

Final Environmental Assessment  
Woodside Avenue Flood Control Improvements  
San Diego County, California  
1884-DR-CA  
HMGP 1884-18-09  
*November 2013*



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A – EO 11988/11990 Eight-Step Decisionmaking Document

B – Historic Properties Inventory Report (Confidential)

C – SHPO Consultation Correspondence

## Acronyms and Abbreviations

APE	area of potential effects
BMPs	best management practices
CAAQS	California Ambient Air Quality Standards
Cal OES	Governor’s Office of Emergency Services
CNDDDB	California Natural Diversity Database
CEQ	Council on Environmental Quality
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CMP	corrugated metal pipe
CO	carbon monoxide
CRHR	California Register of Historical Resources
CWA	Clean Water Act
DFMP	Drainage Facility Master Plan
EA	environmental assessment
EO	executive order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
GCR	General Conformity Rule

HMGP	Hazard Mitigation Grant Program
HUD	Department of Housing and Urban Development
MBTA	Migratory Bird Treaty Act
MLD	most likely descendant
NAAQS	National Ambient Air Quality Standards
NADB	National Archaeological Database
NAHC	Native American Heritage Commission
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO <sub>2</sub>	nitrogen dioxide
NO <sub>x</sub>	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
NWIC	Northwest Information Center
NWP	Nationwide Permit
O <sub>3</sub>	ozone
PA	programmatic agreement
Pb	Lead
PM <sub>2.5</sub>	particulate matter less than or equal to 2.5 micrometers in diameter
PM <sub>10</sub>	particulate matter less than or equal to 10 micrometers in diameter
SCIC	South Coast Information Center
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SIP	State Implementation Plan
SEA	supplemental environmental assessment
SHPO	State Historic Preservation Officer
SO <sub>2</sub>	sulfur dioxide
SO <sub>x</sub>	sulfur oxides
SWPPP	storm water pollution prevention plan
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VOCs	volatile organic compounds

**Final Environmental Assessment for San Diego County Woodside Avenue  
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## **1. Introduction**

San Diego County, California has applied, through the Governor's Office of Emergency Services (Cal OES), to the Department of Homeland Security's Federal Emergency Management Agency (FEMA) for federal assistance to reduce flooding along Woodside Avenue between Riverview Avenue and Wintergardens Boulevard in San Diego County. To qualify for FEMA funding, the proposed project requires environmental review by FEMA.

FEMA has prepared an environmental assessment (EA) to evaluate the potential environmental, physical and socioeconomic impacts of the identified project alternatives, including the no action alternative. The EA has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321-4327), the associated Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508), and FEMA's implementing regulations (44 CFR Part 10).

The EA process includes procedures for evaluation of the potential environmental impacts of the proposed project and a range of reasonable alternatives. The potential impacts are evaluated according to their context and intensity, as defined in the CEQ regulations. The EA process also includes procedures for giving federal, state, and local agencies and the public opportunities to provide input on the proposed project and its alternatives.

## **2. Purpose of and Need for Action**

The purpose of the proposed project is to reduce damage as a result of flooding in the proposed project area.

Woodside Avenue, south of State Route 67 between Riverview Avenue and Wintergardens Boulevard in the community of Lakeside, is prone to flooding during storm events. Currently, Woodside Avenue and surrounding properties are inundated by four to five feet of flooding during major storm events on a yearly basis. In order to alleviate flooding, San Diego County Public Works Department is proposing to upgrade the existing storm drain system to convey the 100-year storm flow to the San Diego River.

The proposed project is needed to protect the community from further flooding and the associated damage to businesses, commercial and public infrastructure. The lack of adequately sized drainage facilities places public safety, health, commercial, industrial structures, and traffic at risk.

FEMA has concluded that the proposed project is needed to reduce the overall risk from flooding. The purpose of the proposed federal action is to address this need by providing federal financial assistance to the County to construct the necessary facilities.

## **3. Proposed Project and Alternatives**

FEMA considered three alternatives, including the no action alternative, the proposed project, and placement of a double box culvert under a parking lot for the Friendship Manor Nursing Home.

### 3.1 No Action Alternative

CEQ regulations at 40 CFR Part 1502.14(d) require the inclusion of a no action alternative in environmental analysis and documentation. The no action alternative is defined as maintaining the status quo. Thus, no FEMA assistance for any of the alternatives would be provided. The no action alternative is used to evaluate the impacts of not providing assistance for which the project is eligible. It provides a benchmark against which alternatives are evaluated.

The no action alternative is in conflict with the purpose of the HMGP, which is to provide funds to state and local governments to implement long-term hazard mitigation measures after a major disaster declaration. The purpose of the HMGP is to reduce the loss of life and property due to natural disasters and to enable implementation of mitigation measures during the immediate recovery from a declared disaster.

Under the no action alternative, no improvements to the drainage system would be made and the risk of flooding and associated adverse impacts would continue to occur.

### 3.2 Proposed Project

The proposed project would consist of a variety of upgrades to the existing drainage system that would result in a greater flow rate capacity. Individual components include addition, removal, and replacement of culverts; construction of transition structures; installation of new storm drains and inlets; relocation of existing utilities; and infrastructure improvements. The regional location is shown in Figure 1. Figure 2 shows an aerial depiction of the proposed project area.

The following components would be included (see Figure 3):

- Approximately 90 linear feet of 10-foot by 8-foot rectangular channel
- Approximately 1,800 linear feet of dual 15-foot by 5.5-foot reinforced concrete box (RCB) culvert
- Approximately 190 linear feet of 10-foot by 5-foot RCB culvert
- Approximately 365 linear feet of dual 10-foot by 5-foot RCB culvert (240 linear feet would be jacked and bored under SR-67)
- Two concrete transition structures

The proposed drainage system would begin at the downstream (western) end of the existing 18-foot-wide by 8-foot-deep concrete open channel that runs parallel to Woodside Avenue, approximately 600 feet to the south. Water in the existing channel flows west. Improvements would extend the existing open channel approximately 88 feet along a 50-foot radius and divert its flow to the north without increasing its width or depth. A transition structure would then widen the channel by 14 feet over a distance of approximately 20 feet, creating a 32-foot by 8-foot channel. The 32-foot-wide channel would then continue north for approximately 50 feet, where it would transition to a dual 15-foot-wide by 5.5-foot-deep RCB culvert.

The proposed alignment would continue north for approximately 540 feet under the existing water quality basin. Once the dual RCB culvert reached Woodside Avenue, it would turn west under Woodside Avenue for approximately 800 feet before turning north for approximately 250 feet, where it would split into two channels.

The western channel would transition to a dual 10-foot-wide by 5-foot-deep RCB culvert (Line A) that would continue under SR-67 and discharge into the floodplain of the San Diego River. The eastern channel (line B) would transition to a 10-foot-wide by 5-foot-deep RCB culvert that would connect to an existing triple 6-foot-wide by 3-foot-deep concrete culvert that passes under SR-67 and discharges into the floodplain of the San Diego River. A headwall and 36-inch RCB culvert approximately 15 feet long would extend laterally from Line B on the south side of SR-67 to capture local runoff.





Figure 2  
Proposed Project Area

San Diego County - Woodside Avenue Flood Control Improvements Project

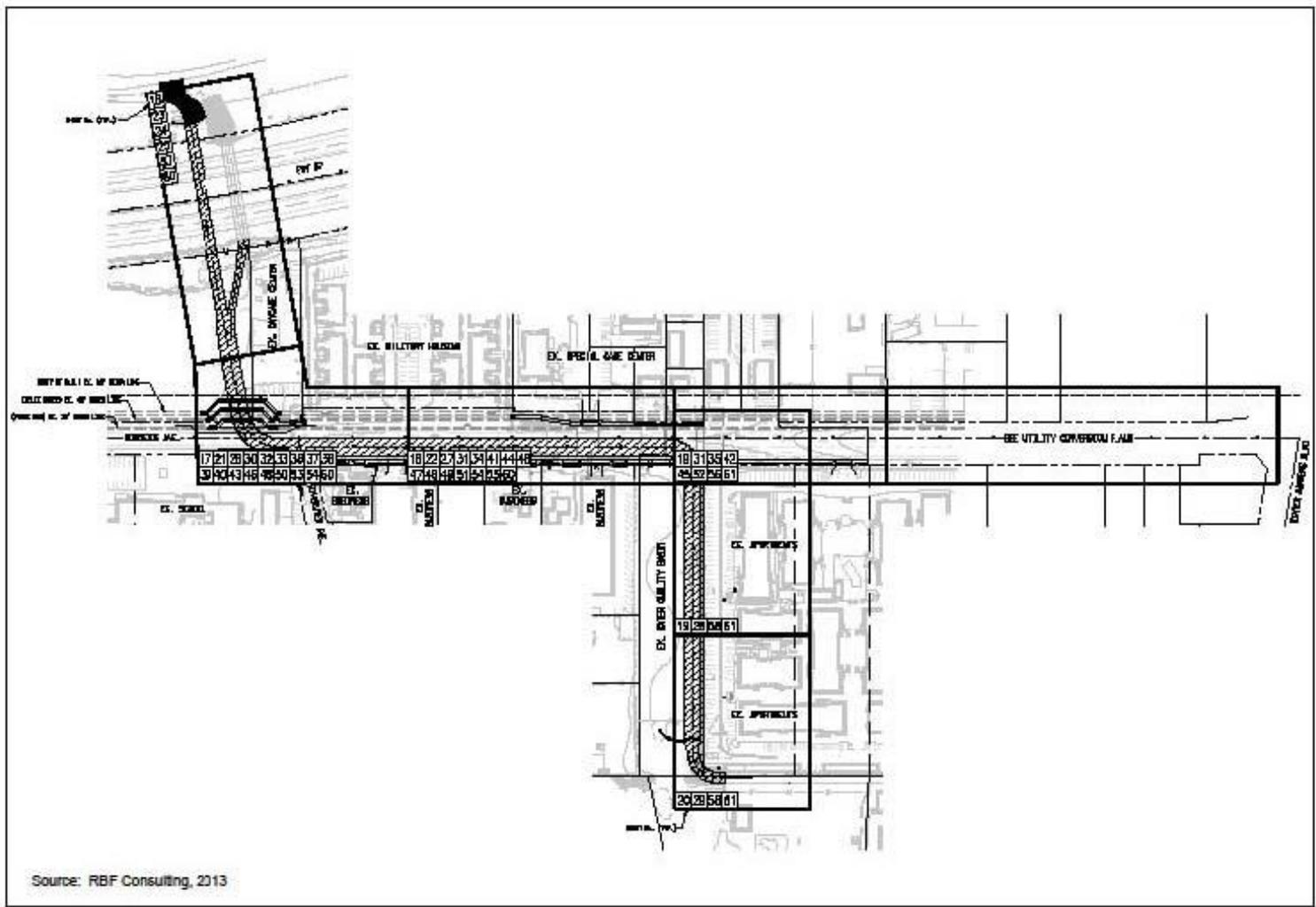


Figure 3  
Proposed Project Plans

San Diego County - Woodside Avenue Flood Control Improvements Project



### *Relocation of Utility Lines*

To match elevation with the triple 6-foot by 3-foot RCB under SR-67, five major water lines from different agencies would be lowered. These include a 68-inch City of San Diego line, a 48-inch Helix Water District line, a 36-inch Padre Dam Municipal Water District line, and 8- and 6-inch Lakeside Water District lines. In addition, to provide space in Woodside Avenue to construct the culvert, 21- and 12-inch sewer lines would be relocated along with various dry utilities.

In addition, current above-ground electric, phone and cable lines would be installed underground as part of the proposed project. There is also an existing 6-inch high pressure SDG&E natural gas line that would be lowered by SDG&E as part of the proposed project.

### **3.3 Project Alternative Considered and Dismissed**

During project planning, the Friendship Manor Nursing Home alignment was considered. Under this alternative, a double box culvert would be constructed under the residential parking lot of the Friendship Manor Nursing Home for approximately 600 feet, west under Woodside Avenue approximately 250 feet, and then north through the Friendship Manor nursing home approximately 430 feet. The culvert would cross under SR-67 and exit in a new earthen channel on the north side of the freeway, where runoff would discharge to the San Diego River.

This alternative was eliminated primarily because heavy construction in the parking lot would require a long-term relocation of nursing home residents. It would also potentially have a negative effect on the performance of the water quality basin, and there was concern about the potential extensive environmental impact associated with the earth channel on the north side of the freeway.

For the reasons stated above, this alternative was eliminated from further consideration.

## **4. Affected Environment and Environmental Consequences**

This section focuses on the resources the alternatives have the potential to affect: geology, seismicity, and soils, air quality, water resources, biological resources, historic properties and archaeological resources, socioeconomics and public safety, public services and recreation, transportation, noise, and visual resources. No other resources that would require evaluation pursuant to NEPA have the potential to be affected by the alternatives.

### **4.1 Geology, Seismicity, and Soils**

The community of Lakeside is in a broad geologic province known as the Peninsular Ranges geomorphic province, which stretches from Los Angeles south to Baja California. Faults most likely to impact the proposed project area include the Rose Canyon and San Andreas Faults. The proposed project site is not in a fault rupture hazard zone identified by the Alquist-Priolo Earthquake Fault Zoning Act or within any other area with substantial evidence of a fault.

However, the proposed project is within a potential liquefaction area, as identified in the County's Guidelines for Determining Significance for Geologic Hazards. This designation indicates the soils within the proposed project area are susceptible to liquefaction related to seismic activity.

According to the geotechnical report prepared by Kleinfelder, the site is situated within a low-lying drainage feature of the San Diego River. This particular location is underlain by Quaternary age alluvial deposits in excess of 50 feet deep.

According to the Soil Survey of San Diego County prepared by the U.S. Department of Agriculture, Soil Conservation and Forest Service, dated December 1973, the soils on-site are Grangeville fine sandy loam with 0 to 2 percent slopes and an erodibility rating of "slight to moderate."

### **No Action Alternative**

Under the no action alternative, there would be no impact on geology, soils and seismicity as current conditions would not change.

### **Proposed Project**

Construction of the proposed project would impact previously disturbed soils at the proposed project site during removal of vegetation, excavation of trenches, and use of heavy equipment. Potential impacts to soils would include compaction and a temporary increase in susceptibility to water and wind erosion. Mitigation measures will be implemented to minimize erosion, as described in Section 5.1

With implementation of the mitigation measures, construction of the proposed project would not result in adverse, long-term impacts to soils.

## **4.2 Air Quality**

The proposed project site is in the San Diego Air Basin (SDAB), which is managed by the San Diego Air Pollution Control District (SDAPCD).

Under authority of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS), which are concentration levels intended to protect public health and welfare. The California Clean Air Act also establishes California Ambient Air Quality Standards (CAAQS), that are often more stringent than the NAAQS. This analysis discusses criteria pollutants, upon which human health-based permissible levels are established. Criteria pollutants regulated on the state and federal level include the following: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO<sub>2</sub>), ozone (O<sub>3</sub>), particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>), and sulfur dioxide (SO<sub>2</sub>). O<sub>3</sub> is a secondary pollutant, meaning that it is formed in the atmosphere from reactions of other compounds called precursors under certain conditions. Precursor compounds that lead to O<sub>3</sub> formation include volatile organic compounds (VOCs) and nitrogen oxides (NO<sub>x</sub>). PM<sub>2.5</sub> can be directly emitted from sources (e.g., engines) or can form in the atmosphere from precursor compounds. PM<sub>2.5</sub> precursor compounds in the SDAB include sulfur oxides (SO<sub>x</sub>), NO<sub>x</sub>, and VOC.

A network of ambient air quality monitoring stations in the SDAB characterizes the air quality environment. Depending on whether the NAAQS and CAAQS are met or exceeded, an area is designated as nonattainment, maintenance, or attainment. A nonattainment area is an area that has not met one or more ambient air quality standards. A maintenance area is an area that was formerly designated as a nonattainment area, but has since met the NAAQS, and for which the jurisdictional authority has established a maintenance plan to maintain compliance with the standards.

The SDAB is designated as a nonattainment area for the CAAQS for both the 1-hour and 8-hour concentrations of O<sub>3</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>. SDAB is in attainment or unclassified for all other CAAQS (SDAPCD 2007). Under the NAAQS, SDAB is designated as a nonattainment area for 8-hour O<sub>3</sub> and as a maintenance area for CO. SDAB is designated as an attainment area for all other NAAQS. The principal sources of air pollution in the SDAB include industrial facilities and vehicle emissions.

Under 40 CFR 93, Subpart B, known as the General Conformity Rule (GCR), a non-transportation project subject to federal action in a nonattainment or maintenance area requires a demonstration of conformity with the State Implementation Plan (SIP) or a demonstration that direct and indirect emissions attributable to the proposed project would be below specified de minimis thresholds. A federal action is defined as any

action that a federal agency supports in any way, provides financial assistance for, or licenses, permits, or approves. A summary of applicable GCR threshold rates for SDAB is presented in Table 1 below.

**Table 1  
General Conformity Rule Emission De Minimis Thresholds in the San Diego Air Basin**

Pollutant	Federal Area Designation	GCR De Minimis Threshold (tons/yr)
CO	Maintenance	100
NOx	Nonattainment, Marginal <sup>1</sup>	100
PM <sub>10</sub>	Attainment	n/a
PM <sub>2.5</sub>	Attainment	n/a
SO <sub>2</sub>	Attainment	n/a
VOC	Nonattainment, Marginal	100
Lead	Attainment	n/a

*Source: 40 CFR Part 81; EPA 2012*

<sup>1</sup>Area designation based on NOx as an O<sub>3</sub> precursor. San Diego County is designated as an attainment area for the NO<sub>2</sub> NAAQS.

n/a = not applicable

### No Action Alternative

Under the no action alternative, there would be no impact on air quality as current conditions would not change.

### Proposed Project

It is anticipated that the following equipment would be used during construction, which is anticipated to last for approximately 16 months:

- Excavator
- Tracked bulldozer
- Loader
- Backhoe
- Trucks for hauling materials

During proposed project construction, a small number of trips associated with delivery of materials would occur throughout the 16-month construction period. The trips would create a minor temporary air quality impact within the neighborhood immediately surrounding the proposed project area.

The proposed project involves construction of a storm drain system. Therefore, no long-term operational impacts to air quality would occur. However, implementation of the proposed project would result in temporary increases of fugitive dust including PM<sub>10</sub> and PM<sub>2.5</sub>, and combustion emissions (CO, NOx, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub> and VOC). Fugitive dust emissions would be generated by vehicle movement over paved and unpaved surfaces, dirt tracked onto paved surfaces from unpaved areas, and particulate matter suspended in the air during construction activities. Combustion emissions would be generated from operation of construction equipment, haul vehicles, and worker vehicles.

To determine conformance with GCR, construction-related emissions were analyzed to determine if the de minimis thresholds would be exceeded. Unmitigated emission estimates were determined using the California Emissions Estimator Model (CalEEMod). Emission rates and meteorological conditions for San Diego County were used. Emission estimates reflect the number of workers, project schedule, updated equipment load factors, and CalEEMod defaults (CARB 2010).

Disturbance of soil at the proposed project site during trenching, boring and earthmoving would contribute to project dust emissions. Proposed project construction would require trucks to remove excess materials to a disposal site and to deliver construction and fill materials to the proposed project site. It is estimated that the proposed project would require removal of up to 25,800 cubic yards of soil and importation of 4,100 cubic yards of fill materials. Assuming use of 16-cubic-yard dump trucks, the movement of materials associated with proposed project area construction would result in 3,738 hauling truck trips over the duration of construction at an average of 10 truck trips daily. For the purposes of estimating emission rates, it was assumed that haul trucks would travel 20 miles round trip. In addition to haul truck trips, 8 workers would travel to and from the project each day, generating 16 daily commute trips.

Based on the above assumptions, the following unmitigated emissions are expected for this project:

**Table 2  
Estimated Emission Rates of Proposed Project**

Year	ROG	NOx	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2013	0.24	1.73	1.26	<0.01	5.15	0.12
2014	0.44	3.18	2.44	<0.01	10.13	0.21
Maximum Emissions	0.44	3.18	2.44	<0.01	10.13	0.21
De Minimis Threshold	100	100	100	n/a	n/a	n/a
Exceeds Threshold?	No	No	No	n/a	n/a	n/a

Grading operations associated with the construction of the proposed project would be subject to the County of San Diego Grading Permits Ordinance (Section 87.201), which requires implementation of dust control measures. Emissions from the construction phase would be minor, temporary and localized, resulting in pollutant emissions below the screening-level criteria established by the County of San Diego Guidelines for Determining Significance. Therefore, the proposed project would not violate any air quality standard.

The emissions calculated for the proposed project would be below the applicable GCR thresholds. Therefore, conformity with the SIP need not be demonstrated.

In conclusion, air quality impacts from the proposed project would be minor, temporary and less than significant. No permanent impacts would occur.

The proposed project would be required to comply with all rules and standards of the SDAPCD; therefore emissions would be minimized using the mitigation measures described in Section 5.2.

## 4.3 Water Resources

### 4.3.1 Surface Water

The proposed project lies in the Santee hydrologic area, within the San Diego hydrologic unit. The existing drainage facilities convey storm flows westerly through an open channel south of Woodside Avenue and northerly to the water quality control basin, where storm flows cross under Woodside Avenue and flows either northerly or westerly via storm drains and open ditches that meet at the triple reinforced concrete boxes that convey flows under SR-67. Flows ultimately cross under SR-67 to the San Diego River. The San Diego River ultimately drains to the Pacific Ocean.

Peak flows within the watershed occur during the late winter and spring due to seasonal storms. Most flooding is related to these storms.

### **No Action Alternative**

Under the no action alternative, there would be no impact on surface water as current conditions would not change.

### **Proposed Project**

The County of San Diego will implement measures to control erosion and sedimentation during construction, as described in Section 5.3. With implementation of these measures, the proposed project would have minor short- and long-term impacts to surface water resources.

## **4.3.2 Hydrology and Hydraulics**

### **No Action Alternative**

Under the no action alternative, there would be no impact on hydrology and hydraulics as current conditions would not change.

### **Proposed Project**

The County of San Diego Drainage Facilities Master Plan (DFMP) for the area lists the drainage conveyance in the area as severely deficient (County of San Diego, 2006). Upon completion of the proposed project, storm flows would essentially follow the current drainage pattern, but would be conveyed through an improved conveyance system that would accommodate 100-year storm flows. The proposed project would reduce flooding along Woodside Avenue and adjacent commercial, industrial, and residential lots and would increase vehicular safety. The rate of runoff would not increase because the grade of the proposed project site would remain consistent with existing conditions. In addition, the amount of impervious surfaces would not increase. As a result, the amount of surface runoff would not increase and minor, insignificant impacts on hydrology or hydraulics would occur.

## **4.3.3 Executive Order 11988: Floodplain Management**

Executive Order (EO) 11988 requires federal agencies to avoid, to the extent possible, the short- and long-term adverse impacts associated with occupancy and modification of floodplains. If there is no practicable alternative to undertaking a proposed project in a floodplain, any potential adverse impacts must be mitigated. FEMA's regulations for complying with Executive Order 11988 are found in 44 CFR Part 9.

### **No Action Alternative**

Under the no action alternative, because no improvements to the drainage system would occur, the risk of flooding and associated impacts would not be reduced.

### **Proposed Project**

A portion of the proposed project area is in the 100-year floodplain, and therefore has the potential to affect the floodplain. The proposed project area is shown on FIRM panels 06703C1652G and 06703C1656G, revised May 16, 2012 (Figures 4 and 5). The proposed outfall to the San Diego River is the only portion of the proposed project area within Zone AE, defined as areas that have a 1% probability of flooding every year (the 100-year floodplain), and where predicted flood water elevations above mean sea level have been established. The proposed drainage is designed to facilitate a 100-year design storm, and the velocity during this 100-year storm is not considered to be an erosive velocity. Therefore, discharge during the 100-year storm is not anticipated to affect downstream features. For smaller storms where there would be no backwater effects of the San Diego River to slow the water, an energy dissipater designed to meet the design

criteria set forth in the 2005 San Diego County Drainage Design Manual would be constructed at the outfall to protect the area between the outfall and the San Diego River when it is not inundated by the San Diego River.

FEMA has completed the eight-step decision-making process to evaluate the proposed project's compliance with EO 11988 (see 44 CFR 9.6). The analysis concludes that there is no practicable alternative to implementing a portion of the proposed project in the 100-year floodplain. FEMA published an Initial Public Notice at the declaration of the disaster. FEMA would ensure publication of a Final Public Notice in compliance with EO 11988 before implementation of the proposed project.

The results of the eight-step decision-making process are presented in Appendix A.

#### **4.3.4 Executive Order 11990: Protection of Wetlands**

EO 11990, Protection of Wetlands, requires federal agencies to minimize damage to wetlands resulting from federal and federally assisted projects.

A site assessment and a wetland delineation were conducted on October 14, 2008, by URS Corporation. As requested by the County of San Diego and based on comments received by the U.S. Army Corps of Engineers (USACE) on the 2008 wetland delineation, RECON, a San Diego County Contractor, conducted followup site visits to update the wetland delineation in October, November, and December, 2010 and in August, 2011. In addition, RECON conducted a waters/wetlands delineation within the proposed project area in conjunction with a supplemental general biological survey on January 15, 2013. Based on the investigation, it was determined that wetlands occur within two locations within the proposed project area: at the water quality control basin and at the outfall to the San Diego River.

#### **No Action Alternative**

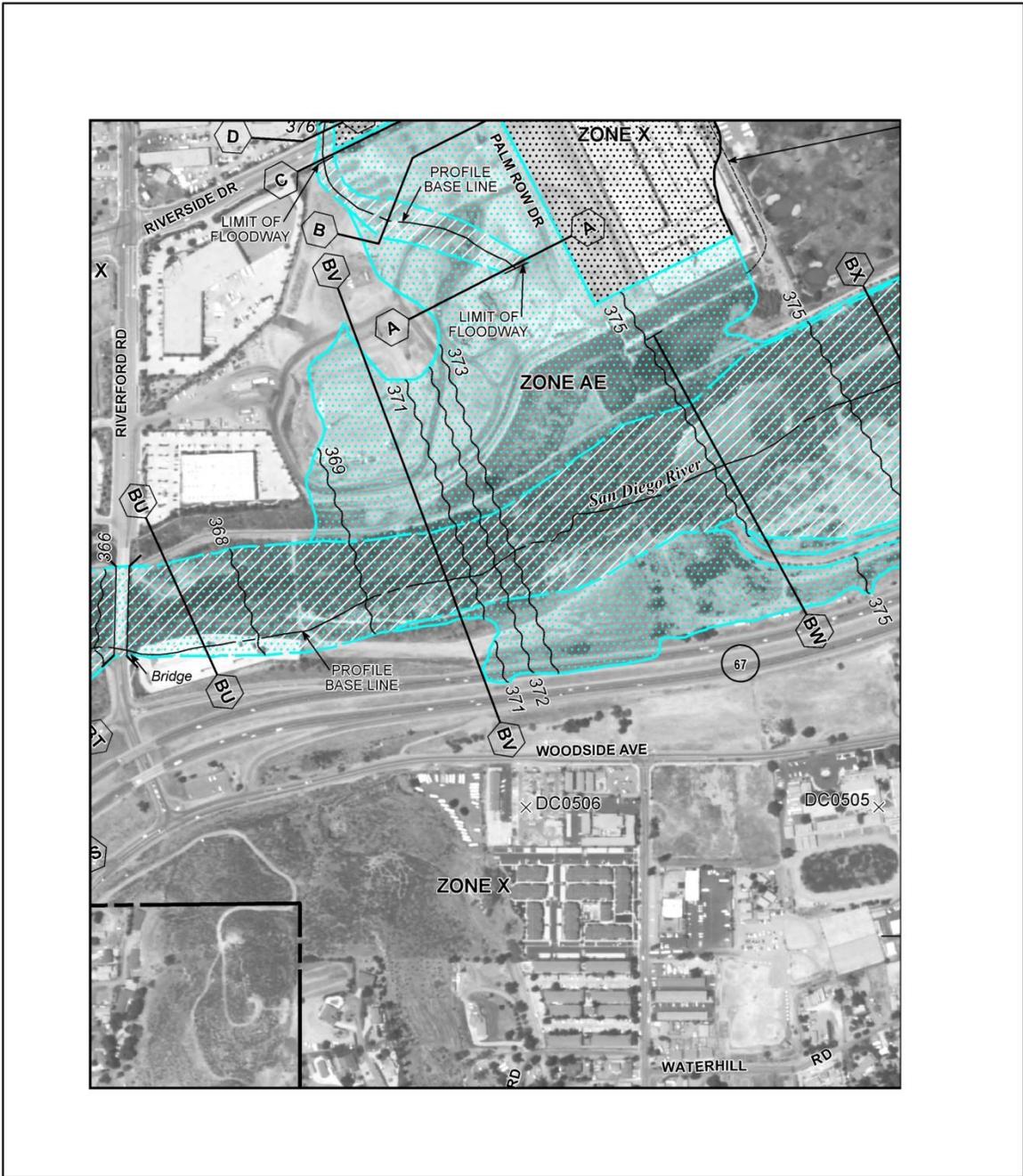
Under the no action alternative, there would be no impact on wetlands as current conditions would not change.

#### **Proposed Project**

The County of San Diego obtained verification of coverage under a Clean Water Act Section 404 nationwide permit (NWP) from USACE for the proposed project, outlining the compensatory mitigation to be conducted and the measures to be implemented during and after construction. Specifically, NWP 43, Stormwater Management Facilities and NWP 33, Temporary Construction, Access, and Dewatering were obtained. Temporary impacts to wetlands from the proposed project would be mitigated through on-site restoration and enhancement of these areas at a 1:1 ratio through hydroseeding with a seed mix consisting of sedges, bulrushes, cattails, and other native herbaceous wetland species.

FEMA completed the 8-step decision making process in 44 CFR 9.6, including preparation of a draft Public Notice (44 CFR 9.12), in combination with the 8-step decision-making process required for EO 11988. See Section 4.3.3 above.

Permanent impacts to wetlands would be mitigated off-site at a 3:1 ratio at the Lawrence and Barbara Daley Preserve. The mitigation would include enhancement of wetland vegetation through removal of non-native invasive plant species and establishment or re-establishment of marsh and/or riparian and grassland vegetation in areas formerly occupied by dense stands of giant reed. The County of San Diego would be responsible for overseeing the implementation and post-implementation phases of the project. Restoration

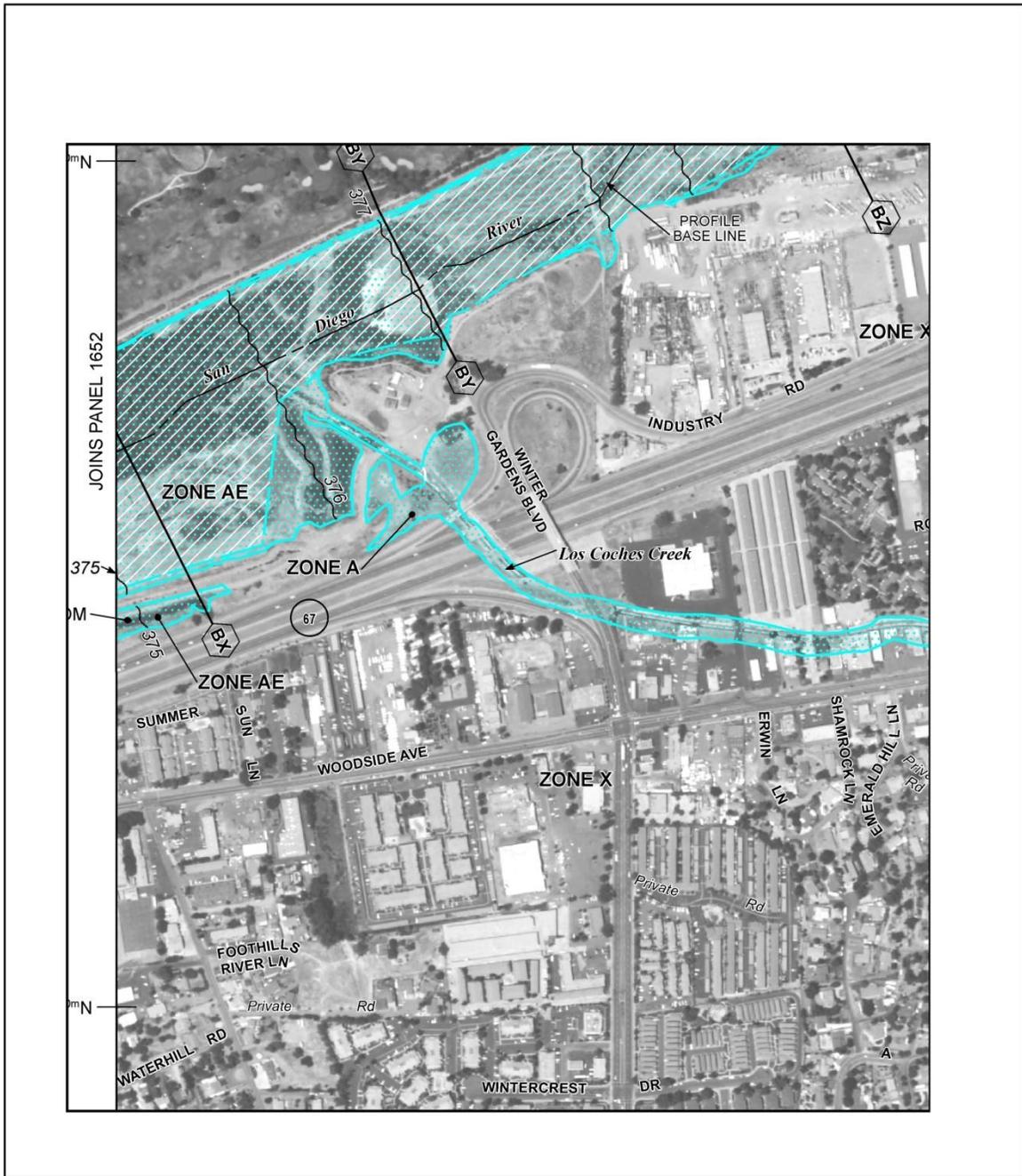


Source: FEMA, 2012. Map no. 06073C1652G



**Figure 4**  
**FIRMette**

Woodside Avenue Flood Control Project



Source: FEMA, 2012. Map no. 06073C1656G



**Figure 5**  
**FIRMette**

Woodside Avenue Flood Control Project

and enhancement areas would be monitored for a 120-day plant establishment period. Performance standards for success of restoration areas would be 90 percent cover of native species, 0 percent cover of non-native species, and less than 5 percent bare ground. Monitoring and maintenance would continue for up to five years, and may include supplemental irrigation, control of weeds, and replanting.

With this mitigation, along with mitigation measures described in Section 5.3 and Section 5.4, the proposed project would not result in significant adverse impacts on wetlands and would comply with EO 11990.

#### **4.3.5 Water Quality**

The Clean Water Act (CWA) regulates water quality, establishes the National Pollutant Discharge Elimination System (NPDES) (Section 401 and 402), and requires permits for any dredge or fill activities in jurisdictional waters of the United States (Section 404). Temporary localized impacts to water resources could occur during construction. A storm water pollution prevention plan (SWPPP) would be prepared and BMPs would be implemented to reduce the amount of erosion and sedimentation during the construction process.

The San Diego River channel runs to the north of the proposed project area. According to the 2006 Clean Water Act Section 303(d) list, a portion of the watershed at the Pacific Ocean and the mouth of the San Diego River is impaired for coliform bacteria. However, the proposed project site is not on a stream segment that is listed as impaired.

#### **No Action Alternative**

Under the no action alternative, there would be no impact on water quality as current conditions would not change.

#### **Proposed Project**

The proposed project would not change the overall amount of storm water runoff from the site, as no additional impermeable surfaces would be created. The proposed drainage system would contain runoff flows within the increased capacity drainage system and ultimately discharge the water into the San Diego River. As a result, no additional quantities of pollutants would be added to the overall regional drainage system.

Peak velocities could increase, as all of the water that is currently flooding would be directed into the improved storm drain system. However, the flow velocities would not change substantially, and the improved runoff system would contain all of the additional stormwater. As a result, overall impacts to water quality are expected to be minor.

With the implementation of mitigation measures for erosion and sediment control, as described in Sections 5.1 and 5.3, impacts to water quality would be minor and less than significant.

### **4.4 Biological Resources**

A FEMA-contracted biologist conducted a field review of the proposed project action area on December 19, 2012, to assess existing vegetation communities, potential wetlands, and habitat for special-status species. Information provided in this section was also obtained from a general biological survey conducted on January 15, 2013 (RECON 2013). Land use in the vicinity of the proposed project area consists of residential, commercial, and industrial uses. SR-67 is a heavily used arterial that runs along the northern portion of the proposed project area.

## No Action Alternative

Under the no action alternative, there would be no impact on biological resources as current conditions would not change.

## Proposed Project

### Vegetation Communities

#### *Riparian Woodland*

Riparian woodland is present along the San Diego River just north of the proposed project action area. In this location, the San Diego River consists of a broad channel that supports mixed willow (*Salix* spp.) and cottonwood (*Populus fremontii*) communities. Since 2005, the San Diego River Restoration Project has implemented restoration activities along the San Diego River in the vicinity of the proposed project action area. These activities have included removing fill in floodplain and riparian areas, eradicating invasive, non-native plant species such as *Arundo donax*, planting native plants, and constructing a treatment wetland to treat urban runoff in Los Coches Creek before it enters the river (Lakeside Conservancy 2013).

At the location of the proposed outfall, which is south of a berm (levee) that defines the southern bank of the San Diego River, there is a small amount of riparian scrub consisting of arroyo willow (*Salix lasiolepis*) and mulefat (*Baccharis salicifolia*) (RECON 2013). During construction of the new outfall, one arroyo willow may be removed. Impacts to this vegetation would be mitigated through the planting of two arroyo willow container plants, as described in Section 5.4.

In addition, the County of San Diego has agreed to conduct additional enhancement activities in areas immediately upstream and immediately downstream of the proposed outfall on the north side of SR-67 on the River Park Conservancy property. In the area east (upstream) of the proposed outfall, arroyo willow cuttings would be planted along the channel banks throughout a 0.184-acre area. This would be conducted as part of the onsite restoration plan for the project.

#### *Freshwater Marsh*

A water quality control basin is within the proposed project action area and supports a freshwater marsh vegetation community dominated by Goodding's willow (*Salix gooddingii*), cattail (*Typha latifolia*), and California bulrush (*Schoenoplectus [=Scirpus] californicus*). The water quality control basin was created in 2006 and currently receives drainage flows from an open concrete channel that runs along the south side of an apartment complex. The water quality control basin is approximately 600 feet long and 110 feet wide (1.5 acres). The County of San Diego conducts annual maintenance of the basin including vegetation removal or thinning to maintain flood control capacity. During the site inspection, the water quality control basin was partially submerged and consisted of dense cattails with an overstory of willows, shown in Figure 6. Temporary and permanent impacts to this freshwater marsh habitat are described in Section 4.3.4 above.

In the area west (downstream) of the proposed outfall, fresh water marsh habitat would be enhanced through site seeding and removal of exotics. A 0.07-acre area would be hand seeded with a wetland seed mix. This would be conducted as part of the onsite restoration plan for the project.



**Figure 6 – Water Quality Basin with Overstory of Willows**

#### *Coastal Sage Scrub*

Coastal sage scrub occurs in the northernmost portion of the proposed project action area at the location of the proposed outfall. This vegetation community appears to have been restored, as evidenced by irrigation lines. Plant species present include lemonadeberry (*Rhus integrifolia*), laurel sumac (*Malosma laurina*), and broom baccharis (*Baccharis sarothroides*) (RECON 2013). There would be no adverse effects to this community as a result of the proposed project.

#### *Non-Native Grassland*

The proposed staging area in the northwestern portion of the proposed project action area just south of the proposed outfall consists primarily of non-native grassland dominated by Bermuda grass (*Cynodon dactylon*), rip-gut grass (*Bromus diandrus*), and other nonnative grasses along with scattered herbaceous vegetation, including jimson weed (*Datura stramonium*), and non-native trees including eucalyptus (*Eucalyptus* spp.) and Brazilian pepper (*Schinus terebinthifolius*). Seasonal sheet flow through the easternmost portion of this staging area supports curly dock (*Rumex crispus*) and western ragweed (*Ambrosia psilostachya*) (RECON 2013). A small patch of non-native grassland also occurs north of SR-67 in the vicinity of the proposed outfall.

Temporary impacts to 1.17 acres of non-native grassland from construction and staging activities would be mitigated through restoration and enhancement using hydroseeding and through installation of container plants. The hydroseed mix would consist of mulefat scrub and native grassland plant species, and container plants would include mulefat, native grassland species, and arroyo willow. Permanent impacts to 0.31 acres of non-native grassland would be mitigated off-site at a ratio of 0.5:1, as described in Section 5.4.

One mature coast live oak (*Quercus agrifolia*) is present in the open field southwest and outside of the staging area. This oak tree is anticipated to be avoided during construction; however, if it cannot be avoided, mitigation would be implemented through replacement on a 3:1 ratio, as described in Section 5.4.

## *Disturbed Land*

The majority of the proposed project action area consists of urban developed land with ruderal vegetation and landscaped areas containing generally non-native, ornamental plants and trees such as pecan (*Carya illinoensis*). Several small coast live oak trees were planted in 2005 along the slope that borders a fence east of the water quality control basin. Construction activity in the water quality basin would result in removal of these oak trees. This impact would be mitigated through placement of ten 5-gallon oak trees within the basin (a 2:1 mitigation ratio), as described in Section 5.4.

## **Wildlife**

Wildlife species utilizing the proposed project action area consist primarily of common species adapted to urban areas. Bird species observed during the field visit include American crow (*Corvus brachyrhynchos hesperis*), mourning dove (*Zenaida macroura marginella*), Anna's hummingbird (*Calypte anna*), song sparrow (*Melospiza melodia*), and house finch (*Carpodacus mexicanus frontalis*). Three raptor species, red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius sparverius*) were observed in the proposed project action area. It is likely that other urban-adapted species are present including fox squirrel (*Sciurus niger*) and raccoon (*Procyon lotor*). Common reptiles include western fence lizard (*Sceloporus occidentalis*) (RECON 2013).

During construction, potential impacts to wildlife utilizing habitats within construction areas would include direct injury or mortality from contact with construction equipment, disturbance from noise and human presence, adverse effects to water quality from release of disturbed soils or hazardous materials to surface waters, and temporary loss of habitat. Implementation of the mitigation measures described in Section 5.4 would minimize impacts to wildlife.

### **4.4.1 Migratory Bird Treaty Act**

The Migratory Bird Treaty Act (MBTA) applies to nearly all native North American bird species. Under the MBTA, taking, killing, or possessing migratory birds or their parts, eggs, or nests is restricted. Destruction of migratory bird nests or nesting habitat during the nesting season when eggs or young are likely to be present is prohibited. Under the MBTA, surveys are required to determine if nests would be disturbed and, if so, a buffer area with a specified radius around the nest is established so that no disturbance or intrusion occurs until the young have fledged and left the nest.

As described in Section 4.4 above, several species of migratory birds, including raptors, utilize the proposed project action area. Some species may nest there, primarily within the water quality control basin. Implementation of the mitigation measures described in Section 5.4 would minimize impacts to migratory birds. Therefore, the County of San Diego would be in compliance with the MBTA.

### **4.4.2 Endangered Species Act**

The Endangered Species Act (ESA) of 1973 gives the U.S. Fish and Wildlife Service (USFWS) federal regulatory authority for protection of listed (threatened or endangered) species. This protection includes restriction of direct take (e.g., killing, harassing) and indirect take (i.e., destruction of habitat).

The USFWS species list was acquired via the USFWS Carlsbad Ecological Services Field Office website and the California Natural Diversity Database (CNDDDB) list for the El Cajon USGS 7.5-Minute quadrangle on February 1, 2013 (USFWS 2013, CNDDDB 2013). The USFWS list and CNDDDB search indicated the potential presence of the species shown in Table 3. The CNDDDB list is provided in Appendix A. As described in Table 3, two species, the coastal California gnatcatcher (*Polioptila californica californica*) and the least Bell's vireo (*Vireo bellii pusillus*), have low potential to occur in the proposed project action area based on the habitat present.

**Table 3  
Federally Listed Species (and Habitat Requirements) Potentially Present in the Vicinity of the Woodside Avenue Flood Control Improvements Project**

Species	Federal Status	Habitat Requirements	Potential to Occur
<i>Acanthomintha ilicifolia</i> San Diego thorn-mint	FT	Chaparral, coastal scrub, valley and foothill grassland, vernal pools.	Not present. No CNDDDB occurrences near the proposed project action area. Designated critical habitat is not present in or near the proposed project action area.
<i>Ambrosia pumila</i> San Diego ambrosia	FE	Chaparral, coastal scrub, valley and foothill grassland.	Not present. No CNDDDB occurrences near the proposed project action area. Designated critical habitat is not present in or near the proposed project action area.
<i>Polioptila californica californica</i> Coastal California gnatcatcher	FT	Obligate, permanent resident of coastal sage scrub below 2,500 feet in southern California.	Low potential to occur transiently in the proposed project action area. Nearest CNDDDB occurrence was 0.3 miles southwest of the proposed project action area in the early 1990s. Designated critical habitat is not present in or near the proposed project action area.
<i>Vireo bellii pusillus</i> Least Bell's vireo	FE	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet.	Low potential to occur transiently near the proposed project action area. Known to nest at the San Diego River. Designated critical habitat is not present in or near the proposed project action area.
FE- Federally endangered FT- Federally threatened			

No state-listed or other special-status species have more than a low potential to occur in the proposed project action area. If other special-status species are present, the mitigation measures described in Section 5.4 would avoid or minimize adverse effects, as with the federally listed species described below.

*California Gnatcatcher*

According to the CNDDDB (2013), the nearest occurrence of the California gnatcatcher was approximately 0.3 miles southwest of the proposed project action area in the early 1990s. The location of this occurrence is described as a "28-acre fragment with 20 acres of coastal sage scrub. Moderate to steep north-facing slope. Site has been isolated for 10-20 years. Surrounded by highway and suburban development." There are no recent records of California gnatcatcher in the vicinity of the proposed project action area. The proposed project action area does not support coastal sage scrub habitat that is suitable for California gnatcatcher. Given the lack of suitable habitat in the proposed project action area, the species is not expected to occur and the proposed project would have no effect on the species.

### *Least Bell's Vireo*

Least Bell's vireo is known to breed in the San Diego River in the vicinity of the proposed project action area (USGS 2008; CNDDDB 2013). Based on monitoring in 2008, four breeding pairs and 11 vireo territories were confirmed in the Lakeside study area from Riverford Road upstream to Ashwood Street, representing an increase in territorial male vireos from three in 1997 (USGS 2008). Known breeding locations for the least Bell's vireo are more than 500 feet north of the proposed project action area within the San Diego River channel.

Least Bell's vireo would not be expected to use freshwater marsh habitat within the proposed project action area in the water quality control basin for nesting or foraging. This habitat patch is surrounded by developed properties and is regularly disturbed by annual vegetation management activities.

Removal of vegetation within the water quality control basin would not affect least Bell's vireo because this habitat is not suitable for nesting. It is unlikely that vireos would utilize the water quality control basin even occasionally for foraging, as this habitat is a small patch of disturbed freshwater marsh that is surrounded by developed properties and is regularly maintained for flood control capacity.

During installation of the culvert under SR-67 and the outfall on the north side of SR-67, there would be construction noise and disturbance. However, this area is separated from potential nesting habitat in the San Diego River by an approximately 30-foot high berm. The topography on the north side of this berm slopes down to the river channel. Even if nesting vireos were present in riparian vegetation directly north of this berm, noise and disturbance, there would be no effects since the riparian vegetation is out of the line of sight and there is existing noise and disturbance from the SR-67 freeway and developed properties to the south. Therefore, the proposed project would have no temporary or permanent impacts on Least Bell's Vireo.

#### **4.4.3 Executive Order 13122, Invasive Species**

Under EO 13112, federally funded projects must avoid promoting the spread of invasive species and should take advantage of opportunities to promote restoration of native species. Invasive species were identified within the proposed project area during the field visit. One highly invasive plant known as giant reed (*Arundo donax*) is present adjacent to the staging area. Other invasive plant species, including castor bean (*Ricinus communis*) were noted within the water quality control basin. Mitigation measures would be implemented to avoid the introduction or spread of invasive plant species in the proposed project area, as described in Section 5.4.

As discussed in Section 4.3.4, off-site mitigation of wetland impacts would include enhancement of wetland vegetation through removal of non-native invasive plant species and establishment or re-establishment of marsh and/or riparian and grassland vegetation in areas formerly occupied by dense stands of giant reed.

## **4.5 Historic Properties and Archaeological Resources**

Historic property investigations and archaeological pedestrian surveys were undertaken to identify both recorded and previously undiscovered sites within the proposed project area. A historic properties inventory report has been prepared to supplement the EA (Appendix B). This report, which is confidential, was prepared to ensure compliance with Section 106 of the National Historic Preservation Act (NHPA).

### **4.5.1 Summary**

The historic properties inventory report included a literature search review of the area of potential effects (APE), and a one-mile buffer around the APE, and a pedestrian surface survey of the APE. A literature search was requested from the South Coastal Information Center (SCIC) of the California Historical Resources Information System (CHRIS) at San Diego State University in San Diego, California on January 16, 2013. An

archaeological pedestrian survey was conducted on December 19, 2012. No historic properties were observed. It is considered highly unlikely that buried intact resources exist within the APE.

In compliance with Section and 106 of the NHPA and NEPA, FEMA is conducting government-to-government consultation. Letters to potentially interested tribal groups were sent on March 12, 2013. Copies of tribal correspondence are provided in Appendix B. Consultation is completed.

In October 2008, in support of compliance with the California Environmental Quality Act (CEQA), the County of San Diego conducted a cultural resources survey of the APE with a finding of no resources of any kind within the APE. Tribal consultation letters were sent on October 3, 2008, requesting participation and review of the proposed project. No responses have been received to date for that phase of consultation. On October 19, 2011, the U.S. Army Corps of Engineers, San Diego Field Office, consulted with California State Historic Preservation Officer (SHPO) Milford Wayne Donaldson and on November 9, 2011, the SHPO concurred with the finding of no historic properties affected as a result of project actions. Copies of the 2011 SHPO consultation correspondence are provided in Appendix B.

#### **4.5.2 Literature Search**

The records search included a review of all recorded prehistoric and historic archaeological sites and historic architectural properties, as well as all known cultural resource survey and excavation reports documented in the National Archaeological Data Base (NADB). The literature search area consisted of the APE and a one-mile buffer around the APE. Additionally, the National Register of Historic Places (NRHP), the California Register of Historical Resources (CRHR), California Historical Landmarks, and California Points of Historic Interest were all examined.

The literature search conducted at the SCIC provided data on previously documented studies. A total of 29 prior cultural resource studies have been conducted within the study area. Of these previous studies, three were conducted within the APE. Per mapped data provided by the SCIC, none of these previous studies within the APE was conducted after 2000.

Twelve previously recorded cultural sites, features, or buildings and two isolated finds are within the literature search area. Of the 14 resources in the study area, no sites were mapped within the APE.

The known properties within the literature search area can be found in the Historic Properties Inventory Report.

The historic map review showed the APE was, at minimum, explored and utilized as a transportation corridor through the early part of the historic period. In the Spanish Period, the Lakeside area was part of Mission lands; the future Lakeside area was used as a transportation corridor and for ranching and farming. During the Mexican period, land grants were given for ranching; a stage line or road is depicted during this time as are the El Cajon Ranch and Cañada de los Coches. The 1955 map depicts Woodside Avenue and some urban development, including Lakeside Union School, Riverview Farms, as well as various structures (possibly farmhouses) distributed along roadways. These potential farmhouses no longer appear on current topographic maps. SR-67 had not been constructed in 1955, and the area appears to be wetlands and open space.

#### **4.5.3 Survey**

In 2008 the County of San Diego conducted a cultural resource intensive pedestrian survey for the APE under CEQA level compliance; at that time, the proposed project was not a federal undertaking. No cultural resources of any kind were documented as a result of this investigation. The SHPO was consulted and a finding of no effect on historic properties was determined on November 9, 2011 (see Appendix B).

A pedestrian survey was conducted of the APE on December 19, 2012.

The APE consists mostly of paved streets, utilities, a drainage channel, and previously disturbed soils surrounded by urban development. An open field has been subject to grading and grubbing, and was possibly used for agriculture. The entire APE has been subject to previous disturbance, with no undisturbed soils present.

No archaeological sites or architectural properties were previously recorded within the APE, nor were any discovered as a result of this investigation.

Representative photographs of the APE are presented in Appendix B.

#### **4.5.4 Native American Consultation**

FEMA is conducting government-to-government consultation with Native Americans for the proposed project. As part of this process, a search of the California Native American Heritage Commission's (NAHC) Sacred Lands file was conducted on January 16, 2013. The search did not indicate the presence of Native American cultural resources within one mile of the APE. The record search conducted at the CHRIS also did not indicate the presence of Native American traditional cultural properties. Copies of NAHC correspondence are included in Appendix B.

The NAHC was asked to provide a list of Native American contacts that may be interested in the project area. The NAHC responded on January 16, 2013, with a list of potentially interested tribal members or groups. Additionally, the Bureau of Indian Affairs and Department of Housing and Urban Development (HUD) databases of federally-recognized tribes were consulted on January 8, 2013, and the database provided a list of tribes for the County of San Diego that may be interested in project actions. Letters to the identified tribal members and groups were sent on March 12, 2013. Copies of tribal correspondence are included in Appendix B.

#### **No Action Alternative**

Under the no action alternative, there would be no impact on historic properties and archaeological resources as current conditions would not change.

#### **Proposed Project**

The Historic Properties Inventory Report concurs with the 2008 finding of no effect for the proposed project and independently concludes that no historic properties would be affected by the proposed project and that the APE is considered to have low sensitivity for intact buried resources.

FEMA has made a determination that no historic properties would be affected. In accordance with Stipulation VII.A of the 2005 First Amended Programmatic among FEMA, the State Historic Preservation Officer, the Governor's Office of Emergency Services, and the Advisory Council on Historic Preservation, the proposed project's APE for direct impacts consists of the areas that would be subject to construction activities. The vertical APE would consist of work in disturbed soils within streets and disturbed contexts of the residential neighborhood, with little to no potential for historic properties to be found. FEMA initiated consultation with the State Historic Preservation Officer under Section 106 of the NHPA in a letter dated June 18, 2013 (see Appendix C). As of the date of this document, no response has been received.

As with any ground-disturbing project, there would be some theoretical potential for accidental discovery of buried archaeological resources not detected through a surface inventory. Mitigation measures are described in Section 5.5 to avoid impacts to accidentally discovered historic properties.

## 4.6 Socioeconomics and Public Safety

### 4.6.1 Executive Order 12898: Environmental Justice

EO 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, directs federal agencies to ensure that their programs, policies, and activities do not have a disproportionately high and adverse human health and environmental effect on minority or low-income populations. This executive order also tasks federal agencies with ensuring that public notifications regarding environmental issues are concise, understandable, and readily accessible.

U.S. Census data relevant to environmental justice were collected for residents in the proposed project vicinity and compared to data for the community of Lakeside as a whole and San Diego County as a whole. Currently, only a portion of the relevant demographic data from the 2010 Census is available. Data on primary household language, educational attainment and income at the census tract and block group level are not currently available. As shown in Tables 4 and 5, only total population data and data related to the percentage of minorities is available from the 2010 Census. Data from the 2000 Census was used for the remaining parameters (see Tables 6 and 7).

**Table 4**  
**Demographic Data for the Proposed Project Area from the 2010 Census**

Parameter	San Diego County Census Tract 169.01	San Diego County Census Tract 167.02	Lakeside	San Diego County
Total Population in 2010	6,909	6,9442	20,648	3,095,313
Total Minority Population <sup>1</sup>	1,526	2,025	4,922	1,595,266
	22%	29%	24%	52%

<sup>1</sup>Persons not "white alone" plus Hispanics and Latinos who are "white alone."

**Table 5**  
**Demographic Data for the Proposed Project Area from the 2010 Census**

Parameter	Block Group 1, San Diego County Census Tract 167.02	Block Group 2, San Diego County Census Tract 167.02	Block Group 4, San Diego County Census Tract 167.02 <sup>1</sup>	Block Group 4, San Diego County Census Tract 169.01 <sup>2</sup>
Total Population in 2010	1,806	2,659	1,591	2,612
Total Minority Population <sup>1</sup>	491	958	369	749
	27%	36%	23%	29%

<sup>1</sup>Persons not "white alone" plus Hispanics and Latinos who are "white alone."

**Table 6**  
**Demographic Data for the Proposed Project Area from the 2000 Census<sup>1</sup>**

Parameter	San Diego County Census Tract 169.01	San Diego County Census Tract 167.02	Lakeside	San Diego County
Total Population <sup>1</sup>	6,861	7,059	19,475	2,722,408
Households in which English Is Not the Primary Language	280	425	981	328,259
	12%	16%	14%	33%
People over 25 with Less Than a High School Education	529	748	1,753	308,839
	12%	17%	14%	17%
Median Household Income 1999	\$52,993	\$37,728	\$48,910	\$47,067
Median Family	\$58,265	\$41,679	\$55,336	\$53,438

Income 1999				
People below Poverty Level in 1999	281	824	1,651	338,399
	4%	12%	8%	12%

<sup>1</sup>From Summary File 3

**Table 7  
Demographic Data for the Proposed Project Area from the 2000 Census<sup>1</sup>**

Parameter	Block Group 1, San Diego County Census Tract 167.02	Block Group 2, San Diego County Census Tract 167.02	Block Group 4, San Diego County Census Tract 167.02	Block Group 4, San Diego County Census Tract 169.01
Total Population <sup>1</sup>	1,886	2,723	878	2,739
Households in which English Is Not the Primary Language	186	149	34	76
	19%	16%	11%	8%
People over 25 with Less Than a High School Education	211	341	46	180
	16%	22%	7%	11%
Median Household Income 1999	\$28,268	\$39,349	\$61,029	\$38,784
Median Family Income 1999	\$35,366	\$39,583	\$76,684	\$38,491
People below Poverty Level in 1999	258	276	96	185
	14%	10%	11%	7%

<sup>1</sup>From Summary File 3

The proposed project site is in census tract 167.02 block groups 1, 2 and 4, and census tract 169.01 block group 4.

As shown in Tables 4 and 5, the total minority percentages in the proposed project census tracts and block groups and within Lakeside as a whole are all considerably less than within San Diego County as a whole. The total minority population is less than 50 percent for all block groups, census tracts, and the community of Lakeside. Therefore, there are no minority environmental justice populations for purposes of EO 12898 (CEQ, 1997, page 25).

Tables 6 and 7 show the percentage of households in which English is not the primary language. The percentages for all of the census tract block groups, as well as the community of Lakeside, were all considerably lower than for San Diego County (33 percent).

Tables 6 and 7 also show the percentage of people with less than a high school education. As shown, only census tract 167.02 block group 2 had a higher percentage (22 percent) than San Diego County (17 percent).

Tables 6 and 7 show the Median Household Income and Median Family Income in Census Tract 167.02 Block Group 1 (\$28,268 and \$35,366), Census Tract 167.06 Block Group 2 (\$39,349 and \$39,583) and Census Tract 169.01 Block Group 4 (\$38,784 and \$38,491) are lower than the Median Household Income and Median Family Income for San Diego County as a whole (\$47,067 and \$53,438). The values for these three block groups are also lower than for the community of Lakeside as a whole (\$48,910 and \$55,336).

Finally, Tables 6 and 7 show that the percentage of people below the poverty level in all of the block groups, except for Census Tract 167.02 Block Group 1, south of Woodside Avenue and east of Wintergardens Boulevard (14 percent), is lower than in San Diego County as a whole (12 percent).

Three of the four census block groups in the proposed project area have lower incomes than San Diego County as a whole, and one of the four has incomes substantially lower than the county. The proposed project is intended to benefit the residents of these same block groups by reducing flooding. Residents of

these block groups would experience the temporary, minor impacts of the proposed project and would also experience its benefits.

### **No Action Alternative**

Under the no action alternative, there would be no impact on socioeconomics as current conditions would not change. However, flooding would be more likely under the no action alternative, with associated potential adverse impacts on public safety.

### **Proposed Project**

The proposed project would not have a disproportionately high and adverse effect on minority or low-income people in the surrounding community, and would therefore comply with EO 12898.

## **4.7 Public Services and Recreation**

No parks or recreational areas are in or adjacent to the proposed project area. However, utility lines for the major services and utilities such as water, power, sewer, and natural gas are within the street and rights of ways where the proposed drainage system would be installed. These utilities would be relocated during construction to prevent interruption of service.

The utilities slated for relocation include the following:

- 6-, 8-, 36-, 48-, and 68-inch water lines
- 12- and 21-inch sewer lines
- Electric, phone and cable lines to be reinstalled underground
- 6-inch natural gas line to be lowered

### **No Action Alternative**

Under the no action alternative, there would be no impact on public services and recreation as current conditions would not change.

### **Proposed Project**

With implementation of the mitigation measures described in Section 5.7, no significant or permanent adverse impacts to public services or recreation would occur.

## **4.8 Transportation**

The proposed project consists of the installation of a new stormwater drainage system, including box culverts and open channels. As such, it would not cause long-term increases in traffic.

### **No Action Alternative**

Under the no action alternative, flooding would be more likely, with associated potential temporary adverse impacts on area transportation.

### **Proposed Project**

Increases in traffic would occur during proposed project construction. The proposed project would generate short-term traffic during construction from transport of heavy construction equipment to and from the proposed project site, site truck traffic associated with hauling construction components and materials to the

project site and removal of debris, and construction workers commuting to and from the project site. The temporary increase in traffic would be localized and temporary.

Woodside Avenue would remain open in both directions during construction, according to the traffic control plan developed for the proposed project. Riverview Avenue at the intersection of Woodside Avenue would be closed for approximately 10 days and a detour would be in place while the proposed drainage system is constructed beneath the intersection. The detour would direct northbound drivers on Riverview Avenue to use Waterhill Drive to Marilla Drive for access to Woodside Avenue.

A traffic control plan has been created to mitigate traffic impacts as a result of relocation of the utility lines. With implementation of the mitigation measures described in Section 5.8, no significant or permanent adverse impacts to transportation are anticipated.

## **4.9 Noise**

Noise in the proposed project area is mainly associated with traffic, operation of businesses, and household activities. Noise-sensitive uses in the proposed project area include residences along Woodside Avenue and the Friendship Manor Nursing Home.

### **No Action Alternative**

Under the no action alternative, there would be no impact on noise as current conditions would not change.

### **Proposed Project**

Construction of the proposed project would temporarily increase noise in the immediate vicinity of the proposed project site. The temporary noise increases would result from use of construction equipment to install the drainage system and from increased traffic as workers commute to the proposed project area. Construction activities would include use of excavators, loaders, backhoes, and bulldozers, as well as trucks to haul materials.

To reduce noise disturbances to the community, construction would be avoided during the hours prohibited by ordinance (7 p.m. to 7 a.m. the following day).

For most of the proposed project duration, construction would be limited to normal business hours. However, proposed project construction would sometimes need to occur during sensitive nighttime hours. During installation of sewer bypass pumps along Woodside Avenue, work would continue at night to minimize the duration of sewer service interruptions. In addition, to minimize interruptions in water service, nighttime work on relocation of water lines would be necessary periodically during the entire 16-month construction period. In May 2012, the County obtained a noise variance (3973 12-003 NV) for these occurrences.

The noise variance covers a nine-week period for the proposed jack and bore operations and intermittent one-week periods for the sewer bypass and waterline diversion operations. The noise variance is effective from November 2012 through December 2014. If night work is necessary after the night of December 30-31, 2014, the variance would have to be amended.

The variance limits night construction work to three evenings per week except during the jacking and boring operations. Night work associated with the sewer and waterline relocations would be limited to one week at a time. Otherwise, any night work would be prohibited on Sundays and County-designated holidays.

With implementation of the mitigation measures described in Section 5.6, no significant or permanent adverse impacts due to noise are anticipated.

## 4.10 Visual Resources

The proposed project site is in a predominantly suburban area. Hilly areas are visible from within and around the proposed project site, and the San Diego River runs along the north side of SR-67. However, the proposed project is not located in or near a scenic vista or scenic highway. Viewers of the proposed project site and the surrounding area are mostly residents and visitors who view the area at relatively short distances.

### No Action Alternative

Under the no action alternative, there would be no impact on visual resources as current conditions would not change.

### Proposed Project

The proposed project would have a temporary effect on the aesthetics within the immediate vicinity of the proposed project area and its surroundings during construction and while vegetation grows back in areas where existing vegetation would be disturbed. Construction activities would be visible from multiple viewing areas within the proposed project area.

Implementation of the proposed project would not significantly or permanently affect the visual quality or scenic nature of the proposed project site or its surroundings, particularly with implementation of the mitigation measures described in Section 5.10.

## 4.11 Cumulative Impacts

Cumulative impacts are impacts to the environment that result from the incremental impact of the proposed project in combination with other past, present, and reasonably foreseeable future projects, regardless of the person or agency that undertakes the other projects (40 CFR 1508.7).

The evaluation of cumulative impacts for this environmental assessment considered the past, present and reasonably foreseeable projects in the potentially affected area of the project. A list of projects considered in the cumulative impact analysis is shown in Table 8 below.

**Table 8**  
**Cumulative Projects List**

Project	County Number
Silver Sage Condominiums	Site Plan 05-054
Tentative Map (TM )	TM 5536
Riverview Tentative Parcel Map (TPM)	TPM 20639
Lakeside Commercial Center Major Use Permit (MUP)	MUP Modification 02-010-014
Lakeside Hand Car Wash Major Use Permit	MUP 06*053
Woodside at Winder Garden Condos Site Plan	Site Plan 06-046
Lakeside iver Park Reclamation Plan	Reclamation Plan 84-004
CA Investment Bankers Tentative Parcel Map	TPM 20807
Riverview Tentative Parcel Map	TPM 20864
Schafer Plaza Site Plan	Site Plan 05-039
Nextel Rockcrest Site Plan	Site Plan 06-008

Source: San Diego County, 2013

The proposed project would result in temporary, construction-related impacts to visual resources, air quality, biological resources, geology and soils, hydrology and water quality, noise, socioeconomics and public safety, public services and recreation, and transportation and traffic. As described in each respective section of the EA, potential impacts related to these resources would not be substantial or adverse. There would be no long-term, operations-related impacts to any of the resource areas analyzed in this EA. Given the limited extent and duration of temporary impacts during construction and the lack of long-term impacts during operations of the proposed project, the proposed project's contribution to cumulatively considerable impacts from the past, present, and reasonably foreseeable projects listed above would not be substantial nor significant.

## 5. Mitigation Measures

### 5.1 Geology and Soils

The County of San Diego will be responsible for implementing erosion protection measures including BMPs such as installing silt fences and mulching cleared soil to avoid or minimize soil erosion during construction. The County of San Diego will be responsible for implementing permanent erosion control measures including revegetation with native species when construction is completed.

### 5.2 Air Quality

The County of San Diego will be required to comply with the rules and standards of the SDAPCD, including applicable BMPs.

### 5.3 Water Resources

#### Water Quality

Before beginning construction, the County of San Diego's contractor shall prepare an SWPPP to the satisfaction of the County Engineer to reduce the potential impact to sensitive riparian habitats while protecting downstream water quality. The detailed measures identified in the SWPPP will be implemented prior to and during site preparation and construction to the satisfaction of the County Engineer and biological monitor.

#### Wetlands

As described in Section 4.3.4, compensatory mitigation will be conducted off-site and on-site for permanent and temporary impacts to wetlands in compliance with the Section 404 permit from the USACE:

Permanent impacts to 0.24 acres of freshwater marsh habitat will be mitigated at a ratio of 3:1. Temporary impacts to 0.53 acres of freshwater marsh habitat will be restored on-site at a ratio of 1:1.

In addition, the following mitigation measures to be implemented during construction of the proposed project will minimize wetland impacts:

- Prior to initiating grading, temporary orange environmentally sensitive area (ESA) fencing shall be installed along the limits of grading to ensure there will be no impacts to any adjacent wetlands outside of the proposed project footprint. Prior to and during construction, a County-approved biological monitor will verify that the ESA fencing is properly installed and maintained.

- The biological monitor shall attend a pre-construction meeting before grading is initiated and be on-site to monitor all vegetation clearing. Biological monitoring will continue periodically to ensure implementation of appropriate resource protection measures. The detailed measures identified in the SWPPP will be implemented prior to and during site preparation and construction to the satisfaction of the County Engineer and on-site biological monitor.

## 5.4 Biological Resources

The County of San Diego will be responsible for implementing the following measures to minimize potential impacts to biological resources:

- To avoid direct and indirect impacts to raptors and migratory birds, removal of habitat that may support active nests will occur outside of the breeding season for these species (January 15 to August 15). If removal of habitat or construction activities adjacent to nesting habitat will occur during the breeding season, a County-approved biologist will conduct a pre-construction survey to determine the presence or absence of nesting birds on and within 300 feet of the construction area and nesting raptors within 500 feet of the construction area. The pre-construction survey will be conducted within 10 calendar days prior to the start of construction, and the results will be submitted to the County for review and approval prior to initiating any construction activities. If nesting raptors are detected, a biological monitor will be present on-site as necessary during construction. The biological monitor shall ensure that perimeter construction fencing is being maintained to minimize construction impacts and ensure that no nest containing eggs or chicks is disturbed until all young have fledged or the nest becomes inactive.
- Prior to initiating grading, temporary orange ESA fencing shall be installed along the limits of grading. Temporary fencing must be shown on the proposed project plans. Prior to and during construction, a County-approved biological monitor will verify that ESA fencing is properly installed and maintained.
- A biological monitor shall attend a pre-construction meeting before grading is initiated and be onsite to monitor all vegetation clearing and periodically to ensure implementation of appropriate resource protection measures.
- Permanent impacts to 0.31 acre of non-native grassland habitat will be mitigated through deduction of ruderal/disturbed habitat credits from the County-owned Rancho San Diego Mitigation Bank at a ratio of 0.5:1, for a total of 0.16 acres. Temporary impacts to 1.17 acres of non-native grassland habitat will be mitigated through on-site restoration at a ratio of 1:1.
- To mitigate for the loss of one arroyo willow at the location of the proposed outfall, two arroyo willow individuals will be planted on-site for a mitigation ratio of 2:1.
- To mitigate for the loss of five juvenile coast live oak individuals within developed habitat along the slope separating the water quality control basin and the apartment complex parking lot, 10 oaks will be planted within or adjacent to the water quality control basin to satisfy a 2:1 mitigation ratio.
- The mature coast live oak individual within the temporary construction staging area is anticipated to be avoided during construction. This oak, out to the drip line, will be fenced off from construction staging activities. In the event that the oak cannot be avoided during construction, it will be replaced at a ratio of 3:1.

- To ensure that non-native or invasive plants or seeds are not spread from one area of the proposed project to another, before moving from one area of the proposed project to another (or moving to and from the staging area to the work area) the contractor shall wash soil and plant material off all equipment tires and treads.

## 5.5 Historic Properties and Archaeological Resources

If historic properties are discovered during ground-disturbing activities, the work near the discovery will cease, and the area should be protected until the find can be evaluated by a qualified archaeologist who meets the Secretary of Interior Standards for Professional Qualifications.

California Health and Safety Code Section 7050.5 states that if human remains are encountered, the County Coroner will be notified immediately and no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. If the remains are determined to be Native American, the County Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a most likely descendant (MLD). With the permission of the landowner or his or her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

## 5.6 Socioeconomics and Public Safety

The County of San Diego will be responsible for implementation of the following measures to protect the health and safety of the community surrounding the proposed project site during the proposed project:

- The work area and other public hazards will be barricaded and properly marked.
- Construction vehicles traveling through the area will maintain legal and safe speeds.
- The length of trench open at any one time will be limited to 300 feet and would be filled in at the end of each day.

## 5.7 Public Services and Recreation

All public utility and service providers will be notified in advance of the construction and the County will work with such service providers to prevent any disruption of services during construction.

## 5.8 Transportation

The County of San Diego will be responsible for implementing the following measures to minimize the potential short-term impacts to transportation in the proposed project area during construction:

- No public traffic routes shall be fully blocked at any time.
- Workers shall park their privately owned vehicles at designated locations to reduce traffic impacts.
- A 12-foot minimum lane width shall be maintained at all times and a minimum distance of 5 feet shall be maintained between any open trench and the nearest active traffic lane.
- Temporary parking advisory signs shall be posted at least 24 hours, but no more than 48 hours, in advance of construction.

- Within 3 days of placement of final pavement, all traffic striping destroyed or damaged shall be restored in accordance with San Diego County standards.
- Access to private property shall be maintained at all times.
- Circulation and detour plans shall be developed to minimize impacts to local street circulation.
- Haul routes shall be used by construction trucks to minimize truck traffic on local roadways to the extent possible. When necessary, flaggers and/or signage to guide vehicles through or around the construction zone shall be utilized.
- Truck trips shall be scheduled outside of peak morning and afternoon commute periods to the extent possible.

## 5.9 Noise

The County of San Diego will be responsible for implementation of the following measures to reduce noise and vibration in the community surrounding the proposed project area during construction of the proposed project:

- Any vehicle device, apparatus, or equipment used, related to, or connected with the construction work shall be designed, modified, or equipped to reduce sounds produced to the lowest possible level consistent with the effective operation of such vehicle, device, apparatus, or equipment.
  - All construction equipment operated by the applicant, contractor, vendors, suppliers or subcontractors shall be equipped with manufacturer's approved exhaust mufflers.
  - The applicant, contractor and all vendors, suppliers, or subcontractors who operate construction equipment shall have a regular maintenance and lubrication program for their equipment.
  - All equipment with backup alarms operated by the applicant, contractor and all vendors, suppliers, or subcontractors shall be equipped with either self-adjusting ambient-sensitive backup alarms or manually adjustable alarms. The self-adjusting alarms must automatically adjust to a level of 5 dBA over the surrounding background noise levels. The manually adjustable alarms shall be set at the lowest level and still be audible above the surrounding background noise.
  - Configure each construction site to minimize backup alarm use, subject to the approval of the County Engineer, and to comply with the current OSHA regulations. As an example, site access should be designed so that delivery and dump trucks normally move through the site by pulling forward, thus avoiding the need to back up vehicles.
  - Stationary sources such as dewatering pumps and traffic control signal boards that are within 250 feet of residences shall be battery-powered, connected to the local power grid, or include "critically silenced enclosures" to reduce noise levels.
  - Maximum noise reduction mufflers or a manufacturer's sound attenuation enclosure will be used with all truck-mounted auxiliary engines within 1,000 feet of any residence. These noise sources are associated with equipment such as cranes, striping machines, and drill rigs.
- The following operational conditions for all night activities shall be implemented during any phase of night work.

- Prohibit the use of impact devices such as jackhammers, rock drills, and pile drivers (jack and bore equipment is allowed) between 7 p.m. and 7 a.m.
- Prohibit the use of asphalt or concrete saws between 7 p.m. and 7 a.m.
- Limit the loading, unloading, and movement of construction materials between 7 p.m. and 7 a.m. unless approved by the County Engineer.
- Within the jack and bore staging area and equipment yards, limit the simultaneous use of internal combustion engines to two pieces of equipment (excluding lights on generators and dewatering pumps) unless approved by the County Engineer.
- Schedule major construction events to minimize nighttime noise, especially in proximity to residences.
- Prior to the start of any night work, erect a noise barrier along the eastern boundary of the construction site (except across Woodside Avenue) south of SR-67 and within 50 feet of active construction activities. This barrier would be required to accommodate a drainage feature that facilitates any flows from Woodside Avenue to the existing culvert under SR-67 without compromising its sound attenuation features, as approved by the County Engineer. The minimum height of this barrier shall be 12 feet and shall be constructed of materials with a minimum surface density of four pounds per square foot with no gaps or perforations. A noise barrier may be constructed of, but is not limited to, 5/8-inch-thick exterior plywood, 5/8-inch-thick oriented strand board, or hay bales.
- Prior to any night operations using a sewer bypass pump within 75 feet of a residence, a noise barrier shall be erected around the pumps. The noise barrier shall have a minimum height of six feet and block the line of sight over and around the barrier. The barriers shall be constructed of materials with a minimum surface density of four pounds per square foot with no gaps or perforations. A noise barrier may be constructed of, but is not limited to, 5/8-inch-thick exterior plywood, 5/8-inch-thick oriented strand board, or hay bales. Construction of noise barriers or noise reduction features is to be completed during daytime hours to ensure that nighttime work activities would be minimized.
- Neighboring residents and commuters along Woodside Avenue shall be notified as follows:
  - 48 hours prior to the start of any evening or nighttime work other than the box culvert installation operation, the Department of Public Works (DPW) shall notify nearby residents and businesses within a minimum of 1,000 feet of these nighttime activities. Notification shall be in the form of either a letter or a door hanger notice. The notification shall include the start and end dates of the night work and describe the planned work, the work hours, and the public response procedures, with a 24-hour contact telephone for further information and complaints. The notification shall also be sent to local law enforcement and emergency services.
  - 72 hours prior to the start of the evening or nighttime work associated with the box culvert installation, DPW shall notify local residents along Woodside Avenue that live within a minimum of 1,000 feet of these nighttime activities. The residents of the Willowbrook Mobile Home Park will also be notified. Notification shall be in the form of a letter or door hanger notice. The notification shall identify typical activities such as excavation for the new box culvert, removing spoils, generator operation, and bypass pumping activities. The notice shall also be sent to local law enforcement and emergency services. The notification shall describe the planned work,

work hours, the duration of the activities, and the public response procedures, with a 23-hour contact telephone number for further information and for complaints.

- For local residents and commuters, a clearly visible sign shall be posted at the construction site entrance on Woodside Avenue that includes a project description and 24-hour contact telephone number for further information and for complaints (preferably the same one used in the notification process). The dimensions of this sign shall be no less than 48 inches in width and no less than 24 inches in height. The sign shall be mounted at least five feet above ground.
- In the event of a citizen noise complaint or referral from the Board of Supervisors related to the noise variance, the DPW shall retain a San Diego County-approved acoustical consultant to conduct noise measurements at the properties where residents have registered complaints. The noise measurements shall be conducted for a minimum of one hour and shall include 1-minute-interval samples. The County of San Diego's consultant shall prepare a letter report summarizing the noise measurements and potential measures to reduce noise levels to the maximum extent feasible. The County shall furnish criteria to the consultant as a guide to the acceptable levels based on a complainant's proximity to the work area, existing uses that could be affected, and the ambient noise levels measured prior to commencement of the proposed project. The letter report shall include all measurement and calculation data used in determining impacts and remedies. The letter report shall be provided to code enforcement for determining adequacy and making recommendations, as well as potential revocation of the variance if measures are inadequate. In coordination with county staff including the Office of Noise Control, noise monitoring using the technique listed above may be used to anticipate a potential disturbance in response to which a San Diego County-approved acoustical consultant shall have the authority on site to limit the duration of any project activity.
- In the event of a citizen noise complaint or referral from the Board of Supervisors related to the noise variance, the county Noise Control Office shall notify the DPW via the project's 24-hour hotline of the incident. If this is a normal citizen complaint, the county Noise Control Office requires an update by telephone on the status of the complaint within 48 hours. If this is a referral from the County Board of Supervisors, the response time on the complaint update shall be reduced to 24 hours. The County may require additional documentation or information in writing to clarify the content of the telephone response.
- In the event of a failure to update or respond to a notification from the Office of Noise Control about a noise complaint, county staff may request a meeting with DPW and its representatives to receive a briefing on the incident. This briefing shall document the reporting of the complaint and the use of possible remedies or measures to reduce the noise impact. County staff shall schedule the meeting time and location and have the option to invite the complainant to facilitate a resolution of the incident.
- If more than two substantiated noise complaints occur in any three-week period based on the evening and nighttime box culvert installation activities, the County shall reserve the right to review the variance. Possible actions may include revoking the variance, restricting hours of operation, restricting types of nighttime activities, implementation of noise monitoring, or other mitigation measures.
- Notification of nighttime work activities shall occur two weeks prior to the start of work. The notification shall identify when the installation and removal of any sound barrier or noise reduction feature is to be completed during daytime hours to ensure that nighttime work activities would be minimized.

## 5.10 Visual Resources

The County of San Diego will be responsible for implementing mitigation measures to address potential short-term and long-term impacts to visual resources. The measures will include but are not limited to the following:

- Contouring of finished surfaces to blend with adjacent natural terrain where appropriate
- Replacing vegetation removed from the proposed project area during construction with native vegetation
- Maintaining replacement native vegetation until it is well established.

## 5.11 Hazardous Materials and Wastes

Hazardous materials used in conjunction with construction activities would be handled in accordance with state and local ordinances and regulations that govern such materials.

# 6. Public Participation and Coordination

The public was notified of the availability of the draft EA through the FEMA website and publication of a public notice in the San Diego Union-Tribune. The public comment period ran from September 5, 2013 to September 20, 2013. No comments on the draft EA were received.

FEMA has made a determination of a finding of no significant impact (FONSI). The FONSI will be published on the FEMA website and in the San Diego Union-Tribune.

Prior to this EA, San Diego County completed for public review a California Environmental Quality Act Initial Study/Mitigated Negative Declaration for the proposed project in 2009. Additional public participation in the proposed project occurred with the issuance by the Army Corps of Engineers of NWP 33 and 43.

# 7. Irreversible Or Irretrievable Commitment of Resources and Short-Term Uses of the Environment and Maintenance and Enhancement of Long-Term Productivity

## 7.1 Irreversible Or Irretrievable Commitment of Resources

The no action alternative would not require the commitment of resources. However, continued flooding risk and its potential to damage facilities with resulting loss of resources would remain in the project area.

The proposed project would require the commitment of resources. The expenditure of labor for this alternative would occur predominantly during construction. However, maintenance would occur throughout the life of the alternative. Funding for the proposed project would not be available for other uses and would therefore be irretrievable.

Nonrenewable and irretrievable fossil fuel use by construction equipment would be required. Labor and materials would also be irretrievably committed during project construction. However, the proposed project would not require a large amount of these materials, the materials are commonly available, and their use would not result in a material impact on the availability of these resources.

Although the proposed project would result in the commitment of resources as described above, the proposed project would reduce the risk of loss to facilities and properties in the project area.

## 7.2 Short-Term Uses of The Environment and Maintenance and Enhancement of Long-Term Productivity

The proposed project would require short-term uses of the environment, as documented in Sections 4.1 through 4.11. However, the uses of the environment would be offset by the long-term reduction in the risk of flooding and resulting damage to facilities and residential properties. The drainage improvements would enhance the long-term productivity of resources by reducing flooding risks.

## 8. References

California Department of Conservation, Division of Mines and Geology. California Alquist-Priolo Earthquake Fault Zoning Act, Special Publication 42. 1997.

California Department of Transportation. California Scenic Highway Program [http://www.dot.ca.gov/hq/LandArch/scenic\\_highways/scenic\\_hwy.htm](http://www.dot.ca.gov/hq/LandArch/scenic_highways/scenic_hwy.htm). Accessed February 2013.

California Storm Water Quality Association. California Storm Water Best Management Practice Handbook. 2003.

CNDDDB. 2013. California Natural Diversity Database, Rarefind4. California Department of Fish and Wildlife. Available at: <http://www.dfg.ca.gov/biogeodata/cnddb/mapsanddata.asp>. Accessed February 1, 2013.

CH2MHill. Cultural Resources Inventory Report. March 2013.

County of San Diego. Department of Planning and Land Use. Lakeside Community Plan. August 2011.

County of San Diego. Department of Planning and Land Use. Noise Variance 3973 12-003 (NV). March 2012.

County of San Diego. Department of Public Works. Mitigated Negative Declaration and Initial Study. Woodside Avenue Drainage Improvements. January 2009.

County of San Diego. 2000. *General Plan*.

County of San Diego. 2010. Hazard Mitigation Grant Program DR-1884 application.

County of San Diego. Natural Resource Inventory, Section 3, Geology.

County of San Diego. Project Clean Water Strategic Plan. 2002. <http://www.projectcleanwater.org>. Accessed February 2013.

County of San Diego. Code of Regulatory Ordinances, Title 8 Division 7: Grading, Clearing and Watercourses.

Council on Environmental Quality. 1997. *Environmental Justice—Guidance Under the National Environmental Policy Act*. Appendix A—Guidance for Federal Agencies on Key Terms in Executive Order 12898.

EPA. 2012. The Green Book Nonattainment Areas for Criteria Pollutants Homepage. December 14. <http://www.epa.gov/oaqps001/greenbk/>. Accessed on March 26, 2013.

FEMA. 2003. Programmatic Environmental Assessment (PEA) for Typical Recurring Actions—Flood, Earthquake, Fire, Rain, and Wind Disasters in California. U.S. Department of Homeland Security, FEMA Region IX.

Kleinfelder. Final Geotechnical Investigation Report for Woodside Avenue Drainage Improvements. April 2009.

Lakeside Conservancy. 2013. Lakeside's River Park Conservancy Website. Available at: <http://www.lakesideriverpark.org/Projects/projects.html>. Accessed February 1, 2013.

RECON. 2013. Biological Resources Letter Report Update for the Woodside Avenue Drainage Improvement Project. Prepared for the County of San Diego Department of Public Works. February.

United States Census Bureau. American Fact Finder. <http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml>. Accessed February 2013.

USFWS. 2013. Threatened and Endangered Species Information, Species by County Report. U.S. Fish and Wildlife Service, Carlsbad Fish and Wildlife Office. Available at: [http://ecos.fws.gov/tess\\_public/countySearch!speciesByCountyReport.action?fips=06073](http://ecos.fws.gov/tess_public/countySearch!speciesByCountyReport.action?fips=06073). Accessed February 1, 2013.

USGS. 2008. Distribution, Abundance, and Breeding Activities of the Least Bell's Vireo along the San Diego River, California. 2008. Annual Data Summary. U.S. Geological Survey Western Ecological Research Center. Prepared for San Diego River Conservancy.

## 9. List of Preparers

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# Appendix A – EO 11988/11990 Eight-Step Decisionmaking Document

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**FEMA**

**Floodplain Management and Protection of Wetlands  
Summary of 8-Step Decision-Making Process  
San Diego County--Woodside Avenue Flood Control Improvements Project**

**FEMA-1884-DR-CA**

The Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to provide federal financial assistance, through the Governor's Office of Emergency Services, to the County of San Diego Department of Public Works (Subapplicant) for construction of flood control improvements in the community of Lakeside in unincorporated San Diego County, California. The assistance would be provided through the Hazard Mitigation Grant Program. This document is a summary of the results of the eight-step decision-making process that was completed for the proposed project to comply with Executive Order (EO) 11988 (Floodplain Management), EO 11990 (Protection of Wetlands). The analysis follows the steps prescribed in 44 CFR Part 9 (Floodplain Management and Protection of Wetlands), specifically 44 CFR 9.6.

The proposed project would prevent or reduce the risk of damage from future flooding to Woodside Avenue and surrounding properties by constructing reinforced concrete box (RCB) culverts to convey stormwater from the 100-year storm to the San Diego River. Most sections of the proposed culverts would be dual box culverts.

The proposed drainage system would begin at the downstream (western) end of an existing 18-foot by 8-foot rectangular concrete channel that runs parallel to Woodside Avenue, approximately 600 feet to the south. Improvements would extend the existing open channel approximately 88 feet and divert its flow to the north without increasing its width or depth. A transition structure would then widen the channel by fourteen 14 feet over a distance of approximately 20 feet, creating a 32-foot by 8-foot channel. The 32-foot-wide channel would then continue north for approximately 50 feet, where it would transition to a dual 15-foot-wide by 5.5-foot-deep RCB culvert. The proposed alignment would continue north for approximately 540 feet under the existing water quality basin. Once the dual RCB culvert reached Woodside Avenue, it would turn west under Woodside Avenue for approximately 800 feet before turning north for approximately 250 feet, where it would split into two channels.

The western channel would transition to a dual 10-foot-wide by 5-foot-deep RCB culvert (line A) that would continue under SR-67 and discharge into the floodplain of the San Diego River. The eastern channel (line B) would transition to a 10-foot-wide by 5-foot-deep RCB culvert that would connect to an existing triple 6-foot-wide by 3-foot-deep concrete culvert that passes under SR-67 and discharges into the floodplain of the San Diego River. A headwall and 36-inch RCB culvert approximately 15 feet long would extend laterally from line B on the south side of

SR-67 to capture local runoff. To avoid traffic problems, approximately 240 feet of culvert would be jacked under SR-67.

In addition to conveying flows from the existing 18-foot by 8-foot channel, the proposed culvert would also collect flows from Woodside Avenue and Riverview Avenue via curb inlets and grate structures.

Construction of the proposed culvert would require relocation of utilities. Wet utilities to be relocated are 21-inch and 12-inch sewer lines, a 6-inch water line and numerous storm drain inlets and pipes. In addition, 60-inch, 48-inch, 36-inch, and 8-inch water lines would be lowered. Dry utilities to be relocated include level 1 fiber-optic duct, AT&T communication line, Cox Cable lines, and San Diego Electric electrical lines, which are being undergrounded.

Related improvements to Woodside Avenue, Riverview Avenue and adjacent properties would include new pavement; concrete curbs, gutters and sidewalks; chain link fence; and relocation of various other appurtenances.

The results of the eight-step decision-making process are summarized below.

**Step 1.** *Determine whether the proposed action is located in a wetland and/or the 100-year floodplain (500-year floodplain for critical actions); and whether it has the potential to affect or be affected by a floodplain or wetland.*

#### Floodplains

A portion of the proposed project area is located in the 100-year floodplain, and therefore has the potential to affect the floodplain. The proposed project area is shown on FIRM panels 06703C1652G and 06703C1656G, revised May 16, 2012 (see attached figures).

The proposed outfall to the San Diego River at the downstream end of the proposed project area is located within Zone AE, defined as areas that have a 1% probability of flooding every year (the 100-year floodplain), and where predicted flood elevations have been established. The proposed drainage is designed to facilitate a 100-year design storm, and based on design studies, the velocity during this 100-year storm is not considered to be an erosive velocity. Therefore, discharge during the 100-year storm is not anticipated to affect downstream features. For smaller storms where there would be no backwater effects of the San Diego River to slow the water, an energy dissipater designed to meet the design criteria in the 2005 San Diego County Drainage Design Manual would be constructed at the outfall to protect the area between the outfall and the San Diego River when it is not inundated by the San Diego River.

## Wetlands

A site assessment and a wetland delineation within the study area were conducted on October 14, 2008, by URS Corporation. As requested by the County of San Diego and based on comments received by the U.S. Army Corps of Engineers (USACE) on the 2008 wetland delineation, RECON, a San Diego County Contractor, conducted followup site visits to update the wetland delineation in October, November, and December 2010 and in August 2011. In addition, RECON conducted a waters of the United States/wetlands delineation within the proposed project area in conjunction with a supplemental general biological survey on January 15, 2013. Based on this investigation, it was determined that wetlands occur within two locations of the proposed project area: at the water quality control basin and at the outfall to the San Diego River. Vegetation within the wetland areas consists of native wetland species such as black willow (*Salix goodingii*), arroyo willow (*Salix lasiolepis*), and cattail (*Typha latifolia*).

A portion of the proposed project would occur within these wetland areas, as shown in Figure 2. Therefore, the proposed project would affect wetlands.

**Step 2.** *Notify the public at the earliest possible time of the intent to carry out an action in a floodplain or wetland, and involve the affected and interested public in the decision-making process.*

### Floodplains and Wetlands

FEMA published a cumulative Initial Public Notice that included information about FEMA's proposal to fund actions in or affecting the 100-year floodplain and wetlands. No comments were received in response to the Initial Public Notice.

**Step 3.** *Identify and evaluate practicable alternatives to locating the proposed action in a floodplain or wetland (including alternative sites, actions and the "no action" option). If a practicable alternative exists outside the floodplain or wetland FEMA must locate the action at the alternative site.*

Based on the constraints of the existing drainage in the proposed project area, there is no practicable alternative to construction within the 100-year floodplain at the proposed outfall location that would reduce flooding in the proposed project area. The no action alternative would leave the existing culvert at Woodside Avenue with the capacity to convey less than a 2-year flow event. As a result, structures in the neighborhood, including Lakeside Special Care Center (a critical care facility), military family housing, and commercial businesses, would continue to experience regular flooding from even small storm events. Periodic closure of Woodside Avenue due to flooding would continue to create access issues for approximately 10,500 vehicle trips/day, including traffic to and from Lakeside High School. Road closure would also inhibit response time of the nearby Lakeside Fire Station. High-depth overflows would provide an additional hazard to pedestrian traffic crossings of Woodside Avenue to and from Lakeside Middle

School. Under the no action alternative, damage to sewer mains, water lines, and regional transmission mains would continue due to flooding. Therefore, the no action alternative was rejected.

The County of San Diego (Subapplicant) obtained authorization for permanent and temporary impacts to Waters of the United States (U.S.) per section 404 of the Federal Clean Water Act from the USACE in the form of a Nationwide Permit (NWP 33 and 43). The USACE determined that the impacts to waters of the U.S. were minimal and met the terms of the NWP 33 and 43 and therefore, an alternatives analysis specific to wetlands was not needed.

Based on this information, FEMA determined that the only practicable alternative is the proposed project.

**Step 4.** *Identify the potential direct and indirect impacts associated with the occupancy or modification of floodplains and wetlands and the potential direct and indirect support of floodplain and wetland development that could result from the proposed action.*

#### Floodplains

No work proposed as part of the proposed project would significantly change the water surface elevations or alter the delineation of the San Diego River floodplain. Therefore, there would be no significant impacts to the floodplain.

#### Wetlands

The proposed proposed project would result in permanent impacts to 0.24 acres and temporary impacts to 0.53 acres of wetlands. These impacts would occur in two locations: the northernmost portion of the proposed project area within a small tributary to the San Diego River and the water quality control basin south of Woodside Avenue.

**Step 5.** *Minimize the potential adverse impacts and support to or within floodplains and wetlands to be identified under Step 4, restore and preserve the natural and beneficial values served by floodplains, and preserve and enhance the natural and beneficial values served by wetlands.*

#### Floodplains

As described in Step 4, the proposed project would not result in significant adverse impacts to the floodplain.

## Wetlands

Temporary impacts to wetlands from the proposed project would be mitigated through on-site restoration and enhancement of these areas at a 1:1 ratio through hydroseeding with a seed mix consisting of sedges, bulrushes, cattails, and other native herbaceous wetland species.

Permanent impacts to wetlands would be mitigated offsite at a 3:1 ratio at the Lawrence and Barbara Daley Preserve. The mitigation would include enhancement of wetland vegetation through removal of non-native invasive plant species and establishment or re-establishment of marsh or riparian and grassland vegetation in areas formerly occupied by dense stands of giant reed. The mitigation would improve wetland habitat by re-establishment of native vegetation that is typical of freshwater marsh and grassland vegetation in the region. Re-establishing wetland and grassland areas in the riparian area reduces erosion potential, and increases overall habitat quality within the stream and watershed. The opportunity to mitigate this small impact with a mitigation project of a scale that has regional benefits to wetland resources is of importance to the regional efforts of watershed management.

In addition, the following mitigation measures would be implemented during construction of the proposed project to minimize the extent of wetland impacts:

- Prior to initiating grading, temporary orange environmentally sensitive area (ESA) fencing would be installed along the limits of grading to ensure there would be no impacts to any adjacent wetlands outside of the proposed project footprint. Prior to and during construction, a County-approved biological monitor would verify that the ESA fencing is properly installed and maintained.
- The biological monitor would attend a pre-construction meeting prior to initiating grading and be on-site to monitor all vegetation clearing. Biological monitoring would continue periodically thereafter to ensure implementation of appropriate resource protection measures.
- Prior to the start of construction, San Diego County's Contractor would prepare a Storm Water Pollution Prevention Plan (SWPPP) to the satisfaction of the County Engineer to reduce the potential impact to wetlands and other sensitive habitats while protecting downstream water quality. The detailed measures identified in the SWPPP must be implemented prior to and during site preparation and construction to the satisfaction of the County Engineer and on-site biological monitor.

**Step 6.** *Reevaluate the proposed action to determine first, if it is still practicable in light of its exposure to flood hazards, the extent to which it will aggravate the hazards to others, and its potential to disrupt floodplain and wetland values and second, if alternatives preliminarily rejected at Step 3 are practicable in light of the information gained in*

*Steps 4 and 5. FEMA shall not act in a floodplain or wetland unless it is the only practicable location.*

#### Floodplains and Wetlands

As described in Step 3, there are no practicable alternatives to the proposed project. The proposed project would not result in adverse impacts to the floodplain, and adverse impacts to wetlands would be mitigated as described in Step 5.

**Step 7.** *Prepare and provide the public with a finding and public explanation of any final decision that the floodplain or wetland is the only practicable alternative.*

#### Floodplains and Wetlands

The Subapplicant will publish a Final Public Notice for the proposed project in a local newspaper. The notice will include a description of the proposed project that would occur within the 100-year floodplain and within wetlands and an explanation of why the proposed project is the only practicable alternative.

**Step 8.** *Review the implementation and post-implementation phases of the proposed action to ensure that the requirements are fully implemented. Oversight responsibility shall be integrated into existing processes.*

The Subapplicant would be responsible for overseeing the implementation and post-implementation phases of the proposed project. Restoration and enhancement areas would be monitored for a 120-day plant establishment period. Performance standards for success of restoration areas would be 90% percent cover of native species, 0% cover of non-native species, and less than 5% bare ground. Monitoring and maintenance will continue for up to five years, and may include supplemental irrigation, control of weeds, and replanting.



**Figure 2**  
**Proposed Project Area**

San Diego County - Woodside Avenue Flood Control Improvements Project



## Appendix B –Historic Properties Inventory Report (Confidential)

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## Appendix C –SHPO Consultation Correspondence (On File)

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