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San Diego Ambrosia Critical Habitat Restoration Plan for the Castlerock Project City of San Diego Project No. 10046

Prepared for

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1.0 Introduction

A small acreage (0.03 acre) of land within an area designated as critical habitat for the federally listed endangered San Diego ambrosia (*Ambrosia pumila*) could be temporarily disturbed as part of the proposed Castlerock project. The temporary disturbance would only occur if the “No Annexation” project alternative is built. The impact to critical habitat would be located off-site as part of the West Hills Parkway Bridge improvement, where a pipeline would be installed on the bridge. Vegetation within designated critical habitat for San Diego ambrosia may be crushed by construction equipment accessing the area under the bridge during the installation of the pipeline. No San Diego ambrosia individuals were observed at this particular location; therefore, no direct impacts to the species are anticipated.

The Castlerock project site is located in the eastern portion of the City of San Diego, within the City of San Diego and within the East Elliott Community Planning Area (Figures 1 and 2). Because the project site is located adjacent to the City of Santee’s western boundary and Santee could provide services to the proposed project, detachment from the City of San Diego and annexation to the City of Santee ("reorganization") is being proposed as one of the project scenarios (the Annexation Scenario). The project could also be developed in the City of San Diego without annexation to the City of Santee, with either San Diego providing all municipal services or most municipal services with an out-of-service agreement for water and sewer service from the Padre Dam Municipal Water District (No Annexation Scenario).

This restoration plan describes the implementation guidelines, maintenance tasks, and monitoring methodologies through which designated critical habitat for San Diego ambrosia can be restored to pre-construction conditions if construction activities at the West Parkway Bridge occur. The program is designed to last two years.

2.0 Responsibilities

The party financially responsible for this restoration project is:

Pardee Homes
6025 Edgewood Bend Court
San Diego, CA 92130
Contact: Jimmy Ayala

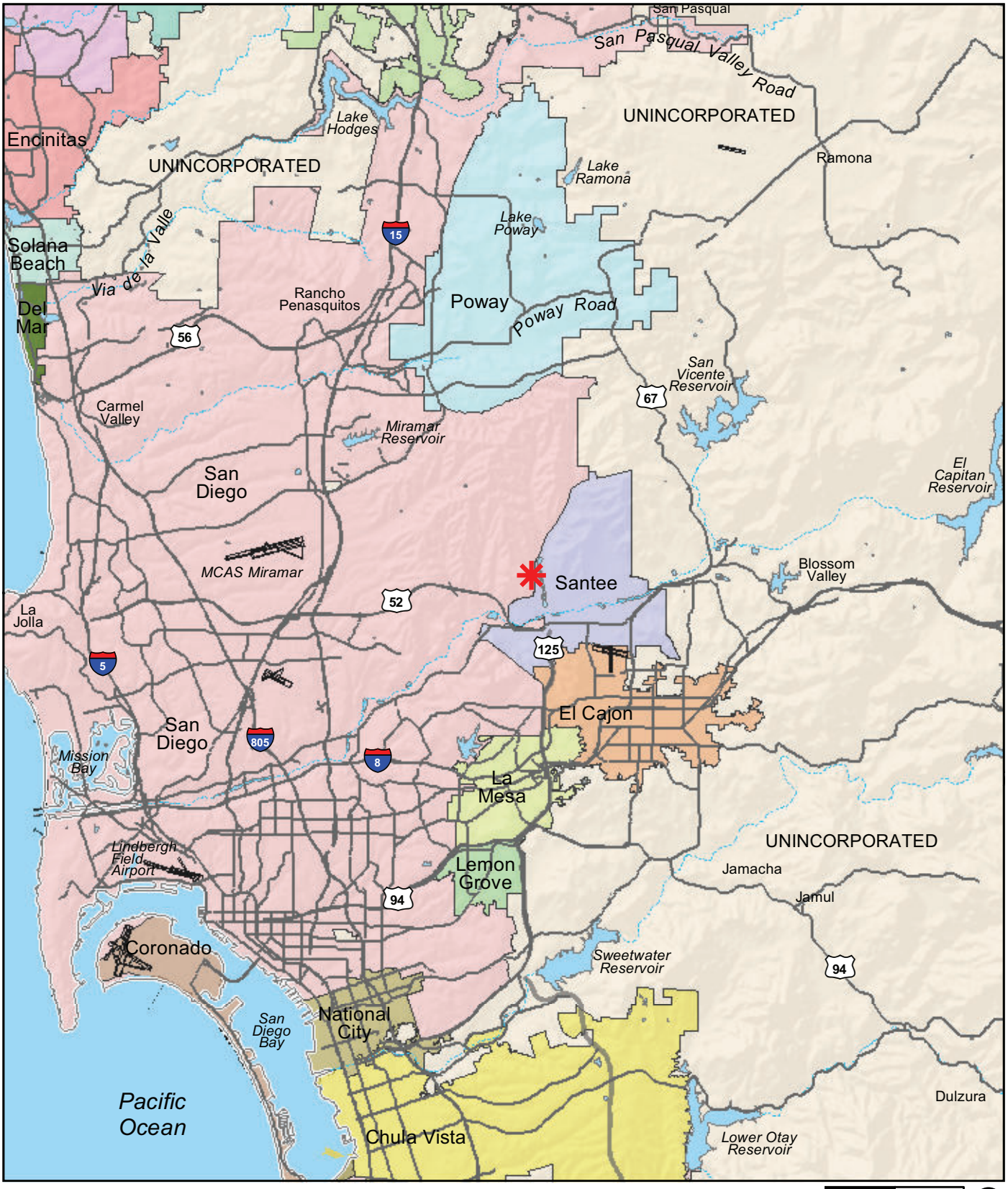

FIGURE 1

Regional Location

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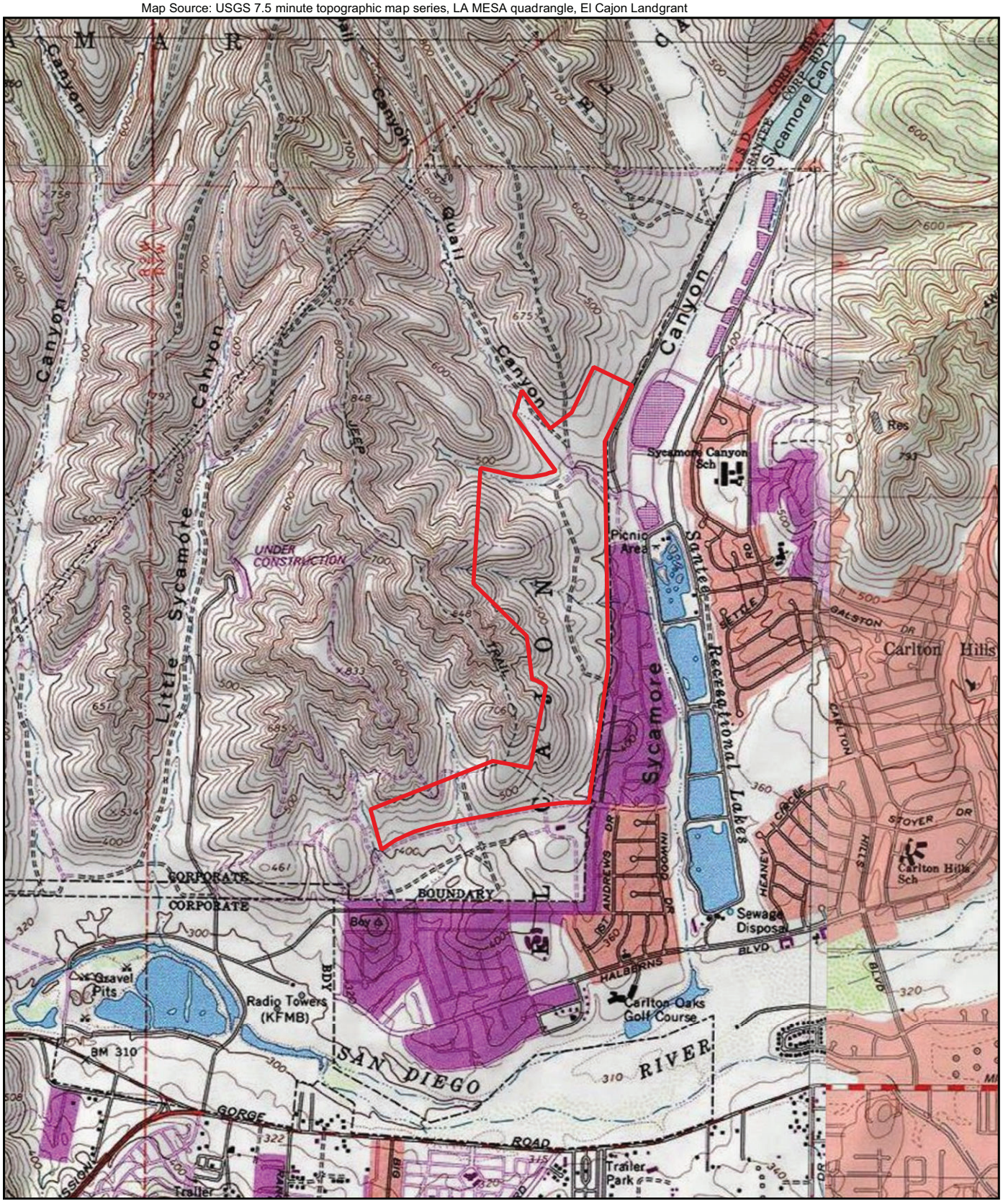
Map Source: USGS 7.5 minute topographic map series, LA MESA quadrangle, El Cajon Landgrant



Project Boundary

FIGURE 2

Project Location on USGS Map

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The project proponent will be responsible for contracting with personnel qualified in implementation, maintenance, and monitoring of restoration sites and the practices described in this plan. Upon contracting with a qualified person or organization to implement this plan, the project proponent will designate a person or group as the Project Restoration Biologist.

The project restoration biologist must have a minimum of five years of experience in upland restoration. The biologist must understand upland plant communities and have expertise in plant and wildlife identification and ecology. The project restoration biologist should be retained to perform the following tasks and be responsible for implementing the restoration plan in accordance with its specifications:

- Coordinate and monitor restoration site preparation.
- Oversee the maintenance of the habitat restoration area as defined herein.
- Oversee and perform the required monitoring and reporting in accordance with the procedures established in this plan.

3.0 Mitigation Goals

The purpose of this plan is to provide the guidelines for the successful restoration of a small portion of designated critical habitat for San Diego ambrosia. This restoration program is designed to repair compacted soils and control non-native plant species at the impact site post-construction. Details regarding soil rehabilitation, weed control, site maintenance, and monitoring are described below.

3.1 Description of the Proposed Restoration Site

The portion of San Diego ambrosia critical habitat area to be impacted and restored is located near and beneath a bridge on West Hills Parkway just south of State Route 52 and north of Mission Gorge Road (Figure 3). Approximately 0.03 acre of riparian forest understory would be restored to pre-construction conditions. The understory of the southern cottonwood willow riparian forest at this location is fairly open and dominated by non-native species (Photographs 1 and 2). Riparian tree branches may be broken or trimmed during the construction activities; however, no vegetation would be cleared, only crushed by vehicles accessing the area.

Castlerock Project Boundary
Potential Impact Area
San Diego Ambrosia Critical Habitat
Off-site Temporary Impacts

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FIGURE 3
Location of Potential Impact to
Critical Habitat for San Diego Ambrosia

PHOTOGRAPH 1
View of Project Site Looking North

PHOTOGRAPH 2
View of Project Site Looking West

3.2 Post-Construction Soils Rehabilitation

The soils within the post-construction work area will be evaluated by the project restoration biologist to determine if they were compacted enough to inhibit plant growth. If the soils are determined to be compacted, then the upper two to six inches of soil will be re-worked with hand tools to restore soil structure. This procedure is not necessary if the soils are determined not to be compacted.

3.3 Maintenance Activities

Prior to any control of non-native species at the site, a survey to determine if San Diego ambrosia is present should be conducted. If the species is located in or adjacent to the restoration area, then these locations shall be marked and avoided during maintenance activities.

Following the completion of the construction activities and post-construction San Diego ambrosia survey, it is important to control non-native species (weeds) on the site. Weeds can outcompete native species for water and nutrients at the surface, preventing plants from germinating (limiting natural regeneration) or successfully maturing. Non-native species produce an enormous amount of viable seed and can be effective vegetative propagators, making them very difficult to control once established. The weed management program described below will be implemented over a two-year period.

The weeding program will focus on spot control of weed populations, as well as identification and eradication of new populations. Timing of non-native plant control efforts is critical to success. If non-native plants are not killed prior to seed set, removal effort and cost will remain high over time. Maintenance workers must be trained to distinguish between native and non-native plants for restoration to be successful.

After the initial weed control efforts, regular visits to monitor the site for germinating weeds will be conducted by the project restoration biologist, who may recommend repeat spraying, as necessary, to maintain non-native plant density to a low level. If non-native plants are controlled each season prior to flowering and setting seed, the level of effort required should decrease over the two-year period.

Weed control will continue throughout the monitoring period. Exotic species will be removed by hand or herbicide applications (glyphosate) by maintenance workers familiar with and trained to distinguish weeds from native species. During the first year, weeding will be performed as needed to keep weeds from producing seeds and to control weed competition during the establishment period of native plants.

Adaptive management strategies must quickly address control of newly emerging non-native species. Frequent site visits are necessary during the growing season to assess non-native plant removal efforts and to determine whether changes in strategy or intensity are needed.

The maintenance schedule is presented as follows (Table 1):

TABLE 1
MAINTENANCE SCHEDULE

Type/Task	Year 1	Year 2
Weed control	As-needed	As-needed
Trash removal	As-needed	As-needed

3.4 Monitoring

3.4.1 Performance Standards

The final performance standards of the San Diego Ambrosia Critical Habitat Restoration Plan are:

- A total of 0 percent coverage by California Invasive Plant Council's High, Moderate, and Alert species at the end of five years.
- No more than 10 percent coverage of the translocation and enhancement area by exotic weeds at the end of five years.

3.4.2 Monitoring Methods

3.4.2.1 Quantitative Monitoring

Exotic species cover will be estimated annually to determine if the cover criteria for weeds are being met. Weed cover will be estimated at the restoration site as an absolute cover percentage. Permanent photo points will be established at selected locations within the translocation area. Repeat photographs will be taken each spring, and these photographs will be included in the respective annual report.

3.4.2.2 Qualitative Monitoring

Evaluation of the effectiveness of the non-native species control efforts will be conducted by the project restoration biologist. Qualitative monitoring visits will be conducted by the project restoration biologist monthly during the two-year monitoring period. The project

restoration biologist will review the restoration area to determine if the effort to control non-native plant species is working. The biologist will recommend remedial actions, if necessary. The monitoring program will be conducted by the project restoration biologist as outlined below in Table 2.

TABLE 2
MONITORING SCHEDULE

Type/Task	Year 1	Year 2
Qualitative		
Non-native species control	Monthly	Monthly

4.0 Annual Monitoring Reports

Annual reports summarizing monitoring results of the habitat restoration will be submitted to the City of San Diego and U.S. Fish and Wildlife Service (USFWS). The report will include a discussion of the status of the efforts to control non-native plant species at the site, report any remedial actions taken, and provide photo-documentation of the site restoration progress.

5.0 Completion of the Mitigation Program

5.1 Notification of Completion

At the end of the two-year monitoring period, a final report will be submitted to the City of San Diego and USFWS evaluating the success of the critical habitat restoration. A site review will be scheduled for all parties to review the restored area within two months of the final report submittal. These agencies will provide written confirmation of acceptance within one month following the site visit that the site has been restored to pre-construction conditions.

5.2 Contingency Measures

If the City of San Diego or USFWS determine that the site has not been restored to its pre-construction condition, the party responsible for mitigation obligations will analyze the cause(s) and, if determined necessary the City of San Diego and USFWS may propose remedial action required for approval. The responsible party will be liable for

reasonable funding of the contingency procedures necessary for completion of the mitigation success.

6.0 References Cited

California Invasive Plant Council (Cal-IPC)

2006 California Invasive Plant Inventory Database. California Invasive Plant Council. Berkeley, CA. Accessed on February 9, 2012 from http://www.cal-ipc.org/ip/inventory/weedlist.php.