# Hollister Avenue Bridge Replacement Project

## Restoration Contractor Scope of Work for Off-Site Lake Los Carneros Mitigation Site

*prepared for*

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**October 2022**

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# Table of Contents



## Tables



## Figures



## Attachments

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# 1 Introduction

The purpose of this Scope of Work is to inform the Restoration Contractor that will be subcontracted to the General Contractor on what will be required to initiate the restoration phase of the City of Goleta (City) Hollister Avenue Bridge Replacement Project (Project). The "Restoration Contractor" is the firm responsible for the habitat restoration scope of work described herein. The "General Contractor" is the firm responsible for the construction scope of work described in the Project Special Provisions and the hiring of the Restoration Contractor. Figure 1 shows the Project site and mitigation site in relation to each other.

The goal of the restoration phase is to fulfill the requirements of Initial Study and Mitigated Negative Declaration (IS-MND) (URS 2015) Mitigation Measures (MMs) BIO-1, BIO-2, and BIO-3 to compensate for the loss of riparian habitat associated with the Project. The mitigation will take place on-site at the following locations:

- Off-Site Lake Los Carneros Mitigation Site – 0.56 acre

Restoration of these areas aims to expand the extent and functional capacity of the riparian corridor by increasing native species diversity and abundance along an otherwise non-native species-dominated lake.

This Scope of Work for restoration preparation and installation follows the 2021 Off-Site Mitigation Plan at lake Los Carneros (Mitigation Plan) prepared by Rincon Consultants, Inc. (Rincon) (Rincon 2021). The Mitigation Plan is included as Attachment A for reference. Note that this Scope of Work outlines all the responsibilities that are expected of the Restoration Contractor based on the Mitigation Plan and is a summarization of said document, i.e., restoration preparation, installation, and short-term maintenance (Section 2.1 of the Mitigation Plan). There are additional restoration-related aspects outlined in the Mitigation Plan that are not part of this Scope of Work and should not be included in the Restoration Contractor bid estimate, i.e., long-term maintenance, monitoring, reporting (Sections 2.3, 2.4, and 2.5 of the Mitigation Plan).

Installation of the restoration, including site preparation, is phased by mitigation site and is scheduled for fall of 2023 through late fall/early winter of 2023. Maintenance of the mitigation sites, defined as the 90-day Plant Establishment Period (PEP), is phased by mitigation site and is scheduled for early winter of 2023 through spring of 2024. The schedule is further detailed in Section 2.1.

This Scope of Work is organized by mitigation site, then by Installation Phase and Maintenance Phase, then by task. A summary of anticipated tasks is outlined in Table 1. The detailed Scope of Work is outlined in Section 2. The following Scope of Work will be performed by the Restoration Contractor under the oversight by the City-approved Restoration Biologist.

Table 1 Task Summary

| Phase | Task by Mitigation Site<br>Off-Site Lake Los Carneros Mitigation Site |
|---|---|
| **Installation Phase** | |
| | Task LLC1: Site Preparation |
| | Task LLC 2: Plant Installation |
| | Task LLC 3: Plant Procurement |
| | Task LLC 4: Irrigation Design and Installation |
| **Maintenance Phase** | |
| | Task LLC5: Weed Removal |
| | Task LLC6: General Maintenance |

## 1.1 Restoration Contractor Qualifications

The following are the qualifications that must be met by the restoration and/or native landscaping firm that will conduct the mitigation installation for the Project, herein referred to as the Restoration Contractor.

For the off-site mitigation site, the Restoration Contractor must have experience with installing and maintaining restoration sites as follows:

- The Restoration Contractor shall have successfully completed the installation and long-term maintenance of a minimum of three native habitat restoration projects, each over 0.25 acre in southern and/or central California.
- The Restoration Contractor shall be experienced with all aspects of habitat restoration and thoroughly familiar with all native plant species listed in the Mitigation Plan, as well as all non-native plant species (including invasive species) common to the Goleta area.
- The Restoration Contractor shall be able to successfully install native plants in remote locations.
- The Restoration Contractor shall be able to successfully install an above ground temporary irrigation system in remote locations.

The Restoration Contractor must possess and provide the following Santa Barbara County pesticide application licensing at the time of the bid submittal:

- A pest control business (PCM) or one of its licensed branches (PCB) with a current license issued by California Environmental Protection Agency (EPA) Department of Pesticide Regulation (DPR)
- A person currently licensed as a Qualified Applicator (QAL) and with a Category B (Natural Areas)
- The PCM/PCB and the QAL are required to be registered with the County Commissioner in Santa Barbara County

Additionally, the Restoration Contractor shall provide the following at the time of the bid submittal:

- California Contractors “C-27” Landscaping Contractor license
- Certificate of liability insurance

## 1.2 Questions and Clarification of The Scope of Work

Questions, requests for explanation, or clarifications in regard to this Scope of Work shall be made in written form and submitted via email to Gerald Comati, Project Manager, City of Goleta, at gcomati@cityofgoleta.org.

The City will advise all bidding parties of responses to the requests for explanation or clarifications via email. All bidding parties interested in responding to the Scope of Work are advised to check their email for any updates. The bidder is also responsible for ensuring that they have complete bidding documents prior to the bid due date.

A site walk may be scheduled by the City. If so, details will be transmitted to the bidders. Attendance will be limited to a maximum of three (3) persons from each bidder.

## 1.3 Required Proposal Items

Bidding parties must submit a digital document of their proposal via email as described the Project Special Provisions.

The following additional items shall be included in the Restoration Contractor's proposal:

- Technical approach and methodologies
- Proposed resources: include organization chart with proposed staff at management and superintendent level
- Completed bid pricing sheet
- A copy of the State of California C-27 landscape contractor's license and liability insurance
- References for at least three other similar projects involving native plants in a natural setting successfully completed within the last 5 years
- A copy of the Santa Barbara County pesticide application license

# 2 Restoration Scope of Work

The Hollister Avenue Bridge Replacement Project requires off-site restoration at Lake Los Carneros, see Figure 1.

- Off-Site Lake Los Carneros Mitigation Site – 0.56 acre

The following summary of work by task will be performed by the Restoration Contractor under the oversight by the City-approved Restoration Biologist. All Installation and Maintenance Phases will adhere to the 2021 Mitigation Plan; specifically, the goal to reach the Performance Criteria. The Performance Criteria established for this Project includes the following:

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

## 2.1 Schedule

The restoration services outlined herein will be performed over an approximate timeframe of one year, between summer 2023 and spring 2024. The project Special Provisions will establish the timeframe for installation of plants, which is expected to begin in late fall/early winter 2023. The restoration work is separated into two phases: Installation Phase and Maintenance Phase. The Installation Phase includes sites preparation, plant/seed installation, and irrigation design and installation. The Maintenance Phase will begin after completing the Installation Phase and will be defined as the 90-day PEP. The Maintenance Phase includes non-native plant removal, watering, and repairing of damage to plants, erosion control devices, fencing, and/or signs as further described below. See Table 2 for a detailed draft restoration schedule. Note that although this schedule is an educated estimate, the General Contractor will provide the actual schedule to be approved by the City. No major alterations, i.e., a change to the calendar year is expected. The Restoration Contractor must coordinate activities with the General Contractor, who is required to submit a Construction Schedule prior to the pre-construction conference.

Table 2 Restoration Schedule

| Timing | Devereux Creek and Northwestern Tributary (Ellwood Mesa) |
|---|---|
| **Preparation** | |
| Spring 2023 | Task LLC1: Two grow-kill cycles |
| Summer 2023 | Task LLC3: Plant procurement<br>Task LLC4: Design irrigation system |
| Early Fall 2023 | Task LLC1: Tree removal, site preparation<br>Task LLC3: Plant procurement |
| **Installation** | |
| Early Fall 2023 | Task LLC4: Install drip irrigation system |
| Late Fall 2023 | Task LLC2: Install container plants |
| **Maintenance (Plant Establishment Period)** | |
| Winter 2023/Spring 2024 | Task LLC5: Conduct weeding maintenance<br>Task LLC6: Conduct general maintenance |

## 2.2 Coordination

The Restoration Contractor will work in coordination and oversight by the City-approved Restoration Biologist. The City-approved Restoration Biologist will provide oversight for plant stock; container plant and seeding installation locations and layout; non-native plant removal; success criteria; and irrigation schedules. The City-approved Restoration Biologist will be on-site regularly to direct work as needed.

## 2.3 Worker Environmental Awareness Program and Archaeological/Native American Monitoring

Prior to initiation of restoration activities, all personnel associated with mitigation installation, maintenance, and monitoring would attend a Worker Environmental Awareness Program (WEAP) training, conducted by City-approved biologist and archaeologist. The WEAP would aid workers in recognizing invasive wildlife and plant species, preventing the spread of invasive species, and in recognizing sensitive biological resources that may occur in the project area as shown in Figure 2. Although no resources have been identified within the mitigation areas, the project site is generally sensitive for cultural resources. Therefore, the WEAP will also describe the roles and responsibilities of the archaeologist and Native American monitor, identify what types of resources may be found in the area, procedures to follow in the event of a find, and discuss the regulatory protections for resources and identify the penalties for the destruction or unauthorized collection of cultural resources. Each team member from the Restoration Contractor crew is required to attend the WEAP, which will be offered prior to the Installation Phase and at any time during the Installation Phase and/or Maintenance Phase if new crew members are employed.

Mitigation Measure CUL-1 (Archaeological Monitoring and Discovery) will require that an archeologist and Chumash Native American monitor will be present on the first day of ground disturbing activities for each of the planting areas shown in Figure 3 to examine soils, to the depth of proposed planting, for their potential to yield cultural resources deposits. Should the soils appear to be sterile for cultural resources, monitoring will cease on the first day of the initial disturbance and a full-time monitor will not be required for the Lake Los Carneros areas. Should a discovery of

cultural resources be made during the ground disturbing activities during the first or subsequent days, MM CUL-1 of the IS-MND will be applied which provides measures for the unanticipated discovery of cultural resources and requires a full-time Chumash Native American monitor to be present. The full-time monitoring, as described in MM CUL-1, will only apply in the case of a discovery during ground disturbing activities of the Devereux Creek and Ellwood Mesa mitigation areas.

The preparation of the crew education program and coordination of the monitors will be the management and fiscal responsibility of the Environmental Compliance firm and will not be the management or fiscal responsibility for the Restoration Contractor. This summary of this Mitigation Measure is included herein for informational purposes only.

## 2.4 Off-Site Lake Los Carneros Restoration

The off-site restoration site is located within City-owned property along Lake Los Carneros at the Los Carneros Natural and Historical Preserve, see Figure 1 and Figure 3. 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.

A total of 0.56 acre of riparian habitat will be expanded and enhanced through the removal of non-native, invasive species, and installation of native riparian plants along a portion of Lake Los Carneros, see Figure 3. This mitigation area is also represented on the Project Plans (Dewberry|Drake Haglan 2022), see Mitigation Planting Plan sheet LLC-MP-1, which is also included as herein as Figure 4.

The following outlines the scope of work by installation and maintenance phases, then by task. Tasks are named as LLC for Lake Los Carneros.

### 2.4.1 Installation Phase

The Restoration Contractor will provide all labor, equipment and materials needed to complete the work. 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.

#### Task LLC1: Site Preparation

The City-approved Restoration Biologist will work with the General Contractor and Restoration Contractor to stake the limits of restoration. Prior to installation, the restoration site will need to be prepared for restoration activities. Site preparation includes the following:

- 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. 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 one more time, or as deemed appropriate by the City-approved Restoration Biologist.

- Non-native plants, with the exception of mature trees, will be removed from the site 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 conditions are as follows:
  - Only individual plants will be treated; no blanket spraying efforts will be allowed.
  - If herbicide is applied, it will be applied during dry and low wind conditions in order to prevent conveyance of herbicide into drainages 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 allowed 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 palm (*Phoenix canariensis*) trees 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. Trees can be removed once the City-approved Restoration Biologist determines that it does not contain active bird nests.
- Install temporary fencing, made of green construction mesh-like fence and t-posts (or similar), on the north, west, and south side of the mitigation site. Approximately 3,000 feet of fence would be needed.
- Install temporary signage, such as laminated 8.5”x11” paper signs, to alert the Project team and the public of restoration efforts. Permanent signs will be installed by the City.

Timing: Two grow-kill cycles will occur prior to plant installation as determined by the Restoration Ecologist in spring 2023. Removal of the Canary Island date palms will occur in early fall 2023 prior to plant installation, once the City-approved Restoration Biologist determines that it does not contain active bird nests. The remaining preparation tasks will occur in early fall 2023.

## Task LLC2: Plant Installation

Plant installation will require specific timing and spacing between planting as described in the 2021 Mitigation Plan. Within the 0.56-acre site, a total of 1,404 plants will be needed for the re-establishment and creation of habitat at Lake Los Carneros, see Figure 3. Table 3 provides a representative palette of native species that may be used for each habitat treatment type. The City-approved Restoration Biologist will flag the exact location of each planted area and provide field oversight while the plants are installed.

Table 3 Native Plant Palette – Lake Los Carneros

| Scientific Name | Common Name | Quantity | Size | Arroyo Willow Woodland | Western Sycamore Woodland | Western Sycamore Woodland Understory |
|---|---|---|---|---|---|---|
| **Riparian Trees** | | | | | | |
| *Platanus racemosa* | Western sycamore | 20 | 5-gallon | | X | |
| *Salix lasiolepis* | Arroyo willow | 15 | 1-gallon | X | | |
| *Sambucus nigra* | Blue elderberry | 5 | 1-gallon | | X | |
| **Riparian Shrubs and Vines** | | | | | | |
| *Baccharis salicifolia* | Mulefat | TBD | 1-gallon | X | | |
| *Frangula californica* | California coffeeberry | TBD | 1-gallon | | | X |
| *Heteromeles arbutifolia* | Toyon | TBD | 1-gallon | | | X |
| *Phacelia ramossisima* | Branching phacelia | TBD | 1-gallon | | X | X |
| *Rosa californica* | California rose | TBD | 1-gallon | | X | X |
| *Rubus ursinus* | California blackberry | TBD | 1-gallon | X | X | X |
| **Grasses and Forbs** | | | | | | |
| *Artemisia douglasiana* | Mugwort | TBD | 1-gallon or 4-inch | X | X | X |
| *Bromus carinatus* | California brome | TBD | 1-gallon or 4-inch | | X | X |
| *Carex barbarae* | Santa Barbara sedge | TBD | 1-gallon or 4-inch | X | | |
| *Distichlis spicata* | Saltgrass | TBD | 1-gallon or 4-inch | X | | |
| *Eleocharis macrostachya* | Spikerush | TBD | 1-gallon or 4-inch | X | X | |
| *Elymus triticoides* | Alkali ryegrass | TBD | 1-gallon or 4-inch | X | X | X |
| *Euthamia occidentalis* | Western goldenrod | TBD | 1-gallon or 4-inch | | X | |
| *Hordeum brachyantherum* ssp. *californicum* | California barley | TBD | 1-gallon or 4-inch | X | | |
| *Juncus patens* | Common California rush | TBD | 1-gallon or 4-inch | X | | |
| *Juncus phaeocephalus* | Brown-headed rush | TBD | 1-gallon or 4-inch | X | | |
| *Juncus textilis* | Basket rush | TBD | 1-gallon or 4-inch | X | | |

| Scientific Name | Common Name | Quantity | Size | Arroyo Willow Woodland | Western Sycamore Woodland | Western Sycamore Woodland Understory |
|---|---|---|---|---|---|---|
| *Juncus xiphioides* | Iris-leaved rush | TBD | 1-gallon or 4-inch | X | | |
| *Solidago velutina* ssp. *californica* | Velvety goldenrod | TBD | 1-gallon or 4-inch | | X | X |
| *Verbena lasiostachys* | Verbena | TBD | 1-gallon or 4-inch | | X | X |
| **GRAND TOTAL** | | **1,404** | | **TBD** | **TBD** | **TBD** |

TBD = To be determined

Installation of plants will involve the following:

- 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 smaller sizes may be used depending on the species. Western sycamore trees will be installed as 5-gallon containers.
- Holes for the container plants will be dug by hand using a shovel, hang auger, or similar device.
- The rootball, stems or branches of container plants shall not be disturbed.
- Holes will be backfilled with native soil and bark mulch will be placed round each plant. 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 or by hand if water connections are not available. Long term irrigation will be applied and discussed in Task LLC4 below.
- For plant protection, underground gopher cages will be used for each tree and select shrubs, vines, grasses, and forbs. Assume that 145 gopher cages will be needed. The cages can be pre-fabricated or hand-made made. The material should be light-gauge steel wire, such as chicken wire (hexagonal web). For the 5-gallon western sycamores, the gopher cage should be at least 2 feet wider in diameter than the rootball, i.e., a 1-foot-wide space surrounding the rootball. For the 1-gallon plants, the gopher cage should be at least 6 inches wider in diameter than the rootball, i.e., a 3-inch-wide space surrounding the rootball.
- Erosion control materials will be installed as needed and may include low silt fences, hay bales at the base of slopes, and/or straw wattle only. The quantity of erosion control materials that is expected to be needed is minimal; materials would only be used within the mitigation areas and not for the construction portion of the project.
- Signage and temporary construction fencing will be placed around the mitigation sites to inform people to stay out of the restoration area as described in EM1.

Timing: Will coincide with the first major winter storm when soil conditions are moist. Installation will occur in late fall 2023.

### Task LLC3: Plant Procurement

A partial order for the native plant materials in Table 3 has already been contracted through Santa Barbara Natives. See Attachment B for the Santa Barbara Natives cost proposal. A deposit has already been paid for by the City. The Restoration Contractor would be responsible for paying for the remainder of the cost. The remaining native plant materials will need to be contracted by the Restoration Contractor through Santa Barbara Natives in coordination with the City-approved Restoration Contractor. An order will need to be placed by the Restoration Contractor in coordination with the City-approved Restoration Biologist in early summer 2023. A 40% deposit will need to be paid at the time of the order, and the remainder will need to be paid at the time of delivery in fall 2023, which is estimated to be $5,471 in total. See Attachment B for the Santa Barbara Natives cost proposal. Although the current bid that the City has obtained for the native container plants includes a delivery charge, assume that the Restoration Contractor will need to pick up the plants from the nursery on a daily or regular basis and bring them to the site. Assume that only a very limited number of plants can be stored safely on-site overnight. If plants remain on-site longer than the day on which they are installed, they must be watered daily.

Timing: An order will need to be placed by the Restoration Contractor in early spring 2023 for the remaining plant materials; a 40% deposit will need to be paid at the time of the order. The final payment installment for the container plants must be made at the time of plant delivery. Plant procurement will occur in early fall 2023.

### Task LLC4: Irrigation Design and Installation

The Restoration Contractor will design and install a temporary above ground drip irrigation system. Note that this off-site location is somewhat remote. The source of the water will a single temporary water source, a source such as holding tank or water truck or similar will be needed. If a holding tank is employed, it must be stationed in a previously disturbed area in coordination with the City, it cannot be place within or immediately adjacent to the restoration areas due to potential for cultural resources. The irrigation system should be set up to target individual plants and should avoid watering in between the plants to help prevent the growth of non-natives.

A maximum of 0.56 acre will require a temporary irrigation system to be designed and installed by the Restoration Contractor. The design of the irrigation system is up to the Restoration Contractor based on their experience and site conditions observed during the site walk. The irrigation system will be designed by a qualified irrigation specialist as an aboveground temporary drip irrigation system, which will persist for 5 years with regular maintenance, and can be easily removed at the end of 5 years. The irrigation system will be designed so that it is automated, powered by either batteries or solar operated controllers, and will be weather sensor compatible. Primary lines will be of 2-inch-diameter schedule (or larger diameter if deemed necessary by the Restoration Contractor) 40 polyvinyl chloride (PVC). Any variations from these materials specifications must be indicated in the bid estimate. The irrigation design will be schematic and does not require an architect or engineer stamp.

Note that this off-site location is somewhat remote. The storage of the water on-site and supply to the above ground temporary irrigation system will be a temporary water source such as a holding tank or water truck. Water to be used during the restoration preparation, installation, and maintenance will be furnished off-site for the Restoration Contractor and shall be of suitable quality

for irrigation. The Restoration Contractor will have the authority to use water as needed to fulfill the irrigation tasks through the General Contractor's closeout. The e associated meter will be provided by the City. If this source is not feasible/desirable by the Restoration Contractor, water can be obtained from off-site and would need to be documented as such in the bid proposal.

Following award of the contract, the City will supply the Restoration Contractor with site specifications needed to complete the irrigation system design (e.g., water pressure details, etc.). The Restoration Contractor will work with the City-approved Restoration Biologist to ensure that the design meets all materials and site specifications and will submit a draft irrigation design to the City for approval by early summer 2023. The irrigation design shall be prepared in computer-aided design and drafting (CADD), or similar program that is acceptable in the landscape industry. The City will provide comments to be incorporated into the final irrigation design so that it can be installed (in part, i.e., primary lines to be installed before plant installation and secondary/lateral lines to be installed after plant installation) in late summer/early fall 2023 prior to plant installation.

Timing: The Restoration Contractor finalize the irrigation design so that it can be installed (in part, i.e., primary lines to be installed before plant installation and secondary/lateral lines to be installed after plant installation) in late summer/early fall 2023 prior to plant installation. The Restoration Contractor will install the irrigation system on-site before or after initial non-native vegetation removal, depending on a mutual agreement between the Restoration Contractor and City. The City-approved Restoration Biologist will provide oversight in the field. The irrigation system will be installed in late summer/early fall 2023, prior to plant/seed installation in late fall/early winter 2023.

### 2.4.2 Maintenance Phase

The Restoration Contractor will maintain the restoration site throughout the Installation Phase and 90-day PEP. Once the City deems the restoration installation complete, the 90-day PEP will begin. 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. The Restoration Contractor will also adhere to the following measures during the Maintenance Phase:

- Removal of (large, existing) vegetation will occur only in the dry season, typically between May and October.
- 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 the City-approved Restoration Biologist that it does not to contain active bird nests.

#### Task LLC5: Weed Removal

Weed removal at the restoration site will include the following:

- Non-native plants will be removed primarily using hand removal methods. 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 requirements are described in Task LLC1.
- All tools, equipment, vehicles, clothing and footwear, and other gear shall be cleaned to remove soil, seeds, and other plant parts before accessing the restoration area.
- Frequency: One "event" or site visit will be equal to 1 day (or more if necessary) and include a crew of an appropriate size to remove weeds in one event. During the Installation Phase,

weeding must be conducted so that the site and installed native plants do not become overrun or dominated by weeds, the frequency will be dependent upon site conditions. A minimum of one event per month is required. Assume a minimum of 4 events will be required during the 90-day PEP, spaced a maximum of 1 month and a minimum of 2 weeks apart over the 90-day PEP.

Timing: Weed removal will occur throughout the Installation Phase, with a focus on the peak growing season in the winter and spring. Weed removal will be conducted during the Installation Phase, as well as through the 90-day PEP in approximately winter 2023 through spring 2024.

### Task LLC6: General Maintenance

Once the City deems the restoration installation complete, the 90-day PEP will begin. Maintenance will be performed during the 90-day PEP. Maintenance at the restoration site will include the following:

- The Restoration Contractor will be responsible to install a temporary aboveground irrigation system (see Task FR5 above), maintain the system, and water the plants immediately after installation and for the duration of the 90-day PEP.
- The City of Goleta-approved Restoration Biologist will establish an irrigation schedule in conjunction with the Restoration 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, more irrigation will be provided during the growing season (winter and spring) to mimic seasonal weather patterns, and minimal irrigation will be provided during the summer and fall as needed to keep plants alive.
- Conduct routine activities to maintain the plantings in a healthy condition.
  - If plants die or seeds do not germinate during the 90-day PEP due to the techniques employed by the Restoration Contractor, i.e., not due to natural causes, the Restoration Contractor will be responsible for replacement planting and/or seeding.
- Maintain fencing and signage.
- Remove trash.
- Control erosion of the mitigation site.
- Ensure performance criteria are being achieved.

Timing: General maintenance will be conducted during the Installation Phase, as well as through the 90-day PEP in approximately winter 2023 through spring 2024.

# 3 References

For a complete list of all references used in the figures included herein, see Attachment A.

Dewberry|Drake Haglan. 2022. Project Engineering Plans for the Hollister Avenue Bridge Replacement Project. Prepared for the City of Goleta.

Rincon Consultants, Inc. (Rincon). 2021. Off-Site Mitigation Plan at Lake Los Carneros for the Hollister Avenue Bridge Replacement Project. Prepared for the City of Goleta. Revised June 2021.

URS Corporation (URS). 2015. Initial Study and Mitigated Negative Declaration for the Hollister Avenue Bridge Replacement Project. Prepared for the City of Goleta. August 18, 2015.

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# Figures

Figure 1 Project Location and Mitigation Area

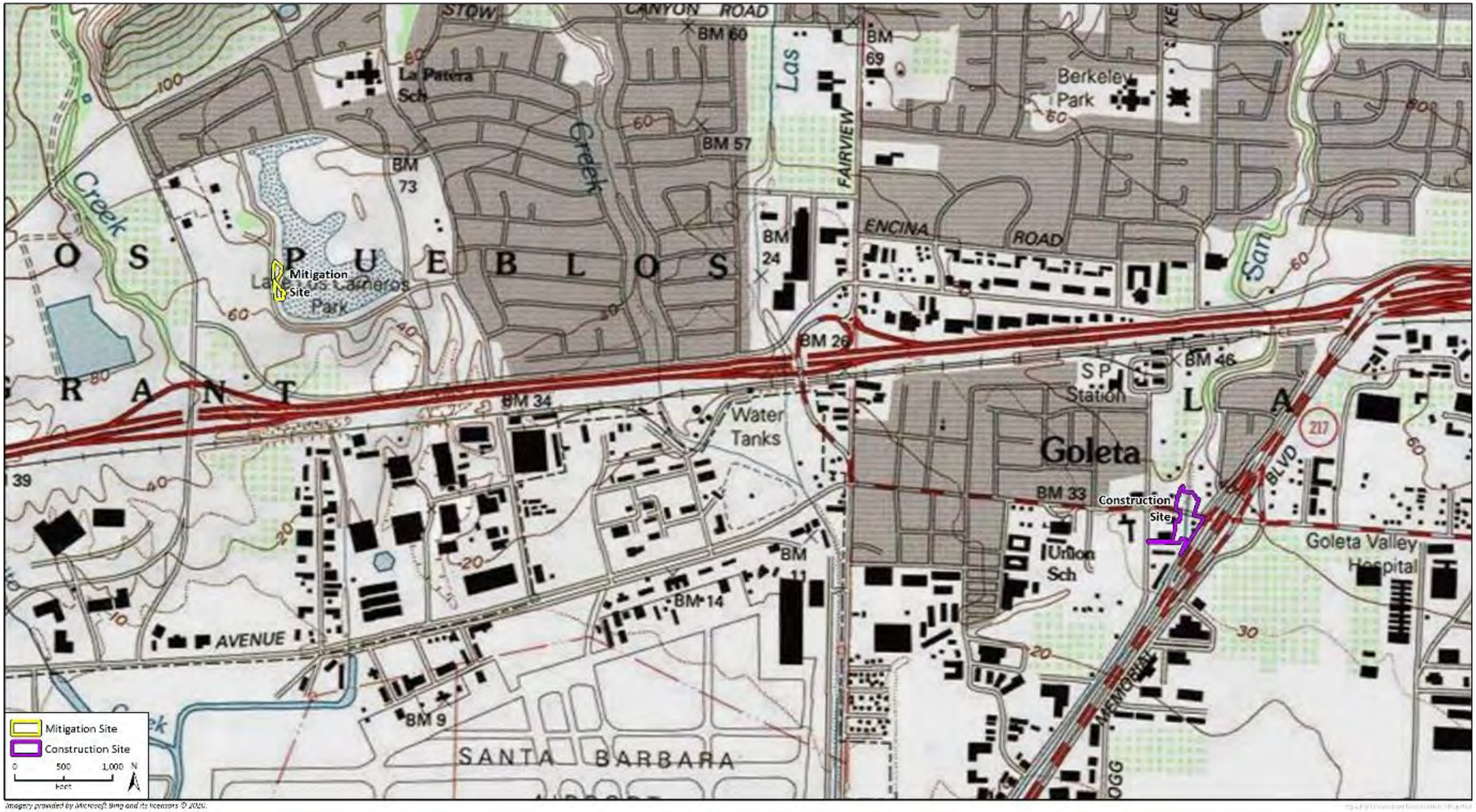


Figure 2 Lake Los Carneros – Sensitive Biological Resources

Figure 3 Lake Los Carneros - Restoration Layout

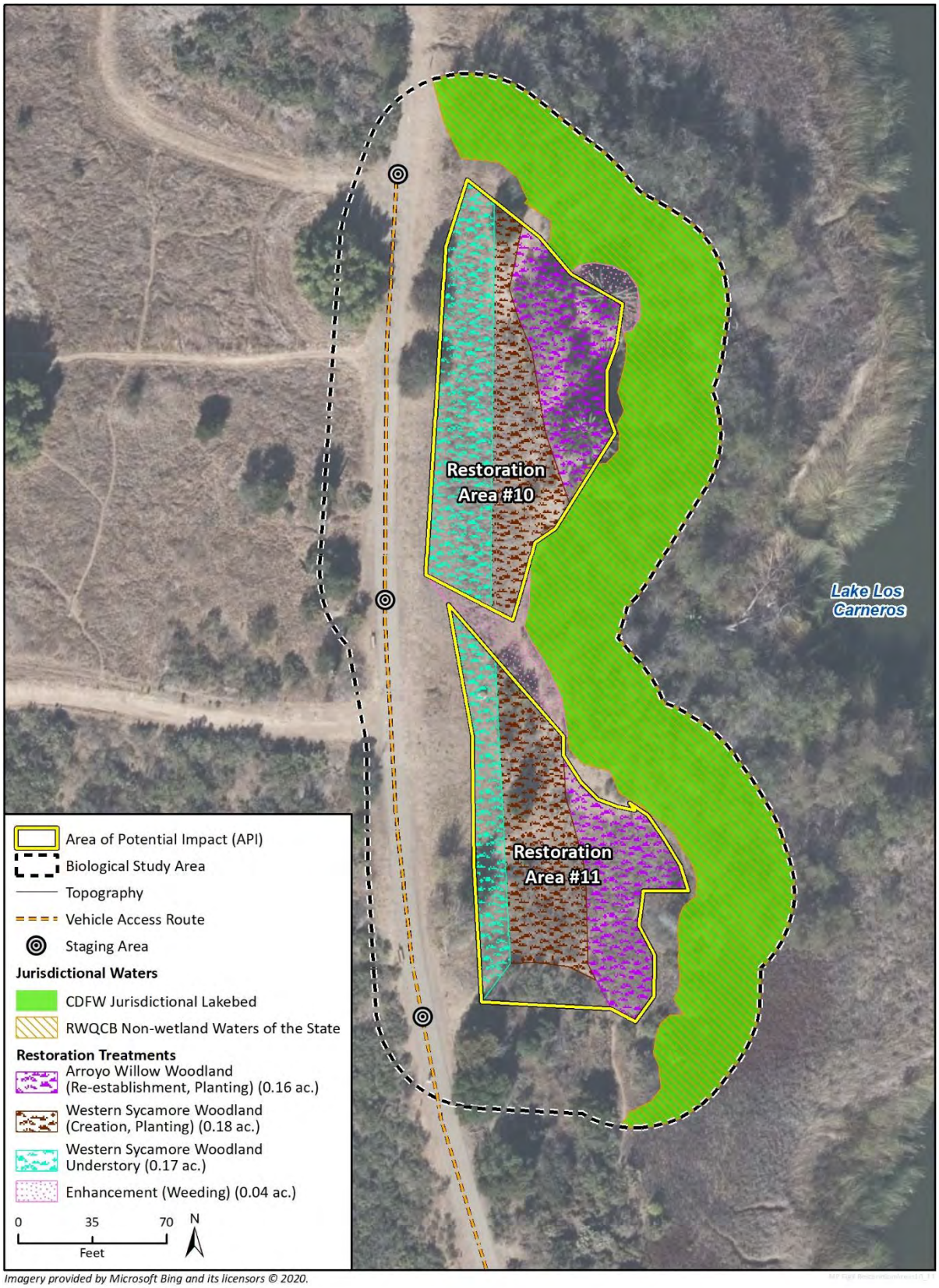
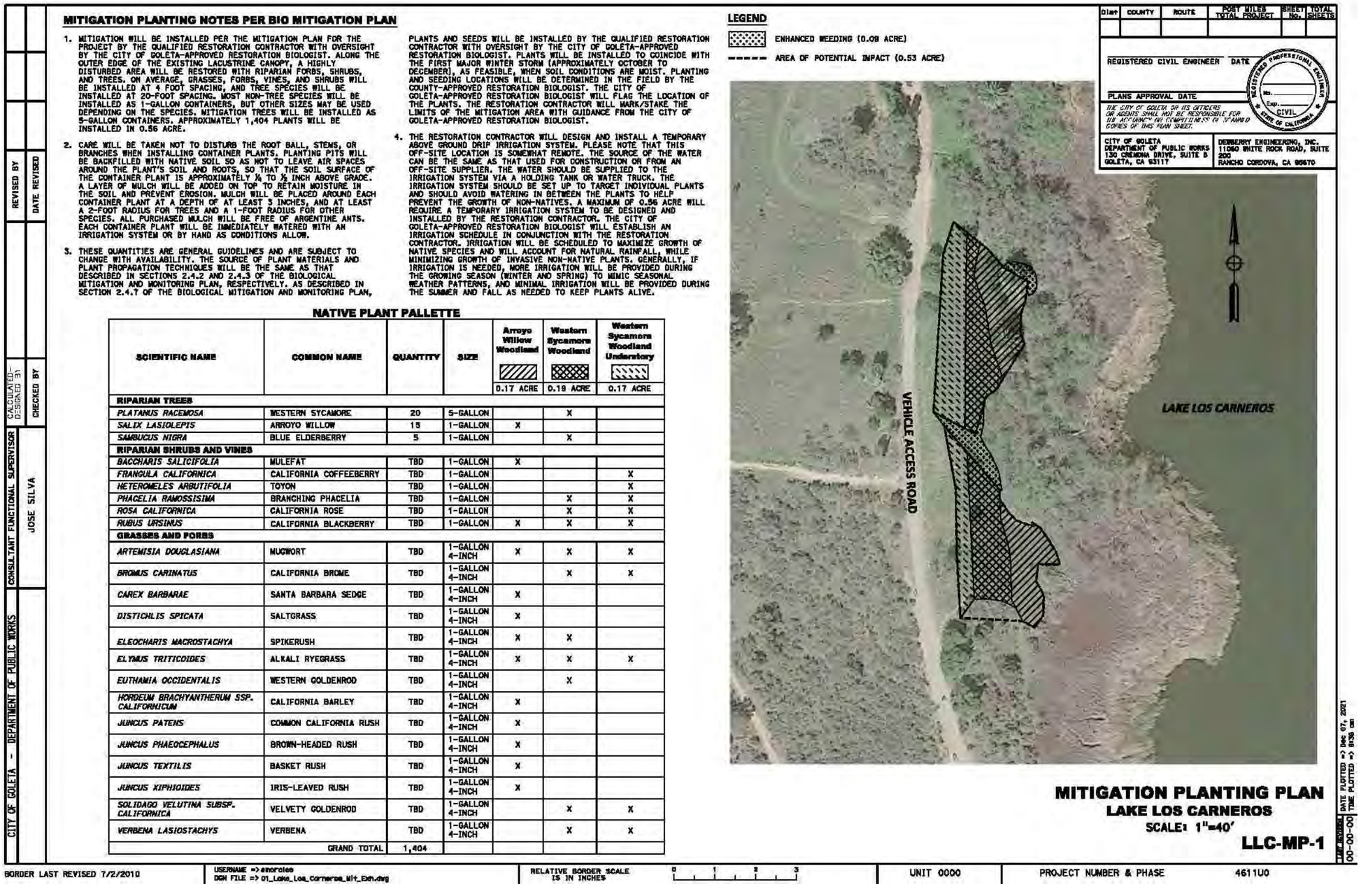


Figure 4 Lake Los Carneros – Engineering Planting Plan (Dewberry | **Drake Haglan** 2022)



## MITIGATION PLANTING NOTES PER BIO MITIGATION PLAN

1. MITIGATION WILL BE INSTALLED PER THE MITIGATION PLAN FOR THE PROJECT BY THE QUALIFIED RESTORATION CONTRACTOR WITH OVERSIGHT BY THE CITY OF GOLETA-APPROVED RESTORATION BIOLOGIST. ALONG THE OUTER EDGE OF THE EXISTING LACUSTRINE CANOPY, A HIGHLY DISTURBED AREA WILL BE RESTORED WITH RIPARIAN FORBS, SHRUBS, AND TREES. ON AVERAGE, GRASSES, FORBS, VINES, AND SHRUBS WILL BE INSTALLED AT 4 FOOT SPACING, AND 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. MITIGATION TREES WILL BE INSTALLED AS 5-GALLON CONTAINERS. APPROXIMATELY 1,404 PLANTS WILL BE INSTALLED IN 0.56 ACRE.
2. CARE WILL BE TAKEN NOT TO DISTURB THE ROOT BALL, STEMS, OR BRANCHES WHEN INSTALLING CONTAINER PLANTS. PLANTING PITS WILL BE BACKFILLED WITH NATIVE SOIL SO AS NOT TO LEAVE AIR SPACES AROUND THE PLANT'S SOIL AND ROOTS, SO THAT THE SOIL SURFACE OF THE CONTAINER PLANT IS APPROXIMATELY ¼ TO ½ INCH ABOVE GRADE. A LAYER OF MULCH WILL BE ADDED ON TOP TO RETAIN MOISTURE IN THE SOIL AND PREVENT EROSION. MULCH WILL BE PLACED AROUND EACH CONTAINER PLANT AT A DEPTH OF AT LEAST 3 INCHES, AND AT LEAST A 2-FOOT RADIUS FOR TREES AND A 1-FOOT RADIUS FOR OTHER SPECIES. ALL PURCHASED MULCH WILL BE FREE OF ARGENTINE ANTS. EACH CONTAINER PLANT WILL BE IMMEDIATELY WATERED WITH AN IRRIGATION SYSTEM OR BY HAND AS CONDITIONS ALLOW.
3. THESE QUANTITIES ARE GENERAL GUIDELINES AND ARE SUBJECT TO CHANGE WITH AVAILABILITY. THE SOURCE OF PLANT MATERIALS AND PLANT PROPAGATION TECHNIQUES WILL BE THE SAME AS THAT DESCRIBED IN SECTIONS 2.4.2 AND 2.4.3 OF THE BIOLOGICAL MITIGATION AND MONITORING PLAN, RESPECTIVELY. AS DESCRIBED IN SECTION 2.4.7 OF THE BIOLOGICAL MITIGATION AND MONITORING PLAN, PLANTS AND SEEDS WILL BE INSTALLED BY THE QUALIFIED RESTORATION CONTRACTOR WITH OVERSIGHT BY THE CITY OF GOLETA-APPROVED RESTORATION BIOLOGIST. PLANTS WILL BE INSTALLED TO COINCIDE WITH THE FIRST MAJOR WINTER STORM (APPROXIMATELY OCTOBER TO DECEMBER), AS FEASIBLE, WHEN SOIL CONDITIONS ARE MOIST. PLANTING AND SEEDING LOCATIONS WILL BE DETERMINED IN THE FIELD BY THE COUNTY-APPROVED RESTORATION BIOLOGIST. THE CITY OF GOLETA-APPROVED RESTORATION BIOLOGIST WILL FLAG THE LOCATION OF THE PLANTS. THE RESTORATION CONTRACTOR WILL MARK/STAKE THE LIMITS OF THE MITIGATION AREA WITH GUIDANCE FROM THE CITY OF GOLETA-APPROVED RESTORATION BIOLOGIST.
4. THE RESTORATION CONTRACTOR WILL DESIGN AND INSTALL A TEMPORARY ABOVE GROUND DRIP IRRIGATION SYSTEM. PLEASE NOTE THAT THIS OFF-SITE LOCATION IS SOMEWHAT REMOTE. THE SOURCE OF THE WATER CAN BE THE SAME AS THAT USED FOR CONSTRUCTION OR FROM AN OFF-SITE SUPPLIER. THE WATER SHOULD BE SUPPLIED TO THE IRRIGATION SYSTEM VIA A HOLDING TANK OR WATER TRUCK. THE IRRIGATION SYSTEM SHOULD BE SET UP TO TARGET INDIVIDUAL PLANTS AND SHOULD AVOID WATERING IN BETWEEN THE PLANTS TO HELP PREVENT THE GROWTH OF NON-NATIVES. A MAXIMUM OF 0.56 ACRE WILL REQUIRE A TEMPORARY IRRIGATION SYSTEM TO BE DESIGNED AND INSTALLED BY THE RESTORATION CONTRACTOR. THE CITY OF GOLETA-APPROVED RESTORATION BIOLOGIST WILL ESTABLISH AN IRRIGATION SCHEDULE IN CONJUNCTION WITH THE RESTORATION 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, MORE IRRIGATION WILL BE PROVIDED DURING THE GROWING SEASON (WINTER AND SPRING) TO MIMIC SEASONAL WEATHER PATTERNS, AND MINIMAL IRRIGATION WILL BE PROVIDED DURING THE SUMMER AND FALL AS NEEDED TO KEEP PLANTS ALIVE.

## NATIVE PLANT PALLETTE

| SCIENTIFIC NAME | COMMON NAME | QUANTITY | SIZE | Arroyo Willow Woodland 0.17 ACRE | Western Sycamore Woodland 0.19 ACRE | Western Sycamore Woodland Understory 0.17 ACRE |
|---|---|---|---|---|---|---|
| **RIPARIAN TREES** | | | | | | |
| *PLATANUS RACEMOSA* | WESTERN SYCAMORE | 20 | 5-GALLON | | X | |
| *SALIX LASIOLEPIS* | ARROYO WILLOW | 15 | 1-GALLON | X | | |
| *SAMBUCUS NIGRA* | BLUE ELDERBERRY | 5 | 1-GALLON | | X | |
| **RIPARIAN SHRUBS AND VINES** | | | | | | |
| *BACCHARIS SALICIFOLIA* | MULEFAT | TBD | 1-GALLON | X | | |
| *FRANGULA CALIFORNICA* | CALIFORNIA COFFEEBERRY | TBD | 1-GALLON | | | X |
| *HETEROMELES ARBUTIFOLIA* | TOYON | TBD | 1-GALLON | | | X |
| *PHACELIA RAMOSSISIMA* | BRANCHING PHACELIA | TBD | 1-GALLON | | X | X |
| *ROSA CALIFORNICA* | CALIFORNIA ROSE | TBD | 1-GALLON | | X | X |
| *RUBUS URSINUS* | CALIFORNIA BLACKBERRY | TBD | 1-GALLON | X | X | X |
| **GRASSES AND FORBS** | | | | | | |
| *ARTEMISIA DOUGLASIANA* | MUGWORT | TBD | 1-GALLON 4-INCH | X | X | X |
| *BROMUS CARINATUS* | CALIFORNIA BROME | TBD | 1-GALLON 4-INCH | | X | X |
| *CAREX BARBARAE* | SANTA BARBARA SEDGE | TBD | 1-GALLON 4-INCH | X | | |
| *DISTICHLIS SPICATA* | SALTGRASS | TBD | 1-GALLON 4-INCH | X | | |
| *ELEOCHARIS MACROSTACHYA* | SPIKERUSH | TBD | 1-GALLON 4-INCH | X | X | |
| *ELYMUS TRITICOIDES* | ALKALI RYEGRASS | TBD | 1-GALLON 4-INCH | X | X | X |
| *EUTHAMIA OCCIDENTALIS* | WESTERN GOLDENROD | TBD | 1-GALLON 4-INCH | | X | |
| *HORDEUM BRACHYANTHERUM SSP. CALIFORNICUM* | CALIFORNIA BARLEY | TBD | 1-GALLON 4-INCH | X | | |
| *JUNCUS PATENS* | COMMON CALIFORNIA RUSH | TBD | 1-GALLON 4-INCH | X | | |
| *JUNCUS PHAEOCEPHALUS* | BROWN-HEADED RUSH | TBD | 1-GALLON 4-INCH | X | | |
| *JUNCUS TEXTILIS* | BASKET RUSH | TBD | 1-GALLON 4-INCH | X | | |
| *JUNCUS XIPHIOIDES* | IRIS-LEAVED RUSH | TBD | 1-GALLON 4-INCH | X | | |
| *SOLIDAGO VELUTINA SUBSP. CALIFORNICA* | VELVETY GOLDENROD | TBD | 1-GALLON 4-INCH | | X | X |
| *VERBENA LASIOSTACHYS* | VERBENA | TBD | 1-GALLON 4-INCH | | X | X |
| | GRAND TOTAL | 1,404 | | | | |

**LEGEND**

ENHANCED WEEDING (0.09 ACRE)

AREA OF POTENTIAL IMPACT (0.53 ACRE)



DIST | COUNTY | ROUTE | POST MILES TOTAL PROJECT | SHEET No. | TOTAL SHEETS

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE CITY OF GOLETA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF THIS OR COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — No. — Exp. — CIVIL — STATE OF CALIFORNIA

CITY OF GOLETA
DEPARTMENT OF PUBLIC WORKS
130 CREMONA DRIVE, SUITE B
GOLETA, CA 93117

DEWBERRY ENGINEERING, INC.
11060 WHITE ROCK ROAD, SUITE 200
RANCHO CORDOVA, CA 95670

REVISED BY | DATE REVISED

CALCULATED-DESIGNED BY | CHECKED BY

CONSULTANT FUNCTIONAL SUPERVISOR: JOSE SILVA

CITY OF GOLETA - DEPARTMENT OF PUBLIC WORKS

# MITIGATION PLANTING PLAN
## LAKE LOS CARNEROS
SCALE: 1"=40'

**LLC-MP-1**

LAST REVISED DATE PLOTTED => Dec 07, 2021
TIME PLOTTED => 8:36 am
00-00-00

BORDER LAST REVISED 7/2/2010 | USERNAME => smorales | DGN FILE => 01_Lake_Los_Carneros_MI+_Exh.dwg | RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3 | UNIT 0000 | PROJECT NUMBER & PHASE 4611U0

# Attachment A

Off-Site Mitigation Plan at Lake Los Carneros (Rincon 2021)