

APPENDIX D-2
BRA ADDENDUM

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March 23, 2020

Project # CXC-01

Yasha Saber
RMC Pacific Materials, LLC
2365 Iron Point Road, Suite 120
Folsom, CA 95630

Subject: Addendum to the Biological Resources Assessment for the ±920 Acre Eliot Facility Plan Area, in Alameda County, California

Dear Mr. Saber:

This addendum summarizes the biological community revisions for the ±920-acre Eliot Facility Plan Area (Study Area). The biological community revisions came about as a result of the November 2019 field verification of aquatic resources with the U.S. Army Corps of Engineers (USACE). This report is an addendum to the Biological Resources Assessment (BRA) report prepared by Foothill Associates in February 2019 (Foothill Associates 2019). This report provides a summary description and acreages of newly mapped biological communities. It also includes a re-categorization of previously mapped biological communities based on conditions observed during the 2019 site visit, and revised acreages for previously mapped communities. A summary of all of the biological communities identified within the Study Area is provided in this addendum.

RESULTS

On November 25 and 26, 2019, HELIX biologists conducted habitat mapping and categorization of biological communities within the revised Study Area boundary. Biological communities within the expanded Study Area were mapped using Google Earth aerial imagery and ArcGIS Collector application for Android and iPhones (Attachment A, *Revised Biological Communities*). Dominant vegetation was noted, and photos were taken for added biological communities (Attachment B, *Representative Site Photographs*).

Riverine Seasonal Marsh

A total of 0.38 acres of riverine seasonal marsh were mapped within the Study Area. This acreage includes 0.09 acre of riverine seasonal marsh above the ordinary high water mark (OHWM) of the Arroyo del Valle and 0.29 acre of riverine seasonal marsh located within the OHWM. The aquatic resources delineation for the Study Area (HELIX 2020) references 0.09 acre of this community because the remainder (0.29 acre) is located within the OHWM and thus included in the perennial stream classification (HELIX 2020). This acreage also includes a re-categorization of areas that were previously

mapped as freshwater marsh. This biological community is comprised of common reed (*Phragmites australis*), cattails (*Typha* spp.), tall flatsedge (*Cyperus eragrostis*), and tule (*Schoenoplectus acutus* var. *occidentalis*).

Willow Riparian Wetland

A total of 41.05 acres of willow riparian wetland were mapped within the Study Area. Of this 41.05 acres, 2.69 acres is located above the OHWM of the Arroyo del Valle and 38.36 acres is within the OHWM of the Arroyo del Valle. The 38.36 acres within the OHWM is included in the perennial stream classification in the aquatic resources delineation for the Study Area (HELIX 2020). The total acreage of this community was reduced, due to some previously mapped acreage of this community being re-categorized as giant reed-willow riparian wetland (see below). These riparian communities within the Study Area have been subject to disturbance from mining activities over time. The overstory is dominated by red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), Fremont's cottonwood (*Populus fremontii* ssp. *fremontii*), white alder (*Alnus rhombifolia*), sandbar willow (*Salix exigua* var. *hindsiana*), and pampas grass (*Cortaderia jubata*). The understory is dominated by cattails, tall flatsedge, tule, Bigelow's sneezeweed (*Helenium bigelovii*), and watercress (*Nasturtium officinale*).

Gravel Bar

A total of 19.73 acres of gravel bar were mapped within the Study Area. This entire biological community is within the OHWM of the Arroyo del Valle and is therefore included in the perennial stream classification in the aquatic resources delineation for the Study Area (HELIX 2020). This community consists of sediment deposits of varying size gravel and some sand. These gravel bars have formed braided bars and cut banks within the OHWM of the Arroyo del Valle. Vegetation within this community is sparse and includes tall flatsedge, American water fern (*Azolla filiculoides*), and duckweed (*Lemna minor*).

Ruderal Grassland

A total of 121.78 acres of ruderal grassland were mapped within the Study Area. Ruderal grasslands are areas that have been disturbed by human activity. When vegetation is present, the areas are similar to non-native grasslands and include ripgut brome (*Bromus diandrus*), slender oat (*Avena barbata*), soft chess (*Bromus hordeaceus*), and milk thistle (*Silybum marianum*). Some native species were also present within this biological community including coyote brush (*Baccharis pilularis*) and toyon (*Heteromeles arbutifolia*).

Several small aquatic features occur within this biological community including 0.34 acre of intermittent stream, 0.09 acre of ephemeral drainage, 0.14 acre of seasonal excavated basin, 0.24 acre of excavated basin, and 0.07 acre of percolation ponds. These small aquatic features are discussed in further detail in the aquatic resources delineation report (HELIX 2020).

Giant Reed-Willow Riparian Wetland

A total of 16.21 acres of giant reed-willow riparian wetland were mapped within the Study Area. This community lies entirely within the ordinary high water mark (OHWM) of the Arroyo del Valle and is included in the perennial stream classification in the aquatic resources delineation for the Study Area (HELIX 2020). This biological community is dominated by invasive giant reed (*Arundo donax*) and willow

(*Salix* spp.) trees, with interspersed pampas grass. Portions of this community were previously mapped as willow riparian wetland but have been re-categorized based on field verification of the biological community composition with a significant composition of giant reed.

Breached Quarry Ponds

A total of 17.14 acres of breached quarry ponds were mapped within the Study Area. This biological community was reassessed during the final evaluation of the Study Area and minor changes were made to boundary margins of these previously mapped features. These features are hydrologically connected to the Arroyo del Valle stream channel and receive flows directly from the Arroyo del Valle. Overstory vegetation surrounding these features include red, sand bar, and arroyo willow. Dominant understory vegetation in the centrally located breached ponds includes tall flatsedge, fennel (*Foeniculum vulgare*), Himalayan blackberry (*Rubus armeniacus*), and rough cocklebur (*Xanthium strumarium*). The northern breached quarry pond is dominated by overstory of cottonwoods and willows with steep banks dominated by coyote brush and non-native grasses.

Quarry Ponds

A total of 122.66 acres of quarry ponds were mapped within the Study Area. This biological community was reassessed during the final evaluation of the expanded Study Area and minor changes were made to boundary margins of these previously mapped features. These man-made features are a result of aggregate mining activities. These mining pits are now used for water storage and supply for the active mining and processing operations. Dominant vegetation within riparian fringes of these features include red willow, and arroyo willow along the eastern portion of Quarry Pond A. Additionally, elderberry shrubs (*Sambucus nigra* ssp. *caerulea*) and white sage (*Salvia apiana*) line the margins of Quarry Pond A in the eastern portion of the Study Area.

Native Revegetation Areas

A total of 21.26 acres of native revegetation areas were mapped within the Study Area. This biological community was reassessed during the final evaluation of the Study Area and minor changes were made to boundary margins. Native revegetation areas were previously barren or sparsely vegetated and have been planted with native species including coast live oak (*Quercus agrifolia*) and California buckeye (*Aesculus californica*). Some shrubs and herbaceous species have become naturalized in these areas, including toyon and elderberry. The herbaceous layer is dominated primarily by non-native grasses. Additionally, a portion of native revegetation area occupies the southeastern portion of the Study Area. This vegetation is comprised of valley oak (*Quercus lobata*), coast live oak, and occasionally northern California black walnut (*Juglans hindsii*), as well as California sycamore.

Developed

A total of 444.49 acres of developed areas were mapped within the Study Area. This biological community was reassessed during the final evaluation of the Study Area and minor changes were made to boundary margins. This area contains active quarry pits, developed roads, offices, mining stockpiles, and processing facilities. The substrate within the developed/mining area is highly disturbed and is composed of a mix of native and non-native soil types, often with a high proportion of gravel and cobbles. Vegetative cover is sparse and is dominated by non-native, often invasive grasses and forbs,

and shrubs such as soft chess, foxtail chess (*Bromus madritensis*), ripgut brome, slim oat, and yellow star thistle (*Centaurea solstitialis*).

Depressional Seasonal Marsh

A total of 0.06 acre of depressional seasonal marsh was mapped within the Study Area. This biological community is above the OHWM of the Arroyo del Valle. This biological community contains similar vegetation as the riverine seasonal marsh community, and is comprised of common reed, cattails, tall flatsedge, and tule.

Sycamore Woodland

A total of 6.50 acres of sycamore woodland were mapped within the Study Area. This community is comprised of patches of California sycamore and a mix of non-native grassland. The small, isolated patches of sycamores are in varying degrees of health with the majority of the trees being in poor health. The understory of this community is comprised of non-native grasses and milk thistle. This community is associated with isolated remnant wetland features that appear to be located in the vicinity of previous alignments of the Arroyo del Valle. These areas are adjacent to developed areas and therefore subject to ongoing human disturbance.

Silt Pond

A total of 108.50 acres of silt pond were mapped within the Study Area. This actively managed man-made basin is part of ongoing quarry operations. Vegetation cover is moderate and dominated by non-native grasses and forbs such as soft chess, ripgut brome, and slim oat. Milk thistle and coyote brush line the steep slopes of the pond.

CONCLUSION

In summary, biological communities mapped within the Study Area include, riverine seasonal marsh, willow riparian wetland, gravel bar, ruderal grassland, giant reed-willow riparian wetland, breached quarry ponds, quarry ponds, native revegetation areas, developed, depressional seasonal marsh, sycamore woodland, and silt pond. Table 1 summarizes the acreages of the mapped biological communities within the Study Area.

Table 1
BIOLOGICAL COMMUNITIES WITHIN THE REVISED STUDY AREA

Biological Community	Previous 2019 Acreages	Revised 2020 Acreages
<i>Revised Acreages and Additional Communities</i>		
Riverine Seasonal Marsh	0.09	0.38
Willow Riparian Wetland	57.26	41.05
Gravel Bar	20.03	19.73
Ruderal Grassland	121.41	121.78
Giant Reed-Willow Riparian Wetland (previously mapped as Willow Riparian Wetland)	N/A	16.21
Breached Quarry Ponds	16.90	17.14
Quarry Ponds	118.70	122.66
Native Revegetation Area	21.45	21.26
Developed	448.07	444.49
<i>No Acreage Revisions from 2019 BRA</i>		
Depressional Seasonal Marsh	0.06	0.06
Sycamore Woodland	6.50	6.50
Silt Pond	108.50	108.50
TOTAL APPROXIMATE ACRES	920	920

Please let me know if you have any questions or comments regarding this addendum report.

Sincerely,



Charlotte Marks
Biologist

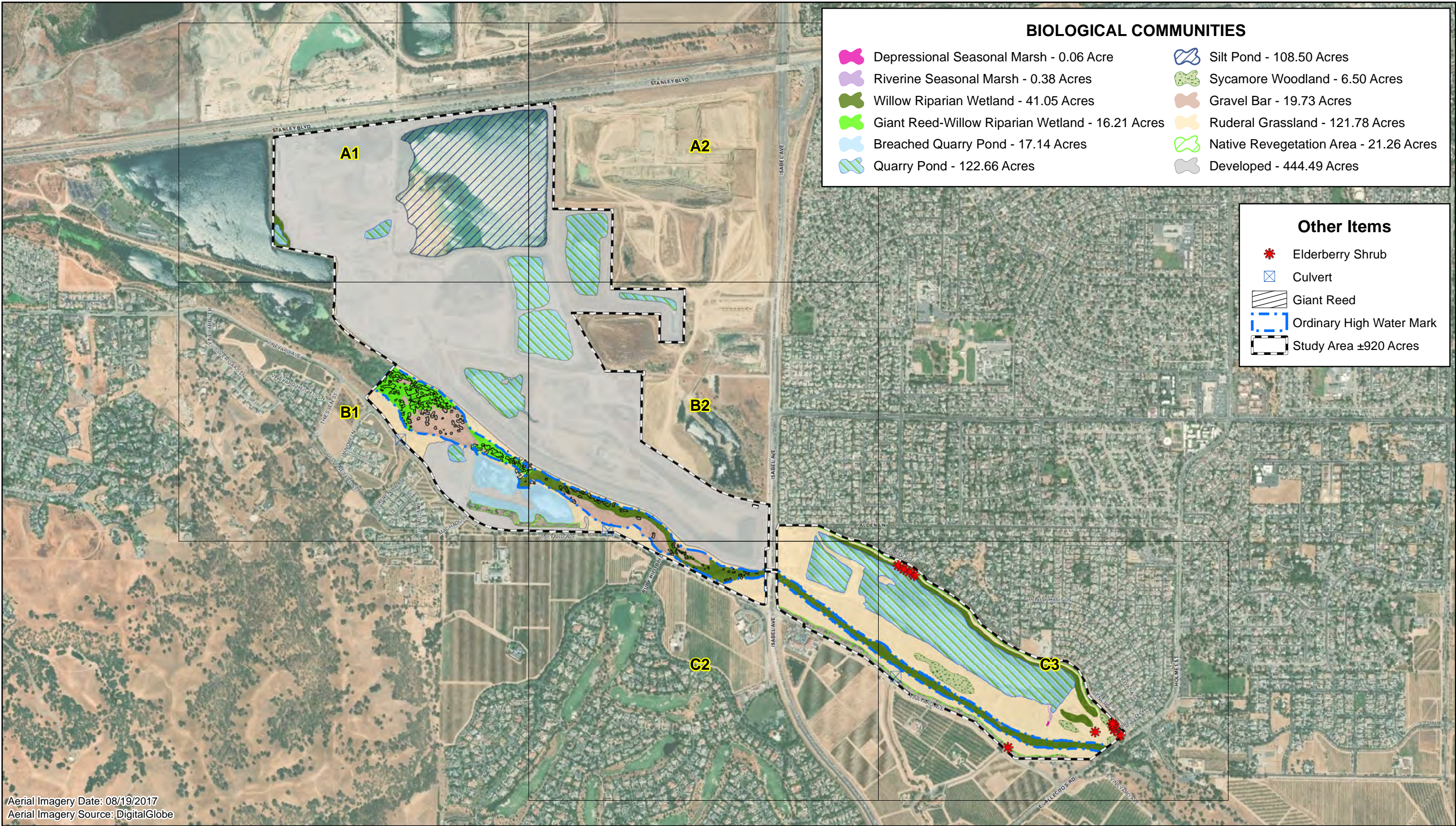
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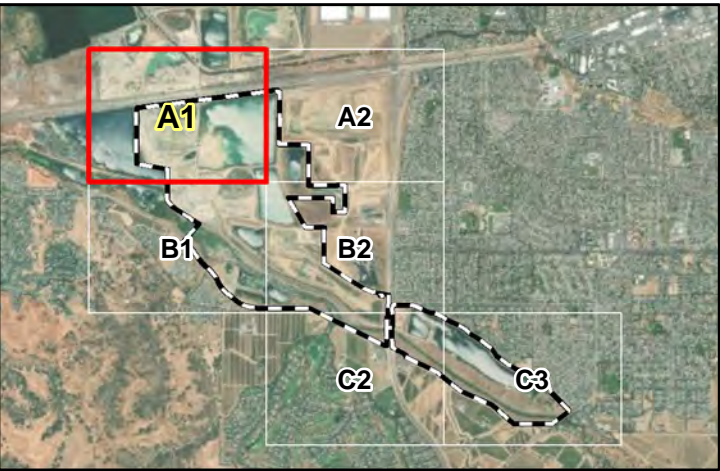
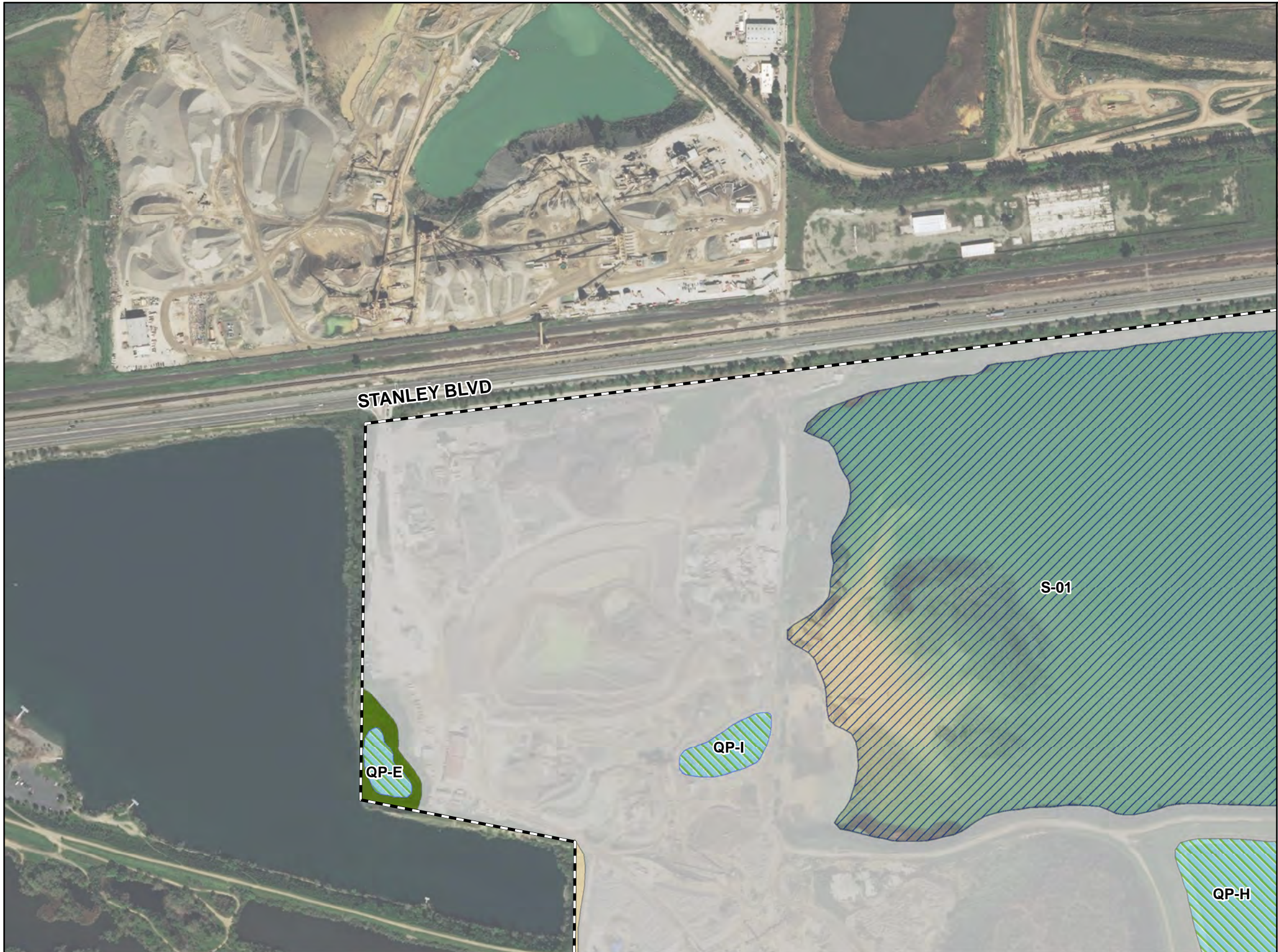
Attachment A: Revised Biological Communities
Attachment B: Representative Site Photographs

REFERENCES

Foothill Associates. 2019. *Biological Resources Assessment, ±920-Acre Eliot Facility Plan Area, Alameda County, California*. Prepared for CEMEX Construction Materials Pacific, LLC. Dated February 15, 2019.

HELIX Environmental Planning, Inc. (HELIX). 2020. *±920-Acre Eliot Facility Plan Boundary, Aquatic Resources Delineation Report*. Prepared for the U.S. Army Corps of Engineers. Dated March 2020.



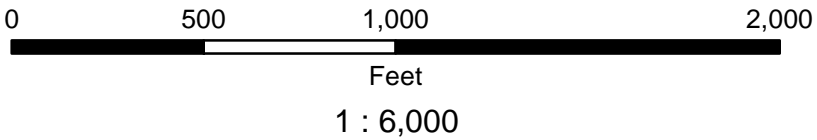


Legend

- * Elderberry Shrub
- ⊠ Culvert
- ▨ Giant Reed
- ▤ Ordinary High Water Mark
- ▭ Study Area ±960 Acres
- ▭ Study Area ±920 Acres
- 🌿 Willow Riparian Wetland - 41.05 Acres
- 🌿 Quarry Pond - 122.66 Acres
- 🌿 Silt Pond - 108.50 Acres
- 🌿 Ruderal Grassland - 121.78 Acres
- 🌿 Developed - 444.49 Acres

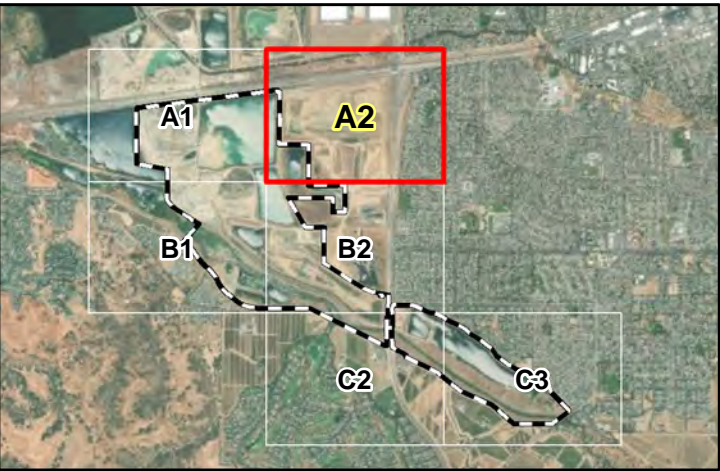
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Digital base data provided by WRA Environmental Consulting

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**ELIOT FACILITY
REVISED BIOLOGICAL COMMUNITIES**

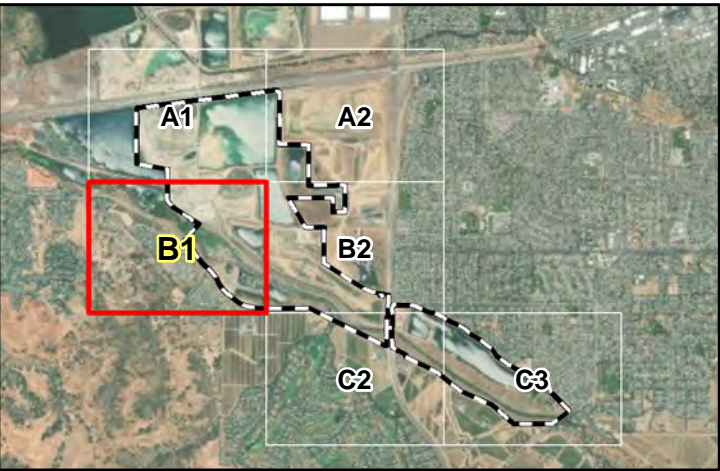
**Attachment A
PAGE A1**



Legend

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- ▭ Study Area ±920 Acres
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- ▨ Silt Pond - 108.50 Acres
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Aerial Imagery: USGS 2011 Mosaic
Digital base data provided by WRA Environmental Consulting

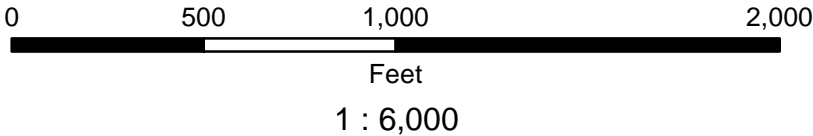


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- ⊠ Culvert
- ▨ Giant Reed
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- ▭ Study Area ±960 Acres
- ▭ Study Area ±920 Acres
- ⬭ Riverine Seasonal Marsh - 0.38 Acres
- ⬭ Willow Riparian Wetland - 41.05 Acres
- ⬭ Giant Reed-Willow Riparian Wetland - 16.21 Acres
- ⬭ Breached Quarry Pond - 17.14 Acres
- ⬭ Quarry Pond - 122.66 Acres
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- ⬭ Ruderal Grassland - 121.78 Acres
- ⬭ Native Revegetation Area - 21.26 Acres
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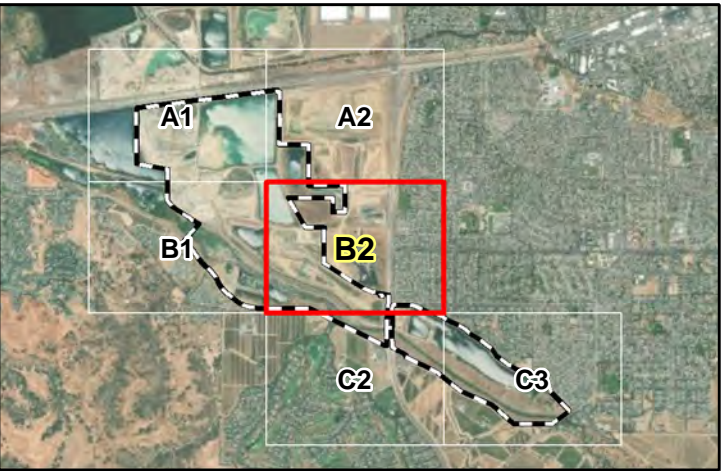
Aerial Imagery: USGS 2011 Mosaic
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**ELIOT FACILITY
REVISED BIOLOGICAL COMMUNITIES**

**Attachment A
PAGE B1**



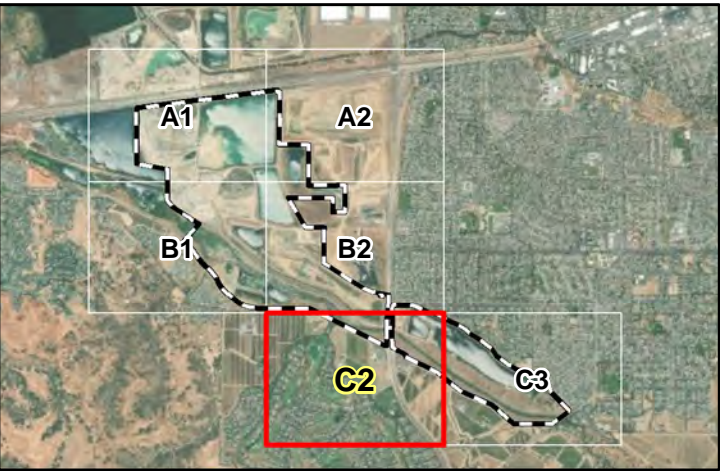
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Digital base data provided by WRA Environmental Consulting

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**ELIOT FACILITY
REVISED BIOLOGICAL COMMUNITIES**

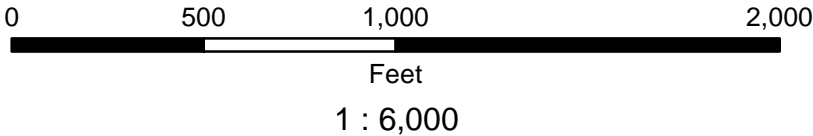


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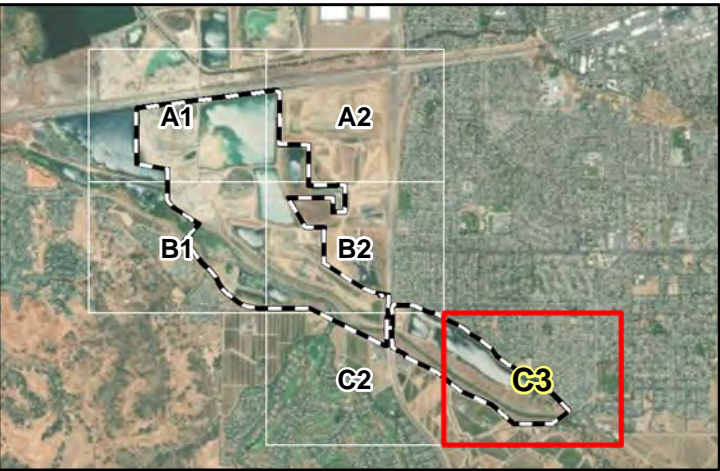
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**ELIOT FACILITY
REVISED BIOLOGICAL COMMUNITIES**

**Attachment A
PAGE C2**

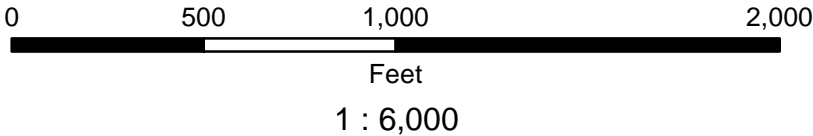


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- * Elderberry Shrub
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- ▭ Study Area ±920 Acres
- 🌸 Depressional Seasonal Marsh - 0.06 Acre
- 🌸 Riverine Seasonal Marsh - 0.38 Acres
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- 🌿 Quarry Pond - 122.66 Acres
- 🌿 Sycamore Woodland - 6.50 Acres
- 🌿 Ruderal Grassland - 121.78 Acres
- 🌿 Native Revegetation Area - 21.26 Acres

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**ELIOT FACILITY
REVISED BIOLOGICAL COMMUNITIES**

**Attachment A
PAGE C3**



Photo 1. Looking across ruderal grassland and basin habitats in the southern portion of the Study Area.



Photo 2. Looking west across the ruderal grassland, and giant reed-willow riparian wetland habitats along the northern portion of the Study Area.

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Photo 3. Looking southeast across the northeastern portion of the Study Area.

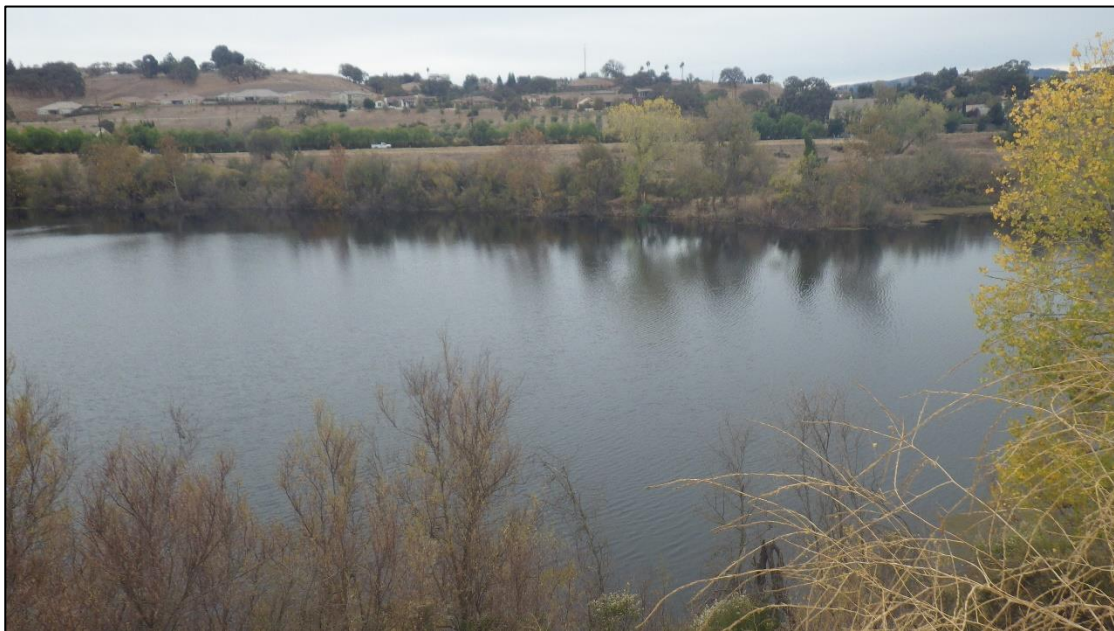


Photo 4. Looking southwest at the willow riparian wetland habitat in the northern portion of the Study Area.

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Photo 5. Looking south across the willow riparian wetland habitat in the northern portion of the Study Area.



Photo 6. Looking northwest across portions of the willow riparian wetland and riverine seasonal marsh habitats in the southwestern portion of the Study Area.

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Photo 7. Looking south at giant reed-willow riparian wetland along the Arroyo del Valle in the Study Area.



Photo 8. Looking south at portions of the gravel bar and giant reed-willow riparian wetland habitats along the Arroyo del Valle in the Study Area.

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