



May 15, 2007

Ms. Suzanne Elledge
Suzanne Elledge Planning and Permitting Services
800 Santa Barbara Street
Santa Barbara, CA 93101

Subject: Revised Biological Analysis of the Proposed Wright Family Development (Site 1) Located at 101 Garden Street, Santa Barbara, California

Dear Ms. Elledge:

This letter presents a revised analysis of the biological resources in the vicinity of the proposed Wright Family Development project (also called Site 1) located in the City of Santa Barbara, California. The revised report updates information on the biological resources since preparation of the original report dated December 5, 2003 and a revised report dated February 1, 2007. The project site is bordered by Garden Street on the east, the Union Pacific Railroad tracks on the south, Santa Barbara Street on the west, and Yanonali Street on the north. Figures 1 and 2 depict the Project Vicinity and the Project Site, respectively (all figures are included at the end of this letter report). The project site is surrounded by fencing and currently supports storage yards and other light industrial uses. Additional fencing further divides the site. Most of the site is devoid of vegetation with the exception of a man-made drainage ditch that runs along Garden Street, landscaping along the railroad tracks adjacent to existing buildings, planted oleander (an ornamental shrub used for screening) along Yanonali Street, and one isolated area with several boxed ornamental plants within the site. The City of Santa Barbara Planning Department has indicated that the ditch along Garden Street may qualify as a wetland pursuant to the Coastal Act and that affects on this ditch resulting from development on the site may need to be mitigated.

Definition of Wetlands and Waters of the U.S.

Federal wetlands and other Waters of the U.S. have legal protection in accordance with Section 404 of the Clean Water Act (33 U.S.C. Section 1344), and the U.S. Army Corps of Engineers (USACE) generally requires the issuance of a permit, or coverage under an existing permit, for all actions that have the potential to degrade or modify these features. Under Section 404 of the Clean Water Act, wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. USACE jurisdictional wetlands are a subset of Waters of the U.S., which include, in addition to wetlands as defined above, areas subject to the ebb and flow of the tide and non-tidal areas that are within the limits of ordinary high water. Waters are currently described as any areas that might be

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considered waterways, either for commerce or recreation, even on a limited scale, and include tributaries to such waters. Frequently, the term "wetlands and other Waters of the U.S." is used when describing areas under USACE jurisdiction. Ordinary high water is defined as some line or other evidence that was "established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas" (USACE 1987).

In the State of California¹ and in Santa Barbara County, wetlands are defined as follows:

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin et al. 1979).

This definition allows for areas such as seasonal wetlands (e.g., vernal pools, vernal swales) to be considered during environmental review of a project. In the California coastal zone, the California Coastal Commission (CCC), with the assistance of the Department of Fish and Game (DFG) is responsible for determining the presence of wetlands subject to regulation under the California Coastal Act. As the primary wetland consultant to the CCC, the DFG essentially relies on the USACE wetland definition and classification system. However, one important difference in the DFG delineation process compared to the USACE process, is that the DFG only requires the presence of one attribute (e.g., hydrology, hydric soils, or hydrophytic vegetation) for an area to qualify as a wetland (CCC 1994).

The City of Santa Barbara does not have a definition of wetlands but also relies on the USACE and CCC definition (Barbara Shelton, personal communication). The City's policy does state the following (City of Santa Barbara 1994):

Related to these [water and marine environments] resources, the Coastal Act of 1976 has a number of policies, which are to be used as a guide in setting local goals and policies.

¹ Porter-Cologne Water Quality Control Act and the Central Coast Regional Water Quality Control Board Basin Plan allow for the CCRWQCB to evaluate potential pollutant discharges into wetlands as defined by the State of California.

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Methods for Determining Wetlands

SAIC wetland specialist Lauren Brown visited the site on September 10, 2003 for the purpose of evaluating the vegetation resources and potential wetlands associated with the drainage ditch along Garden Street, as well as its connection to the Laguna Channel. An additional visit was conducted by SAIC's biologist Rosemary Thompson on January 25, 2007 and Trish Allen of SEPPS on January 23, 2007 (to take photos). The 2007 recent site visits were conducted for the purpose of determining if the extent of wetland vegetation had changed since the 2003 site visit.

The wetland habitats associated with the drainage ditch on the site were evaluated in accordance with the USACE² methodology for determination of wetlands. Formal wetland delineation, however, was not conducted on the project site. Since the dominant species present within the wetland is an obligate wetland plant species (occur almost always in wetlands in the region), the extent of potential wetlands was assessed based on the presence of hydrophytic vegetation.

Survey Results

The drainage ditch on the site runs north to south, along Garden Street, and is approximately 400 feet in length and 30 feet in width as measured from the top of the bank. The east bank of the drainage ditch is approximately 5 to 6 feet in height and the west bank is approximately 2 to 3 feet high. The bottom of the ditch is approximately 3 to 4 feet wide. An approximately 10-foot wide dirt strip borders the top of the east bank to the Garden Street curb. A chain-link fence is present along the top of the west bank and encloses existing facilities and buildings on the site.

Vegetation in the drainage ditch is dominated by non-native upland plant species including castor bean, fennel, and pampas grass. One large patch of giant reed is also present in the middle of the drainage. This non-native, invasive species is a facultative wetland species. All of these species are considered to be wildland pest plants by the California Invasive Plant Council (CalIPC 2006). Other non-native upland plants within the banks include smilo grass, wild radish, cheeseweed, and garden nasturtium. Native plants found at a few scattered locations within the ditch include a narrow band of California bulrush and morning glory. Trash and debris were observed throughout the ditch. Table 1 (included at the end of this report) lists the plants observed during the survey including their common name, Latin species name, Wetland Indicator Status (WIS), and CalIPC rating.

Between the upper east bank of the ditch and the Garden Street curb is a flat area vegetated with common non-native weedy species including Bermuda grass, puncture vine, cheeseweed, prickly

² The USACE is responsible for evaluating and authorizing proposed discharges of dredged or fill material in waters of the U.S., including wetlands pursuant to Section 404 of the Clean Water Act.

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lettuce, sow thistle, and smilo grass. The vegetation adjacent to the curb is highly disturbed as a result of public use and mowing. There is also one eucalyptus tree at the southern end of the ditch adjacent to an existing access point to the site.

The patch of giant reed (WIS-FACW) and California bulrush (WIS-OBL) would qualify as hydrophytic vegetation and would therefore meet the state definition of wetlands. In 2003, the giant reed occupied approximately 25 square feet along the west bank of the ditch and the California bulrush occupied approximately 225 square feet (75 feet long by 3 feet wide), along the base of the ditch. Figure 3 depicts the location and extent of the wetland vegetation in the ditch in 2003. A survey conducted in 2001 reported that the bulrush in the drainage ditch extended north about 75 feet from the culvert, followed by a brake in the bulrush canopy for about 33 feet, and another patch extending northward for 21 feet (Rindlaub 2002). Rindlaub stated that the bulrush colony was surrounded and shaded by non-wetland and non-native species for most of its length, and only the 20 feet immediately upstream of the concrete headwall (culvert under Garden Street) was open enough for the bulrush to be considered the dominant plant species. Within this area, the bulrush was about 6 feet wide (Rindlaub 2002). The extent of wetlands in 2001 was about 120 square feet. In January 2007, the patch of bulrush appeared to be completely overrun with weedy species. No bulrush was observed, although rainfall has been below average and the bulrush may have died back. All these surveys indicate the patch of bulrush, and therefore the extent of the wetland within the drainage ditch, can be highly variable. It is also possible that the bulrush has been completely overtaken by the canopy of weedy species, and it is not known if, even with sufficient rainfall, the bulrush will be able to grow through that canopy.

The ditch does not appear to have ever been part of a natural tributary drainage system, and was likely excavated for the purpose of conveying local runoff from developed properties. The ditch was formerly part of a larger man-made drainage system, but construction of the Garden Street extension in 1997-98 isolated this portion of the ditch (Rindlaub 2002; personal communication with M. Caccese 2003). A buried pipeline under the intersection of Garden and Yanonali streets diverts water that previously flowed into the ditch from properties north of Yanonali Street. Currently, the ditch receives only direct precipitation and runoff from the site. Water that accumulates in the ditch flows through a concrete headwall and buried culvert beneath Garden Street into an open drainage southeast of the project site; this water eventually discharges into Laguna Channel, which flows into the Pacific Ocean. The ditch on the project site is non-tidal.

Due to the abundance of non-native plant species and presence of trash and debris in the ditch, it is considered to be in a substantially degraded condition. In addition, the Rindlaub (2002) report determined that wildlife values associated with the ditch were very low due to the degraded condition, isolation (i.e., surrounded by development and roads), and human presence.

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Discussion

The project description includes removal of the drainage ditch, and its associated wetland and non-native upland vegetation, and replacement with a bioswale planted with native wetland and upland plant species. Wetlands, and associated wetland vegetation, within the drainage ditch on the project site are highly variable: in January 2007, no wetland vegetation was observed within the drainage ditch; in 2003, wetland vegetation occupied 250 square feet (or less than 0.006 acre); and in 2001, wetland vegetation occupied 120 square feet (less than 0.003 acre) of the project site. Assuming the 2003 results represent the maximum extent of the wetlands within the drainage ditch, less than 0.006 acre of wetland vegetation would be affected. The project will not require a USACE Section 404 permit or notification because the proposed project would fall under Nationwide Permit #39 (Residential, Commercial and Institutional Development) where the potential wetland portions of the ditch are less than 300 feet in length and 0.1 acre, and the site is isolated from a naturally occurring tributary and tidal inundation (USACE 2002).

Unlike the federal definition of wetlands, the wetland vegetation that was observed in 2001 and 2003 would satisfy the state definition of a wetland (i.e., hydrophytic vegetation is present, see Attachment 1). However, recent observations indicate the wetland vegetation has not persisted. This could be due to the below average rainfall for the 2006/07 season, the overgrowth of non-native species, or a combination of these and other factors. In any case, the presence of the non-native species is a detriment to the persistence of the wetland vegetation at this site, and the wetland is not likely to remain or offer wildlife habitat value if the non-native vegetation is not removed.

In addition to the above, the drainage ditch appears to be a man-made feature, not part of a natural drainage system. In this case, Appendix D of the 1981 California Coastal Commission Statewide Guidelines identifies the following exception in the classification of wetlands:

For the purposes of identifying wetlands using the technical criteria contained in this guideline, one limited exception will be made. That is drainage ditches as defined herein will not be considered wetlands under the Coastal Act. A drainage ditch shall be defined as a narrow (usually less than 5-feet wide), man-made non-tidal ditch excavated from dry land.

This would also apply to the City of Santa Barbara wetlands.

Conclusions and Recommendations

The following conclusions and recommendations are based on observations of the site over several years and review of federal, state, and local definitions of wetlands:

1. Removal of non-native vegetation to prevent the spread of weeds to downstream areas is recommended. Modifications to the ditch that result in the removal of non-native, invasive plant species including pampas grass, giant reed, castor bean, and fennel would be beneficial for biological resources downstream of the site. For this site, the drainage ditch represents the uppermost extent of the watershed, and improvements that include removal of the non-native vegetation would support enhancement or protection of downstream habitats.
2. The portion of the ditch that supports California bulrush (approximately 225 square feet observed in 2003) meets the state's definition of a wetland. In reviewing the Garden Street Extension Project, which included other portions of the same drainage ditch immediately upstream of the project site, the City completed an Initial Study for that project and determined that a Negative Declaration was the appropriate level of review (SEPPS 2003).
3. The ditch is a narrow channel that appears to have been modified by historical and recent human activities, including development in the vicinity including the Garden Street extension. Its current use is a drainage ditch along Garden Street that receives runoff from the adjacent property (upstream water sources for this ditch have been diverted). This may qualify the ditch for the Coastal Commission exemption for drainage ditches.
4. The drainage ditch is in a degraded condition and provides minimal value for wildlife (Rindlaub 2002).
5. Although the area within the ditch that is dominated by giant reed meets the state definition of a wetland, giant reed is known to be invasive in California, especially in riparian systems, and should be removed from the site. (CDFG usually recommends its removal in their Streambed Alteration Agreements.)
6. The project applicant proposes converting the drainage ditch into a bioswale, which would include the removal of the non-native vegetation and replacing it with native vegetation. The bioswale should be designed so that it is capable of supporting at least 225 square feet of bulrush (the maximum amount of wetland vegetation observed on the site in the past 5 years), or similar native perennial wetland vegetation. In addition, long-term maintenance of the bioswale will be incorporated into the project plans including irrigation to maintain wetland vegetation and continued monitoring and removal of non-native, invasive species. Since the wetlands associated with ditch are highly degraded and the ability of the drainage ditch to support the wetland vegetation is variable, replacement of the ditch with a maintained bioswale will result in improvement of the value of the onsite wetland resources as well as protection of the downstream resources. Although installation of a bioswale may result in impacts to existing wetland vegetation (none observed in 2006), the impacts will be short-term and

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self-mitigating and there would be no significant effects on wildlife or wetland resources in the project area.

7. Plant materials for planting of the bioswale and adjacent to the bioswale should be native species that commonly occur in wetland and adjacent upland habitats in the project vicinity and should be grown from locally collected sources.
8. Incorporate best management practices for sediment and runoff control during construction at the site, including construction of the bioswale, to reduce the potential for erosion and runoff of sediments with deposition downstream that could adversely affect downstream resources.

If you have any questions regarding the content of this letter, please contact me at (805) 570-7993/FAX (805) 438-4835 or email: brownla@saic.com.

Sincerely,
SCIENCE APPLICATIONS INTERNATIONAL CORPORATION


FOR
Lauren Brown
Project Manager

Cc: Rosie Thompson, SAIC

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Table 1. Plant Species Observed

<i>Common Name</i>	<i>Species Name</i> ¹	<i>WIS</i> ²	<i>CalIPC</i> ³
Bermuda grass	<i>Cynodon dactylon</i>	FAC	Moderate
California bulrush	<i>Scirpus californicus</i>	OBL	
Castor bean	<i>Ricinus communis</i>	FACU	Limited
Cheeseweed	<i>Malva parviflora</i>		
Eucalyptus	<i>Eucalyptus</i> sp.		Moderate
Fennel	<i>Foeniculum vulgare</i>	FACU	High
Garden nasturtium	<i>Tropaeolum majus</i>		
Giant reed	<i>Arundo donax</i>	FACW	High
Morning glory	<i>Calstegia macrostegia</i> ssp. <i>cyclostegia</i>		
Pampas grass	<i>Cortaderia</i> sp.		High
Prickly lettuce	<i>Lactuca serriola</i>	FAC	
Puncture vine	<i>Tribulus terrestris</i>		
Smilo grass	<i>Piptatherum miliaceum</i>		Limited
Sow thistle	<i>Sonchus oleraceus</i>		
Wild radish	<i>Raphanus sativus</i>		Limited

Notes: Species in bold are native plants.

- Scientific names follow the Jepson Manual (Hickman, 1993)
- WIS = Wetland Indicator Status (USFWS 1988, 1997) :
 - FAC (Facultative) = Equally likely to occur in wetlands or nonwetlands (estimated probability 34-66%).
 - FACW (Facultative Wetland) = Usually occur in wetlands (estimated probability 67-99%), but occasionally found in nonwetlands.
 - FACU (Facultative Upland) = Usually occur in nonwetlands (estimated probability 67-99%), but occasionally found in wetlands (estimated probability 1-33%).
 - OBL (Obligate Wetland) = Occur almost always (estimated probability >99%) under natural conditions in wetlands.
 - NI = Not an Indicator in California (or sufficient information not available).
 - * = following a regional Indicator identifies tentative assignments based on limited information from which to determine the indicator status.
 - + or - = used with the Facultative Indicator categories to more specifically define the regional frequency of occurrence in wetlands. A (+) indicates plants more frequently found in wetlands and a (-) indicates plants less frequently found in wetlands.
- CalIPC = California Invasive Plant Council Rating (CalIPC 2006):
 - High -Species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.
 - Moderate - These species have substantial and apparent – but generally not severe – ecological impacts on physical processes, plant and animal communities, and vegetation structure.
 - Limited - These species are invasive but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score.

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FIGURES



Figure 1. Project Vicinity

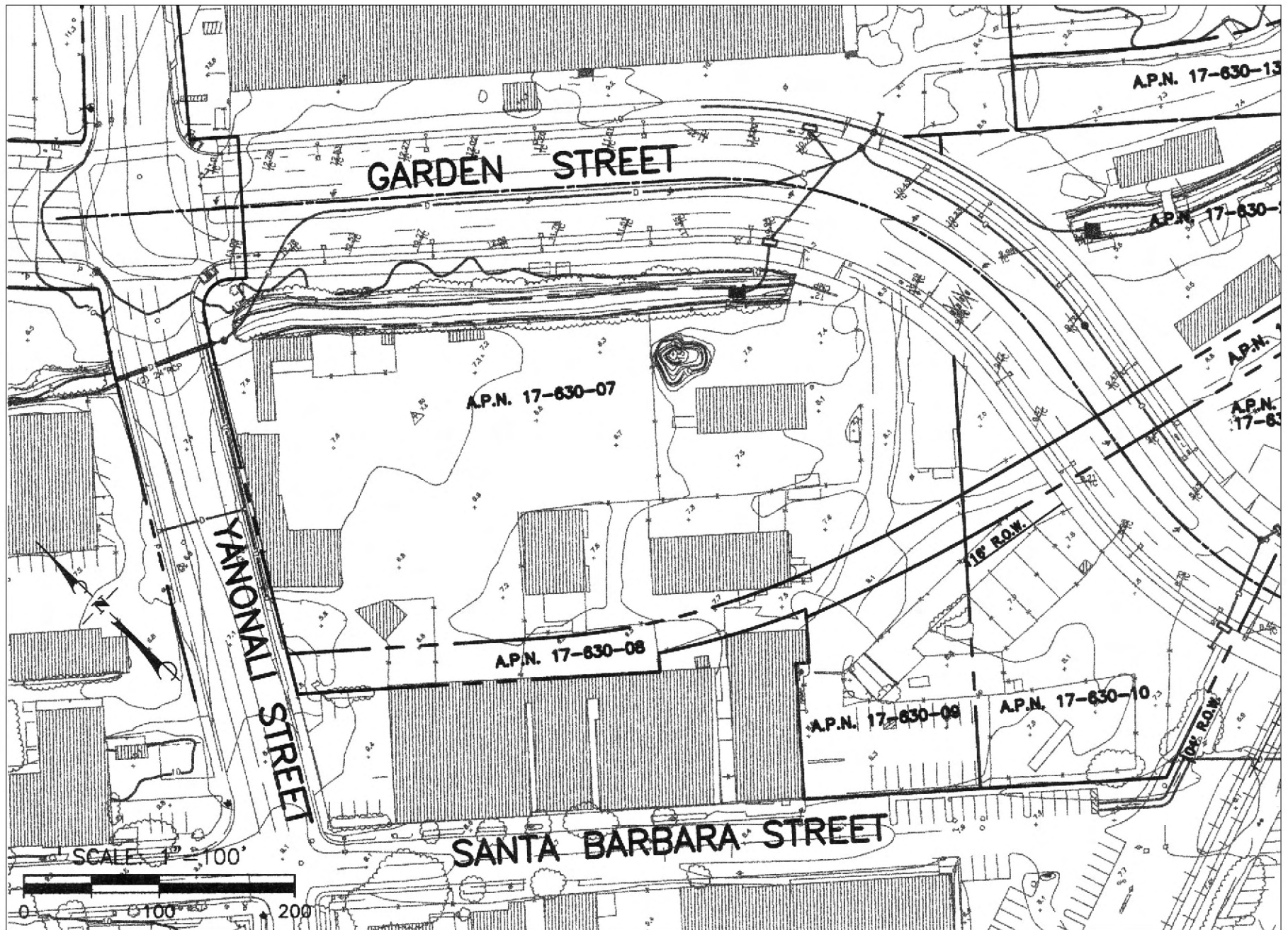


Figure 2. Project Site

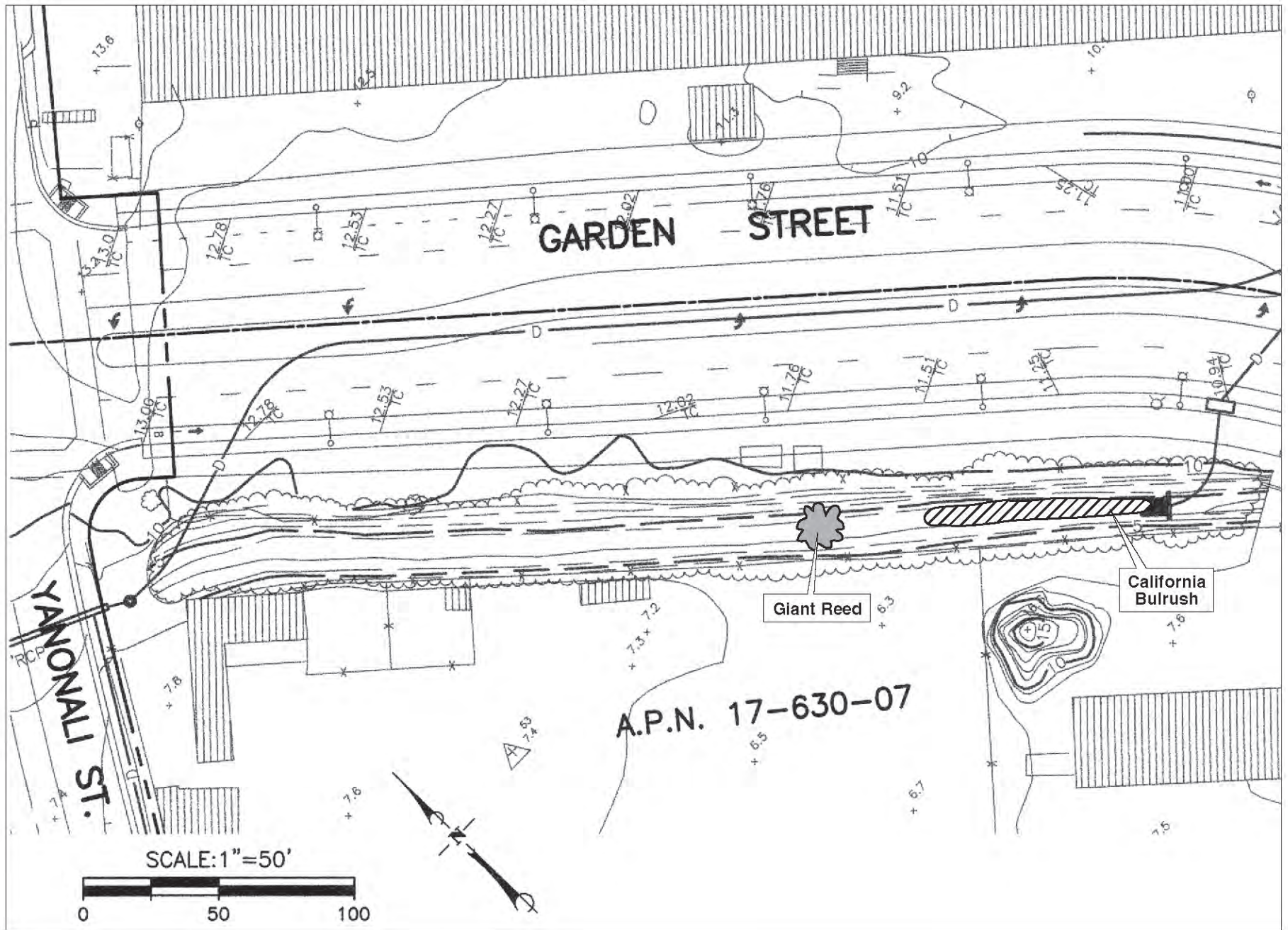


Figure 3. Location and Extent of Wetland Vegetation Along Drainage Ditch in 2003