

FIGURES

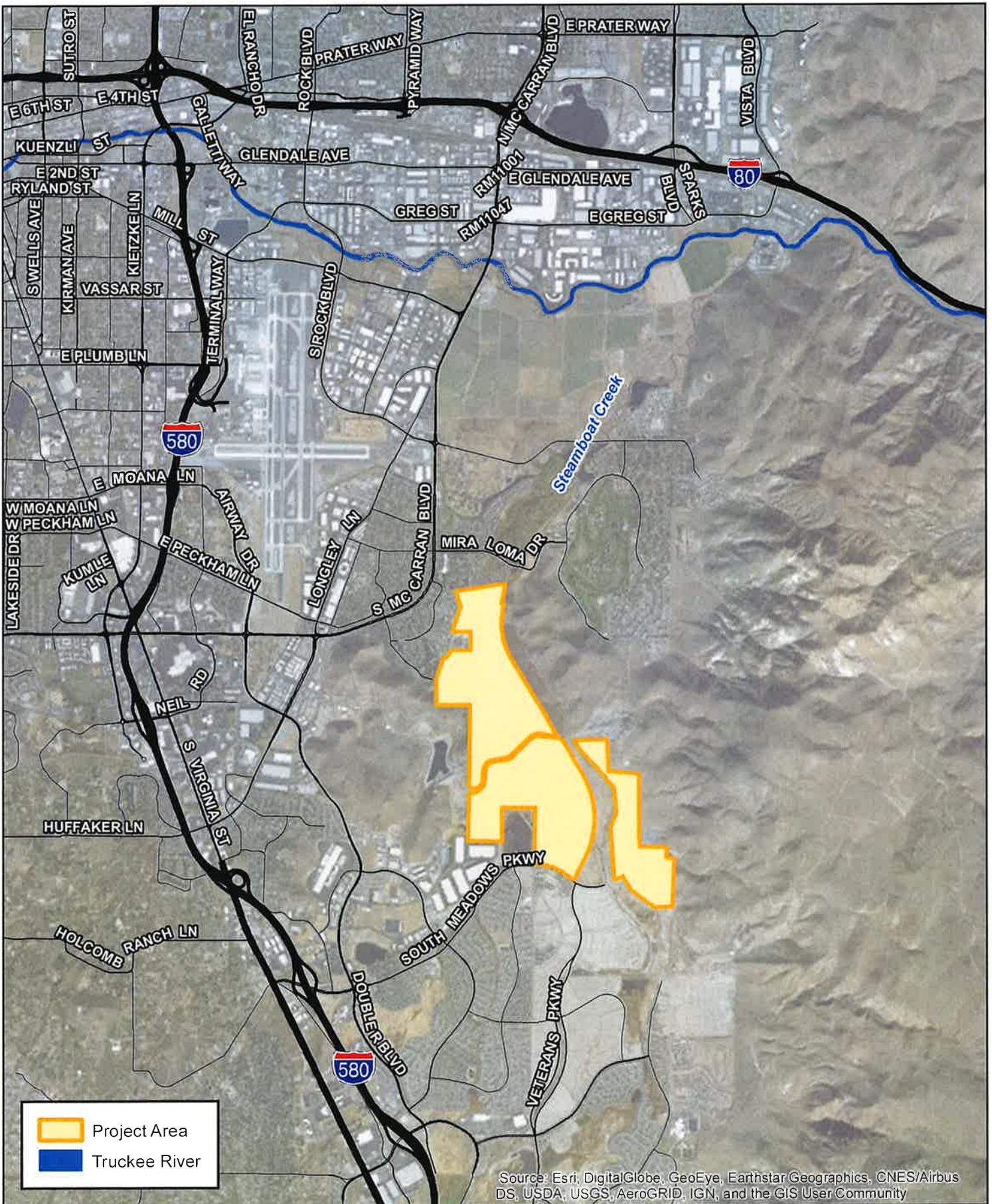


Figure 1
Vicinity Map
Daybreak
 City of Reno



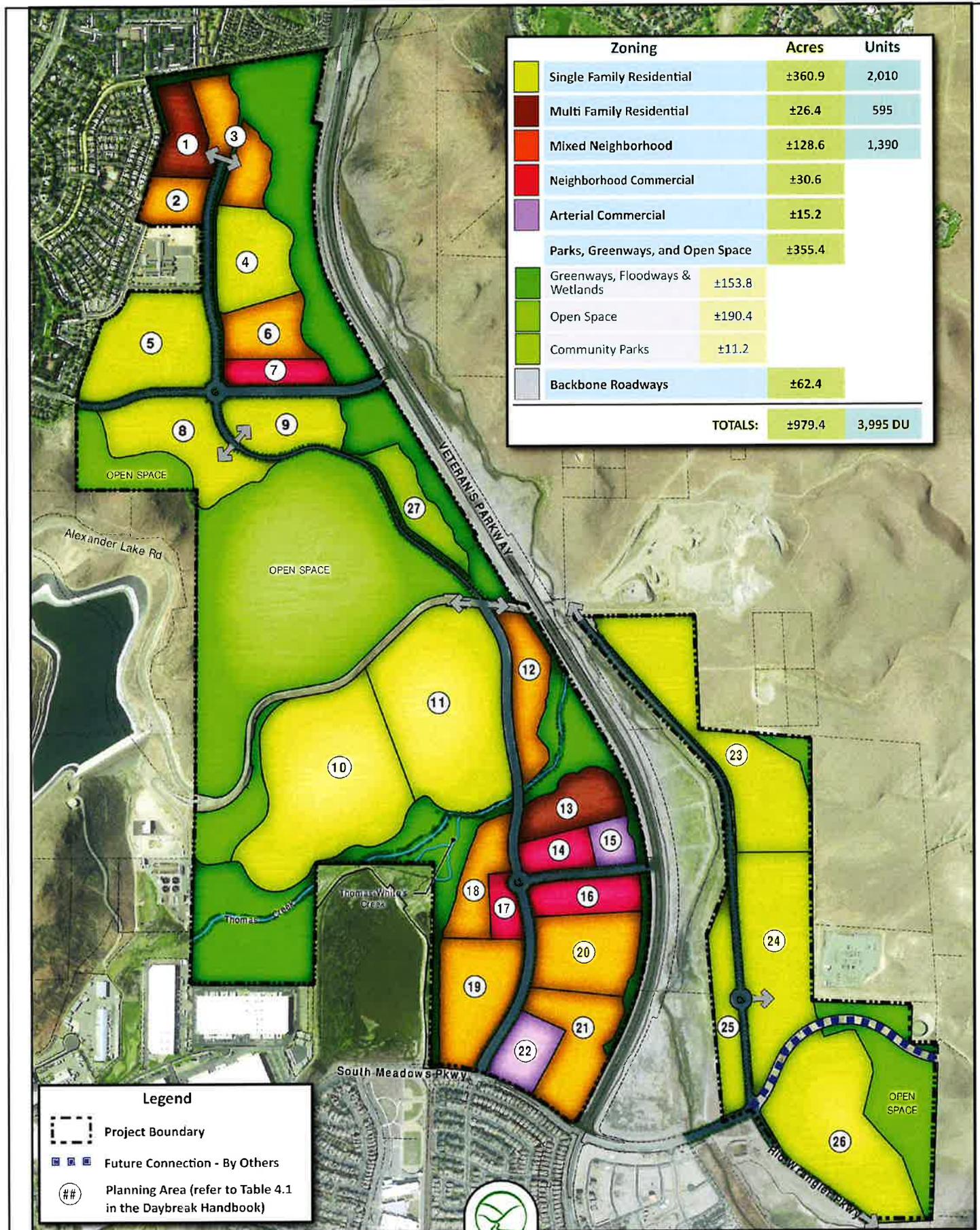


Figure 2
PUD Land Use
Daybreak
 City of Reno



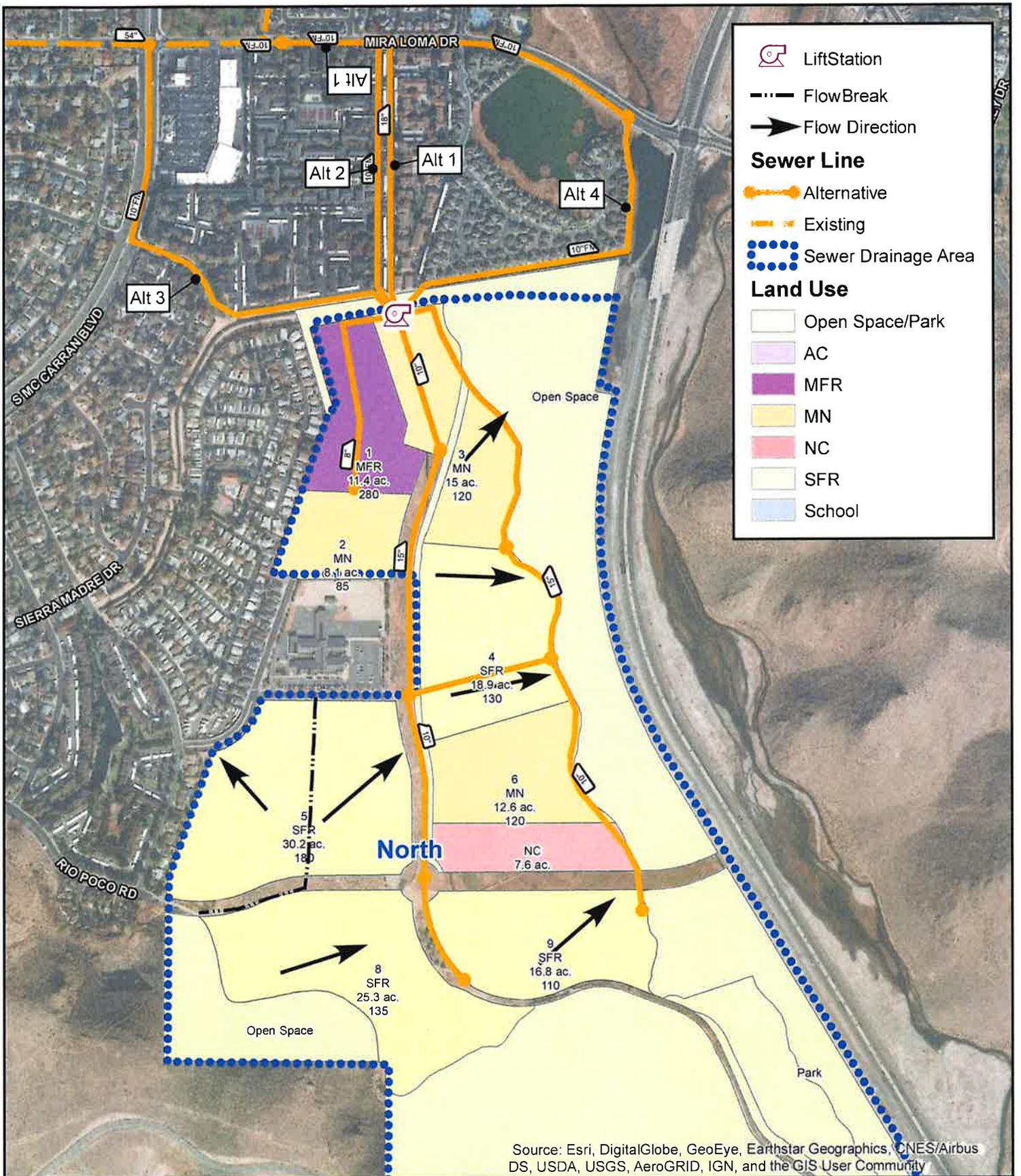
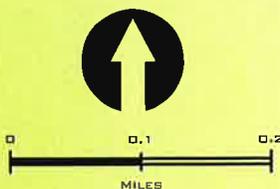


Figure 3
Preliminary Sewer System - North
 Daybreak
 City of Reno



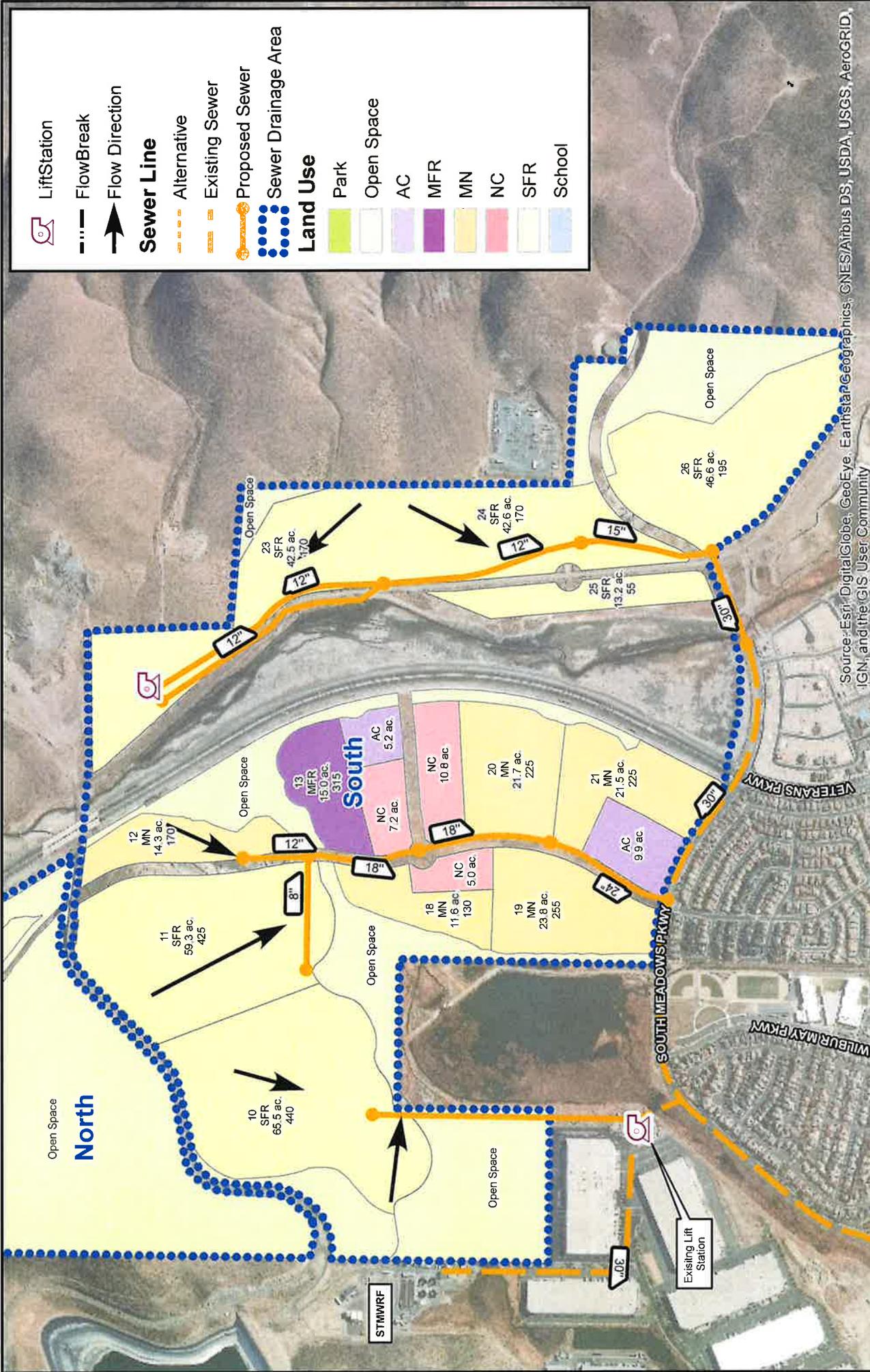
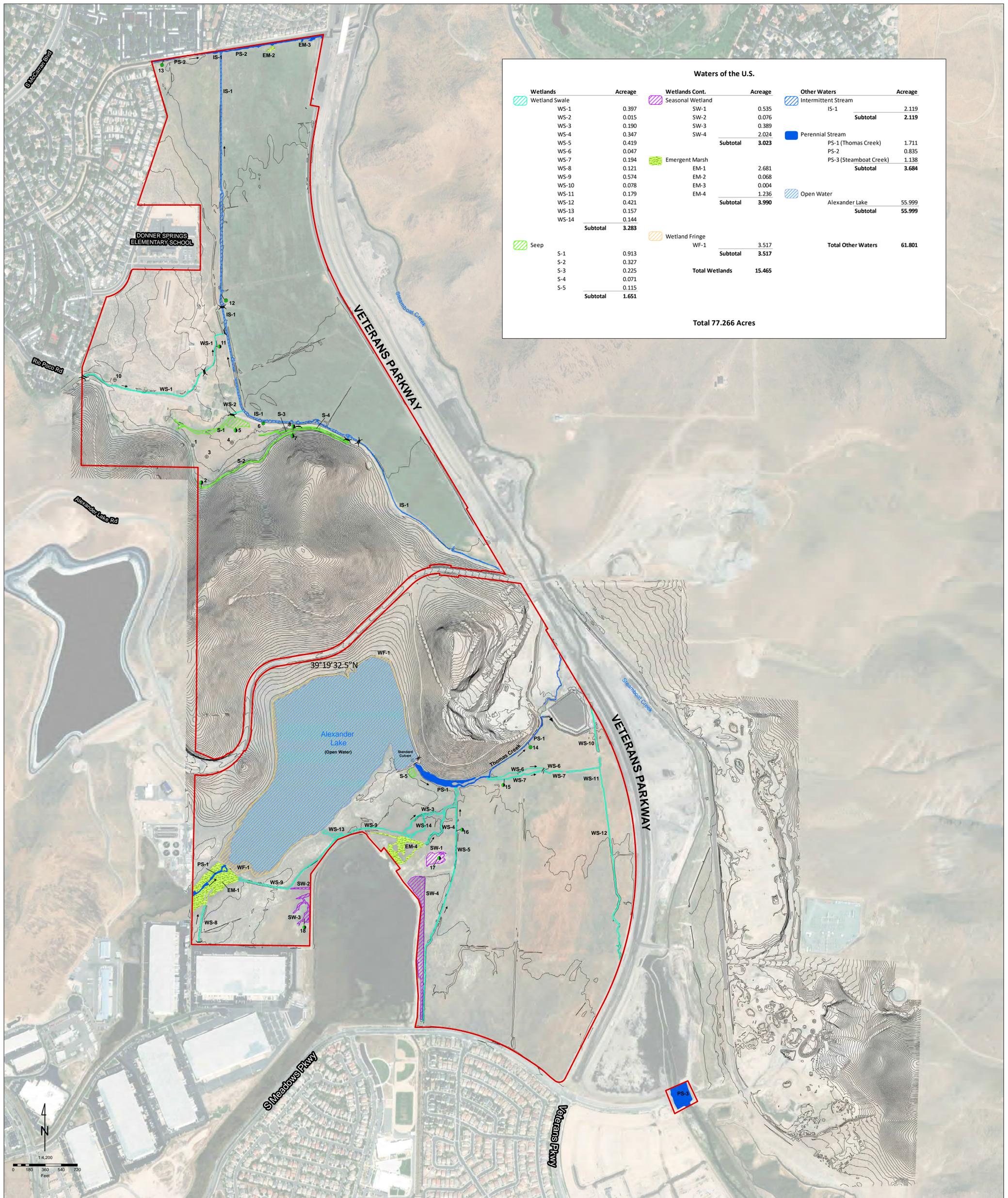


Figure 4
Preliminary Sewer System - South
Daybreak
 City of Reno

WOOD ROGERS
 BUILDING RELATIONSHIPS ONE PROJECT AT A TIME

APPENDIX 5
Wetland Delineation Report
Prepared by Salix Consulting, Inc.



Prepared By: **Salix consulting, inc.**
 Prepared For: Bristol Land Company LLC
 Newport Pacific Land Co.
 100 Bayview Circle, Ste. 2200
 Newport Beach, CA 92660

DELINEATED BY: J. GLAZNER & H. GALLANT
 FIELD WORK: AUGUST - DECEMBER 2016

MAP DRAWN BY: H. GALLANT

REVISIONS:

Permit (±980 acres)
 Upland Data Point
 Wetland Data Point
 Waters Data Point

Culvert
 Flow Direction
 5-Foot Contour

NOTES:
 COORDINATE SYSTEM: NAD 1983 State Plane Nevada West FIPS 2703 (Feet)
 AERIAL IMAGE: July 13, 2016 (Google)
 TOPOGRAPHIC MAP PROVIDED BY: Places Consulting Services, Inc.

Figure 3
WETLAND DELINEATION MAP
Daybreak
 City of Reno, Washoe County, NV

October 22, 2018

**WETLAND DELINEATION
FOR A**

**±23-ACRE PORTION OF IRRIGATED PASTURE WITHIN
THE DAYBREAK STUDY AREA**

CITY OF RENO, WASHOE COUNTY, NEVADA



Prepared for:
Newport Pacific Land Co., LLC
100 Bayview Circle, Suite 2200
Newport Beach, CA 92660

Prepared by:



11601 Blocker Drive, Ste 100
Auburn, California 95603
(530) 888-0130

NOVEMBER 2018

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Appendix A. Wetland Data Sheets

Appendix B. Plant Species Observed on the Study Area with Wetland Status

Appendix C. USACOE Aquatic Resource Spreadsheet

WETLAND DELINEATION FOR A ±23-ACRE PORTION OF IRRIGATED PASTURE WITHIN THE DAYBREAK STUDY AREA

INTRODUCTION

Location and Setting

Salix Consulting, Inc. (Salix) conducted a wetland delineation for a ±23-acre portion of irrigated pasture within the ±608-acre Daybreak study area located southeast of the Reno-Tahoe International Airport, Reno, Washoe County, Nevada. It is situated in Portions of Sections 33 and 34, Township 19N, and Range 20 East on the Reno, Nevada 7.5-minute USGS topographic quadrangles (Figure 1). The approximate coordinates for the center of the study area are: 39°28'12.22"N and 119°44'4.42"W.

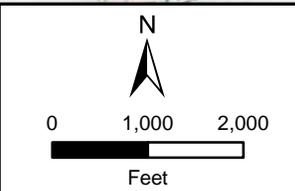
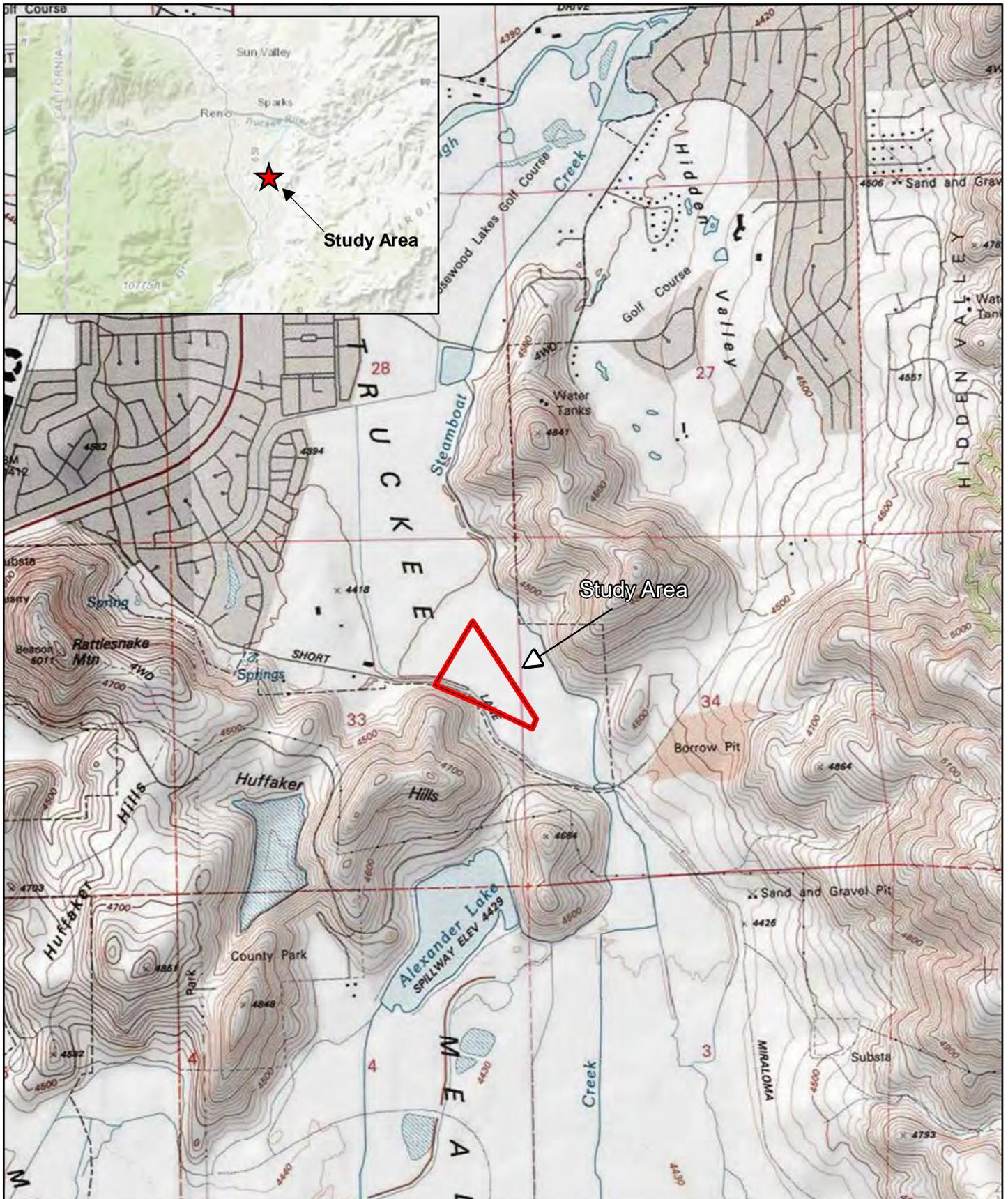
The study area occurs immediately to the west of the Huffaker Hills and to the east of and adjacent to Veterans Parkway, currently under construction. Elevations within the study area range from approximately 4403 feet to 4407 feet. Adjacent land uses are primarily agricultural and undeveloped land (Figure 2).

Background

The Study Area lies within the developing region of southeast Reno. It is situated along the Veterans Parkway, currently under construction. In 2008, a large swath of the Southeast Connector corridor was delineated by Gibson & Skordal for the Regional Transportation Commission. The Gibson & Skordal delineation included the irrigated pasture located to the west of the Parkway alignment and characterized a portion of the pasture as “seasonal wetland meadow.” The source of the water supporting this feature was thought to be Steamboat Creek. Impacts to wetlands within the Parkway footprint were mitigated for that project.

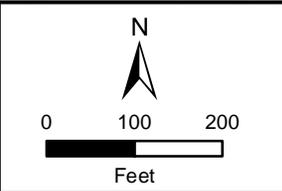
Since the delineation was verified, construction has commenced on the future Veterans Parkway. The alignment lies between the pasture and the Creek, effectively removing the wetland’s source of water. This delineation has been conducted to determine if, in fact, the feature to the west of the Parkway as delineated by Gibson & Skordal is still a functioning wetland.

In addition, some adjustments were needed along the southern boundary of the irrigated pasture, at the base of the hill. The drainage ditch/intermittent stream boundary configuration is a bit different than previously mapped, and there are two seeps at the toe of the hill that were not on the Gibson & Skordal map. These have been added.



Source Maps: USGS Topographic Map
 Reno Quad 1:24,000
 Portions of Sections: 33+34
 Portions of Township:19N
 Range: 20E

Figure 1
SITE AND VICINITY MAP
Daybreak Irrigated Pasture
 City of Reno, Washoe County, NV



-  Study Area (±23 acres)
 -  Irrigation Control Structure
 -  Culvert
- Imagery: 3-20-18 Salix Consulting, Inc.

Figure 2
AERIAL MAP
Daybreak Irrigated Pasture
 City of Reno, Washoe County, NV

CONTACT INFORMATION

Applicant:

Newport Pacific Land Co., LLC
100 Bayview Circle, Suite 2200
Newport Beach, CA 92660
Phone: (949) 945-2297
Contact: Mark Burkes

Delineated by:

Salix Consulting, Inc.
11601 Blocker Drive, Ste. 100
Auburn, California 95603
Phone: (530) 888-0130
Contact: Jeff Glazner

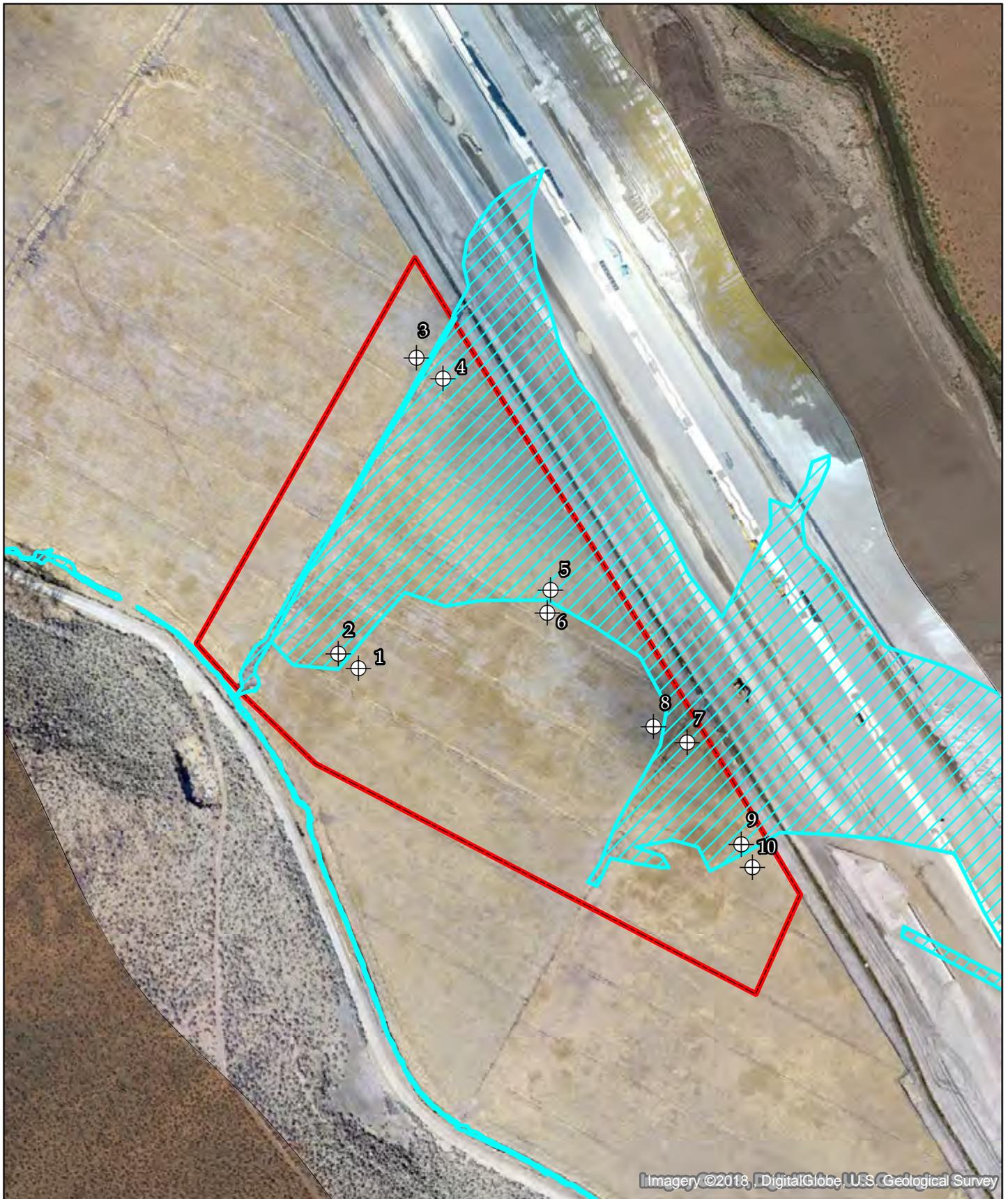
METHODOLOGY

The wetland hydrology analysis of the irrigated pasture portion of this delineation was conducted during March and April 2018 by Jeff Glazner. The timing of this delineation was chosen to coincide with the spring high groundwater period as discussed further below. Waters of the U.S. located to the south of the irrigated pasture were delineated in October 2018. The delineation was conducted according to the 1987 Corps Manual (Environmental Laboratory 1987) as amended by the Arid West Regional Supplement (U.S. Army Corps of Engineers 2008). A new orthomosaic aerial photograph was generated with a UAV, and ground photos were taken during each site visit. A Trimble GeoXT 6000 GPS (submeter) was used for location mapping of any features. Three parameter data sheets (Appendix A) were filled out at 13 locations.

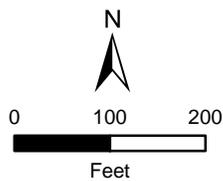
Information on soils of the study area was obtained from the U.S. Department of Agriculture – National Resource Conservation Service’s online Web Soil Survey (NRCS 2018). In the field, a Munsell Color chart was used to determine moist soil colors. Appendix B is a list of plants observed during the delineation, along with the scientific name and wetland status of each species. Where a plant species observed has a wetland indicator status (not UPL), plant nomenclature follows Lichvar et.al. (2016). Otherwise, species names are aligned with the *The Jepson Manual* (Baldwin et.al. 2012).

Because the majority of the site has been an irrigated pasture for decades and is regularly flooded during the warm season, hydric soils have developed, as well as a hydrophytic plant community of mostly rhizomatous species. Because of these factors, the best way to determine if the pasture area contains wetland hydrology is to observe it during the early spring when groundwater is highest, and near surface soil temperatures rise above 41° F. Thus, ten backhoe pits, 30-36 inches deep, were excavated on either side of the mapped wetland line (Figure 3). The pits were dug on March 12 and observed on six occasions on March 12, 19, 27, April 5, 17, and 26, 2018. The pits were filled at the end of April for the safety of the cattle.

The purpose of digging the pits was to monitor the depth of soil saturation above the groundwater table, and measure soil temperature at a depth of twelve inches below the soil surface. Timing of these measurements was intended to coincide with the wet season and the expected peak of groundwater. The observations ceased when the depth to groundwater sustained a trend downward (in late April). All data were collected and are included in this report.



Imagery ©2018, DigitalGlobe, U.S. Geological Survey



-  Study Area (±10 acres)
-  2008 Skordal WD
-  Backhoe Pits

Imagery: 3-20-18 Salix Consulting, Inc.

Figure 3

2008 DELINEATION
Daybreak Irrigated Pasture
 City of Reno, Washoe County, NV

FINDINGS

Climate

Reno sits at the western border of Nevada, in a high desert at the foot of the Sierra Nevada mountain range. Its downtown area (along with Sparks) occupies a valley informally known as the Truckee Meadows. Reno is located about 20 miles east of the Sierra Nevada and Lake Tahoe, in the rain shadow of the Sierra Nevada. Annual rainfall averages 7.48 inches. Despite this low amount of rainfall per year, Reno features a steppe climate. The city averages 300 days of sunshine per year.

Most rainfall occurs in winter and spring, averaging 7.48 inches per year. Warm season thunderstorms can occur between April and October. The eastern side of the city and the mountains east of Reno tend to be prone to thunderstorms more often. These storms may be severe because an afternoon downslope west wind (northwestern Nevada's distinctive wind, referred to as a "Washoe Zephyr") can develop in the Sierra Nevada, causing air to be pulled down in the Sierra Nevada and Reno, destroying or preventing thunderstorms, but the same wind can push air upwards against the Virginia Range and other mountain ranges east of Reno, creating powerful thunderstorms. The region is windy throughout the year.

Winter snowfall is usually light to moderate, averaging 21.5 inches annually. Snowfall varies with the lowest amounts occurring at the lowest part of the valley at and east of the Reno-Tahoe International Airport (approx. 4,404 feet elevation). The higher foothills of the Carson Range, just a few miles west of downtown, can receive up to two to three times as much annual snowfall. The mountains of the Virginia Range to the east can receive more summer thunderstorms and precipitation, and around twice as much annual snowfall above 5,500 feet. However, snowfall increases in the Virginia Range are less dramatic as elevation climbs than in the Carson Range to the west, because the Virginia Range is well within the rain shadow of the Sierra Nevada and Carson Range.

The warm season lasts from May through September, with an average daily high temperature above 84°F. On average, the hottest months are July and August with an average high of 92°F and low of 57°F. The coolest months are December and January, with an average daily high temperature around 45°F and average daily low temperature around 25°F. Temperatures in the region are mild but can fluctuate as much as 45 degrees between day and night. The temperature at night during the summer rarely rises above 60 degrees.

Soils

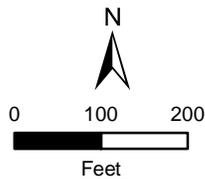
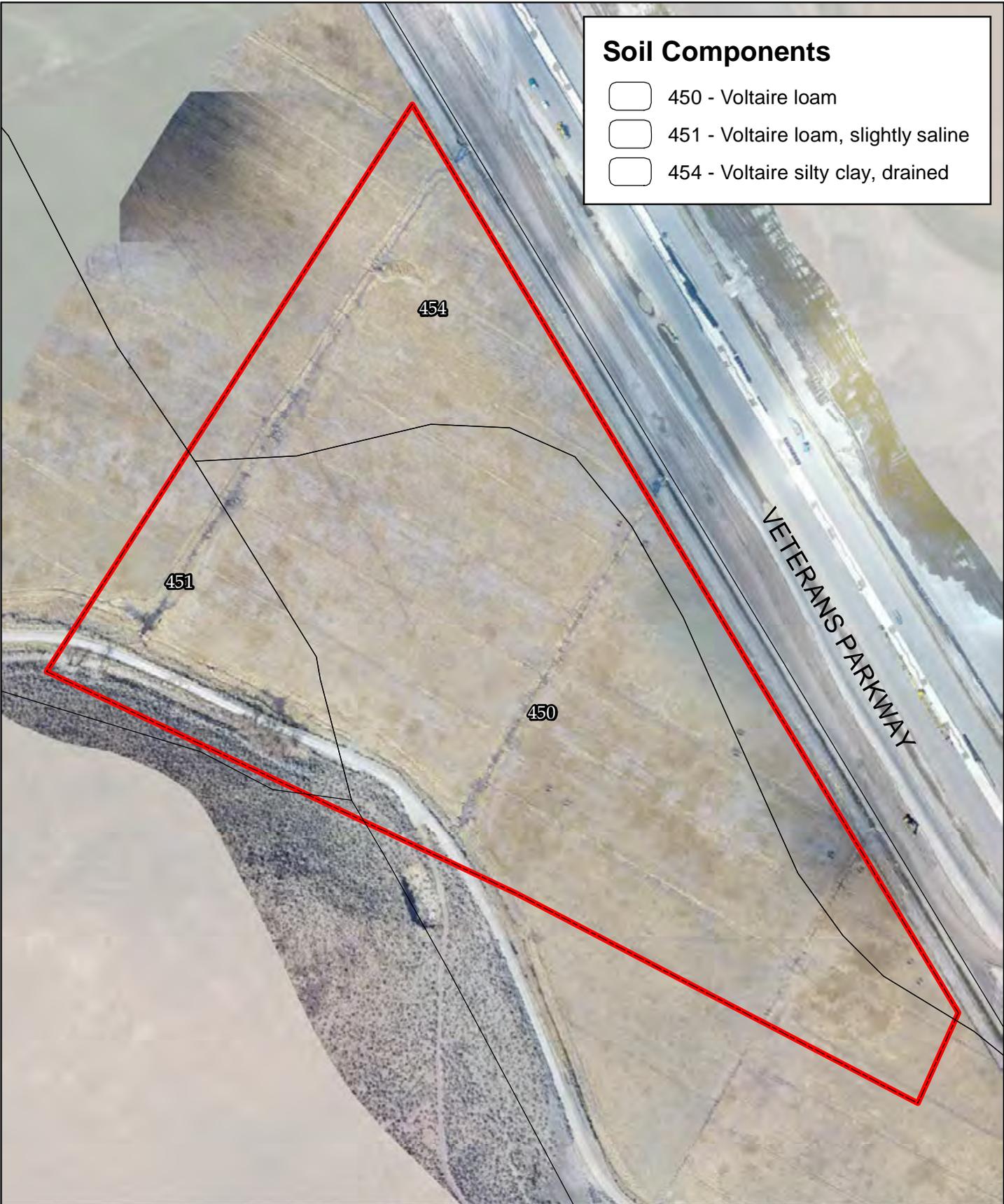
Two (2) soil units have been mapped within the study area (Figure 4) and are described below (NRCS 2016):

450 - Voltaire loam

The Voltaire, slightly saline component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on semibolsons, flood plains. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches.

Soil Components

- 450 - Voltaire loam
- 451 - Voltaire loam, slightly saline
- 454 - Voltaire silty clay, drained



 Study Area
(±23 acres)

Imagery: 3-20-18 Salix Consulting, Inc.

Figure 4

SOIL COMPONENTS MAP

Daybreak Irrigated Pasture
City of Reno, Washoe County, NV

The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during February, March, April, May. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 6w. Irrigated land capability classification is 4w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 22 within 30 inches of the soil surface.

454 - Voltaire silty clay, drained

The Voltaire, drained component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains, semi-bolsons. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 66 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 4 percent. This component is in the R026XY030NV Loamy Bottom 8-12 P.z. ecological site. Nonirrigated land capability classification is 6w. Irrigated land capability classification is 3w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 22 within 30 inches of the soil surface.

Vegetation

The study area occurs within the Sierra Nevada-Influenced Semiarid Hills and Basins ecoregion (13aa) as defined by the U. S. Geologic Service, which includes the basins and lower mountain slopes immediately east of the Sierra Nevada that are affected by its climate or that have its characteristic granitic substrate. Ecoregion 13aa is associated with the semiarid shrub community near the Sierra Nevada front. The delineation was confined to the irrigated pasture, a non-natural habitat type.

Irrigated Pasture

Almost all of the study area lies within the irrigated pasture, located to the west and adjacent to the Veterans' Parkway (under construction), which was a part of a much larger irrigated pasture area previously delineated for the Parkway project. The pasture is used for a cow-calf operation, and cattle are present on the property from November through April. Flood irrigation is managed from April through October. Due to construction of the Parkway, this "remainder" portion of the pasture has been separated from the source of water that once supported the wetland. Vegetation in the pasture is largely rhizomatous species that were established during irrigation periods and are persistent. Typical species include Baltic rush (*Juncus balticus*), several sedge species, including Nebraska sedge (*Carex nebrascensis*), broadleaf pepperweed (*Lepidium*

latifolium), meadow barley (*Hordeum brachyantherum*), and in a few locations where salt accumulates, saltgrass (*Distichlis spicata*). Species identification was difficult during this study because it began early in the growing season prior to flowering. And in addition, the site is heavily grazed, so the effect is similar to a “mowed lawn.”

The irrigated pasture is bordered on the south by a ditch that carries the water that irrigates the pasture. The ditch is bordered by Rio Poco Ranch Road, a gravel road bisecting the ranch, much of which borders the irrigated pasture. South/upslope of the road is a steep hill that supports native vegetation, primarily sagebrush scrub habitat.

Hydrology

Surface water

The study area occurs within the Truckee watershed (Hydrologic Unit Code 16050102). The Truckee River flows northeasterly from its outlet at Lake Tahoe for 121 miles to its terminus in Pyramid Lake in the Great Basin. Pyramid Lake is the geographic sink of the Truckee River Basin, and thus, the Truckee River lies within an endorheic (closed, not draining to the ocean) basin. The Truckee River basin encompasses about 3,060 square miles. The Reno region lies within the Middle Truckee River subunit.

Water falling on the study area drains in a northerly direction and into an unnamed stream that is a tributary to Steamboat Creek along the project site’s northern property line. This stream flows east for a short distance where it enters Steamboat Creek. Steamboat Creek flows north for 3 to 4 miles and into the Truckee River.

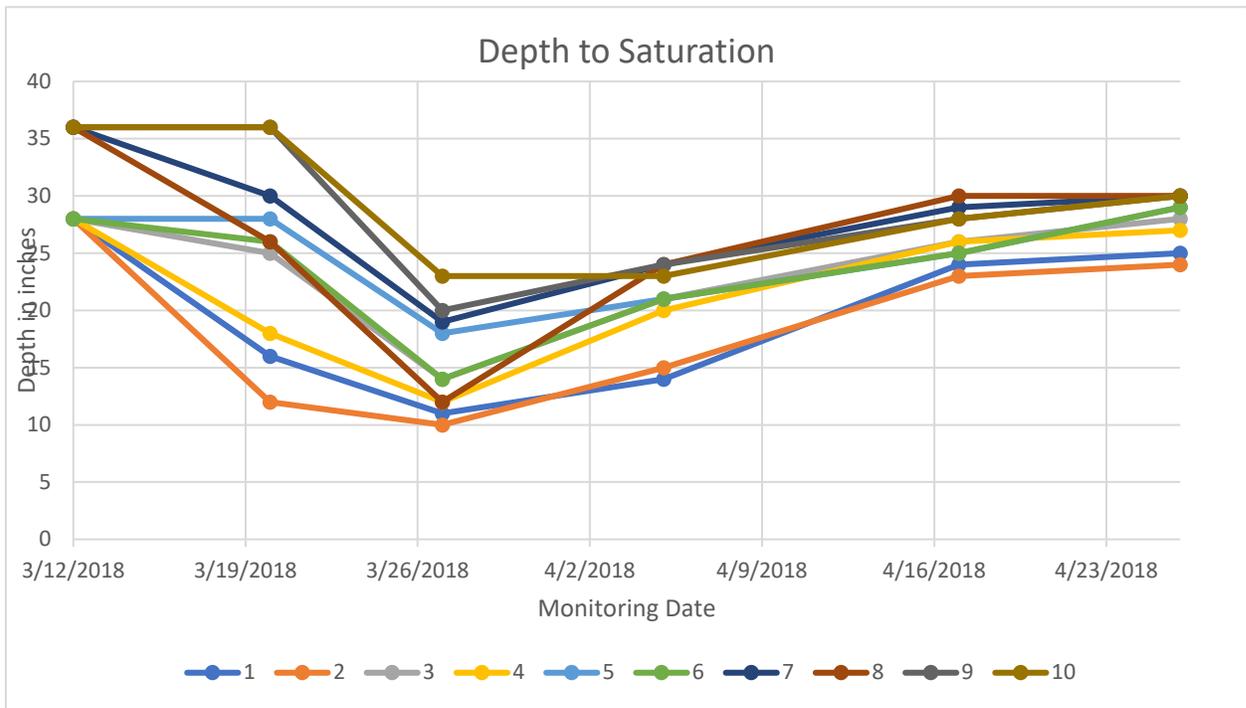
Groundwater

As explained in Methodology above, subsurface exploration was conducted at ten (10) test pits located inside and outside of the edges of the previously mapped seasonal wetland meadow (Figure 3). The pits were monitored six times at regular intervals between March 12, 2018 and April 26, 2018 to track depth to soil saturation and soil temperature at twelve inches below ground surface. Representative site photos of each test pit are included at the end of this document (Figures 5a through 5j).

Corps of Engineers guidelines for wetland hydrology indicators in the Arid West state that Indicator A2 for High Water Table “consists of the direct, visual observation of the water table 12 inches or less below the surface in a soil pit, auger hole, or shallow monitoring well” (*U.S. Army Corps of Engineers, 2008*). As expected, depth to soil saturation was shallowest at the end of March. As indicated in Table 1, depth to saturation throughout the study area ranged from ten inches to greater than thirty inches on March 27. It was ten inches at its shallowest and twenty-three at its deepest on March 27. On the last observation day (4/26), depth to saturation ranged from twenty-four inches to thirty inches below the surface. The following table and graph illustrate these findings.

Table 1

Pit #	Depth to Saturation (inches)					
	3/12/18	3/20/18	3/27/18	4/5/18	4/17/18	4/26/18
1	28	16	11	14	24	25
2	28	12	10	15	23	24
3	28	25	14	21	26	28
4	28	18	12	20	26	27
5	28	28	18	21	25	29
6	28	26	14	21	25	29
7	30+	30	19	24	29	29
8	30+	26	12	24	30	30
9	30+	30+	20	24	28	30
10	30+	30+	23	23	28	30

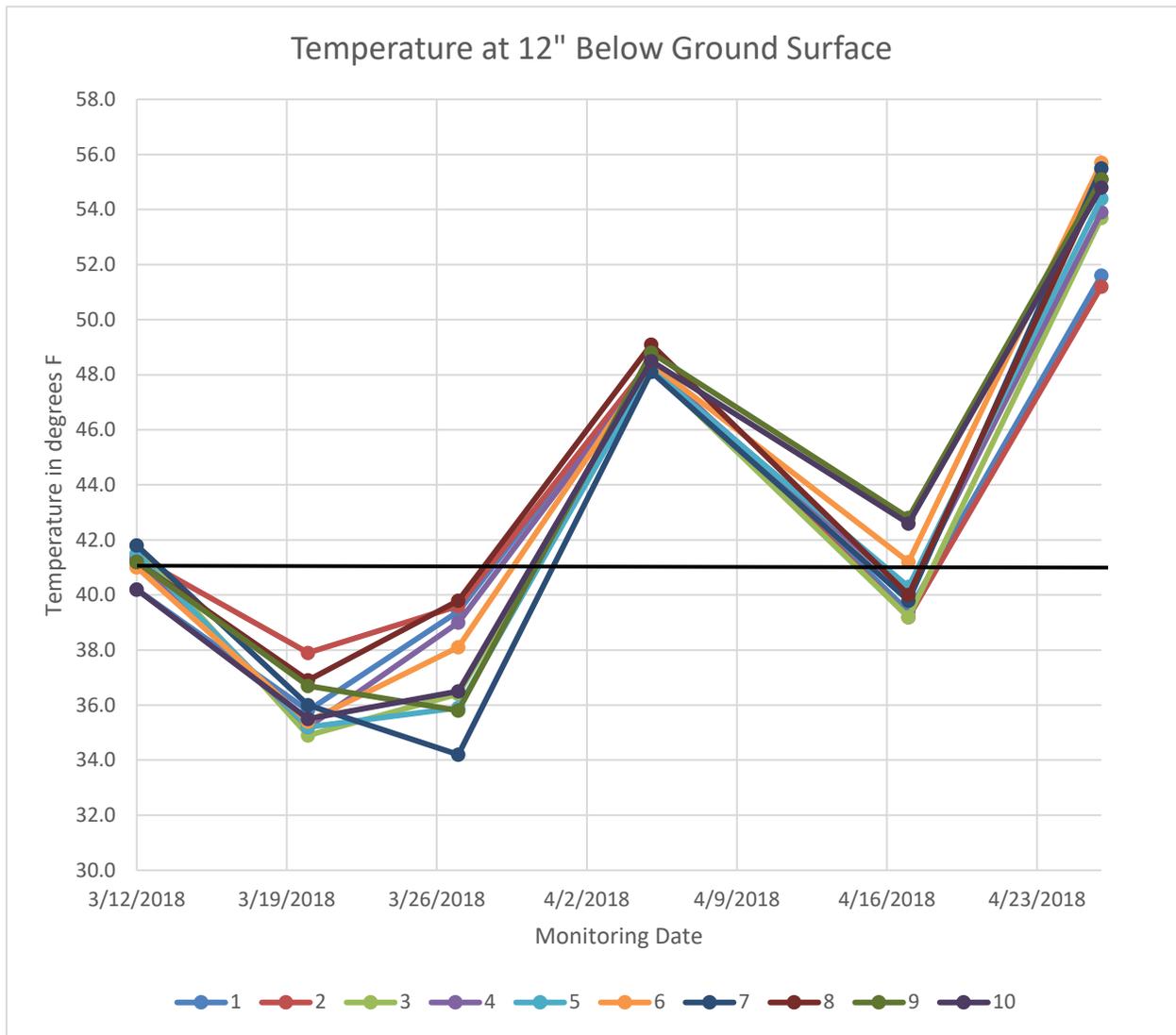


Note: Colored lines indicate numbered pits.

The Corps of Engineers guidelines for wetland hydrology indicators in the Arid West also indicate that biological activity (the growing season) has begun when the soil temperature at 12 inches depth is 41° F or higher. Soil temperatures at twelve inches below the ground surface ranged from thirty-four degrees F to fifty-six degrees F during the observation period. On the initial site observation date (3/12) soil temperatures were mostly right at 41° F. On March 20, soil temperatures ranged from 35° F to 37° F, and on March 27, soil temperatures ranged from 34° F to almost 40° F. On April 5, nearly all soils pits had soil temperatures of 48° - 49° F. The following table and graph illustrate these findings.

Table 2

Pit #	Temp at 12" below ground surface (F)					
	3/12/18	3/20/18	3/27/18	4/5/18	4/17/18	4/26/18
1	40.2	35.8	39.4	48.5	39.4	51.6
2	41.4	37.9	39.6	48.5	39.2	51.2
3	41.8	34.9	36.4	48.2	39.2	53.7
4	41.3	35.2	39	48.3	40.1	53.9
5	41.5	35.2	35.9	48.2	40.3	54.4
6	41	35.4	38.1	48.4	41.2	55.7
7	41.8	36	34.2	48.1	39.8	55.5
8	41.2	36.9	39.8	49.1	40	55.1
9	41.2	36.7	35.8	48.8	42.8	55.1
10	40.2	35.5	36.5	48.5	42.6	54.8



Note: Colored lines indicate numbered pits. Solid black horizontal line indicates 41°F.

In summary, the only time there was saturation in the upper twelve inches was on March 27 in four pits (Pit 1/11", Pit 2/10", Pit 4/12" and Pit 8/12"). No other dates exhibited soil saturation with the upper twelve inches. When soil saturation was exhibited in the upper twelve inches, in all cases, soil temperatures were below 41° F.

Waters of the United States

After analysis of the property’s hydrology and features, it was determined that two types of waters of the U.S (WOUS) are present, both located to the south of the irrigated pasture: intermittent stream and seep. Table 1 provides an acreage summary of waters of the United States on the site. Site photos of the WOUS are included in Figures 5k and 5l, and Figure 6 is the wetland delineation map.

Table 3.
Waters of the United States within a Portion of Daybreak Irrigated Pasture

Type	Acreage
Waters of the U.S.:	
Intermittent Stream	0.192
Seep	<u>0.117</u>
Total	±0.309

Irrigated Pasture

The water source that supported the wetland that was mapped in 2008 by Gibson and Skordal as a part of the Southeast Connector project was eliminated with the building of the roadway. Water used to flow from Steamboat Creek west into the irrigated pasture. When the Southeast Connector was built, Steamboat Creek water was cut off from flowing directly into the irrigated pasture. The pasture is now irrigated from water that originates further southeast of the pasture and that flows through a series of channels and control structures. All water used for flood irrigation is managed through the canal system and there is no incidental flooding of the pastures through normal rainfall. These findings were confirmed during the spring of 2018 prior to initiating seasonal irrigation.

Intermittent Stream

An irrigation ditch (0.192-acre) flowing northwest along the Rio POCO Ranch Road carries water from the south. Water in this ditch is directed into it from Thomas Creek and possibly Steamboat Creek. The flow of water was recently adjusted when the Southeast Connector was built. The purpose of maintaining flows in this stream is to service the pasture. Water not used for irrigation flows into the unnamed tributary at the northern property line. The ditch is deeply incised, and the cattle have access to it, so it is highly disturbed.

Seep

Two seeps in the form of toeslope drains are mapped in the study area (0.117 acre). These features are extensions of mapped wetlands shown on our 2017 delineation, for

which a Preliminary Jurisdictional Determination was issued in July 2017. The seeps extend several hundred feet further to the east in the same landscape positions. Excess water flows through a culvert under Rio POCO Ranch Road into the intermittent stream at the edge of the irrigated pasture. The seeps support a hydrophytic plant community, and the soils show evidence of well-developed hydric soils formation resulting from long term saturation (Figures 5k and 5l).



Photo date 3-12-18



Photo date 3-27-18



Photo date 4-05-18



Photo date 4-26-18



Figure 5a

Pit 1 SITE PHOTOS
Daybreak Irrigated Pasture
Reno, Washoe County, NV



Photo date 3-12-18



Photo date 3-27-18



Photo date 4-05-18



Photo date 4-26-18



Figure 5b

Pit 2 SITE PHOTOS
Daybreak Irrigated Pasture
Reno, Washoe County, NV



Photo date 3-12-18



Photo date 3-27-18



Photo date 4-05-18



Photo date 4-26-18



Figure 5c

Pit 3 SITE PHOTOS
Daybreak Irrigated Pasture
Reno, Washoe County, NV



Photo date 3-12-18



Photo date 3-27-18



Photo date 4-05-18



Photo date 4-26-18



Figure 5d

Pit 4 SITE PHOTOS
Daybreak Irrigated Pasture
Reno, Washoe County, NV



Photo date 3-12-18



Photo date 3-27-18



Photo date 4-05-18



Photo date 4-26-18



Figure 5e

Pit 5 SITE PHOTOS
Daybreak Irrigated Pasture
Reno, Washoe County, NV



Photo date 3-12-18

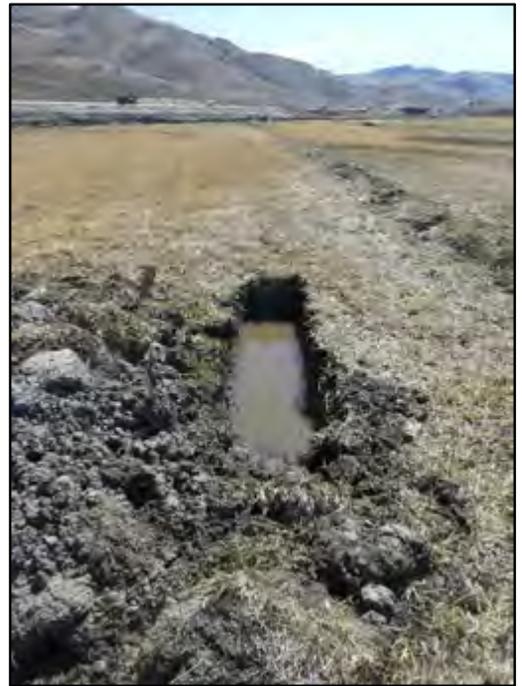


Photo date 3-27-18



Photo date 4-05-18



Photo date 4-26-18



Figure 5f

Pit 6 SITE PHOTOS
Daybreak Irrigated Pasture
Reno, Washoe County, NV



Photo date 3-12-18



Photo date 3-27-18



Photo date 4-05-18



Photo date 4-26-18



Figure 5g

Pit 7 SITE PHOTOS
Daybreak Irrigated Pasture
Reno, Washoe County, NV



Photo date 3-12-18



Photo date 3-27-18



Photo date 4-05-18



Photo date 4-26-18



Figure 5h

Pit 8 SITE PHOTOS
Daybreak Irrigated Pasture
Reno, Washoe County, NV



Photo date 3-12-18



Photo date 3-27-18



Photo date 4-05-18



Photo date 4-26-18



Figure 5i

Pit 9 SITE PHOTOS
*Daybreak Irrigated Pasture
Reno, Washoe County, NV*



Photo date 3-12-18



Photo date 3-27-18



Photo date 4-05-18



Photo date 4-26-18



Figure 5j

Pit 10 SITE PHOTOS
Daybreak Irrigated Pasture
Reno, Washoe County, NV



Looking southwest along Rio Poco Rd. Seeps 3 and 4 located at toe of hillside on right. Intermittent stream 1 is located between road and irrigated pasture on left. *Photo Date 10-10-17*



Seep 3 at toe of slope with tule growth. *Photo Date 10-10-17*



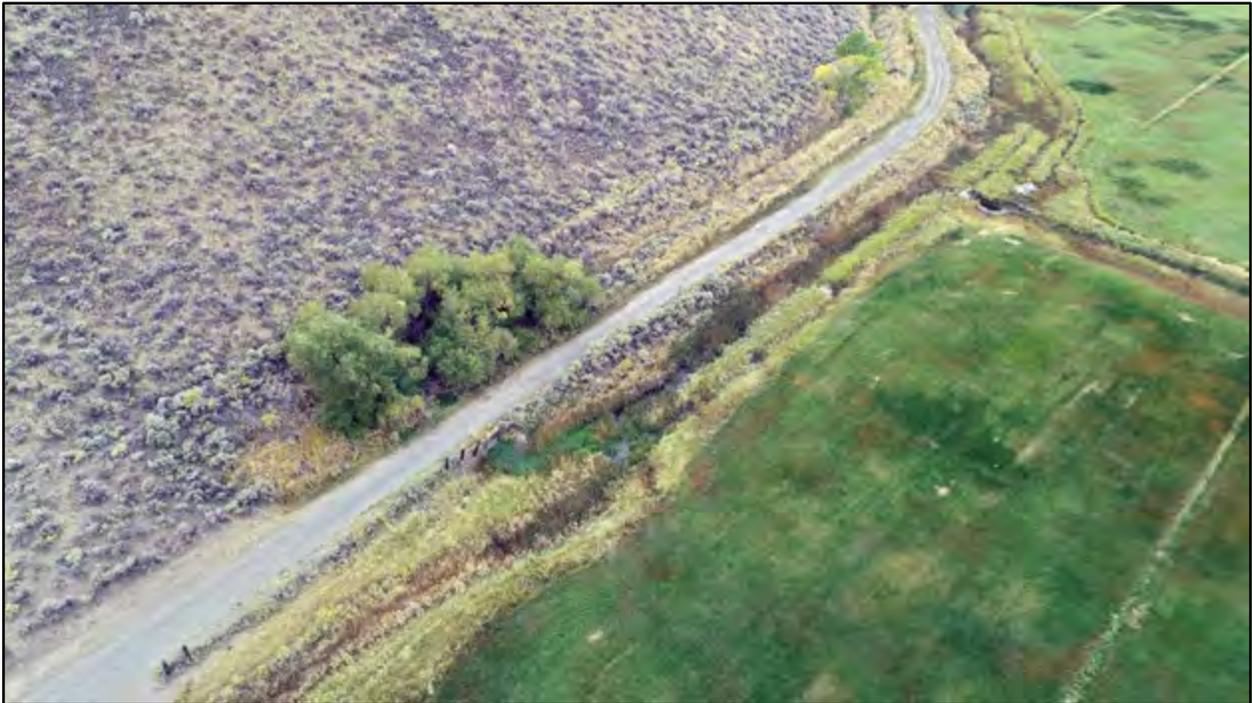
Figure 5k

SITE PHOTOS

Daybreak Irrigated Pasture
City of Reno, Washoe County, NV



Looking southeast into study area at Seeps 3 and 4 and Intermittent Stream 1.
Photo Date 10-10-18

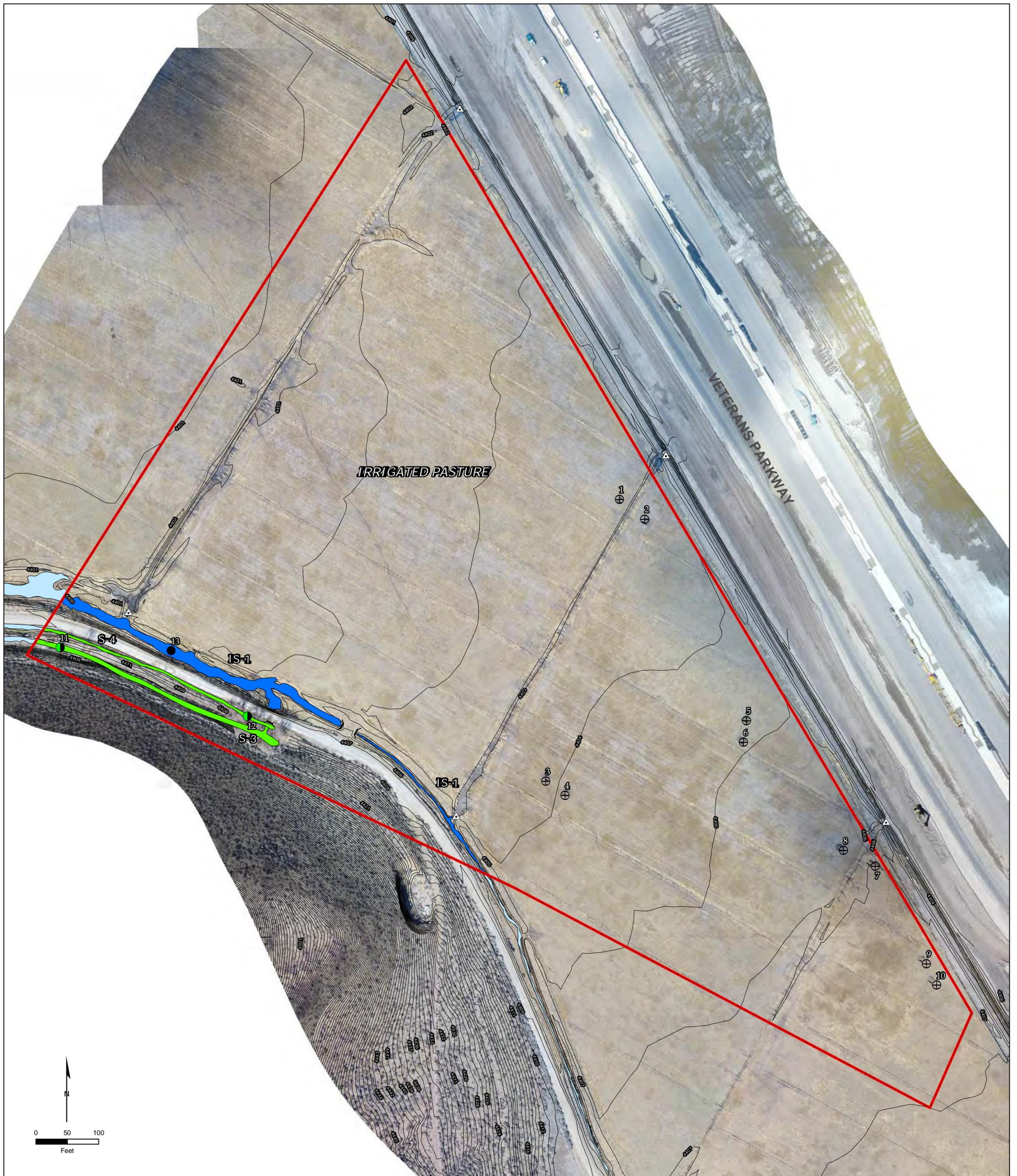


Looking southwest at southern edge of study area and Waters of the U.S.
Photo Date 10-10-18



Figure 51

AERIAL PHOTOS
Daybreak Irrigated Pasture
City of Reno, Washoe County, NV



Prepared By:



Prepared For:

Bristol Land Company LLC
Newport Pacific Land Co.
100 Bayview Circle, Ste. 2200
Newport Beach, CA 92660

DELINEATED BY: J. Glazner
DRAWN BY: H. Gallant

COORDINATE SYSTEM: NAD83 State Plane Nevada West

Waters of the U.S.		Acreage
Intermittent Stream		
IS-1		0.192
Subtotal		0.192
Seep		
S-3		0.077
S-4		0.040
Subtotal		0.117
Total		0.309 acres

- Study Area (±23 acres)
- Previously Delineated WOTUS
- Upland Data Point
- Waters Data Point
- Wetland Data Point
- Irrigation Control Structure
- Culvert
- 1-ft Contour

Imagery: 3-20-18 Salix Consulting, Inc.

Figure 6

WETLAND DELINEATION

Daybreak Irrigated Pasture

City of Reno, Washoe County, NV

November 11, 2018

REFERENCES AND OTHER SOURCES

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- Munsell Soil Color Book. 2009. Munsell Soil Color Charts. Munsell Color x-rite. Grand Rapids, MI.
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- U.S. Department of Agriculture, NRCS. Web Soil Survey for Washoe County, Nevada, South Part, Online. <http://websoilsurvey.nrcs.usda.gov>. Accessed July 2016.
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Appendix A.
Wetland Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 4-17-18
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 01
 Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1
 Subregion (LRR): LRR D Lat: 39.4712498 Long: -119.7349848 Datum: NAD83
 Soil Map Unit Name: 450 - Voltaire loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Area just outside of previously mapped wetland. Lacks wetland hydrology.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____) 1. <u>Juncus balticus</u> 20 X FACW 2. <u>unknown grasses</u> 80 X FAC 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____				
100 = Total Cover				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____

Remarks:
 Highly grazed pasture. No plants in flower, and all plants grazed. All species assumed to be FAC or FACW.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 4-17-18
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 02
 Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1
 Subregion (LRR): LRR D Lat: 39.47116546 Long: -119.7348415 Datum: NAD83
 Soil Map Unit Name: 450 - Voltaire loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Data point within previously mapped wetland. Lacks wetland hydrology.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____				Total % Cover of: _____ Multiply by: _____
2. _____				OBL species _____ x 1 = _____
3. _____				FACW species _____ x 2 = _____
4. _____				FAC species _____ x 3 = _____
5. _____				FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Juncus balticus</u>	<u>25</u>	<u>X</u>	<u>FACW</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. <u>unknown grasses</u>	<u>75</u>	<u>X</u>	<u>FAC</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. _____				<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____				
6. _____				
7. _____				
8. _____				
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Footnote:
1. _____				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Remarks: Highly grazed pasture. No plants in flower, and all plants grazed. All species assumed to be FAC or FACW.				

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 4-17-18
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 03
 Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1
 Subregion (LRR): LRR D Lat: 39.47002641 Long: -119.7353802 Datum: NAD83
 Soil Map Unit Name: 450 - Voltaire loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Data point just outside of previously mapped wetland. Lacks wetland hydrology.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Juncus balticus</u>	<u>10</u>	_____	FACW	
2. <u>unknown grasses</u>	<u>80</u>	<u>X</u>	FAC	
3. <u>Carex sp.</u>	<u>10</u>	_____	FACW	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>5</u>		% Cover of Biotic Crust _____		

Remarks:
 Highly grazed pasture. No plants in flower, and all plants grazed. All species assumed to be FAC or FACW.

SOIL

Sampling Point: 03

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		
0-5	10YR 3/2	100						sandy loam
5-16	10YR 3/1	100						clayey 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 checked="" 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"/>
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Remarks:
Roots and rhizomes prevalent in upper soil column. Soils have been irrigated for decades.

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? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:
Observations through spring season did not indicate site has wetland hydrology.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 4-17-18
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 04
 Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1
 Subregion (LRR): LRR D Lat: 39.46996649 Long: -119.7352715 Datum: NAD83
 Soil Map Unit Name: 450 - Voltaire loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Data point within previously mapped wetland. Lacks wetland hydrology.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
= Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Juncus balticus</u>	<u>10</u>	_____	<u>FACW</u>	
2. <u>unknown grasses</u>	<u>80</u>	<u>X</u>	<u>FAC</u>	
3. <u>Carex sp.</u>	<u>10</u>	_____	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____				

Remarks:
 Highly grazed pasture. No plants in flower, and all plants grazed. All species assumed to be FAC or FACW.

SOIL

Sampling Point: 04

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		
1-8	10YR 3/1	100						sandy loam
8-16	10YR 2/1	100						clayey 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 checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Vernal Pools (F9)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
Roots and rhizomes prevalent in upper soil column. Soils have been irrigated for decades.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<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? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:
Observations through spring season did not indicate site has wetland hydrology.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 4-17-18

Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 05

Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1

Subregion (LRR): LRR D Lat: 39.4702993 Long: -119.7342544 Datum: NAD83

Soil Map Unit Name: 450 - Voltaire loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		

Remarks:
Data point within previously mapped wetland. Lacks wetland hydrology.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC:	<u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata:	<u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC:	<u>100</u> (A/B)
4. _____				Prevalence Index worksheet:	
_____ = Total Cover				Total % Cover of:	Multiply by:
OBL species _____				x 1 = _____	
FACW species _____				x 2 = _____	
FAC species _____				x 3 = _____	
FACU species _____				x 4 = _____	
UPL species _____				x 5 = _____	
Column Totals: _____				(A)	(B)
Prevalence Index = B/A = _____				Hydrophytic Vegetation Indicators:	
<input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Sapling/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
Herb Stratum (Plot size: _____) 1. <u>Juncus balticus</u> <u>5</u> <u>FACW</u> 2. <u>unknown grasses</u> <u>90</u> <u>X</u> <u>FAC</u> 3. <u>Carex sp.</u> <u>5</u> <u>FACW</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover					
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover					
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____					

Remarks:
Highly grazed pasture. No plants in flower, and all plants grazed. All species assumed to be FAC or FACW.

SOIL

Sampling Point: 05

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		
1-7	10YR 3/1	100						sandy loam
7-16	10YR 2/1	100						clayey 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 checked="" 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:
Roots and rhizomes prevalent in upper soil column. Soils have been irrigated for decades.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<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? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:
Observations through spring season did not indicate site has wetland hydrology.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 4-17-18
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 06
 Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1
 Subregion (LRR): LRR D Lat: 39.47020653 Long: -119.7342694 Datum: NAD83
 Soil Map Unit Name: 450 - Voltaire loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Data point just outside of previously mapped wetland. Lacks wetland hydrology.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>unknown grasses</u>	<u>95</u>	<u>X</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>95</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>5</u>		% Cover of Biotic Crust _____		
Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)				
¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				

Remarks:
 Highly grazed pasture. No plants in flower, and all plants grazed. All species assumed to be FAC or FACW.

SOIL

Sampling Point: 06

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		
1-3	10YR 3/2	100						sandy loam
3-8	10YR 3/1	100						sandy loam
8-16	10YR 2/1	100						clayey 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.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input checked="" type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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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 No

Remarks:
 Roots and rhizomes prevalent in upper soil column. Soils have been irrigated for decades.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<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 <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

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

Remarks:
 Observations through spring season did not indicate site has wetland hydrology.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 4-17-18

Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 07

Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1

Subregion (LRR): LRR D Lat: 39.46967827 Long: -119.7335178 Datum: NAD83

Soil Map Unit Name: 450 - Voltaire loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Data point within previously mapped wetland. Lacks wetland hydrology.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				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. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Juncus balticus</u>	<u>10</u>		<u>FACW</u>	
2. <u>unknown grasses</u>	<u>85</u>	<u>X</u>	<u>FAC</u>	
3. <u>Carex sp.</u>	<u>5</u>		<u>FACW</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				

Remarks:
 Highly grazed pasture. No plants in flower, and all plants grazed. All species assumed to be FAC or FACW.

SOIL

Sampling Point: 07

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		
1-2	10YR 3/2	100						sandy loam
2-6	10YR 3/1	100						sandy loam
6-16	10YR 2/1	100						clayey 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.)

<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 checked="" 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 No

Remarks:
 Roots and rhizomes prevalent in upper soil column. Soils have been irrigated for decades.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<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 <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

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

Remarks:
 Observations through spring season did not indicate site has wetland hydrology.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 4-17-18

Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 08

Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1

Subregion (LRR): LRR D Lat: 39.46974417 Long: -119.7336981 Datum: NAD83

Soil Map Unit Name: 450 - Voltaire loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:
 Data point just outside of previously mapped wetland. Lacks wetland hydrology.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u>	(A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u>	(B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u>	(A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:	
_____ = Total Cover				Total % Cover of:	Multiply by:
Sapling/Shrub Stratum (Plot size: _____)				OBL species _____	x 1 = _____
1. _____	_____	_____	_____	FACW species _____	x 2 = _____
2. _____	_____	_____	_____	FAC species _____	x 3 = _____
3. _____	_____	_____	_____	FACU species _____	x 4 = _____
4. _____	_____	_____	_____	UPL species _____	x 5 = _____
5. _____	_____	_____	_____	Column Totals: _____	(A) _____ (B)
_____ = Total Cover				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. <u>Juncus balticus</u>	<u>5</u>	_____	<u>FACW</u>	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. <u>unknown grasses</u>	<u>85</u>	<u>X</u>	<u>FAC</u>	<input type="checkbox"/> Prevalence Index is ≤3 0 ¹	
3. <u>Carex sp.</u>	<u>5</u>	_____	<u>FACW</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. <u>Lepidium latifolium</u>	<u>5</u>	_____	<u>FAC</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
6. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
_____ = Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
_____ = Total Cover					
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____					

Remarks:
 Highly grazed pasture. No plants in flower, and all plants grazed. All species assumed to be FAC or FACW.

SOIL

Sampling Point: 08

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		
1-6	10YR 3/1	100						sandy loam
6-16	10YR 2/1	100						clayey 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.)

<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 checked="" 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 No

Remarks:

Roots and rhizomes prevalent in upper soil column. Soils have been irrigated for decades.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)
<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 Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? Yes No Depth (inches): _____
(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

Observations through spring season did not indicate site has wetland hydrology.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 4-17-18

Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 09

Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1

Subregion (LRR): LRR D Lat: 39.46925922 Long: -119.7332219 Datum: NAD83

Soil Map Unit Name: 450 - Voltaire loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			
Remarks:					
Data point within previously mapped wetland. Lacks wetland hydrology.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				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. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Juncus balticus</u>	10		FACW	
2. <u>unknown grasses</u>	85	X	FAC	
3. <u>Carex sp.</u>	5		FACW	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
100 = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____				
2. _____				
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____				
Remarks:				
Highly grazed pasture. No plants in flower, and all plants grazed. All species assumed to be FAC or FACW.				

SOIL

Sampling Point: 09

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		
1-5	10YR 3/1	100						sandy loam
5-16	10YR 2/1	100						clayey 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 checked="" 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 No

Remarks:

Roots and rhizomes prevalent in upper soil column. Soils have been irrigated for decades.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required, check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|--|--|
| <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 Depth (inches): _____
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks:

Observations through spring season did not indicate site has wetland hydrology.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 4-17-18

Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 10

Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-1

Subregion (LRR): LRR D Lat: 39.46916713 Long: -119.7331626 Datum: NAD83

Soil Map Unit Name: 450 - Voltaire loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland?	Yes _____	No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No _____			
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>			
Remarks:					
Data point just outside of previously mapped wetland. Lacks wetland hydrology.					

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)	
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
4. _____	_____	_____	_____	= Total Cover	
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:	
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____	
2. _____	_____	_____	_____	OBL species _____ x 1 = _____	
3. _____	_____	_____	_____	FACW species _____ x 2 = _____	
4. _____	_____	_____	_____	FAC species _____ x 3 = _____	
5. _____	_____	_____	_____	FACU species _____ x 4 = _____	
= Total Cover				UPL species _____ x 5 = _____	
Herb Stratum (Plot size: _____)				Column Totals: _____ (A) _____ (B)	
1. <u>Juncus balticus</u>	<u>10</u>	_____	<u>FACW</u>	Prevalence Index = B/A = _____	
2. <u>unknown grasses</u>	<u>80</u>	<u>X</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators:	
3. <u>Carex sp.</u>	<u>5</u>	_____	<u>FACW</u>	<input checked="" type="checkbox"/> Dominance Test is >50%	
4. <u>Lepidium latifolium</u>	<u>5</u>	_____	<u>FAC</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹	
5. _____	_____	_____	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
= Total Cover					
Woody Vine Stratum (Plot size: _____)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
1. _____	_____	_____	_____	Hydrophytic Vegetation Present?	
2. _____	_____	_____	_____	Yes <input checked="" type="checkbox"/> No _____	
= Total Cover					
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____					
Remarks:					
Highly grazed pasture. No plants in flower, and all plants grazed. All species assumed to be FAC or FACW.					

SOIL

Sampling Point: 10

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		
0-5	10YR 3/1	100						sandy loam
5-16	10YR 2/1	100						clayey 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.) <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input checked="" type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)
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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 No

Remarks:
 Roots and rhizomes prevalent in upper soil column. Soils have been irrigated for decades.

HYDROLOGY

Wetland Hydrology Indicators:

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

<input type="checkbox"/> Water Marks (B1) (Riverine) <input type="checkbox"/> Sediment Deposits (B2) (Riverine) <input type="checkbox"/> Drift Deposits (B3) (Riverine) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Shallow Aquitard (D3) <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? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No

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

Remarks:
 Observations through spring season did not indicate site has wetland hydrology.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 10-10-18
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 11
 Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): <1
 Subregion (LRR): LRR D Lat: 39.47058476 Long: -119.73807153 Datum: NAD83
 Soil Map Unit Name: 451 - Voltaire loam, slightly saline NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Toe of slope seepage captured by long-age constructed toe drain, presumably to protect road below.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet:
1. _____	_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
_____ = Total Cover				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:
1. <u>Nasturtium officinale</u>	<u>10</u>		<u>OBL</u>	<input checked="" type="checkbox"/> Dominance Test is >50%
2. <u>Typha latifolia</u>	<u>15</u>		<u>OBL</u>	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹
3. <u>Schoenoplectus acutus</u>	<u>35</u>	<u>X</u>	<u>OBL</u>	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Epilobium ciliatum</u>	<u>15</u>		<u>FACW</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Lemna sp.</u>	<u>5</u>		<u>OBL</u>	
6. <u>Lepidium latifolium</u>	<u>10</u>		<u>FAC</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____		

Remarks:
 Hydrophytic vegetation in narrow swale that captures seepage out of hillside.

SOIL

Sampling Point: 11

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		
1-12	7.5YR 2.5/1	100						

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 checked="" 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):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Mucky, saturated soil.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

Secondary Indicators (2 or more required)

- | | | |
|--|--|--|
| <input checked="" 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 Depth (inches): 1
 Water Table Present? Yes No Depth (inches): _____
 Saturation Present? Yes No Depth (inches): _____
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

Standing water in toe drain.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 10-10-18
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 12
 Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): <1
 Subregion (LRR): LRR D Lat: 39.47029739 Long: -119.73701053 Datum: NAD83
 Soil Map Unit Name: 451 - Voltaire loam, slightly saline NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Parallel toe drain adjacent to one higher on slope. Collects less water than one above.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
= Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Euthamia occidentalis</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	
2. <u>Juncus balticus</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	
3. <u>Cynodon dactylon</u>	<u>10</u>		<u>FACU</u>	
4. <u>Lepidium latifolium</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	
5. <u>Lotus corniculatus</u>	<u>10</u>		<u>FAC</u>	
6. <u>Polypogon monspeliensis</u>	<u>10</u>		<u>FACW</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____				

Remarks:
 Shallow depression parallel to road with dense hydrophytic vegetation.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Daybreak Irrigated Pasture City/County: Reno/Washoe Sampling Date: 10-10-18
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 13
 Investigator(s): Jeff Glazner Section, Township, Range: S33-34, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): channel/ditch Slope (%): <1
 Subregion (LRR): LRR D Lat: 39.47057668 Long: -119.73744564 Datum: NAD83
 Soil Map Unit Name: 451 - Voltaire loam, slightly saline NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Remarks: Intermittent Stream (Other Waters). Typical reach of channel at edge of irrigated pasture. Slow moving water and varying width of open water. Flows to north.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
Herb Stratum (Plot size: _____) 1. <u>Schoenoplectus acutus</u> _____ OBL 2. <u>Azolla microphylla</u> _____ OBL 3. <u>Lemna sp.</u> _____ OBL 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations 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.				
Hydrophytic Vegetation Present? Yes _____ No _____				

Remarks:
 Hydrophytic vegetation associated with channel edge. Very slow-moving water allows for establishment of these plants.

Appendix B.
Plant Species Observed

Appendix B. Daybreak Irrigated Pasture - Plants Observed w/Wetland Status

Taxon	Common Name	Wetland Status
<i>Achillea millefolium</i>	Common yarrow	FACU
<i>Artemisia arbuscula</i>	Low sagebrush	UPL
<i>Artemisia douglasiana</i>	California mugwort	FAC
<i>Artemisia tridentata</i>	Big sagebrush	UPL
<i>Azolla microphylla</i>	Mexican mosquito fern	OBL
<i>Bromus inermis</i>	Smooth brome	FACU
<i>Bromus tectorum</i>	Cheat grass	UPL
<i>Carduus nutans</i>	Musk thistle	FACU
<i>Carex nebrascensis</i>	Nebraska sedge	OBL
<i>Carex praegracilis</i>	Clustered field-sedge	FACW
<i>Carex sp.</i>	Sedge	VARIES
<i>Cirsium vulgare</i>	Bull thistle	FACU
<i>Cynodon dactylon</i>	Bermudagrass	FACU
<i>Dactylis glomerata</i>	Orchard grass	FACU
<i>Distichlis spicata</i>	Saltgrass	FAC
<i>Eleocharis acicularis</i>	Least spikerush	OBL
<i>Eleocharis macrostachya</i>	Creeping spikerush	OBL
<i>Elymus elymoides</i>	Squirreltail	FACU
<i>Elymus sp.</i>	Elymus	UPL
<i>Elymus trachycaulus</i>	Slender wheatgrass	FACU
<i>Elymus triticoides</i>	Beardless wildrye	FAC
<i>Epilobium ciliatum</i>	Hairy willow-herb	FACW
<i>Equisetum arvense</i>	Common horsetail	FAC
<i>Ericameria nauseosa</i>	Rubber rabbitbrush	UPL
<i>Euthamia occidentalis</i>	Western goldenrod	FACW
<i>Hordeum brachyantherum</i>	Meadow barley	FACW
<i>Hordeum jubatum</i>	Foxtail barley	FAC
<i>Juncus balticus</i>	Baltic rush	FACW
<i>Juncus bufonius</i>	Toad rush	FACW
<i>Juncus effusus</i>	Soft rush	FACW
<i>Lactuca serriola</i>	Prickly lettuce	FACU
<i>Lemna sp.</i>	Duckweed	OBL
<i>Lepidium latifolium</i>	Broadleaf pepperweed	FAC
<i>Linum lewisii</i>	Prairie flax	UPL
<i>Lotus corniculatus</i>	Bird's-foot trefoil	FAC
<i>Nasturtium officinale</i>	Watercress	OBL
<i>Poa secunda</i>	Secund bluegrass	FACU
<i>Polypogon monspeliensis</i>	Annual beard grass	FACW

Taxon	Common Name	Wetland Status
<i>Populus fremontii</i>	Fremont cottonwood	FAC
<i>Purshia tridentata</i>	Antelope bitterbrush	UPL
<i>Rumex crispus</i>	Curly dock	FAC
<i>Salix laevigata</i>	Red willow	FACW
<i>Salsola tragus</i>	Russian-thistle	FACU
<i>Schoenoplectus acutus</i>	Hardstem bulrush	OBL
<i>Typha latifolia</i>	Broad-leaved cattail	OBL

Appendix C.
UACOE Aquatic Resource Spreadsheet

Appendix C:
Daybreak - Portion of Irrigated Pasture WD

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
IS-1	Nevada	R4SB7	RIVERINE	Area	0.192	ACRE	DELINEATE	39.46993258	-119.7359704	Steamboat Creek
S-3	Nevada	PEM1	DEPRESS	Area	0.077	ACRE	DELINEATE	39.47038991	-119.7374694	Steamboat Creek
S-4	Nevada	PEM1	DEPRESS	Area	0.04	ACRE	DELINEATE	39.47046249	-119.7374767	Steamboat Creek

WETLAND DELINEATION
FOR THE

±608-ACRE BELLA VISTA RANCH PHASE III STUDY AREA

CITY OF RENO, WASHOE COUNTY, NEVADA



Prepared for:
Newport Pacific Land Co., LLC
100 Bayview Circle, Suite 2200
Newport Beach, CA 92660

Prepared by:



11601 Blocker Drive, Ste 100
Auburn, California 95603
(530) 888-0130

FEBRUARY 2017

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APPENDICES

Appendix A. Wetland Data Sheets

Appendix B. Plant Species Observed on the Project Study Area with Wetland Status

Appendix C. USACOE Aquatic Resources Sreadsheet

WETLAND DELINEATION FOR THE ±608-ACRE BELLA VISTA RANCH, PHASE III STUDY AREA

INTRODUCTION

Location and Setting

Salix Consulting, Inc. (Salix) prepared a wetland delineation for the ±608-acre Bella Vista Ranch, Phase III study area located southeast of the Reno-Tahoe International Airport, Reno, Washoe County, Nevada. It is situated in Portions of Sections 03, 04, 33, and 34, Portions of Townships 18N, and 19N, and Range 20 East on the Reno, Nevada 7.5-minute USGS topographic quadrangles (Figure 1). The approximate coordinates for the center of the study area are: 39°27'50.88"N and 119°44'05.57"W.

The site occurs in the Huffaker Hills area with elevations ranging from approximately 4300 feet in the steppe areas to approximately 4700 feet in the hills. Alexander Lake is located in the southwestern portion of the study area and the site is bisected by Alexander Lake Road. Surrounding uses include residential development to the north, northwest and south, commercial development to the southwest, and the Southeast Connector to the east. (Figure 2).

Background

The Study Area lies within the developing region of southeast Reno. It is situated along the Southeast Connector roadway, currently under construction. A large swath west of the Southeast Connector was previously delineated by Gibson and Skordal for the Regional Transportation Commission; that delineation verification is currently valid and not a part of this study.

CONTACT INFORMATION

Applicant:

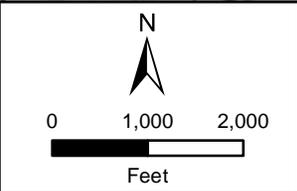
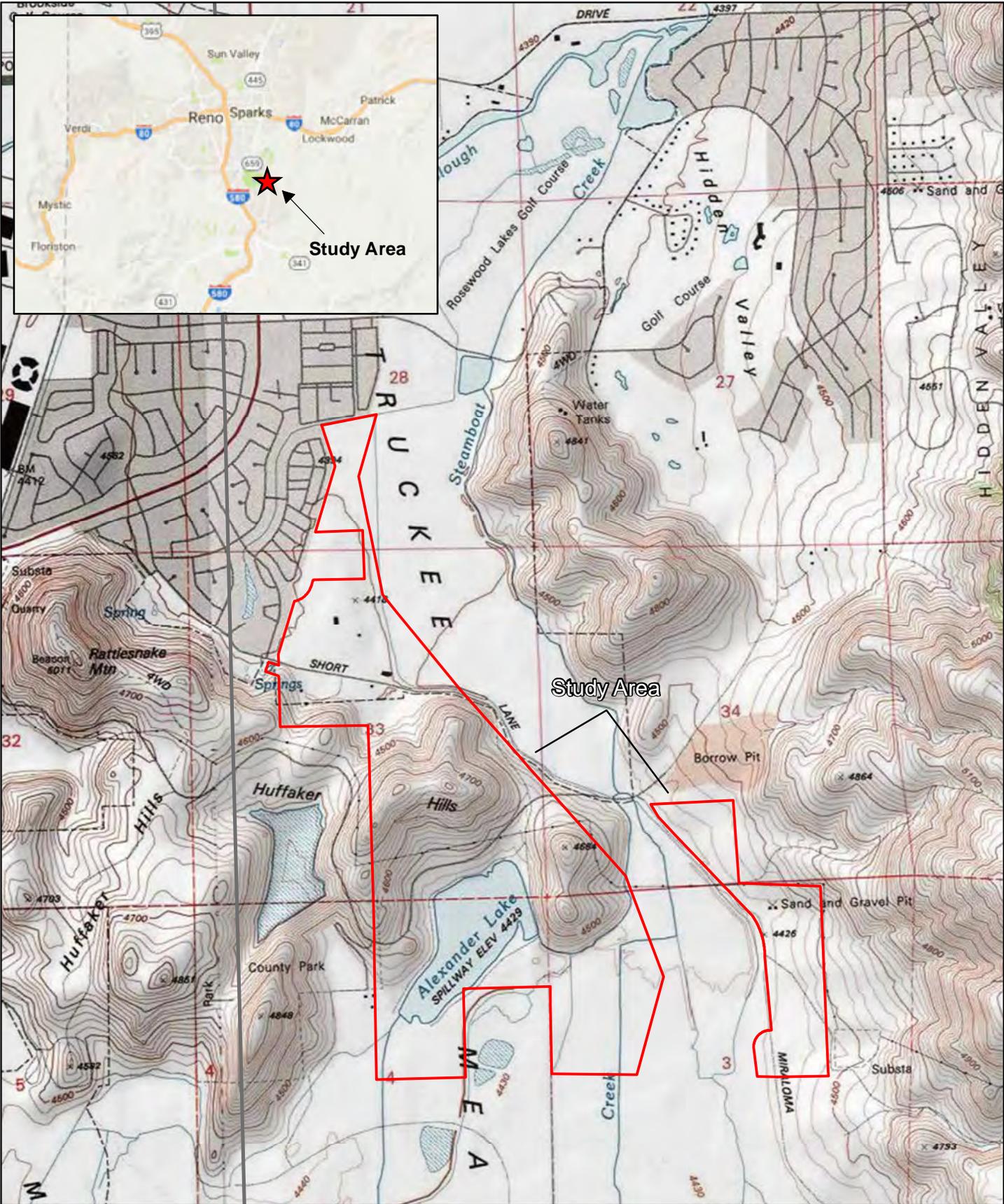
Newport Pacific Land Co., LLC
100 Bayview Circle, Suite 2200
Newport Beach, CA 92660
Phone: (949) 945-2297
Contact: Mark Burkes

Delineated by:

Salix Consulting, Inc.
11601 Blocker Drive, Ste. 100
Auburn, California 95603
Phone: (530) 888-0130
Contact: Jeff Glazner

METHODOLOGY

Waters of the United States were delineated from September through December 2016 by Jeff Glazner and Hunter Gallant using the 1987 Corps Manual (Environmental Laboratory 1987) as amended by the Arid West Regional Supplement (U.S. Army Corps of Engineers 2008).



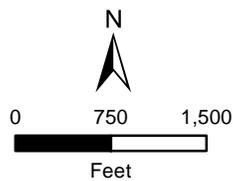
Source Maps: USGS Topographic Map
 Reno Quad 1:24,000
 Portions of Sections: 03+04+33+34
 Portions of Townships: 18N + 19N
 Range: 20E

Figure 1
SITE AND VICINITY MAP
Bella Vista Ranch Phase III
 City of Reno, Washoe County, NV



Google™

Imagery ©2017, DigitalGlobe, U.S. Geological Survey, USDA Farm Service Agency



 Study Area
(±608 acres)

Aerial Imagery: July 2016 (Google)

Figure 2

AERIAL MAP

Bella Vista Ranch Phase III
City of Reno, Washoe County, NV

The site was observed on foot and utilizing all-terrain vehicles (ATVs) and an unmanned aerial vehicle (UAV) (DJI Phantom 3). Potential waters of the U.S. were evaluated and mapped according to the manual. Features were mapped using a Trimble GeoXT 6000 GPS (submeter). Three parameter data sheets (Appendix A) were filled out at 18 locations as indicated on the Wetland Delineation Map.

Information on soils of the study area was obtained from the U.S. Department of Agriculture – National Resource Conservation Service’s online Web Soil Survey (NRCS 2016). In the field, a Munsell Color chart was used to determine moist soil colors. Appendix B is a list of plants observed during the delineation, along with the scientific name and wetland status of each species. Where a plant species observed has a wetland indicator status (not UPL), plant nomenclature follows Lichvar et.al. (2016). Otherwise, species names are aligned with the *The Jepson Manual* (Baldwin et.al. 2012).

The Corps of Engineers Aquatic Resources spreadsheet is included in Appendix C.

FINDINGS

Climate

Reno sits at the western border of Nevada, in a high desert at the foot of the Sierra Nevada mountain range. Its downtown area (along with Sparks) occupies a valley informally known as the Truckee Meadows. Reno is located about 20 miles east of the Sierra Nevada and Lake Tahoe, in the rain shadow of the Sierra Nevada. Annual rainfall averages 7.48 inches. Despite this low amount of rainfall per year, Reno features a steppe climate. The city averages 300 days of sunshine per year.

Most rainfall occurs in winter and spring, averaging 7.48 inches per year. Warm season thunderstorms can occur between April and October. The eastern side of the city and the mountains east of Reno tend to be prone to thunderstorms more often. These storms may be severe because an afternoon downslope west wind (northwestern Nevada's distinctive wind, referred to as a "Washoe Zephyr") can develop in the Sierra Nevada, causing air to be pulled down in the Sierra Nevada and Reno, destroying or preventing thunderstorms, but the same wind can push air upwards against the Virginia Range and other mountain ranges east of Reno, creating powerful thunderstorms. The region is windy throughout the year.

Winter snowfall is usually light to moderate, averaging 21.5 inches annually. Snowfall varies with the lowest amounts occurring at the lowest part of the valley at and east of the Reno-Tahoe International Airport (approx. 4,404 feet elevation). The higher foothills of the Carson Range, just a few miles west of downtown, can receive up to two to three times as much annual snowfall. The mountains of the Virginia Range to the east can receive more summer thunderstorms and precipitation, and around twice as much annual snowfall above 5,500 feet. However, snowfall increases in the Virginia Range are less dramatic as elevation climbs than in the Carson Range to the west, because the Virginia Range is well within the rain shadow of the Sierra Nevada and Carson Range.

The warm season lasts from May through September, with an average daily high temperature above 84°F. On average, the hottest months are July and August with an average high of 92°F and low of 57°F. The coolest months are December and January, with an average daily high temperature around 45°F and average daily low temperature around 25°F. Temperatures in the region are mild, but can fluctuate as much as 45 degrees between day and night. The temperature at night during the summer rarely rises above 60 degrees.

Soils

Thirty-three (33) soil units have been mapped within the study area (Figure 3) and are described below (NRCS 2016):

101 - Aquinas sandy loam, 4 to 8 percent slopes

The Aquinas component makes up 85 percent of the map unit. Slopes are 4 to 8 percent. This component is on fan piedmonts, fan remnants. The parent material consists of alluvium derived from granite. Depth to a root restrictive layer, duripan, is 30 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R026XY017NV Loamy Hill 10-12 P.z. ecological site. Nonirrigated land capability classification is 6s. Irrigated land capability classification is 3e. This soil does not meet hydric criteria.

230 - Cradlebaugh loam

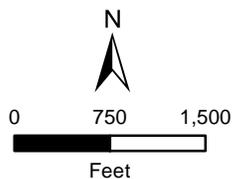
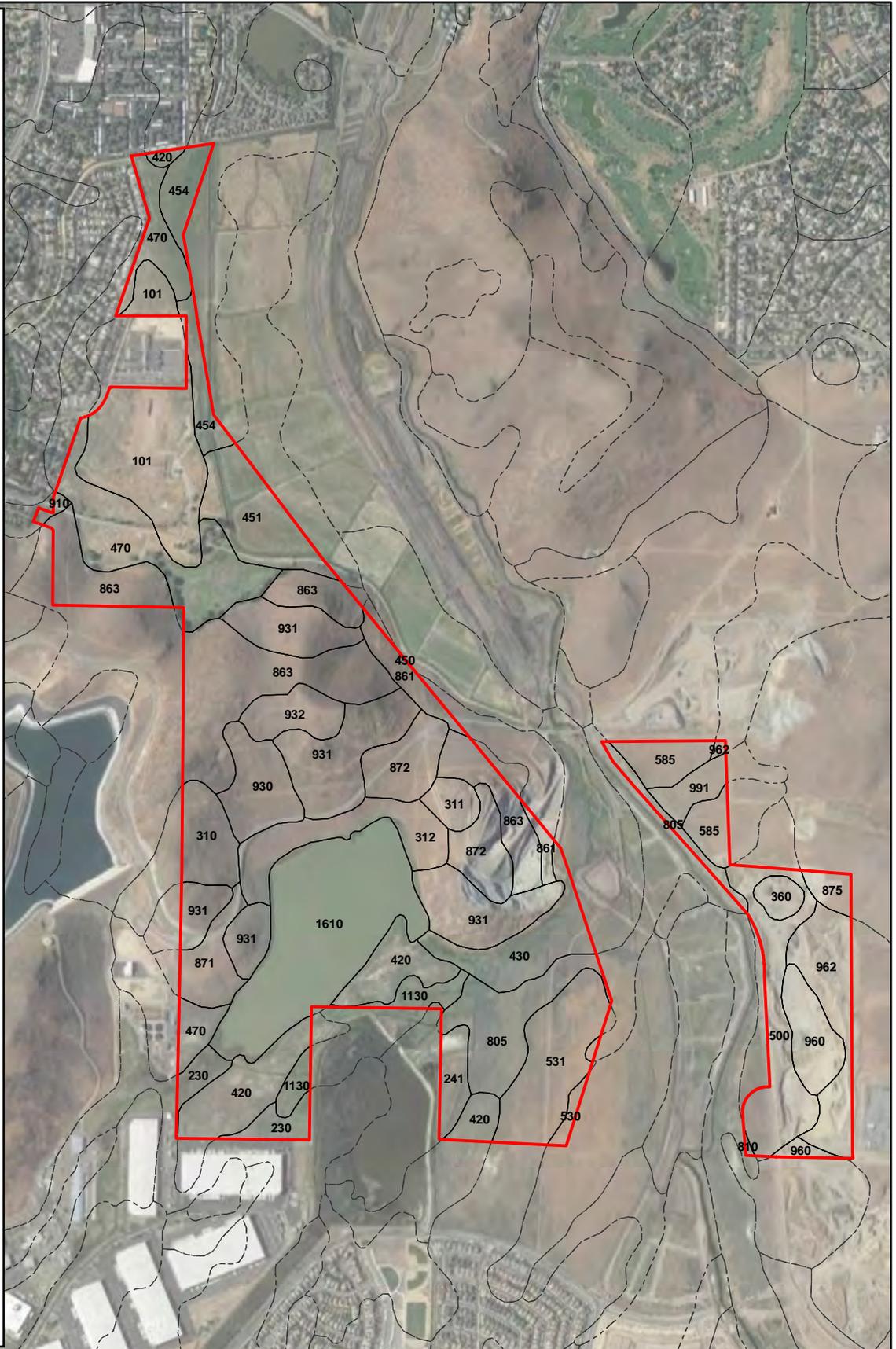
The Cradlebaugh component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on semi-bolsons, flood plains. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is occasionally flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during February, March, April, May, June. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY001NV Moist Floodplain ecological site. Nonirrigated land capability classification is 6w. Irrigated land capability classification is 4w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 7 within 30 inches of the soil surface.

241 - Updike loam, gravelly substratum

The Updike, gravelly substratum component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on lake terraces, lake plains. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the

Soil Components

- 101 - Aquinas sandy loam, 4 to 8 percent slopes
- 1130 - Dithod sandy loam
- 1610 - Water
- 230 - Cradlebaugh loam
- 241 - Updike loam, gravelly substratum
- 310 - Risley-Rock outcrop complex, 8 to 15 percent slopes
- 311 - Risley-Rock outcrop complex, 15 to 30 percent slopes
- 312 - Risley cobbly loam, 15 to 30 percent slopes
- 360 - Pits
- 420 - Godecke loamy sand
- 430 - Sagouspe variant loamy very fine sand
- 450 - Voltaire loam
- 451 - Voltaire loam, slightly saline
- 454 - Voltaire silty clay, drained
- 470 - Dalzell loamy fine sand
- 500 - Mottsville sand, 0 to 4 percent slopes
- 530 - Sagouspe sand
- 531 - Sagouspe fine sandy loam
- 585 - Barnard-Trosi association
- 805 - Truckee sandy loam, gravelly substratum
- 810 - Rose Creek fine sandy loam, drained
- 861 - Reywat extremely stony loam, 15 to 30 percent slopes
- 863 - Reywat-Rock outcrop complex, 15 to 50 percent slopes
- 871 - Xman very stony loam, 15 to 30 percent slopes
- 872 - Xman very stony sandy loam, 8 to 15 percent slopes
- 875 - Xman-Zephan-Mizel association
- 910 - Vamp fine sandy loam, slightly saline-alkali
- 930 - Old Camp stony sandy loam, 15 to 30 percent slopes
- 931 - Old Camp-Rock outcrop complex, 15 to 50 percent slopes
- 932 - Old Camp stony sandy loam, 8 to 15 percent slopes
- 960 - Kayo stony sandy loam, 8 to 15 percent slopes
- 962 - Kayo very stony sandy loam, 2 to 4 percent slopes
- 991 - Xeric Torriorthents-Urban land complex



Study Area
(±608 acres)

Figure 3

SOIL COMPONENTS MAP

Bella Vista Ranch Phase III
City of Reno, Washoe County, NV

most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is high. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during March, April, May, June, July, August. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 7s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 29 within 30 inches of the soil surface.

310 - Risley-Rock outcrop complex, 8 to 15 percent slopes

The Risley component makes up 75 percent of the map unit. The Rock outcrop is a miscellaneous area. Slopes are 8 to 15 percent. This component is on hills, hills. The parent material consists of residuum and colluvium derived from altered volcanic rocks. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY017NV Loamy Hill 10-12 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent.

311 - Risley-Rock outcrop complex, 15 to 30 percent slopes

The Risley component makes up 65 percent of the map unit. The Rock outcrop is a miscellaneous area. Slopes are 15 to 30 percent. This component is on hills, hills. The parent material consists of residuum and colluvium derived from altered volcanic rocks. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY017NV Loamy Hill 10-12 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent.

312 - Risley cobbly loam, 15 to 30 percent slopes

The Risley component makes up 85 percent of the map unit. Slopes are 15 to 30 percent. This component is on hills, hills. The parent material consists of residuum and colluvium derived from altered volcanic rocks. Depth to a root restrictive layer, bedrock, paralithic, is 20 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic

matter content in the surface horizon is about 2 percent. This component is in the R026XY017NV Loamy Hill 10-12 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent.

360 - Pits

The Pits is a miscellaneous area.

420 - Godecke loamy sand

The Godecke component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on semi-bolsons, stream terraces. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during January, February, March, April, May, June, December. Organic matter content in the surface horizon is about 1 percent. This component is in the R026XY012NV Dry Floodplain 8-10 P.z. ecological site. Nonirrigated land capability classification is 7w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 8 percent. The soil has a strongly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 22 within 30 inches of the soil surface.

430 - Sagouspe variant loamy very fine sand

The Sagouspe variant component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains, semi-bolsons. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 21 inches during January, February, March, April, May, June, July. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY003NV Wet Meadow 10-14 P.z. ecological site. Nonirrigated land capability classification is 7w. Irrigated land capability classification is 3w. This soil does not meet hydric criteria.

450 - Voltaire loam

The Voltaire, slightly saline component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on semibolsons, flood plains. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during February, March, April, May. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land

capability classification is 6w. Irrigated land capability classification is 4w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 22 within 30 inches of the soil surface.

451 - Voltaire loam, slightly saline

The Voltaire, slightly saline component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains, semi-bolsons. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 9 inches during February, March, April, May. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 6w. Irrigated land capability classification is 4w. This soil meets hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The soil has a strongly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 22 within 30 inches of the soil surface.

454 - Voltaire silty clay, drained

The Voltaire, drained component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains, semi-bolsons. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 66 inches during January, February, March, April, May, December. Organic matter content in the surface horizon is about 4 percent. This component is in the R026XY030NV Loamy Bottom 8-12 P.z. ecological site. Nonirrigated land capability classification is 6w. Irrigated land capability classification is 3w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 22 within 30 inches of the soil surface.

470 - Dalzell loamy fine sand

The Dalzell component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on lake plains, lake terraces. The parent material consists of mixed alluvium. Depth to a root restrictive layer, duripan, is 20 to 39 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 57 inches during March, April, May, June. Organic matter content in the surface horizon is about 1 percent. This component is in

the R026XY012NV Dry Floodplain 8-10 P.z. ecological site. Nonirrigated land capability classification is 7w. Irrigated land capability classification is 4w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 29 within 30 inches of the soil surface.

500 - Mottsville sand, 0 to 4 percent slopes

The Mottsville component makes up 85 percent of the map unit. Slopes are 0 to 4 percent. This component is on piedmonts, alluvial fans. The parent material consists of alluvium derived from granitic rocks. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY008NV Granitic Fan 10-12 P.z. ecological site. Nonirrigated land capability classification is 7s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria.

530 - Sagouspe sand

The Sagouspe component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains, semibolsons. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during February, March, April, May, June, July, August. Organic matter content in the surface horizon is about 1 percent. This component is in the R026XY013NV Sodic Floodplain ecological site. Nonirrigated land capability classification is 7w. Irrigated land capability classification is 4w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 6 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

531 - Sagouspe fine sandy loam

The Sagouspe component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains, semibolsons. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during February, March, April, May, June, July, August. Organic matter content in the surface horizon is about 1 percent. This component is in the R026XY013NV Sodic Floodplain ecological site. Nonirrigated land capability classification is 6w. Irrigated land capability classification is 3w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not

exceed 6 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

585 - Barnard-Trosi association

Component: Barnard (50%)

The Barnard component makes up 50 percent of the map unit. Slopes are 2 to 4 percent. This component is on fan remnants, piedmonts. The parent material consists of mixed alluvium. Depth to a root restrictive layer, duripan, is 20 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY017NV Loamy Hill 10-12 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Trosi (35%)

The Trosi component makes up 35 percent of the map unit. Slopes are 4 to 8 percent. This component is on fan remnants. The parent material consists of mixed alluvium. Depth to a root restrictive layer, duripan, is 12 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R026XY023NV Claypan 10-12 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

805 - Truckee sandy loam, gravelly substratum

The Truckee, gravelly substratum component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on semi-bolsons, flood plains. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 7s. Irrigated land capability classification is 3s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The soil has a moderately saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 7 within 30 inches of the soil surface.

810 - Rose Creek fine sandy loam, drained

The Rose Creek, drained component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on semibolsons, flood plains. The parent material

consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 60 inches during February, March, April, May, June, July. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY001NV Moist Floodplain ecological site. Nonirrigated land capability classification is 6w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The soil has a very slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

861 - Reywat extremely stony loam, 15 to 30 percent slopes

The Reywat component makes up 85 percent of the map unit. Slopes are 15 to 30 percent. This component is on hills, hills. The parent material consists of residuum and colluvium derived from volcanic rocks. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY015NV Shallow Loam 10-12 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

863 - Reywat-Rock outcrop complex, 15 to 50 percent slopes

The Reywat component makes up 60 percent of the map unit. The Rock outcrop is a miscellaneous area. Slopes are 15 to 50 percent. This component is on hills, hills. The parent material consists of residuum and colluvium derived from volcanic rocks. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY015NV Shallow Loam 10-12 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

871 - Xman very stony loam, 15 to 30 percent slopes

The Xman component makes up 85 percent of the map unit. Slopes are 15 to 30 percent. This component is on hills, hills. The parent material consists of residuum derived from volcanic rocks. Depth to a root restrictive layer, bedrock, paralithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY025NV Claypan 8-10 P.z.

ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

872 - Xman very stony sandy loam, 8 to 15 percent slopes

The Xman component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on hills, hills. The parent material consists of residuum derived from volcanic rocks. Depth to a root restrictive layer, bedrock, paralithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY025NV Claypan 8-10 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

875 - Xman-Zephan-Mizel association

Component: Xman (35%)

The Xman component makes up 35 percent of the map unit. Slopes are 15 to 50 percent. This component is on hills, hills. The parent material consists of residuum derived from volcanic rocks. Depth to a root restrictive layer, bedrock, paralithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY025NV Claypan 8-10 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Zephan (25%)

The Zephan component makes up 25 percent of the map unit. Slopes are 15 to 50 percent. This component is on hills. The parent material consists of residuum and colluvium derived from volcanic rocks. Depth to a root restrictive layer, bedrock, paralithic, is 25 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is high. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R026XY017NV Loamy Hill 10-12 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

Component: Mizel (25%)

The Mizel component makes up 25 percent of the map unit. Slopes are 15 to 50 percent. This component is on hills. The parent material consists of residuum derived from rhyolitic rocks. Depth to a root restrictive layer, bedrock, lithic, is 3 to 10 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low.

Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. This component is in the R026XY029NV Eroded Slope 10-12 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria.

910 - Vamp fine sandy loam, slightly saline-alkali

The Vamp, slightly saline-alkali component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains, semi-bolsons. The parent material consists of mixed alluvium. Depth to a root restrictive layer, duripan, is 20 to 39 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during February, March, April, May, June, July. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 6w. Irrigated land capability classification is 3w. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. The soil has a slightly saline horizon within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 22 within 30 inches of the soil surface.

930 - Old Camp stony sandy loam, 15 to 30 percent slopes

The Old camp component makes up 85 percent of the map unit. Slopes are 15 to 30 percent. This component is on hills, hills. The parent material consists of residuum and colluvium derived from volcanic rocks. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY022NV Stony Slope 8-10 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

931 - Old Camp-Rock outcrop complex, 15 to 50 percent slopes

The Old camp component makes up 20 percent of the map unit. The Rock outcrop is a miscellaneous area. Slopes are 15 to 30 percent. This component is on hills. The parent material consists of residuum and colluvium derived from volcanic rocks. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY022NV Stony Slope 8-10 P.z. ecological site. Nonirrigated

land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

932 - Old Camp stony sandy loam, 8 to 15 percent slopes

The Old camp component makes up 85 percent of the map unit. Slopes are 8 to 15 percent. This component is on hills, hills. The parent material consists of residuum and colluvium derived from volcanic rocks. Depth to a root restrictive layer, bedrock, lithic, is 10 to 20 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. This component is in the R026XY022NV Stony Slope 8-10 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

960 - Kayo stony sandy loam, 2 to 4 percent slopes

The Kayo component makes up 85 percent of the map unit. Slopes are 2 to 4 percent. This component is on alluvial fans, piedmonts. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R026XY024NV Droughty Loam 8-10 P.z. ecological site. Nonirrigated land capability classification is 7s. Irrigated land capability classification is 4s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface.

962 - Kayo very stony sandy loam, 4 to 8 percent slopes

The Kayo component makes up 85 percent of the map unit. Slopes are 4 to 8 percent. This component is on piedmonts, alluvial fans. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat excessively drained. Water movement in the most restrictive layer is high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is rarely flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 0 percent. This component is in the R026XY024NV Droughty Loam 8-10 P.z. ecological site. Nonirrigated land capability classification is 7s. This soil does not meet hydric criteria. The calcium carbonate equivalent within 40 inches, typically, does not exceed 3 percent. There are no saline horizons within 30 inches of the soil surface.

991 - Xeric Torriorthents- Urban land complex

The Xeric Torriorthents component makes up 45 percent of the map unit. The Urban land is a miscellaneous area. Slopes are 0 to 30 percent. This component is on fan piedmonts, piedmonts. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately low. Available water to a depth of 60 inches (or restricted depth) is very low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 1 percent. Nonirrigated land capability classification is 8s. This soil does not meet hydric criteria.

1130 - Dithod sandy loam

The Dithod component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains, semi-bolsons. The parent material consists of mixed alluvium. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is rarely flooded. It is not ponded. A seasonal zone of water saturation is at 48 inches during January, February, March, April, May, June, July, August, December. Organic matter content in the surface horizon is about 2 percent. This component is in the R027XY002NV Moist Floodplain ecological site. Nonirrigated land capability classification is 6w. Irrigated land capability classification is 2w. This soil does not meet hydric criteria. There are no saline horizons within 30 inches of the soil surface. The soil has a maximum sodium adsorption ratio of 3 within 30 inches of the soil surface.

1610 - Water

The Water is a miscellaneous area that includes Alexander Lake.

Hydrology

The project site occurs within the Truckee watershed (Hydrologic Unit Code 16050102). The Truckee River flows northeasterly from its outlet at Lake Tahoe for 121 miles to its terminus in Pyramid Lake in the Great Basin. Pyramid Lake is the geographic sink of the Truckee River Basin, and thus, the Truckee River lies within an endorheic (closed, not draining to the ocean) basin. The Truckee River basin encompasses about 3,060 square miles. The Reno region lies within the Middle Truckee River subunit.

Water falling on the northern portion of the project site drains in a northerly direction and into an unnamed stream along the northern property line that is a tributary to Steamboat Creek. This stream flows east for a short distance where it enters Steamboat Creek. Steamboat Creek flows north for 3 to 4 miles and into the Truckee River. Water falling on the southern portion of the property (south of Alexander Lake Road) drains to Thomas Creek. Thomas Creek flows for a very short distance to the east and into Steamboat Creek.

Vegetation

The study area occurs within the Sierra Nevada-Influenced Semiarid Hills and Basins ecoregion (13aa) as defined by the U. S. Geologic Service, which includes the basins and lower mountain slopes immediately east of the Sierra Nevada that are affected by its climate or that have its characteristic granitic substrate. Ecoregion 13aa is associated with the semiarid shrub community near the Sierra Nevada front. Several vegetation types occur in the study area; the two primary types are sagebrush scrub and rabbitbrush scrub/Steppe. Broadleaf pepperweed, also called "whitetop" (*Lepidium latifolium*), an invasive species, occurs abundantly throughout the lowland areas of the study area. This species is dense in the upland areas and also occurs in the margins of wetlands.

Sagebrush Scrub

Sagebrush scrub occurs primarily in the hilly areas of the study area that border Alexander Lake Road, as well as east of Steamboat Creek in the southeast. This habitat is dominated by one or more species of sagebrush (*Artemisia tridentata*, *A. arbuscula*) and antelope bitterbrush (*Purshia tridentata*). The hilly regions of the study area are rocky and dry and do not support any wetlands or other waters.

Rabbitbrush Scrub/Steppe

Most of the flat areas of the study area are a combination of grasses and shrubs. The primary shrub species is rubber rabbitbrush (*Ericameria nauseosus*). Nearly all of the wetlands and other waters in the study area are mapped in these flat steppe areas.

Irrigated Pasture

A portion of the study area lies within the irrigated pasture adjacent to the Southeast Connector, which is a part of a much larger irrigated pasture area previously delineated for the Southeast Connector project. None of the area adjacent to this extension was mapped as wetland, and we have not included any portion of this remainder pasture as a potential waters of the U.S.

Quarry Areas

Two distinct quarry operations lie within the study area. One is just east of Alexander Lake in the hilly area (the east side of the hill facing the Southeast Connector). The second operation is located east of the Southeast Connector and east of Steamboat Creek. These areas are dry and do not support any potential waters of the U.S.

Waters of the United States

Nine categories of potential waters of the United States (WOUS) have been mapped on the study area as listed on Table 1, which provides an acreage summary of WOUS on the site. Figures 4a through 4f at the end of this section show representative site photographs of the various wetland and waters types; Figure 5, also at the end of this section, is the wetland delineation map.

Table 1.
Waters of the United States
Bella Vista Ranch Phase III Study Area

Type	Acreage
Wetland Type:	
<i>Wetlands</i>	
Wetland Swale	1.854
Seep	1.537
Seasonal Wetland	1.000
Spring	0.106
Emergent Marsh	2.681
Wetland Fringe	3.508
<i>Total Wetlands</i>	10.686
<i>Other Waters</i>	
Intermittent Stream	0.927
Perennial Stream	1.853
Open Water (Alexander Lake)	55.787
<i>Total Other Waters</i>	58.567
Total	69.253

Wetland Swale

Nine (9) wetland swales occur at various locations within the study area. Each wetland swale is characterized as a shallow conveyance that carries seasonal runoff to the degree that it supports hydrophytic vegetation and is considered a waters of the U.S. Wetland swales typically do not carry high velocity flows that would scour the channel, and do not support vegetative cover. Species common in the wetland swales varies with the amount of water (these features are quite variable both morphologically and hydrologically) include Baltic rush (*Juncus balticus*), species of sedges, broadleaf pepperweed (*Lepidium latifolium*), and cattail (*Typha sp.*) (Figure 4a1, 4a2).

Seep

Five (5) seeps are mapped in the study area, four (4) along the base of a large central hill, and one below the impoundment of Alexander Lake. The seeps that occur in the northern portion of the site mostly originate from the hills to the south. Anecdotal evidence from locals indicates that the seepage is tied to the large detention basin to the south, but since the basin was lined with plastic a couple years ago, the amount of water seeping is substantially reduced. The seeps in the northern area support cattail,

broadleaf pepperweed, meadow barley (*Hordeum brachyantherum*), annual beard grass (*Polypogon monspeliensis*), and watercress (*Nasturtium officinale*) (Figure 4a3, 4b1, 4b2, 4b3). The seep below the Alexander Lake impoundment structure supports primarily Baltic rush (*Juncus balticus*) and hardstem bullrush (*Schoenoplectus acutus*) (Figure 4c1).

Seasonal Wetland

Three (3) seasonal wetlands occur in the southern area of the study area, all very different from each other. Seasonal Wetland 1 is located just east of the large offsite mitigation wetland and marsh. It is very shallow, lightly alkaline, and supports abundant saltgrass (*Distichlis spicata*). Seasonal Wetland 2 is located west of the mitigation pond. It is a linear feature constructed to drain overflow from Thomas Creek at the southern end of Alexander Lake. It does not appear to be wetted for much of the season but, nonetheless, supports a hydrophytic plant community (primarily Baltic rush) and has indicators of prolonged saturation. Seasonal Wetland 3 (Figure 4c2) is also located on the west side of the mitigation pond. It is a low-lying area in a previously graded field. It contains deep black and organic soils throughout and shows evidence of seasonal ponding. The soils indicate this area was much wetter in previous times but is now only marginally hydric.

Spring

One spring is mapped in the Study Area and occurs at the property boundary in the northwest portion of the study area at Rio POCO Road (Figure 4c3). The spring differs from the seeps in the study area in that its discharge volume is much higher than each of the seeps' discharge volume. This spring is a natural discharge area adjacent to a housing development. It forms a small pond that supports several large carp. The spring drains to the east through a constructed swale (Wetland Swale 1) and into Intermittent Stream 1 that flows to the north.

Emergent Marsh

The area in the southwest corner of the study area that borders Thomas Creek (PS-1) is mapped as an emergent marsh (Figure 4d1). This area occupies 2.68 acres and could be considered an extension of the fringe wetland of Alexander Lake. Common species include cattail, hardstem bulrush, and Baltic rush. Broadleaf pepperweed is abundant along the edges of the marsh.

Wetland Fringe

A band of hydrophytic vegetation lines the majority of the upper rim of Alexander Lake (Figure 4d2, 4d3). The band is variable in width with the widest part in the southern end of the lake. Hydrophytic species in the fringe include hardstem bulrush, small-fruit bulrush (*Scirpus microcarpus*), cocklebur (*Xanthium strumarium*), and narrow-leaved willow (*Salix exigua*).

Open Water

Alexander Lake (Figure 4d2, 4d3, 4e1, 4e2) is a large impounded open body of water in the southwest portion of the study area. This feature is fed by Thomas Creek, which flows in at the southwest corner and out along the eastern edge. There are two outlet culverts and a low concrete impoundment structure along the eastern edge.

Intermittent Stream

One intermittent stream is mapped in the study area (IS-1)(Figure 4e3). This feature flows north along the western edge of the irrigated pasture. It is a steep-sided, constructed ditch that carries primarily irrigation runoff. Vegetation is lacking along the bottom of the channel but is abundant along the sides. Common species include annual beard grass, soft rush (*Juncus effusus*), Nebraska sedge (*Carex nebrascensis*) and small-fruit bulrush.

Perennial Stream

Two perennial streams occur within the study area. Thomas Creek flows through the site from the southwest corner, through Alexander Lake, along the base of steep hill, and into Steamboat Creek east of the site (Figure 4f1). A second perennial stream flows along the northern study area boundary, carrying water from the developed areas to the west and into Steamboat Creek. Vegetation along the channel is sparse (Figure 4f2).



4a-1 Looking west along Wetland Swale-1 toward Seep-1 (the primary source of water in the swale). *Photo date 11-2-16*

4a-2 Looking southwest along Wetland Swale-9.
Photo date 11-9-16



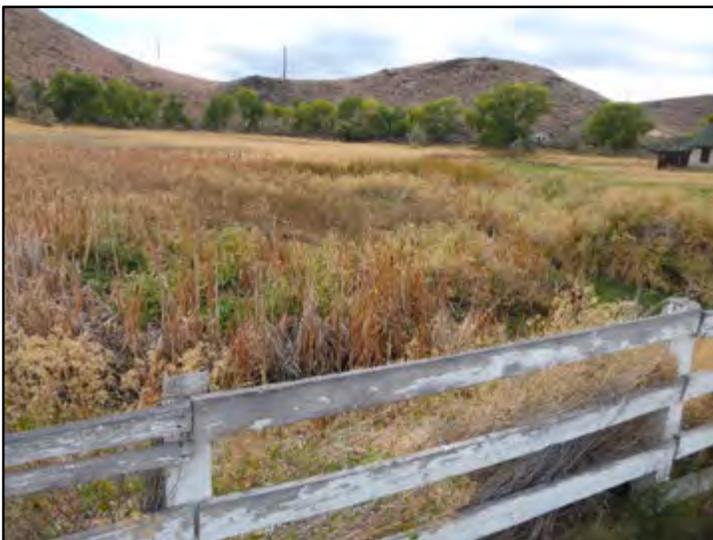
4a-3 Toe drain fed by groundwater discharge at base of hill. Seep-2.
Photo date 11-15-16



4b-1 Looking south over Ranch Rd at area containing several seeps.
Photo date 11-2-16



4b-2 Upper end of Seep-1.
Photo date 11-15-16



4b-3 Seep-1 looking southwest from Ranch Rd.
Photo date 10-03-16



Figure 4b

SITE PHOTOS
Bella Vista Ranch Phase III
 City of Reno, Washoe County, NV



4c-1 Looking south over Seep-5 below Alexander Lake from impoundment berm.
Photo date 11-15-16



4c-2 Looking south over Seasonal Wetland-3.
Photo date 11-9-16



4c-3 Spring near Rio Poco Rd.
Photo date 12-22-16



Figure 4c

SITE PHOTOS

Bella Vista Ranch Phase III

City of Reno, Washoe County, NV



4d-1 Looking east over Emergent Marsh-1 at southern end of Alexander Lake.

Photo date 11-9-16



4d-2 Looking north along east edge of Alexander Lake.

Photo date 11-15-16



4d-3 Looking south over Alexander Lake from adjacent hill.

Photo date 12-22-16



Figure 4d

SITE PHOTOS

Bella Vista Ranch Phase III

City of Reno, Washoe County, NV



4e-1 Looking south over east shore of Alexander Lake.
Photo date 10-9-16



4e-2 East edge of Alexander lake along concrete impoundment edge. Two culverts allow water to spill to east into Thomas Creek (PS-1) channel.
Photo date 11-15-16



4e-3 Looking south along Intermittent Stream-1. Irrigated pasture to left.
Photo date 10-3-16



Figure 4e

SITE PHOTOS
Bella Vista Ranch Phase III
 City of Reno, Washoe County, NV



4f-1 Looking southwest over Thomas Creek (PS-1) from adjacent hill. *Photo Date 12-22-16*



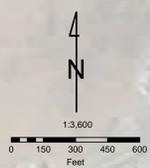
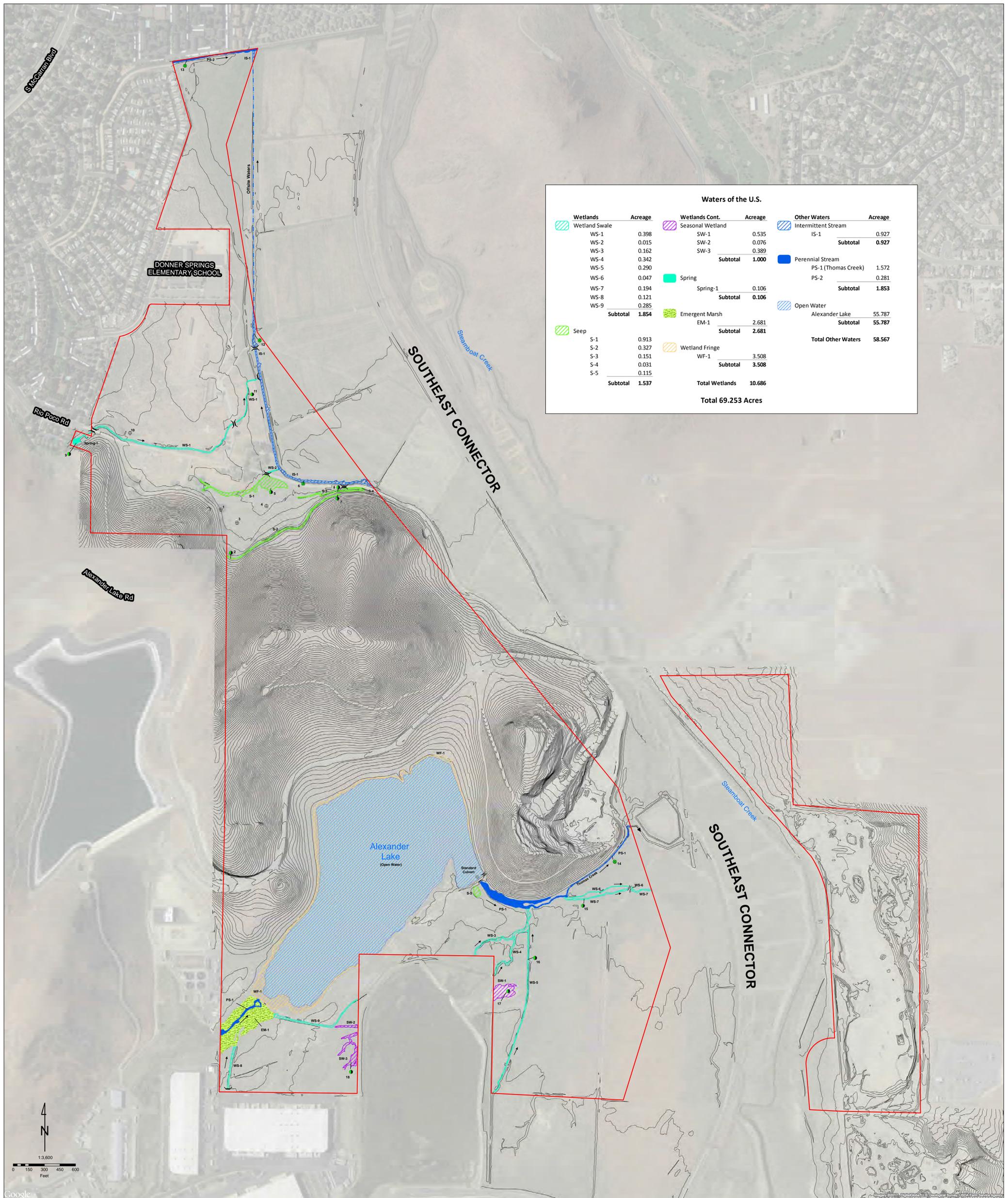
4f-2 Looking east along Perennial Stream-2 at northern boundary. *Photo date 10-3-16*



Figure 4f

SITE PHOTOS

Bella Vista Ranch Phase III
City of Reno, Washoe County, NV



Prepared By: **Salix consulting, inc.**
 Prepared For: Bristol Land Company LLC
 Newport Pacific Land Co.
 100 Bayview Circle, Ste. 2200
 Newport Beach, CA 92660

DELINEATED BY: J. GLAZNER & H. GALLANT
 FIELD WORK: AUGUST - DECEMBER 2016

MAP DRAWN BY: H. GALLANT

REVISIONS:

- Study Area (±608 acres)
- Upland Data Point
- Wetland Data Point
- Waters Data Point
- Culvert
- Flow Direction
- 5-Foot Contour

NOTES:

COORDINATE SYSTEM: NAD 1983 State Plane Nevada West FIPS 2703 (Feet)
 AERIAL IMAGE: July 13, 2016 (Google)
 TOPOGRAPHIC MAP PROVIDED BY: Places Consulting Services, Inc.

Figure 5
WETLAND DELINEATION MAP
Bella Vista Ranch Phase III
 City of Reno, Washoe County, NV

January 19, 2017

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Appendix A.
Wetland Data Sheets

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 11/15/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 01
 Investigator(s): Jeff Glazner Section, Township, Range: S33, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): swale Slope (%): 1-2
 Subregion (LRR): LRR D Lat: 39.47006 Long: 119.74305 Datum: WGS84
 Soil Map Unit Name: 470-Dalzell loamy fine sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
--	--

Remarks:
 Suspect swale in upper pasture. Dominated by *Juncus balticus*, but soils lacking redox, and wetland hydrology indicators are lacking.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
Herb Stratum (Plot size: _____) 1. <u><i>Juncus balticus</i></u> <u>85</u> <u>X</u> <u>FACW</u> 2. <u><i>Lepidium latifolium</i></u> <u>5</u> <u></u> <u>FAC</u> 3. <u><i>Ericameria nauseosa</i></u> <u>5</u> <u></u> <u>UPL</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____				

Remarks:
 Lower reach of shallow swale dominated by *Juncus balticus*.

SOIL

Sampling Point: 01

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		
1-12	10YR 3/2	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): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>
--	--

Remarks:
Soils lack redox but have high organic matter content.

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"/> High Water Table (A2)	<input type="checkbox"/> Biotic Crust (B12)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)
<input type="checkbox"/> Water Marks (B1) (Nonriverine)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)
<input type="checkbox"/> Sediment Deposits (B2) (Nonriverine)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)
<input type="checkbox"/> Drift Deposits (B3) (Nonriverine)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> Water Marks (B1) (Riverine)
	<input type="checkbox"/> Sediment Deposits (B2) (Riverine)
	<input type="checkbox"/> Drift Deposits (B3) (Riverine)
	<input type="checkbox"/> Drainage Patterns (B10)
	<input type="checkbox"/> Dry-Season Water Table (C2)
	<input type="checkbox"/> Crayfish Burrows (C8)
	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
	<input type="checkbox"/> Shallow Aquitard (D3)
	<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 _____ No <input checked="" type="checkbox"/>
---	--

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

Remarks:
Location lacks evidence of prolonged saturation.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 11/15/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 02
 Investigator(s): Jeff Glazner Section, Township, Range: S33, T19N, R20E
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): LRR D Lat: 39.46880 Long: 119.74268 Datum: WGS84
 Soil Map Unit Name: 470- Dalzell loamy fine sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:
 Depressional area in toe drain of hill. Appears to be a constructed feature but likely several decades ago. Captures groundwater discharge.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Populus fremontii (deltoides)</u>	<u>40</u>	<u>X</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
<u>40</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				<u>Total % Cover of:</u> _____ <u>Multiply by:</u> _____
1. <u>Salix exigua</u>	<u>40</u>	<u>X</u>	<u>FACW</u>	OBL species _____ x 1 = _____
2. _____	_____	_____	_____	FACW species _____ x 2 = _____
3. _____	_____	_____	_____	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species _____ x 5 = _____
<u>40</u> = Total Cover				Column Totals: _____ (A) _____ (B)
Herb Stratum (Plot size: _____)				Prevalence Index = B/A = _____
1. <u>Typha latifolia</u>	<u>10</u>	<u>X</u>	<u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>90</u>	% Cover of Biotic Crust _____			

Remarks:
 Bottom is mostly clear of vegetation - some cattail an nothing else. Banks lined with Salix exigua exhibiting advantageous route approximately 12" above bottom. Cottonwoods in overstory.

SOIL

Sampling Point: 02

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		
2-12	10YR 3/1	95	7.5YR 4/6	5	C	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"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR C) <input type="checkbox"/> 1 cm Muck (A9) (LRR D) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Vernal Pools (F9)
	<input type="checkbox"/> 1 cm Muck (A9) (LRR C) <input type="checkbox"/> 2 cm Muck (A10) (LRR B) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Other (Explain in Remarks)

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:
 Redox faint. Soil column dense with Salix exigua roots.

HYDROLOGY

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>6</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 Saturation at 6". Wet at surface.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 11/15/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 03
 Investigator(s): Jeff Glazner Section, Township, Range: S33, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3
 Subregion (LRR): LRR D Lat: 39.46972 Long: 119.74248 Datum: WG584
 Soil Map Unit Name: 470- Dalzell loamy fine sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
--	--

Remarks:
 Suspect area on photo. Area within herbaceous area and on slope of approximately 3%. Possibly historically wetter? Lacks evidence of prolonged saturation.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
= Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Lepideum latifolium</u>	<u>95</u>	<u>X</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>5</u>		% Cover of Biotic Crust _____		Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations 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.				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				

Remarks:
 Area is dominated by Lepideum. Due to seasonal timing, other species not identifiable.

SOIL

Sampling Point 03

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 4/3	100					organic loam	dense roots
3-12	7.5YR 4/2	100					silty 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.)

<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):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Highly organic - mostly fine roots from the whitetop in upper part. Silty/sandy loam below. Lacks 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 _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

Saturation Present? Yes _____ No Depth (inches): _____ (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

Sloped field lacks evidence of prolonged saturation.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 11/15/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 04
 Investigator(s): Jeff Glazner Section, Township, Range: S33, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 1
 Subregion (LRR): LRR D Lat: 39.47016 Long: 119.74147 Datum: WGS84
 Soil Map Unit Name: 470- Dalzell loamy fine sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Suspect area. Lacks vegetation. May be due to high cattle use and possibly salt.	

VEGETATION – Use scientific names of plants.

<u>Tree Stratum</u> (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u> (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
<u>Herb Stratum</u> (Plot size: _____)				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: _____)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>100</u> % Cover of Biotic Crust _____				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks:
 Plant stubble is probably *Lepideum latifolium*, but unclear.

SOIL

Sampling Point: 04

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							organic	
2-12	7.5YR 4/2	100	0				silty 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.)

<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):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

Soil lacks redox.

HYDROLOGY

Wetland Hydrology Indicators:

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

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

Saturation Present? Yes _____ No Depth (inches): _____ (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

Area lacks evidence of prolonged saturation. Even drier than data point #3.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 11/15/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 05
 Investigator(s): Jeff Glazner Section, Township, Range: S33, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): <1
 Subregion (LRR): LRR D Lat: 39.47016 Long: 119.74147 Datum: WGS84
 Soil Map Unit Name: 470-Dalzell loamy fine sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Edge of cattail marsh at bottom of field bermed by dirt road. Water source is either seepage or from swale to the southwest.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover				
Herb Stratum (Plot size: _____) 1. <u>Typha domingensis</u> 80 X OBL 2. <u>Lepideum latifolium</u> 10 FAC 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover				
% Bare Ground in Herb Stratum <u>5</u> % Cover of Biotic Crust _____				

Remarks:
 Cattail marsh.

SOIL

Sampling Point: 05

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	7.5YR 4/1	100	0				mucky	
1-12	7.5YR 3/1	100	0				clayey 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"/> Histic Epipedon (A2)	<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Vernal Pools (F9)	

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 No

Remarks:
 Lacks redox (or very faint) but low chroma and clearly saturated.

HYDROLOGY

Wetland Hydrology Indicators:

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

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? Yes No _____ Depth (inches): 2

(includes capillary fringe)

Wetland Hydrology Present? Yes No _____

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

Remarks:
 Saturated to near surface

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 11/15/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 06
 Investigator(s): Jeff Glazner Section, Township, Range: S33, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): channel/ditch Slope (%): <1
 Subregion (LRR): LRR D Lat: 39.47084 Long: 119.74021 Datum: WGS84
 Soil Map Unit Name: 451- Voltaire loam, slightly saline NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Remarks: Other Waters. Typical reach of channel at edge of irrigated pasture. Slow moving water and varying width of open water. Steep sides. Flows to the north.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	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. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover																				
Herb Stratum (Plot size: _____) 1. <u>Schoenoplectus acutus</u> 2. <u>Azolla microphylla</u> 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover																				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover																				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____																				

Remarks:
 Tules line edge of channel; water in channel.

SOIL

Sampling Point: 06

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.

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 hydrophylic vegetation and wetland hydrology must be present, unless disturbed or problematic.

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

Remarks:
Soil data not taken. Inundated.

HYDROLOGY

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (2 or more required)	
<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 type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

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

Remarks:
Water present in channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 11/15/2016

Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 07

Investigator(s): Jeff Glazner Section, Township, Range: S33, T19N, R20E

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): <1

Subregion (LRR): LRR D Lat: 39.47048 Long: 119.73907 Datum: WGS84

Soil Map Unit Name: 863- Reywat-Rock outcrop complex, 15-20% slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
--	--

Remarks:
Toe of hill seep. Dense cattail marsh.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____				
_____ = Total Cover				
Herb Stratum (Plot size: _____) 1. <u>Typha domingensis</u> <u>100</u> <u>X</u> <u>OBL</u> 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>0</u> % Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____		

Remarks:
Cattail marsh.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 11/15/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 08
 Investigator(s): Jeff Glazner Section, Township, Range: S33, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): <1
 Subregion (LRR): LRR D Lat: 39.47058 Long: 119.73902 Datum: WGS84
 Soil Map Unit Name: 451- Voltaire loam, slightly saline NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Similar to data point 07 but approximately 6' lower in landscape and separated by a berm.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																	
1. _____	_____	_____	_____	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ _____ = Total Cover																				
Herb Stratum (Plot size: _____) 1. <u>Nasturtium officinale</u> <u>50</u> <u>X</u> <u>OBL</u> 2. <u>Typha domingensis</u> <u>30</u> <u>X</u> <u>OBL</u> 3. <u>Scirpus microcarpus</u> <u>20</u> <u>X</u> <u>OBL</u> 4. _____ 5. _____ 6. _____ 7. _____ 8. _____ _____ = Total Cover																				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover																				
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____																				
Remarks: Aquatic vegetation in standing water.																				

SOIL

Sampling Point: 08

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		
1-12	7.5YR 2.5/1	100					silty 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 checked="" 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):
 Type: _____
 Depth (Inches): _____

Hydric Soil Present? Yes No

Remarks:
 Mucky soil below standing water. Highly organic.

HYDROLOGY

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

Field Observations:

Surface Water Present? Yes No Depth (inches): 4

Water Table Present? Yes No Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes No Depth (inches): _____

Wetland Hydrology Present? Yes No

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

Remarks:
 Standing water in toe drain.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 12/22/2016

Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 09

Investigator(s): Jeff Glazner Section, Township, Range: S33, T19N, R20E

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): <1

Subregion (LRR): LRR D Lat: 39.47174 Long: 119.74800 Datum: WGS84

Soil Map Unit Name: 910- Vamp fine sandy loam, slightly saline-alkali NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Major spring. Rio Poco Road entrance. Standing water approximately 12" deep flowing offsite into storm drain and onsite through culvert under dirt road.

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: <u>2</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>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Juncus balticus</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	
2. <u>Typha latifolia</u>	<u>30</u>	<u>X</u>	<u>OBL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	_____	_____	_____	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>50</u>	% Cover of Biotic Crust _____			
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				

Remarks:

Seep is lined with Salix exigua. Typha latifolia, Juncus balticus common at marshy edge.

SOIL

Sampling Point: 09

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.

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): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

Remarks:
No soil data taken - inundated.

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 checked="" 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 checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>12</u>	
Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____	

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

Remarks:
Spring. Major discharge point for water daylighting at toe of hill. Carp swimming in deepest area.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 12/22/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 10
 Investigator(s): Jeff Glazner Section, Township, Range: S33, T19N, R20E
 Landform (hillslope, terrace, etc.): basin Local relief (concave, convex, none): concave Slope (%): 0
 Subregion (LRR): LRR D Lat: 39.47201 Long: 119.74617 Datum: WGS84
 Soil Map Unit Name: 470- Dalzell loamy fine sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:
 Suspect area. Excavated depression supporting willow and Juncus balticus. Lacks evidence of near-surface saturation.

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: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations 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.
1. <u>Salix laevigata</u>	<u>40</u>	<u>X</u>	<u>FACW</u>	
2. <u>Salix exigua</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
= Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Juncus balticus</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	
2. <u>unknown annual</u>	<u>15</u>	_____	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum <u>50</u>	% Cover of Biotic Crust _____			

Remarks:
 Vegetation community most likely supported by subsurface seepage from adjacent drainage swale.

SOIL

Sampling Point: 10

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		
1-12	2.5 YR 3/3	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 Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR C)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> 2 cm Muck (A10) (LRR B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Stratified Layers (A5) (LRR C)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9) (LRR D)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Vernal Pools (F9)	

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 _____ No

Remarks:

No redox.

HYDROLOGY

Wetland Hydrology Indicators:

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

Field Observations:

Surface Water Present? Yes _____ No Depth (inches): _____

Water Table Present? Yes _____ No Depth (inches): _____

Saturation Present? Yes _____ No Depth (inches): _____ (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No

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

Remarks:

Lacks evidence of surface or near-surface saturation.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 12/22/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 11
 Investigator(s): Jeff Glazner Section, Township, Range: S33, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): swale Slope (%): 1
 Subregion (LRR): LRR D Lat: 39.47309 Long: 119.74216 Datum: WGS84
 Soil Map Unit Name: 101- Aquinas sandy loam, 4-8% slopes NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:
 Swale/ditch carrying seep water to to main drain (IS-1). Actually, this is a constructed drainage ditch with regular maintenance to keep it open. Prominent sidecast.

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: <u>1</u> (A)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)	1. _____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)	1. <u>Typha latifolia</u>	<u>30</u>	<u>X</u> <u>OBL</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Eleocharis acicularis</u>	<u>5</u>	_____	<u>OBL</u>	
3. <u>Juncus balticus</u>	<u>5</u>	_____	<u>FACW</u>	
4. <u>Epilobium ciliatum</u>	<u>10</u>	_____	<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	1. _____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>70</u>		% Cover of Biotic Crust _____		

Remarks:
 Sparse vegetation in ditch, especially in winter.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 12-22-2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 12
 Investigator(s): Jeff Glazner Section, Township, Range: 533, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): channel Slope (%): 1-2
 Subregion (LRR): LRR D Lat: 39.47468 Long: 119.74198 Datum: WGS84
 Soil Map Unit Name: 454- Voltaire silty clay, drained NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Remarks: Other waters. Flowing stream (approx. 2 cfs) with hydrophytic vegetation edge. Drainage ditch/intermittent stream.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Polypogon monspeliensis</u>	_____	_____	_____	Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>Juncus balticus</u>	_____	_____	_____	
3. <u>Eleocharis macrostachya</u>	_____	_____	_____	
4. <u>Hordeum brachyantherum</u>	_____	_____	_____	
5. <u>Schoenoplectus acutus</u>	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Present? Yes _____ No _____
% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____				
Remarks:				

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 10/3/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 13
 Investigator(s): Jeff Glazner Section, Township, Range: S28, T19N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): channel Slope (%): <1
 Subregion (LRR): LRR D Lat: 39.48179 Long: 119.74440 Datum: WGS84
 Soil Map Unit Name: 470- Dalzell loamy fine sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Remarks: Other waters. Perennial stream. Flows from west through urban area and drains into Steamboat Creek just east of site.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:																
1. _____	_____	_____	_____	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. _____	_____	_____	_____																	
_____ = Total Cover				Prevalence Index worksheet: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Total % Cover of:</td> <td style="width: 50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____ (A)</td> <td>_____ (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____ (A)	_____ (B)	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____ (A)	_____ (B)																			
Prevalence Index = B/A = _____																				
Sapling/Shrub Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
_____ = Total Cover																				
Herb Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
8. _____	_____	_____	_____																	
_____ = Total Cover																				
Woody Vine Stratum (Plot size: _____)																				
1. _____	_____	_____	_____																	
2. _____	_____	_____	_____																	
_____ = Total Cover																				
% Bare Ground in Herb Stratum _____		% Cover of Biotic Crust _____																		
Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations 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.																				
Hydrophytic Vegetation Present? Yes _____ No _____																				

Remarks:
 Narrow band of vegetation on steep banks.

SOIL

Sampling Point: 13

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.

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 type="checkbox"/>
Type: _____	
Depth (inches): _____	

Remarks:
Rocky bed below water line.

HYDROLOGY

Wetland Hydrology Indicators:

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

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

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

Remarks:
Low flow in October 2016.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 11/15/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 14
 Investigator(s): Jeff Glazner Section, Township, Range: S3, T18N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): channel Slope (%): 1
 Subregion (LRR): LRR D Lat: 39.46112 Long: 119.72955 Datum: WGS84
 Soil Map Unit Name: 430- Sagoupe variant loamy very fine sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
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Remarks:
 Other waters. Perennial stream. Thomas Creek. Flows from west through Alexander Lake and along a narrow, constructed channel into Steamboat Creek.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Indicators: ___ Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations 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.
Herb Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Present? Yes _____ No _____
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	% Bare Ground in Herb Stratum _____ % Cover of Biotic Crust _____
2. _____	_____	_____	_____	
_____ = Total Cover				

Remarks:
 Non-woody hydrophytic band of vegetation along channel banks. No vegetation in channel.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 12/22/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 15
 Investigator(s): Jeff Glazner Section, Township, Range: S3, T18N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): channel Slope (%): 1-2
 Subregion (LRR): LRR D Lat: 39.46000 Long: 119.73046 Datum: WGS84
 Soil Map Unit Name: 430- Sagouspe variant loamy very fine sand NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Well-defined channel/swale, but does not appear to carry water for extended periods. This feature carries overflow of Thomas Creek.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</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>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Juncus balticus</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	
2. <u>Hordeum brachyantherum</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	
3. <u>Lepidium latifolium</u>	<u>10</u>		<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>50</u>		% Cover of Biotic Crust _____		

Remarks:
 Herbaceous hydrophytes in channel bottom.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 12-22-2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 16
 Investigator(s): Jeff Glazner Section, Township, Range: S3, T18N, R20E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): channel Slope (%): 1
 Subregion (LRR): LRR D Lat: 39.45840 Long: 119.73236 Datum: WGS84
 Soil Map Unit Name: 805- Truckee sandy loam, gravelly substratum NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: Constructed field drain. Carries minor flow from south.	

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	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. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				
1. <u>Juncus balticus</u>	<u>25</u>	<u>X</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>75</u>		% Cover of Biotic Crust _____		
Remarks: Juncus common along edges of channel.				

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 12/22/2016

Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 17

Investigator(s): Jeff Glazner Section, Township, Range: S3, T18N, R20E

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0

Subregion (LRR): LRR D Lat: 39.45753 Long: 119.73303 Datum: WGS84

Soil Map Unit Name: 241- Updike loam, gravelly substratum NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 _____	Hydic Soil Present? Yes _____ No _____	Wetland Hydrology Present? Yes _____ No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
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Remarks:
Saline depression adjacent to mitigation area to west. Evidence of prolonged saturation, even though lacking redox.

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: <u>2</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>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is >50% ___ Prevalence Index is ≤3.0 ¹ ___ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Distichlis spicata</u>	<u>30</u>	<u>X</u>	<u>FAC</u>	
2. <u>Juncus balticus</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	
3. <u>other unknown</u>	<u>10</u>	_____	<u>unk</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>40</u>		% Cover of Biotic Crust _____		Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____

Remarks:
Saline depression supporting primarily saltgrass but secondarily Juncus balticus. Other unknowns present. Cressa truxillensis in other parts of basin.

SOIL

Sampling Point: 17

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		
1-12	10YR 4/2	100						

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): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks:
No redox observed in soil pit (soils difficult to read).

HYDROLOGY

Wetland Hydrology Indicators:

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

Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>8</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
Soils saturated to approximately 8" (no ponding anywhere).

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Bella Vista Ranch City/County: Reno/Washoe Sampling Date: 12/22/2016
 Applicant/Owner: Newport Pacific Land Co., LLC State: NV Sampling Point: 18
 Investigator(s): Jeff Glazner Section, Township, Range: S4, T18N, R20E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR): LRR D Lat: 39.45564 Long: 119.73832 Datum: WGS84
 Soil Map Unit Name: 230- Cradlebaugh loam NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes 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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:

Seasonal wetland. Unusual setting in historically manipulated field.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u>	(A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>1</u>	(B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u>	(A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:	
_____ = Total Cover				Total % Cover of: _____	Multiply by: _____
Sapling/Shrub Stratum (Plot size: _____)				OBL species _____ x 1 = _____	
1. _____	_____	_____	_____	FACW species _____ x 2 = _____	
2. _____	_____	_____	_____	FAC species _____ x 3 = _____	
3. _____	_____	_____	_____	FACU species _____ x 4 = _____	
4. _____	_____	_____	_____	UPL species _____ x 5 = _____	
5. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)	
_____ = Total Cover				Prevalence Index = B/A = _____	
Herb Stratum (Plot size: _____)				Hydrophytic Vegetation Indicators:	
1. <u>Cressa truxillensis</u>	<u>90</u>	<u>X</u>	<u>FACW</u>	<input checked="" type="checkbox"/> Dominance Test is >50%	
2. _____	_____	_____	_____	<input type="checkbox"/> Prevalence Index is ≤3.0 ¹	
3. _____	_____	_____	_____	<input type="checkbox"/> Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
4. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
6. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
_____ = Total Cover					
Woody Vine Stratum (Plot size: _____)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
_____ = Total Cover					
% Bare Ground in Herb Stratum <u>10</u>		% Cover of Biotic Crust _____			

Remarks:

Nearly a monoculture of Cressa. Juncus balticus abundant in other areas of wetland.

SOIL

Sampling Point: 18

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		
0-12	Gley2 2.5/0	100						

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.)

<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):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

Soils black/gley. May have been a bottom land in the past.

HYDROLOGY

Wetland Hydrology Indicators:

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

Field Observations:

Surface Water Present? Yes No Depth (inches): _____

Water Table Present? Yes No Depth (inches): _____

Saturation Present? Yes No Depth (inches): 1

(includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks:

Saturation at 1" below surface.

Appendix B.
Plant Species Observed

Appendix B - Bella Vista Ranch Plants Observed with Wetland Status

Taxon	Common Name	Wetland Status
<i>Achillea millefolium</i>	Common yarrow	FACU
<i>Allium sp.</i>	Wild onion	VARIES
<i>Artemisia arbuscula</i>	Low sagebrush	UPL
<i>Artemisia douglasiana</i>	California mugwort	FAC
<i>Artemisia tridentata</i>	Big sagebrush	UPL
<i>Asclepias fascicularis</i>	Narrow-leaf milkweed	FAC
<i>Atriplex canescens</i>	Fourwing saltbush	UPL
<i>Azolla microphylla</i>	Mexican mosquito fern	OBL
<i>Brassica rapa</i>	Field mustard	FACU
<i>Bromus diandrus</i>	Ripgut grass	UPL
<i>Bromus hordeaceus</i>	Soft chess	FACU
<i>Bromus inermis</i>	Smooth brome	FACU
<i>Bromus tectorum</i>	Cheat grass	UPL
<i>Carduus nutans</i>	Musk thistle	FACU
<i>Carex nebrascensis</i>	Nebraska sedge	OBL
<i>Carex praegracilis</i>	Clustered field-sedge	FACW
<i>Carex sp.</i>	Sedge	VARIES
<i>Centaurea solstitialis</i>	Yellow starthistle	UPL
<i>Cirsium vulgare</i>	Bull thistle	FACU
<i>Cressa truxillensis</i>	Alkali weed	FACW
<i>Cynodon dactylon</i>	Bermudagrass	FACU
<i>Dactylis glomerata</i>	Orchard grass	FACU
<i>Distichlis spicata</i>	Saltgrass	FAC
<i>Elaeagnus angustifolius</i>	Russian olive	FAC
<i>Eleocharis acicularis</i>	Least spikerush	OBL
<i>Eleocharis macrostachya</i>	Creeping spikerush	OBL
<i>Elymus cinereus</i>	Great Basin wild-rye	FAC
<i>Elymus elymoides</i>	Squirreltail	FACU
<i>Elymus trachycaulus</i>	Slender wheatgrass	FACU
<i>Elymus triticoides</i>	Beardless wildrye	FAC
<i>Ephedra viridis</i>	Green ephedra	UPL
<i>Epilobium ciliatum</i>	Hairy willow-herb	FACW
<i>Equisetum arvense</i>	Common horsetail	FAC
<i>Ericameria nauseosa</i>	Rubber rabbitbrush	UPL
<i>Eriogonum sp.</i>	Wild buckwheat	UPL
<i>Euthamia occidentalis</i>	Western goldenrod	FACW
<i>Festuca perennis</i>	Italian ryegrass	FAC
<i>Hordeum brachyantherum</i>	Meadow barley	FACW

Taxon	Common Name	Wetland Status
<i>Hordeum jubatum</i>	Foxtail barley	FAC
<i>Juncus balticus</i>	Baltic rush	FACW
<i>Juncus bufonius</i>	Toad rush	FACW
<i>Juncus effusus</i>	Soft rush	FACW
<i>Lemna sp.</i>	Duckweed	OBL
<i>Lepidium latifolium</i>	Broadleaf pepperweed	FAC
<i>Linum lewisii</i>	Prairie flax	UPL
<i>Muhlenbergia filiformis</i>	Pull-up muhly	FACW
<i>Nasturtium officinale</i>	Watercress	OBL
<i>Phragmites australis</i>	Common reed	FACW
<i>Poa secunda</i>	Secund bluegrass	FACU
<i>Polypogon monspeliensis</i>	Annual beard grass	FACW
<i>Populus fremontii</i>	Fremont cottonwood	FAC
<i>Purshia tridentata</i>	Antelope bitterbrush	UPL
<i>Rumex crispus</i>	Curly dock	FAC
<i>Salix exigua</i>	Narrow-leaved willow	FACW
<i>Salix laevigata</i>	Red willow	FACW
<i>Salsola tragus</i>	Russian-thistle	FACU
<i>Sarcobatus vermiculatus</i>	Greasewood	FACU
<i>Schoenoplectus acutus</i>	Hardstem bulrush	OBL
<i>Scirpus microcarpus</i>	Small-fruit bulrush	OBL
<i>Sisymbrium altissimum</i>	Tumble mustard	FACU
<i>Stipa hymenoides</i>	Indian ricegrass	UPL
<i>Tamarix sp.</i>	Tamarisk	VARIES
<i>Triticum aestivum</i>	Wheat	UPL
<i>Typha domingensis</i>	Southern cattail	OBL
<i>Typha latifolia</i>	Broad-leaved cattail	OBL
<i>Xanthium strumarium</i>	Cocklebur	FAC

Appendix C.
USACOE Aquatic Resources Spreadsheet

