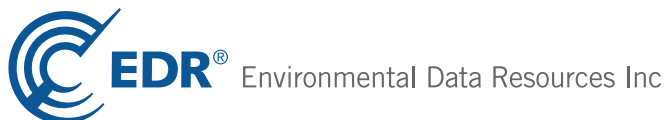


Balboa Park Plaza

Pan American Road East and El Prado
San Diego, CA 92101

Inquiry Number: 3022669.2s
March 24, 2011

The EDR Radius Map™ Report with GeoCheck®



440 Wheelers Farms Road
Milford, CT 06461
Toll Free: 800.352.0050
www.edrnet.com

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Thank you for your business.
 Please contact EDR at 1-800-352-0050
 with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

PAN AMERICAN ROAD EAST AND EL PRADO
SAN DIEGO, CA 92101

COORDINATES

Latitude (North): 32.729700 - 32° 43' 46.9"
Longitude (West): 117.151000 - 117° 9' 3.6"
Universal Transverse Mercator: Zone 11
UTM X (Meters): 485851.0
UTM Y (Meters): 3621142.0
Elevation: 264 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 32117-F2 POINT LOMA, CA
Most Recent Revision: 1994

AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year: 2005
Source: USDA

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL..... National Priority List

EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites
NPL LIENS..... Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

Federal CERCLIS list

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY..... Federal Facility Site Information listing

Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG..... RCRA - Large Quantity Generators
RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls / engineering controls registries

US ENG CONTROLS..... Engineering Controls Sites List
US INST CONTROL..... Sites with Institutional Controls

Federal ERNS list

ERNS..... Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE..... State Response Sites

State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

UST..... Active UST Facilities
AST..... Aboveground Petroleum Storage Tank Facilities
INDIAN UST..... Underground Storage Tanks on Indian Land

EXECUTIVE SUMMARY

FEMA UST..... Underground Storage Tank Listing

State and tribal voluntary cleanup sites

VCP..... Voluntary Cleanup Program Properties
INDIAN VCP..... Voluntary Cleanup Priority Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations
ODI..... Open Dump Inventory
SWRCY..... Recycler Database
HAULERS..... Registered Waste Tire Haulers Listing
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs
HIST Cal-Sites..... Historical Calsites Database
SCH..... School Property Evaluation Program
Toxic Pits..... Toxic Pits Cleanup Act Sites
CDL..... Clandestine Drug Labs
San Diego Co. HMMD..... Hazardous Materials Management Division Database
US HIST CDL..... National Clandestine Laboratory Register

Local Lists of Registered Storage Tanks

CA FID UST..... Facility Inventory Database
HIST UST..... Hazardous Substance Storage Container Database

Local Land Records

LIENS 2..... CERCLA Lien Information
LUCIS..... Land Use Control Information System
LIENS..... Environmental Liens Listing
DEED..... Deed Restriction Listing

Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System
CHMIRS..... California Hazardous Material Incident Report System
LDS..... Land Disposal Sites Listing
MCS..... Military Cleanup Sites Listing

Other Ascertainable Records

RCRA-NonGen..... RCRA - Non Generators
DOT OPS..... Incident and Accident Data

EXECUTIVE SUMMARY

DOD.....	Department of Defense Sites
FUDS.....	Formerly Used Defense Sites
CONSENT.....	Superfund (CERCLA) Consent Decrees
ROD.....	Records Of Decision
UMTRA.....	Uranium Mill Tailings Sites
MINES.....	Mines Master Index File
TRIS.....	Toxic Chemical Release Inventory System
TSCA.....	Toxic Substances Control Act
FTTS.....	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
HIST FTTS.....	FIFRA/TSCA Tracking System Administrative Case Listing
SSTS.....	Section 7 Tracking Systems
ICIS.....	Integrated Compliance Information System
PADS.....	PCB Activity Database System
MLTS.....	Material Licensing Tracking System
RADINFO.....	Radiation Information Database
FINDS.....	Facility Index System/Facility Registry System
RAATS.....	RCRA Administrative Action Tracking System
CA BOND EXP. PLAN.....	Bond Expenditure Plan
WDS.....	Waste Discharge System
NPDES.....	NPDES Permits Listing
Cortese.....	"Cortese" Hazardous Waste & Substances Sites List
DRYCLEANERS.....	Cleaner Facilities
WIP.....	Well Investigation Program Case List
HAZNET.....	Facility and Manifest Data
EML.....	Emissions Inventory Data
INDIAN RESERV.....	Indian Reservations
SCRD DRYCLEANERS.....	State Coalition for Remediation of Drycleaners Listing
HWP.....	EnviroStor Permitted Facilities Listing
HWT.....	Registered Hazardous Waste Transporter Database
COAL ASH EPA.....	Coal Combustion Residues Surface Impoundments List
FINANCIAL ASSURANCE.....	Financial Assurance Information Listing
PCB TRANSFORMER.....	PCB Transformer Registration Database
PROC.....	Certified Processors Database
MWMP.....	Medical Waste Management Program Listing
COAL ASH DOE.....	Sleam-Electric Plan Operation Data

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants.....	EDR Proprietary Manufactured Gas Plants
EDR Historical Auto Stations.....	EDR Proprietary Historic Gas Stations
EDR Historical Cleaners.....	EDR Proprietary Historic Dry Cleaners

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

EXECUTIVE SUMMARY

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 02/17/2010 has revealed that there is 1 RCRA-SQG site within approximately 0.25 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BALBOA ART CONSERVATION CENTER	1649 EL PRADO BALBOA PA	E 0 - 1/8 (0.062 mi.)	1	8

State- and tribal - equivalent CERCLIS

ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the ENVIROSTOR list, as provided by EDR, and dated 02/07/2011 has revealed that there are 8 ENVIROSTOR sites within approximately 1 mile of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
THE PARK AT ROBINSON Status: Refer: 1248 Local Agency	3740 PARK BOULEVARD	N 1/2 - 1 (0.993 mi.)	35	61
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SIMPSON HOUSING LTD PARTNER Status: Refer: 1248 Local Agency	2400 5TH AVE	W 1/4 - 1/2 (0.436 mi.)	12	43
U.S. NAVAL HOSPITAL, SAN DIEGO Status: Refer: RWQCB	FLORIDA PL. & PERSHING	SE 1/2 - 1 (0.583 mi.)	15	46
GOODYEAR AUTO SERVICE #9368 Status: Refer: 1248 Local Agency	1045 BROADWAY	SSW 1/2 - 1 (0.823 mi.)	28	52
CONTINENTAL CLEANERS Status: Refer: 1248 Local Agency	1470 STATE STREET	SW 1/2 - 1 (0.962 mi.)	31	57
SAN DIEGO SHIP BUILDING Status: Refer: Other Agency	980 F STREET	SSW 1/2 - 1 (0.967 mi.)	32	58
SAN DIEGO PLATING (2) Status: Refer: Other Agency	2060 INDIA STREET	W 1/2 - 1 (0.972 mi.)	33	60

EXECUTIVE SUMMARY

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
5TH & "E" Status: Refer: 1248 Local Agency	525 "E" STREET	SSW 1/2 - 1 (0.996 mi.)	36	62

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the LUST list, as provided by EDR, and dated 02/03/2011 has revealed that there are 8 LUST sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BLDG 26, NAVAL HOSPITAL ZOOLOGICAL SOCIETY OF SAN DIEGO ZOOLOGICAL SOCIETY OF S DIEGO Status: Completed - Case Closed	2200 BOB WILSON DR 2920 ZOO DR 2920 ZOO DR	ENE 1/4 - 1/2 (0.259 mi.) NNE 1/4 - 1/2 (0.277 mi.) NNE 1/4 - 1/2 (0.277 mi.)	5 B7 B8	15 17 20
BALBOA PARK RAILROAD Status: Completed - Case Closed	NONE ZOO PL	NE 1/4 - 1/2 (0.325 mi.)	10	37
5TH AVE FINANCIAL CENTER	2550 5TH AVENUE	W 1/4 - 1/2 (0.435 mi.)	11	40
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BALBOA NAVAL HOSPITAL BLDG 50, NAVAL HOSPITAL FIRST INTERNATIONAL BANK	2200 BOB WILSON DR 2200 BOB WILSON DR 2201 4TH	E 1/4 - 1/2 (0.310 mi.) SE 1/4 - 1/2 (0.436 mi.) W 1/4 - 1/2 (0.486 mi.)	9 13 14	35 44 45

SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the SLIC list, as provided by EDR, and dated 02/03/2011 has revealed that there is 1 SLIC site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
BALBOA PARK RAILROAD Facility Status: Completed - Case Closed	NONE ZOO PL	NE 1/4 - 1/2 (0.325 mi.)	10	37

SAN DIEGO CO. SAM: The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

A review of the SAN DIEGO CO. SAM list, as provided by EDR, and dated 03/23/2010 has revealed that there are 2 SAN DIEGO CO. SAM sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ZOOLOGICAL SOCIETY OF S DIEGO	2920 ZOO DR	NNE 1/4 - 1/2 (0.277 mi.)	B8	20
BALBOA PARK RAILROAD	NONE ZOO PL	NE 1/4 - 1/2 (0.325 mi.)	10	37

EXECUTIVE SUMMARY

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there is 1 WMUDS/SWAT site within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
ARIZONA STREET LANDFILL	BALBOA PARK	NNW 1/8 - 1/4 (0.190 mi.)	A4	14

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
NAVAL HOSP.SD FACILITY MGMT.12	1900 PARK BLVD	SSE 0 - 1/8 (0.117 mi.)	2	10

Other Ascertainable Records

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSTITES].

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 4 HIST CORTESE sites within approximately 0.5 miles of the target property.

<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SAN DIEGO ZOOLOGICAL SOCI	2920 ZOO	NNE 1/4 - 1/2 (0.277 mi.)	B6	16
BALBOA PARK RAILROAD	NONE ZOO PL	NE 1/4 - 1/2 (0.325 mi.)	10	37
5TH AVE FINANCIAL CENTER	2550 5TH AVENUE	W 1/4 - 1/2 (0.435 mi.)	11	40
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FIRST INTERNATIONAL BANK	2201 4TH	W 1/4 - 1/2 (0.486 mi.)	14	45

EXECUTIVE SUMMARY

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there are 16 Notify 65 sites within approximately 1 mile of the target property.

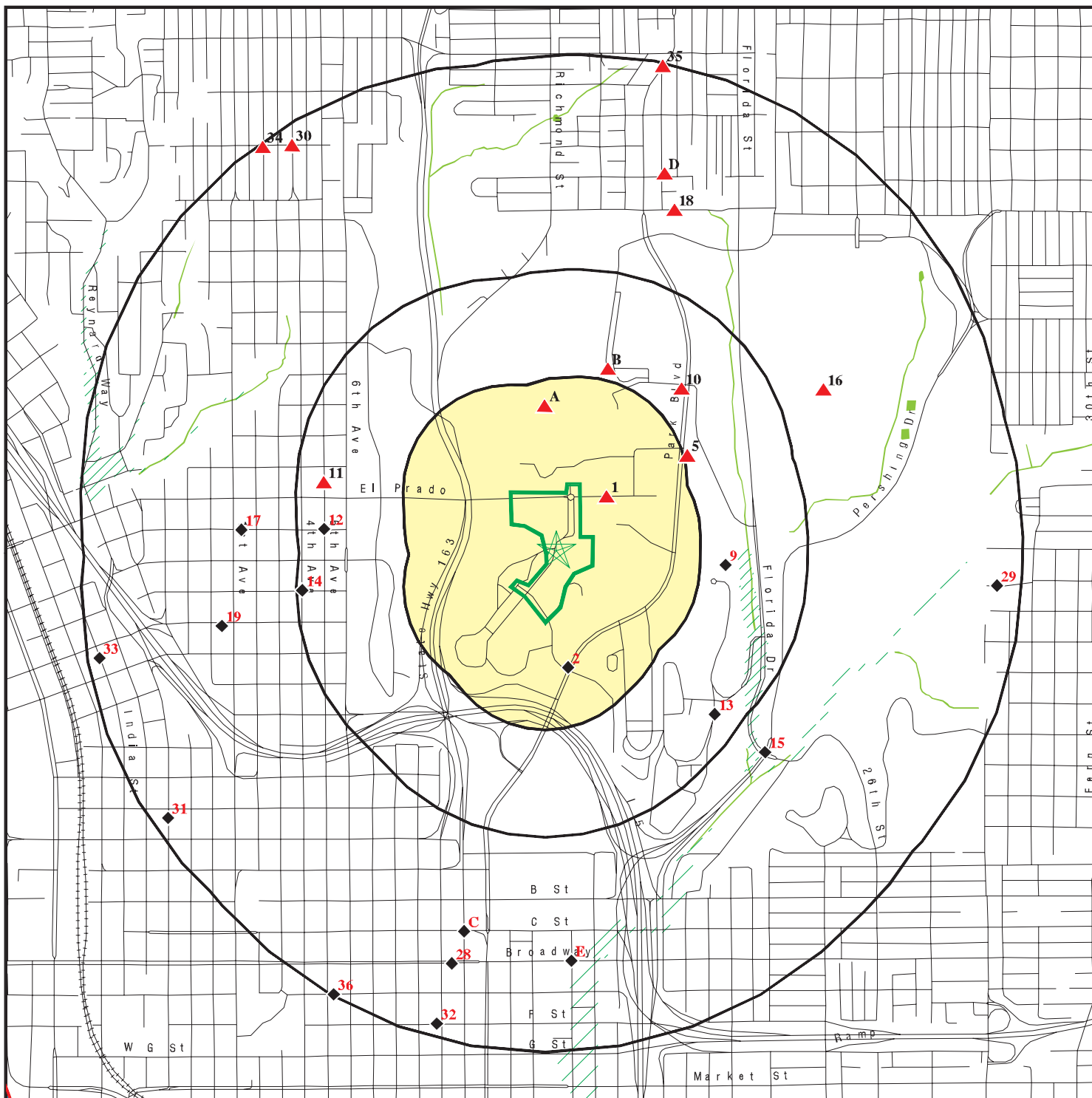
<u>Equal/Higher Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
SAN DIEGO ZOO	BALBOA PARK	NNW 1/8 - 1/4 (0.177 mi.)	A3	13
Not reported	SAN DIEGO ZOO	ENE 1/2 - 1 (0.608 mi.)	16	47
Not reported	1805 UPAS ST.	NNE 1/2 - 1 (0.676 mi.)	18	49
FOOT OF GRAND AVE & OCEAN BLVD		NNE 1/2 - 1 (0.744 mi.)	D24	51
INDIANA ST & MYRTLE AVE		NNE 1/2 - 1 (0.750 mi.)	D25	51
BROOKS ST AND FOURTH AVENUE		NNW 1/2 - 1 (0.954 mi.)	30	57
300 BLK OF BROOKS AVE		NW 1/2 - 1 (0.989 mi.)	34	61
<u>Lower Elevation</u>	<u>Address</u>	<u>Direction / Distance</u>	<u>Map ID</u>	<u>Page</u>
FIRST AVENUE COMPANY	135 KALMIA STREET	W 1/2 - 1 (0.629 mi.)	17	47
Not reported	134 HAWTHORNE ST	W 1/2 - 1 (0.679 mi.)	19	49
Not reported	1110 "C" STREET	SSW 1/2 - 1 (0.741 mi.)	C20	49
Not reported	1110 "C" STREET	SSW 1/2 - 1 (0.741 mi.)	C21	50
Not reported	1110 "C" STREET	SSW 1/2 - 1 (0.741 mi.)	C22	50
Not reported	11TH AND "C" STREET	SSW 1/2 - 1 (0.743 mi.)	C23	50
Not reported	15TH & BROADWAY	S 1/2 - 1 (0.790 mi.)	E26	51
Not reported	15TH & BROADWAY	S 1/2 - 1 (0.790 mi.)	E27	51
Not reported	2820 IVY ST	E 1/2 - 1 (0.942 mi.)	29	56

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 20 records.

<u>Site Name</u>	<u>Database(s)</u>
CAMPBELL INDUSTRIES	CERCLIS-NFRAP
AIR FORCE PLT 19	CERCLIS-NFRAP
NAVAL MEDICAL CENTER SAN DIEGO	HMMD SAN DIEGO,SAN DIEGO CO. SAM,LUST SAN MATEO
NAVAL HOSPITAL	HIST UST
SHELL SERVICE STATION	FINDS,RCRA-LQG,HAZNET
NB 805 S OF BALBOA AVE	ERNS
2075 BALBOA AT GRAND AVE	ERNS
NATIONAL CITY BLVD	ERNS
CORNER OF REGENTS RD AND PLAZA DEL	ERNS
CORNER OF REGENTS RD AND PLAZA DEL	ERNS
MISSION HILLS HWY 118 EASTBOUND EA	ERNS
PEPPER TREE PARK	ERNS
SANUEL PARK	ERNS
PEPPER PARK BOAT LAUNCH	ERNS
UNOCAL STATION 5295 AT BALBOA & TE	ERNS
VISTA PACIFICA PARK	ERNS
BALBOA PARK NURSERY	FINDS
BALBOA PARK LANDFILL	FINDS
PARK LAUREL (OWNERS ASSOCIATIO	HMMD SAN DIEGO
NAVISTAR INTERNATIONAL TRANS. CORP	SLIC REGION 2

OVERVIEW MAP - 3022669.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

County Boundary

Oil & Gas pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

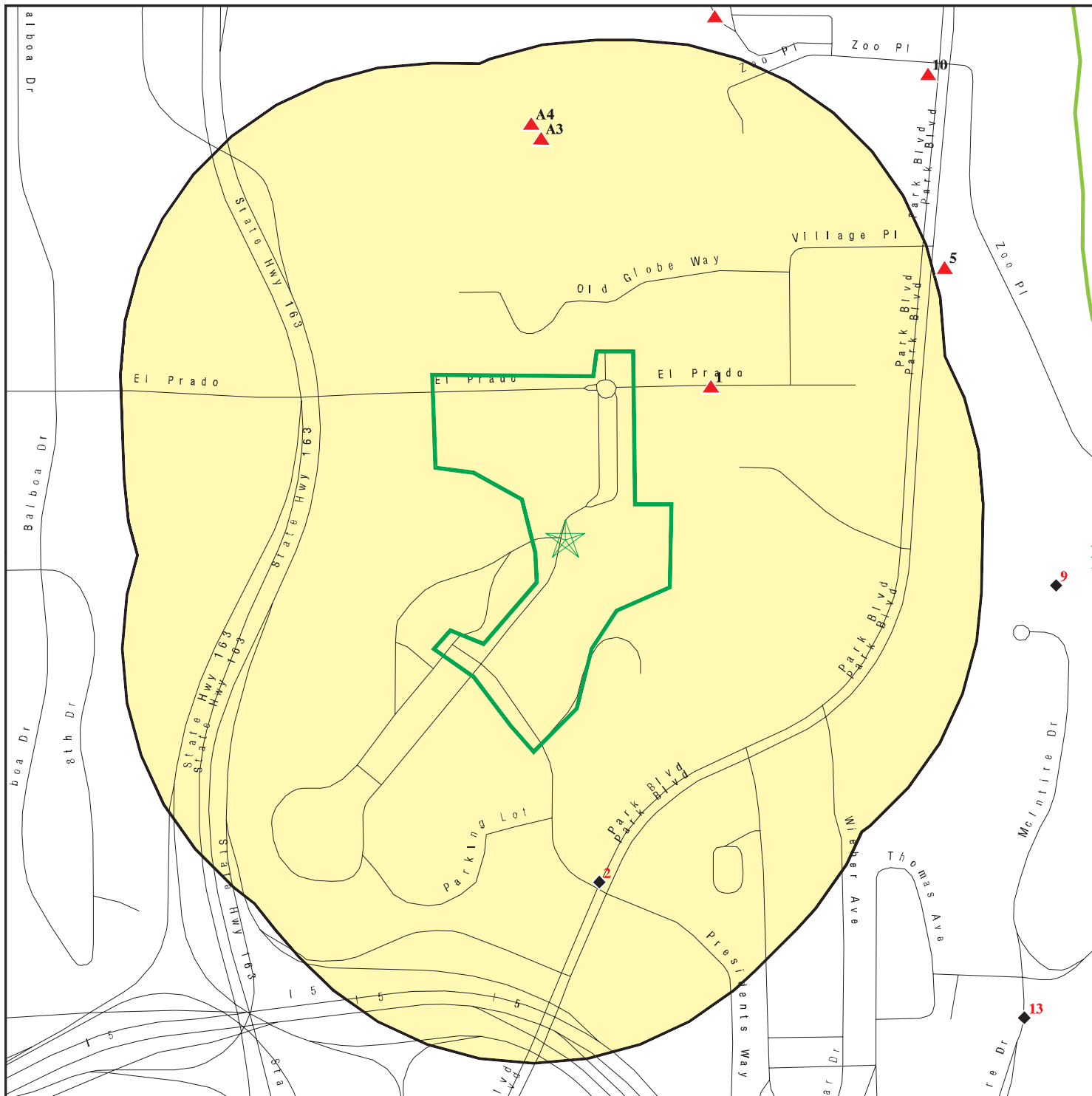
Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Balboa Park Plaza
 ADDRESS: Pan American Road East and El Prado
 San Diego CA 92101
 LAT/LONG: 32.7297 / 117.1510

CLIENT: Geocon Consultants Inc.
 CONTACT: Kiersten Briggs
 INQUIRY #: 3022669.2s
 DATE: March 24, 2011 12:52 pm

DETAIL MAP - 3022669.2s



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

Indian Reservations BIA

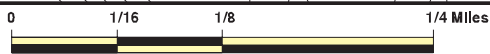
Oil & Gas pipelines

100-year flood zone

500-year flood zone

National Wetland Inventory

Areas of Concern



This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Balboa Park Plaza
 ADDRESS: Pan American Road East and El Prado
 San Diego CA 92101
 LAT/LONG: 32.7297 / 117.1510

CLIENT: Geocon Consultants Inc.
 CONTACT: Kiersten Briggs
 INQUIRY #: 3022669.2s
 DATE: March 24, 2011 12:53 pm

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
<i>Federal NPL site list</i>								
NPL		1.000	0	0	0	0	NR	0
Proposed NPL		1.000	0	0	0	0	NR	0
NPL LIENS		TP	NR	NR	NR	NR	NR	0
<i>Federal Delisted NPL site list</i>								
Delisted NPL		1.000	0	0	0	0	NR	0
<i>Federal CERCLIS list</i>								
CERCLIS		0.500	0	0	0	NR	NR	0
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
<i>Federal CERCLIS NFRAP site List</i>								
CERC-NFRAP		0.500	0	0	0	NR	NR	0
<i>Federal RCRA CORRACTS facilities list</i>								
CORRACTS		1.000	0	0	0	0	NR	0
<i>Federal RCRA non-CORRACTS TSD facilities list</i>								
RCRA-TSDF		0.500	0	0	0	NR	NR	0
<i>Federal RCRA generators list</i>								
RCRA-LQG		0.250	0	0	NR	NR	NR	0
RCRA-SQG		0.250	1	0	NR	NR	NR	1
RCRA-CESQG		0.250	0	0	NR	NR	NR	0
<i>Federal institutional controls / engineering controls registries</i>								
US ENG CONTROLS		0.500	0	0	0	NR	NR	0
US INST CONTROL		0.500	0	0	0	NR	NR	0
<i>Federal ERNS list</i>								
ERNS		TP	NR	NR	NR	NR	NR	0
<i>State- and tribal - equivalent NPL</i>								
RESPONSE		1.000	0	0	0	0	NR	0
<i>State- and tribal - equivalent CERCLIS</i>								
ENVIROSTOR		1.000	0	0	1	7	NR	8
<i>State and tribal landfill and/or solid waste disposal site lists</i>								
SWF/LF		0.500	0	0	0	NR	NR	0
<i>State and tribal leaking storage tank lists</i>								
LUST		0.500	0	0	8	NR	NR	8
SLIC		0.500	0	0	1	NR	NR	1

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
SAN DIEGO CO. SAM		0.500	0	0	2	NR	NR	2
INDIAN LUST		0.500	0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST		0.250	0	0	NR	NR	NR	0
AST		0.250	0	0	NR	NR	NR	0
INDIAN UST		0.250	0	0	NR	NR	NR	0
FEMA UST		0.250	0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
VCP		0.500	0	0	0	NR	NR	0
INDIAN VCP		0.500	0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS		0.500	0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
WMUDS/SWAT		0.500	0	1	0	NR	NR	1
SWRCY		0.500	0	0	0	NR	NR	0
HAULERS	TP		NR	NR	NR	NR	NR	0
INDIAN ODI		0.500	0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	TP		NR	NR	NR	NR	NR	0
HIST Cal-Sites		1.000	0	0	0	0	NR	0
SCH		0.250	0	0	NR	NR	NR	0
Toxic Pits		1.000	0	0	0	0	NR	0
CDL	TP		NR	NR	NR	NR	NR	0
San Diego Co. HMMD	TP		NR	NR	NR	NR	NR	0
US HIST CDL	TP		NR	NR	NR	NR	NR	0
Local Lists of Registered Storage Tanks								
CA FID UST		0.250	0	0	NR	NR	NR	0
HIST UST		0.250	0	0	NR	NR	NR	0
SWEEPS UST		0.250	1	0	NR	NR	NR	1
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
LIENS	TP		NR	NR	NR	NR	NR	0
DEED		0.500	0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	TP		NR	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Target Property	Search Distance (Miles)	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
CHMIRS		TP	NR	NR	NR	NR	NR	0
LDS		TP	NR	NR	NR	NR	NR	0
MCS		TP	NR	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA-NonGen		0.250	0	0	NR	NR	NR	0
DOT OPS		TP	NR	NR	NR	NR	NR	0
DOD		1.000	0	0	0	0	NR	0
FUDS		1.000	0	0	0	0	NR	0
CONSENT		1.000	0	0	0	0	NR	0
ROD		1.000	0	0	0	0	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
TRIS		TP	NR	NR	NR	NR	NR	0
TSCA		TP	NR	NR	NR	NR	NR	0
FTTS		TP	NR	NR	NR	NR	NR	0
HIST FTTS		TP	NR	NR	NR	NR	NR	0
SSTS		TP	NR	NR	NR	NR	NR	0
ICIS		TP	NR	NR	NR	NR	NR	0
PADS		TP	NR	NR	NR	NR	NR	0
MLTS		TP	NR	NR	NR	NR	NR	0
RADINFO		TP	NR	NR	NR	NR	NR	0
FINDS		TP	NR	NR	NR	NR	NR	0
RAATS		TP	NR	NR	NR	NR	NR	0
CA BOND EXP. PLAN		1.000	0	0	0	0	NR	0
WDS		TP	NR	NR	NR	NR	NR	0
NPDES		TP	NR	NR	NR	NR	NR	0
Cortese		0.500	0	0	0	NR	NR	0
HIST CORTESE		0.500	0	0	4	NR	NR	4
Notify 65		1.000	0	1	0	15	NR	16
DRYCLEANERS		0.250	0	0	NR	NR	NR	0
WIP		0.250	0	0	NR	NR	NR	0
HAZNET		TP	NR	NR	NR	NR	NR	0
EMI		TP	NR	NR	NR	NR	NR	0
INDIAN RESERV		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.500	0	0	0	NR	NR	0
HWP		1.000	0	0	0	0	NR	0
HWT		0.250	0	0	NR	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
FINANCIAL ASSURANCE		TP	NR	NR	NR	NR	NR	0
PCB TRANSFORMER		TP	NR	NR	NR	NR	NR	0
PROC		0.500	0	0	0	NR	NR	0
MWMP		0.250	0	0	NR	NR	NR	0
COAL ASH DOE		TP	NR	NR	NR	NR	NR	0
<u>EDR PROPRIETARY RECORDS</u>								
EDR Proprietary Records								
Manufactured Gas Plants		1.000	0	0	0	0	NR	0
EDR Historical Auto Stations		0.250	0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

<u>Database</u>	<u>Target Property</u>	<u>Search Distance (Miles)</u>	<u>< 1/8</u>	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>> 1</u>	<u>Total Plotted</u>
EDR Historical Cleaners		0.250	0	0	NR	NR	NR	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

1
East
< 1/8
0.062 mi.
328 ft.

BALBOA ART CONSERVATION CENTER
1649 EL PRADO BALBOA PARK
SAN DIEGO, CA 92101

RCRA-SQG 1000163902
FINDS CAD981376296
HAZNET

Relative:
Higher

RCRA-SQG:

Date form received by agency: 09/01/1996
 Facility name: BALBOA ART CONSERVATION CTR
 Facility address: 1649 EL PRADO, BALBOA PARK
 SAN DIEGO, CA 92101
 EPA ID: CAD981376296
 Mailing address: P O BOX 3755
 SAN DIEGO, CA 92103
 Contact: Not reported
 Contact address: Not reported
 Contact country: Not reported
 Contact telephone: Not reported
 Contact email: Not reported
 EPA Region: 09
 Classification: Small Small Quantity Generator
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: BARLBOA ART CON CENTER
 Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999
 Owner/operator country: Not reported
 Owner/operator telephone: (415) 555-1212
 Legal status: Private
 Owner/Operator Type: Owner
 Owner/Op start date: Not reported
 Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED
 Owner/operator address: NOT REQUIRED
 NOT REQUIRED, ME 99999

Owner/operator country: Not reported
 Owner/operator telephone: (415) 555-1212
 Legal status: Private
 Owner/Operator Type: Operator
 Owner/Op start date: Not reported
 Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: Unknown
 Mixed waste (haz. and radioactive): Unknown
 Recycler of hazardous waste: No
 Transporter of hazardous waste: No
 Treater, storer or disposer of HW: No
 Underground injection activity: No
 On-site burner exemption: Unknown
 Furnace exemption: Unknown

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALBOA ART CONSERVATION CENTER (Continued)

1000163902

Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No
Off-site waste receiver: Verified to be non-commercial

Historical Generators:

Date form received by agency: 01/31/1986
Facility name: BALBOA ART CONSERVATION CTR
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110006469632

Environmental Interest/Information System

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZNET:

Gepaid: CAD981376296
Contact: JANET RUGGLES
Telephone: 0000000000
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 3755
Mailing City, St, Zip: SAN DIEGO, CA 921630000
Gen County: San Diego
TSD EPA ID: CAD008252405
TSD County: Los Angeles
Waste Category: Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)
Disposal Method: Recycler
Tons: 0.05
Facility County: San Diego

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

2
SSE
< 1/8
0.117 mi.
619 ft.

NAVAL HOSP.SD FACILITY MGMT.12
1900 PARK BLVD
SAN DIEGO, CA 92101

SWEEPS UST S106059699
San Diego Co. HMMD N/A

Relative:
Lower

SWEEPS UST:

Actual:
213 ft.

Status: A
Comp Number: 838
Number: 9
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: 06-26-92
Created Date: 02-29-88
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 838
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 37-000-000838-000001
Actv Date: Not reported
Capacity: 2000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 5

Status: Not reported
Comp Number: 838
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 37-000-000838-000002
Actv Date: Not reported
Capacity: 1000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: OTHER
Number Of Tanks: Not reported

Status: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NAVAL HOSP.SD FACILITY MGMT.12 (Continued)

S106059699

Comp Number: 838
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 37-000-000838-000003
Actv Date: Not reported
Capacity: 1000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: OTHER
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 838
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 37-000-000838-000004
Actv Date: Not reported
Capacity: 550
Tank Use: PETROLEUM
Stg: WASTE
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 838
Number: Not reported
Board Of Equalization: Not reported
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 37-000-000838-000005
Actv Date: Not reported
Capacity: 20000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: OTHER
Number Of Tanks: Not reported

San Diego Co. HMMD:
Facility ID: 100838
Inactive Indicator: Active
Business Code: Not reported
SIC: Not reported
Permit Expiration: Not reported
Owner: EARL H MARSHALL

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NAVAL HOSP.SD FACILITY MGMT.12 (Continued)

S106059699

2nd Name: C/O LARRY ARAGON
Mailing Address: 2480 SAN DIEGO AV #
Mailing City,St,Zip: SAN DIEGO, CA 92110
Map Code/Business Plan on File: Not reported
Corporate Code: Not reported
Fire Dept District: Not reported
Census Tract Number: 55.00
EPA ID: Not reported
Gas Station: Not reported
Inspection Date: Not reported
Reinspection Date: Not reported
Inspector Name: Not reported
Violation Notice Issued: Not reported
Facility Contact: LARRY ARAGON
Delinquent Flag: Not Delinquent
Last Update: 08/30/10
Last Delinquent Letter: Not reported
Delinquent Comment: Not reported
Last Letter Type: Not reported
Property Owner: UNITED STATES OF AMERICA
Property Address: Not reported
Property City,St,Zip: 00000
Tank Owner: Not reported
Tank Address: Not reported
Tank City,St,Zip: Not reported
Business Plan Acceptance Date: Not reported
Reinspection Date Y2K Compatible: Not reported
Facility Phone: 619-220-0723

HMMD DISCLOSURE INVENTORY:

Item Number: Not reported
Chemical Name: Not reported
Case Number: Not reported
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: Not reported
2nd Hazard Category: Not reported

HMMD UNDERGROUND TANKS:

Tank Number: T001
Tank ID Number: 1
Waste or Product: 2000
Tank Contents: Not reported

Tank Number: T002
Tank ID Number: 2
Waste or Product: 1000
Tank Contents: Not reported

Tank Number: T003
Tank ID Number: 3
Waste or Product: 1000
Tank Contents: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

NAVAL HOSP.SD FACILITY MGMT.12 (Continued)

S106059699

Tank Number: T004
Tank ID Number: 4
Waste or Product: 550
Tank Contents: Not reported

Tank Number: T005
Tank ID Number: 5
Waste or Product: 20000
Tank Contents: Not reported

HMMD VIOLATIONS:

Inspection Date: Not reported
Waste Code: Not reported
Occurrences: Not reported
Item Number: Not reported

HMMD WASTE STREAMS:

Inspection Date: Not reported
Waste Item #: Not reported
Waste Code: Not reported
Waste Name: Not reported
Qty at Inspection: Not reported
Quantity String: Not reported
Annual Qty: Not reported
Annual Qty String: Not reported
Measurement Unit: Not reported
Treatment Method: Not reported
Storage Method: Not reported
Haz Waste Hauler: Not reported
Waste Desc: Not reported
Carcinogen: No

**A3
NNW
1/8-1/4
0.177 mi.
933 ft.**

**SAN DIEGO ZOO
BALBOA PARK
SAN DIEGO, CA
Site 1 of 2 in cluster A**

**Notify 65 S100178511
N/A**

**Relative:
Higher**

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: Not reported

**Actual:
287 ft.**

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

A4
NNW
1/8-1/4
0.190 mi.
1005 ft.

ARIZONA STREET LANDFILL
BALBOA PARK
SAN DIEGO CA, CA 92104

WMUDS/SWAT **S101613457**
N/A

Site 2 of 2 in cluster A

Relative:
Higher

WMUDS/SWAT:

Edit Date: Not reported

Complexity: Not reported

Primary Waste: Solid Wastes

Actual:
278 ft.

Primary Waste Type: Nonhazardous Solid Wastes/Influent or Solid Wastes that contain nonhazardous putrescible and non putrescible solid, semisolid, and liquid wastes (E.G., garbage, trash, refuse, paper, demolition and construction wastes, manure, vegetable or animal solid and semisolid waste).

Secondary Waste: Not reported

Secondary Waste Type: Not reported

Base Meridian: Not reported

NPID: Not reported

Tonnage: 0

Regional Board ID: Not reported

Municipal Solid Waste: False

Superorder: False

Open To Public: False

Waste List: False

Agency Type: City

Agency Name: SAN DIEGO, CITY OF, WASTE MGMT

Agency Department: SOLID WASTE MANAGEMENT

Agency Address: 4950 MURPHY CANYON RD, STE 101

Agency City,St,Zip: SAN DIEGO CA 92123

Agency Contact: MR RORY CLAY

Agency Telephone: 6194925034

Land Owner Name: SAN DIEGO, CITY OF

Land Owner Address: Not reported

Land Owner City,St,Zip: CA

Land Owner Contact: Not reported

Land Owner Phone: Not reported

Region: 9

Facility Type: Solid Waste Site-Class III - Landfills for non hazardous solid wastes.

Facility Description: Not reported

Facility Telephone: Not reported

SWAT Facility Name: Not reported

Primary SIC: 9511

Secondary SIC: Not reported

Comments: Not reported

Last Facility Editors: Not reported

Waste Discharge System: True

Solid Waste Assessment Test Program: True

Toxic Pits Cleanup Act Program: False

Resource Conservation Recovery Act: False

Department of Defence: False

Solid Waste Assessment Test Program: SAN DIEGO, CITY OF

Threat to Water Quality: Not reported

Sub Chapter 15: True

Regional Board Project Officer: DFH

Number of WMUDS at Facility: 1

Section Range: 16S03W36NE

RCRA Facility: Not reported

Waste Discharge Requirements: Historical - Any regulated facility for which the Regional Board has

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ARIZONA STREET LANDFILL (Continued)

S101613457

Self-Monitoring Rept. Frequency: rescinded all WDRs or consciously allowed an NPDES permit to expire.
Waste Discharge System ID: Not reported
Solid Waste Information ID: 9 000034N90
Not reported

5
ENE
1/4-1/2
0.259 mi.
1367 ft.

BLDG 26, NAVAL HOSPITAL
2200 BOB WILSON DR
NAV HOSP SAN DIEGO, CA 92134

LUST S102425354
N/A

Relative:
Higher

LUST REG 9:

Actual:
276 ft.

Region: 9
Status: Case Closed
Case Number: 9UT1759
Local Case: H80023-002
Substance: Diesel
Qty Leaked: Not reported
Abate Method: Not reported
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Not reported
Cause: Not reported
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 04/10/1989
Date Stopped: 04/10/1989
Confirm Date: 04/10/1989
Submit Workplan: Not reported
Prelim Assess: 01/06/1992
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 04/10/1989
Enforce Date: Not reported
Closed Date: 1/6/92
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: Not reported
Beneficial Use: Not reported
NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.
File Disp: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

B6 **SAN DIEGO ZOOLOGICAL SOCIETY**
NNE **2920 ZOO**
1/4-1/2 **SAN DIEGO, CA 92103**
0.277 mi.
1462 ft. **Site 1 of 3 in cluster B**

HIST CORTESE **1000726300**
HAZNET **N/A**

Relative: **CORTESE:**
Higher Region: **CORTESE**
 Facility County Code: **37**
Actual: Reg By: **LTNKA**
300 ft. Reg Id: **9UT1502**

HAZNET:
Gepaid: **CAD981384480**
Contact: **ZOOLOGICAL SOCIETY OF SAN**
Telephone: **0000000000**
Facility Addr2: **Not reported**
Mailing Name: **Not reported**
Mailing Address: **PO BOX 551**
Mailing City,St,Zip: **SAN DIEGO, CA 921120551**
Gen County: **San Diego**
TSD EPA ID: **CAD008252405**
TSD County: **Los Angeles**
Waste Category: **Unspecified solvent mixture Waste**
Disposal Method: **Recycler**
Tons: **.2293**
Facility County: **San Diego**

Gepaid: **CAD981384480**
Contact: **ZOOLOGICAL SOCIETY OF SAN**
Telephone: **0000000000**
Facility Addr2: **Not reported**
Mailing Name: **Not reported**
Mailing Address: **PO BOX 551**
Mailing City,St,Zip: **SAN DIEGO, CA 921120551**
Gen County: **San Diego**
TSD EPA ID: **CAD981402522**
TSD County: **Kern**
Waste Category: **Photochemicals/photoprocessing waste**
Disposal Method: **Recycler**
Tons: **.2709**
Facility County: **San Diego**

Gepaid: **CAD981384480**
Contact: **ZOOLOGICAL SOCIETY OF SAN**
Telephone: **0000000000**
Facility Addr2: **Not reported**
Mailing Name: **Not reported**
Mailing Address: **PO BOX 551**
Mailing City,St,Zip: **SAN DIEGO, CA 921120551**
Gen County: **San Diego**
TSD EPA ID: **CAT000613976**
TSD County: **Orange**
Waste Category: **Oxygenated solvents (acetone, butanol, ethyl acetate, etc.)**
Disposal Method: **Transfer Station**
Tons: **.0700**
Facility County: **San Diego**

Gepaid: **CAD981384480**

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SAN DIEGO ZOOLOGICAL SOCI (Continued)

1000726300

Contact: ZOOLOGICAL SOCIETY OF SAN
 Telephone: 0000000000
 Facility Addr2: Not reported
 Mailing Name: Not reported
 Mailing Address: PO BOX 551
 Mailing City,St,Zip: SAN DIEGO, CA 921120551
 Gen County: San Diego
 TSD EPA ID: CAD008364432
 TSD County: Los Angeles
 Waste Category: Other inorganic solid waste
 Disposal Method: Disposal, Land Fill
 Tons: .0050
 Facility County: San Diego

Gepaid: CAD981384480
 Contact: ZOOLOGICAL SOCIETY OF SAN
 Telephone: 0000000000
 Facility Addr2: Not reported
 Mailing Name: Not reported
 Mailing Address: PO BOX 551
 Mailing City,St,Zip: SAN DIEGO, CA 921120551
 Gen County: San Diego
 TSD EPA ID: CAD008364432
 TSD County: Los Angeles
 Waste Category: Unspecified organic liquid mixture
 Disposal Method: Recycler
 Tons: .2502
 Facility County: San Diego

[Click this hyperlink](#) while viewing on your computer to access
 71 additional CA_HAZNET: record(s) in the EDR Site Report.

B7
NNE
1/4-1/2
0.277 mi.
1462 ft.

ZOOLOGICAL SOCIETY OF SAN DIEGO
2920 ZOO DR
SAN DIEGO, CA 92103
Site 2 of 3 in cluster B

NPDES S102436328
LUST N/A
HAZNET
EMI

Relative:
Higher

NPDES:
 Npdes Number: CAS000002
 Facility Status: Active
 Agency Id: Not reported
 Region: 9
 Regulatory Measure Id: Not Availa
 Order No: 2009-0009-DWQ
 Regulatory Measure Type: Enrollee
 Place Id: Not Availa
 WDID: 9 37C356267
 Program Type: Construction
 Adoption Date Of Regulatory Measure: N/A
 Effective Date Of Regulatory Measure: 9/10/2009 3:54:00 PM
 Expiration Date Of Regulatory Measure: Not reported
 Termination Date Of Regulatory Measure: Not reported
 Discharge Name: Zoological Society of San Diego
 Discharge Address: P.O. Box 120551
 Discharge City: San Diego,
 Discharge State: Ca
 Discharge Zip: 92112

Actual:
300 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ZOOLOGICAL SOCIETY OF SAN DIEGO (Continued)

S102436328

LUST REG 9:

Region: 9
Status: Case Closed
Case Number: 9UT1502
Local Case: H02495-001
Substance: Unleaded Gasoline
Qty Leaked: 0
Abate Method: Not reported
Local Agency: San Diego
How Found: Inventory Control
How Stopped: Repair Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 08/18/1989
Date Stopped: 10/24/1989
Confirm Date: 08/18/1989
Submit Workplan: Not reported
Prelim Assess: 11/22/1989
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 08/18/1989
Enforce Date: Not reported
Closed Date: 8/20/93
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: >150
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: 2B
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

HAZNET:

Gepaid: CAD981384480
Contact: DAVE MATHIAS
Telephone: 6195573913
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 120551
Mailing City,St,Zip: SAN DIEGO, CA 921120000
Gen County: San Diego
TSD EPA ID: CAD097030993
TSD County: Los Angeles
Waste Category: Other organic solids
Disposal Method: H141
Tons: 0.1
Facility County: San Diego

Gepaid: CAD981384480

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ZOOLOGICAL SOCIETY OF SAN DIEGO (Continued)

S102436328

Contact: DAVE MATHIAS
Telephone: 6195573913
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 120551
Mailing City,St,Zip: SAN DIEGO, CA 921120000
Gen County: San Diego
TSD EPA ID: TXD077603371
TSD County: 99
Waste Category: Solids or sludges with halogenated organic compounds > 1000mg/kg
Disposal Method: H061
Tons: 0.225
Facility County: San Diego

Gepaid: CAD981384480
Contact: DAVE MATHIAS
Telephone: 6195573913
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 120551
Mailing City,St,Zip: SAN DIEGO, CA 921120000
Gen County: San Diego
TSD EPA ID: CAD044429835
TSD County: Los Angeles
Waste Category: Laboratory waste chemicals
Disposal Method: H141
Tons: 0.0305
Facility County: San Diego

Gepaid: CAD981384480
Contact: DAVE MATHIAS
Telephone: 6195573913
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 120551
Mailing City,St,Zip: SAN DIEGO, CA 921120000
Gen County: San Diego
TSD EPA ID: CAT080013352
TSD County: Los Angeles
Waste Category: Unspecified organic liquid mixture
Disposal Method: H039
Tons: 0.051
Facility County: San Diego

Gepaid: CAD981384480
Contact: DAVE MATHIAS
Telephone: 6195573913
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: PO BOX 120551
Mailing City,St,Zip: SAN DIEGO, CA 921120000
Gen County: San Diego
TSD EPA ID: UTD981552177
TSD County: 99
Waste Category: Laboratory waste chemicals
Disposal Method: H040
Tons: 0.0035

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ZOOLOGICAL SOCIETY OF SAN DIEGO (Continued)

S102436328

Facility County: San Diego

[Click this hyperlink](#) while viewing on your computer to access 38 additional CA_HAZNET: record(s) in the EDR Site Report.

EMI:

Year: 2007
 County Code: 37
 Air Basin: SD
 Facility ID: 6537
 Air District Name: SD
 SIC Code: 8422
 Air District Name: SAN DIEGO COUNTY APCD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported
 Total Organic Hydrocarbon Gases Tons/Yr: .12266
 Reactive Organic Gases Tons/Yr: .107589
 Carbon Monoxide Emissions Tons/Yr: .16968
 NOX - Oxides of Nitrogen Tons/Yr: .1
 SOX - Oxides of Sulphur Tons/Yr: .0000533
 Particulate Matter Tons/Yr: .001266
 Part. Matter 10 Micrometers & Smllr Tons/Yr: .001266

Year: 2007
 County Code: 37
 Air Basin: SD
 Facility ID: 6537
 Air District Name: SD
 SIC Code: 8422
 Air District Name: SAN DIEGO COUNTY APCD
 Community Health Air Pollution Info System: Not reported
 Consolidated Emission Reporting Rule: Not reported
 Total Organic Hydrocarbon Gases Tons/Yr: .12266
 Reactive Organic Gases Tons/Yr: .107589
 Carbon Monoxide Emissions Tons/Yr: .16968
 NOX - Oxides of Nitrogen Tons/Yr: .1
 SOX - Oxides of Sulphur Tons/Yr: .0000533
 Particulate Matter Tons/Yr: .001266
 Part. Matter 10 Micrometers & Smllr Tons/Yr: .001266

B8 **ZOOLOGICAL SOCIETY OF S DIEGO**
NNE **2920 ZOO DR**
1/4-1/2 **SAN DIEGO, CA 92101**
0.277 mi.
1462 ft. **Site 3 of 3 in cluster B**

LUST **U003789078**
UST **N/A**
SWEEPS UST
San Diego Co. HMMD
SAN DIEGO CO. SAM

Relative:
Higher

LUST:
 Region: STATE
 Global Id: T0607300324
 Latitude: 32.738912229
 Longitude: -117.151220307
 Case Type: LUST Cleanup Site
 Status: Completed - Case Closed
 Status Date: 2008-03-26 00:00:00
 Lead Agency: SAN DIEGO COUNTY LOP
 Case Worker: KH
 Local Agency: SAN DIEGO COUNTY LOP

Actual:
300 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

RB Case Number: 9UT1502
LOC Case Number: H02495-001
File Location: Local Agency
Potential Media Affect: Other Groundwater (uses other than drinking water)
Potential Contaminants of Concern: Diesel
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

UST:

Facility ID: 18605
Latitude: 32.73646
Longitude: -117.14899

SWEEPS UST:

Status: A
Comp Number: 2495
Number: 9
Board Of Equalization: 44-021697
Ref Date: Not reported
Act Date: 06-26-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 37-000-002495-000003
Actv Date: Not reported
Capacity: 8000
Tank Use: M.V. FUEL
Stg: P
Content: REG UNLEADED
Number Of Tanks: 2

Status: A
Comp Number: 2495
Number: 9
Board Of Equalization: 44-021697
Ref Date: Not reported
Act Date: 06-26-92
Created Date: 02-29-88
Tank Status: A
Owner Tank Id: Not reported
Swrcb Tank Id: 37-000-002495-000004
Actv Date: Not reported
Capacity: 2000
Tank Use: M.V. FUEL
Stg: P
Content: OTHER
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 2495
Number: Not reported
Board Of Equalization: 44-021697
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 37-000-002495-000001
Actv Date: Not reported
Capacity: 10000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: REG UNLEADED
Number Of Tanks: 2

Status: Not reported
Comp Number: 2495
Number: Not reported
Board Of Equalization: 44-021697
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 37-000-002495-000002
Actv Date: Not reported
Capacity: 2000
Tank Use: M.V. FUEL
Stg: PRODUCT
Content: OTHER
Number Of Tanks: Not reported

San Diego Co. HMMD:

Facility ID: 102495
Inactive Indicator: Active
Business Code: 6HK62
SIC: Not reported
Permit Expiration: Not reported
Owner: ZOOLOGICAL SOCIETY SAN DIEGO
2nd Name: ATTN: DAVE MATTHIAS - RISK MGM
Mailing Address: P O BOX 120551
Mailing City,St,Zip: SAN DIEGO, CA 92112
Map Code/Business Plan on File: Not reported
Corporate Code: Not reported
Fire Dept District: San Diego
Census Tract Number: 56.00
EPA ID: CAD981384480
Gas Station: Not reported
Inspection Date: 09/17/09
Reinspection Date: Not reported
Inspector Name: LWIRSCHE
Violation Notice Issued: Not reported
Facility Contact: DAVID MATTHIAS
Delinquent Flag: Not Delinquent
Last Update: 08/30/10
Last Delinquent Letter: Not reported
Delinquent Comment: Not reported
Last Letter Type: Not reported
Property Owner: SAN DIEGO UNIFIED SCHOOL DISTR
Property Address: Not reported
Property City,St,Zip: 00000
Tank Owner: ZOOLOGICAL SOCIETY OF SD

Map ID
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EDR ID Number
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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Tank Address: P O BOX 120551
Tank City,St,Zip: San Diego, CA 92101
Business Plan Acceptance Date: Not reported
Reinspection Date Y2K Compatible: 09/17/10
Facility Phone: 619-557-3913

HMMD DISCLOSURE INVENTORY:

Item Number: ACE
Chemical Name: ACETYLENE
Case Number: 74-86-2
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: FIRE
2nd Hazard Category: PRESSURE RELEASE

Item Number: AIR
Chemical Name: AIR, COMPRESSED NON-FLAMMABLE GAS MIXTURE/COMPRESSED MEDICAL AIR
Case Number: 132259-10-0
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: PRESSURE RELEASE
2nd Hazard Category: ACUTE

Item Number: ARG
Chemical Name: ARGON GAS
Case Number: 7440-37-1
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: PRESSURE RELEASE
2nd Hazard Category: Not reported

Item Number: ARG
Chemical Name: ARGON/CO2
Case Number: 7440-37-1
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: FIRE
2nd Hazard Category: PRESSURE RELEASE

Item Number: CAR
Chemical Name: CARBON DIOXIDE 10.02% BALANCE NITROGEN
Case Number: 7727-37-9

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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: PRESSURE RELEASE
2nd Hazard Category: Not reported

Item Number: CAR
Chemical Name: CARBON DIOXIDE LIQUID - CRYOGENIC
Case Number: 124-38-9
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: PRESSURE RELEASE
2nd Hazard Category: Not reported

Item Number: CAR
Chemical Name: CARCINOGENS &/OR REPRODUCTIVE TOXINS BELOW STATE DISCLOSURE AMTS
ARE/MAY BE
Case Number: Not reported
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: Not reported
2nd Hazard Category: Not reported

Item Number: DIE
Chemical Name: DIESEL UNDERGROUND TANK 102495 T004 DIESEL
Case Number: 68476-34-6
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: FIRE
2nd Hazard Category: Not reported

Item Number: ETH
Chemical Name: ETHYLENE OXIDE
Case Number: 75-21-8
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: FIRE
2nd Hazard Category: REACTIVE

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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Item Number: HEL
Chemical Name: HELIUM GAS
Case Number: 7440-59-7
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: PRESSURE RELEASE
2nd Hazard Category: Not reported

Item Number: MUR
Chemical Name: MURIATIC ACID (AS HYDROCHLORIC ACID) 31.4%
Case Number: 7647-01-0
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: ACUTE
2nd Hazard Category: CHRONIC

Item Number: NIT
Chemical Name: NITROGEN
Case Number: 7727-37-9
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: PRESSURE RELEASE
2nd Hazard Category: ACUTE

Item Number: NIT
Chemical Name: NITROGEN, LIQUID CRYOGENIC
Case Number: 7727-37-9
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: PRESSURE RELEASE
2nd Hazard Category: Not reported

Item Number: OIL
Chemical Name: OIL, TRANSMISSION FLUID
Case Number: 8002-05-9
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No

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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

1st Hazard Category: FIRE
2nd Hazard Category: Not reported

Item Number: OXY
Chemical Name: OXYGEN
Case Number: 7782-44-7
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: FIRE
2nd Hazard Category: PRESSURE RELEASE

Item Number: PAI
Chemical Name: PAINTS (AS ALIPHATIC HYDROCARBONS)
Case Number: 64742-88-7
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: FIRE
2nd Hazard Category: CHRONIC

Item Number: POT
Chemical Name: POTASSIUM HYDROXIDE POTASH
Case Number: 1310-58-3
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: ACUTE
2nd Hazard Category: Not reported

Item Number: PRO
Chemical Name: PROPANE
Case Number: 74-98-6
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: FIRE
2nd Hazard Category: CHRONIC

Item Number: REG
Chemical Name: REGULAR UNLEADED UNDERGROUND TANK 102495 T003 REGULAR UNLEADED
Case Number: 8006-61-9
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported

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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: FIRE
2nd Hazard Category: Not reported

Item Number: SOD
Chemical Name: SODIUM HYPOCHLORIDE 6-12% CHLORINE LIQUID
Case Number: 7681-52-9
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: FIRE
2nd Hazard Category: REACTIVE

HMMD UNDERGROUND TANKS:

Tank Number: T001
Tank ID Number: 1
Waste or Product: 10000
Tank Contents: Not reported

Tank Number: T002
Tank ID Number: 2
Waste or Product: 2000
Tank Contents: Not reported

Tank Number: T003
Tank ID Number: RT1582 REG
Waste or Product: 10000
Tank Contents: Not reported

Tank Number: T004
Tank ID Number: RT1582 DIE
Waste or Product: 2000
Tank Contents: Not reported

HMMD VIOLATIONS:

Inspection Date: 12/22/05
Waste Code: Not reported
Occurrences: Not reported
Item Number: 1774

Inspection Date: 12/22/05
Waste Code: Not reported
Occurrences: Not reported
Item Number: 1775

Inspection Date: 12/22/05
Waste Code: Not reported
Occurrences: Not reported
Item Number: 1776

Inspection Date: 12/22/05

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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Waste Code: Not reported
Occurrences: Not reported
Item Number: 1777

Inspection Date: 12/22/05
Waste Code: Not reported
Occurrences: Not reported
Item Number: 1778

Inspection Date: 01/03/06
Waste Code: Not reported
Occurrences: Not reported
Item Number: 1896

Inspection Date: 01/03/06
Waste Code: Not reported
Occurrences: Not reported
Item Number: 1897

Inspection Date: 01/03/06
Waste Code: Not reported
Occurrences: Not reported
Item Number: 1898

Inspection Date: 01/03/06
Waste Code: Not reported
Occurrences: Not reported
Item Number: 1899

Inspection Date: 01/03/06
Waste Code: Not reported
Occurrences: Not reported
Item Number: 1900

Inspection Date: 01/03/06
Waste Code: Not reported
Occurrences: Not reported
Item Number: 1901

Inspection Date: 02/20/01
Waste Code: Not reported
Occurrences: Not reported
Item Number: 7993

Inspection Date: 02/20/01
Waste Code: Not reported
Occurrences: Not reported
Item Number: 7994

Inspection Date: 02/20/01
Waste Code: Not reported
Occurrences: Not reported
Item Number: 7995

Inspection Date: 09/10/07
Waste Code: Not reported
Occurrences: Not reported

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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Item Number:	5506
Inspection Date:	09/10/07
Waste Code:	Not reported
Occurrences:	Not reported
Item Number:	5507
Inspection Date:	09/10/07
Waste Code:	Not reported
Occurrences:	Not reported
Item Number:	5508
Inspection Date:	09/10/07
Waste Code:	Not reported
Occurrences:	Not reported
Item Number:	5509
Inspection Date:	09/10/07
Waste Code:	Not reported
Occurrences:	Not reported
Item Number:	5510
Inspection Date:	09/10/07
Waste Code:	Not reported
Occurrences:	Not reported
Item Number:	5511
Inspection Date:	09/10/07
Waste Code:	Not reported
Occurrences:	Not reported
Item Number:	5512
Inspection Date:	09/10/07
Waste Code:	Not reported
Occurrences:	Not reported
Item Number:	5513
Inspection Date:	09/17/09
Waste Code:	Not reported
Occurrences:	Not reported
Item Number:	0437
Inspection Date:	09/10/08
Waste Code:	Not reported
Occurrences:	Not reported
Item Number:	3286
Inspection Date:	09/10/08
Waste Code:	Not reported
Occurrences:	Not reported
Item Number:	3287
Inspection Date:	06/11/97
Waste Code:	Not reported
Occurrences:	Not reported
Item Number:	3510

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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Inspection Date: 06/11/97
Waste Code: Not reported
Occurrences: Not reported
Item Number: 3511

Inspection Date: 06/11/97
Waste Code: Not reported
Occurrences: Not reported
Item Number: 3512

Inspection Date: 11/22/02
Waste Code: Not reported
Occurrences: Not reported
Item Number: 0365

Inspection Date: 11/22/02
Waste Code: Not reported
Occurrences: Not reported
Item Number: 0366

Inspection Date: 11/22/02
Waste Code: Not reported
Occurrences: Not reported
Item Number: 0367

Inspection Date: 11/22/02
Waste Code: Not reported
Occurrences: Not reported
Item Number: 0368

Inspection Date: 09/10/98
Waste Code: Not reported
Occurrences: Not reported
Item Number: 3499

Inspection Date: 09/10/98
Waste Code: Not reported
Occurrences: Not reported
Item Number: 3500

Inspection Date: 09/10/98
Waste Code: Not reported
Occurrences: Not reported
Item Number: 3501

Inspection Date: 12/01/04
Waste Code: Not reported
Occurrences: Not reported
Item Number: 2983

Inspection Date: 12/01/04
Waste Code: Not reported
Occurrences: Not reported
Item Number: 2984

Inspection Date: 12/01/04
Waste Code: Not reported

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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Occurrences: Not reported
Item Number: 2985

Inspection Date: 12/01/04
Waste Code: Not reported
Occurrences: Not reported
Item Number: 2986

Inspection Date: 12/01/04
Waste Code: Not reported
Occurrences: Not reported
Item Number: 2987

Inspection Date: 02/26/04
Waste Code: Not reported
Occurrences: Not reported
Item Number: 4782

Inspection Date: 02/26/04
Waste Code: Not reported
Occurrences: Not reported
Item Number: 4783

Inspection Date: 02/26/04
Waste Code: Not reported
Occurrences: Not reported
Item Number: 4784

Inspection Date: 02/26/04
Waste Code: Not reported
Occurrences: Not reported
Item Number: 4785

HMMD WASTE STREAMS:

Inspection Date: 09/17/09
Waste Item #: 135
Waste Code: 135
Waste Name: UNSPECIFIED AQUEOUS
Qty at Inspection: 40
Quantity String: 40
Annual Qty: 240
Annual Qty String: 240
Measurement Unit: GAL
Treatment Method: 001 RECYCLE
Storage Method: PROCESSING EQUIPMENT
Haz Waste Hauler: 1406 SAFETY-KLEEN
Waste Desc: Not reported
Carcinogen: No

Inspection Date: 09/17/09
Waste Item #: 211
Waste Code: 211
Waste Name: HALOGENATED SOLVENTS
Qty at Inspection: 10
Quantity String: 10
Annual Qty: 40
Annual Qty String: 40

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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Measurement Unit: GAL
Treatment Method: 001 RECYCLE
Storage Method: CAN
Haz Waste Hauler: 1406 SAFETY-KLEEN
Waste Desc: CARB CLEANER
Carcinogen: No

Inspection Date: 09/17/09
Waste Item #: 212
Waste Code: 212
Waste Name: OXYGENATED SOLVENTS
Qty at Inspection: 100
Quantity String: 100
Annual Qty: 400
Annual Qty String: 400
Measurement Unit: GAL
Treatment Method: 001 RECYCLE
Storage Method: METAL DRUM
Haz Waste Hauler: 4026 ADVANCED CHEMICAL TR
Waste Desc: SOLVENT MIXTURE-ACETONE,
Carcinogen: No

Inspection Date: 09/17/09
Waste Item #: 221
Waste Code: 221
Waste Name: WASTE OIL & MIXED OI
Qty at Inspection: 250
Quantity String: 250
Annual Qty: 740
Annual Qty String: 740
Measurement Unit: GAL
Treatment Method: 001 RECYCLE
Storage Method: ABVG TNK
Haz Waste Hauler: 0015 ASBURY ENVIR. SERVIC
Waste Desc: VEHICLE MAINTENANCE
Carcinogen: No

Inspection Date: 09/17/09
Waste Item #: 311
Waste Code: 311
Waste Name: PHARMACEUTICAL WASTE
Qty at Inspection: 20
Quantity String: 20
Annual Qty: 80
Annual Qty String: 80
Measurement Unit: LBS
Treatment Method: 007 INCINERATION
Storage Method: PLASTIC DRUM
Haz Waste Hauler: 4026 ADVANCED CHEMICAL TR
Waste Desc: Not reported
Carcinogen: No

Inspection Date: 09/17/09
Waste Item #: 444
Waste Code: 444
Waste Name: USED BATTERIES
Qty at Inspection: 1000

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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Quantity String: 1000
Annual Qty: 5000
Annual Qty String: 5000
Measurement Unit: LBS
Treatment Method: 444 BATTERIES RECYCL
Storage Method: NONE
Haz Waste Hauler: 9997 UNREGISTERED HAZ WST
Waste Desc: LEAD ACID BATTERIES
Carcinogen: No

Inspection Date: 09/17/09
Waste Item #: 461
Waste Code: 461
Waste Name: PAINT SLUDGE
Qnty at Inspection: 15
Quantity String: 15
Annual Qty: 15
Annual Qty String: 15
Measurement Unit: GAL
Treatment Method: 001 RECYCLE
Storage Method: METAL DRUM
Haz Waste Hauler: 1406 SAFETY-KLEEN
Waste Desc: PAINT/THINNER
Carcinogen: No

Inspection Date: 09/17/09
Waste Item #: 551
Waste Code: 551
Waste Name: LABORATORY WASTE CHE
Qnty at Inspection: 80
Quantity String: 80
Annual Qty: 205
Annual Qty String: 205
Measurement Unit: LBS
Treatment Method: 007 INCINERATION
Storage Method: METAL DRUM
Haz Waste Hauler: 4026 ADVANCED CHEMICAL TR
Waste Desc: BOUINS, AG NO3,PHENO,CHR.
Carcinogen: No

Inspection Date: 09/17/09
Waste Item #: 888
Waste Code: 888
Waste Name: USED OIL FILTERS
Qnty at Inspection: 300
Quantity String: 300
Annual Qty: 1000
Annual Qty String: 1000
Measurement Unit: LBS
Treatment Method: 888 FILTERS/METAL RE
Storage Method: METAL DRUM
Haz Waste Hauler: 0015 ASBURY ENVIRONMENTAL
Waste Desc: OIL FILTERS & GAS FILTERS
Carcinogen: No

Inspection Date: 09/17/09
Waste Item #: 901

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ZOOLOGICAL SOCIETY OF S DIEGO (Continued)

U003789078

Waste Code: 901
Waste Name: INFECTIOUS WASTE, GE
Qnty at Inspection: 300
Quantity String: 300
Annual Qty: 3600
Annual Qty String: 3600
Measurement Unit: LBS
Treatment Method: 101 AUTOCLAVE
Storage Method: BAG
Haz Waste Hauler: 3400 STERICYCLE INC.
Waste Desc: FRM PATH & VET SERVICES
Carcinogen: No

Inspection Date: 09/17/09
Waste Item #: 902
Waste Code: 902
Waste Name: INFECTIOUS WASTE, SH
Qnty at Inspection: 100
Quantity String: 100
Annual Qty: 1200
Annual Qty String: 1200
Measurement Unit: LBS
Treatment Method: 101 AUTOCLAVE
Storage Method: BAG
Haz Waste Hauler: 3400 STERICYCLE INC.
Waste Desc: FROM PATHOLOGY & VET SERV
Carcinogen: No

Inspection Date: 09/17/09
Waste Item #: 903
Waste Code: 903
Waste Name: INF WST, TISSUE/ANAT.
Qnty at Inspection: 20
Quantity String: 20
Annual Qty: 240
Annual Qty String: 240
Measurement Unit: LBS
Treatment Method: 103 TREATED, THEN SEW
Storage Method: NONE
Haz Waste Hauler: 0001 NO HAULER
Waste Desc: ONSITETREATMENT HYDROLYSI
Carcinogen: No

SAN DIEGO CO. SAM:

Case Number: H02495-001
Agency: DEH Site Assessment & Mitigation
Funding: LOP - State Fund
FType: GW With No Beneficial Use Designation
FStatus: 9
Date: 3/26/2008
Date Began: 8/18/1989

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9
East
1/4-1/2
0.310 mi.
1636 ft.

BALBOA NAVAL HOSPITAL
2200 BOB WILSON DR
NAV HOSP SAN DIEGO, CA 92134

LUST S100470619
N/A

Relative:
Lower

LUST REG 9:

Actual:
152 ft.

Region: 9
Status: Case Closed
Case Number: 9UT2099
Local Case: H80023-006
Substance: Boiler Fuel
Qty Leaked: 0
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Other ground water affected
Date Found: 08/12/1991
Date Stopped: 08/12/1991
Confirm Date: 08/12/1991
Submit Workplan: 8/27/91
Prelim Assess: / /
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 08/12/1991
Enforce Date: Not reported
Closed Date: 8/4/93
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: >14'
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT1989
Local Case: H80023-005
Substance: Diesel
Qty Leaked: 4500
Abate Method: No Action Required - incident is minor, requiring no remedial action
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency

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BALBOA NAVAL HOSPITAL (Continued)

S100470619

Case Type: Other ground water affected
Date Found: 04/09/1991
Date Stopped: 04/09/1991
Confirm Date: 04/09/1991
Submit Workplan: Not reported
Prelim Assess: 04/09/1991
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 04/09/1991
Enforce Date: Not reported
Closed Date: 9/13/96
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: >100
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: Medium priority
File Dispn: File discarded, case closed
Interim Remedial Actions: No
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT2533
Local Case: H80023-003
Substance: Diesel
Qty Leaked: 0
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site

Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 11/01/1988
Date Stopped: 11/01/1988
Confirm Date: 11/01/1988
Submit Workplan: Not reported
Prelim Assess: 11/01/1988
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 11/01/1988
Enforce Date: Not reported
Closed Date: 3/14/96
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: >14'
Beneficial Use: No Beneficial groundwater use

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALBOA NAVAL HOSPITAL (Continued)

S100470619

NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.
File Disp: Not reported
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

**10
NE
1/4-1/2
0.325 mi.
1715 ft.**

**BALBOA PARK RAILROAD
NONE ZOO PL
SAN DIEGO, CA 92101**

**HIST CORTESE
LUST
SLIC
San Diego Co. HMMD
SAN DIEGO CO. SAM**

**S101302188
N/A**

**Relative:
Higher**

CORTESE:
Region: CORTESE
Facility County Code: 37
Actual:
Reg By: LTNKA
288 ft. Reg Id: 9UT2421

LUST:
Region: STATE
Global Id: T0607301186
Latitude: 32.7351569
Longitude: -117.145852
Case Type: LUST Cleanup Site
Status: Completed - Case Closed
Status Date: 1994-08-05 00:00:00
Lead Agency: SAN DIEGO COUNTY LOP
Case Worker: ML
Local Agency: Not reported
RB Case Number: 9UT2421
LOC Case Number: H21193-002
File Location: Local Agency
Potential Media Affect: Soil
Potential Contaminants of Concern: Gasoline
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

LUST REG 9:

Region: 9
Status: Case Closed
Case Number: 9UT2421
Local Case: H21193-002
Substance: Gasoline
Qty Leaked: Not reported
Abate Method: No Action Required - incident is minor, requiring no remedial action
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 03/24/1993
Date Stopped: 03/24/1993
Confirm Date: 04/15/1993

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALBOA PARK RAILROAD (Continued)

S101302188

Submit Workplan: 3/24/93
Prelim Assess: 03/24/1993
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 04/15/1993
Enforce Date: Not reported
Closed Date: 8/5/94
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: Not reported
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: 3B
File Disp: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

SLIC:

Region: STATE
Facility Status: Completed - Case Closed
Status Date: 1993-04-16 00:00:00
Global Id: T0608195773
Lead Agency: SAN DIEGO COUNTY LOP
Lead Agency Case Number: H21193-001
Latitude: Not reported
Longitude: Not reported
Case Type: Cleanup Program Site
Case Worker: MP
Local Agency: Not reported
RB Case Number: Not reported
File Location: Local Agency
Potential Media Affected: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

San Diego Co. HMMD:

Facility ID: 121193
Inactive Indicator: Active
Business Code: Not reported
SIC: Not reported
Permit Expiration: Not reported
Owner: DAVID WEIR
2nd Name: Not reported
Mailing Address: 13154 AVENIDA DEL G
Mailing City, St, Zip: SAN DIEGO, CA 92129
Map Code/Business Plan on File: Not reported
Corporate Code: Not reported
Fire Dept District: San Diego
Census Tract Number: 56.00
EPA ID: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALBOA PARK RAILROAD (Continued)

S101302188

Gas Station: Not reported
Inspection Date: 08/16/93
Reinspection Date: Not reported
Inspector Name: LEGACY
Violation Notice Issued: Not reported
Facility Contact: Not reported
Delinquent Flag: Not Delinquent
Last Update: 08/30/10
Last Delinquent Letter: Not reported
Delinquent Comment: Not reported
Last Letter Type: Not reported
Property Owner: CITY OF SAN DIEGO
Property Address: Not reported
Property City,St,Zip: 00000
Tank Owner: DAVID WEIR
Tank Address: P O BOX 1866
Tank City,St,Zip: San Diego, CA 92112
Business Plan Acceptance Date: Not reported
Reinspection Date Y2K Compatible: Not reported
Facility Phone: 858-484-7424

HMMD DISCLOSURE INVENTORY:

Item Number: Not reported
Chemical Name: Not reported
Case Number: Not reported
Quantity Stored At One Time: Not reported
Quantity Stored at One Time: Not reported
Annual Quantity String: Not reported
Annual Quantity String: Not reported
Measurement Units: Not reported
Carcinogen: No
1st Hazard Category: Not reported
2nd Hazard Category: Not reported

HMMD UNDERGROUND TANKS:

Tank Number: T001
Tank ID Number: 1
Waste or Product: 275
Tank Contents: Not reported

HMMD VIOLATIONS:

Inspection Date: 07/26/90
Waste Code: Not reported
Occurrences: Not reported
Item Number: 3503

Inspection Date: 07/26/90
Waste Code: Not reported
Occurrences: Not reported
Item Number: 3504

Inspection Date: 07/26/90
Waste Code: Not reported
Occurrences: Not reported
Item Number: 3505

Inspection Date: 07/26/90

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

BALBOA PARK RAILROAD (Continued)

S101302188

Waste Code: Not reported
Occurrences: Not reported
Item Number: 3506

Inspection Date: 08/03/92
Waste Code: Not reported
Occurrences: Not reported
Item Number: 4757

HMMD WASTE STREAMS:

Inspection Date: Not reported
Waste Item #: Not reported
Waste Code: Not reported
Waste Name: Not reported
Qty at Inspection: Not reported
Quantity String: Not reported
Annual Qty: Not reported
Annual Qty String: Not reported
Measurement Unit: Not reported
Treatment Method: Not reported
Storage Method: Not reported
Haz Waste Hauler: Not reported
Waste Desc: Not reported
Carcinogen: No

SAN DIEGO CO. SAM:

Case Number: H21193-001
Agency: DEH Site Assessment & Mitigation
Funding: Non Billable
FType: Failed Integrity Test
FStatus: 9
Date: 4/16/1993
Date Began: 3/9/1993

Case Number: H21193-002
Agency: DEH Site Assessment & Mitigation
Funding: LOP - Federal Fund
FType: Soils Only
FStatus: 9
Date: 8/5/1994
Date Began: 3/24/1993

11
West
1/4-1/2
0.435 mi.
2296 ft.

5TH AVE FINANCIAL CENTER
2550 5TH AVENUE
SAN DIEGO, CA 92103

HIST CORTESE S102423465
LUST N/A
HAZNET

Relative:
Higher

CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT2798

Actual:
267 ft.

LUST REG 9:

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

5TH AVE FINANCIAL CENTER (Continued)

S102423465

Region: 9
Status: Case Closed
Case Number: 9UT2798
Local Case: H21083-001
Substance: Gasoline
Qty Leaked: 0
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Tank
Cause: Corrosion
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 05/26/1994
Date Stopped: 05/26/1994
Confirm Date: / /
Submit Workplan: Not reported
Prelim Assess: 07/19/1994
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 05/26/1994
Enforce Date: Not reported
Closed Date: 10/2/95
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: >13'
Beneficial Use: NBNB/EOC
NPDES Number: Not reported
Priority: 2B
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

HAZNET:

Gepaid: CAC001425504
Contact: RAY HAUGH
Telephone: 6192399191
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 2550 5TH AVENUE
Mailing City,St,Zip: SAN DIEGO, CA 921030000
Gen County: San Diego
TSD EPA ID: CAD009007626
TSD County: Los Angeles
Waste Category: Asbestos-containing waste
Disposal Method: Not reported
Tons: 0.25
Facility County: Not reported

Gepaid: CAC001425504
Contact: RAY HAUGH

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

5TH AVE FINANCIAL CENTER (Continued)

S102423465

Telephone: 6192399191
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 2550 5TH AVENUE
Mailing City,St,Zip: SAN DIEGO, CA 921030000
Gen County: San Diego
TSD EPA ID: CAD009007626
TSD County: Los Angeles
Waste Category: Asbestos-containing waste
Disposal Method: H132
Tons: 0.4
Facility County: San Diego

Gepaid: CAC002645803
Contact: BUD COLORSIO
Telephone: 6192399191
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 2550 5TH AVE
Mailing City,St,Zip: SAN DIEGO, CA 92103
Gen County: San Diego
TSD EPA ID: CAD000174987
TSD County: 99
Waste Category: Asbestos-containing waste
Disposal Method: H132
Tons: 0.4
Facility County: San Diego

Gepaid: CAC001425504
Contact: RAY HAUGH
Telephone: 6192399191
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 2550 5TH AVENUE
Mailing City,St,Zip: SAN DIEGO, CA 921030000
Gen County: San Diego
TSD EPA ID: CAD009007626
TSD County: San Diego
Waste Category: Asbestos-containing waste
Disposal Method: Disposal, Land Fill
Tons: 4.55
Facility County: San Diego

Gepaid: CAC001425504
Contact: RAY HAUGH
Telephone: 6192399191
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 2550 5TH AVENUE
Mailing City,St,Zip: SAN DIEGO, CA 921030000
Gen County: San Diego
TSD EPA ID: CAD009007626
TSD County: Los Angeles
Waste Category: Asbestos-containing waste
Disposal Method: H132
Tons: 1.6
Facility County: San Diego

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

5TH AVE FINANCIAL CENTER (Continued)

S102423465

[Click this hyperlink](#) while viewing on your computer to access
 4 additional CA_HAZNET: record(s) in the EDR Site Report.

12
West
1/4-1/2
0.436 mi.
2302 ft.

SIMPSON HOUSING LTD PARTNER
2400 5TH AVE
SAN DIEGO, CA 92102

HAZNET S106797689
ENVIROSTOR N/A

Relative:
Lower

HAZNET:
 Gepaid: CAC002567498
 Contact: STEVE BAIR/GM
 Telephone: 3032834190
 Facility Addr2: Not reported
 Mailing Name: Not reported
 Mailing Address: 8110 E UNION AVE #200
 Mailing City,St,Zip: DENVER, CO 80237
 Gen County: San Diego
 TSD EPA ID: CAT080013352
 TSD County: San Diego
 Waste Category: Unspecified oil-containing waste
 Disposal Method: Recycler
 Tons: 4.17
 Facility County: San Diego

Actual:
254 ft.

ENVIROSTOR:
 Site Type: Evaluation
 Site Type Detailed: Evaluation
 Acres: Not reported
 NPL: NO
 Regulatory Agencies: NONE SPECIFIED
 Lead Agency: NONE SPECIFIED
 Program Manager: Not reported
 Supervisor: Referred - Not Assigned
 Division Branch: Cleanup Cypress
 Facility ID: 37000037
 Site Code: Not reported
 Assembly: 76
 Senate: 39
 Special Program: Not reported
 Status: Refer: 1248 Local Agency
 Status Date: 5/30/2001
 Restricted Use: NO
 Site Mgmt. Req.: NONE SPECIFIED
 Funding: Not Applicable
 Latitude: 32.730863495799902
 Longitude: -117.16073989186
 APN: NONE SPECIFIED
 Past Use: NONE SPECIFIED
 Potential COC: NONE SPECIFIED
 Confirmed COC: NONE SPECIFIED
 Potential Description: NONE SPECIFIED
 Alias Name: 37000037
 Alias Type: Envirostor ID Number

Completed Info:
 Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SIMPSON HOUSING LTD PARTNER (Continued)

S106797689

Completed Document Type: SB 1248 Notification
 Completed Date: 2001-05-22 00:00:00
 Comments: SB 1248 San Diego County

Future Area Name: Not reported
 Future Sub Area Name: Not reported
 Future Document Type: Not reported
 Future Due Date: Not reported
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported

13
SE
1/4-1/2
0.436 mi.
2304 ft.

BLDG 50, NAVAL HOSPITAL
2200 BOB WILSON DR
NAV HOSP SAN DIEGO, CA 92134

LUST S102425395
N/A

Relative:
Lower

LUST REG 9:
 Region: 9
 Status: Case Closed
 Case Number: 9UT1086
 Local Case: H80023-001
 Substance: Gasoline
 Qty Leaked: 0
 Abate Method: Not reported
 Local Agency: San Diego
 How Found: Tank Closure
 How Stopped: Close Tank
 Source: Unknown
 Cause: Unknown
 Lead Agency: Local Agency
 Case Type: Soil only
 Date Found: 10/07/1988
 Date Stopped: 10/07/1988
 Confirm Date: 10/07/1988
 Submit Workplan: Not reported
 Prelim Assess: 10/11/1988
 Desc Pollution: Not reported
 Remed Plan: / /
 Remed Action: Not reported
 Began Monitor: Not reported
 Release Date: 10/11/1988
 Enforce Date: Not reported
 Closed Date: 1/28/92
 Enforce Type: Not reported
 Pilot Program: LOP
 Basin Number: 908.21
 GW Depth: Not reported
 Beneficial Use: Not reported
 NPDES Number: Not reported
 Priority: Low priority. Priority ranking can change over time.
 File Dispn: File discarded, case closed
 Interim Remedial Actions: Yes
 Cleanup and Abatement order Number: Not reported
 Waste Discharge Requirement Number: Not reported

Actual:
179 ft.

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

14
West
1/4-1/2
0.486 mi.
2567 ft.

FIRST INTERNATIONAL BANK
2201 4TH
SAN DIEGO, CA 92101

HIST CORTESE S100736471
LUST N/A

Relative:
Lower

CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT2377

Actual:
225 ft.

LUST REG 9:

Region: 9
Status: Case Closed
Case Number: 9UT2377
Local Case: H32802-001
Substance: Regular Gasoline
Qty Leaked: Not reported
Abate Method: Not reported
Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Tank
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 10/15/1992
Date Stopped: 10/15/1992
Confirm Date: 06/15/1992
Submit Workplan: Not reported
Prelim Assess: 06/15/1993
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 06/15/1992
Enforce Date: Not reported
Closed Date: 6/17/97
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.21
GW Depth: -75
Beneficial Use: No Beneficial groundwater use
NPDES Number: Not reported
Priority: 2B
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

15
 SE
 1/2-1
 0.583 mi.
 3080 ft.

**U.S. NAVAL HOSPITAL, SAN DIEGO
 FLORIDA PL. & PERSHING DR.
 SAN DIEGO, CA 92101**

**ENVIROSTOR S100270128
 N/A**

**Relative:
 Lower**

ENVIROSTOR:

Site Type: Military Evaluation
 Site Type Detailed: Open Base
 Acres: Not reported
 NPL: NO
 Regulatory Agencies: RWQCB 9 - San Diego
 Lead Agency: NONE SPECIFIED
 Program Manager: Not reported
 Supervisor: Not reported
 Division Branch: Cleanup Cypress
 Facility ID: 37800064
 Site Code: 400499
 Assembly: 78
 Senate: 39
 Special Program: Not reported
 Status: Refer: RWQCB
 Status Date: 7/24/1997
 Restricted Use: NO
 Site Mgmt. Req.: NONE SPECIFIED
 Funding: DERA
 Latitude: 32.727499999999999
 Longitude: -117.14166666666701
 APN: NONE SPECIFIED
 Past Use: NONE SPECIFIED
 Potential COC: NONE SPECIFIED
 Confirmed COC: NONE SPECIFIED
 Potential Description: NONE SPECIFIED
 Alias Name: SAN DIEGO NAVHOSP
 Alias Type: Alternate Name
 Alias Name: CA3170090234
 Alias Type: EPA Identification Number
 Alias Name: T0607300548
 Alias Type: GeoTracker Global ID
 Alias Name: T0607300869
 Alias Type: GeoTracker Global ID
 Alias Name: T0607355535
 Alias Type: GeoTracker Global ID
 Alias Name: 400499
 Alias Type: Project Code (Site Code)
 Alias Name: 37800064
 Alias Type: Envirostor ID Number

**Actual:
 105 ft.**

Completed Info:

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: Site Screening
 Completed Date: 1992-06-04 00:00:00
 Comments: EPA's PA review was screened by Region 4 staff. The reason EPA recommended NFA is: GW within 4 miles of the site is not used for drinking, There is a low probability of release to air, or exposure via soil, and wastes are currently stored in containers with secondary containment inside a building. Since the hospital is a generator following substantive re-quirements, DTSC staff recommends leaving the facility as an "other agency lead".

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

U.S. NAVAL HOSPITAL, SAN DIEGO (Continued)

S100270128

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

16
ENE
1/2-1
0.608 mi.
3211 ft.

**SAN DIEGO ZOO
SAN DIEGO, CA**

**Notify 65 S100178399
N/A**

**Relative:
Higher**

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: Not reported

**Actual:
265 ft.**

17
West
1/2-1
0.629 mi.
3319 ft.

**FIRST AVENUE COMPANY
135 KALMIA STREET
SAN DIEGO, CA 92101**

**HIST CORTESE S100178684
LUST N/A
Notify 65**

**Relative:
Lower**

CORTESE:
Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT182

Region: CORTESE
Facility County Code: 37
Reg By: LTNKA
Reg Id: 9UT2430

**Actual:
232 ft.**

LUST REG 9:
Region: 9
Status: Case Closed
Case Number: 9UT182
Local Case: H21015-001
Substance: Diesel
Qty Leaked: 0
Abate Method: Not reported
Local Agency: San Diego
How Found: Nuisance Conditions
How Stopped: Close Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FIRST AVENUE COMPANY (Continued)

S100178684

Date Found: 06/26/1986
Date Stopped: 05/21/1987
Confirm Date: / /
Submit Workplan: 6/26/86
Prelim Assess: 05/12/1989
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 06/26/1986
Enforce Date: Not reported
Closed Date: 8/4/89
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.20
GW Depth: Not reported
Beneficial Use: Not reported
NPDES Number: Not reported
Priority: Low priority. Priority ranking can change over time.
File Dispn: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Region: 9
Status: Case Closed
Case Number: 9UT2430
Local Case: H21015-002
Substance: Boiler Fuel
Qty Leaked: 0
Abate Method: Excavate and Dispose - remove contaminated soil and dispose in approved site

Local Agency: San Diego
How Found: Tank Closure
How Stopped: Close Tank
Source: Unknown
Cause: Unknown
Lead Agency: Local Agency
Case Type: Soil only
Date Found: 07/26/1988
Date Stopped: 07/26/1988
Confirm Date: / /
Submit Workplan: 7/26/88
Prelim Assess: / /
Desc Pollution: Not reported
Remed Plan: / /
Remed Action: Not reported
Began Monitor: Not reported
Release Date: 08/10/1988
Enforce Date: Not reported
Closed Date: 8/4/89
Enforce Type: Not reported
Pilot Program: LOP
Basin Number: 908.20
GW Depth: 15'
Beneficial Use: Not reported
NPDES Number: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

FIRST AVENUE COMPANY (Continued)

S100178684

Priority: Low priority. Priority ranking can change over time.
File Disp: File discarded, case closed
Interim Remedial Actions: Yes
Cleanup and Abatement order Number: Not reported
Waste Discharge Requirement Number: Not reported

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 92101

18
NNE
1/2-1
0.676 mi.
3568 ft.

**1805 UPAS ST.
SAN DIEGO, CA 92103**

**Notify 65 S100178316
N/A**

**Relative:
Higher
Actual:
308 ft.**

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 92103-5213

19
West
1/2-1
0.679 mi.
3586 ft.

**134 HAWTHORNE ST
SAN DIEGO, CA 92101**

**Notify 65 S100178129
N/A**

**Relative:
Lower
Actual:
186 ft.**

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 92101-2026

C20
SSW
1/2-1
0.741 mi.
3915 ft.

**1110 "C" STREET
SAN DIEGO, CA
Site 1 of 4 in cluster C**

**Notify 65 S100178324
N/A**

**Relative:
Lower
Actual:
98 ft.**

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported

MAP FINDINGS

Map ID Direction Distance Elevation		Database(s)	EDR ID Number EPA ID Number
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(Continued)

S100178324

Incident Description: Not reported

C21 SSW 1/2-1 0.741 mi. 3915 ft.	1110 "C" STREET SAN DIEGO, CA Site 2 of 4 in cluster C	Notify 65	S100178277 N/A
---	---	------------------	---------------------------------

Relative: Lower	Notify 65: Date Reported: Not reported Staff Initials: Not reported
Actual: 98 ft.	Board File Number: Not reported Facility Type: Not reported Discharge Date: Not reported Incident Description: Not reported

C22 SSW 1/2-1 0.741 mi. 3915 ft.	1110 "C" STREET SAN DIEGO, CA Site 3 of 4 in cluster C	Notify 65	S100178341 N/A
---	---	------------------	---------------------------------

Relative: Lower	Notify 65: Date Reported: Not reported Staff Initials: Not reported
Actual: 98 ft.	Board File Number: Not reported Facility Type: Not reported Discharge Date: Not reported Incident Description: Not reported

C23 SSW 1/2-1 0.743 mi. 3923 ft.	11TH AND "C" STREET SAN DIEGO, CA Site 4 of 4 in cluster C	Notify 65	S100178342 N/A
---	---	------------------	---------------------------------

Relative: Lower	Notify 65: Date Reported: Not reported Staff Initials: Not reported
Actual: 97 ft.	Board File Number: Not reported Facility Type: Not reported Discharge Date: Not reported Incident Description: Not reported

MAP FINDINGS

Map ID			EDR ID Number
Direction			EPA ID Number
Distance			
Elevation	Site	Database(s)	

D24 NNE 1/2-1 0.744 mi. 3928 ft.	FOOT OF GRAND AVE & OCEAN BLVD SAN DIEGO, CA Site 1 of 2 in cluster D	Notify 65	S100178068 N/A
Relative: Higher	Notify 65: Date Reported: Not reported Staff Initials: Not reported Board File Number: Not reported Facility Type: Not reported Discharge Date: Not reported Incident Description: Not reported		
Actual: 310 ft.			

D25 NNE 1/2-1 0.750 mi. 3958 ft.	INDIANA ST & MYRTLE AVE SAN DIEGO, CA Site 2 of 2 in cluster D	Notify 65	S100178057 N/A
Relative: Higher	Notify 65: Date Reported: Not reported Staff Initials: Not reported Board File Number: Not reported Facility Type: Not reported Discharge Date: Not reported Incident Description: Not reported		
Actual: 310 ft.			

E26 South 1/2-1 0.790 mi. 4169 ft.	15TH & BROADWAY SAN DIEGO, CA Site 1 of 2 in cluster E	Notify 65	S100178353 N/A
Relative: Lower	Notify 65: Date Reported: Not reported Staff Initials: Not reported Board File Number: Not reported Facility Type: Not reported Discharge Date: Not reported Incident Description: Not reported		
Actual: 79 ft.			

E27 South 1/2-1 0.790 mi. 4169 ft.	15TH & BROADWAY SAN DIEGO, CA Site 2 of 2 in cluster E	Notify 65	S100178406 N/A
Relative: Lower	Notify 65: Date Reported: Not reported Staff Initials: Not reported Board File Number: Not reported Facility Type: Not reported Discharge Date: Not reported Incident Description: Not reported		
Actual: 79 ft.			

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

28
 SSW
 1/2-1
 0.823 mi.
 4344 ft.

GOODYEAR AUTO SERVICE #9368
1045 BROADWAY
SAN DIEGO, CA 92101

SLIC U001572566
HIST UST N/A
SWEEPS UST
HAZNET
SAN DIEGO CO. SAM
ENVIROSTOR

Relative:
Lower

SLIC:

Actual:
84 ft.

Region: STATE
Facility Status: Completed - Case Closed
 Status Date: 2010-10-20 00:00:00
 Global Id: T10000001810
 Lead Agency: SAN DIEGO COUNTY LOP
 Lead Agency Case Number: H27452-001
 Latitude: 32.715413
 Longitude: -117.154988
 Case Type: Cleanup Program Site
 Case Worker: KK
 Local Agency: SAN DIEGO COUNTY LOP
 RB Case Number: Not reported
 File Location: Local Agency
 Potential Media Affected: Soil
 Potential Contaminants of Concern: Tetrachloroethylene (PCE), Polychlorinated biphenyls (PCBs), Lead, Diesel, Waste Oil / Motor / Hydraulic / Lubricating

Site History:

The former Goodyear Auto Care was damaged in a fire. Soil sampling & analysis detected TPH and chlorinated solvents. The RP proposes excavation to remove impacted soil. The Department of Environmental Health, Site Assessment and Mitigation Program (SAM), reviewed the environmental investigation reports related to the above-referenced property, prepared by Geocon Consultants, Inc. The reports summarize site investigation activities performed at the above-referenced location and propose excavation of hydrocarbon- and chlorinated solvent-impacted soil. The Voluntary Assistance Program Application requested that SAM provide oversight and concurrence with proposed removal action. Prior to SAM approval of the excavation workplan, the property owner notified SAM that the proposed land use for the property was a paved grade level parking lot. After conducting research of the site and surrounding area, SAM determined and subsequently notified the property owner that implementation of the proposed excavation activities was not necessary for the proposed site use. Regardless, on May 25, 2010, SAM was notified that the excavation activities would continue at the site. The consultant subsequently provided a remediation report outlining excavation activities conducted at the site. SAM was instructed not to review or comment on the document and to provide regulatory case closure based on the proposed site use as a paved parking lot. As a result, SAM has no knowledge of the excavation activities conducted at the site or their effectiveness. Therefore, provided that the information presented to SAM was complete, accurate, and representative of existing site conditions, this agency concurs that the site investigation goals established for the subject site have been met. Please be advised that this letter does not relieve the responsible party of any liability under the California Health and Safety Code or the Porter Cologne Water Quality Control Act. If previously unidentified contamination is discovered which may affect public health, safety and/or water quality, additional site assessment and cleanup may be necessary. SAM understands that the proposed land use for the site is a paved grade level parking lot, which at this time is the only approved land use for the property. Changes to this land

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GOODYEAR AUTO SERVICE #9368 (Continued)

U001572566

use will require reevaluation of the property to determine if the revised land use could result in a risk to public health.

[Click here to access the California GeoTracker records for this facility:](#)

HIST UST:

Region: STATE
Facility ID: 00000028398
Facility Type: Other
Other Type: TIRES & SERVICE
Total Tanks: 0001
Contact Name: Not reported
Telephone: 6192336666
Owner Name: GOODYEAR TIRE & RUBBER CO.
Owner Address: 1144 E. MARKET ST.
Owner City,St,Zip: AKRON, OH 44316

Tank Num: 001
Container Num: 1
Year Installed: Not reported
Tank Capacity: 00000000
Tank Used for: WASTE
Type of Fuel: WASTE OIL
Tank Construction: Not reported
Leak Detection: None

SWEEPS UST:

Status: A
Comp Number: 27452
Number: 9
Board Of Equalization: 44-001109
Ref Date: Not reported
Act Date: 06-26-92
Created Date: 02-29-88
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: Not reported
Actv Date: Not reported
Capacity: Not reported
Tank Use: Not reported
Stg: Not reported
Content: Not reported
Number Of Tanks: Not reported

Status: Not reported
Comp Number: 27452
Number: Not reported
Board Of Equalization: 44-001109
Ref Date: Not reported
Act Date: Not reported
Created Date: Not reported
Tank Status: Not reported
Owner Tank Id: Not reported
Swrcb Tank Id: 37-000-027452-000001
Actv Date: Not reported
Capacity: 500

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GOODYEAR AUTO SERVICE #9368 (Continued)

U001572566

Tank Use: PETROLEUM
Stg: WASTE
Content: Not reported
Number Of Tanks: 1

HAZNET:

Gepaid: CAC002609432
Contact: CHRISTINE TOMKO
Telephone: 2167963709
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1144 E MARKET ST
Mailing City,St,Zip: AKRON, OH 443161000
Gen County: San Diego
TSD EPA ID: CAD099452708
TSD County: Los Angeles
Waste Category: Waste oil and mixed oil
Disposal Method: H03
Tons: 15.42
Facility County: San Diego

Gepaid: CAL000224172
Contact: DAN DARROW
Telephone: 6192336666
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1148 INDUSTRIAL AVE
Mailing City,St,Zip: ESCONDIDO, CA 920290000
Gen County: San Diego
TSD EPA ID: CAT000613893
TSD County: San Diego
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Tons: 0.03
Facility County: San Diego

Gepaid: CAL000224172
Contact: DAN DARROW
Telephone: 6192336666
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1148 INDUSTRIAL AVE
Mailing City,St,Zip: ESCONDIDO, CA 920290000
Gen County: San Diego
TSD EPA ID: CAT080013352
TSD County: San Diego
Waste Category: Oil/water separation sludge
Disposal Method: Recycler
Tons: 0.39
Facility County: San Diego

Gepaid: CAL000224172
Contact: SUE ASHMAN/ ACCT MGR
Telephone: 7607414044
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 1148 INDUSTRIAL AVE

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GOODYEAR AUTO SERVICE #9368 (Continued)

U001572566

Mailing City,St,Zip: ESCONDIDO, CA 920290000
Gen County: San Diego
TSD EPA ID: Not reported
TSD County: Los Angeles
Waste Category: Aqueous solution with less than 10% total organic residues
Disposal Method: Transfer Station
Tons: 0.01
Facility County: Not reported

Gepaid: CAL000214864
Contact: MICHELLE PETERS R F MGR
Telephone: 8189721200
Facility Addr2: Not reported
Mailing Name: Not reported
Mailing Address: 900 W ALAMEDA AVE
Mailing City,St,Zip: BURBANK, CA 915062802
Gen County: San Diego
TSD EPA ID: Not reported
TSD County: Los Angeles
Waste Category: Oil/water separation sludge
Disposal Method: Recycler
Tons: 0.31
Facility County: Not reported

[Click this hyperlink](#) while viewing on your computer to access additional CA_HAZNET: detail in the EDR Site Report.

SAN DIEGO CO. SAM:

Case Number: H27452-001
Agency: DEH Site Assessment & Mitigation
Funding: Private - VAP
FType: Soils Only
FStatus: 3
Date: 1/25/2010
Date Began: Not reported

ENVIROSTOR:

Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 0
NPL: NO
Regulatory Agencies: SAN DIEGO COUNTY
Lead Agency: SAN DIEGO COUNTY
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Cypress
Facility ID: 60001296
Site Code: Not reported
Assembly: 79
Senate: 39
Special Program: Not reported
Status: Refer: 1248 Local Agency
Status Date: 2/1/2010
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not Applicable

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

GOODYEAR AUTO SERVICE #9368 (Continued)

U001572566

Latitude: 0
Longitude: 0
APN: 534-332-11-00
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 534-332-11-00
Alias Type: APN
Alias Name: 60001296
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: SB 1248 Notification
Completed Date: 2010-02-01 00:00:00
Comments: An SB 1248 Notification received from the County of San Diego requesting an oversight and concurrence with proposed removal action. Removal action was proposed by the property owner. The location was burned down which resulted in impacts to soil. Petroleum hydrocarbons and chlorinated solvents have been identified in soil.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

29
East
1/2-1
0.942 mi.
4975 ft.

2820 IVY ST
SAN DIEGO, CA 92104

Notify 65 S100178152
N/A

Relative:
Lower

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: 92104-5528

Actual:
212 ft.

MAP FINDINGS

Map ID
Direction
Distance
Elevation

Site

Database(s)

EDR ID Number
EPA ID Number

30
NNW
1/2-1
0.954 mi.
5039 ft.

BROOKS ST AND FOURTH AVENUE
SAN DIEGO, CA

Notify 65 **S100178322**
N/A

Relative:
Higher

Notify 65:
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Incident Description: Not reported

Actual:
291 ft.

31
SW
1/2-1
0.962 mi.
5081 ft.

CONTINENTAL CLEANERS
1470 STATE STREET
SAN DIEGO, CA 92101

ENVIROSTOR **S106893863**
N/A

Relative:
Lower

ENVIROSTOR:
Site Type: Evaluation
Site Type Detailed: Evaluation
Acres: 0
NPL: NO
Regulatory Agencies: SAN DIEGO COUNTY
Lead Agency: SAN DIEGO COUNTY
Program Manager: Not reported
Supervisor: Referred - Not Assigned
Division Branch: Cleanup Cypress
Facility ID: 37720039
Site Code: Not reported
Assembly: 76
Senate: 39
Special Program: Not reported
Status: Refer: 1248 Local Agency
Status Date: 5/15/2000
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not Applicable
Latitude: 32.720610000000001
Longitude: -117.1665
APN: 5333331300
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: STEPHENS PROPERTIES, LP
Alias Type: Alternate Name
Alias Name: 5333331300
Alias Type: APN
Alias Name: 37720039
Alias Type: Envirostor ID Number

Actual:
59 ft.

Completed Info:
Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: SB 1248 Notification
Completed Date: 2000-05-15 00:00:00
Comments: SB 1248 San Diego County

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

CONTINENTAL CLEANERS (Continued)

S106893863

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

32
SSW
1/2-1
0.967 mi.
5107 ft.

SAN DIEGO SHIP BUILDING
980 F STREET
CHULA VISTA, CA 92010

CERC-NFRAP 1003880059
ENVIROSTOR CAD107568321

Relative:
Lower

CERC-NFRAP:
Site ID: 0905282
Federal Facility: Not a Federal Facility

Actual:
67 ft.

NPL Status: Not on the NPL
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 13055345.00000
Person ID: 9271184.00000

Contact Sequence ID: 13061415.00000
Person ID: 9270048.00000

Contact Sequence ID: 13092155.00000
Person ID: 13002167.00000

Contact Sequence ID: 13150392.00000
Person ID: 9270438.00000

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY
Date Started: Not reported
Date Completed: 08/23/1995
Priority Level: Not reported

Action: ARCHIVE SITE
Date Started: Not reported
Date Completed: 09/18/1996
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT
Date Started: Not reported
Date Completed: 09/18/1996
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

ENVIROSTOR:

Site Type: Historical
Site Type Detailed: * Historical
Acres: 15
NPL: NO

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN DIEGO SHIP BUILDING (Continued)

1003880059

Regulatory Agencies: US EPA
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: Sayareh Amirebrahimi
Division Branch: Cleanup Cypress
Facility ID: 37370125
Site Code: 400563
Assembly: 79
Senate: 40
Special Program: EPA - PASI
Status: Refer: Other Agency
Status Date: 11/2/1998
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 32.6361111111111099
Longitude: -117.098333333333
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: 20011, 30013
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: SAN DIEGO SHIP BUILDING
Alias Type: Alternate Name
Alias Name: SHANGRI LA PARCEL
Alias Type: Alternate Name
Alias Name: CAD107568321
Alias Type: EPA Identification Number
Alias Name: 400563
Alias Type: Project Code (Site Code)
Alias Name: 37370125
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 1996-09-18 00:00:00
Comments: A Preliminary Assessment was completed under U.S. EPA grant. No further assessment action is warranted by U.S. EPA. However, DTSC requires a Preliminary Endangerment Assessment due to heavy metals on the site.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1995-01-26 00:00:00
Comments: Site was identified from a non-emergency release report dated August 1994. The San Diego Unified Port District, a prospective buyer, conducted a Phase I and Phase II assessments and found that the site is contaminated with copper, zinc, and lead. A PEA notification letter was sent to the Port.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

SAN DIEGO SHIP BUILDING (Continued)

1003880059

Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

33
West
1/2-1
0.972 mi.
5130 ft.

**SAN DIEGO PLATING (2)
2060 INDIA STREET
SAN DIEGO, CA 92101**

ENVIROSTOR S100203541
N/A

Relative:
Lower

ENVIROSTOR:

Actual:
69 ft.

Site Type: Historical
Site Type Detailed: * Historical
Acres: Not reported
NPL: NO
Regulatory Agencies: NONE SPECIFIED
Lead Agency: NONE SPECIFIED
Program Manager: Not reported
Supervisor: * MMONROY
Division Branch: Cleanup Cypress
Facility ID: 37340135
Site Code: Not reported
Assembly: 76
Senate: 39
Special Program: * RCRA 3012 - Past Haz Waste Disp Inven Site
Status: Refer: Other Agency
Status Date: 8/21/1995
Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not reported
Latitude: 32.726228257174
Longitude: -117.169058941035
APN: NONE SPECIFIED
Past Use: NONE SPECIFIED
Potential COC: 10061, 10097, 10119, 10198, 30108, 30153, 30407
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: CAD064475494
Alias Type: EPA Identification Number
Alias Name: 37-34-0138
Alias Type: Envirostor ID Number
Alias Name: 37340135
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Site Screening
Completed Date: 1994-11-17 00:00:00
Comments: CALSITES VALIDATION PROGRAM CONFIRMS NFA FOR DTSC.

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: Preliminary Assessment Report
Completed Date: 1984-05-10 00:00:00
Comments: PERMIT(OTHER) BY CITY OF SD WATER UTILITY DEPT, SLDG WASTE:
PRETREATMENT/SEWERED; APPROX 2000 GAL/DAY. SOURCE ACT: CITY SEWER

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

SAN DIEGO PLATING (2) (Continued)

S100203541

DISCH APPLI 1980 - MEDIUM SIZE PLATING OPER. YR OF OPER:
 1975-PRESENT. FAC TYPE: WST PRETREATMENT SYSTEM ONSITE. SUBMIT TO EPA
 PRELIM ASSESS DONE RCRA 3012

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: * Discovery
 Completed Date: 1983-02-15 00:00:00
 Comments: FACILITY IDENTIFIED ID VIA DHS RECORD SEARCH

Future Area Name: Not reported
 Future Sub Area Name: Not reported
 Future Document Type: Not reported
 Future Due Date: Not reported
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported

34
NW
1/2-1
0.989 mi.
5221 ft.

300 BLK OF BROOKS AVE
SAN DIEGO, CA

Notify 65 **S100178115**
N/A

Relative:
Higher

Notify 65:
 Date Reported: Not reported
 Staff Initials: Not reported
 Board File Number: Not reported
 Facility Type: Not reported
 Discharge Date: Not reported
 Incident Description: Not reported

Actual:
288 ft.

35
North
1/2-1
0.993 mi.
5241 ft.

THE PARK AT ROBINSON
3740 PARK BOULEVARD
SAN DIEGO, CA 92103

ENVIROSTOR **S106797692**
N/A

Relative:
Higher

ENVIROSTOR:
 Site Type: Evaluation
 Site Type Detailed: Evaluation
 Acres: Not reported
 NPL: NO
 Regulatory Agencies: NONE SPECIFIED
 Lead Agency: NONE SPECIFIED
 Program Manager: Not reported
 Supervisor: Referred - Not Assigned
 Division Branch: Cleanup Cypress
 Facility ID: 37000040
 Site Code: Not reported
 Assembly: 76
 Senate: 39
 Special Program: Not reported
 Status: Refer: 1248 Local Agency

Actual:
308 ft.

Map ID
 Direction
 Distance
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
 EPA ID Number

THE PARK AT ROBINSON (Continued)

S106797692

Status Date: 8/2/2001
 Restricted Use: NO
 Site Mgmt. Req.: NONE SPECIFIED
 Funding: Not Applicable
 Latitude: 0
 Longitude: 0
 APN: 452-213-12, 452-213-13
 Past Use: NONE SPECIFIED
 Potential COC: NONE SPECIFIED
 Confirmed COC: NONE SPECIFIED
 Potential Description: NONE SPECIFIED
 Alias Name: 452-213-12
 Alias Type: APN
 Alias Name: 452-213-13
 Alias Type: APN
 Alias Name: 37000040
 Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
 Completed Sub Area Name: Not reported
 Completed Document Type: SB 1248 Notification
 Completed Date: 2001-08-02 00:00:00
 Comments: SB 1248 San Diego County

Future Area Name: Not reported
 Future Sub Area Name: Not reported
 Future Document Type: Not reported
 Future Due Date: Not reported
 Schedule Area Name: Not reported
 Schedule Sub Area Name: Not reported
 Schedule Document Type: Not reported
 Schedule Due Date: Not reported
 Schedule Revised Date: Not reported

36
 SSW
 1/2-1
 0.996 mi.
 5257 ft.

**5TH & "E"
 525 "E" STREET
 SAN DIEGO, CA 92101**

**ENVIROSTOR S106893815
 N/A**

**Relative:
 Lower**

ENVIROSTOR:

Site Type: Evaluation
 Site Type Detailed: Evaluation
 Acres: 0
 NPL: NO
 Regulatory Agencies: SAN DIEGO COUNTY
 Lead Agency: SAN DIEGO COUNTY
 Program Manager: Not reported
 Supervisor: Referred - Not Assigned
 Division Branch: Cleanup Cypress
 Facility ID: 37000056
 Site Code: Not reported
 Assembly: 76
 Senate: 39
 Special Program: Not reported
 Status: Refer: 1248 Local Agency
 Status Date: 2/10/2000

**Actual:
 56 ft.**

Map ID
Direction
Distance
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number
EPA ID Number

5TH & "E" (Continued)

S106893815

Restricted Use: NO
Site Mgmt. Req.: NONE SPECIFIED
Funding: Not Applicable
Latitude: 32.714399416471799
Longitude: -117.159707640516
APN: 53357501, 5363011300
Past Use: NONE SPECIFIED
Potential COC: NONE SPECIFIED
Confirmed COC: NONE SPECIFIED
Potential Description: NONE SPECIFIED
Alias Name: 53357501
Alias Type: APN
Alias Name: 5363011300
Alias Type: APN
Alias Name: 37000056
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE
Completed Sub Area Name: Not reported
Completed Document Type: SB 1248 Notification
Completed Date: 2000-02-10 00:00:00
Comments: DTSC is not involved with this project.

Future Area Name: Not reported
Future Sub Area Name: Not reported
Future Document Type: Not reported
Future Due Date: Not reported
Schedule Area Name: Not reported
Schedule Sub Area Name: Not reported
Schedule Document Type: Not reported
Schedule Due Date: Not reported
Schedule Revised Date: Not reported

Count: 20 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
SAN DIEGO	1003878266	CAMPBELL INDUSTRIES	501 E HARBOUR DR	92112	CERCLIS-NFRAP
SAN DIEGO	1004654691	AIR FORCE PLT 19	4297 PACIFIC COAST HWY	92101	CERCLIS-NFRAP
SAN DIEGO	1004675676	SHELL SERVICE STATION	2008 PACIFIC COAST HWY	92101	FINDS,RCRA-LQG,HAZNET
SAN DIEGO	1006833613	BALBOA PARK LANDFILL	UPAS/ FLORIDA CANYON	92101	FINDS
SAN DIEGO	1006838111	BALBOA PARK NURSERY	E OF NAVAL HOSPITAL	92101	FINDS
SAN DIEGO	2008876403	SANUEL PARK	SANUEL PARK		ERNS
SAN DIEGO	2008902506	CORNER OF REGENTS RD AND PLAZA DEL	CORNER OF REGENTS RD AND PLAZA		ERNS
SAN DIEGO	2009902506	CORNER OF REGENTS RD AND PLAZA DEL	CORNER OF REGENTS RD AND PLAZA		ERNS
SAN DIEGO	2010933149	NATIONAL CITY BLVD	NATIONAL CITY BLVD		ERNS
SAN DIEGO	2010933506	PEPPER PARK BOAT LAUNCH	PEPPER PARK BOAT LAUNCH		ERNS
SAN DIEGO	2010943342	PEPPER TREE PARK	PEPPER TREE PARK		ERNS
SAN DIEGO	2010953314	VISTA PACIFICA PARK	VISTA PACIFICA PARK		ERNS
SAN DIEGO	91210121	UNOCAL STATION 5295 AT BALBOA & TE	UNOCAL STATION 5295 AT BALBOA		ERNS
SAN DIEGO	92251469	NB 805 S OF BALBOA AVE	NB 805 S OF BALBOA AVE		ERNS
SAN DIEGO	93321134	2075 BALBOA AT GRAND AVE	2075 BALBOA AT GRAND AVE	92104	ERNS
SAN DIEGO	96495552	MISSION HILLS HWY 118 EASTBOUND EA	MISSION HILLS HWY 118 EASTBOUN		ERNS
SAN DIEGO	S105539831	NAVAL MEDICAL CENTER SAN DIEGO	2200 BOB WILSON DR	92134	HMMD SAN DIEGO,SAN DIEGO CO. SAM,LUST SAN MATEO
SAN DIEGO	S106071034	PARK LAUREL (OWNERS ASSOCIATIO	2500 06TH AVE	92103	HMMD SAN DIEGO
SAN DIEGO	S106519116	NAVISTAR INTERNATIONAL TRANS. CORP	2200 PACIFIC COAST HWY	92101	SLIC REGION 2
SAN DIEGO	U001573326	NAVAL HOSPITAL	PARK BLVD	92134	HIST UST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/31/2010	Source: EPA
Date Data Arrived at EDR: 01/13/2011	Telephone: N/A
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/13/2011
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/31/2010	Source: EPA
Date Data Arrived at EDR: 01/13/2011	Telephone: N/A
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/13/2011
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991	Source: EPA
Date Data Arrived at EDR: 02/02/1994	Telephone: 202-564-4267
Date Made Active in Reports: 03/30/1994	Last EDR Contact: 02/14/2011
Number of Days to Update: 56	Next Scheduled EDR Contact: 05/30/2011
	Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal Delisted NPL site list

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/31/2010	Source: EPA
Date Data Arrived at EDR: 01/13/2011	Telephone: N/A
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/13/2011
Number of Days to Update: 15	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 11/30/2010	Source: EPA
Date Data Arrived at EDR: 12/30/2010	Telephone: 703-412-9810
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 03/01/2011
Number of Days to Update: 57	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Quarterly

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA's Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 12/10/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/11/2011	Telephone: 703-603-8704
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 01/11/2011
Number of Days to Update: 36	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Varies

Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 10/28/2010	Source: EPA
Date Data Arrived at EDR: 12/01/2010	Telephone: 703-412-9810
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 03/01/2011
Number of Days to Update: 86	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/25/2010
Date Data Arrived at EDR: 06/02/2010
Date Made Active in Reports: 10/04/2010
Number of Days to Update: 124

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 02/14/2011
Next Scheduled EDR Contact: 05/30/2011
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/06/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/06/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/06/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 02/17/2010
Date Data Arrived at EDR: 02/19/2010
Date Made Active in Reports: 05/17/2010
Number of Days to Update: 87

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 01/06/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 01/05/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2011	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 03/14/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 01/05/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/14/2011	Telephone: 703-603-0695
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 03/14/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2010	Source: National Response Center, United States Coast Guard
Date Data Arrived at EDR: 01/07/2011	Telephone: 202-267-2180
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 01/07/2011
Number of Days to Update: 73	Next Scheduled EDR Contact: 04/18/2011
	Data Release Frequency: Annually

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 02/07/2011	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 02/08/2011	Telephone: 916-323-3400
Date Made Active in Reports: 03/08/2011	Last EDR Contact: 03/17/2011
Number of Days to Update: 28	Next Scheduled EDR Contact: 05/23/2011
	Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/07/2011
Date Data Arrived at EDR: 02/08/2011
Date Made Active in Reports: 03/08/2011
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/17/2011
Next Scheduled EDR Contact: 05/23/2011
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 02/22/2011
Date Data Arrived at EDR: 02/22/2011
Date Made Active in Reports: 03/22/2011
Number of Days to Update: 28

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 02/22/2011
Next Scheduled EDR Contact: 06/06/2011
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 12/22/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 03/14/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 03/14/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: No Update Planned

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 01/03/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Quarterly

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 03/07/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 05/17/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: No Update Planned

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 03/21/2011
Next Scheduled EDR Contact: 07/04/2011
Data Release Frequency: Quarterly

LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: No Update Planned

LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 03/08/2011
Number of Days to Update: 32

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 03/23/2011
Next Scheduled EDR Contact: 07/04/2011
Data Release Frequency: Quarterly

LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 01/17/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Varies

SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 03/08/2011
Number of Days to Update: 32

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 03/23/2011
Next Scheduled EDR Contact: 07/04/2011
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 03/21/2011
Next Scheduled EDR Contact: 07/04/2011
Data Release Frequency: Quarterly

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 01/17/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Semi-Annually

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 01/03/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Varies

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 03/14/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Semi-Annually

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 02/14/2011
Next Scheduled EDR Contact: 02/28/2011
Data Release Frequency: Semi-Annually

SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 02/14/2011
Next Scheduled EDR Contact: 05/30/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 03/14/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Semi-Annually

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 02/07/2011
Next Scheduled EDR Contact: 05/23/2011
Data Release Frequency: Annually

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/03/2011	Source: EPA Region 10
Date Data Arrived at EDR: 02/04/2011	Telephone: 206-553-2857
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 45	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 09/01/2010	Source: EPA Region 1
Date Data Arrived at EDR: 11/05/2010	Telephone: 617-918-1313
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 02/03/2011
Number of Days to Update: 84	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 02/04/2011	Source: EPA Region 8
Date Data Arrived at EDR: 02/04/2011	Telephone: 303-312-6271
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 45	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 02/03/2011	Source: EPA Region 6
Date Data Arrived at EDR: 02/04/2011	Telephone: 214-665-6597
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 45	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 08/27/2010	Source: EPA Region 4
Date Data Arrived at EDR: 08/30/2010	Telephone: 404-562-8677
Date Made Active in Reports: 10/04/2010	Last EDR Contact: 02/16/2011
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Semi-Annually

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 01/31/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/01/2011	Telephone: 415-972-3372
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 48	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 11/04/2009	Source: EPA Region 7
Date Data Arrived at EDR: 05/04/2010	Telephone: 913-551-7003
Date Made Active in Reports: 07/07/2010	Last EDR Contact: 05/04/2010
Number of Days to Update: 64	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

State and tribal registered storage tank lists

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 02/03/2011	Source: SWRCB
Date Data Arrived at EDR: 02/04/2011	Telephone: 916-480-1028
Date Made Active in Reports: 03/07/2011	Last EDR Contact: 03/23/2011
Number of Days to Update: 31	Next Scheduled EDR Contact: 07/04/2011
	Data Release Frequency: Semi-Annually

AST: Aboveground Petroleum Storage Tank Facilities

Registered Aboveground Storage Tanks.

Date of Government Version: 08/01/2009	Source: State Water Resources Control Board
Date Data Arrived at EDR: 09/10/2009	Telephone: 916-341-5712
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 01/10/2011
Number of Days to Update: 21	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/03/2011	Source: EPA Region 10
Date Data Arrived at EDR: 02/04/2011	Telephone: 206-553-2857
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 45	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 01/31/2011	Source: EPA Region 9
Date Data Arrived at EDR: 02/01/2011	Telephone: 415-972-3368
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 48	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 02/04/2011	Source: EPA Region 8
Date Data Arrived at EDR: 02/04/2011	Telephone: 303-312-6137
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 45	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Quarterly

INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 11/01/2010	Source: EPA Region 7
Date Data Arrived at EDR: 12/02/2010	Telephone: 913-551-7003
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 02/03/2011
Number of Days to Update: 57	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/04/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 45

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Semi-Annually

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 02/11/2010
Date Data Arrived at EDR: 02/11/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 60

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 08/27/2010
Date Data Arrived at EDR: 08/30/2010
Date Made Active in Reports: 10/04/2010
Number of Days to Update: 35

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 02/16/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Semi-Annually

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 09/01/2010
Date Data Arrived at EDR: 11/05/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 84

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 02/03/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010
Date Data Arrived at EDR: 02/16/2010
Date Made Active in Reports: 04/12/2010
Number of Days to Update: 55

Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 01/17/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/07/2011
Date Data Arrived at EDR: 02/08/2011
Date Made Active in Reports: 03/08/2011
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/17/2011
Next Scheduled EDR Contact: 05/23/2011
Data Release Frequency: Quarterly

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/01/2010
Date Data Arrived at EDR: 01/05/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 75

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 01/05/2010
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Varies

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments-EPA's Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities--especially those without EPA Brownfields Assessment Demonstration Pilots--minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA's Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

Date of Government Version: 12/29/2010
Date Data Arrived at EDR: 12/30/2010
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 81

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 12/30/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 12/22/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000	Source: State Water Resources Control Board
Date Data Arrived at EDR: 04/10/2000	Telephone: 916-227-4448
Date Made Active in Reports: 05/10/2000	Last EDR Contact: 02/14/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 05/30/2011
	Data Release Frequency: No Update Planned

SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 11/18/2010	Source: Department of Conservation
Date Data Arrived at EDR: 12/23/2010	Telephone: 916-323-3836
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 03/23/2011
Number of Days to Update: 36	Next Scheduled EDR Contact: 07/04/2011
	Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 02/22/2011	Source: Integrated Waste Management Board
Date Data Arrived at EDR: 02/22/2011	Telephone: 916-341-6422
Date Made Active in Reports: 03/24/2011	Last EDR Contact: 02/22/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 06/06/2011
	Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998	Source: Environmental Protection Agency
Date Data Arrived at EDR: 12/03/2007	Telephone: 703-308-8245
Date Made Active in Reports: 01/24/2008	Last EDR Contact: 02/08/2011
Number of Days to Update: 52	Next Scheduled EDR Contact: 05/23/2011
	Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 12/03/2010	Source: Drug Enforcement Administration
Date Data Arrived at EDR: 12/30/2010	Telephone: 202-307-1000
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 03/08/2011
Number of Days to Update: 48	Next Scheduled EDR Contact: 06/20/2011
	Data Release Frequency: Quarterly

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 02/07/2011
Date Data Arrived at EDR: 02/08/2011
Date Made Active in Reports: 03/08/2011
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/17/2011
Next Scheduled EDR Contact: 05/23/2011
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2010
Date Data Arrived at EDR: 03/04/2011
Date Made Active in Reports: 03/24/2011
Number of Days to Update: 20

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 02/22/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Varies

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007
Date Data Arrived at EDR: 11/19/2008
Date Made Active in Reports: 03/30/2009
Number of Days to Update: 131

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

Local Lists of Registered Storage Tanks

CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 09/23/2009	Source: Department of Public Health
Date Data Arrived at EDR: 09/23/2009	Telephone: 707-463-4466
Date Made Active in Reports: 10/01/2009	Last EDR Contact: 03/07/2011
Number of Days to Update: 8	Next Scheduled EDR Contact: 06/20/2011
	Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990	Source: State Water Resources Control Board
Date Data Arrived at EDR: 01/25/1991	Telephone: 916-341-5851
Date Made Active in Reports: 02/12/1991	Last EDR Contact: 07/26/2001
Number of Days to Update: 18	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994	Source: State Water Resources Control Board
Date Data Arrived at EDR: 07/07/2005	Telephone: N/A
Date Made Active in Reports: 08/11/2005	Last EDR Contact: 06/03/2005
Number of Days to Update: 35	Next Scheduled EDR Contact: N/A
	Data Release Frequency: No Update Planned

Local Land Records

LIENS 2: CERCLA Lien Information

A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 11/09/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/16/2010	Telephone: 202-564-6023
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 92	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 12/09/2005	Source: Department of the Navy
Date Data Arrived at EDR: 12/11/2006	Telephone: 843-820-7326
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 02/22/2011
Number of Days to Update: 31	Next Scheduled EDR Contact: 06/06/2011
	Data Release Frequency: Varies

LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 12/08/2010	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 12/09/2010	Telephone: 916-323-3400
Date Made Active in Reports: 01/25/2011	Last EDR Contact: 03/14/2011
Number of Days to Update: 47	Next Scheduled EDR Contact: 05/02/2011
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 12/14/2010	Source: Department of Toxic Substances Control
Date Data Arrived at EDR: 12/14/2010	Telephone: 916-323-3400
Date Made Active in Reports: 01/25/2011	Last EDR Contact: 03/18/2011
Number of Days to Update: 42	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2010	Source: U.S. Department of Transportation
Date Data Arrived at EDR: 01/05/2011	Telephone: 202-366-4555
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 01/05/2011
Number of Days to Update: 51	Next Scheduled EDR Contact: 04/18/2011
	Data Release Frequency: Annually

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 12/31/2009	Source: Office of Emergency Services
Date Data Arrived at EDR: 07/21/2010	Telephone: 916-845-8400
Date Made Active in Reports: 08/20/2010	Last EDR Contact: 01/31/2011
Number of Days to Update: 30	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Varies

LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 02/03/2011	Source: State Water Quality Control Board
Date Data Arrived at EDR: 02/04/2011	Telephone: 866-480-1028
Date Made Active in Reports: 03/08/2011	Last EDR Contact: 03/23/2011
Number of Days to Update: 32	Next Scheduled EDR Contact: 07/04/2011
	Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 02/03/2011	Source: State Water Resources Control Board
Date Data Arrived at EDR: 02/04/2011	Telephone: 866-480-1028
Date Made Active in Reports: 03/08/2011	Last EDR Contact: 03/23/2011
Number of Days to Update: 32	Next Scheduled EDR Contact: 07/04/2011
	Data Release Frequency: Quarterly

Other Ascertainable Records

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

RCRA-NonGen: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 02/17/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 02/19/2010	Telephone: (415) 495-8895
Date Made Active in Reports: 05/17/2010	Last EDR Contact: 01/06/2011
Number of Days to Update: 87	Next Scheduled EDR Contact: 04/18/2011
	Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 10/13/2010	Source: Department of Transportation, Office of Pipeline Safety
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-366-4595
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 02/11/2011
Number of Days to Update: 77	Next Scheduled EDR Contact: 05/23/2011
	Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 11/10/2006	Telephone: 703-692-8801
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 01/21/2011
Number of Days to Update: 62	Next Scheduled EDR Contact: 05/02/2011
	Data Release Frequency: Semi-Annually

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2009	Source: U.S. Army Corps of Engineers
Date Data Arrived at EDR: 08/12/2010	Telephone: 202-528-4285
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 03/15/2011
Number of Days to Update: 112	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 10/01/2010	Source: Department of Justice, Consent Decree Library
Date Data Arrived at EDR: 10/29/2010	Telephone: Varies
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/03/2011
Number of Days to Update: 91	Next Scheduled EDR Contact: 04/18/2011
	Data Release Frequency: Varies

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 02/25/2011	Source: EPA
Date Data Arrived at EDR: 03/16/2011	Telephone: 703-416-0223
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 03/16/2011
Number of Days to Update: 5	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010	Source: Department of Energy
Date Data Arrived at EDR: 10/21/2010	Telephone: 505-845-0011
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 03/04/2011
Number of Days to Update: 99	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Varies

MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/04/2010	Source: Department of Labor, Mine Safety and Health Administration
Date Data Arrived at EDR: 09/09/2010	Telephone: 303-231-5959
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 03/09/2011
Number of Days to Update: 84	Next Scheduled EDR Contact: 06/20/2011
	Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/17/2010	Telephone: 202-566-0250
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 03/01/2011
Number of Days to Update: 94	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006	Source: EPA
Date Data Arrived at EDR: 09/29/2010	Telephone: 202-260-5521
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 12/29/2010
Number of Days to Update: 64	Next Scheduled EDR Contact: 04/11/2011
	Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009	Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 02/28/2011
Number of Days to Update: 25	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009	Source: EPA
Date Data Arrived at EDR: 04/16/2009	Telephone: 202-566-1667
Date Made Active in Reports: 05/11/2009	Last EDR Contact: 02/28/2011
Number of Days to Update: 25	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009	Source: EPA
Date Data Arrived at EDR: 12/10/2010	Telephone: 202-564-4203
Date Made Active in Reports: 02/25/2011	Last EDR Contact: 01/31/2011
Number of Days to Update: 77	Next Scheduled EDR Contact: 05/16/2011
	Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 01/07/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/21/2011	Telephone: 202-564-5088
Date Made Active in Reports: 03/21/2011	Last EDR Contact: 12/23/2010
Number of Days to Update: 59	Next Scheduled EDR Contact: 04/11/2011
	Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 11/01/2010	Source: EPA
Date Data Arrived at EDR: 11/10/2010	Telephone: 202-566-0500
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 01/21/2011
Number of Days to Update: 98	Next Scheduled EDR Contact: 05/02/2011
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 03/18/2010	Source: Nuclear Regulatory Commission
Date Data Arrived at EDR: 04/06/2010	Telephone: 301-415-7169
Date Made Active in Reports: 05/27/2010	Last EDR Contact: 03/14/2011
Number of Days to Update: 51	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 01/11/2011	Source: Environmental Protection Agency
Date Data Arrived at EDR: 01/13/2011	Telephone: 202-343-9775
Date Made Active in Reports: 02/16/2011	Last EDR Contact: 01/13/2011
Number of Days to Update: 34	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 04/14/2010	Source: EPA
Date Data Arrived at EDR: 04/16/2010	Telephone: (415) 947-8000
Date Made Active in Reports: 05/27/2010	Last EDR Contact: 03/14/2011
Number of Days to Update: 41	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Quarterly

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995	Source: EPA
Date Data Arrived at EDR: 07/03/1995	Telephone: 202-564-4104
Date Made Active in Reports: 08/07/1995	Last EDR Contact: 06/02/2008
Number of Days to Update: 35	Next Scheduled EDR Contact: 09/01/2008
	Data Release Frequency: No Update Planned

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2007	Source: EPA/NTIS
Date Data Arrived at EDR: 02/25/2010	Telephone: 800-424-9346
Date Made Active in Reports: 05/12/2010	Last EDR Contact: 03/01/2011
Number of Days to Update: 76	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Biennially

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6

Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9

Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 02/28/2011
Next Scheduled EDR Contact: 06/13/2011
Data Release Frequency: Quarterly

NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 02/22/2011
Date Data Arrived at EDR: 02/22/2011
Date Made Active in Reports: 03/22/2011
Number of Days to Update: 28

Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 02/22/2011
Next Scheduled EDR Contact: 06/06/2011
Data Release Frequency: Quarterly

CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites). This listing is no longer updated by the state agency.

Date of Government Version: 01/04/2011
Date Data Arrived at EDR: 01/05/2011
Date Made Active in Reports: 01/25/2011
Number of Days to Update: 20

Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 01/05/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CAL SITES].

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 10/21/1993
Date Data Arrived at EDR: 11/01/1993
Date Made Active in Reports: 11/19/1993
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 12/22/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: No Update Planned

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 09/15/2010	Source: Department of Toxic Substance Control
Date Data Arrived at EDR: 09/16/2010	Telephone: 916-327-4498
Date Made Active in Reports: 09/29/2010	Last EDR Contact: 03/14/2011
Number of Days to Update: 13	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Annually

WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009	Source: Los Angeles Water Quality Control Board
Date Data Arrived at EDR: 07/21/2009	Telephone: 213-576-6726
Date Made Active in Reports: 08/03/2009	Last EDR Contact: 01/03/2011
Number of Days to Update: 13	Next Scheduled EDR Contact: 04/18/2011
	Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2009	Source: California Environmental Protection Agency
Date Data Arrived at EDR: 07/07/2010	Telephone: 916-255-1136
Date Made Active in Reports: 08/12/2010	Last EDR Contact: 01/19/2011
Number of Days to Update: 36	Next Scheduled EDR Contact: 05/02/2011
	Data Release Frequency: Annually

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2008	Source: California Air Resources Board
Date Data Arrived at EDR: 09/29/2010	Telephone: 916-322-2990
Date Made Active in Reports: 10/18/2010	Last EDR Contact: 12/30/2010
Number of Days to Update: 19	Next Scheduled EDR Contact: 04/11/2011
	Data Release Frequency: Varies

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2005	Source: USGS
Date Data Arrived at EDR: 12/08/2006	Telephone: 202-208-3710
Date Made Active in Reports: 01/11/2007	Last EDR Contact: 01/21/2011
Number of Days to Update: 34	Next Scheduled EDR Contact: 05/02/2011
	Data Release Frequency: Semi-Annually

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 08/31/2010	Source: Environmental Protection Agency
Date Data Arrived at EDR: 09/01/2010	Telephone: 615-532-8599
Date Made Active in Reports: 12/02/2010	Last EDR Contact: 02/22/2011
Number of Days to Update: 92	Next Scheduled EDR Contact: 05/09/2011
	Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 11/17/2010
Date Data Arrived at EDR: 12/23/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 36

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 03/23/2011
Next Scheduled EDR Contact: 07/04/2011
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 12/09/2010
Date Data Arrived at EDR: 12/17/2010
Date Made Active in Reports: 01/25/2011
Number of Days to Update: 39

Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 03/14/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Varies

COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 08/07/2009
Date Made Active in Reports: 10/22/2009
Number of Days to Update: 76

Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 01/18/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010
Date Data Arrived at EDR: 01/03/2011
Date Made Active in Reports: 03/21/2011
Number of Days to Update: 77

Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/18/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Varies

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 01/17/2011
Date Data Arrived at EDR: 01/18/2011
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 10

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 01/18/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Quarterly

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 08/09/2010
Date Data Arrived at EDR: 08/11/2010
Date Made Active in Reports: 08/20/2010
Number of Days to Update: 9

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 03/04/2011
Next Scheduled EDR Contact: 06/13/2011
Data Release Frequency: Quarterly

FINANCIAL ASSURANCE 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 09/27/2010
Date Data Arrived at EDR: 09/28/2010
Date Made Active in Reports: 10/18/2010
Number of Days to Update: 20

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 03/07/2011
Next Scheduled EDR Contact: 06/06/2011
Data Release Frequency: Varies

FINANCIAL ASSURANCE: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 03/01/2007
Date Data Arrived at EDR: 06/01/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 28

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 02/04/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 01/21/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: N/A

PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 01/01/2008
Date Data Arrived at EDR: 02/18/2009
Date Made Active in Reports: 05/29/2009
Number of Days to Update: 100

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 02/04/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

EDR PROPRIETARY RECORDS

EDR Proprietary Records

Manufactured Gas Plants: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Historical Auto Stations: EDR Proprietary Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Historical Cleaners: EDR Proprietary Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/06/2011
Date Data Arrived at EDR: 01/07/2011
Date Made Active in Reports: 01/25/2011
Number of Days to Update: 18

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/03/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Semi-Annually

Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 01/06/2011
Date Data Arrived at EDR: 01/07/2011
Date Made Active in Reports: 01/20/2011
Number of Days to Update: 13

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 01/03/2011
Next Scheduled EDR Contact: 04/18/2011
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 03/10/2011
Date Data Arrived at EDR: 03/11/2011
Date Made Active in Reports: 03/24/2011
Number of Days to Update: 13

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 02/22/2011
Next Scheduled EDR Contact: 05/23/2011
Data Release Frequency: Semi-Annually

FRESNO COUNTY:

CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/14/2011
Date Data Arrived at EDR: 01/18/2011
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 10

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 01/17/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Semi-Annually

KERN COUNTY:

Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010
Date Data Arrived at EDR: 09/01/2010
Date Made Active in Reports: 09/30/2010
Number of Days to Update: 29

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 03/17/2011
Next Scheduled EDR Contact: 05/30/2011
Data Release Frequency: Quarterly

LOS ANGELES COUNTY:

San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: EPA Region 9
Telephone: 415-972-3178
Last EDR Contact: 12/22/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: No Update Planned

HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 12/30/2010
Date Data Arrived at EDR: 03/03/2011
Date Made Active in Reports: 03/24/2011
Number of Days to Update: 21

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 01/17/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Semi-Annually

List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 01/24/2011
Date Data Arrived at EDR: 02/01/2011
Date Made Active in Reports: 03/04/2011
Number of Days to Update: 31

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 01/24/2011
Next Scheduled EDR Contact: 05/09/2011
Data Release Frequency: Varies

City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009
Date Data Arrived at EDR: 03/10/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 29

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 02/18/2011
Next Scheduled EDR Contact: 06/06/2011
Data Release Frequency: Varies

Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 02/09/2011
Date Data Arrived at EDR: 02/09/2011
Date Made Active in Reports: 03/04/2011
Number of Days to Update: 23

Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 10/25/2010
Next Scheduled EDR Contact: 05/09/2011
Data Release Frequency: Annually

City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

Date of Government Version: 02/03/2011
Date Data Arrived at EDR: 02/08/2011
Date Made Active in Reports: 03/03/2011
Number of Days to Update: 23

Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 01/24/2011
Next Scheduled EDR Contact: 05/06/2011
Data Release Frequency: Semi-Annually

City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003
Date Data Arrived at EDR: 10/23/2003
Date Made Active in Reports: 11/26/2003
Number of Days to Update: 34

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Annually

City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 01/18/2011
Date Data Arrived at EDR: 01/25/2011
Date Made Active in Reports: 03/03/2011
Number of Days to Update: 37

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 01/17/2011
Next Scheduled EDR Contact: 05/02/2011
Data Release Frequency: Semi-Annually

MARIN COUNTY:

Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 01/14/2011
Date Data Arrived at EDR: 02/01/2011
Date Made Active in Reports: 03/04/2011
Number of Days to Update: 31

Source: Public Works Department Waste Management
Telephone: 415-499-6647
Last EDR Contact: 01/10/2011
Next Scheduled EDR Contact: 04/25/2011
Data Release Frequency: Semi-Annually

NAPA COUNTY:

Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 07/09/2008
Date Data Arrived at EDR: 07/09/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 22

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/07/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: No Update Planned

Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 01/15/2008
Date Data Arrived at EDR: 01/16/2008
Date Made Active in Reports: 02/08/2008
Number of Days to Update: 23

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 03/07/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: No Update Planned

ORANGE COUNTY:

List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

Date of Government Version: 02/02/2011
Date Data Arrived at EDR: 02/17/2011
Date Made Active in Reports: 03/22/2011
Number of Days to Update: 33

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/14/2011
Next Scheduled EDR Contact: 05/30/2011
Data Release Frequency: Annually

List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 02/02/2011
Date Data Arrived at EDR: 02/17/2011
Date Made Active in Reports: 03/22/2011
Number of Days to Update: 33

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/14/2011
Next Scheduled EDR Contact: 05/30/2011
Data Release Frequency: Quarterly

List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 02/02/2011
Date Data Arrived at EDR: 02/15/2011
Date Made Active in Reports: 03/03/2011
Number of Days to Update: 16

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 02/15/2011
Next Scheduled EDR Contact: 05/30/2011
Data Release Frequency: Quarterly

PLACER COUNTY:

Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 01/31/2011
Date Data Arrived at EDR: 02/01/2011
Date Made Active in Reports: 03/04/2011
Number of Days to Update: 31

Source: Placer County Health and Human Services
Telephone: 530-889-7312
Last EDR Contact: 03/14/2011
Next Scheduled EDR Contact: 06/27/2011
Data Release Frequency: Semi-Annually

RIVERSIDE COUNTY:

Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 12/08/2010
Date Data Arrived at EDR: 12/09/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 50

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 12/09/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 12/08/2010	Source: Department of Environmental Health
Date Data Arrived at EDR: 12/09/2010	Telephone: 951-358-5055
Date Made Active in Reports: 01/20/2011	Last EDR Contact: 12/09/2010
Number of Days to Update: 42	Next Scheduled EDR Contact: 04/11/2011
	Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 11/03/2010	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 01/20/2011	Telephone: 916-875-8406
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/10/2011
Number of Days to Update: 8	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 11/03/2010	Source: Sacramento County Environmental Management
Date Data Arrived at EDR: 01/20/2011	Telephone: 916-875-8406
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/10/2011
Number of Days to Update: 8	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Quarterly

SAN BERNARDINO COUNTY:

Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 03/10/2011	Source: San Bernardino County Fire Department Hazardous Materials Division
Date Data Arrived at EDR: 03/11/2011	Telephone: 909-387-3041
Date Made Active in Reports: 03/24/2011	Last EDR Contact: 02/14/2011
Number of Days to Update: 13	Next Scheduled EDR Contact: 05/30/2011
	Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 09/09/2010	Source: Hazardous Materials Management Division
Date Data Arrived at EDR: 09/15/2010	Telephone: 619-338-2268
Date Made Active in Reports: 09/29/2010	Last EDR Contact: 03/18/2011
Number of Days to Update: 14	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/01/2010
Date Data Arrived at EDR: 11/16/2010
Date Made Active in Reports: 01/25/2011
Number of Days to Update: 70

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 01/31/2011
Next Scheduled EDR Contact: 05/16/2011
Data Release Frequency: Varies

Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 12/21/2010
Next Scheduled EDR Contact: 03/28/2011
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 02/28/2011
Next Scheduled EDR Contact: 05/30/2011
Data Release Frequency: Quarterly

Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 11/29/2010
Date Data Arrived at EDR: 03/10/2011
Date Made Active in Reports: 03/15/2011
Number of Days to Update: 5

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 02/28/2011
Next Scheduled EDR Contact: 05/30/2011
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 12/29/2010
Date Data Arrived at EDR: 01/04/2011
Date Made Active in Reports: 01/20/2011
Number of Days to Update: 16

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 12/23/2010
Next Scheduled EDR Contact: 04/11/2011
Data Release Frequency: Semi-Annually

SAN MATEO COUNTY:

Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 11/22/2010
Date Data Arrived at EDR: 11/23/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 66

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/21/2011
Next Scheduled EDR Contact: 07/04/2011
Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 12/17/2010
Date Data Arrived at EDR: 12/20/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 39

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 03/21/2011
Next Scheduled EDR Contact: 07/04/2011
Data Release Frequency: Semi-Annually

SANTA CLARA COUNTY:

HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 05/29/2009
Date Data Arrived at EDR: 06/01/2009
Date Made Active in Reports: 06/15/2009
Number of Days to Update: 14

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 03/07/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: Annually

Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 08/31/2009
Date Data Arrived at EDR: 08/31/2009
Date Made Active in Reports: 09/18/2009
Number of Days to Update: 18

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 03/15/2011
Next Scheduled EDR Contact: 05/30/2011
Data Release Frequency: Annually

SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 12/08/2010
Date Data Arrived at EDR: 12/17/2010
Date Made Active in Reports: 01/28/2011
Number of Days to Update: 42

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/21/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 12/08/2010
Date Data Arrived at EDR: 12/29/2010
Date Made Active in Reports: 01/20/2011
Number of Days to Update: 22

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 03/21/2011
Next Scheduled EDR Contact: 06/20/2011
Data Release Frequency: Quarterly

SONOMA COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 01/05/2011	Source: Department of Health Services
Date Data Arrived at EDR: 01/07/2011	Telephone: 707-565-6565
Date Made Active in Reports: 01/28/2011	Last EDR Contact: 01/03/2011
Number of Days to Update: 21	Next Scheduled EDR Contact: 04/18/2011
	Data Release Frequency: Quarterly

SUTTER COUNTY:

Underground Storage Tanks

Underground storage tank sites located in Sutter county.

Date of Government Version: 03/14/2011	Source: Sutter County Department of Agriculture
Date Data Arrived at EDR: 03/15/2011	Telephone: 530-822-7500
Date Made Active in Reports: 03/24/2011	Last EDR Contact: 03/14/2011
Number of Days to Update: 9	Next Scheduled EDR Contact: 06/27/2011
	Data Release Frequency: Semi-Annually

VENTURA COUNTY:

Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 01/26/2011	Source: Ventura County Environmental Health Division
Date Data Arrived at EDR: 02/25/2011	Telephone: 805-654-2813
Date Made Active in Reports: 03/22/2011	Last EDR Contact: 02/22/2011
Number of Days to Update: 25	Next Scheduled EDR Contact: 06/06/2011
	Data Release Frequency: Quarterly

Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 08/01/2009	Source: Environmental Health Division
Date Data Arrived at EDR: 10/05/2009	Telephone: 805-654-2813
Date Made Active in Reports: 10/13/2009	Last EDR Contact: 01/10/2011
Number of Days to Update: 8	Next Scheduled EDR Contact: 04/25/2011
	Data Release Frequency: Annually

Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008	Source: Environmental Health Division
Date Data Arrived at EDR: 06/24/2008	Telephone: 805-654-2813
Date Made Active in Reports: 07/31/2008	Last EDR Contact: 02/22/2011
Number of Days to Update: 37	Next Scheduled EDR Contact: 06/06/2011
	Data Release Frequency: Quarterly

Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 11/29/2010	Source: Environmental Health Division
Date Data Arrived at EDR: 12/20/2010	Telephone: 805-654-2813
Date Made Active in Reports: 01/20/2011	Last EDR Contact: 03/23/2011
Number of Days to Update: 31	Next Scheduled EDR Contact: 07/04/2011
	Data Release Frequency: Quarterly

YOLO COUNTY:

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 01/25/2011	Source: Yolo County Department of Health
Date Data Arrived at EDR: 02/03/2011	Telephone: 530-666-8646
Date Made Active in Reports: 03/04/2011	Last EDR Contact: 01/10/2011
Number of Days to Update: 29	Next Scheduled EDR Contact: 04/11/2011
	Data Release Frequency: Annually

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 12/31/2007	Source: Department of Environmental Protection
Date Data Arrived at EDR: 08/26/2009	Telephone: 860-424-3375
Date Made Active in Reports: 09/11/2009	Last EDR Contact: 02/25/2011
Number of Days to Update: 16	Next Scheduled EDR Contact: 06/06/2011
	Data Release Frequency: Annually

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2009	Source: Department of Environmental Protection
Date Data Arrived at EDR: 07/22/2010	Telephone: N/A
Date Made Active in Reports: 08/26/2010	Last EDR Contact: 01/21/2011
Number of Days to Update: 35	Next Scheduled EDR Contact: 05/02/2011
	Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 12/31/2010	Source: Department of Environmental Conservation
Date Data Arrived at EDR: 02/09/2011	Telephone: 518-402-8651
Date Made Active in Reports: 03/04/2011	Last EDR Contact: 02/09/2011
Number of Days to Update: 23	Next Scheduled EDR Contact: 05/23/2011
	Data Release Frequency: Annually

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2008	Source: Department of Environmental Protection
Date Data Arrived at EDR: 12/01/2009	Telephone: 717-783-8990
Date Made Active in Reports: 12/14/2009	Last EDR Contact: 02/18/2011
Number of Days to Update: 13	Next Scheduled EDR Contact: 06/06/2011
	Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2009	Source: Department of Environmental Management
Date Data Arrived at EDR: 07/19/2010	Telephone: 401-222-2797
Date Made Active in Reports: 08/26/2010	Last EDR Contact: 02/28/2011
Number of Days to Update: 38	Next Scheduled EDR Contact: 06/13/2011
	Data Release Frequency: Annually

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 07/06/2010
Date Made Active in Reports: 07/26/2010
Number of Days to Update: 20

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/21/2011
Next Scheduled EDR Contact: 07/04/2011
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data

Source: Rextag Strategies Corp.
Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:

Source: American Hospital Association, Inc.
Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health
Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics
Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities

Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

STREET AND ADDRESS INFORMATION

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GEOCHECK[®] - PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

BALBOA PARK PLAZA
PAN AMERICAN ROAD EAST AND EL PRADO
SAN DIEGO, CA 92101

TARGET PROPERTY COORDINATES

Latitude (North):	32.72970 - 32° 43' 46.9"
Longitude (West):	117.151 - 117° 9' 3.6"
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	485851.0
UTM Y (Meters):	3621142.0
Elevation:	264 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	32117-F2 POINT LOMA, CA
Most Recent Revision:	1994

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

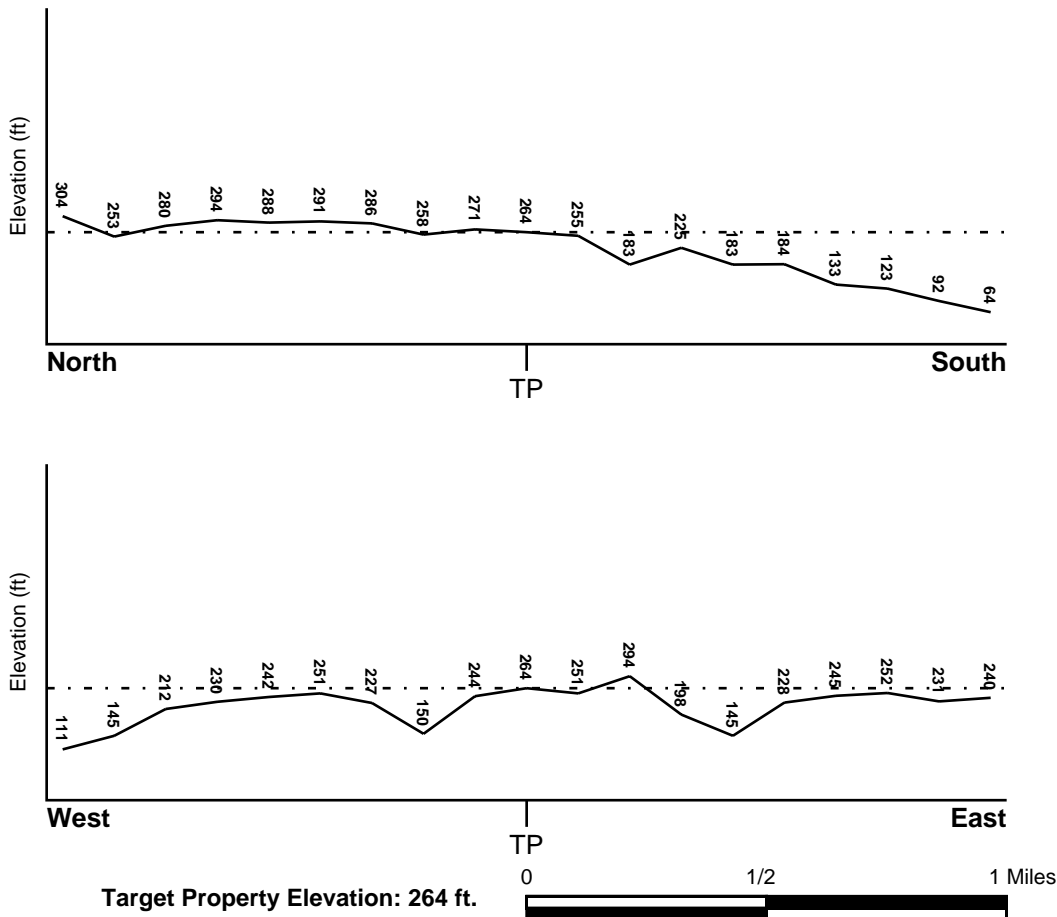
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General WSW

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

<u>Target Property County</u> SAN DIEGO, CA	<u>FEMA Flood Electronic Data</u> YES - refer to the Overview Map and Detail Map
Flood Plain Panel at Target Property:	06073C - FEMA DFIRM Flood data
Additional Panels in search area:	Not Reported

NATIONAL WETLAND INVENTORY

<u>NWI Quad at Target Property</u> POINT LOMA	<u>NWI Electronic Data Coverage</u> YES - refer to the Overview Map and Detail Map
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HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data:*

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

<u>MAP ID</u>	<u>LOCATION FROM TP</u>	<u>GENERAL DIRECTION GROUNDWATER FLOW</u>
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

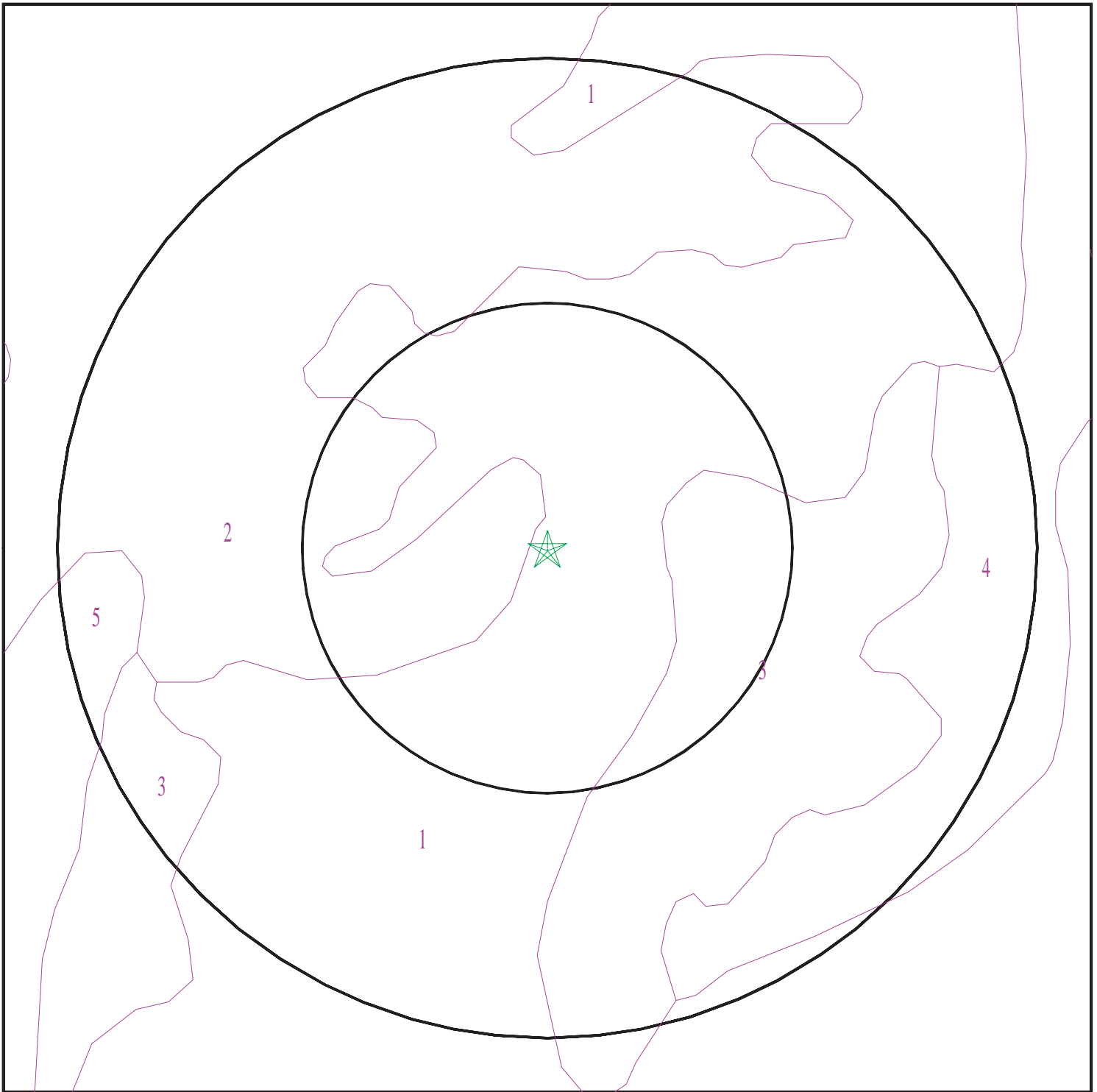
Era:	Cenozoic
System:	Tertiary
Series:	Pliocene
Code:	Tp <i>(decoded above as Era, System & Series)</i>

GEOLOGIC AGE IDENTIFICATION

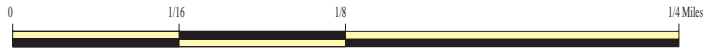
Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 3022669.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Balboa Park Plaza
ADDRESS: Pan American Road East and El Prado
San Diego CA 92101
LAT/LONG: 32.7297 / 117.1510

CLIENT: Geocon Consultants Inc.
CONTACT: Kiersten Briggs
INQUIRY #: 3022669.2s
DATE: March 24, 2011 12:53 pm

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: URBAN LAND

Soil Surface Texture: variable

Hydrologic Group: Not reported

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 2

Soil Component Name: GAVIOTA

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 41 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	16 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
2	16 inches	20 inches	unweathered bedrock	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:

Soil Map ID: 3

Soil Component Name: TERRACE ESCARPMENTS

Soil Surface Texture: variable

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:
Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Map ID: 4

Soil Component Name: REDDING

Soil Surface Texture: gravelly loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	14 inches	gravelly loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
2	14 inches	29 inches	gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:
3	29 inches	44 inches	indurated	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	Not reported	Max: Min:	Max: Min:

Soil Map ID: 5

Soil Component Name: MADE LAND

Soil Surface Texture: variable

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class:

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
Layer	Boundary		Soil Texture Class	Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
	Upper	Lower		AASHTO Group	Unified Soil		
1	0 inches	5 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

<u>DATABASE</u>	<u>SEARCH DISTANCE (miles)</u>
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No Wells Found		

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

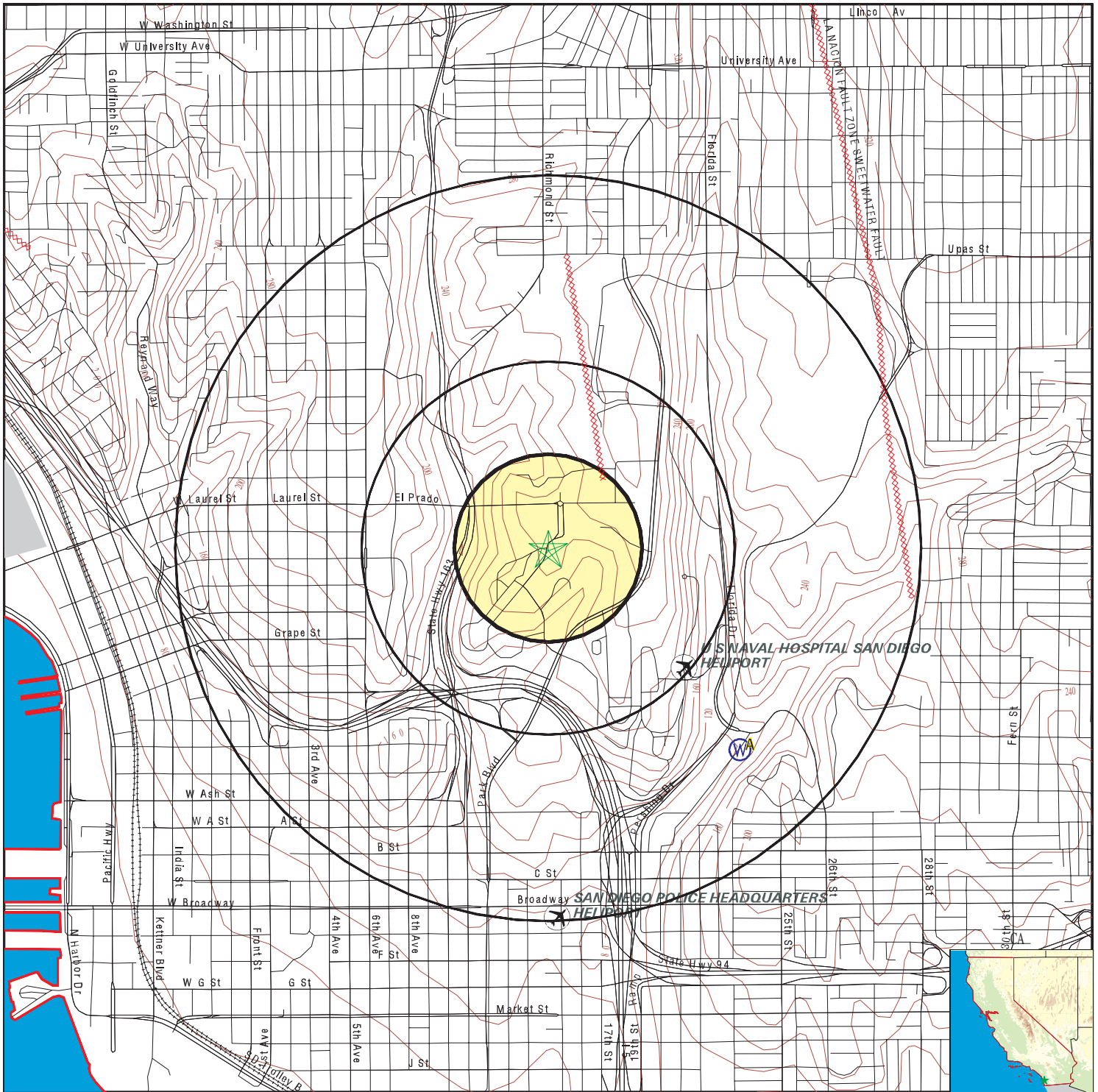
<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

<u>MAP ID</u>	<u>WELL ID</u>	<u>LOCATION FROM TP</u>
A1	CADW40000000171	1/2 - 1 Mile SE
A2	CADW40000000172	1/2 - 1 Mile SE
A3	CADW40000000170	1/2 - 1 Mile SE
A4	CADW40000000168	1/2 - 1 Mile SE
A5	CADW40000000169	1/2 - 1 Mile SE

PHYSICAL SETTING SOURCE MAP - 3022669.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: Balboa Park Plaza
 ADDRESS: Pan American Road East and El Prado
 San Diego CA 92101
 LAT/LONG: 32.7297 / 117.1510

CLIENT: Geocon Consultants Inc.
 CONTACT: Kiersten Briggs
 INQUIRY #: 3022669.2s
 DATE: March 24, 2011 12:53 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
 Direction
 Distance
 Elevation

Database EDR ID Number

A1
SE
1/2 - 1 Mile
Lower

CA WELLS CADW40000000171

Longitude: -117.1413
 Latitude: 32.7218
 Stwellno: 17S03W01K004S
 Districtco: 3
 Welluseco: Z
 Countyco: 37
 Gwcode: 950899
 Site id: CADW40000000171

A2
SE
1/2 - 1 Mile
Lower

CA WELLS CADW40000000172

Longitude: -117.1413
 Latitude: 32.7218
 Stwellno: 17S03W01K005S
 Districtco: 3
 Welluseco: Z
 Countyco: 37
 Gwcode: 950899
 Site id: CADW40000000172

A3
SE
1/2 - 1 Mile
Lower

CA WELLS CADW40000000170

Longitude: -117.1413
 Latitude: 32.7218
 Stwellno: 17S03W01K003S
 Districtco: 3
 Welluseco: Z
 Countyco: 37
 Gwcode: 950899
 Site id: CADW40000000170

A4
SE
1/2 - 1 Mile
Lower

CA WELLS CADW40000000168

Longitude: -117.1413
 Latitude: 32.7218
 Stwellno: 17S03W01K001S
 Districtco: 3
 Welluseco: Z
 Countyco: 37
 Gwcode: 950899
 Site id: CADW40000000168

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

Database

EDR ID Number

A5
SE
1/2 - 1 Mile
Lower

CA WELLS

CADW40000000169

Longitude: -117.1413
Latitude: 32.7218
Stwellno: 17S03W01K002S
Districtco: 3
Welluseco: Z
Countyco: 37
Gwcode: 950899
Site id: CADW40000000169

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92101	5	0

Federal EPA Radon Zone for SAN DIEGO County: 3

- Note: Zone 1 indoor average level > 4 pCi/L.
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
 : Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for SAN DIEGO COUNTY, CA

Number of sites tested: 30

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.677 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.400 pCi/L	100%	0%	0%
Basement	Not Reported	Not Reported	Not Reported	Not Reported

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2009 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

HYDROGEOLOGIC INFORMATION

AQUIFLOW^R Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

California Drinking Water Quality Database

Source: Department of Health Services

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

RADON

State Database: CA Radon

Source: Department of Health Services

Telephone: 916-324-2208

Radon Database for California

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

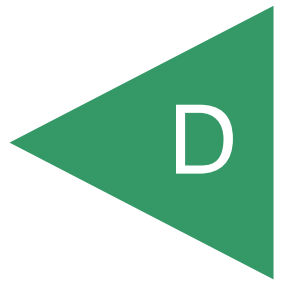
Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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APPENDIX





Balboa Park Plaza

Pan American Road East and El Prado
San Diego, CA 92101

Inquiry Number: 3022669.3

March 24, 2011

Certified Sanborn® Map Report

Certified Sanborn® Map Report

3/24/11

Site Name:

Balboa Park Plaza
Pan American Road East and
San Diego, CA 92101

Client Name:

Geocon Consultants Inc.
4010 Technology Way
Carson City, NV 89706



EDR Inquiry # 3022669.3

Contact: Kiersten Briggs

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Geocon Consultants Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

Certified Sanborn Results:

Site Name: Balboa Park Plaza
Address: Pan American Road East and El Prado
City, State, Zip: San Diego, CA 92101
Cross Street:
P.O. # NA
Project: NA
Certification # 2CA7-4E63-99D1



Sanborn® Library search results
Certification # 2CA7-4E63-99D1

Maps Provided:

1971	1956
1970	1950
1965	1921
1962	
1960	
1959	

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

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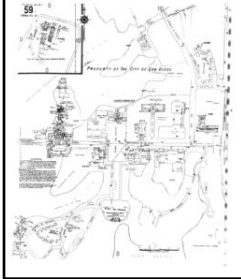
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Sanborn Sheet Thumbnails

This Certified Sanborn Map Report is based upon the following Sanborn Fire Insurance map sheets.

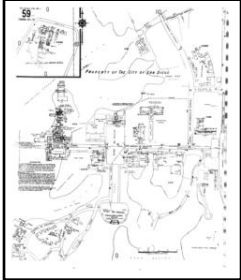


1971 Source Sheets



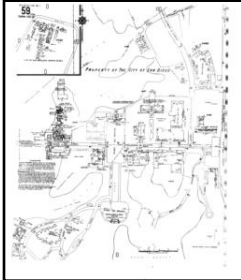
Volume 1, Sheet 59

1970 Source Sheets



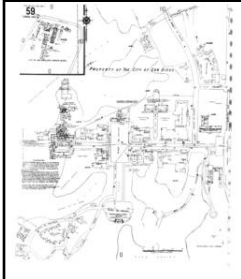
Volume 1, Sheet 59

1965 Source Sheets



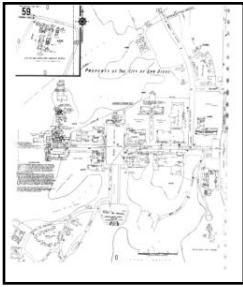
Volume 1, Sheet 59

1962 Source Sheets



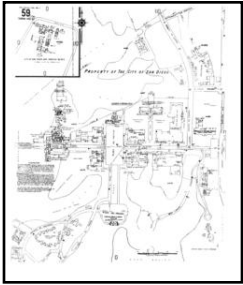
Volume 1, Sheet 59

1960 Source Sheets



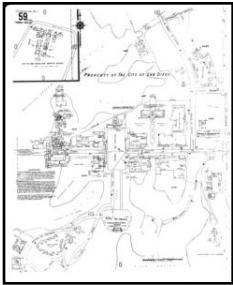
Volume 1, Sheet 59

1959 Source Sheets



Volume 1, Sheet 59

1956 Source Sheets



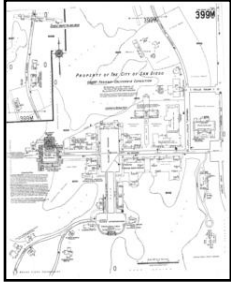
Volume 1, Sheet 59

1950 Source Sheets



Volume 3, Sheet 399m

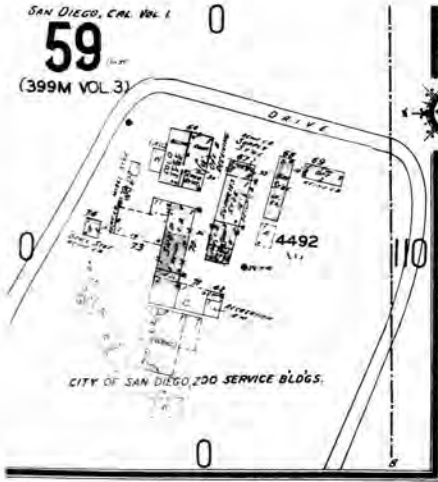
1921 Source Sheets



Volume 3, Sheet 399m

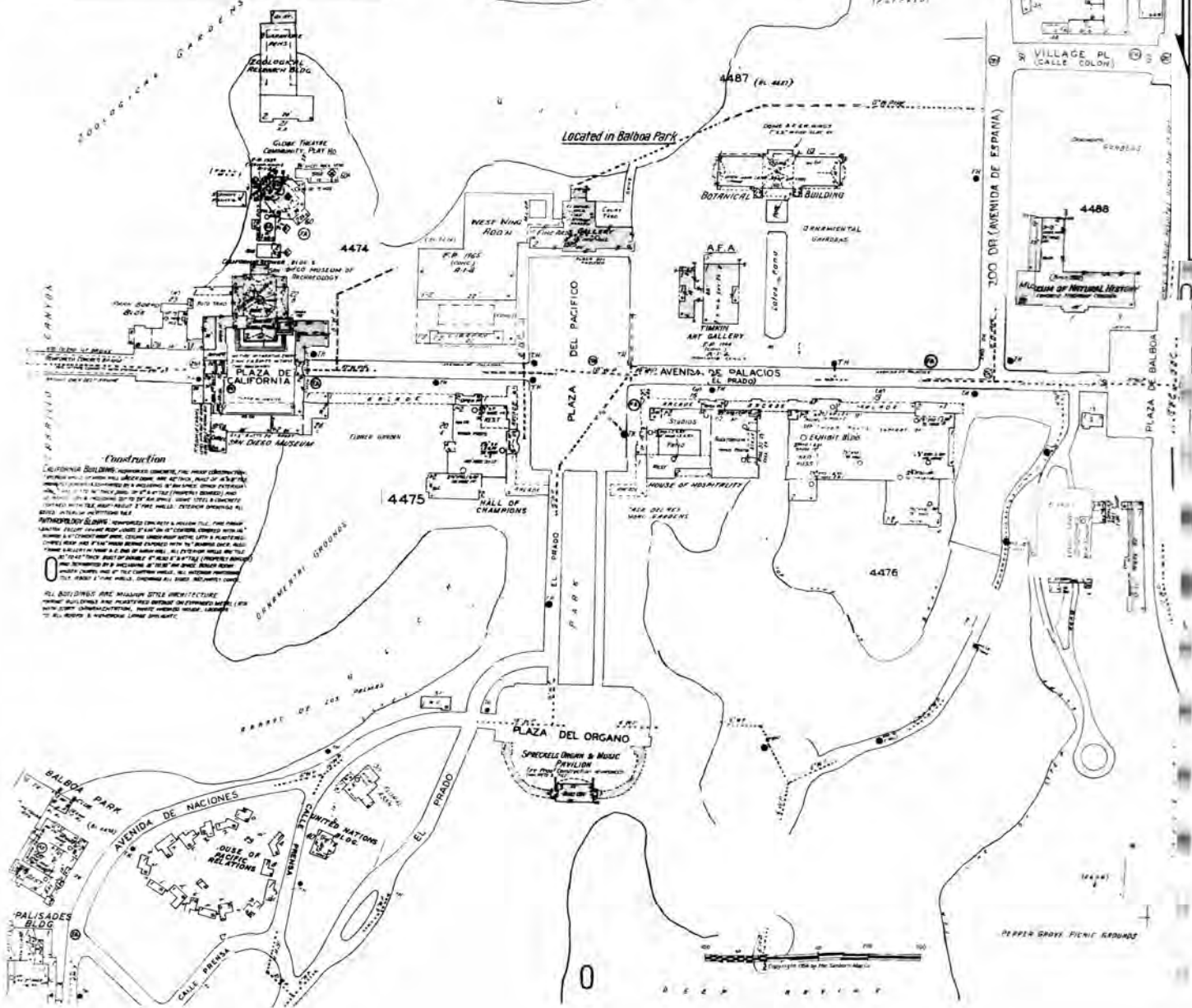
1970 Certified Sanborn Map

Site Name: Balboa Park Plaza
 Address: Pan American Road East and El Prado
 City, ST, ZIP: San Diego CA 92101
 Client: Geocon Consultants Inc.
 EDR Inquiry: 3022669.3
 Order Date: 3/24/2011 4:33:59 PM
 Certification #: 2CA7-4E63-99D1
 Copyright: 1970



PROPERTY OF THE CITY OF SAN DIEGO

ASSOC. RISK
 12/27/2011



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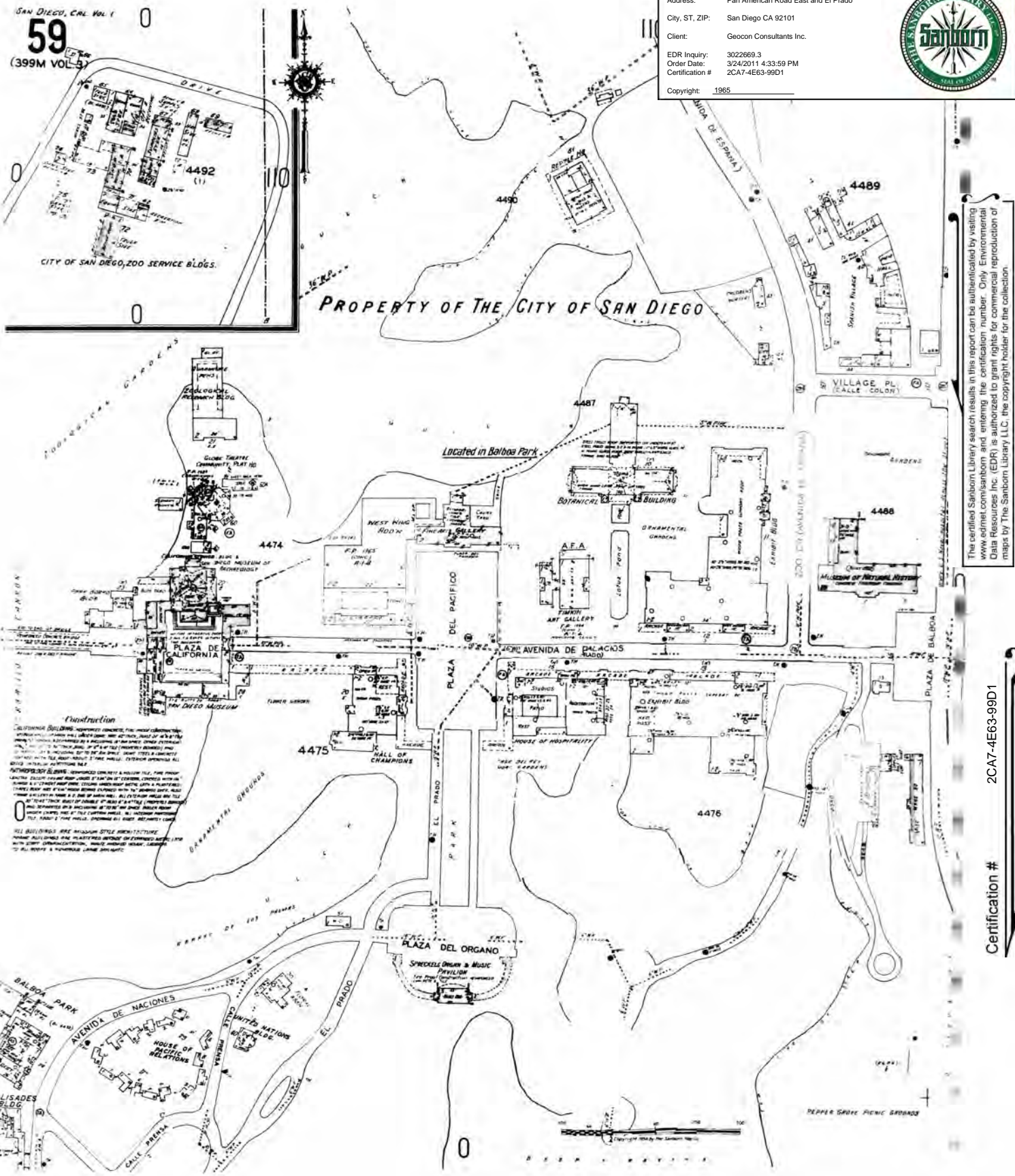
2CA7-4E63-99D1
 Certification #

1965 Certified Sanborn Map

Site Name: Balboa Park Plaza
 Address: Pan American Road East and El Prado
 City, ST, ZIP: San Diego CA 92101
 Client: Geocon Consultants Inc.
 EDR Inquiry: 3022669.3
 Order Date: 3/24/2011 4:33:59 PM
 Certification #: 2CA7-4E63-99D1
 Copyright: 1965



SAN DIEGO, CAL. VOL. 1
59
 (399M VOL. 5)



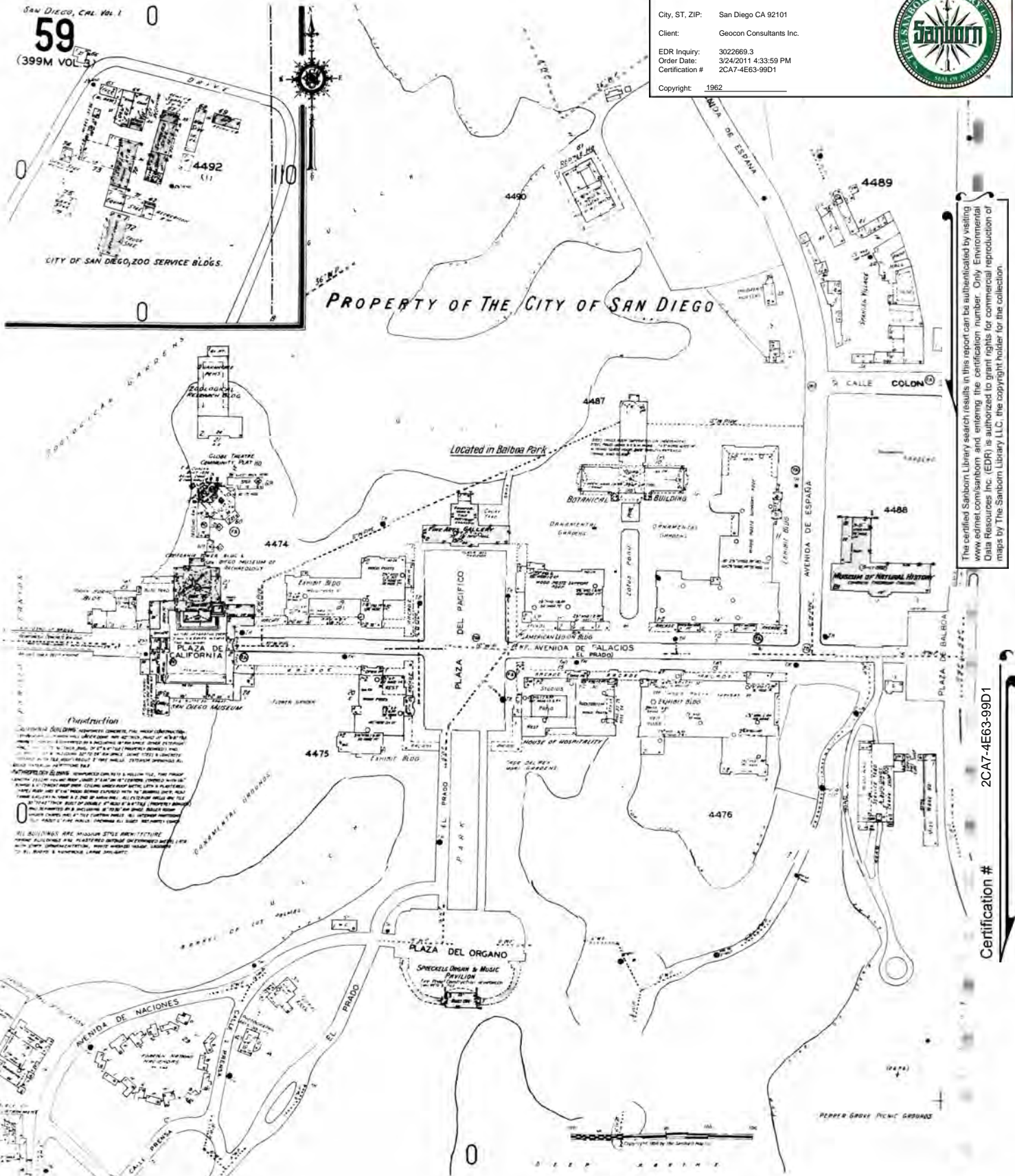
2CA7-4E63-99D1
 Certification #

1962 Certified Sanborn Map

Site Name: Balboa Park Plaza
 Address: Pan American Road East and El Prado
 City, ST, ZIP: San Diego CA 92101
 Client: Geocon Consultants Inc.
 EDR Inquiry: 3022669.3
 Order Date: 3/24/2011 4:33:59 PM
 Certification #: 2CA7-4E63-99D1
 Copyright: 1962



SAN DIEGO, CAL. VOL. 1
59
 (399M VOL. 5)

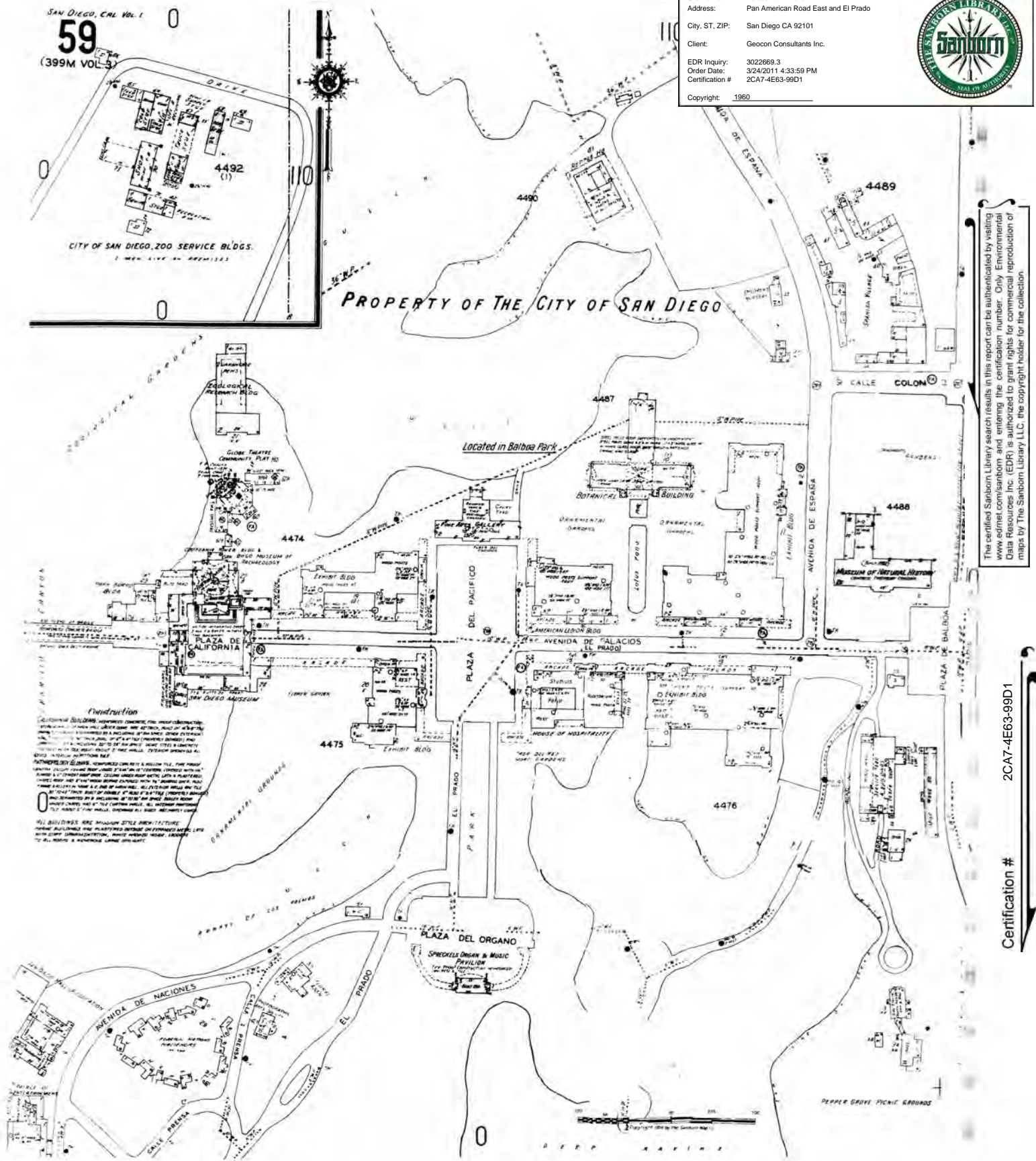


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Certification # 2CA7-4E63-99D1

1960 Certified Sanborn Map

Site Name: Balboa Park Plaza
 Address: Pan American Road East and El Prado
 City, ST, ZIP: San Diego CA 92101
 Client: Geocon Consultants Inc.
 EDR Inquiry: 3022669.3
 Order Date: 3/24/2011 4:33:59 PM
 Certification #: 2CA7-4E63-99D1
 Copyright: 1960

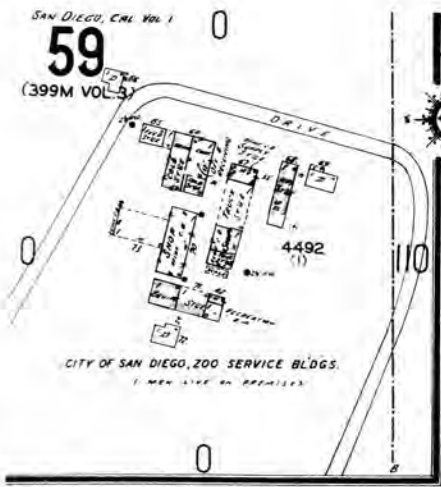


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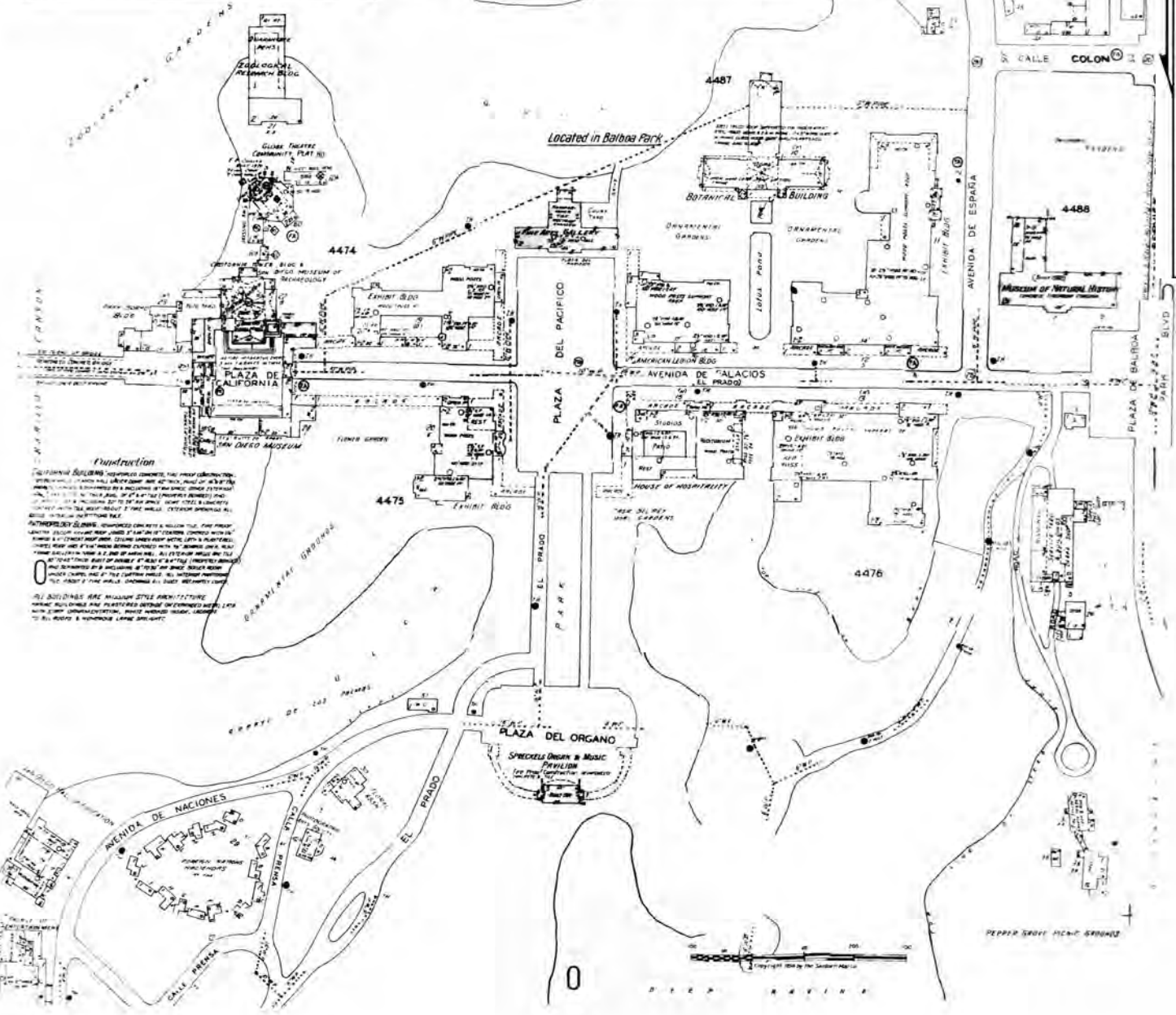
2CA7-4E63-99D1
 Certification #

1959 Certified Sanborn Map

Site Name: Balboa Park Plaza
 Address: Pan American Road East and El Prado
 City, ST, ZIP: San Diego CA 92101
 Client: Geocon Consultants Inc.
 EDR Inquiry: 3022669.3
 Order Date: 3/24/2011 4:33:59 PM
 Certification #: 2CA7-4E63-99D1
 Copyright: 1959



PROPERTY OF THE CITY OF SAN DIEGO



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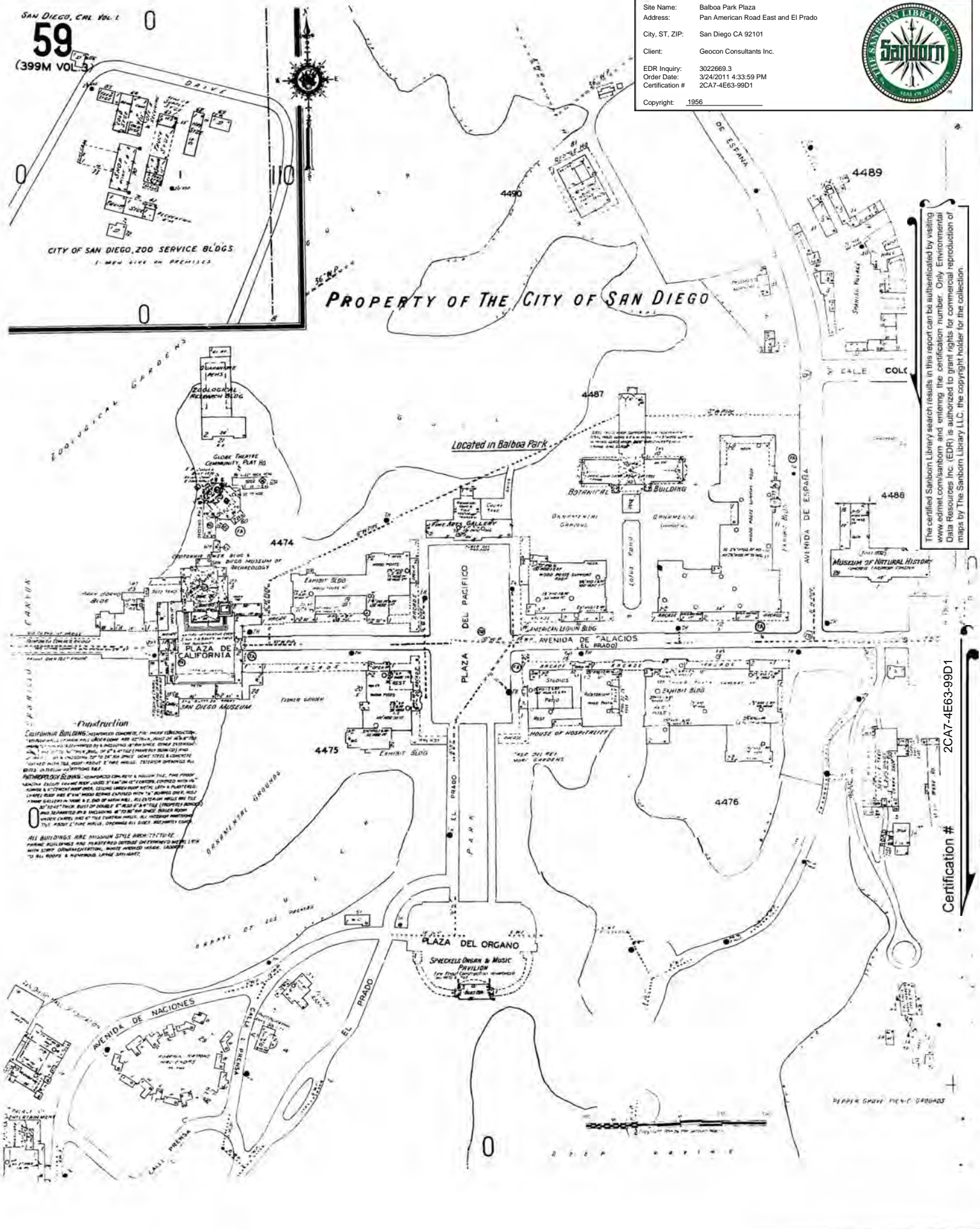
Certification # 2CA7-4E63-99D1

1956 Certified Sanborn Map

Site Name: Balboa Park Plaza
Address: Pan American Road East and El Prado
City, ST, ZIP: San Diego CA 92101
Client: Geocon Consultants Inc.
EDR Inquiry: 3022669.3
Order Date: 3/24/2011 4:33:59 PM
Certification #: 2CA7-4E63-99D1
Copyright: 1956



SAN DIEGO, CAL. VOL. 1
59
(399M VOL. 5)



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Certification # 2CA7-4E63-99D1

Construction
CONSTRUCTION BUILDINGS: UNFINISHED CONCRETE, THE HEAVY CONSTRUCTION...
ANTHROPOLOGY BLDGS: CONSTRUCTED ON THE...
ALL BUILDINGS ARE MASSIVE STEEL ARCH-TYPE...
PAVING BUILDINGS AND PLAZAS...
TO ALL ROADS & HIGHWAYS...
LAWYERS

1950 Certified Sanborn Map

Site Name: Balboa Park Plaza
 Address: Pan American Road East and El Prado
 City, ST, ZIP: San Diego CA 92101
 Client: Geocon Consultants Inc.
 EDR Inquiry: 3022669.3
 Order Date: 3/24/2011 4:33:59 PM
 Certification #: 2CA7-4E63-99D1
 Copyright: 1950

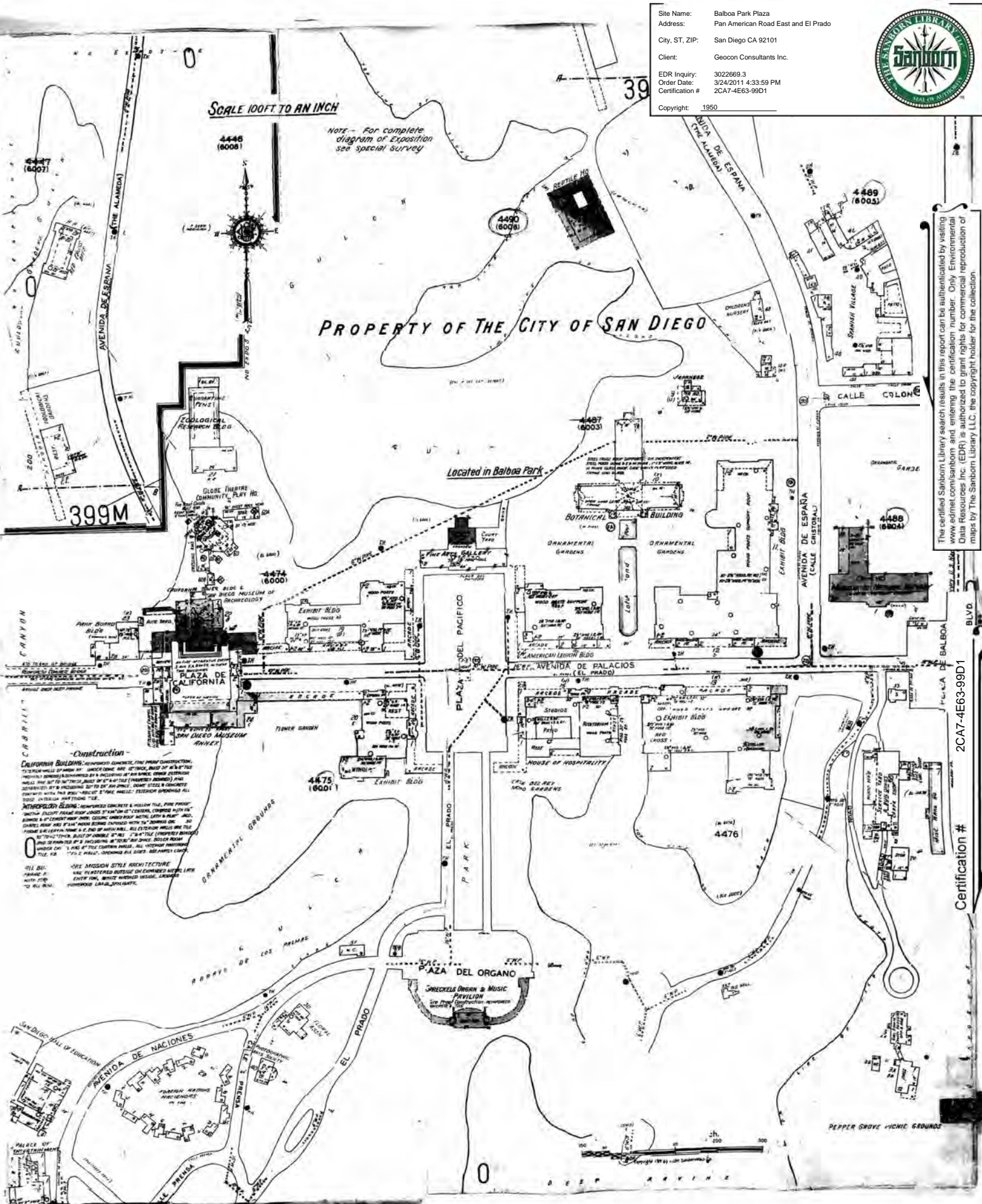


SCALE 100 FT TO AN INCH

NOTE - For complete diagram of Exposition see special survey

PROPERTY OF THE CITY OF SAN DIEGO

Located in Balboa Park

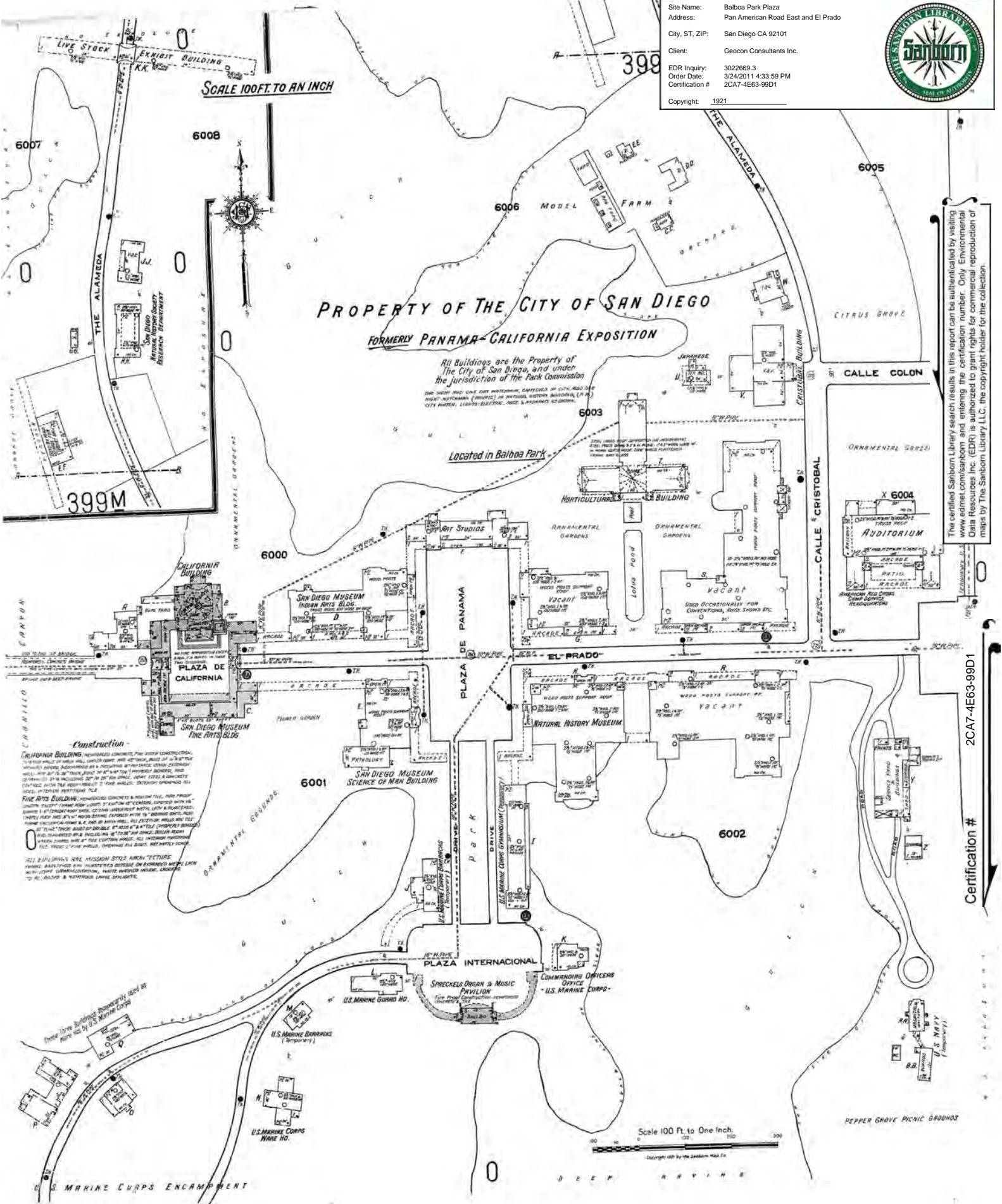


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2CA7-4E63-99D1
 Certification #

1921 Certified Sanborn Map

Site Name: Balboa Park Plaza
 Address: Pan American Road East and El Prado
 City, ST, ZIP: San Diego CA 92101
 Client: Geocon Consultants Inc.
 EDR Inquiry: 3022669.3
 Order Date: 3/24/2011 4:33:59 PM
 Certification # 2CA7-4E63-99D1
 Copyright: 1921



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2CA7-4E63-99D1

Certification #

Construction
 CALIFORNIA BUILDINGS: REINFORCED CONCRETE, FIVE STORY STRUCTURE, 100' HIGH. WALLS OF BRICK WITH CORNER PIER AND ARCHWAY, BALCONY OF 10' AT 5TH FLOOR. INTERIOR FINISHES: MARBLE, STAINLESS STEEL, BRASS, ETC. EXTERIOR FINISHES: TERRAZZO, MARBLE, STAINLESS STEEL.
 FINE ARTS BUILDING: REINFORCED CONCRETE & MASONRY, FIVE STORY, 100' HIGH. WALLS OF BRICK WITH CORNER PIER AND ARCHWAY, BALCONY OF 10' AT 5TH FLOOR. INTERIOR FINISHES: MARBLE, STAINLESS STEEL, BRASS, ETC. EXTERIOR FINISHES: TERRAZZO, MARBLE, STAINLESS STEEL.
 SAN DIEGO MUSEUM: REINFORCED CONCRETE & MASONRY, FIVE STORY, 100' HIGH. WALLS OF BRICK WITH CORNER PIER AND ARCHWAY, BALCONY OF 10' AT 5TH FLOOR. INTERIOR FINISHES: MARBLE, STAINLESS STEEL, BRASS, ETC. EXTERIOR FINISHES: TERRAZZO, MARBLE, STAINLESS STEEL.
 SCIENCE OF MAN BUILDING: REINFORCED CONCRETE & MASONRY, FIVE STORY, 100' HIGH. WALLS OF BRICK WITH CORNER PIER AND ARCHWAY, BALCONY OF 10' AT 5TH FLOOR. INTERIOR FINISHES: MARBLE, STAINLESS STEEL, BRASS, ETC. EXTERIOR FINISHES: TERRAZZO, MARBLE, STAINLESS STEEL.
 HORTICULTURE BUILDING: REINFORCED CONCRETE & MASONRY, FIVE STORY, 100' HIGH. WALLS OF BRICK WITH CORNER PIER AND ARCHWAY, BALCONY OF 10' AT 5TH FLOOR. INTERIOR FINISHES: MARBLE, STAINLESS STEEL, BRASS, ETC. EXTERIOR FINISHES: TERRAZZO, MARBLE, STAINLESS STEEL.
 AUDITORIUM: REINFORCED CONCRETE & MASONRY, FIVE STORY, 100' HIGH. WALLS OF BRICK WITH CORNER PIER AND ARCHWAY, BALCONY OF 10' AT 5TH FLOOR. INTERIOR FINISHES: MARBLE, STAINLESS STEEL, BRASS, ETC. EXTERIOR FINISHES: TERRAZZO, MARBLE, STAINLESS STEEL.
 NATURAL HISTORY MUSEUM: REINFORCED CONCRETE & MASONRY, FIVE STORY, 100' HIGH. WALLS OF BRICK WITH CORNER PIER AND ARCHWAY, BALCONY OF 10' AT 5TH FLOOR. INTERIOR FINISHES: MARBLE, STAINLESS STEEL, BRASS, ETC. EXTERIOR FINISHES: TERRAZZO, MARBLE, STAINLESS STEEL.
 U.S. MARINE CORPS ENCAMPMENT: REINFORCED CONCRETE & MASONRY, FIVE STORY, 100' HIGH. WALLS OF BRICK WITH CORNER PIER AND ARCHWAY, BALCONY OF 10' AT 5TH FLOOR. INTERIOR FINISHES: MARBLE, STAINLESS STEEL, BRASS, ETC. EXTERIOR FINISHES: TERRAZZO, MARBLE, STAINLESS STEEL.
 PEPPER GROVE PICNIC GROUNDS: REINFORCED CONCRETE & MASONRY, FIVE STORY, 100' HIGH. WALLS OF BRICK WITH CORNER PIER AND ARCHWAY, BALCONY OF 10' AT 5TH FLOOR. INTERIOR FINISHES: MARBLE, STAINLESS STEEL, BRASS, ETC. EXTERIOR FINISHES: TERRAZZO, MARBLE, STAINLESS STEEL.

APPENDIX

A solid green triangle pointing to the left, containing the letter 'E' in white.

E



Balboa Park Plaza

Pan American Road East and El Prado
San Diego, CA 92101

Inquiry Number: 3022669.5

March 29, 2011

The EDR Aerial Photo Decade Package

EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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Date EDR Searched Historical Sources:

Aerial Photography March 29, 2011

Target Property:

Pan American Road East and El Prado

San Diego, CA 92101

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1953	Aerial Photograph. Scale: 1"=555'	Flight Year: 1953	Park
1964	Aerial Photograph. Scale: 1"=555'	Flight Year: 1964	Cartwright
1974	Aerial Photograph. Scale: 1"=600'	Flight Year: 1974	AMI
1989	Aerial Photograph. Scale: 1"=666'	Flight Year: 1989	USGS
1994	Aerial Photograph. Scale: 1"=666'	Flight Year: 1994	USGS
2002	Aerial Photograph. Scale: 1"=666'	Flight Year: 2002	USGS
2005	Aerial Photograph. Scale: 1"=604'	Flight Year: 2005	EDR



INQUIRY #: 3022669.5

YEAR: 1953

| = 555'





INQUIRY #: 3022669.5

YEAR: 1964

| = 555'



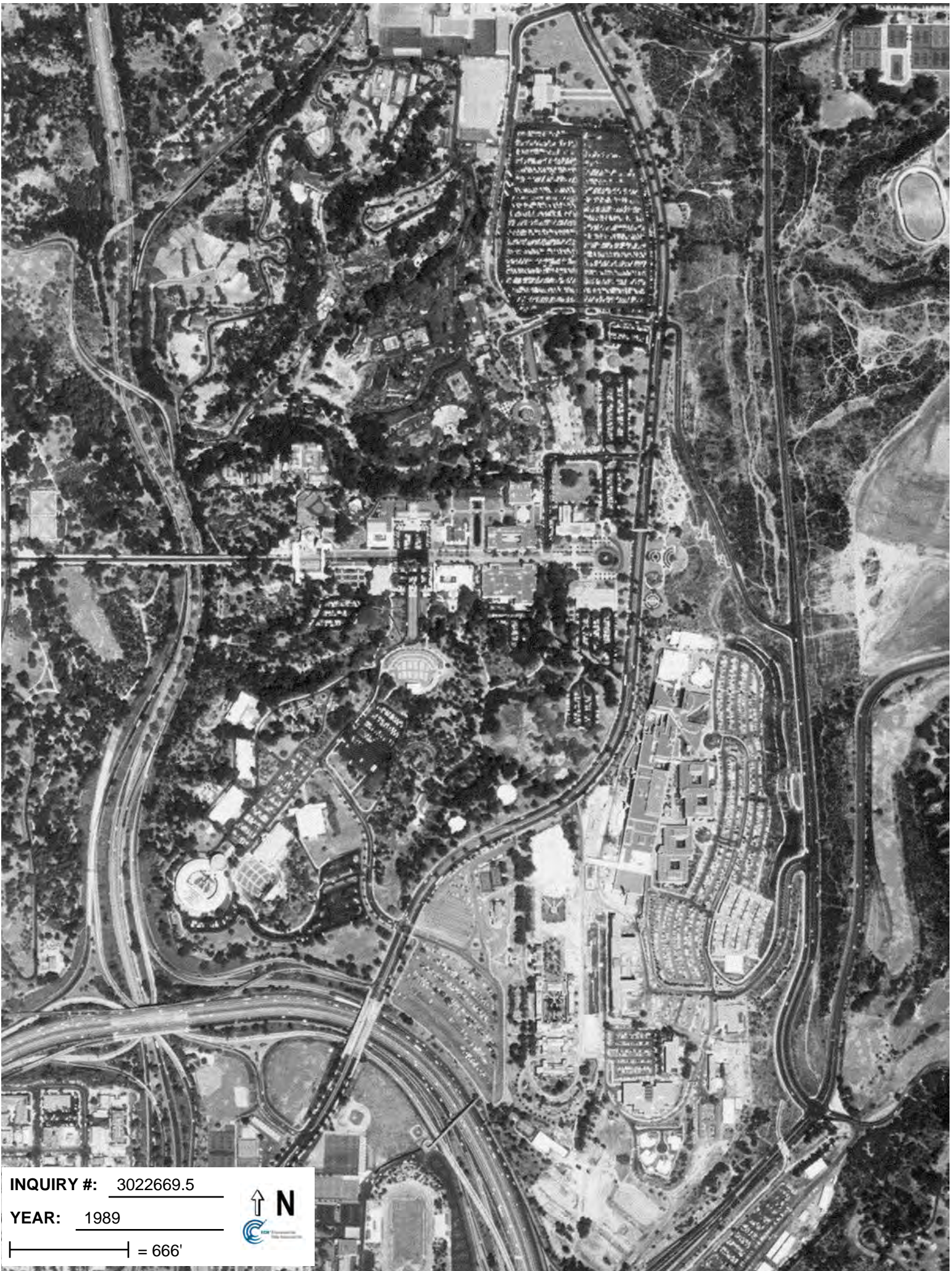


INQUIRY #: 3022669.5

YEAR: 1974

| = 600'





INQUIRY #: 3022669.5

YEAR: 1989

| = 666'





INQUIRY #: 3022669.5

YEAR: 1994

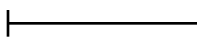
| = 666'





INQUIRY #: 3022669.5

YEAR: 2002

 = 666'





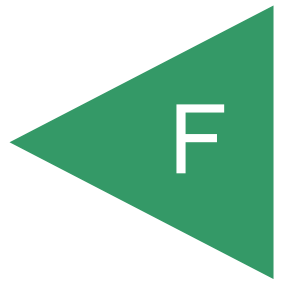
INQUIRY #: 3022669.5

YEAR: 2005

| = 604'



APPENDIX





Balboa Park Plaza

Pan American Road East and El Prado
San Diego, CA 92101

Inquiry Number: 3022669.4

March 24, 2011

EDR Historical Topographic Map Report

EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

Thank you for your business.
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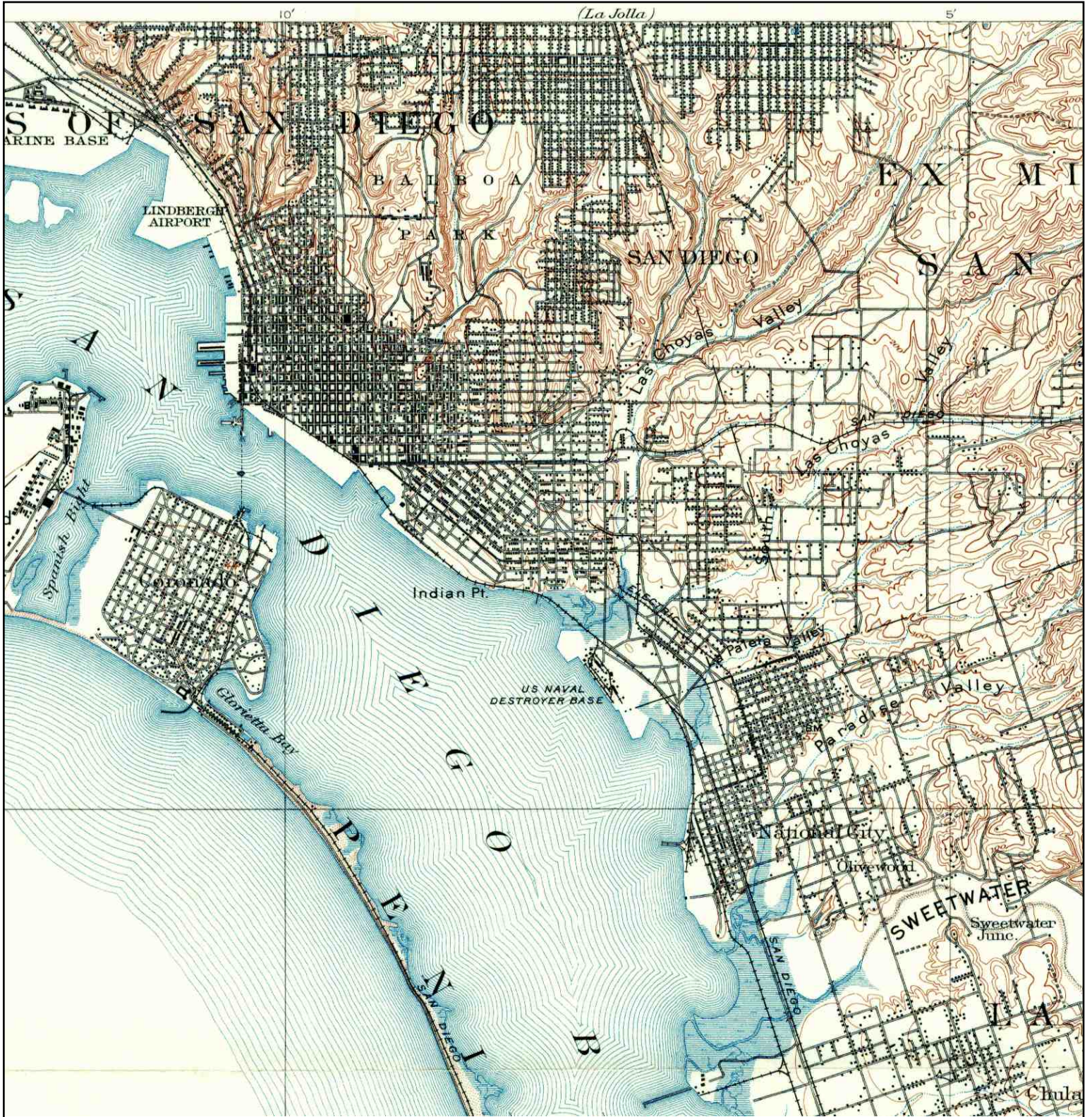
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Historical Topographic Map



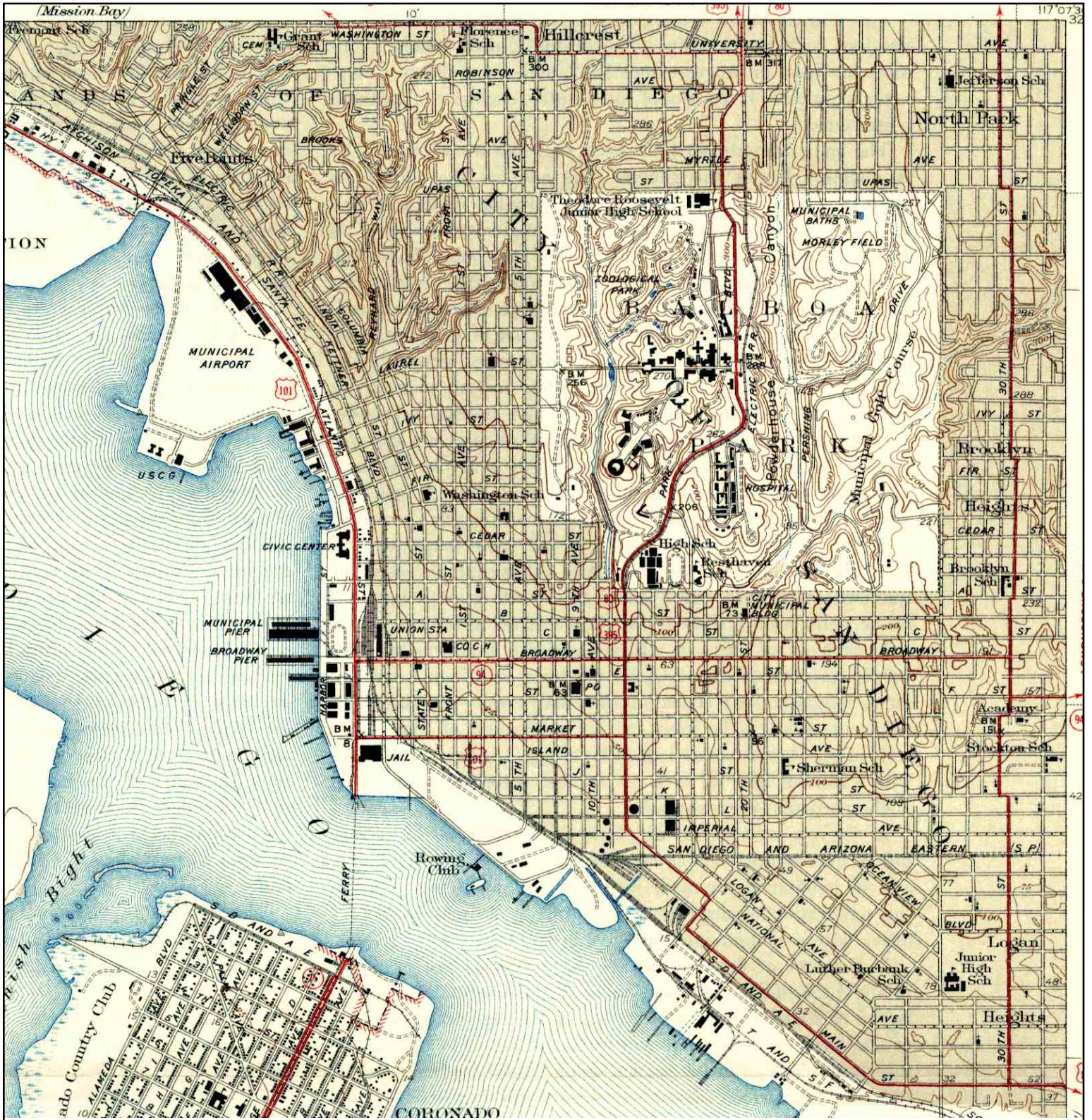
	TARGET QUAD	SITE NAME: Balboa Park Plaza	CLIENT: Geocon Consultants Inc.
	NAME: SOUTHERN CA SHEET 2	ADDRESS: Pan American Road East and El Prado	CONTACT: Kiersten Briggs
	MAP YEAR: 1904	SAN DIEGO, CA 92101	INQUIRY#: 3022669.4
	SERIES: 60	LAT/LONG: 32.7297 / -117.151	RESEARCH DATE: 03/24/2011
	SCALE: 1:250000		


Historical Topographic Map



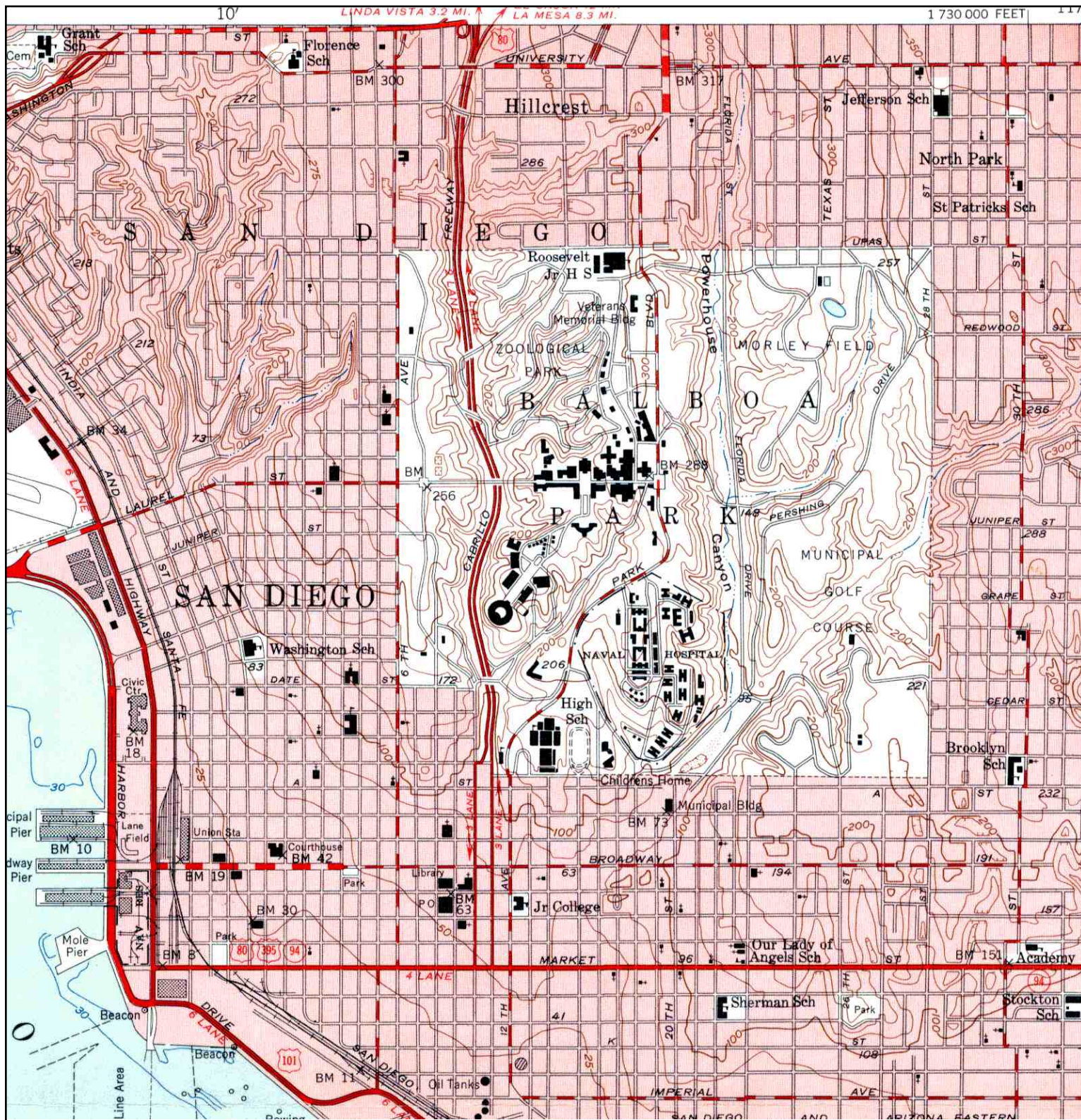
	TARGET QUAD	SITE NAME: Balboa Park Plaza	CLIENT: Geocon Consultants Inc.
	NAME: SAN DIEGO	ADDRESS: Pan American Road East and El Prado	CONTACT: Kiersten Briggs
	MAP YEAR: 1930	San Diego, CA 92101	INQUIRY#: 3022669.4
	SERIES: 15	LAT/LONG: 32.7297 / -117.151	RESEARCH DATE: 03/24/2011
	SCALE: 1:62500		

Historical Topographic Map



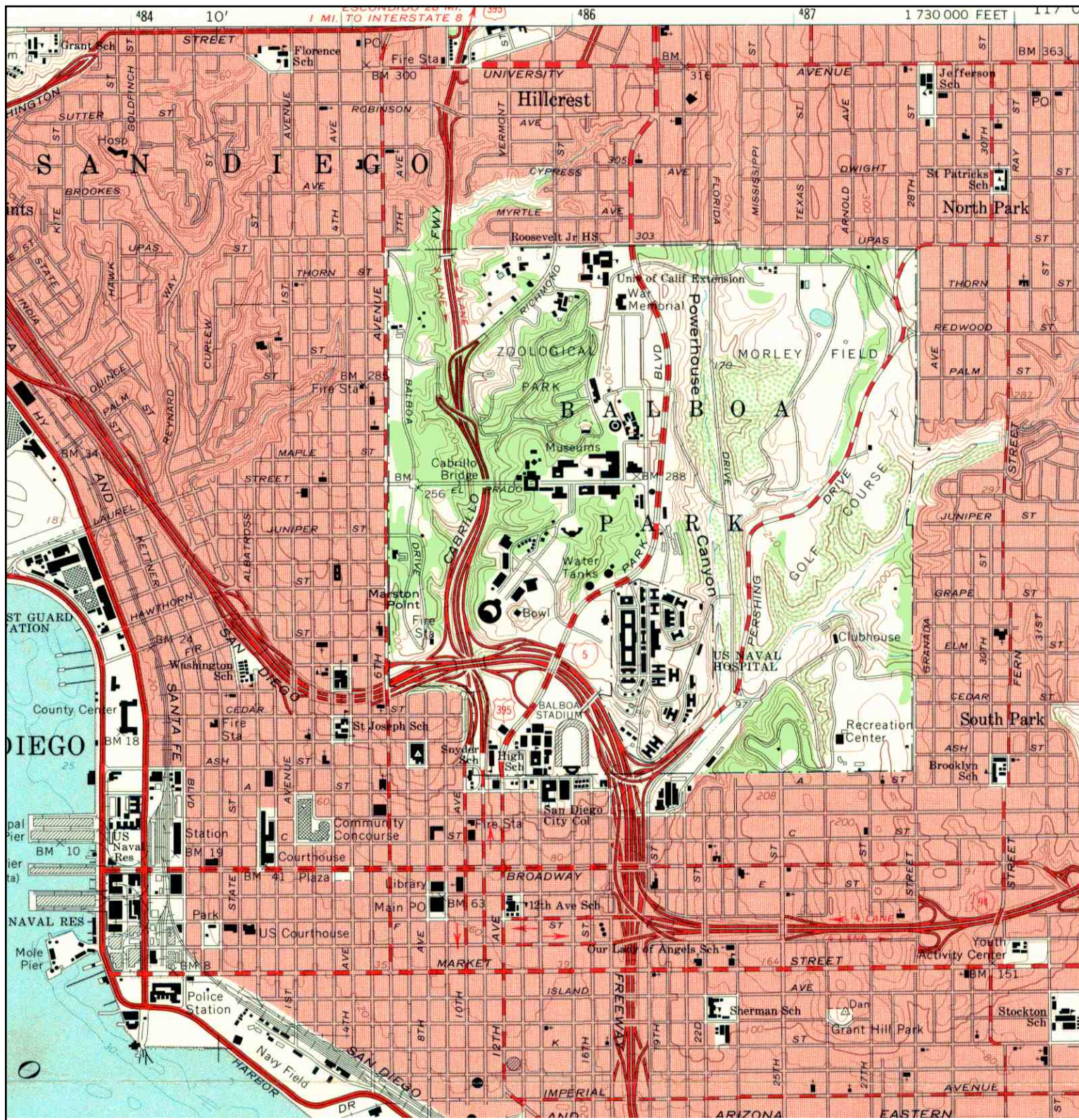
	TARGET QUAD	SITE NAME: Balboa Park Plaza	CLIENT: Geocon Consultants Inc.
	NAME: POINT LOMA	ADDRESS: Pan American Road East and El Prado	CONTACT: Kiersten Briggs
	MAP YEAR: 1942	San Diego, CA 92101	INQUIRY#: 3022669.4
	SERIES: 7.5	LAT/LONG: 32.7297 / -117.151	RESEARCH DATE: 03/24/2011
	SCALE: 1:31680		


Historical Topographic Map



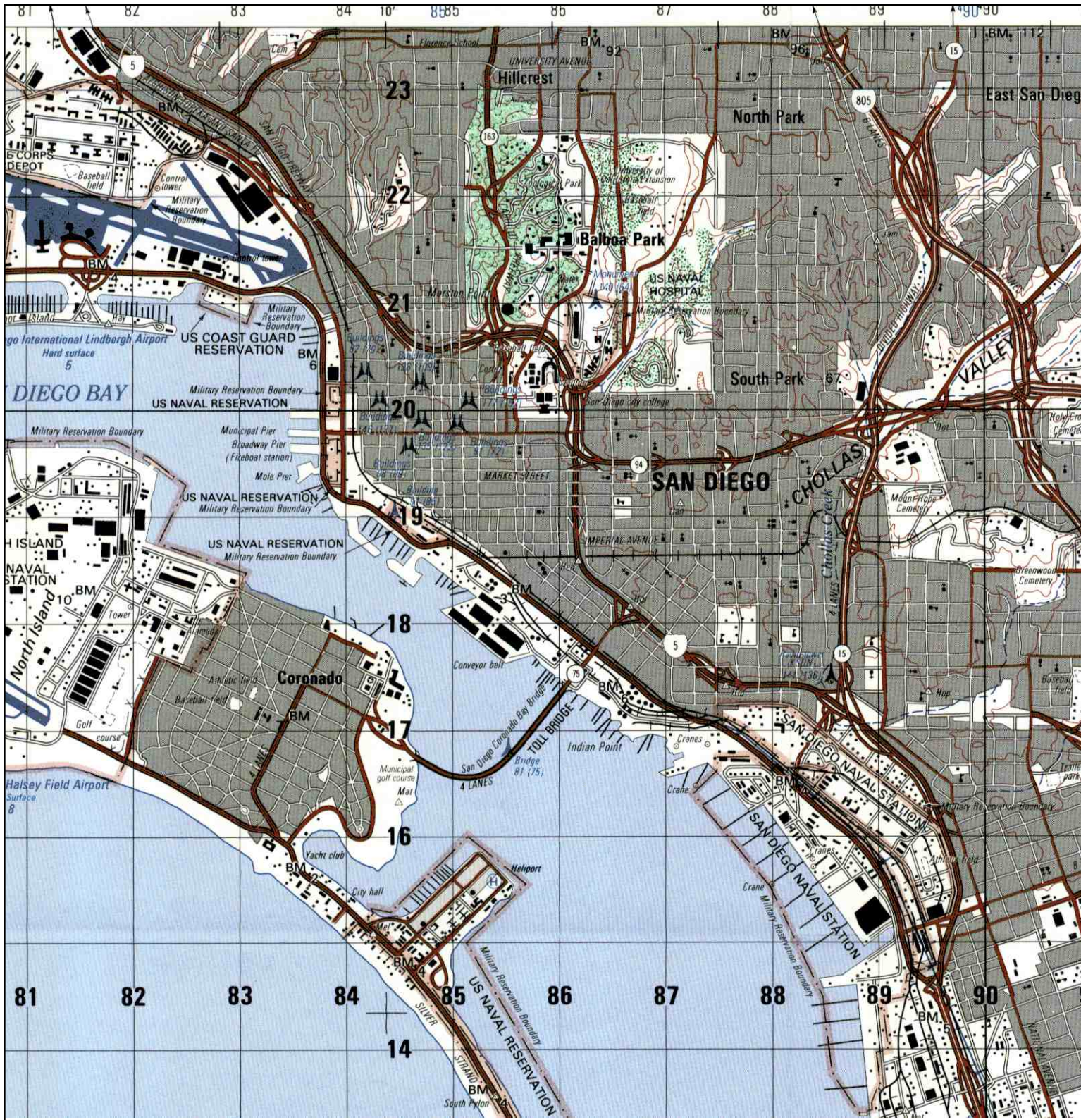
<p>N ↑</p>	<p>TARGET QUAD NAME: POINT LOMA MAP YEAR: 1953</p>	<p>SITE NAME: Balboa Park Plaza ADDRESS: Pan American Road East and El Prado San Diego, CA 92101</p>	<p>CLIENT: Geocon Consultants Inc. CONTACT: Kiersten Briggs INQUIRY#: 3022669.4 RESEARCH DATE: 03/24/2011</p>
	<p>SERIES: 7.5 SCALE: 1:24000</p>	<p>LAT/LONG: 32.7297 / -117.151</p>	

Historical Topographic Map



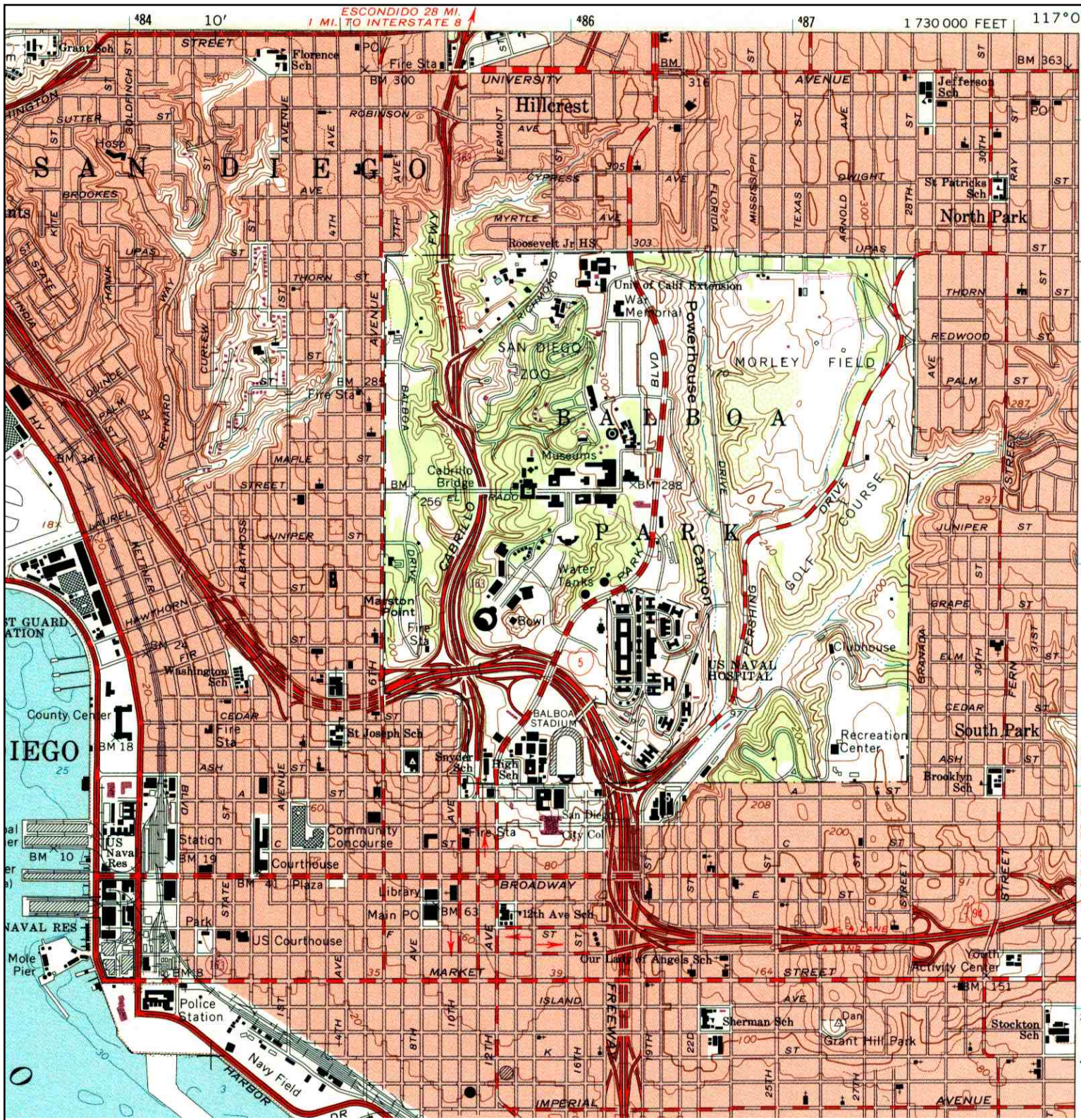
	TARGET QUAD NAME: POINT LOMA MAP YEAR: 1967	SITE NAME: Balboa Park Plaza ADDRESS: Pan American Road East and El Prado San Diego, CA 92101	CLIENT: Geocon Consultants Inc. CONTACT: Kiersten Briggs INQUIRY#: 3022669.4 RESEARCH DATE: 03/24/2011
	SERIES: 7.5 SCALE: 1:24000	LAT/LONG: 32.7297 / -117.151	


Historical Topographic Map



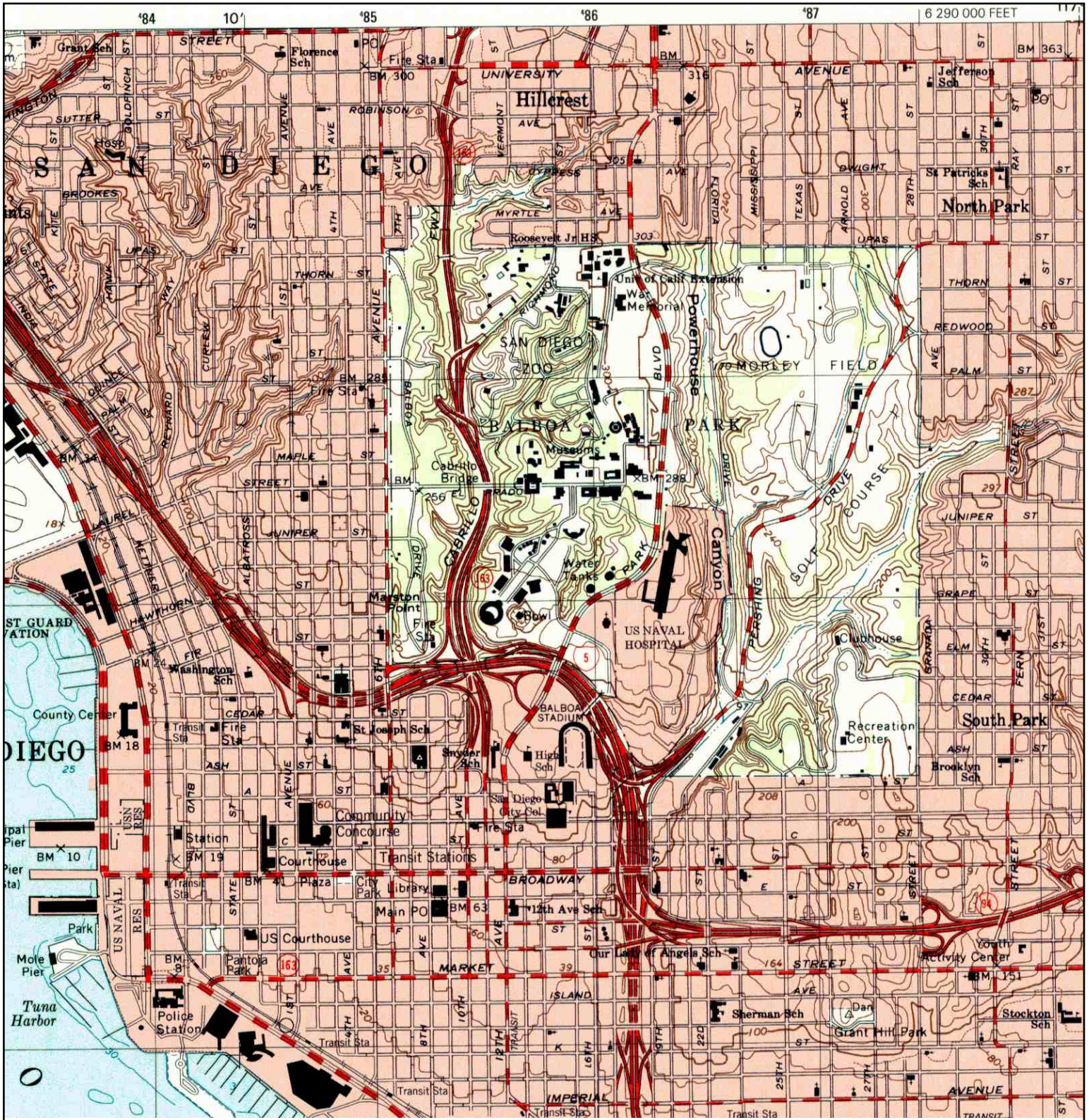
<p>N ↑</p>	<p>TARGET QUAD NAME: SAN DIEGO MAP YEAR: 1991</p>	<p>SITE NAME: Balboa Park Plaza ADDRESS: Pan American Road East and El Prado San Diego, CA 92101</p>	<p>CLIENT: Geocon Consultants Inc. CONTACT: Kiersten Briggs INQUIRY#: 3022669.4 RESEARCH DATE: 03/24/2011</p>
	<p>SERIES: 15 SCALE: 1:50000</p>	<p>LAT/LONG: 32.7297 / -117.151</p>	


Historical Topographic Map



	TARGET QUAD	SITE NAME: Balboa Park Plaza	CLIENT: Geocon Consultants Inc.
	NAME: POINT LOMA	ADDRESS: Pan American Road East and El Prado	CONTACT: Kiersten Briggs
	MAP YEAR: 1994	San Diego, CA 92101	INQUIRY#: 3022669.4
	REVISED: 1967	LAT/LONG: 32.7297 / -117.151	RESEARCH DATE: 03/24/2011
	SERIES: 7.5		
	SCALE: 1:24000		

Historical Topographic Map



<p>N</p> 	<p>TARGET QUAD</p> <p>NAME: POINT LOMA</p> <p>MAP YEAR: 1996</p>	<p>SITE NAME: Balboa Park Plaza</p> <p>ADDRESS: Pan American Road East and El Prado</p> <p>San Diego, CA 92101</p>	<p>CLIENT: Geocon Consultants Inc.</p> <p>CONTACT: Kiersten Briggs</p> <p>INQUIRY#: 3022669.4</p> <p>RESEARCH DATE: 03/24/2011</p>
	<p>SERIES: 7.5</p> <p>SCALE: 1:24000</p>	<p>LAT/LONG: 32.7297 / -117.151</p>	

APPENDIX



Balboa Park Plaza

1350 El Prado
San Diego, CA 92101

Inquiry Number: 3022669.6
March 24, 2011

The EDR-City Directory Abstract

TABLE OF CONTENTS

SECTION

Executive Summary

Findings

Thank you for your business.
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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1903 through 2006. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2006	Haines Company, Inc.	-	X	X	-
2000	Haines & Company	-	X	X	-
1995	PACIFIC BELL WHITE PAGES	-	X	X	-
1992	PACIFIC BELL WHITE PAGES	-	X	X	-
1991	PACIFIC BELL WHITE PAGES	-	-	-	-
1989	Pacific Bell	-	-	-	-
1985	PACIFIC BELL WHITE PAGES	-	-	-	-
1984	R. L. Polk & Co.	X	X	X	-
1980	R. L. Polk & Co.	X	X	X	-
1976	Luskey Brothers & Co., Inc.	-	-	-	-
1975	R. L. Polk & Co.	X	X	X	-
1971	Community Directory Co.	-	-	-	-
1970	John M. Ducey	-	-	-	-
1966	R. L. Polk & Co.	-	-	-	-
1965	Community Directory Co.	-	-	-	-
1962	Community Directory Co.	-	X	X	-
1961	R. L. Polk & Co.	-	-	-	-
1960	The Pacific Telephone Telegraph Co.	-	X	X	-
1956	R. L. Polk & Co.	-	-	-	-
1955	R. L. Polk & Co.	-	-	-	-
1952	R. L. Polk & Co. of California	-	-	-	-
1950	The Pacific Telephone & Telegraph Co.	-	-	-	-
1948	San Diego Directory Co.	-	-	-	-
1945	San Diego Directory Co.	-	-	-	-
1943	San Diego Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1940	San Diego Directory Co.	-	-	-	-
1938	San Diego Directory Co.	-	-	-	-
1933	San Diego Directory Co.	-	-	-	-
1927	San Diego Directory Co.	-	-	-	-
1921	San Diego Directory Co. Inc.	-	-	-	-
1907	San Diego Directory Co.	-	-	-	-
1903	San Diego Directory Co.	-	-	-	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

<u>Address</u>	<u>Type</u>	<u>Findings</u>
1350 El Prado	Client Entered	X
1439 El Prado	Client Entered	X
1549 El Prado	Client Entered	X
2125 Park Blvd	Client Entered	X
1450 El Prado	Client Entered	X
2171 Pan American Plaza	Client Entered	
2131 Pan American Plaza	Client Entered	X
1500 El Prado	Client Entered	X
1363 Old Globe Way	Client Entered	X

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

1350 El Prado
San Diego, CA 92101

FINDINGS DETAIL

Target Property research detail.

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1984	SAN DIEGO MUSEUM ASSN	R. L. Polk & Co.
	SAN DIEGO MUSEUM OF MAN	R. L. Polk & Co.
1980	San Diego Museum Assn	R. L. Polk & Co.
	San Diego Museum Of Man	R. L. Polk & Co.
1975	San Diego Museum Assn	R. L. Polk & Co.
	San Diego Museum Of Man	R. L. Polk & Co.

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

EL PRADO

1400 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Tweed Robt F	The Pacific Telephone Telegraph Co.

1402 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Kleczewski M J L Cdr	The Pacific Telephone Telegraph Co.

1408 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Dell Frank P	The Pacific Telephone Telegraph Co.

1415 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Hodges Louis M	The Pacific Telephone Telegraph Co.

1416 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Howard Thos L	The Pacific Telephone Telegraph Co.

1419 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Guerin Glenn F	The Pacific Telephone Telegraph Co.

1422 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Seymour Kenneth F Lt	The Pacific Telephone Telegraph Co.

1425 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Vinje Ralph M Joan carp h	Community Directory Co.

1427 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Howell R C	The Pacific Telephone Telegraph Co.

FINDINGS

1428 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Hyde Chas Jr	The Pacific Telephone Telegraph Co.

1432 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Bushnell Chester A Jr	The Pacific Telephone Telegraph Co.

1433 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Ford Donald T	The Pacific Telephone Telegraph Co.

1434 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Sanchez Guillermo E	The Pacific Telephone Telegraph Co.

1436 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1962	Milsap Clyde W Patricia h	Community Directory Co.

1437 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Myers Thos A	The Pacific Telephone Telegraph Co.

El Prado

1439 El Prado

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MINGEI	Haines Company, Inc.
	MUSEUM SD ARTINSTITr MTE	Haines Company, Inc.
	SDARTINSTITUTE	Haines Company, Inc.
	INTERNATIONAL	Haines Company, Inc.

EL PRADO

1439 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1984	SAN DIEGO HALL OF CHAMPIONS MUSEUM	R. L. Polk & Co.

FINDINGS

El Prado

1439 El Prado

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1984	SAN DIEGO HALL OF CHAMPIONS MUSEUM	R. L. Polk & Co.
1980	San Diego Hall Of Champions museum	R. L. Polk & Co.

EL PRADO

1439 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1980	San Diego Hall Of Champions museum	R. L. Polk & Co.
1975	San Diego Hall Of Champions museum	R. L. Polk & Co.

El Prado

1439 El Prado

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	San Diego Hall Of Champions museum	R. L. Polk & Co.

EL PRADO

1443 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Barnhill Jas Warren	The Pacific Telephone Telegraph Co.

1448 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Mc Alpin W W Jr	The Pacific Telephone Telegraph Co.

1449 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1984	BALBOA PARK INFORMATION	R. L. Polk & Co.
1980	San Diego Art Institute art gallery	R. L. Polk & Co.
1975	San Diego Art Institute Inc	R. L. Polk & Co.
1960	Reed Roland	The Pacific Telephone Telegraph Co.

FINDINGS

El Prado

1450 El Prado

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SCULPTURE	Haines Company, Inc.
	GARDEN CAFE SD MUSEUM OF ART	Haines Company, Inc.
	SD MUSEUM OF ART	Haines Company, Inc.
	SD MUSEUM OF ART	Haines Company, Inc.
	CATERING SDMACAFEBY	Haines Company, Inc.
	WATERS	Haines Company, Inc.
	THE MUSEUM	Haines Company, Inc.
	STORE S 8 MUSEUM	Haines Company, Inc.

EL PRADO

1454 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Barber D E	The Pacific Telephone Telegraph Co.
	Halfacre Scherrie A	The Pacific Telephone Telegraph Co.

1455 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Mc Laughlin M E	The Pacific Telephone Telegraph Co.

1461 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Parrott Eris D	The Pacific Telephone Telegraph Co.

1462 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Carlton Wayne	The Pacific Telephone Telegraph Co.

1467 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Verdusco John Jr	The Pacific Telephone Telegraph Co.

1470 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Mills Jack	The Pacific Telephone Telegraph Co.

FINDINGS

1476 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Hutsell Don L	The Pacific Telephone Telegraph Co.

1479 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Cabibi Ronald D	The Pacific Telephone Telegraph Co.

1485 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Neely Jack E	The Pacific Telephone Telegraph Co.

1488 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Gibson J J	The Pacific Telephone Telegraph Co.

El Prado

1500 El Prado

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.

EL PRADO

1500 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Hausner Paul H	The Pacific Telephone Telegraph Co.

El Prado

1500 El Prado

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Hausner Paul H	The Pacific Telephone Telegraph Co.

EL PRADO

1505 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Meads Wally	The Pacific Telephone Telegraph Co.

FINDINGS

1506 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Surber Robt J	The Pacific Telephone Telegraph Co.

1511 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Stalnaker Darrell	The Pacific Telephone Telegraph Co.

1512 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Davis Harold A	The Pacific Telephone Telegraph Co.

1518 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Evans Roswell R	The Pacific Telephone Telegraph Co.

1523 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Mc Mahon Thos L Jr	The Pacific Telephone Telegraph Co.

1524 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Barnes Ashley P	The Pacific Telephone Telegraph Co.

1529 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Taylor A S	The Pacific Telephone Telegraph Co.

1530 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Hoffman Paul W	The Pacific Telephone Telegraph Co.

1535 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Lyons Chas A R	The Pacific Telephone Telegraph Co.

1536 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Baker W E	The Pacific Telephone Telegraph Co.

1541 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Slemmons Jas F	The Pacific Telephone Telegraph Co.

FINDINGS

1542 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Giamanco Chas	The Pacific Telephone Telegraph Co.

1547 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Mc Crea John R	The Pacific Telephone Telegraph Co.

1548 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Collinge E A	The Pacific Telephone Telegraph Co.

El Prado

1549 El Prado

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1992	Christmas On The Prado	PACIFIC BELL WHITE PAGES
	Business Ofc	PACIFIC BELL WHITE PAGES
	Cafe Del Rey More Balboa Park	PACIFIC BELL WHITE PAGES
	Inter Museum Promotion Council	PACIFIC BELL WHITE PAGES
	Balboa Park Info Center Master Calendar House Of Hospitality	PACIFIC BELL WHITE PAGES
1984	CAFE DEL REY MORO RESTR	R. L. Polk & Co.
	JUNIOR LEAGUE OF SAN DIEGO INC CIVIC ORG	R. L. Polk & Co.
1980	Cafe Del Rey Moro restr	R. L. Polk & Co.
	Junior League Of San Diego Inc civic org	R. L. Polk & Co.

EL PRADO

1553 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Kirby Phil	The Pacific Telephone Telegraph Co.

1554 EL PRADO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	Shapiro Barbara J	The Pacific Telephone Telegraph Co.

FINDINGS

EL PRADO AVE

1434 EL PRADO AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1992	Sanchez Guillermo E	PACIFIC BELL WHITE PAGES

EL PRADO PL

1439 EL PRADO PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	MINGEI	Haines Company, Inc.
	INTERNATIONAL	Haines Company, Inc.
	MUSEUM SD ARTINSTITr MTE	Haines Company, Inc.
	SDARTINSTITUTE	Haines Company, Inc.

1450 EL PRADO PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	SCULPTURE	Haines Company, Inc.
	GARDEN CAFE SD MUSEUM OF ART	Haines Company, Inc.
	SD MUSEUM OF ART	Haines Company, Inc.
	SD MUSEUM OF ART	Haines Company, Inc.
	CATERING SDMACAFEBY	Haines Company, Inc.
	WATERS	Haines Company, Inc.
	THE MUSEUM	Haines Company, Inc.
	STORE S 8 MUSEUM	Haines Company, Inc.

1500 EL PRADO PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	No Current Listing	Haines Company, Inc.

Old Globe Way

1363 Old Globe Way

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2006	OLD GLOBE	Haines Company, Inc.
	THEATRE	Haines Company, Inc.

FINDINGS

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched

1350 El Prado

Address Not Identified in Research Source

2006, 2000, 1995, 1992, 1991, 1989, 1985, 1976, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

Address Researched

1363 Old Globe Way

Address Not Identified in Research Source

2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

1400 EL PRADO

2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

1402 EL PRADO

2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

1408 EL PRADO

2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

1415 EL PRADO

2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

1415 OLD GLOBE WAY

2006, 2000, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

1416 EL PRADO

2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

1419 EL PRADO

2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

1422 EL PRADO

2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

1425 EL PRADO

2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1961, 1960, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

1427 EL PRADO

2006, 2000, 1995, 1992, 1991, 1989, 1985, 1984, 1980, 1976, 1975, 1971, 1970, 1966, 1965, 1962, 1961, 1956, 1955, 1952, 1950, 1948, 1945, 1943, 1940, 1938, 1933, 1927, 1921, 1907, 1903

