

Aquatic Resources Delineation Report

Green Business Park Loomis

Loomis, Placer County, California
November 2018



Prepared for:

Evan Mackenzie
Building Engineering & Management, Inc.
4780 Rocklin Road
Rocklin, California 95677

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1.0 INTRODUCTION

This report presents the results of a delineation of aquatic resources within the Green Business Park Loomis Project Area (Study Area) conducted by Madrone Ecological Consulting, LLC (Madrone). The approximately 98-acre Study Area is generally located west of the intersection of Taylor Road and Sierra College Boulevard, in southwestern Loomis, Placer County, California. The Study Area is within Sections 8 and 9, Township 11 North, Range 7 East (MDB&M) of the "Rocklin, California" 7.5-Minute Series USGS Topographic Quadrangle (USGS 2015) (Figure 1).

1.1 Contact Information

Property Owner

Mima Capital, LLC.
4120 Douglas Blvd., #306-175
Granite Bay, CA 95746

Agent

Ben Watson
Madrone Ecological Consulting, LLC
8421 Auburn Blvd., Suite #248
Citrus Heights, CA 95610

2.0 METHODOLOGY

Madrone biologists Matt Shaffer and Dustin Brown conducted a delineation of aquatic resources within the Study Area on the 16th through 18th of October and 21st and 28th of November, 2018. Water features and data points were mapped in the field with a GPS unit capable of sub-meter accuracy (Arrow 100). Three-parameter data (vegetation, soils, and hydrology) were collected at each data point, documenting wetland/waters or upland status, as appropriate. The delineation map was prepared in accordance with the *Updated Map and Drawing Standards for the South Pacific Division Regulatory Program* (USACE 2016a). The GPS data was overlaid on an ortho-rectified aerial photograph (NAIP 2016).

The delineation was performed in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2008b), and the Sacramento District's *Minimum Standards for Acceptance of Preliminary Wetlands Delineations* (USACE 2016b). U.S. Army Corps of Engineers (USACE) regulations (33 CFR 328) were used to determine the presence of Waters of the United States other than wetlands. The most recent *National Wetland Plant List* (Lichvar et al. 2016) was used to determine the wetland indicator status of plants observed in the Study Area. The *Jepson eFlora* (Jepson Flora Project 2018) was used for plant nomenclature, except where it conflicted with the nomenclature in the *National Wetland Plant List*, which was given priority on the data sheets.

We are requesting a Preliminary Jurisdictional Determination for the Study Area.

3.0 EXISTING CONDITIONS

The Study Area is located west of the intersection of Taylor Road and Sierra College Boulevard. The site is bounded to the south by commercial development and to the north by Sierra College Boulevard. The western portion of the Study Area borders Antelope Creek and Delmar Avenue. Bankhead Road and low-density residential housing abut the site to the east. The Study Area is accessible from the northern edge via a fruit stand turnout along Sierra College Boulevard. In addition, the site may be accessed in the southwest corner from a gated entrance off of Delmar Avenue. The Study Area is roughly convex along the west-east vector, and slopes downhill from north to south. The site consists of gently rolling topography with elevations ranging from approximately 300 to 340 feet above mean sea level.

The Study Area primarily consists of multiple fenced pastures along the center, southern, and eastern portions of the site. The pastures were being utilized for grazing by a free-ranging group of cattle during the survey. Several hay trailers are present in one of the pastures, and a few small piles of trash are scattered throughout the area. Vegetation within the pastures is heavily grazed, with several areas supporting moderate to scattered plant cover. Although many plant species were unidentifiable at the time of the survey, generally the pastures support upland annual grassland and ruderal species, including filaree (*Erodium botrys*), yellow star-thistle (*Centaurea solstitialis*), English plantain (*Plantago lanceolata*), rose clover (*Trifolium hirtum*), cut-leaf geranium (*Geranium dissectum*), hairy hawkbit (*Leontodon saxatilis*), prickly lettuce (*Lactuca serriola*), turkey mullein (*Croton setiger*), field bindweed (*Convolvulus arvensis*), soft chess (*Bromus hordeaceus*), Medusa head (*Elymus caput-medusae*), perennial ryegrass (*Festuca perennis*), wild oat (*Avena fatua*), and stinkwort (*Dittrichia graveolens*). Scattered valley oak (*Quercus lobata*), interior live oak (*Quercus wislizeni*), and blue oak (*Quercus douglasii*) are present throughout the pastures, along with several planted exotic species including walnut (*Juglans sp.*), olive (*Olea europaea*), and white poplar (*Populus alba*).

The northeast fenced parcel has not been grazed recently, and features robust vegetation that is dominated by yellow star-thistle, along with some filaree, prickly lettuce, common madia (*Madia elegans*), skeleton weed (*Chondrilla juncea*), and black mustard (*Brassica nigra*). The eastern portion of the parcel is predominantly robust perennial ryegrass. A small fruit stand is located within the parcel, along with an associated strawberry farm and chicken coop. Other nearby areas within the parcel have been historically disked and graded for agriculture, although they are now abandoned.

The western portion of the Study Area features oak savanna on sloped terrain with rock outcroppings transitioning to interior live oak woodland and finally riparian vegetation along Antelope Creek. Several old remnant ditches are located along the slopes, and appear to have been historically used for irrigation or mining purposes. Ground vegetation within the oak savanna is similar to the pasture areas. Vegetation within the oak woodland is robust and consists of several grassland and ruderal species such as soft chess, English plantain, rose clover, hairy hawkbit, prickly lettuce, turkey mullein, perennial ryegrass, ripgut brome (*Bromus diandrus*), hedgehog grass (*Cynosurus echinatus*), California poppy (*Eschscholzia californica*), Italian thistle (*Carduus pycnocephalus*), bull thistle (*Cirsium vulgare*), Fitch's spikeweed (*Centromadia fitchii*), sticky willy (*Galium aparine*), woolly mullein (*Verbascum thapsus*), and moth mullein (*Verbascum blattaria*). Tree and shrub species include predominantly interior live oak, with valley oak, blue oak, green ash (*Fraxinus*

pennsylvanica), grey pine (*Pinus sabiniana*), tree of heaven (*Ailanthus altissima*), black locust (*Robinia pseudoacacia*), California buckeye (*Aesculus californica*), poison oak (*Toxicodendron diversilobum*), and coyote brush (*Baccharis pilularis*).

An old orchard and remnant homestead are located in the southwest corner of the Study Area. This area is highly disturbed, and features several remnant ditches, cement foundations, soil spoils, and trash. Many exotic trees in this area are associated with the old orchard, including walnut, olive, Mediterranean cypress (*Cupressus sempervirens*), Canary Island date palm (*Phoenix canariensis*), common persimmon (*Diospyros virginiana*), pomegranate (*Punica granatum*), and Callery pear (*Pyrus calleryana*).

3.1 Hydrology

Surface water within the Study Area is driven by rainfall and irrigation runoff; water on the western portion of the site topographically drains into Antelope Creek, while surface water on the eastern portion of the site flows via an existing storm drain system to Sucker Ravine. Sucker Ravine is a tributary to Secret Ravine, which flows into Miners Ravine, then Dry Creek, then Steelhead Creek, then Bannon Slough, and ultimately the Sacramento River. Antelope Creek is a tributary to Dry Creek, which empties into the Sacramento River as previously described. The Study Area is located in the *Dry Creek Watershed*, which is part of the larger *Lower American River Watershed* (HUC 18020111) (USGS 1984).

3.2 Soils

According to the Natural Resources Conservation Service (NRCS) Soil Survey Database (NRCS 2018), two soil mapping units occur within the Study Area (**Figure 2**). One of these soil units (194) consists of hydric components, and the other unit (106) contains hydric inclusions (NRCS 2018). The soils within the Study Area fall within the hydrological soil group B, which generally have a moderate infiltration rate when thoroughly wet and a moderate rate of water transmission. Soils found within the Study Area are summarized in **Table 1**.

Table 1. Hydric Rating of Soils within the Study Area

Soil Unit Name	Map Unit Symbol	Hydric Rating
Andregg coarse sandy loam, 2 to 9 percent slopes	106	No
Xerofluvents, frequently flooded	194	Yes

3.3 Driving Directions

The Study Area is located off of Sierra College Boulevard or Delmar Avenue in Loomis, California, 95650. To access the Study Area from Sacramento, drive east on I-80 towards Loomis. Take exit 109 and turn left onto Sierra College Boulevard. Continue on Sierra College Boulevard for approximately 1.2 miles; the Study Area is located past the intersection of Taylor Road and Sierra College Boulevard on the left. Alternatively, to access the southwest entrance, turn left at the intersection of Taylor Road and Sierra College Boulevard and

drive along Taylor Road (now called Pacific Street) for roughly 0.9 miles. Turn right on Delmar Avenue; the Study Area is located to the right after approximately 0.5 miles.

4.0 RESULTS

A total of approximately 0.86 acre of aquatic resources were delineated within the Study Area, including approximately 0.29 acre of wetlands and 0.57 acre of other waters. A single roadside ditch, six seasonal wetland swale segments, four ponds, and 11 segments of Antelope Creek were delineated within the Study Area. A summary of the aquatic resources found on-site and their acreages is shown in Table 2.

Table 2. Aquatic Resources Delineated within the Study Area

Resource Type	Acreage
<i>Wetlands</i>	
Seasonal Wetland Swale	0.288
<i>Other Waters</i>	
Antelope Creek	0.156
Pond	0.404
Roadside Ditch	0.009
Total	0.857

Data sheets are included in **Attachment A**. Maps of the aquatic resources within the Study Area are included as **Figure 3** and **Attachment B**, and a list of the plant species observed in the Study Area with their wetland indicator status is included in **Attachment C**. Representative site photographs are included in **Attachment D**. GIS Shapefiles and the *Aquatic Resources Excel Spreadsheets* for the aquatic resources shown on **Figure 3** and **Attachment B** are included on a CD in **Attachment E**. Each of the feature types are described below.

4.1 Seasonal Wetland Swale

Seasonal wetland swales are sloping, linear seasonal wetlands that convey storm water runoff, and may detain it for short periods of time. Six seasonal wetland swale segments are located in pastures within the central and southeast portion of the Study Area. SWS-1 drains into a small pond in the center of the site (P-2), while two swale segments (SWS-2, SWS-3) drain via culvert from P-2 into a large pond (P-3) in the southeast corner of the Study Area. Another swale (SWS-5, SWS-6) also flows into P-3 via a system of culverts. P-3 is drained via culvert by SWS-4, which flows off-site at the southern end of the Study Area. Approximately 0.288 acre of seasonal wetland swales are located on-site. At the time of the survey, vegetation within the swales was heavily grazed, and some species were unidentifiable. Identifiable plant species within the swales on-site include curly dock (*Rumex crispus*), Carter's buttercup (*Ranunculus bonariensis*), rabbitsfoot grass (*Polypogon monspeliensis*), pennyroyal (*Mentha pulegium*), common purslane (*Portulaca oleracea*), hyssop loosestrife (*Lythrum hyssopifolia*), tall flatsedge (*Cyperus eragrostis*), swamp grass (*Crypsis schoenoides*), Bermuda grass (*Cynodon dactylon*), and prostrate knotweed (*Polygonum aviculare*). Hydrology within the swales is driven predominantly by storm water runoff within the pasture areas, along with draining water from ponds P-2 and P-3. The swales generally flow south, and eventually

all drain into an off-site culvert which flows into Sucker Ravine. As previously described, Sucker Ravine is a tributary to the navigable Sacramento River; thus, the swales on-site are likely to be jurisdictional waters of the U.S. Data Points DP-3 and DP-7 were collected within seasonal wetland swales and contained hydrophytic vegetation, soils, and wetland hydrology. The swales were mapped at the Ordinary High Water Mark (OHWM), which was identified based on drift deposits, water marks, topographic breaks, and aerial imagery.

4.2 Perennial Creek (Antelope Creek)

Antelope Creek (Creek-1 through Creek-11), a perennial creek, travels from north to south along the western margin of the Study Area. Flows within the creek are perennial in nature, with steady-flowing water observed during the site visits. The creek passes in and out of the Study Area, and 11 segments (0.156 acre) fall within the site boundary. Vegetation within and along the banks of the creek is robust and includes tall flatsedge, curly dock, floating primrose willow (*Ludwigia peploides*), paniced willowherb (*Epilobium brachycarpum*), fringed willowherb (*Epilobium ciliatum*), common knotweed (*Persicaria lapathifolia*), common plantain (*Plantago major*), Johnsongrass (*Sorghum halepense*), cattail (*Typha sp.*), and rough cocklebur (*Xanthium strumarium*). Vegetation within the riparian corridor along Antelope Creek consists almost exclusively of Himalayan blackberry (*Rubus armeniacus*) thickets, with some pokeweed (*Phytolacca americana*). Tree cover includes valley oak, Oregon ash (*Fraxinus latifolia*), western sycamore (*Platanus racemosa*), Fremont cottonwood (*Populus fremontii*), sandbar willow (*Salix exigua*), Goodding's black willow (*Salix gooddingii*), and arroyo willow (*Salix lasiolepis*). In addition, black elderberry (*Sambucus nigra*), the host plant for the federally threatened valley elderberry longhorn beetle, was found within the riparian corridor. The creek is directly connected to the navigable Sacramento River, as previously described, and is therefore likely to be a jurisdictional water of the U.S. Data point DP-9 was collected within the creek; it contained hydrophytic vegetation, wetland hydrology, and was inundated with water. The creek was mapped at the OHWM, which was identified based on sediment deposits, drift deposits, water marks, vegetation, topographic breaks, and aerial imagery.

4.3 Pond

Four man-made ponds reside within the Study Area (0.404 acre); three ponds (P-1, P-2, P-3) are located in the central and southeast portion of the site, and one pond (P-4) is located in the northwest corner. As previously described, P-2 and P-3 are connected via a seasonal wetland swale system. P-1 and P-2 appear to have been created as stock ponds and exhibit evidence of cattle use, such as extensive hoof prints in the muddy margins of the ponds. At the time of the survey P-1 was dry and P-2 was almost empty (although the pond features a small berm along the southern edge to help store water). P-3 also has a low water level; it appears to have been created to store water for irrigation purposes, and has much steeper, less mucky margins than P-1 and P-2. All three ponds are mostly unvegetated with scattered species occurring along the margins, such as common purslane, prostrate knotweed, and Bermuda grass. P-4 was constructed at some point after 1966 (Historic Aerials), and is much older than the other ponds on site. It features steep stone walls, and appears to have been created from a historic swale. The pond is no longer in active use, and was dry during the October survey. A man-made spillway on the west side of the pond may drain overflow water into Antelope Creek. Vegetation is abundant within and along the margins of

the pond, and includes bull thistle, tall flatsedge, Oregon ash, prostrate knotweed, Himalayan blackberry, curly dock, sandbar willow, rough cocklebur, and manyflower tobacco (*Nicotiana acuminata*). P-2 and P-3 are connected to Sucker Ravine, and P-4 appears to drain into Antelope Creek. As previously described, both Sucker Ravine and Antelope Creek are tributaries to the navigable Sacramento River, and thus these ponds are likely to be jurisdictional waters of the U.S. It is uncertain whether or not P-1 drains or otherwise connects with other waters; the jurisdictional status of this pond is unclear. Data point DP-5 was collected within P-2, and contained hydrophytic vegetation, soils, and wetland hydrology. The ponds were mapped at the OHWM, which was identified based on water marks, vegetation, topographic breaks, and aerial imagery.

4.4 Roadside Ditch

A single roadside drainage ditch (RD-1, 0.009 acre) is located within the Study Area, along Bankhead Road. The ditch features scattered vegetative ground cover that primarily includes Himalayan blackberry, perennial ryegrass, curly dock, and tall flatsedge. The base of the ditch is mostly unvegetated, and much of the area is covered in leaf litter. Many trees are growing within and along the ditch, including valley oak, interior live oak, grey pine, and Fremont cottonwood. Storm water runoff flows south from a culvert at the northern end of the ditch, and eventually drains off-site onto a single-family home and property. It is uncertain whether or not the ditch drains into other waters; thus, the jurisdictional status of the feature is unknown. The ditch was mapped at the OHWM based on vegetation, water marks, and topographic breaks.

5.0 CONCLUSION

The 0.857 acre of aquatic resources mapped on the site may be jurisdictional, and the applicant is requesting a Preliminary Jurisdictional Determination for the Aquatic Resources Delineation Map of the Study Area (**Attachment B**).

6.0 REFERENCES

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station. Vicksburg, Miss.

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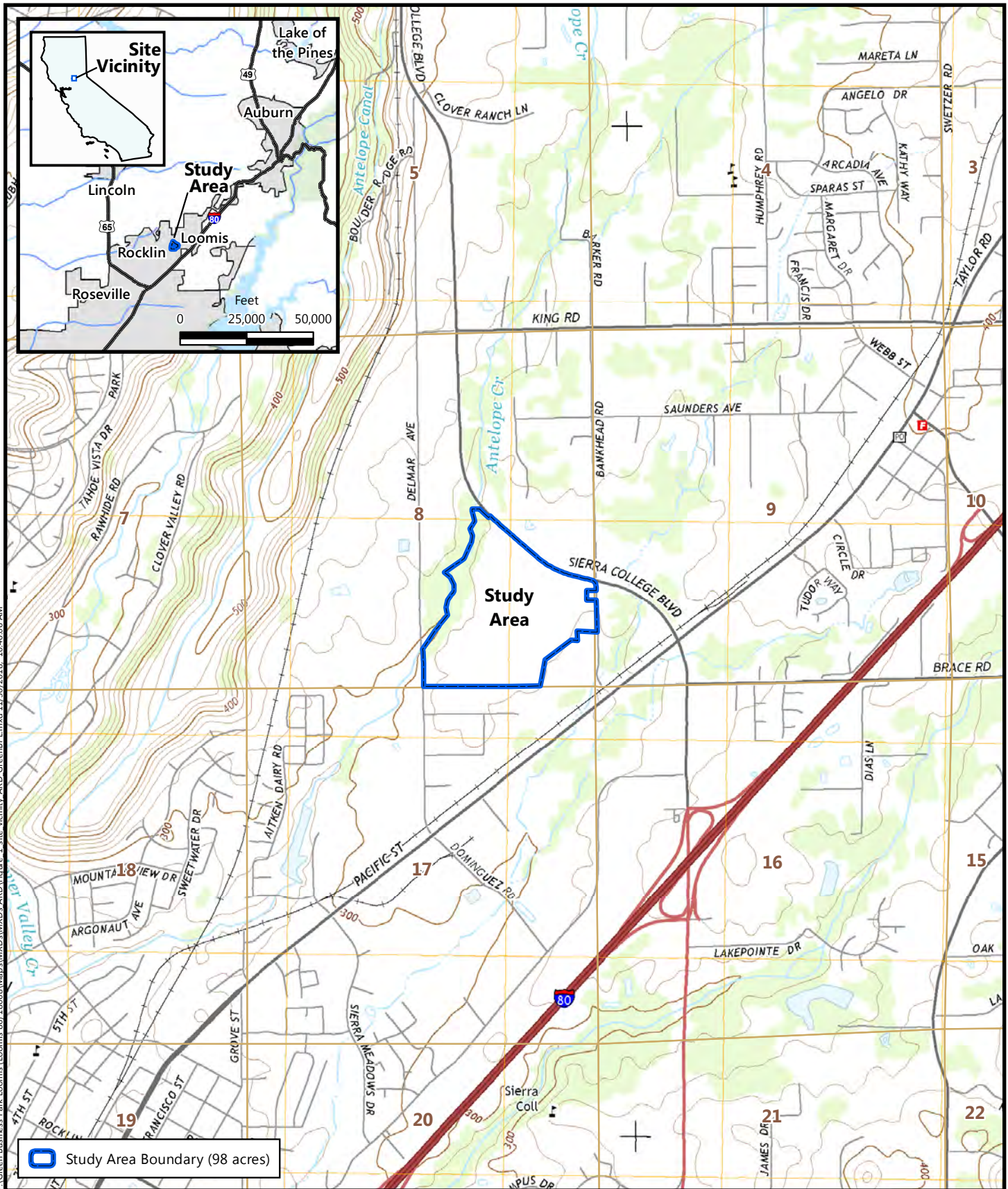
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Figures

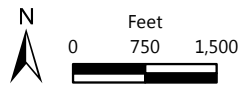
Figure 1. Vicinity Map

Figure 2. Natural Resources Conservation Service Soils

Figure 3. Aquatic Resources



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Source: United States Geologic Survey, 2015.
 Sections 8 and 9, Township 11 North, Range 7 East, MDB&M
 "Rocklin" California 7.5-Minute Topographic Quadrangle
 Longitude -121.21462, Latitude 38.85606

Figure 1
Site and Vicinity

Green Business Park Loomis
 Loomis, Placer County, California



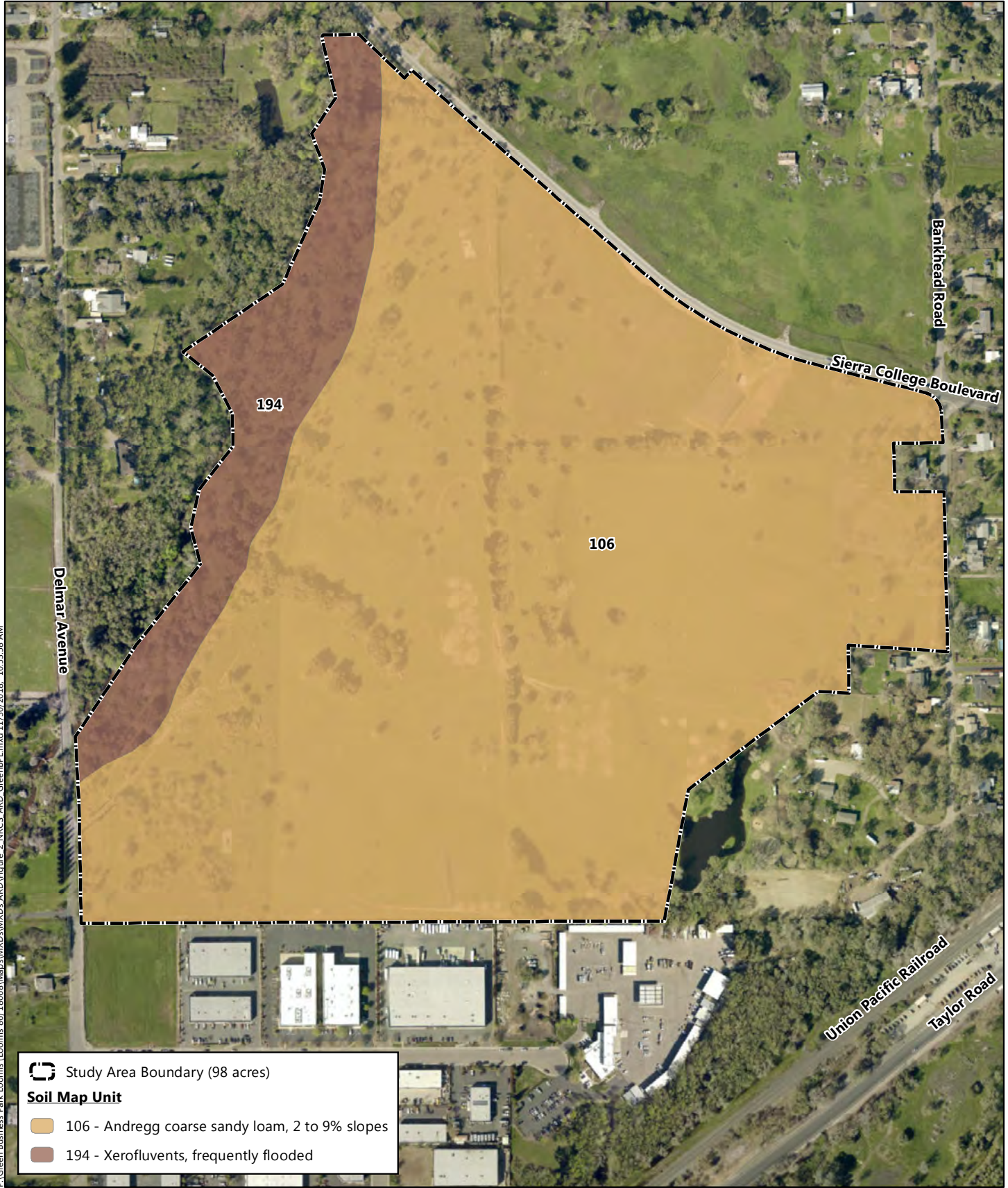
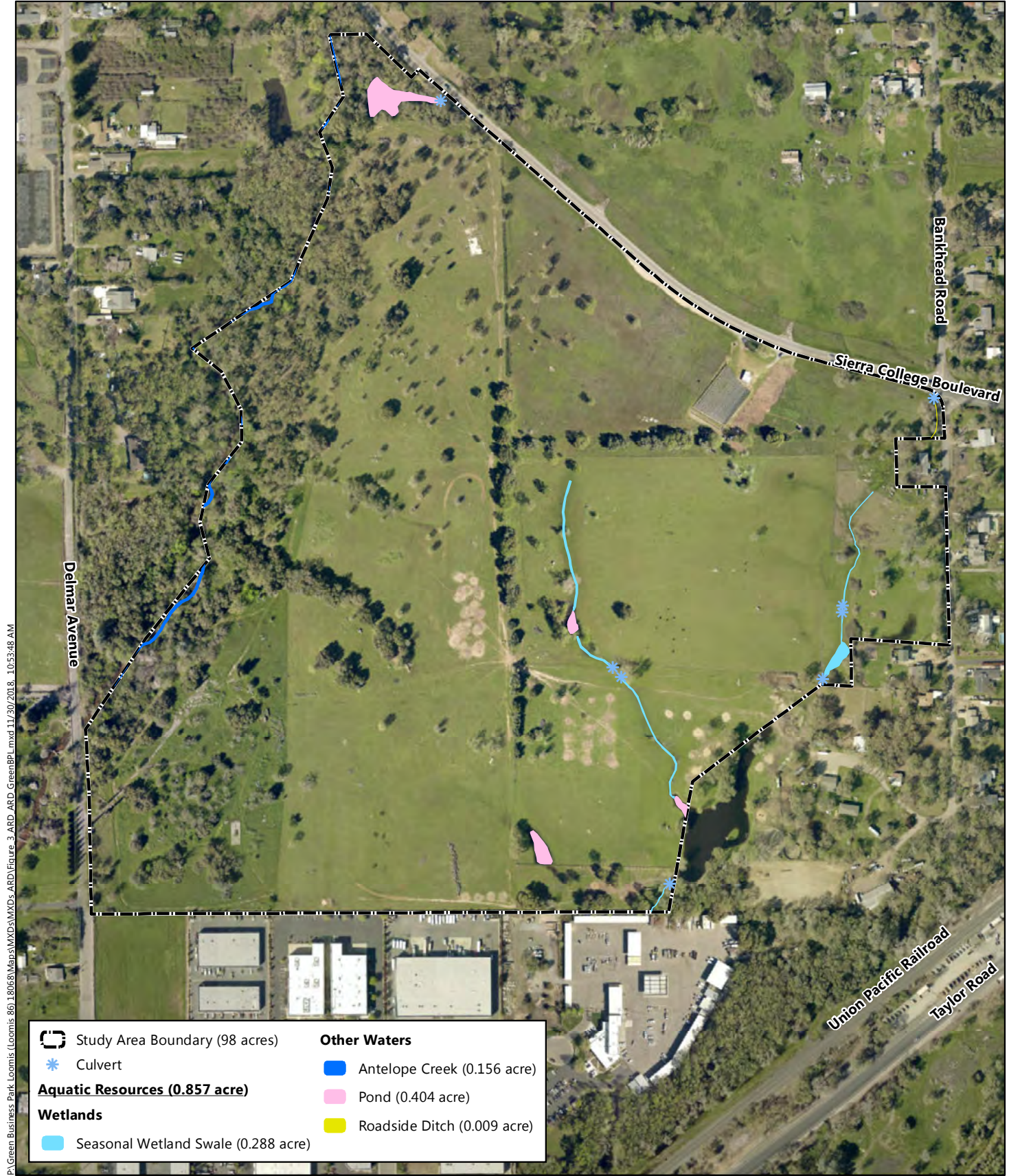


Figure 2
Natural Resources Conservation
Service Soils

Soil Survey Source: *USDA, Soil Conservation Service.*
 Soil Survey Geographic (SSURGO) database for Placer County, California, Western Part
 Aerial Source: *USDA, National Agriculture Imagery Program, 30 June 2016.*

Green Business Park Loomis
Loomis, Placer County, California





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Study Area Boundary (98 acres)	Other Waters
Culvert	Antelope Creek (0.156 acre)
Aquatic Resources (0.857 acre)	Pond (0.404 acre)
Wetlands	Roadside Ditch (0.009 acre)
Seasonal Wetland Swale (0.288 acre)	

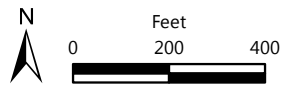


Figure 3
Aquatic Resources

Green Business Park Loomis
Loomis, Placer County, California



Aerial Source: USDA, National Agriculture Imagery Program, 30 June 2016.

Attachments

Attachment A. Arid West Wetland Determination Data Forms

Attachment B. Aquatic Resources Delineation Map

Attachment C. Plant Species Observed within the Study Area

Attachment D. Representative Site Photographs

Attachment E. GIS Shapefiles and the Aquatic Resources Excel Spreadsheet (on CD)

Attachment A

Arid West Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Green Business Park Loomis City/County: Loomis, Placer County Sampling Date: 10/17/18
 Applicant/Owner: Mima Capital, LLC. State: CA Sampling Point: DP1
 Investigator(s): Matt Shaffer Section, Township, Range: State: S8, T11N, R7E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): <2
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.81616714 Long: -121.2145192 Datum: NAD 83
 Soil Map Unit Name: (106) Andregg coarse sandy loam, 2-9% slopes NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland?	Yes _____ No <u>X</u>
Hydric Soil Present? Yes _____ No <u>X</u>		
Wetland Hydrology Present? Yes _____ No <u>X</u>		

Remarks: Slight depression in landscape. Ruderal grazing pasture and/or old agricultural field.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> =Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>0</u> x3 = <u>0</u> FACU species <u>0</u> x4 = <u>0</u> UPL species <u>31</u> x5 = <u>155</u> Column Totals: <u>31</u> (A) <u>155</u> (B) Prevalence Index = B/A = <u>5.0</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> =Total Cover				
<u>Herb Stratum</u> (Plot size: <u>1 meter²</u>)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Centaurea solstitialis</u>	<u>15</u>		<u>UPL</u>	
2. <u>Madia elegans</u>	<u>16</u>		<u>UPL</u>	
3. <u>Unknown seedling</u>	<u>17</u>		<u>N/A</u>	
4. <u>Unknown seedling</u>	<u>17</u>		<u>N/A</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>65</u> =Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> =Total Cover				
% Bare Ground in Herb Stratum <u>45</u>	% Cover of Biotic Crust <u>0</u>			

Remarks: Portion of cover consists of unknown seedlings that cannot be identified this time of the year. Hydrophytic vegetation indicator determined based on known associated vegetation, soil, and hydrology.

SOIL

Sampling Point: DP1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	7.5YR 3/2	100					sand	
2-8	7.5YR 4/4	80	7.5YR 4/3	20	C	M	sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes _____ No <u>X</u>
Type: <u>bedrock</u> Depth (inches): _____ 8	
Remarks: Redox not distinct/prominent	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		Wetland Hydrology Present? Yes _____ No <u>X</u>
Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____	Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology present

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Green Business Park Loomis City/County: Loomis, Placer County Sampling Date: 10/17/18
 Applicant/Owner: Mima Capital, LLC. State: CA Sampling Point: DP2
 Investigator(s): Matt Shaffer Section, Township, Range: State: S8, T11N, R7E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): <2
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.81438352 Long: -121.2142759 Datum: NAD 83
 Soil Map Unit Name: (106) Andregg coarse sandy loam, 2-9% slopes NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: <u>Erodium dominated depression within ruderal pasture.</u>	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> =Total Cover				Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>0</u> x3 = <u>0</u> FACU species <u>43</u> x4 = <u>172</u> UPL species <u>2</u> x5 = <u>10</u> Column Totals: <u>45</u> (A) <u>182</u> (B) Prevalence Index = B/A = <u>4.0</u>
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> =Total Cover				
Herb Stratum (Plot size: <u>1 meter²</u>)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u><i>Erodium botrys</i></u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	
2. <u><i>Centromadia fitchii</i></u>	<u>1</u>		<u>FACU</u>	
3. <u><i>Bromus hordeacous</i></u>	<u>2</u>		<u>UPL</u>	
4. <u><i>Festuca perennis</i></u>	<u>T</u>		<u>FAC</u>	
5. <u><i>Trifolium hirtum</i></u>	<u>T</u>		<u>UPL</u>	
6. <u><i>Cynodon dactylon</i></u>	<u>2</u>		<u>FACU</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>45</u> =Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> =Total Cover				
% Bare Ground in Herb Stratum <u>55</u>	% Cover of Biotic Crust <u>0</u>			

Remarks:

SOIL

Sampling Point: DP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/3	100					loamy sand	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: <u>bedrock</u> Depth (inches): <u>3</u>	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology present

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Green Business Park Loomis City/County: Loomis, Placer County Sampling Date: 10/17/18
 Applicant/Owner: Mima Capital, LLC. State: CA Sampling Point: DP3
 Investigator(s): Matt Shaffer Section, Township, Range: State: S8, T11N, R7E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.81313587 Long: -121.2141527 Datum: NAD 83
 Soil Map Unit Name: (106) Andregg coarse sandy loam, 2-9% slopes NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: Shallow swale that drains into pond. Within pasture and heavily grazed/trampled by cattle.

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> =Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> =Total Cover				
<u>Herb Stratum</u> (Plot size: <u>1 meter²</u>)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____ ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Unknown seedling</u>	30	Y	N/A	
2. <u>Unknown seedling</u>	20	Y	N/A	
3. <u>Unknown seedling</u>	10		N/A	
4. <u>Polypogon monspeliensis</u>	T		FACW	
5. <u>Ranunculus bonariensis</u>	T		OBL	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>60</u> =Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> =Total Cover				
% Bare Ground in Herb Stratum <u>40</u>	% Cover of Biotic Crust <u>0</u>			

Remarks: Heavily grazed. Seedlings cannot be identified this time of the year. Hydrophytic vegetation indicator determined based on known associated vegetation, soil, and hydrology.

SOIL

Sampling Point: DP3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	7.5YR 3/2	95	7.5YR 3/4	5	C	PL, M	loam	
3-7	10YR 3/2	98	7.5 YR 3/4	2	C	M	sandy loam	
7-10	7.5YR 3/2	95	7.5YR 3/4	5	C	M	sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: <u>bedrock</u> Depth (inches): <u>10</u>	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Distinct redox	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Exhibits signs of seasonal drainage

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Green Business Park Loomis City/County: Loomis, Placer County Sampling Date: 10/17/18
 Applicant/Owner: Mima Capital, LLC. State: CA Sampling Point: DP4
 Investigator(s): Matt Shaffer Section, Township, Range: State: S8, T11N, R7E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.81319911 Long: -121.2137926 Datum: NAD 83
 Soil Map Unit Name: (106) Andregg coarse sandy loam, 2-9% slopes NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Upland paired point with DPs 3 and 5.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>0</u> x3 = <u>0</u> FACU species <u>0</u> x4 = <u>0</u> UPL species <u>10</u> x5 = <u>50</u> Column Totals: <u>10</u> (A) <u>50</u> (B) Prevalence Index = B/A = <u>5.0</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Herb Stratum (Plot size: <u>1 meter²</u>)				
1. <u><i>Centaurea solstitialis</i></u>	<u>10</u>		<u>UPL</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u><i>Erodeum botrys</i></u>	<u>T</u>		<u>FACU</u>	
3. <u><i>Unknown seedling</i></u>	<u>3</u>		<u>N/A</u>	
4. <u><i>Unknown seedling</i></u>	<u>2</u>		<u>N/A</u>	
5. <u><i>Unknown seedling</i></u>	<u>T</u>		<u>N/A</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>15</u>	=Total Cover		
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
2. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
% Bare Ground in Herb Stratum <u>85</u>	% Cover of Biotic Crust <u>0</u>			

Remarks: Heavily grazed. Portion of cover consists of unknown seedlings that cannot be identified this time of the year. Hydrophytic vegetation indicator determined based on known associated vegetation, soil, and hydrology.

SOIL

Sampling Point: DP4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-2	7.5YR 2.5/2	100					loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes _____ No <u>X</u>
Type: <u>bedrock</u> Depth (inches): _____ 2	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		Wetland Hydrology Present? Yes _____ No <u>X</u>
Surface Water Present? Yes _____ No <u>X</u> Depth (inches): _____	Water Table Present? Yes _____ No <u>X</u> Depth (inches): _____	
Saturation Present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No hydrology present.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Green Business Park Loomis City/County: Loomis, Placer County Sampling Date: 10/17/18
 Applicant/Owner: Mima Capital, LLC. State: CA Sampling Point: DP5
 Investigator(s): Matt Shaffer Section, Township, Range: State: S8, T11N, R7E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): <2
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.81274209 Long: -121.2141316 Datum: NAD 83
 Soil Map Unit Name: (106) Andregg coarse sandy loam, 2-9% slopes NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Stock pond utilized by cattle for drinking. Evidence of heavy trampling and mucky with minimal vegetation. Pond supported by man-made berm along southern side.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>0</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> =Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>1</u> x1 = <u>1</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>0</u> x3 = <u>0</u> FACU species <u>0</u> x4 = <u>0</u> UPL species <u>0</u> x5 = <u>0</u> Column Totals: <u>1</u> (A) <u>1</u> (B) Prevalence Index = B/A = <u>1.0</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> =Total Cover				
Herb Stratum (Plot size: <u>1 meter²</u>)				
1. <u><i>Lythrum hyssopifolium</i></u>	<u>1</u>		<u>OBL</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Unknown seedling</u>	<u>1</u>		<u>N/A</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>2</u> =Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <u>X</u> No _____
2. _____	_____	_____	_____	
<u>0</u> =Total Cover				
% Bare Ground in Herb Stratum <u>98*</u>		% Cover of Biotic Crust _____		

Remarks: *Mostly bare mud, some leaf litter, algae. Unknown seedling cannot be identified this time of the year. Hydrophytic vegetation indicator determined based on known associated vegetation, soil, and hydrology.

SOIL

Sampling Point: DP5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-1	2.5Y 2.5/1	100					silt loam	mucky
1-9	10YR 3/2	70	7.5YR 3/4	25	C	M	sandy loam	
			10R 3/4	5	C	M		
9-12	10YR 3/2	95	2.5YR 2.5/2	5	C	M	sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input checked="" type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
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Remarks: Extensive distinct redox

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input checked="" type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Intermittent/perennial ponding of water

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Green Business Park Loomis City/County: Loomis, Placer County Sampling Date: 10/17/18
 Applicant/Owner: Mima Capital, LLC. State: CA Sampling Point: DP6
 Investigator(s): Matt Shaffer Section, Township, Range: State: S8, T11N, R7E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): <2
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.81379436 Long: -121.2108983 Datum: NAD 83
 Soil Map Unit Name: (106) Andregg coarse sandy loam, 2-9% slopes NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Suspect point in area of tall, thick Festuca perennis, immediately adjacent to grazed swale. Exhibits marginal wetland vegetation (Festuca) and soils, but no indicators of hydrology.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>1</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>100</u> x3 = <u>300</u> FACU species <u>0</u> x4 = <u>0</u> UPL species <u>0</u> x5 = <u>0</u> Column Totals: <u>100</u> (A) <u>300</u> (B) Prevalence Index = B/A = <u>3.0</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
Herb Stratum (Plot size: <u>1 meter²</u>)				
1. <u>Festuca perennis</u>	<u>100</u>	<u>Y</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <u>X</u> Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Rumex crispus</u>	<u>T</u>		<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
	<u>100</u>	=Total Cover		
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
% Bare Ground in Herb Stratum <u>0</u>	% Cover of Biotic Crust <u>0</u>			Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks:

SOIL

Sampling Point: DP6

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 3/2	90	7.5YR 3/4	10	C	PL, M	silt loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: Disinct redox	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No signs of hydrology

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Green Business Park Loomis City/County: Loomis, Placer County Sampling Date: 10/18/18
 Applicant/Owner: Mima Capital, LLC. State: CA Sampling Point: DP7
 Investigator(s): Matt Shaffer Section, Township, Range: State: S8, T11N, R7E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): <1
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.81240746 Long: -121.2112944 Datum: NAD 83
 Soil Map Unit Name: (106) Andregg coarse sandy loam, 2-9% slopes NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	
Wetland Hydrology Present? Yes <u>X</u> No _____	

Remarks: Widened swale area. May have experienced ponded water due to nearby culvert construction work.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
1. <u>Quercus lobata</u>	15		FACU	
2. _____				
3. _____				
4. _____				
	15	=Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>6</u> x3 = <u>18</u> FACU species <u>15</u> x4 = <u>60</u> UPL species <u>0</u> x5 = <u>0</u> Column Totals: <u>21</u> (A) <u>78</u> (B) Prevalence Index = B/A = <u>3.7</u>
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
	0	=Total Cover		
Herb Stratum (Plot size: <u>1 meter²</u>)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Portulaca oleracea</u>	6		FAC	
2. <u>Lythrum hyssopifolium</u>	T		OBL	
3. <u>Rumex crispus</u>	T		FAC	
4. <u>Cynodon dactylon</u>	T		FACU	
5. <u>Cyperus eragrostis</u>	T		FACW	
6. <u>Unknown seedling</u>	4		N/A	
7. _____				
8. _____				
	10	=Total Cover		
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____				
2. _____				
	0	=Total Cover		
% Bare Ground in Herb Stratum <u>90*</u>		% Cover of Biotic Crust _____		

Remarks: *Good portion covered in algal crust. Unknown seedling cannot be identified this time of the year. Hydrophytic vegetation indicator determined based on known associated vegetation, soil, and hydrology, despite prevalence >3.0.

SOIL

Sampling Point: DP7

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-3	10YR 3/2	100					silty clay loam	
3-10	10YR 3/2	95	5YR 3/4	5	C	C	loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____
Remarks: Prominent redox	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input checked="" type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
--	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Evidence of seasonal ponded water

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Green Business Park Loomis City/County: Loomis, Placer County Sampling Date: 10/18/18
 Applicant/Owner: Mima Capital, LLC. State: CA Sampling Point: DP8
 Investigator(s): Matt Shaffer Section, Township, Range: State: S8, T11N, R7E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 5
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.81399391 Long: -121.2173458 Datum: NAD 83
 Soil Map Unit Name: (194) Xerofluvents, frequently flooded NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <u>X</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Remarks: Point taken in old remnant ditch.	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot size: _____)				
1. <u>Quercus wislizeni</u>	80	Y	UPL	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A) Total Number of Dominant Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	80	=Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>0</u> x2 = <u>0</u> FAC species <u>5</u> x3 = <u>15</u> FACU species <u>0</u> x4 = <u>0</u> UPL species <u>90</u> x5 = <u>450</u> Column Totals: <u>95</u> (A) <u>465</u> (B) Prevalence Index = B/A = <u>4.9</u>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	0	=Total Cover		
Herb Stratum (Plot size: <u>1 meter²</u>)				
1. <u>Rubus armeniacus</u>	T		FAC	Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% _____ Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Carduus pycnocephalus</u>	10		UPL	
3. <u>Rumex crispus</u>	5		FAC	
4. <u>Cynosurus echinatus</u>	T		UPL	
5. <u>Unknown grass</u>	40	Y	N/A	
6. <u>Unknown seedling</u>	35	Y	N/A	
7. _____	_____	_____	_____	
8. _____	90	=Total Cover		
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <u>X</u>
2. _____	0	=Total Cover		
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust _____		

Remarks: Unknown grass and seedling cannot be identified this time of the year. Hydrophytic vegetation indicator determined based on known associated vegetation, soil, and hydrology.

SOIL

Sampling Point: DP8

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-4	10YR 2/2	100					loam	
4-6	7.5YR 3/2	100					sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		Indicators for Problematic Hydric Soils³:	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):	Hydric Soil Present? Yes _____ No <u>X</u>
Type: <u>bedrock</u> Depth (inches): _____ 6	
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators:		
<u>Primary Indicators (minimum of one required; check all that apply)</u>		<u>Secondary Indicators (2 or more required)</u>
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Salt Crust (B11)	<input type="checkbox"/> Water Marks (B1) (Riverine)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes _____ No <u>X</u>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <u>X</u>
Water Table Present? Yes _____ No <u>X</u>	Depth (inches): _____	
Saturation Present? Yes _____ No <u>X</u>	Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Ditch old, with no signs of recent hydrology.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Green Business Park Loomis City/County: Loomis, Placer County Sampling Date: 10/18/18
 Applicant/Owner: Mima Capital, LLC. State: CA Sampling Point: DP9
 Investigator(s): Matt Shaffer Section, Township, Range: State: S8, T11N, R7E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 5
 Subregion (LRR): Mediterranean California (LRR C) Lat: 38.81224482 Long: -121.2189858 Datum: NAD 83
 Soil Map Unit Name: (194) Xerofluvents, frequently flooded NWI Classification: None
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes <u>X</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____
Remarks: Point taken within Antelope Creek. Extensive riparian corridor present	

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u> (Plot size: _____)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				Prevalence Index Worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>0</u> x1 = <u>0</u> FACW species <u>32</u> x2 = <u>64</u> FAC species <u>13</u> x3 = <u>39</u> FACU species <u>25</u> x4 = <u>100</u> UPL species <u>0</u> x5 = <u>0</u> Column Totals: <u>70</u> (A) <u>203</u> (B) Prevalence Index = B/A = <u>2.9</u>
1. <u>Salix gooddingii</u>	<u>T</u>		<u>FACW</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
<u>Herb Stratum</u> (Plot size: <u>1 meter²</u>)				Hydrophytic Vegetation Indicators: _____ Dominance Test is >50% <u>X</u> Prevalence Index is ≤3.0 ¹ _____ Morphological Adaptation ¹ (Provide supporting data in Remarks or on a separate sheet) _____ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Rubus armeniacus</u>	<u>5</u>		<u>FAC</u>	
2. <u>Sorghum halepense</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Cyperus eragrostis</u>	<u>7</u>		<u>FACW</u>	
4. <u>Persecaria lapathifolia</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>	
5. <u>Xanthium strumarium</u>	<u>2</u>		<u>FAC</u>	
6. <u>Phytolacca americana</u>	<u>3</u>		<u>FAC</u>	
7. <u>Populus fremontii (saplings)</u>	<u>3</u>		<u>FAC</u>	
8. _____	_____	_____	_____	
	<u>70</u>	=Total Cover		
<u>Woody Vine Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Present? Yes <u>X</u> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		
% Bare Ground in Herb Stratum <u>30*</u>	% Cover of Biotic Crust _____			

Remarks: *Running water within creek.

SOIL

Sampling Point: DP9

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

<p>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5) (LRR C)</p> <p><input type="checkbox"/> 1 cm Muck (A9) (LRR D)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p>	<p>Indicators for Problematic Hydric Soils³:</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Vernal Pools (F9)</p>	<p><input type="checkbox"/> 1 cm Muck (A9) (LRR C)</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR B)</p> <p><input type="checkbox"/> Reduced Vertic (F18)</p> <p><input type="checkbox"/> Red Parent Material (TF2)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> <p>³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>
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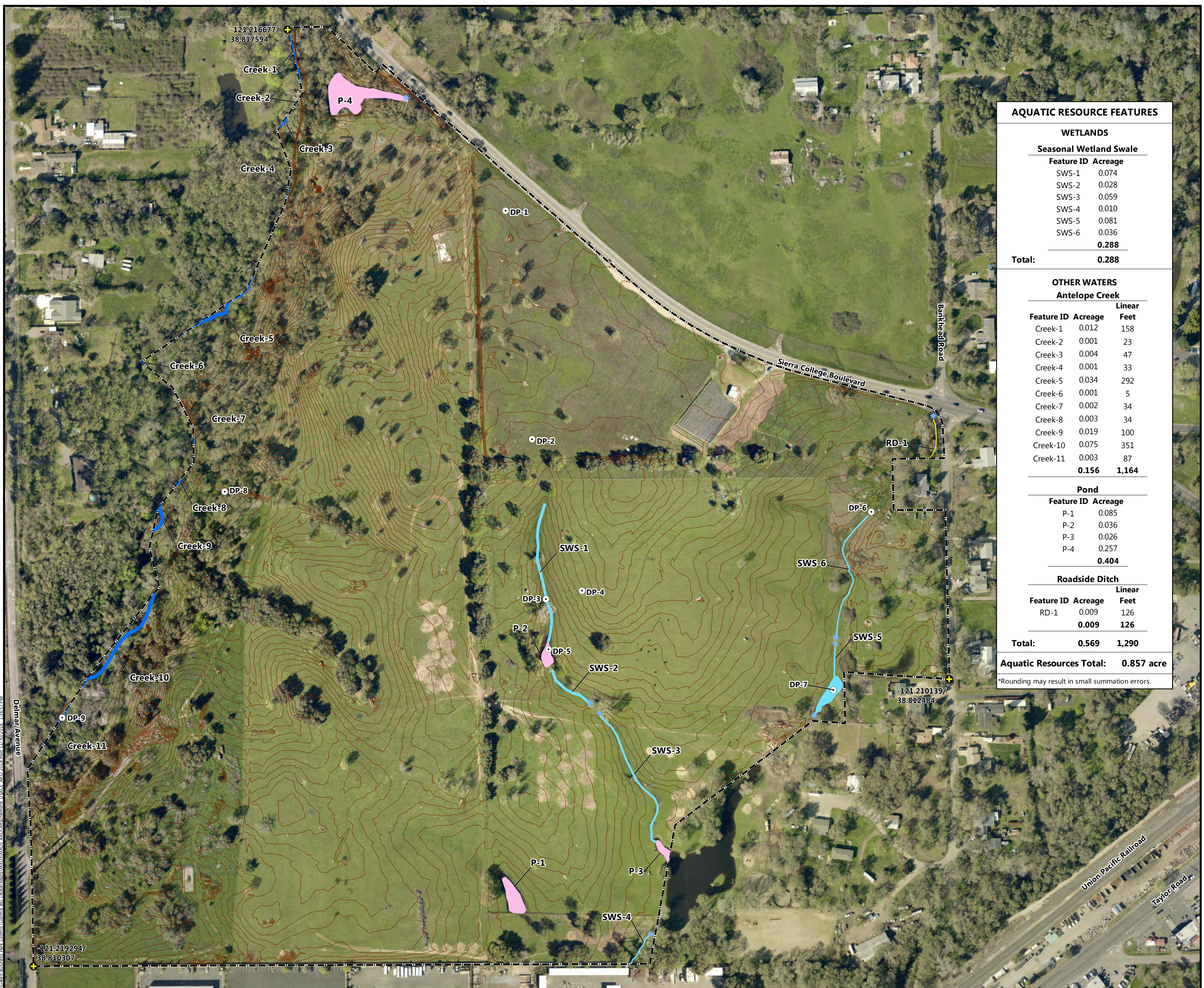
<p>Restrictive Layer (if present):</p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____</p>
<p>Remarks: N/A point taken within Creek (flowing water)</p>	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators (minimum of one required; check all that apply)</p> <p><input checked="" type="checkbox"/> Surface Water (A1)</p> <p><input checked="" type="checkbox"/> High Water Table (A2)</p> <p><input checked="" type="checkbox"/> Saturation (A3)</p> <p><input type="checkbox"/> Water Marks (B1) (Nonriverine)</p> <p><input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)</p> <p><input type="checkbox"/> Drift Deposits (B3) (Nonriverine)</p> <p><input type="checkbox"/> Surface Soil Cracks (B6)</p> <p><input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</p> <p><input checked="" type="checkbox"/> Water-Stained Leaves (B9)</p>		<p>Secondary Indicators (2 or more required)</p> <p><input type="checkbox"/> Salt Crust (B11)</p> <p><input type="checkbox"/> Biotic Crust (B12)</p> <p><input checked="" type="checkbox"/> Aquatic Invertebrates (B13)</p> <p><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</p> <p><input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)</p> <p><input type="checkbox"/> Presence of Reduced Iron (C4)</p> <p><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</p> <p><input type="checkbox"/> Thin Muck Surface (C7)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>	<p><input type="checkbox"/> Water Marks (B1) (Riverine)</p> <p><input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine)</p> <p><input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)</p> <p><input checked="" type="checkbox"/> Drainage Patterns (B10)</p> <p><input type="checkbox"/> Dry-Season Water Table (C2)</p> <p><input type="checkbox"/> Crayfish Burrows (C8)</p> <p><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</p> <p><input type="checkbox"/> Shallow Aquitard (D3)</p> <p><input type="checkbox"/> FAC-Neutral Test (D5)</p>
<p>Field Observations:</p> <p>Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>~30</u></p> <p>Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u></p> <p>Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)</p>	<p>Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____</p>		
<p>Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:</p>			
<p>Remarks: Perennial water flow from north to south</p>			

Attachment B

Aquatic Resources Delineation Map



AQUATIC RESOURCE FEATURES		
WETLANDS		
Seasonal Wetland Swale		
Feature ID	Acree	
SWS-1	0.074	
SWS-2	0.028	
SWS-3	0.059	
SWS-4	0.010	
SWS-5	0.081	
SWS-6	0.036	
	0.288	
Total:	0.288	
OTHER WATERS		
Antelope Creek		
Feature ID	Acree	Linear Feet
Creek-1	0.012	158
Creek-2	0.001	23
Creek-3	0.004	47
Creek-4	0.001	33
Creek-5	0.034	292
Creek-6	0.001	5
Creek-7	0.002	34
Creek-8	0.003	34
Creek-9	0.019	100
Creek-10	0.075	351
Creek-11	0.003	87
	0.156	1,164
Pond		
Feature ID	Acree	
P-1	0.085	
P-2	0.036	
P-3	0.026	
P-4	0.257	
	0.404	
Roadside Ditch		
Feature ID	Acree	Linear Feet
RD-1	0.009	126
	0.009	126
Total:	0.569	1,290
Aquatic Resources Total:	0.857 acre	

*Rounding may result in small summation errors.

P:\Green Business Park Loomis\lcomis_851_8526\Map\MapData\MapData_ABD\Aerial\lcomis_851_8526.mxd 11/30/2018 1:55:27 PM

Notes:
 Map Scale: 1 inch = 200 feet
 Coordinate System: NAD 1983 State Plane California II
 Datum: NAD83
 Projection: Lambert Conformal Conic
 Vertical Data: NAVD88
 Aerial Base: USDA, National Agriculture Imagery Progra6
 Aerial Base Flown: 30 June 2016
 Topographic Contours: Placer County
 Date Map Prepared: 30 November 2018
 Map Prepared by: N. Bente
 Delineation Performed by: D. Bown, M. Shaffer

Definitions:
 NAD = North American Datum
 NAVD = North American Vertical Datum
 USDA = United States Department of Agriculture

Prepared For:
Building Engineering & Management, Inc.
 c/o Evan Mackenzie
 4780 Rocklin Road
 Rocklin, California 95677

Aquatic Resources (0.857 acre)

Wetlands
 Seasonal Wetland Swale (0.288 acre)

Other Waters
 Antelope Creek (0.156 acre)
 Pond (0.404 acre)
 Roadside Ditch (0.009 acre)

Other Features

Study Area Boundary (98 acres)
 Reference Point
 Data Point
 Culvert
 Ground Surface Elevation, 5 foot contour interval

Aquatic Resources Delineation
Green Business Park Loomis
 Loomis, Placer County, California

8421 Auburn Boulevard, Suite 248
 Citrus Heights, California 95610
 (916) 822.3220 | www.madroneco.com

Attachment C

Plant Species Observed within the Study Area

**Plant Species Observed within the
Green Business Park Loomis Study Area
16, 17, 18 October; 21, 28 November 2018**

Species Name	Common Name	Wetland Indicator Status
<i>Aesculus californica</i>	California buckeye	UPL
<i>Ailanthus altissima</i>	Tree of heaven	FACU
<i>Avena fatua</i>	Wild oat	UPL
<i>Baccharis pilularis</i>	Coyote brush	UPL
<i>Brassica nigra</i>	Black mustard	UPL
<i>Bromus diandrus</i>	Ripgut brome	UPL
<i>Bromus hordeaceus</i>	Soft chess	FACU
<i>Carduus pycnocephalus</i>	Italian thistle	UPL
<i>Centaurea solstitialis</i>	Yellow star-thistle	UPL
<i>Centromadia fitchii</i>	Fitch's spikeweed	FACU
<i>Chondrilla juncea</i>	Skeleton weed	UPL
<i>Cirsium vulgare</i>	Bull thistle	FACU
<i>Convolvulus arvensis</i>	Field bindweed	UPL
<i>Croton setiger</i>	Turkey mullein	UPL
<i>Crypsis schoenoides</i>	Swamp grass	FACW
<i>Cupressus sempervirens</i>	Mediterranean cypress	UPL
<i>Cynodon dactylon</i>	Bermuda grass	FACU
<i>Cynosurus echinatus</i>	Hedgehog grass	UPL
<i>Cyperus eragrostis</i>	Tall flatsedge	FACW
<i>Diospyros virginiana</i>	Common persimmon	FAC
<i>Dittrichia graveolens</i>	Stinkwort	UPL
<i>Elymus caput-medusae</i>	Medusa head	UPL
<i>Epilobium brachycarpum</i>	Panicled willowherb	FAC
<i>Epilobium ciliatum</i>	Fringed willowherb	FACW
<i>Erodium botrys</i>	Filaree	FACU
<i>Eschscholzia californica</i>	California poppy	UPL
<i>Festuca arundinacea</i>	Tall fescue	FACU
<i>Festuca perennis</i>	Perennial ryegrass	FAC
<i>Fraxinus latifolia</i>	Oregon ash	FACW
<i>Fraxinus pennsylvanica</i>	Green ash	FACW
<i>Galium aparine</i>	Sticky willy	FACU
<i>Geranium dissectum</i>	Cut-leaf geranium	UPL
<i>Hordeum murinum</i>	Wall barley	FACU
<i>Hypochaeris glabra</i>	Smooth cat's ear	UPL
<i>Hypochaeris radicata</i>	Rough cat's ear	FACU
<i>Juglans sp.</i>	Walnut	-
<i>Juniperus sp.</i>	Juniper	FACU
<i>Lactuca serriola</i>	Prickly lettuce	FACU
<i>Leontodon saxatilis</i>	Hairy hawkbit	FACU

<i>Ludwigia peploides</i>	Floating primrose willow	OBL
<i>Lythrum hyssopifolia</i>	Hyssop loosestrife	OBL
<i>Madia elegans</i>	Common madia	UPL
<i>Mentha pulegium</i>	Pennyroyal	OBL
<i>Nicotiana acuminata</i>	Manyflower tobacco	UPL
<i>Olea europaea</i>	Olive	UPL
<i>Persicaria lapathifolia</i>	Common knotweed	FACW
<i>Phoenix canariensis</i>	Canary island date palm	UPL
<i>Phytolacca americana</i>	Poke weed	FAC
<i>Pinus sabiniana</i>	Grey pine	UPL
<i>Plantago lanceolata</i>	English plantain	FAC
<i>Plantago major</i>	Common plantain	FAC
<i>Platanus racemosa</i>	California sycamore	FAC
<i>Polygonum aviculare</i>	Prostrate knotweed	FAC
<i>Polypogon monspeliensis</i>	Rabbitsfoot grass	FACW
<i>Populus alba</i>	White poplar	-
<i>Populus fremontii</i>	Fremont cottonwood	FAC
<i>Portulaca oleracea</i>	Common purslane	FAC
<i>Proboscidea louisianica</i>	Common devil's claw	FACU
<i>Punica granatum</i>	Pomegranate	UPL
<i>Pyrus calleryana</i>	Callery pear	UPL
<i>Quercus douglasii</i>	Blue oak	UPL
<i>Quercus lobata</i>	Valley oak	FACU
<i>Quercus wislizeni</i>	Interior live oak	UPL
<i>Ranunculus bonariensis</i>	Carter's buttercup	OBL
<i>Robinia pseudoacaria</i>	Black locust	FACU
<i>Rubus armeniacus</i>	Himalayan blackberry	FAC
<i>Rumex crispus</i>	Curly dock	FAC
<i>Salix exigua</i>	Sandbar willow	FACW
<i>Salix gooddingii</i>	Goodding's black willow	FACW
<i>Salix lasiolepis</i>	Arroyo willow	FACW
<i>Sambucus nigra</i>	Black elderberry	FACU
<i>Sorghum halepense</i>	Johnson grass	FACU
<i>Toxicodendron diversilobum</i>	Poison oak	FACU
<i>Trifolium hirtum</i>	Rose clover	UPL
<i>Trifolium subterraneum</i>	Subterranean clover	UPL
<i>Typha sp.</i>	Cattail	OBL
<i>Verbascum blattaria</i>	Moth mullein	UPL
<i>Verbascum thapsus</i>	Woolly mullein	FACU
<i>Xanthium strumarium</i>	Rough cocklebur	FAC

Attachment D

Representative Site Photographs



Data Point DP-1 – 17 October 2018



Data Point DP-2 – 17 October 2018



Data Point DP-3 (within SWS-1) – 17 October 2018



Data Point DP-4 – 17 October 2018



Data point DP-5 (within P-2) – 17 October 2018



Data point DP-6 – 17 October 2018



Data point DP-7 (within SWS-5) – 18 October 2018



Data point DP-8 – 18 October 2018



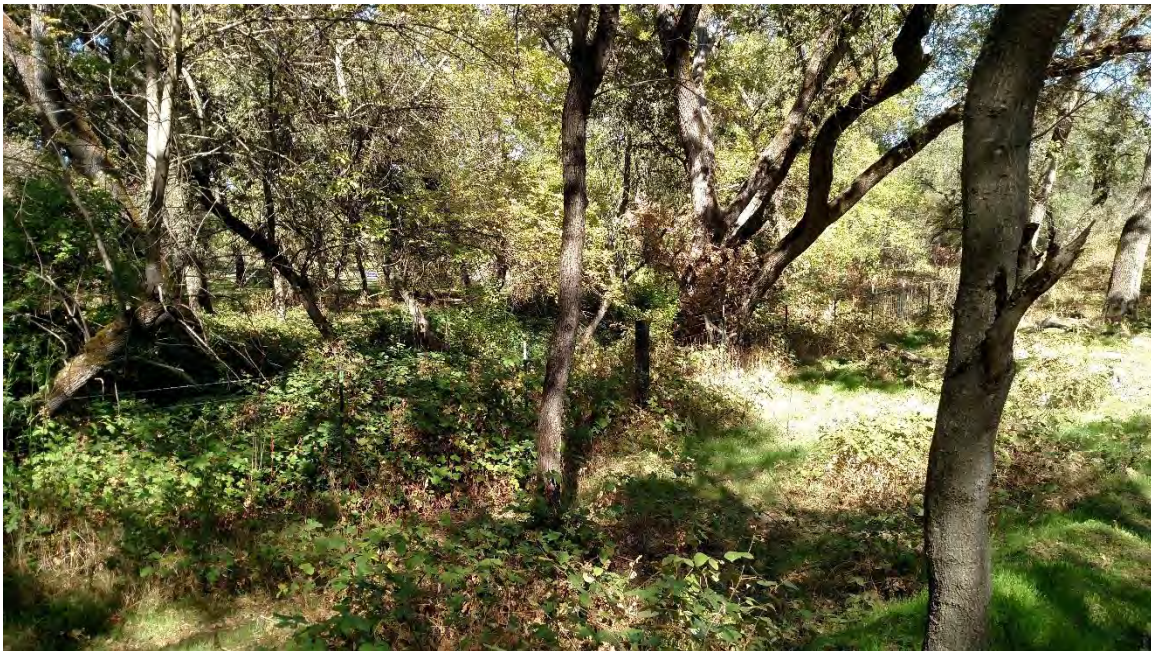
Data point DP-9 (within Creek-11) – 18 October 2018



Ungrazed parcel, facing west – 16 October 2018



Grazed pastureland, facing east – 16 October 2018



Riparian corridor along Antelope Creek, facing northwest – 16 October 2018



Remnant orchard, facing southeast – 18 October 2018



Oak savanna, facing northwest – 18 October 2018



Seasonal wetland swale (SWS-6), facing southwest – 17 October 2018



Pond (P-4), facing west – 18 October 2018



Antelope Creek (Creek-11), facing northeast – 18 October 2018



Roadside Ditch (RD-1), facing southwest – 21 November 2018

Attachment E

GIS Shapefiles and the Aquatic Resources Excel Spreadsheet (on CD)