



Hollister Avenue Bridge Replacement Project

Off-site Mitigation Plan at Lake Los Carneros

prepared for

City of Goleta

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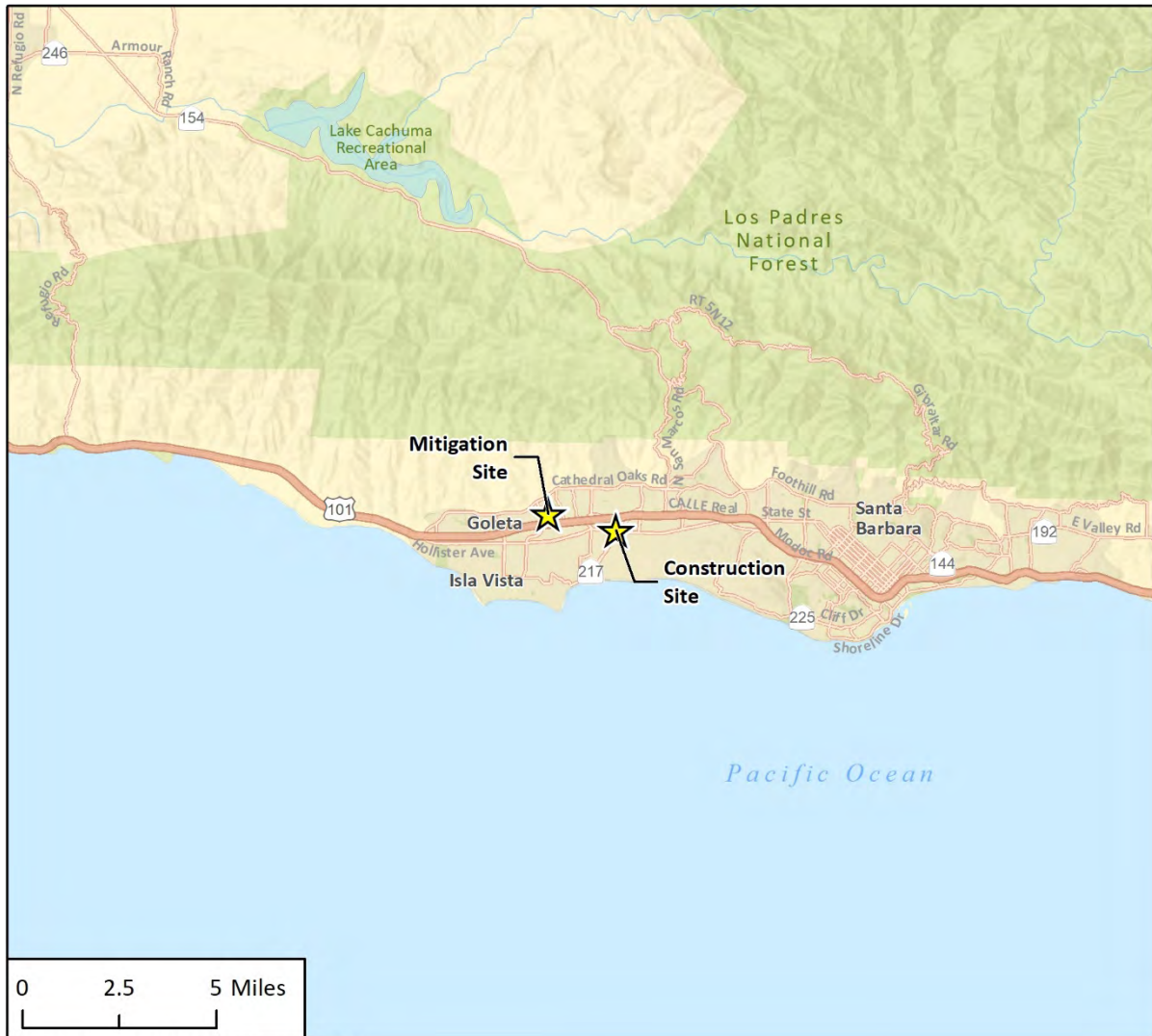
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1 Introduction

The City of Goleta (City) proposes to implement the Hollister Avenue Bridge Replacement Project (Project) within the City in Santa Barbara County, California. The proposed Project will replace the existing four-lane Hollister Avenue Bridge with a new four-lane bridge. The bridge spans San Jose Creek and is adjacent to the State Route 217/Hollister Avenue Interchange (Figure 1 and Figure 2). Additionally, this project includes widening the San Jose Creek channel immediately downstream of the new bridge so that the channel conveys 100-year flood flows and conforms to the recently completed San Jose Creek Capacity Improvement and Fish Passage Project downstream of the Project. This component of the Project is not structurally necessary but is included because it provides a benefit to endangered southern California coast steelhead (*Oncorhynchus mykiss*) and is consistent with City and regional conservation objectives. Additionally, the Project includes implementation of habitat restoration at an off-site mitigation location to compensate for project-related impacts to riparian woodland and individual native trees.

This Mitigation Plan fulfills the requirements of Mitigation Measure BIO-2 in the City's Initial Study and Mitigated Negative Declaration (IS-MND; City of Goleta 2015), which states that a riparian and oak woodland restoration plan must be prepared by a biologist. This Mitigation Plan also fulfills the requirements of Mitigation Measure BIO-1 which specifies restoration approaches and techniques to be employed for replacement of coast live oak (*Quercus agrifolia*) and western sycamore (*Platanus racemosa*) trees, as well as requiring an annual monitoring report; and BIO-3, which specifies restoration approaches and techniques to be employed for replacement of arroyo willow (*Salix lasiolepis*) trees. This Mitigation Plan is also intended to satisfy anticipated requirements of the U.S. Army Corps of Engineers (Corps) and California Department of Fish and Wildlife (CDFW), as well as known Central Coast Regional Water Quality Control Board (RWQCB) requirements, which have jurisdiction over activities affecting San Jose Creek. This Mitigation Plan also fulfills Mitigation Measure CUL-1, which addresses the discovery of unknown archaeological resources or human remains during mitigation activities. In addition, this Mitigation Plan includes a summary of the Project and describes the environmental and biological setting of the Project area.

Figure 1 Project Vicinity Map



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★ Project Location

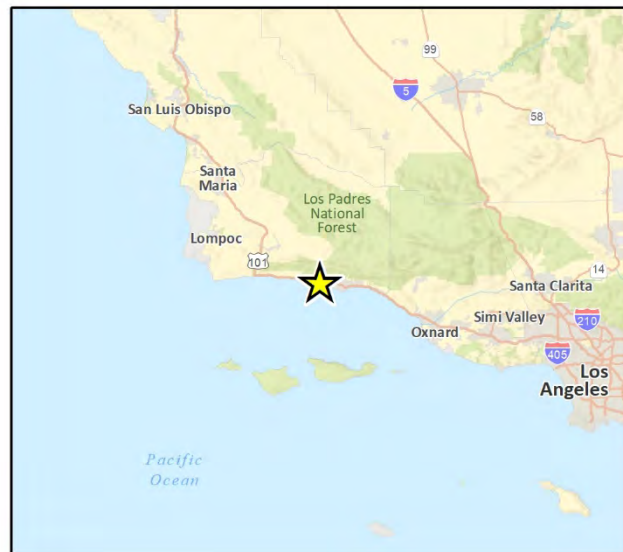
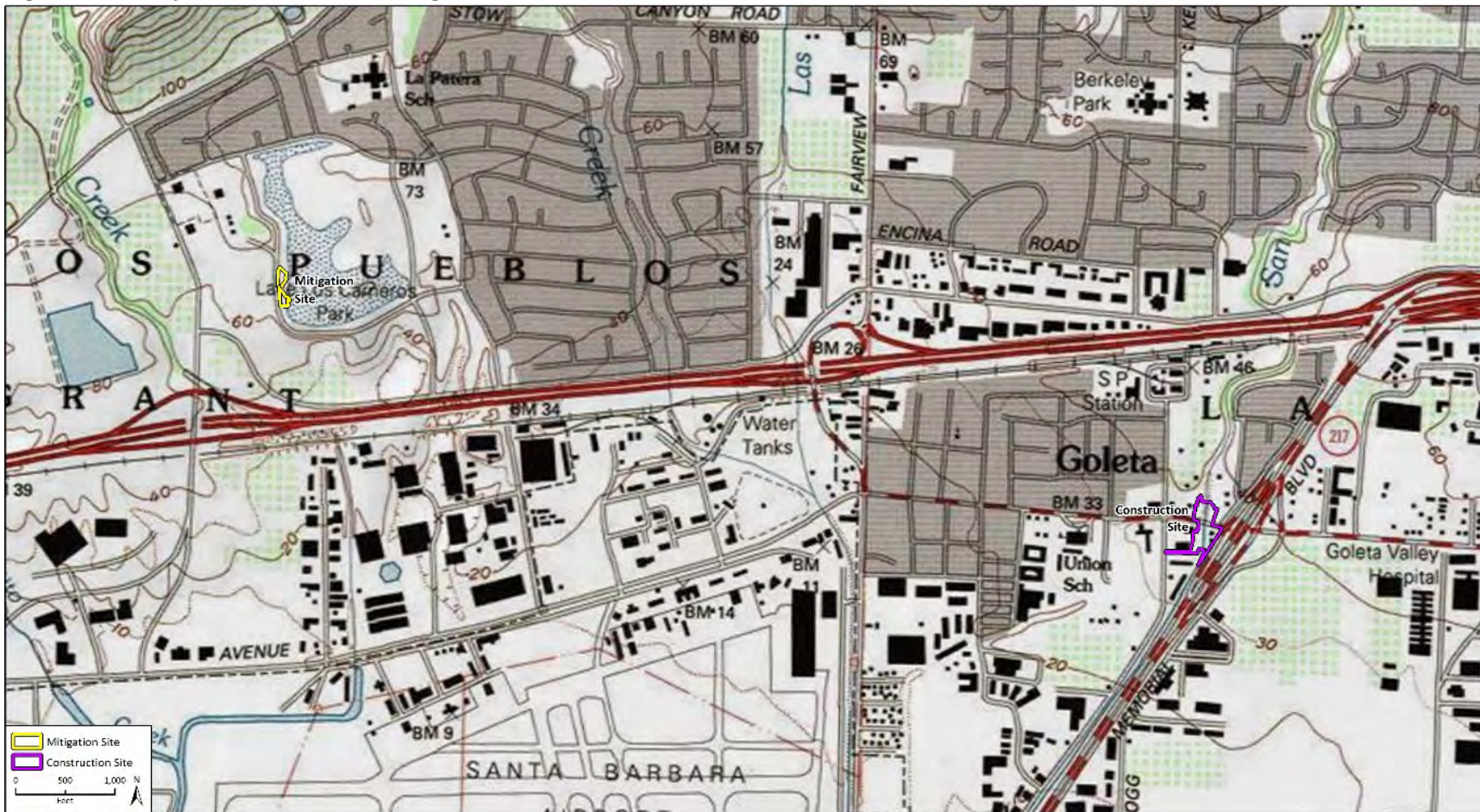


Fig.1 Regional Location_Area10_11_Construction

Figure 2 Project Location and Mitigation Areas



1.1 Location

The Project area is located within the City of Goleta in Santa Barbara County, California. It is within the *Goleta, California* U.S. Geological Survey (USGS) 7.5-minute quadrangle map depicted on Figure 2. The construction portion of the Project is located at an existing bridge that spans San Jose Creek along Hollister Avenue between State Route 217 and Kellogg Avenue. The mitigation site is located within City-owned property along Lake Los Carneros at the Los Carneros Natural and Historical Preserve. The Los Carneros Natural and Historical Preserve, herein referred to as Lake Los Carneros, is an approximate 140-acre City-owned property located between Calle Real to the south and Cathedral Oaks Road to the north (Figure 1).

1.2 Mitigation Objectives

The objective of this compensatory mitigation plan is to fulfill the requirements of Mitigation Measures BIO-1, BIO-2, and BIO-3 to compensate for the loss of riparian habitat associated with the Project, and to satisfy anticipated requirements of the Corps, CDFW, and Central Coast RWQCB, which have jurisdiction over activities affecting San Jose Creek.

The temporary and permanent impact areas in the Project area are depicted on Figure 3. Table 1 and Table 2 provide a summary of the permanent and temporary impacts to vegetation communities within the Project area and native trees within the CDFW-jurisdictional streambed, respectively. As required by Mitigation Measure BIO-3, permanent loss of arroyo willow thickets must be mitigated at a ratio of 2:1 by riparian habitat restoration. Figure 4 and Figure 5 display the vegetation communities and jurisdictional waters within the Project area, respectively. As required by Mitigation Measure BIO-1, permanent loss of coast live oaks and western sycamores must be mitigated at a ratio of 10:1. Figure 6 displays the location of native trees within the Project area. Table 3 provides the mitigation requirements based on these impacts.

When completed, the proposed restoration effort would ensure a net gain in the acreage and function of arroyo willow and western sycamore woodland habitat along the lake. The woodland corridor adjacent to the lake will be expanded and enhanced through the removal of invasive species and installation of native plants. Native species diversity and abundance will be substantially increased along an otherwise non-native dominated portion of the lake. A total of 0.56 acre of arroyo willow and western sycamore woodland habitat will be restored, including arroyo willow thickets and 20 western sycamores, in accordance with the mitigation requirements associated with the Project. The restoration efforts will be a combination of enhancement in areas where the existing aquatic resources (i.e., native vegetation) are degraded and re-establishment and creation in areas where aquatic resources will be established. When complete, the permanent loss of arroyo willow thickets will be mitigated at an approximate ratio of 3:1 by riparian habitat restoration. A ratio of 2:1 was originally set for the Project; however, supplemental mitigation was added to the Project at the request of RWQCB resulting in a higher ratio. Restoration will also occur at the Project site to mitigate for 0.05 acre of temporary impacts to jurisdictional areas due to Project-related activities.

Although mitigation for Project impacts are not strictly based upon impacts to jurisdictional waters, as described above, for reference, Table 4 provides the impacts to jurisdictional waters. The type of mitigation associated with these impacts is described above and is also indicated on Table 4. For purposes of RWQCB permitting authority, waters of the State are coterminous with CDFW-jurisdictional streambeds; all impacts to CDFW-jurisdictional streambeds listed herein are applicable to waters of the State.

Table 1 Project Impacts to Vegetation Communities

Vegetation Community	Permanent Impact¹ (Acres)	Temporary Impact (Construction)¹ (Acres)	Total
Riparian²			
Arroyo willow thickets	0.18	0.05	0.23
Non-native			
Mixed woodland	0.12	0.02	0.13
Giant reed breaks	0	0	0
Eucalyptus groves	0	0	0
Anthropogenic			
Urban development	0.89	0.55	1.44
Total³	1.19	0.61	1.80

¹ The temporary and permanent impacts to vegetation communities represented on this table indicate the total impact acreages, irrespective of agency jurisdiction.

² "Riparian" as used herein is an ecological term, irrespective of agency jurisdiction.

³ Totals are precise numbers calculated in GIS and discrepancies with tabular data presented here may occur due to rounding.

Table 2 Impacts to Native Trees Within the CDFW-Jurisdictional Streambed¹

Scientific Name	Common Name	Permanent Impact Areas (Construction)		Temporary Impact Areas (Construction)		Lake Los Carneros Mitigation Site		Total Trees to Be Impacted	
		Number of Individuals	DBH Range	Number of Individuals	DBH Range	Number of Individuals	DBH Range	Number of Individuals	DBH Range
<i>Juglans californica</i>	Southern California black walnut	0	–	0	–	0	–	0	–
<i>Platanus racemosa</i>	Western sycamore	2	7.0–34.0	0	–	0	–	2	7.0–34.0
<i>Populus fremontii</i>	Fremont cottonwood	2	≥4 ⁴	0	–	0	–	2	≥4 ⁴
<i>Quercus agrifolia</i>	Coast live oak	0	–	0	–	0	–	0	–
<i>Salix lasiolepis</i> ²	Arroyo willow	33 +/-	<2.0–8.0	5 +/-	<2.0	0	–	38 +/-	<2.0–8.0
Totals³		35 +/-	<2.0–34.0	5 +/-	<2.0	0	–	40 +/-	<2.0–34.0

¹ Waters of the State are coterminous with CDFW-jurisdictional streambeds.

² Willows occur in thickets; the number of trees in permanent and temporary impact areas was estimated based on area and field observations.

³ Totals are precise numbers calculated in GIS and discrepancies with tabular data presented here may occur due to rounding.

⁴ Precise information on DBH is not available, although it is known that the DBH is ≥4 inches.

Table 3 Summary of Riparian Habitat Mitigation Requirements

	Impacts		Mitigation			Total
	Impacts	Type of Impact	Mitigation Requirement	Mitigation at Project Site	Mitigation at Lake Los Carneros	
Vegetation Communities	Acres		Ratio	Acres		
Arroyo willow thickets	0.18	Permanent	2:1		0.56	0.56 ¹
Arroyo willow thickets	0.05	Temporary	1:1	0.05		0.05
Subtotal	0.22			0.05	0.56	0.61
Individual Trees	Number					
Coast live oak	0	Removal	10:1		0	
Western sycamore	2	Removal	10:1		20	
Subtotal	2				20	

¹ Although 0.18 acre of impacts will occur as a result of the project, mitigation is based on 0.19 acre of impact as stated in the permit application package. In addition, supplementary acreage will be restored at the request of RWQCB. Therefore, the mitigation ratio is higher than the originally required 2:1 and is currently at approximately 3:1.

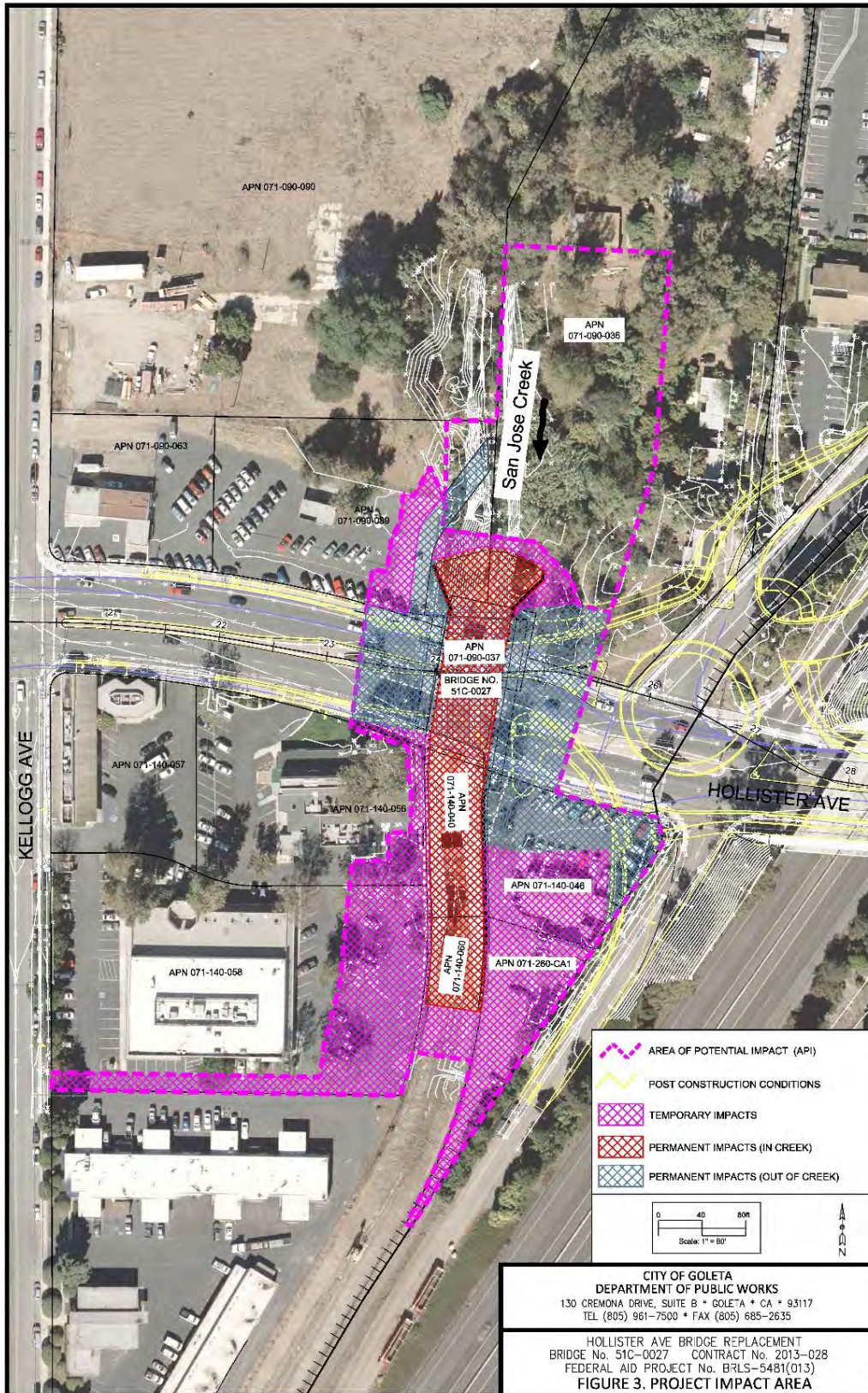
Table 4 Summary of Jurisdictional Impact Acreages

Location	Impact Type	USACE Non-wetland Waters of the U.S. (Acres)	CDFW-jurisdictional Streambeds ² (Acres)	RWQCB Waters of the State ¹		Impact Length for All Agencies (Linear Feet)
				Streambed	Riparian	
Bridge Construction Area at San Jose Creek						
Existing concrete channel	Temporary	0.03	0.03	0.03	0	33
	Permanent	0.06	0.11	0.06	0.05	130
Existing natural channel	Temporary	0.002	0.05	0.002	0.04	9
	Permanent	0.014	0.18	0.014	0.17	142
Subtotal	Temporary	0.032	0.08	0.032	0.04	42
	Permanent	0.074	0.29	0.074	0.22	272
Lake Los Carneros Mitigation Site						
	Temporary	0	0	0	0	0
	Permanent	0	0	0	0	0

¹ Waters of the State are coterminous with CDFW-jurisdictional streambeds.

² Portions of the CDFW-jurisdictional streambed at the bridge construction area are not vegetated with riparian vegetation.

Figure 3 Temporary and Permanent Impacts in Project Area

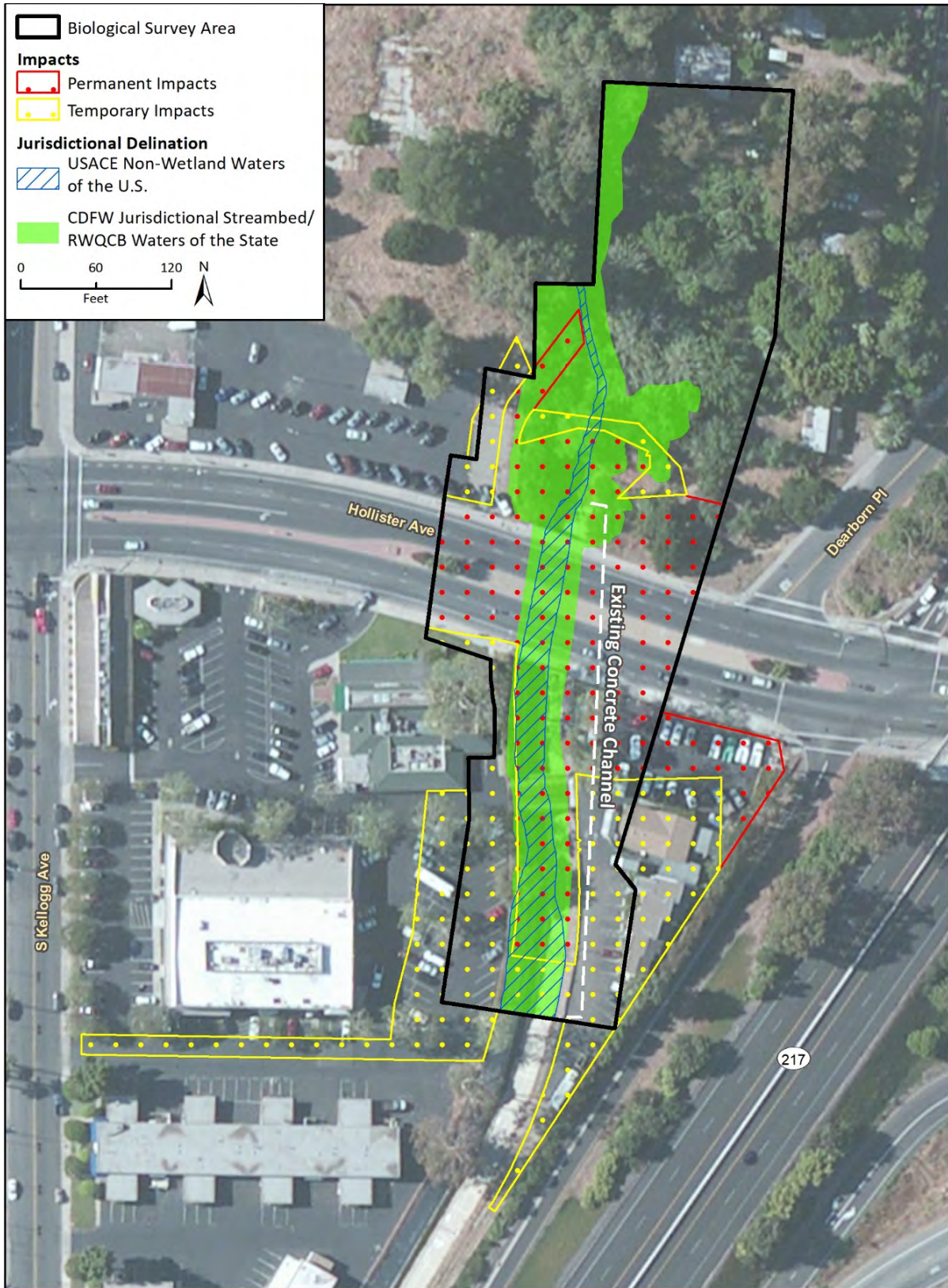


Source: Dewberry | Drake Haglan 2020

Figure 4 Vegetation Communities – Construction Site



Figure 5 Jurisdictional Delineation – Construction Site



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Fig X.ID Construction Site 20201218

Figure 6 Native Tree Inventory



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Fig 6 Tree Impacts

1.3 Background

This Mitigation Plan is an update to the 2016 Mitigation Plan (AECOM 2016), which was approved by CDFW and Central Coast RWQCB in January 2017. Since the approval of the 2016 Mitigation Plan, the previously approved mitigation site (defined in the 2015 Natural Environment Study [NES, URS 2015] as the Habitat Restoration Opportunity Zone) is no longer an available restoration site due to a landowner issue; therefore, the City identified a new location for the mitigation site within City-owned property along Lake Los Carneros at the Los Carneros Natural and Historical Preserve. The Los Carneros Natural and Historical Preserve, herein referred to as Lake Los Carneros, is an approximate 140-acre City-owned property within the City between Calle Real to the south and Cathedral Oaks Road to the north (Figure 1). Lake Los Carneros is zoned as Open Space and is located outside of the coastal zone. The new mitigation site is located within the same watershed as the Project and previously proposed mitigation site, specifically the San Pedro Creek watershed (Hydrologic Unit Code [HUC] 180600130203) that drains to Goleta Slough. In March 2021, a revised Mitigation Plan that incorporated these elements was submitted to the permitting agencies (Rincon 2021). The RWQCB subsequently issued comments and this Mitigation Plan was revised accordingly in June 2021. The main revision was the expansion of the mitigation site to include a larger upland buffer; other minor refinements were also made.

When completed, the proposed restoration of 0.56 acre would ensure a net gain in the acreage and function of arroyo willow and sycamore habitat. Riparian/marsh habitat, designated by the City as Environmentally Sensitive Habitat Area (ESHA), will be enhanced as part of mitigation activities and monarch butterfly roosting, raptor roosting, and coastal scrub, and native grassland ESHA will be preserved. The other elements of the 2016 Mitigation Plan have largely remained the same.

The newly established Lake Los Carneros mitigation site was not previously investigated for environmental resources; therefore, a NES Addendum (Rincon 2020a); Historic Resources Survey Report (Rincon 2020b), Archaeological Survey Report Addendum (Pfeiffer et al. 2020a), and Extended Phase I Study (Pfeiffer et al. 2020b); and an IS-MND Addendum was prepared (Rincon 2020c). This Mitigation Plan incorporates information from these reports, and bases mitigation on the impact acreages described herein and in the Corps, CDFW, and Central Coast RWQCB regulatory permit applications. Notably, during finalization of Project design the impact footprint has slightly changed within the natural portion of San Jose Creek above the existing bridge. Although the impacts are less with the new design, the full amount of mitigation required will be carried out as described in the Corps, CDFW, and Central Coast RWQCB regulatory permit applications.

In addition, two design changes have occurred since the 2016 Mitigation Plan was approved:

- The shape and size of the San Jose Creek channel hydrologic transitional area just upstream (north) of the bridge has been modified.
- A maintenance access ramp has been added at the request of Santa Barbara County Flood Control to the west side of the creek, upstream (north) of the bridge.

Both of these design changes are located upstream and north of the existing bridge. Impacts to arroyo willow thickets have been slightly reduced from 0.19 acre to 0.18 acre. The amount of mitigation to be implemented has been increased to 0.56 acre. A ratio of 2:1 was originally set for the Project; however, supplemental mitigation was added to the Project at the request of RWQCB resulting in a higher ratio of 3:1. Impacts to coast live oaks and western sycamores has remained the same with the new project design, therefore the mitigation to be implemented has remained the

same with the installation of 20 western sycamores. The resulting changes to impacts to jurisdictional waters and riparian vegetation have been accounted for accordingly in this Mitigation Plan as detailed above in Section 1.2. No changes have occurred to the project footprint immediately underneath and downstream of the bridge.

1.4 Biological Setting

The City is located along the California coast, approximately 100 miles north of Los Angeles and 100 miles south of San Luis Obispo in Santa Barbara County, California. U.S. 101 is the primary regional artery connecting the City of Goleta and City of Santa Barbara. The mitigation site occurs at the east end of the Goleta Valley, within 1.5 to 2 miles of the Pacific Ocean. The mitigation site is located at Lake Los Carneros, a 140-acre designated open space owned by the City. The mitigation site is located outside of the Coastal Zone in the *Goleta, California* U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle, north of U.S. Highway 101 and Calle Real, south of Covington Way, west of North Las Patera Lane, and east of North Los Carneros Road. Figure 3 shows the location of the mitigation site in relation to the Coastal Zone, City of Goleta boundary, and the parcel boundary.

Lake Los Carneros is 140 acres in total and is zoned as Open Space (Figure 2). The property includes a 22-acre lake, hiking paths, benches, portable toilets, a picnic area, several museums, and several vegetation communities. The majority of Lake Los Carneros is designated by the City as ESHA (Figure 7). Monarch butterfly roosting habitat, raptor nesting habitat, native upland woodland/savannah habitat, open water, riparian/marsh/vernal habitat, and scrub habitat are present within the parcel. Lake Los Carneros is situated in a suburban setting, with houses on the west, north, and east sides. Santa Barbara County Flood Control has an easement south of the dam where they maintain a mitigation bank (Figure 7).

One named waterbody, Los Carneros Lake (lake), is located adjacent to the mitigation site. According to U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory, the lake is classified as freshwater pond habitat. The lake is surrounded by freshwater emergent wetland and freshwater forested/shrub wetland. In addition, an unnamed freshwater pond surrounded by freshwater forested/shrub wetland is located southeast of Los Carneros Lake. A freshwater emergent wetland is located south of Los Carneros Lake and west of the independent freshwater forested/shrub wetland (USFWS 2020). The two main sources of water to the lake are direct precipitation and surface run-off; subsurface flows appear to be limited. A third source of water enters the lake via an underground culvert. The watershed contributing to the lake is approximately 190 acres and is conveyed to the lake via a culvert under Covington Way. An overflow structure within the dam conveys flows to the overflow pond below and south of the dam. Inflows equal or exceed evapotranspiration for about half of the year; therefore, the lake experiences large seasonal and annual fluctuations in water level (Hunt 1999).

The Mediterranean climate of the Goleta region is mild, characterized by warm summers, and temperate, semi-moist winters. Daytime summer temperatures in the area average from the high 70s to mid-90s. Nighttime low temperatures during the summer are typically in the high 50s to low 60s. Winter daytime high temperature tends to be in the 60s, while winter low temperatures are in the 30s. Annual rainfall typically ranges from about 13 to 18 inches, with nearly all precipitation occurring between October and April. The ecology of Santa Barbara County includes vegetation communities consisting predominantly of coastal scrub, chaparral, oak woodland, marshlands, riparian woodland, and native and non-native grasslands.

Seven vegetation types were identified within and/or adjacent to the mitigation site, including non-native grasslands; mulefat thickets; coast live oak woodlands; ornamental; arroyo willow thickets; California bulrush marshes; and coyote brush scrub. Additionally, developed lands are also present. See Figure 8 for a map depicting the vegetation communities and other land cover types within and adjacent to the mitigation site that originated from the Biological Study Area (BSA) that was analyzed in the NES Addendum (Rincon 2020a).

Based on the jurisdictional delineation performed as part of the NES Addendum, portions of the mitigation site are potentially subject to CDFW and RWQCB jurisdictions; CDFW-jurisdictional lakebed and RWQCB non-wetland waters of the State are present along the margin of Lake Los Carneros. Potentially jurisdictional areas within the mitigation site are shown on Figure 9.

The existing biological and physical conditions, including the project area's topography, soils, habitat, watercourses, and level of human or natural disturbance, are described in detail in the NES.

1.5 Site Selection

The previously approved mitigation site adjacent to the construction site is no longer an available restoration site. Mitigation was first pursued in appropriate areas within the immediate vicinity of the Project. Areas under investigation in the vicinity were too small, fragmented, not owned by the City, or not available for purchase. Therefore, the City identified a new location for the mitigation site within City-owned property along Lake Los Carneros at the Los Carneros Natural and Historical Preserve.

Lake Los Carneros was chosen as it currently supports the appropriate habitats required for mitigation in the form of arroyo willow and western sycamore woodland and has potential for these habitats to be expanded. Additionally, Lake Los Carneros offers the opportunity or public involvement and appreciation and water quality could be improved with habitat restoration.

Five potential restoration areas were identified along the lake and woodland margins and these areas were evaluated for biological and cultural resources as outlined in the NES Addendum (Rincon 2020a); and Historic Property Survey Report (Rincon 2020b), Archaeological Survey Report Addendum (Pfeiffer et al. 2020a), and Extended Phase I Study (Pfeiffer et al. 2020b), respectively. Restoration areas #10 and #11 were chosen as the best option for mitigation for several reasons:

- Suitability for arroyo willow and western sycamore woodland habitat
- Dominance of non-native plant species that could be removed
- Suitable acreage to allow for mitigation to occur within one continuous area
- Presence of adjacent native vegetation along the lake margin to expand habitat area and function
- Lack of sensitive biological resources
- Lack of sensitive cultural resources

Non-native species are dominant in the proposed restoration areas, and by removing the non-native species and installing native species, native species diversity and functionality of these sensitive communities will be greatly improved. When completed, the proposed restoration effort would ensure a net gain in the acreage and function of arroyo willow and western sycamore woodland habitat along the lake.

Figure 7 Sensitive Biological Resources within Los Carneros Natural and Historical Preserve



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Fig X Sensitive Bio Resources

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Figure 8 Vegetation Communities – Mitigation Site

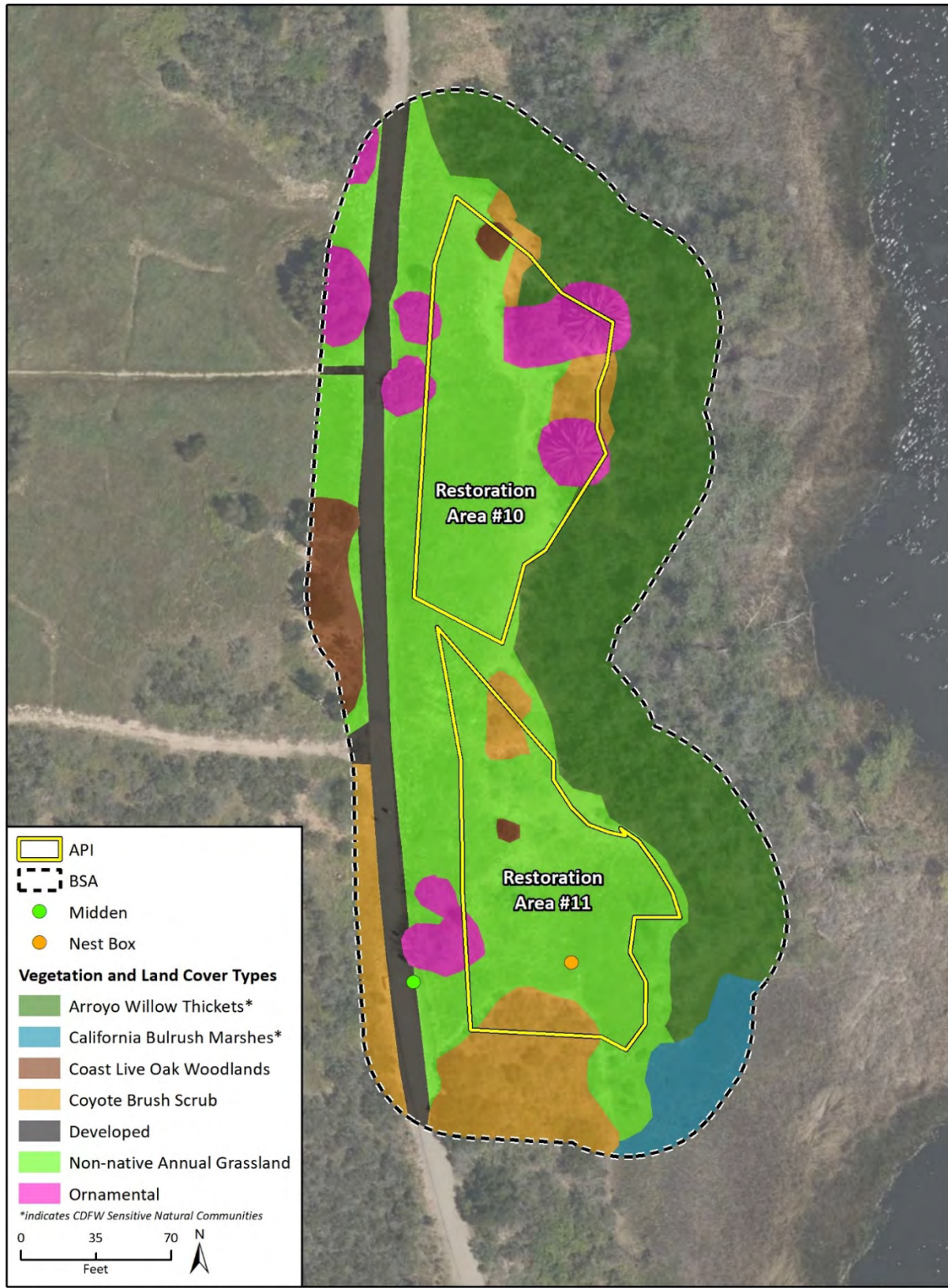
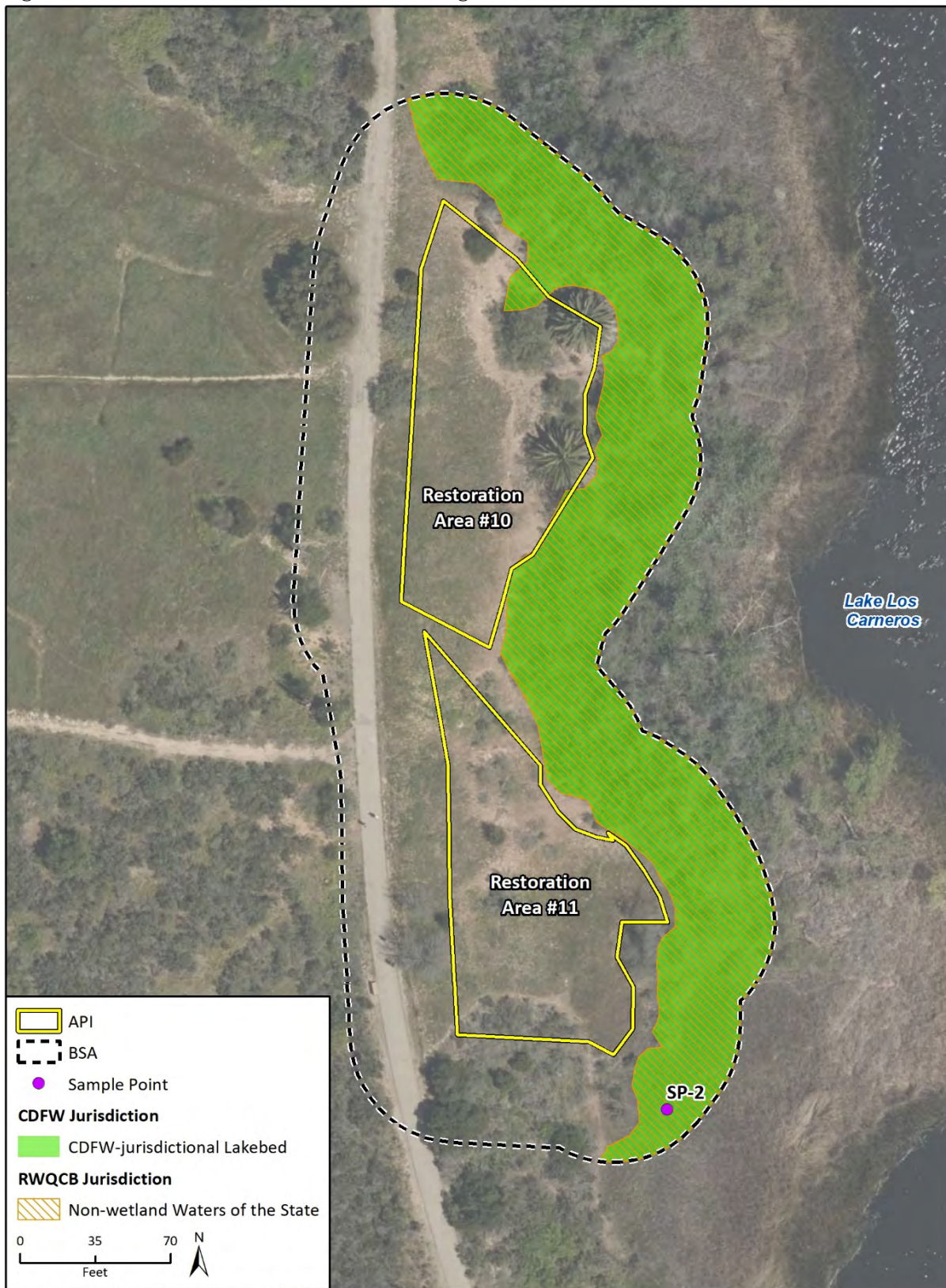


Figure 9 Jurisdictional Delineation – Mitigation Site



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2 Compensatory Mitigation Plan

This compensatory mitigation plan provides details on mitigation requirements identified in the IS-MND and methods for implementing the mitigation. As described above, this Mitigation Plan will be reviewed by the regulatory agencies and will be implemented by the City with direction and oversight provided by the City-approved Restoration Biologist.

2.1 Mitigation Work Plan

The following section details the mitigation preparation and installation methods for the mitigation site. Restoration preparation and implementation elements include the restoration approach, source of plant materials, seed storage, plant propagation, non-native plant removal, erosion control, plant installation methods, and plant protection. Maintenance and monitoring elements include the performance criteria, maintenance plan, monitoring plan, reporting requirements, and restoration schedule.

2.1.1 Restoration Approach

The woodland corridor will be expanded and enhanced through the removal of non-native, invasive species and installation of native plants. Native species diversity and abundance will be substantially increased along an otherwise non-native dominated portion of Lake Los Carneros. A total of 0.56 acre of arroyo willow and western sycamore woodland habitat will be restored within the mitigation site established at Lake Los Carneros, including 20 western sycamores, in accordance with the mitigation requirements associated with the Project (see Table 3). Additionally, restoration of approximately 0.05 acre will occur at the Project site to mitigate for temporary impacts to jurisdictional areas due to project-related activities (see Table 3).

This Mitigation Plan distinguishes native woodland habitat creation and re-establishment from native woodland enhancement based on the presence or absence of an existing native plant community. If the area currently lacks native vegetation, restoration activities in the area are considered “re-establishment” as the aquatic resource (native vegetation) will be established with the goal of returning natural functions to a former aquatic resource. If the area currently lacks native vegetation, restoration activities in the area are considered “creation” as the aquatic resource (native vegetation) will be established with the goal of returning natural functions to an upland area. If native species are present in the area, but opportunities for improvement exist, restoration activities in the area are considered “enhancement” as the degraded aquatic resource (native vegetation) will be improved. Of the 0.56 acre of restoration, 0.16 acre is considered re-establishment as native vegetation is absent and the area is dominated by annual non-native grasses; this area comprises a floodplain terrace adjacent to the lake and will be restored to arroyo willow woodland habitat as described below. Approximately 0.35 acre are considered creation as native vegetation is absent and the area is dominated by annual non-native grasses; this area comprises a small slope along the existing road berm, which is adjacent to the low floodplain terrace, and will be restored to western sycamore woodland and understory as described below. The remaining 0.04 acre is considered enhancement as native vegetation is currently present.

Four restoration treatment types are proposed: arroyo willow woodland (re-establishment, planting), western sycamore woodland (creation, planting), western sycamore woodland understory

(creation, planting), and riparian enhancement (invasive plant species removal, weeding). The treatments will entail installing trees, shrubs, and herbaceous species to provide a mosaic of shrub or tree canopy as well as understory. A summary of habitat to be restored is provided in Table 5. Figure 10 illustrates the location of each restoration treatment type.

Table 5 Summary of Habitat to Be Restored Within the Mitigation Site

Habitat	Riparian Re-establishment ² (Acres)	Riparian Creation ² (Acres)	Riparian Enhancement ² (Acres)	Total ¹ (Acres)	Length (Feet)	Projected Jurisdictional Water Body ³
Arroyo willow woodland	0.16			0.16	-	CDFW Lakebed, RWQCB Non-wetland waters of the State/Riparian
Western sycamore woodland		0.18		0.18	-	CDFW Lakebed, RWQCB Non-wetland waters of the State/Riparian
Western sycamore woodland understory		0.17		0.17		CDFW Lakebed, RWQCB Non-wetland waters of the State/Riparian
Riparian Enhancement			0.04	0.04	-	CDFW Lakebed, RWQCB Non-wetland waters of the State/Riparian
Total ¹	0.16	0.35	0.04	0.56	380	

¹ Totals are precise numbers calculated in GIS and discrepancies with tabular data presented here may occur due to rounding.

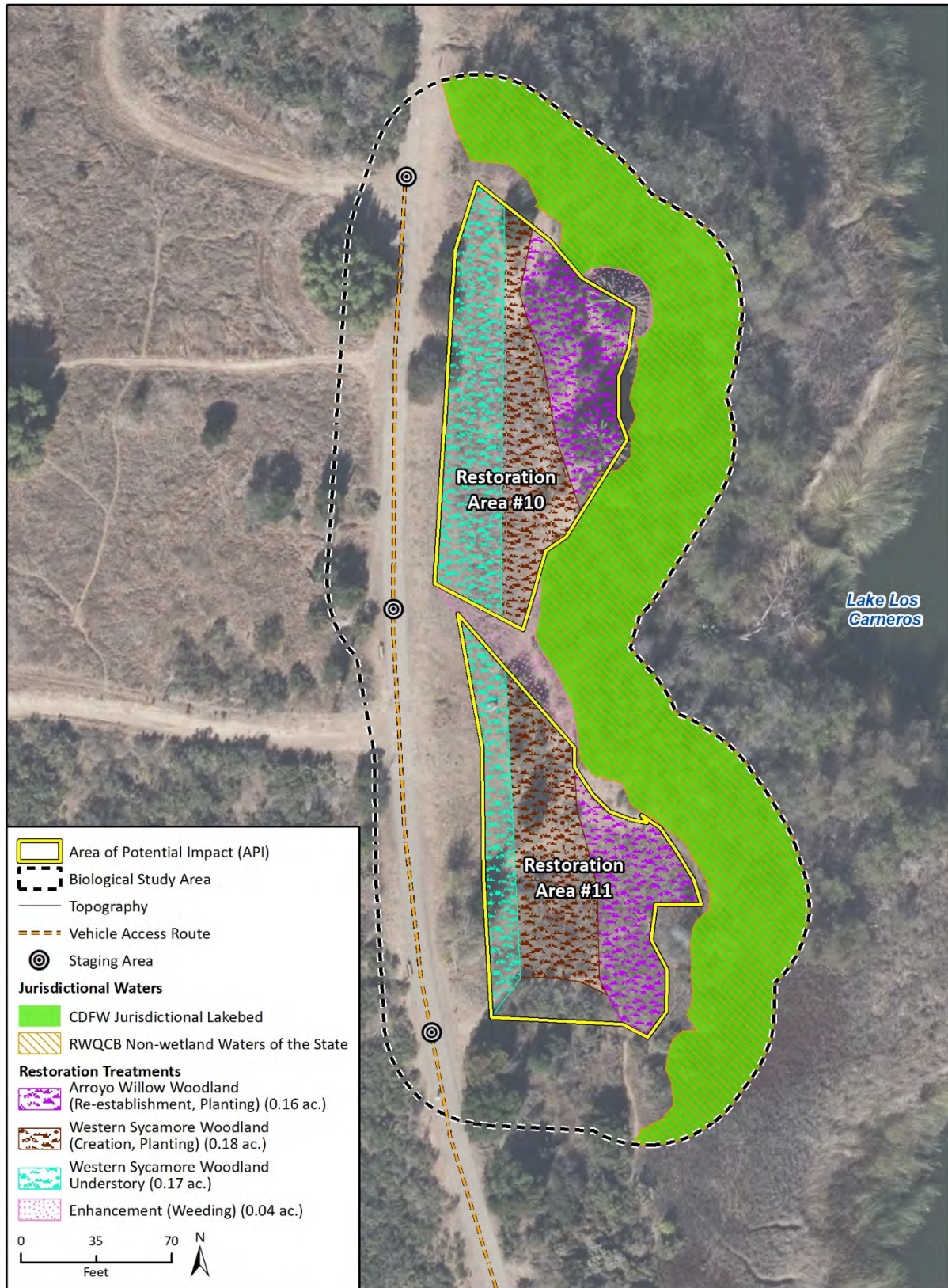
² If the area currently lacks native vegetation, restoration activities in the area are considered “re-establishment” as the aquatic resource (native vegetation) will be established with the goal of returning natural functions to a former aquatic resource. If the area currently lacks native vegetation, restoration activities in the area are considered “creation” as the aquatic resource will be established with the goal of returning natural functions to an upland area. If native species are present in the area, but opportunities for improvement exist, restoration activities in the area are considered “enhancement” as the degraded aquatic resource will be improved.

³ The projected jurisdictional water body type is an estimate of what the jurisdiction of the planted areas would become after establishment.

When completed, the proposed restoration effort would ensure a net gain in the acreage and function of riparian habitat along the lake. The riparian corridor adjacent to the lake will be expanded and enhanced through the removal of invasive species and installation of native riparian plants. Native species diversity and abundance will be substantially increased along an otherwise non-native dominated portion of the lake. A total of 0.56 acre of riparian habitat will be restored, including arroyo willow thickets and 20 western sycamores, in accordance with the mitigation requirements associated with the Project.

The proposed restoration approach is consistent with the Lake Los Carneros County Park Updated Management Plan (Hunt 1999) as the plan specifically states that the lake presents “several “outstanding” opportunities for habitat restoration that would enhance wildlife resources and visitor enjoyment of the park, as well as further increase the status of the park as locally and regionally important bird habitat.” Several areas for restoration opportunities are identified, including the lakeshore where “[t]he aesthetic and biological values of the lake can be significantly increased by a program of native tree planting. Western sycamore and black cottonwood [*Populus trichocarpa*] can be planted at various locations above the maximum lake water level” (See Section

Figure 10 Restoration Layout



7.2 of the Lake Los Carneros County Park Updated Management Plan). Additionally, the plan calls for dead or downed mature non-native trees to be replaced with native trees, such as coast live oak and western sycamore (See Section 7.1 of the Lake Los Carneros County Park Updated Management Plan). The proposed restoration approach is also consistent with the City of Goleta’s Creek and Watershed Management Plan (City 2020) in that the lake is purposely not included in the Creek and Watershed Management Plan as the lake has its own management plan (See Section 3.4.4.9 of the Creek and Watershed Management Plan).

Arroyo Willow Woodland (Re-establishment, Planting), Western Sycamore Woodland (Creation, Planting), and Western Sycamore Woodland Understory (Creation, Planting)

Approximately 0.16 acre of arroyo willow woodland will be re-established along a floodplain terrace adjacent to the lake. A mixture of trees, shrubs, and herbaceous species will be installed, including the arroyo willows needed for replacement. Riparian vegetation is absent, and the area is currently dominated by annual non-native grasses.

Approximately 0.18 acre of western sycamore woodland will be created along a small slope along the existing road berm, which is adjacent to the low floodplain terrace. A mixture of trees, shrubs, and herbaceous species will be installed, including the western sycamores needed for replacement. Riparian vegetation is currently absent, and the area is dominated by annual non-native grasses.

Approximately 0.17 acre of western sycamore woodland understory will be created along the upper portion of a small slope along the existing road berm. A mixture of shrubs and herbaceous species will be installed. Riparian vegetation is currently absent, and the area is dominated by annual non-native grasses.

Species for each restoration treatment will be selected to optimize habitat and biodiversity. Species found within the Project area, or species native to the region that are characteristic of coastal riparian habitat, but are not included on the plant palettes below, may also be used as substitutes as determined by the City-approved Restoration Biologist. The final mix will be determined by source availability and propagation success. Table 6 provides a representative palette of native species that may be used for each treatment type.

Table 6 Native Plant Palette

Scientific Name	Common Name	Quantity	Size	Arroyo Willow Woodland	Western Sycamore Woodland	Western Sycamore Woodland Understory
Riparian Trees						
<i>Platanus racemosa</i>	Western sycamore	20	5-gallon		X	
<i>Salix lasiolepis</i>	Arroyo willow	15	1-gallon	X		
<i>Sambucus nigra</i>	Blue elderberry	5	1-gallon		X	
Riparian Shrubs and Vines						
<i>Baccharis salicifolia</i>	Mulefat	TBD	1-gallon	X		
<i>Frangula californica</i>	California coffeeberry	TBD	1-gallon			X

Scientific Name	Common Name	Quantity	Size	Arroyo Willow Woodland	Western Sycamore Woodland	Western Sycamore Woodland Understory
<i>Heteromeles arbutifolia</i>	Toyon	TBD	1-gallon			X
<i>Phacelia ramossissima</i>	Branching phacelia	TBD	1-gallon		X	X
<i>Rosa californica</i>	California rose	TBD	1-gallon		X	X
<i>Rubus ursinus</i>	California blackberry	TBD	1-gallon	X	X	X
Grasses and Forbs						
<i>Artemisia douglasiana</i>	Mugwort	TBD	1-gallon or 4-inch	X	X	X
<i>Bromus carinatus</i>	California brome	TBD	1-gallon or 4-inch		X	X
<i>Carex barbarae</i>	Santa Barbara sedge	TBD	1-gallon or 4-inch	X		
<i>Distichlis spicata</i>	Saltgrass	TBD	1-gallon or 4-inch	X		
<i>Elymus triticoides</i>	Alkali ryegrass	TBD	1-gallon or 4-inch	X	X	X
<i>Euthamia occidentalis</i>	Western goldenrod	TBD	1-gallon or 4-inch		X	
<i>Hordeum brachyantherum ssp. californicum</i>	California barley	TBD	1-gallon or 4-inch	X		
<i>Juncus patens</i>	Common California rush	TBD	1-gallon or 4-inch	X		
<i>Juncus phaeocephalus</i>	Brown-headed rush	TBD	1-gallon or 4-inch	X		
<i>Juncus textilis</i>	Basket rush	TBD	1-gallon or 4-inch	X		
<i>Juncus xiphioides</i>	Iris-leaved rush	TBD	1-gallon or 4-inch	X		
<i>Solidago velutina</i> subsp. <i>californica</i>	Velvety goldenrod	TBD	1-gallon or 4-inch		X	X
<i>Verbena lasiostachys</i>	Verbena	TBD	1-gallon or 4-inch		X	X
TBD = To be determined						

On average, 4-foot spacing will be used for shrubs, vines, grasses, and forbs. On average, tree species will be installed at 20-foot spacing. Most non-tree species will be installed as 1-gallon containers, but other sizes may be used depending on the species. Replacement western sycamore trees will be installed as 5-gallon containers in accordance with Mitigation Measure BIO-1. Any trees installed as an addition to the replacement trees will be installed as 1-gallon containers. Table 7

summarizes the native plant installation details. The source of plant materials and seed storage and plant propagation techniques are described in Sections 2.1.2 and 2.1.3, respectively. Site preparation is described in Section 2.1.4. The methodology for plant installation is described in Section 2.1.5.

Table 7 Native Plant Installation Summary

	Arroyo Willow Woodland	Western Sycamore Woodland	Western Sycamore Woodland Understory	Total
Acres	0.16	0.18	0.17	0.52
Square feet	7,170	7,973	7,317	22,460
Spacing (feet)	4	4	4	-
Number of plants needed	448	498	457	1,404

Enhancement (Invasive Plant Species Removal, Weeding)

Approximately 0.04 acre of existing native vegetation will be enhanced with weeding, specifically targeting non-native invasive plant species. In particular, resprouts or seedlings from the canary palm that will be removed during site preparation (see Section 2.1.4), will be targeted. Restoration of this area aims to expand the extent and functional capacity of the native woodland corridor by removing non-native plants, including invasive plant species, and allowing for native plant species to better thrive, proliferate, and expand in cover with less competition for resources. Weeding will be conducted in accordance with Section 2.3.1.

2.1.2 Source of Plant Materials

A qualified native nursery contractor with oversight by the City-approved Restoration Biologist will gather plant stock, e.g., seeds and cuttings. To preserve the integrity of local gene pools, ensure adaptation to site-specific conditions, and avoid inadvertent introduction of inappropriate species or pathogens, and to adhere to Mitigation Measure BIO-3, the native plant material used for revegetation will primarily be collected from the Lake Los Carneros watershed. If sufficient plant material cannot be collected from this area alone, plant material from the Santa Barbara coast south of the Santa Ynez Mountains between Carpinteria and Gaviota will be used. If native material that doesn't adhere to these sources is accidentally installed, the individuals will be removed. More specific areas for collection of native plant materials within the areas defined above will be defined in the field, taking into account the following:

- Ecological similarity to the area to the Project site
- Proximity to the Project site
- Land ownership
- Accessibility
- Abundance and availability of target species

Need to ensure genetic diversity of source material (i.e., seed will be collected from a diverse sample of the parent plants within the collection zone).

2.1.3 Seed Storage and Plant Propagation

A qualified native nursery contractor will store and propagate plant stock, in accordance with Mitigation Measure BIO-1, the City-approved Restoration Biologist will provide oversight. As discussed further in Section 2.6, seed and cutting collection, and propagation of plants will occur through spring 2021. Specifically, seed collection and plant propagation for the replacement western sycamores will be initiated before construction starts, or as soon as practical, in accordance with Mitigation Measure BIO-1.

Seeds will be stored in a proper container in a cool, dry place. If necessary, seeds will be treated with freezing temperatures to kill insect pests by placing seeds in a freezer for 2 or 3 days. If necessary, seeds will be treated with low heat or a de-humidifier to reduce excess moisture. All containers of seeds will be labeled with the scientific name, date, and location of collection.

Seeds will be sown, or cuttings will be used, to establish container plants. These container plants can either be planted in the field or used to create additional seeds or cuttings in the nursery. Salvaged plants will be either directly transplanted by a qualified native landscape contractor or taken to the nursery and prepared for later transplanting. Nursery plants must be maintained in a healthy condition until delivery. All plants obtained from the native plant nursery will be free of Argentine ants (*Linepithema humile*).

2.1.4 Site Preparation

Prior to initiation of restoration activities, all personnel associated with mitigation installation, maintenance, and monitoring will attend a Worker Environmental Awareness Program (WEAP) training, conducted by a qualified biologist and archaeologist. The WEAP will aid workers in recognizing invasive wildlife and plant species, preventing the spread of invasive species, and in recognizing sensitive biological and cultural resources that may occur in the Project area.

Prior to plant installation, a qualified native landscape contractor with oversight by the City-approved Restoration Biologist will remove non-native plants at the mitigation site. Two grow-kill cycles will be implemented during site preparation to minimize the amount of non-native seed bank and the potential for extensive maintenance throughout the maintenance period. In early spring, prior to plant installation, the qualified native landscape contractor shall irrigate the mitigation site adequately to encourage seed germination. The qualified native landscape contractor shall return to the site two to three weeks after watering to remove the non-native vegetation that has sprouted. Immediately following weed removal, the grow-kill cycle shall be repeated two more times, or as deemed appropriate by the City-approved Restoration Biologist.

Non-native plants will be removed primarily using hand removal methods, such as hand-held weed whips, loppers, and hoes. If hand removal is not feasible due to species resistance to hand removal methods, the size of the plant, or the number of plants, perennial invasive non-native species may be treated with herbicides.

Herbicide application would be limited to the smallest extent possible while maintaining effectiveness. Only individual plants will be treated; blanket spraying efforts will not be allowed. If herbicide is applied, it will be applied during dry and low wind conditions to prevent conveyance of herbicide into Lake Los Carneros or other non-targeted areas. Herbicide application must be performed by a licensed applicator that can identify the species to be treated and is experienced in the handling and application of herbicides. Herbicides must be approved for use by the City and

authorized under permit and property conditions. Only herbicides approved for use near or in water, such as AquaMaster™ or equivalent, will be used if necessary.

Two mature Canary island date palms (*Phoenix canariensis*) will be removed from the north end of Restoration Area #10. Removal will occur before planting begins as the area is designated for re-establishment. A stump grinding or similar method will be used to remove most of the trunk to ground level or to 6-12 inches below ground level if possible. Holes will then be made mechanically within the root zone to allow for native plants to be installed. If the stump can be removed to 6-12 inches below ground level, soil will be placed in the hole and plants will be installed there as well.

Vegetation with potential to contain bird nests will not be removed during the breeding bird season (February 1 through August 31) unless a City-approved biologist determines that it does not contain active bird nests.

Long term non-native plant removal will be conducted as described in Section 2.3.1.

2.1.5 Plant Installation Methods

A qualified native landscape contractor with oversight by the City-approved Restoration Biologist will install plants to coincide with the first major winter storm (approximately October to December) when soil conditions are moist. The City-approved Restoration Biologist will determine precise planting locations in the field.

Specifically, replacement western sycamores will be installed in accordance with Mitigation Measure BIO-1. Western sycamore trees will be installed as 5-gallon containers in accordance with Mitigation Measure BIO-1. Most non-tree species will be installed as 1-gallon containers, but other sizes may be used depending on the species. Any trees installed as an addition to the replacement trees will be installed as 1-gallon containers. On average, 5-foot spacing will be used for shrubs, vines, grasses, and forbs. On average, tree species will be installed at 20-foot spacing. Table 7 provides the mix of plants and quantities proposed for each riparian habitat type to be created or re-established.

Holes for the container plants will be dug by hand using a shovel, hand auger, or similar device. Care will be taken not to disturb the root ball, stems, or branches when installing each container plant. The soil will be backfilled so as not to leave any air spaces around the container plant soil and roots. Planting pits will be backfilled with native soil so that the soil surface of the container plant is level with the ground. Archaeological and Native American monitoring will occur during the ground disturbance associated with the install of the plants as described further in Section 2.1.9.

After installation, bark mulch will be placed around each plant (in areas where water movement will not disrupt the bark mulch) to prevent non-native plants from establishing and to help increase soil moisture. Bark mulch will be placed around each container plant at a depth of 2 to 3 inches. Mulch will be placed in a 2-foot radius for trees and a 1-foot radius for other species. If applicable, mulch originating from the non-native on-site vegetation would be allowed some time to dry and then would be used around installed plants as feasible. Additional bark mulch originating from Santa Barbara, such as mulch available from the County's South Coast Recycling and Transfer Station, may be acquired as needed. All purchased mulch will be free of Argentine ants.

Each container plant will be immediately watered by a drip emitter system if feasible or by hand if water connections are not available. Long term irrigation will be applied as described in Section 2.3.2.

2.1.6 Plant Protection

Underground gopher cages will be used as gophers are abundant in the area. If needed, wire cages will be placed around container plants aboveground to prevent herbivory where needed. Signage and temporary construction fencing will be placed around the mitigation site to inform people to stay out of the restoration area to minimize trampling of native plants.

2.1.7 Erosion Control

If deemed necessary, a qualified native landscape contractor with oversight by the City-approved Restoration Biologist will install erosion control materials, although problematic erosional issues are not expected to occur as there are no issues presently on-site. Erosion control devices may include low silt fences, hay bales at the base of slopes, and/or straw wattle. Erosion control materials containing plastics will not be used due to the hazards they pose to wildlife. Erosion control materials will be certified as weed free. If vegetation needs to be removed to install erosion control materials, it will not be removed during the breeding bird season (February 1 through August 31) unless a City-approved biologist determines that it does not contain active bird nests. Erosion control materials will be maintained during the 5-year maintenance period or until plants are well established.

2.1.8 Access Routes and Staging Areas

The mitigation site will be accessed by vehicle via one proposed access route, along the existing dam road. From this point, the mitigation site will be accessed by foot. Staging areas will mainly be located along the road; however, smaller staging areas may be sited within the planting areas. Staging areas will be contained to the smallest footprint possible and will not disturb native vegetation.

2.1.9 Archaeological and Native American Monitoring

Although no resources have been identified within the mitigation areas, the mitigation site is generally sensitive for cultural resources. Therefore, this Mitigation Plan will require that a City-approved archeologist and a Chumash Native American monitor will be present for initial ground disturbing activities (e.g., excavation into previously undisturbed soils) for each of the planting areas shown in Figure 10 to examine soils, to the depth of proposed planting, for their potential to yield cultural resources deposits. Should a discovery of cultural resources be made during the ground disturbing activities, measure CUL-1 of the IS-MND will be applied which provides measures for the unanticipated discovery of cultural resources.

2.2 Performance Criteria

Performance criteria will be used to determine if the Project is successful during the 5-year maintenance and monitoring period as described in Sections 2.3 and 2.4. Mitigation Measure BIO-2 identifies the following performance criterion for the restored mitigation site:

- Survival must be 75 percent at the end of 2 years, and 65 percent at the end of 5 years.

Additionally, this Mitigation Plan establishes the following performance criteria for the restored mitigation site based on similar projects in the region:

- Achieve 70 percent native cover after 3 years and retain 70 percent coverage by the end of the 5-year monitoring and maintenance period.
- Non-native invasive herbaceous species, excluding annual non-native grasses, to remain below 5 percent of total vegetation cover.
- No non-native invasive woody species shall be present within the mitigation site.
- Vegetation survivorship without supplemental irrigation for at least 2 years.
- No single species to constitute more than 50 percent of the vegetative cover in the understory.

The City-approved Restoration Biologist will monitor to determine if performance criteria are being achieved as described in Section 2.4. If performance criteria are not being achieved, the City may be required to replant, as necessary, to ensure performance criteria are met.

2.3 Maintenance Plan

A qualified native nursery contractor with oversight by the City-approved Restoration Biologist will conduct maintenance at the mitigation site for a period of 5 years, beginning after completing initial restoration installation. Changes may be made as necessary based on annual monitoring reports, per the City's General Plan (City of Goleta 2009, Policy CE 1.7). The City-approved biologist will oversee adjustments to maintenance activities to ensure that the performance criteria for the mitigation site are achieved. Maintenance will include non-native plant removal, watering, replanting, and repairing of damage to plants, erosion control devices, fencing, and/or signs that are a result of erosion or vandalism.

2.3.1 Long-term Maintenance Methods and Schedule

During the 5-year maintenance period, a qualified native nursery contractor will conduct routine activities to maintain the plantings in a healthy condition, control erosion of the mitigation site, and ensure performance criteria are being achieved. Specifically, the 5-gallon replacement western sycamores will be weeded for 5 years in accordance with Mitigation Measure BIO-1 that requires these individuals must be weeded for at least 3 years, and up to 5 years if necessary.

Non-native plants will be removed primarily using hand removal methods, such as hand-held weed whips, loppers, and hoes. If hand removal is not feasible due to species resistance to hand removal methods, the size of the plant, or the number of plants, perennial invasive non-native species may be treated with herbicides. Herbicides may be used as described in Section 2.1.4.

The majority of invasive non-native plant removal efforts will be conducted during the peak growing season (winter and spring) when non-native plant species are most prevalent. A regular but lower level of effort during the rest of the year is recommended to minimize the spread of non-native plant seeds. The maintenance schedule and crew size will be adjusted based on the abundance of non-native plants on-site and the effort it takes to remove them before going to seed.

Non-native plant species, including invasive plant species, would be removed as part of mitigation efforts; however, implementation of the proposed mitigation has the potential to result in the spread of invasive plant species through soil displacement and disturbance and by the inadvertent transport of propagules (e.g., seeds, pieces of invasive plants that have broken off) by vehicles and people. All efforts shall be made to avoid the spread of and otherwise eliminate invasive weeds within the mitigation site, such as ensuring tools, equipment, vehicles, clothing and footwear, and other gear shall be cleaned to remove soil, seeds, and other plant parts. To protect sensitive

biological resources, all personnel associated with mitigation activities shall attend a WEAP training as described in Section 2.1.4.

The City-approved Restoration Biologist will monitor to determine if performance criteria are being achieved as described in Section 2.2. If performance criteria are not being achieved or are projected as such, the City will take action to ensure performance criteria are met. Corrective actions may include, but are not limited to, increased frequency of non-native weed removal and replacement planting. Replacement planting in Year 3 will be necessary if survivorship does not meet the 75 percent performance criterion at the end of Year 2 (see Section 2.2); however, replacement planting may be initiated earlier in Year 2 to help ensure restoration success.

2.3.2 Long-term Irrigation Methods and Schedule

A temporary above ground irrigation system will be installed throughout the mitigation site. The irrigation system would be set up to target individual plants via drip emitters and would avoid watering in between the plants to help prevent the growth of non-natives. The source of the water may be a permanent hookup if available, or a temporary water source such as a holding tank or water truck.

The City-approved Restoration Biologist will establish an irrigation schedule in conjunction with the native landscape contractor. Irrigation will be scheduled to maximize growth of native species and will account for natural rainfall, while minimizing growth of invasive non-native plants. Generally, if irrigation is needed, it will be provided to a greater extent during the growing season (winter and spring) to mimic seasonal weather patterns, with minimal irrigation provided as needed during the summer and fall to keep plants alive.

Towards the end of spring of the third year, the irrigation schedule will be gradually reduced over several weeks to wean the plants to adapt to a reduced watering schedule over the summer and fall. The irrigation system will be used for up to 3 years and plants will be completely weaned from the irrigation prior to the end of the third year. Specifically, the 5-gallon replacement western sycamores will be irrigated for a minimum of 3 years in accordance with Mitigation Measure BIO-1 that requires these individuals must be irrigated for at least 3 years, and up to 5 years if necessary. If irrigation materials are installed, they will be removed once the plants are weaned. In the case of replacement western sycamores, if irrigation is needed beyond the third year, irrigating these individuals may be done by hand as needed.

2.3.3 Maintenance Restrictions

Although the following Mitigation Measures do not specifically apply to the mitigation site, they will be adhered to during implementation of the Plan:

- BIO-4: Removal of (large, existing) vegetation will occur in the dry season, typically between May and October.
- BIO-6: Vegetation with potential to contain bird nests will not be removed during the breeding bird season (February 1 through August 31) unless it is determined by a City of Goleta-approved biologist that it does not contain active bird nests.

2.4 Monitoring Plan

Monitoring will be conducted by the City-approved Restoration Biologist. The mitigation sites will be monitored for a 5-year period to ensure successful establishment. Each year of the 5-year monitoring and maintenance period is defined as a 12-month period starting when restoration implementation is complete. Changes may be made as necessary based on annual monitoring reports, per the City's General Plan.

2.4.1 Monitoring Methods and Schedule

The mitigation sites will be qualitatively monitored by the City-approved biologist monthly each year (beginning at the completion of restoration installation), and quantitatively once in the spring and once in the winter of each year during the 5-year monitoring period. Specifically, the 5-gallon replacement western sycamores will be monitored for 5 years in accordance with Mitigation Measure BIO-1.

Monthly monitoring will qualitatively assess the success of the mitigation sites. Visual estimates of percent cover of native and non-native plants will be made to determine if performance criteria are being met, or likely to be met, by the end of Year 5. The City-approved biologist will ensure the qualified native landscape contractor limits use of herbicide and applies supplemental watering as appropriate. Recommendations for maintenance needs will be made to the qualified native landscape contractor based on observations made during the monitoring activities.

Photographs will be taken each year during the spring and winter monitoring to qualitatively document plant establishment, hydrologic conditions, and other site conditions. Permanent photo-documentation points will be established throughout the mitigation site, primarily prior to installation. Each photo point location will be documented using global positioning system (GPS) and marked in the field with T-posts, or a similar mechanism, which will be removed after completion of the 5-year monitoring period. The photographs will be included in the annual monitoring report to allow comparison between monitoring years.

Spring and winter monitoring will quantitatively assess the success of the mitigation site. Fixed-line transects will be installed throughout the mitigation sites to sample the following parameters:

- Species occurring within the transect and whether the species is native or non-native
- Percent absolute plant cover, and cover of native versus non-native species

Each transect location will be documented using GPS and marked in the field with PVC pipes anchored by rebar, or similar mechanism, which will be removed after completion of the monitoring period. Transect locations will be selected systematically to sample different habitat types. Photographs will be taken at each transect during the quantitative monitoring events, separate from those photographs taken during the qualitative monitoring event. The photographs will be included in the annual monitoring report to allow comparison between monitoring years.

The number of container plants that have died will also be recorded during the spring and winter quantitative monitoring events. If replacement plants are installed, they will be monitored for a minimum of 3 years (within the 5-year monitoring period) to ensure successful establishment.

Qualitative information about the weather conditions and mitigation site conditions (e.g., wildlife use, vegetation establishment trends, non-native plant invasion, evidence and extent of erosion, and the need for corrective actions) would also be collected during all monitoring activities.

Recommendations for maintenance needs will be made to the qualified native landscape contractor based on observations made during the monitoring activities.

Upon completion of the 5-year monitoring period, the City will conduct a final inspection. Any outstanding items will need to be completed before the regulatory agencies give final approval and accept the restoration project as complete.

2.5 Reporting Requirements

The City-approved biologist will prepare annual monitoring reports. As described above, the restored mitigation sites will be monitored and maintained for a 5-year period with changes made as necessary based on annual monitoring reports, per the City's General Plan. Annual monitoring reports will be prepared within one month of the end of each year (a 12-month period) of the 5-year monitoring and maintenance period in accordance with Mitigation Measures BIO-1 through BIO-3. The 5-year maintenance and monitoring period will begin when restoration implementation is complete. Annual reports will contain a quantitative analysis of performance criteria achievement and progress toward meeting final performance criteria. The annual reports will provide photographs taken at photo documentation points, photographs taken at transects, and relevant maps.

2.6 Restoration Schedule

A proposed schedule for restoration preparation, implementation, maintenance, and monitoring is presented in Table 8. This schedule assumes that construction will begin summer 2021, and that initial installation will begin in fall/winter of 2021, depending on availability of 5-gallon western sycamore trees. The schedule is subject to change dependent upon receiving appropriate Project permits and approvals and plant availability.

Table 8 Restoration Schedule

Timing	Task
Preparation	
Through spring 2023	Collect native seeds and cuttings, and propagate plants for initial and replacement planting (Sections 2.1.1, 2.1.2, and 2.1.3).
Spring 2022	Conduct grow-kill cycles (Section 2.1.4).
August to October 2022	Non-native plant removal immediately before plant installation (Section 2.1.4). Install erosion control as applicable (Section 2.1.7). Maintenance restrictions apply as described in Sections 2.1.4 and 2.3.3.
Prior to fall 2022	Set up photopoints for baseline photo monitoring.
Installation	
Fall/winter 2022	Install container plants (Section 2.1.1 and 2.1.5). Install irrigation system (Section 2.3.2).
Fall/winter 2023	Replacement planting as necessary.
Maintenance (Year 1 through Year 5)	
January 2023 to December 2027	Conduct site maintenance (Section 2.3). Maintenance restrictions apply as described in Sections 2.1.4 and 2.3.3.

Timing	Task
Monitoring and Reporting (Year 1 through Year 5)	
January 2023 to December 2027	Monthly qualitative monitoring (Section 2.4).
Each spring and winter, 2023 through 2027	Photograph monitoring (Section 2.4).
Each spring and winter, 2023 through 2027	Quantitative transect monitoring (Section 2.4).
Each January 2024 through 2028	Prepare annual monitoring reports (Section 2.5).

2.7 Site Protection Instrument

The mitigation site along Lake Los Carneros is located within City-owned property designated as open space by the City and managed via the Lake Los Carneros County Park Updated Management Plan (Hunt 1999). The legal arrangements and instrument through which the other mitigation site will be protected long-term are in development and will be finalized prior to construction.

2.8 Long-term Management Plan and Financial Assurances

The City will be responsible for long-term management of the mitigation sites through the five-year maintenance and monitoring period and will ensure that the performance criteria are attained. Financial assurances through which the mitigation sites will be successfully completed are in development and will be finalized prior to construction.

2.9 Adaptive Management Plan

As described in Section 2.4, The City-approved biologist will monitor to determine if performance criteria are being achieved as described in Section 2.2. Changes may be made as necessary based on annual monitoring reports, per the City’s General Plan. If performance criteria are not being achieved or are projected as such, the City may be required to take corrective actions. Corrective actions may include, but are not limited to, increased frequency of non-native weed removal and replacement planting as described in Section 2.3.1. If replanting occurs, restoration elements that may be changed include the plant species and quantities used and the location of the installed container plants, dependent on species. Additionally, maintenance measures such as non-native plant removal, irrigation, erosion control, vandalism repair, and/or plant protection may need to be modified to help ensure the success of the mitigation site.

If the Mitigation Plan cannot be implemented as approved, and is significantly modified as a result, the City will obtain approval from the Corps, CDFW, and RWQCB.

If monitoring or other information indicates that the Plan is not progressing towards meeting its performance criteria (See Section 2.2), the City will notify the Corps, CDFW, and RWQCB as soon as possible. The City will work with these agencies to address deficiencies in the Mitigation Plan and apply appropriate measures to ensure performance criteria are met.

3 References

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Appendix A

Mitigation Site Photographs



Photograph 1. Restoration Area 11. Non-native grassland habitat to be restored in center and ornamental trees in mid-ground/right to be removed. Existing native arroyo willow habitat on right. March 3, 2020.



Photograph 2. Restoration Area 10. March 3, 2020.



Photograph 3. Northern portion of Restoration Area 10. Non-native grasses in foreground to be restored. Existing native arroyo willow habitat in background. March 3, 2020.



Photograph 4. Southern portion of Restoration Area 10. March 3, 2020.

Attachment B

Santa Barbara Natives Plant Propagation Cost Estimate

Santa Barbara Natives Inc.

14900 Calle Real
 Gaviota, CA 93117
 805-729-3855

Estimate

Date	Estimate #
3/26/2021	1839

Name / Address
Rincon Consultants, Inc. Att: Julie Love 805 547 0900 EXT 108 www.rinconconsultants.com Nov. 2022

Item	Description	Qty	Cost	Total
Artemisia douglasiana	One gallon	59	6.00	354.00T
Baccharis salicifolia	One gallon	26	6.00	156.00T
Bromus carinatus	One gallon	32	6.00	192.00T
Carex barbarae	One gallon	26	6.50	169.00T
Distichlis spicata	4"	26	3.00	78.00T
Elymus triricoides	One gallon	58	6.00	348.00T
Eleocharis macrostachya	One gallon	33	6.00	198.00T
Hordeum brachyantherum	One gallon	25	6.00	150.00T
Juncus patens	One gallon	25	6.00	150.00T
Juncus phaeocephalus	One gallon	25	6.00	150.00T
Juncus textilis	One gallon	25	6.50	162.50T
Juncus xiphioides	One gallon	25	6.00	150.00T
Phacelia ramosissima	One gallon, will not hold past April	32	6.00	192.00T
Platanus racemosa	Five gallon	20	30.00	600.00T
Rosa californica	One gallon	32	6.00	192.00T
Rubus ursinus	One gallon	25	6.50	162.50T
Salix lasiolepis	One gallon	15	6.00	90.00T
Sambucus nigra ssp caerulea	One gallon	5	8.00	40.00T
Soladago californica	One gallon	32	6.00	192.00T
Verbena lasiostachya	One gallon	32	6.00	192.00T
Delivery Charge	Delivery Charge \$75 per \$1000 of product	3	75.00	225.00T

Subtotal	\$4,143.00
Sales Tax (7.75%)	\$321.08
Total	\$4,464.08

Hollister Ave Bridge	
Revised total w/ extra plants and w/o delivery	\$ 9,118
Deposit paid by the City	\$ 3,647
Remaining balance to be paid by the Restoration Contractor	\$ 5,471