

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION**

CLEANUP AND ABATEMENT ORDER NO. R6T-2013-0076

WDID NO. 6A261306003

**REQUIRING MICHAEL LOCKE TO CLEAN UP AND ABATE THE DISCHARGE AND
THREATENED DISCHARGE OF WASTE EARTHEN MATERIALS TO WETLANDS
TRIBUTARY TO HOT CREEK IN THE WEST WALKER RIVER WATERSHED**

MONO COUNTY

The California Regional Water Quality Control Board, Lahontan Region (Water Board) finds:

A. FINDINGS

1. Michael Locke (Discharger) owns the 2.3-acre property at 89340 Highway 395, which is on the north side of Highway 395, approximately one mile east of Fales Hot Springs, and approximately one mile west of Devils Gate Summit in Mono County (APN 007-040-036-000) (Site).
2. There are wetlands at the Site that are hydrologically connected to Hot Creek, upstream of Fales Hot Springs. Hot Creek is tributary to the Little West Walker River (Upper West Walker River Hydrologic Area of the West Walker River Hydrologic Unit). The wetlands, Hot Creek, and Little West Walker River are all waters of the state and United States (WOUS).
3. On June 19, 2013, Water Board staff observed recent soil disturbance (grading and filling) at the Site adjacent to the highway. Staff also observed wetland vegetation that had been cleared and stockpiled against the nearby uphill slope. Attachment A, referenced and incorporated herein, contains photos of the Site from that day.
4. At Water Board staff's request, the Discharger submitted the *Locke Property Delineation of Jurisdictional Waters of the U.S.* (Delineation Report) and the *Locke Property Proposed Restoration Plan* (Restoration Plan) from Resource Concepts, Inc. (RCI) on August 1, 2013. At Water Board staff's request, the Restoration Plan was amended on August 27, 2013 (Restoration Plan Amendment) to include a monitoring and reporting program. The Delineation Report, Restoration Plan, and Restoration Plan Amendment are contained in Attachments B, C, and D, respectively, and incorporated herein. The Delineation Report provided additional information regarding the wetland impacts. Approximately 0.1 acres of a larger 0.27-acre emergent wetland had been filled with 320 cubic yards of earthen materials. Prior to discharging the fill material,

the Discharger's contractor had removed the top 12 inches of soil and vegetation from the 0.1 acres of wetland habitat. The Restoration Plan discusses restoring the wetland by removing the unauthorized fill material, placing the stockpiled wetlands soil and vegetation into the affected area, and restoring the affected area to its original grade and slope. The restoration work is scheduled to begin as soon as any necessary agency approvals and/or permits are obtained.

5. The *Water Quality Control Plan for the Lahontan Region* (Basin Plan)¹ specifies the beneficial uses for minor wetlands within the Upper West Walker River Hydrologic Area, where the Site is located, as: municipal and domestic supply; agricultural supply; groundwater recharge; freshwater replenishment; water contact and non-contact recreation; commercial and sport fishing; warm and cold freshwater habitat; rare, threatened and endangered species; spawning, reproduction, and development; water quality enhancement; and flood peak attenuation/flood water storage.
6. The Basin Plan contains the following waste discharge prohibitions:
 - a. "The discharge of any waste or deleterious material to surface waters of the East Walker River Hydrologic Unit or the West Walker Hydrologic Unit is prohibited."
 - b. "The discharge of any waste or deleterious material within the East Walker River Hydrologic Unit or West Walker Hydrologic Unit, which would cause or threaten to cause violation of any water quality objective contained in this Plan, or otherwise adversely affect or threaten to adversely affect the beneficial uses of water set forth in this Plan, is prohibited."
7. The earthen materials discharged to the wetlands on the Site violate the Basin Plan waste discharge prohibitions. The destruction of 0.1 acres of wetland habitat adversely affected, or potentially adversely affected, many if not all of the wetland's beneficial uses and the beneficial uses of the surrounding wetland habitat and other down-gradient surface waters. The wildlife habitat provided by the emergent wetlands has been buried beneath earthen fill materials and is currently unavailable for the wildlife species that depended upon the destroyed wetland habitat. The grading and filling activities have reduced, if not eliminated, the destroyed wetlands' ability to enhance water quality, and have adversely affected the aesthetic value of the wetland habitat. The existing unstable soil conditions threaten to adversely affect the beneficial uses of the surrounding wetland habitat and other surface waters located down-gradient. Eroding waste earthen materials may increase turbidity, suspended solids, and settleable materials, which may adversely affect the cold and warm fresh water habitat, fishing experiences, spawning/reproduction conditions, and overall scenic enjoyment of the down-gradient surface waters due to muddy water conditions and the suspended and settleable solids smothering potential spawning areas.

¹ The Basin Plan is available online at:
http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml.

8. This Order is issued pursuant to Water Code section 13304, subdivision (a), which authorizes the Water Board to order a discharger to clean up and abate waste discharged or threatening to discharge into waters of the state in violation of a Basin Plan prohibition.
9. This Order is issued pursuant to Water Code section 13267, subdivision (b), which authorizes the Water Board to require a discharger to submit technical and/or monitoring program reports in investigating discharges to waters of the state. The required reports are necessary to ensure the cleanup and abatement and corrective actions are effectively implemented, and to verify that the beneficial uses of the wetlands are effectively restored. The information required outweighs any cost or burden to the Discharger.
10. Issuance of this Order is an enforcement action taken by a regulatory agency and is exempt from the provisions of the California Environmental Quality Act (CEQA) (Public Resources Code, section 21000 et seq.) pursuant to California Code of Regulations (CCR), chapter 3, title 14, section 15321, subdivision (a)(2). The Water Board has determined that the Restoration Plan in Attachment C is exempt from the CEQA provisions pursuant to CCR, chapter 3, title 14, sections 15307 and 15308 because it assures the restoration and maintenance of a natural resource. A Notice of Exemption will be filed with the State Clearinghouse concurrently with issuing this Order.

THEREFORE, IT IS HEREBY ORDERED that, pursuant to Water Code sections 13304 and 13267, the Discharger shall clean up and abate discharges and threatened discharges of wastes in violation of the Basin Plan prohibitions for the West Walker Hydrologic Unit, and shall comply with the reporting provisions of this Order:

B. ORDERS

1. By **November 1, 2013**, the Discharger shall complete implementation of the *Locke Property Restoration Plan* provided to the Water Board on August 1, 2013, amended on August 27, 2013, and hereby accepted by the Water Board with this Order. In all phases of implementation, a qualified professional with experience in hydrology and wetland restoration shall monitor the restoration project. Any additional work or variation from the described work, which may result in additional or increased impacts to waters of the state, including quantity or quality of water or habitat, or may reduce the amount of wetland restored, is not authorized unless approved in writing by the Executive Officer prior to implementation. Finish grade of the restored area shall closely approximate the original grade, and placement of topsoil and wetland sod shall be done in a manner that prevents channels or concentrated flow from developing within the wetland area. Infiltration rates of the final wetland area shall be similar to surrounding wetland habitat.

2. The Discharger shall provide a technical report to the Water Board documenting implementation of the Restoration Plan, as amended, no later than **December 31, 2013**. The report shall include an "as-built" plan, topographic as-built plans, and photographic evidence to document compliance with Order B.1., above.
3. The Discharger must annually monitor the restoration site, until final success criteria have been met. The final success criteria must be met by no later than **November 1, 2018**. The monitoring protocol and interim and final success criteria are stated in the Restoration Plan Amendment.
4. If the interim success criteria set forth in the Restoration Plan are not met by **November 1, 2016**, then the Discharger must implement corrective action to ensure meeting the final success criteria by no later than **November 1, 2018**. Failure to meet interim and final success criteria by the deadlines set forth could result in additional enforcement, including administrative civil liabilities being assessed against the Discharger. The annual monitoring shall continue until the Water Board determines the final success criteria have been met.
5. The Discharger shall comply with the Clean Water Act Section 401 Conditions set forth in Attachment E.

C. REPORTING REQUIREMENTS

1. **Annual Reports.** Monitoring reports must be submitted by December 31st of each year for a period of five years and must contain, at a minimum, the information as stated in the Restoration Plan Amendment. The first Annual Monitoring Report is due by **December 31, 2014**.
2. **Signatory Requirements.** All reports required under this Cleanup and Abatement Order (CAO) shall be signed and certified by the Discharger or by a duly authorized representative of the Discharger and submitted to Water Board staff. A person is a duly authorized representative of the Discharger only if: (1) the authorization is made in writing by the Discharger and (2) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity. (A duly authorized representative may thus be either a named individual or any individual occupying a named position).
3. **Certification.** Include the following signed certification with all reports submitted pursuant to this Order:

"I certify under penalty of perjury under the laws of the state of California that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

4. **Report Submittals.** All technical and monitoring reports required under this Order shall be submitted to:

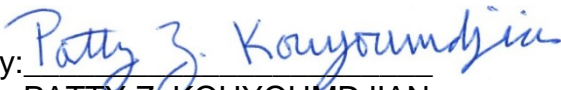
California Regional Water Quality Control Board – Lahontan Region
2501 Lake Tahoe Boulevard
South Lake Tahoe, CA 96150
Attn: Tobi Tyler
Email: tyler@waterboards.ca.gov
Phone: (530) 542-5435

D. NOTIFICATIONS

1. **Cost Recovery.** Pursuant to Water Code section 13304, the Water Board is entitled to, and may seek, reimbursement for all reasonable costs actually incurred by the Water Board to investigate unauthorized discharges of wastes and to oversee cleanup of such waste, abatement of the effects thereof, or other remedial actions required by this Order.
2. **Requesting Administrative Review by the State Water Board.** Any person aggrieved by an action of the Water Board that is subject to review as set forth in Water Code section 13320, subdivision (a), may petition the State Water Resources Control Board (State Water Board) to review the action. Any petition must be made in accordance with Water Code section 13320 and CCR, title 23, section 2050 and following. The State Water Board must receive the petition within 30 days of the date the action was taken, except that if the thirtieth day following the date the action was taken fall on a Saturday, Sunday, or state holiday, then the State Water Board must receive the petition by 5:00 p.m. on the next business day. Copies of the law and regulation applicable to filing petitions may be found on the internet at http://www.waterboards.ca.gov/public_notices/petitions/water_quality/index.shtml or will be provided upon request.
3. **Modifications.** Any modification to this Order shall be in writing and approved by the Executive Officer, including any potential extensions. Any written extension request by the Discharger shall include justification for the delay.
4. **Enforcement Notification.** Failure to comply with the requirements of this CAO may result in additional enforcement action, which may include pursuing administrative civil liability pursuant to Water Code sections 13268, 13350, and/or 13385, or referral to the Attorney General of the state of California for such legal action as she may deem appropriate.
5. **No Limitation of Water Board Authority.** This Order in no way limits the authority of this Water Board to institute additional enforcement actions or to require additional investigation and cleanup of the Site consistent with the Water Code. This Order may be revised as additional information becomes available.

E. SUMMARY OF ORDERS AND DUE DATES

Order No.	Item	Due Date
B.1.	Complete the restoration of the Site	November 1, 2013
B.2.	Submit report documenting restoration completion	December 31, 2013
C.1.	Submit 1 st Annual Monitoring Report	December 31, 2014
C.1.	Submit 2 nd Annual Monitoring Report	December 31, 2015
B.4.	Implement corrective action if interim success criteria not met	November 1, 2016
C.1.	Submit 3 rd Annual Monitoring Report	December 31, 2016
C.1.	Submit 4 th Annual Monitoring Report	December 31, 2017
B.3.	Achieve final success criteria	November 1, 2018
C.1.	Submit 5 th Annual Monitoring Report	December 31, 2018

Ordered by: 
PATTY Z. KOUYOUMDJIAN
EXECUTIVE OFFICER

Dated: October 3, 2013

- Attachments A: June 19, 2013 Photos
B: Delineation Report
C: Restoration Plan
D: Restoration Plan Amendment
E. Clean Water Act section 401 Conditions
F: Water Code section 13267 Fact Sheet

ATTACHMENT A

CLEANUP AND ABATEMENT ORDER NO. R6T-2013-0076

REGIONAL BOARD STAFF PHOTOS
JUNE 19, 2013



ATTACHMENT B

CLEANUP AND ABATEMENT ORDER NO. R6T-2013-0076

LOCKE PROPERTY DELINEATION OF JURISDICTIONAL WATERS OF THE U.S.

PREPARED BY RCI

JULY 26, 2013

Locke Property

Delineation of Jurisdictional Waters of the U.S.

July 26, 2013



Prepared For:

Michael Locke
P.O. Box 2582
Santa Clara, CA 95055

Prepared By:



Resource Concepts Inc
340 N. Minnesota St.
Carson City, NV 89703-4152

Locke Property

Delineation of Jurisdictional Waters of the U.S.

July 26, 2013

Prepared For:

Michael Locke
P.O. Box 2582
Santa Clara, CA 95055

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TABLE OF CONTENTS

	Page
1.0 INTRODUCTION	1
1.1 Scope of Work and Purpose	1
1.2 Directions to Site	1
1.3 Contact Information	1
1.4 Location.....	3
2.0 SITE DESCRIPTION	4
2.1 Topography	4
2.2 Geology	4
2.3 Soils	4
2.4 Hydrology	4
2.5 Vegetation	7
3.0 REGULATORY FRAMEWORK.....	9
3.1 Definition of Wetlands and Other Waters of the United States (WOUS).....	9
3.1.1 <i>Jurisdiction over Waters of the United States</i>	9
3.2 Limits of Jurisdiction	10
3.3 Wetlands Delineation Criteria.....	10
3.3.1 <i>Wetland Hydrology</i>	11
3.3.2 <i>Hydric Soils</i>	11
3.3.3 <i>Prevalence of Wetland Vegetation</i>	12
3.3.4 <i>Atypical Delineations</i>	12
4.0 DELINEATION METHODS.....	13
5.0 DELINEATION SUMMARY	17
6.0 CONCLUSIONS AND RECOMMENDATIONS	19
7.0 SUMMARY OF ACRONYMS	20
8.0 REFERENCES	21

LIST OF FIGURES

Figure 1: Location Map	2
Figure 2: Soil Survey.....	5
Figure 3: National Wetland Inventory Map.....	6
Figure 4: Observed Vegetation Communities	8
Figure 5: Delineation of Waters of the U.S.	14
Figure 5A: Delineation of Waters of the U.S.	15
Figure 5B: Delineation of Waters of the U.S.	16

LIST OF TABLES

Table 1. Primary and Secondary Hydrology Indicators..... 11
Table 2. Hydric Soil Indicators 12
Table 3. Summary of WOUS Delineated Within the Locke Project Area. 17

APPENDICES

- Appendix A Site Photographs
- Appendix B Delineation Data Forms

*2013-07-25 WOUS Delin fnl rpt 03.610.1 Locke jr-jm L7-30.doc
July 25, 2013*

1.0 INTRODUCTION

1.1 Scope of Work and Purpose

At the request of Mr. Mike Locke, Resource Concepts, Inc. (RCI) completed a delineation of Waters of the United States (WOUS), including wetlands, subject to the U.S. Army Corp of Engineers (USACE) and Lahontan Regional Water Quality Control Board jurisdiction. The project area consists of approximately 2.3 acres, located approximately one mile east of Fales Hot Springs and just west of Devils Gate on Highway US 395, California (APN 007-040-036-000). (reference Figure 1). The delineation was conducted in accordance with the 1987 Corps of Engineers Wetland Delineation Manual, Western Mountain Valley and Coast Regional Supplement (2010), including guidance for Atypical Delineations, and Code of Federal Regulations (CFR) definitions of jurisdictional waters.

At the time of the delineation, a portion of the Locke Property (Project Area) had been disturbed by the temporary placement of fill (see Appendix A Photos 1 through 3). The fill material had been excavated from upland areas during construction of an access road and building pad for the proposed residential site, and relocated into a natural depression located adjacent to Highway 395. Prior to placement of fill, the upper 12 inches of soil from within the depression area had been salvaged and stockpiled on the northern edge of the fill area. Vegetation has been removed from the filled area, original soils have been buried, and site hydrology has been affected by filling of a natural topographic low.

1.2 Directions to Site

To reach the Locke Property (Project Area) from Reno, Nevada, take US-395 south for 67 miles. The Locke Property is located on the left one mile past Fales Hot Springs and just before Devils Gate.

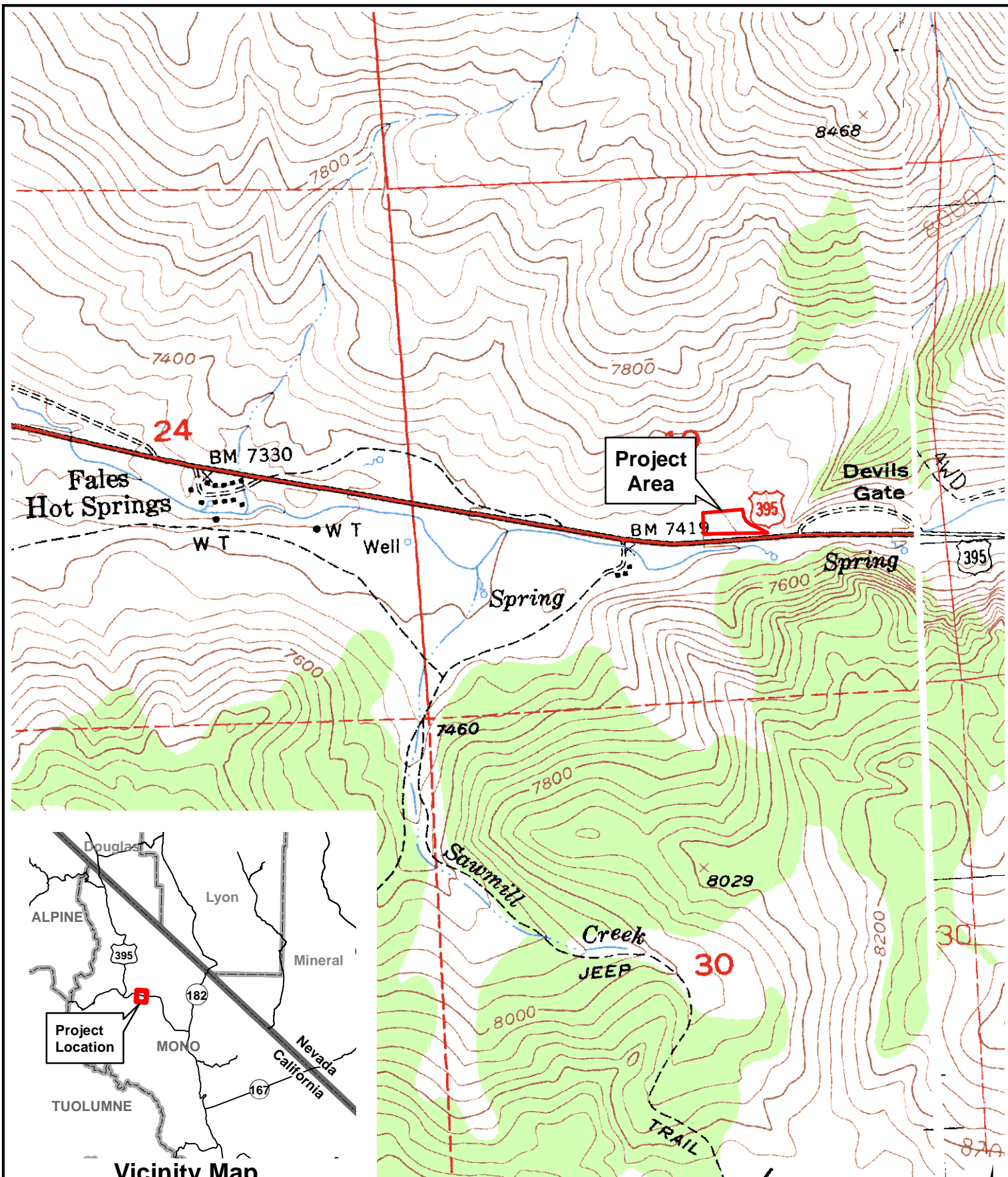
To reach the Locke Property from South Lake Tahoe, California, head north on US-50 E/Lake Tahoe Blvd toward Stateline. Turn right onto NV-207 E/Kingsbury Grade Rd to US-395 south. Turn right onto US-395 and continue for approximately 50 miles. The Locke Property is located on the left one mile east of Fales Hot Springs and just before Devils Gate.

1.3 Contact Information

PREPARER OF THIS DELINEATION REPORT

Contact: JoAnne Robben
Resource Concepts, Inc.
340 North Minnesota Street
Carson City, NV 89703
775 / 883-1600

Project Applicant
Michael Locke
P.O. Box 2582
Santa Clara, CA 95055
408 / 893-6793



Project: Locke Property
 County: Mono, CA
 Delineator: JoAnne Robben
 Date: July 17, 2013
 Source: USGS 7.5' Quad
 "Fales Hot Springs"
 "Mount Jackson"

Figure 1
Project Location Map
 Locke, Michael

Legend

Limits Of Delineation

0 500 1,000 Feet

RCI
 Resource Concepts Inc

1.4 Location

The project area consists of approximately 2.3 acres located adjacent to Highway 395, one mile east of Fales Hot Springs and just west of Devil's Gate (reference Figure 1). Specifically, the project area is located at:

Township, Range, and Section for the project area: SE 1/4 Sec 19, T 6 N, R 24E

The center of the site is located at: Lat 38.351023°, Long -119.392753 Datum: WGS 84

2.0 SITE DESCRIPTION

2.1 Topography

The Project Area is located within an area sloping northeast to southwest at ~3% slope. Site elevation ranges from 7,455 feet at the southwest corner to 7,530 at the northeastern corner.

2.2 Geology

The local geology is dominated by Quaternary glacial deposits and Pliocene andesitic rocks (Koenig, 1963).

2.3 Soils

The soils of the proposed project area are mapped as Heenlake-Loope association. This association consists of 50% Heenlake or similar soils, 35% Loope and similar soils, and 15% minor components. The Heenlake-Loope association consists of colluvium derived from andesite. Soils are classified as well drained and depth to the water tables is more than 80 inches.

A typical soil profile of the Heenlake soil consists of:

- 0 to 6 inches: Very stony sandy loam
- 6 to 22 inches: Very gravelly clay loam
- 22 to 32 inches: Bedrock

A typical soil profile of the Loope soil consists of:

- 0 to 1 inches: Very gravelly sandy loam
- 1 to 14 inches: Extremely gravelly sandy clay loam
- 14 to 24 inches: Bedrock

The Heenlake and Loope soils are *not* listed as hydric by the NRCS. Soil Mapping Units are depicted in Figure 2.

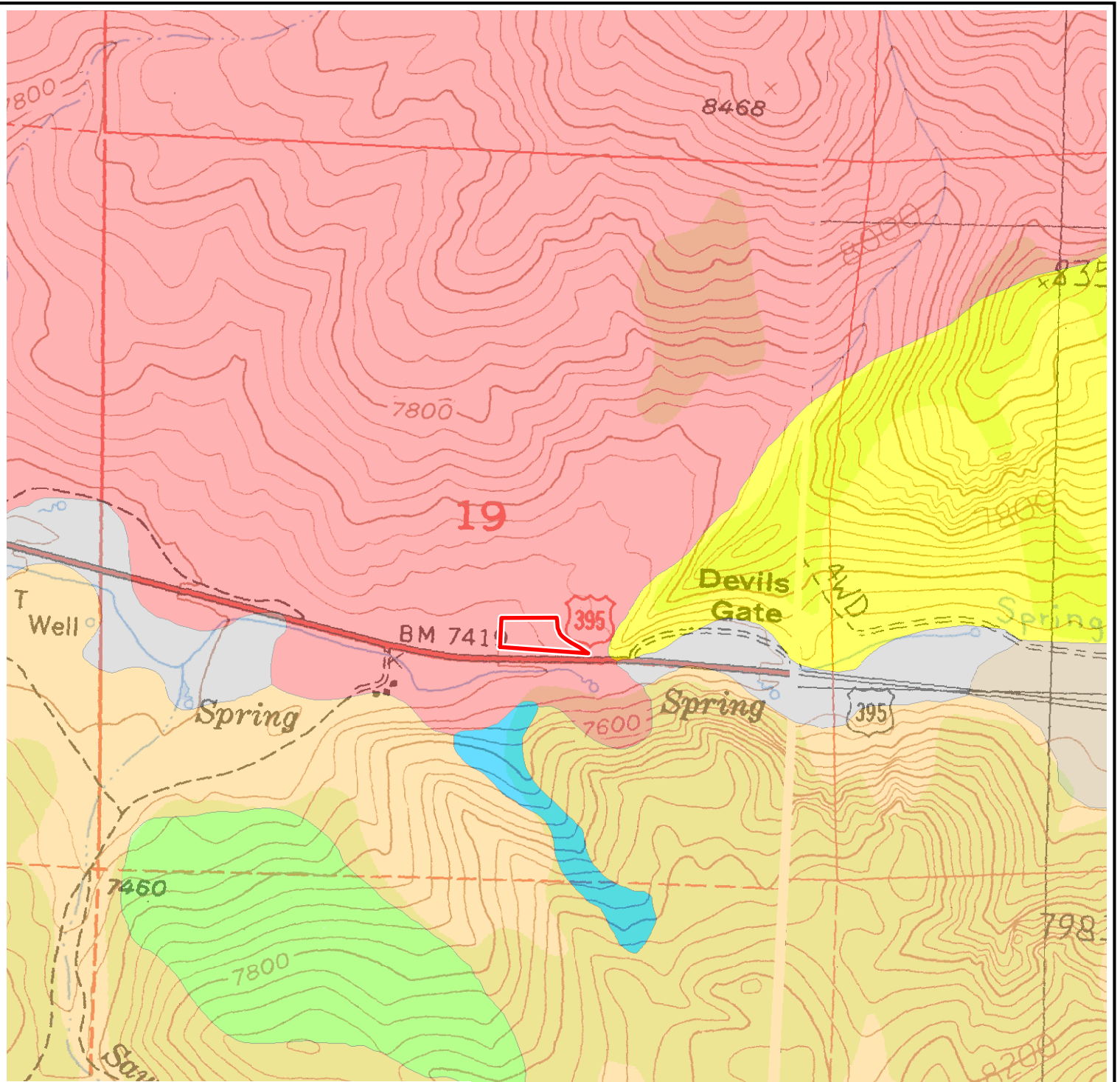
There are seven different minor components listed for this association ranging from rock outcrop to cumulic cryaquolls (semi-wet meadow).

2.4 Hydrology

Site hydrology is characterized by sheet flow from mountain snowmelt that flows northeast to southwest across the site. Water drains to a natural topographic depression located adjacent to the site access road and Highway 395. Historically, the on-site wetland appears to be part of a much larger wetland system located within the valley that has been traversed and fragmented by the construction of Hwy 395. There is likely a shallow sub-surface hydrologic connection between the on-site wetland and those located across the highway.

The project area is located within the West Walker River watershed. All on-site waters drain to Hot Creek and to the West Walker River, a Traditional Navigable Water.

The National Wetland Inventory Map (Figure 3) maps a small portion of the site as Palustrine Emergent Wetland, seasonally flooded.

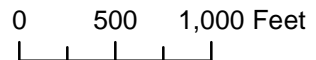


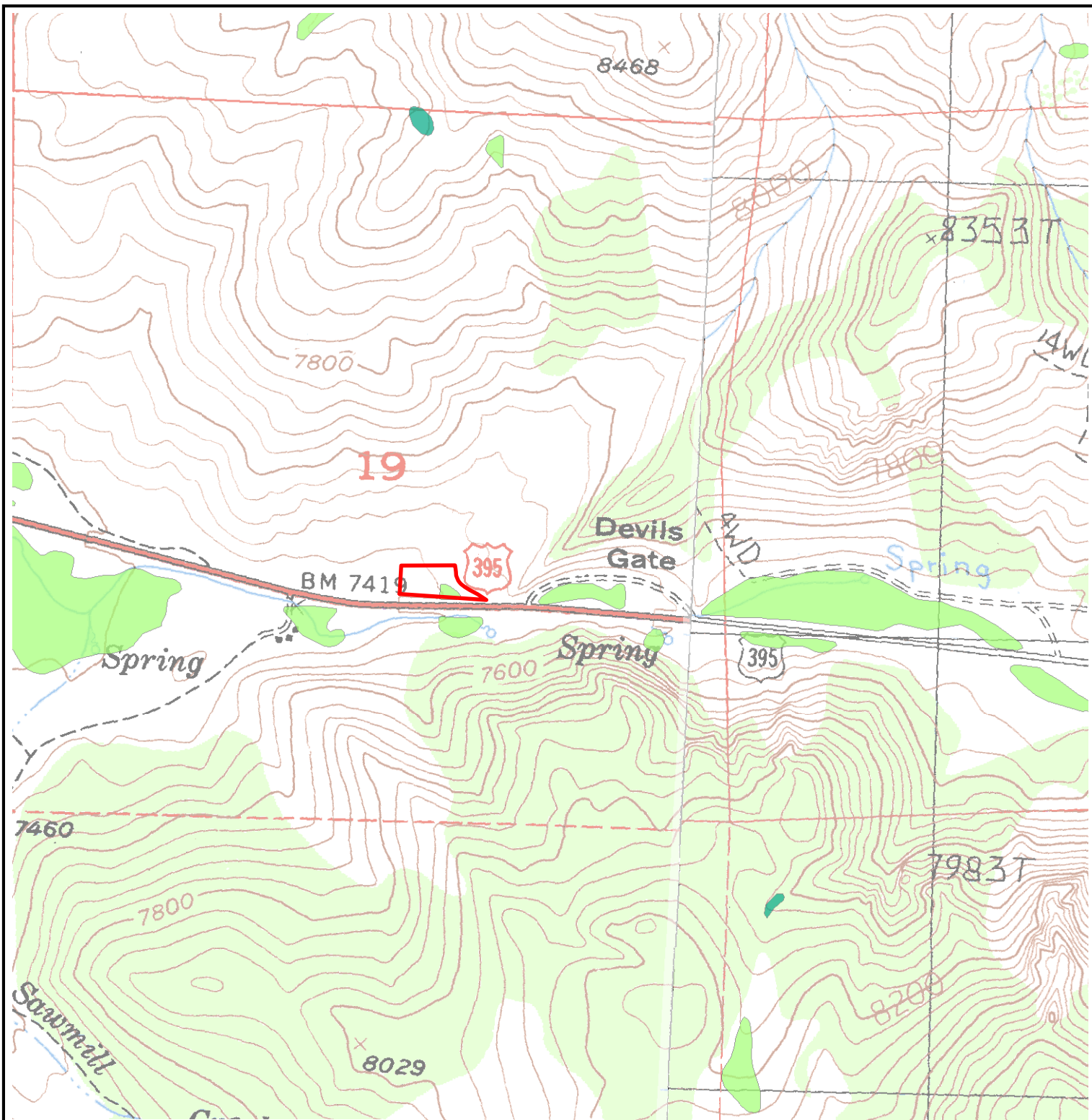
Legend

- Limits Of Delineation
- NRCS Soil Survey CA729**
- Aspocket association
- Burchflat-Celeridge-Loope association
- Chrisflat very gravelly coarse sandy loam, 4 to 15 percent slopes
- Elaero-Lockgate-Granhogany association
- Heenlake-Loope association
- Joecut association
- Lavaspring-Trespass complex, 0 to 4 percent slopes

Project: Locke Property
County: Mono, CA
Delineator: JoAnne Robben
Date: July 17, 2013
Source: USGS 7.5' Quad
"Fales Hot Springs"
"Mount Jackson"

Figure 2
NRCS Soil Map
 Locke, Michael





Legend

Limits Of Delineation

NWI Wetland Type

Freshwater Emergent Wetland

Freshwater Forested/Shrub Wetland

Project: Locke Property
 County: Mono, CA
 Delineator: JoAnne Robben
 Date: July 17, 2013
 Source: USGS 7.5' Quad
 "Fales Hot Springs"
 "Mount Jackson"

Figure 3
National Wetland Inventory
 Locke, Michael

0 500 1,000 Feet

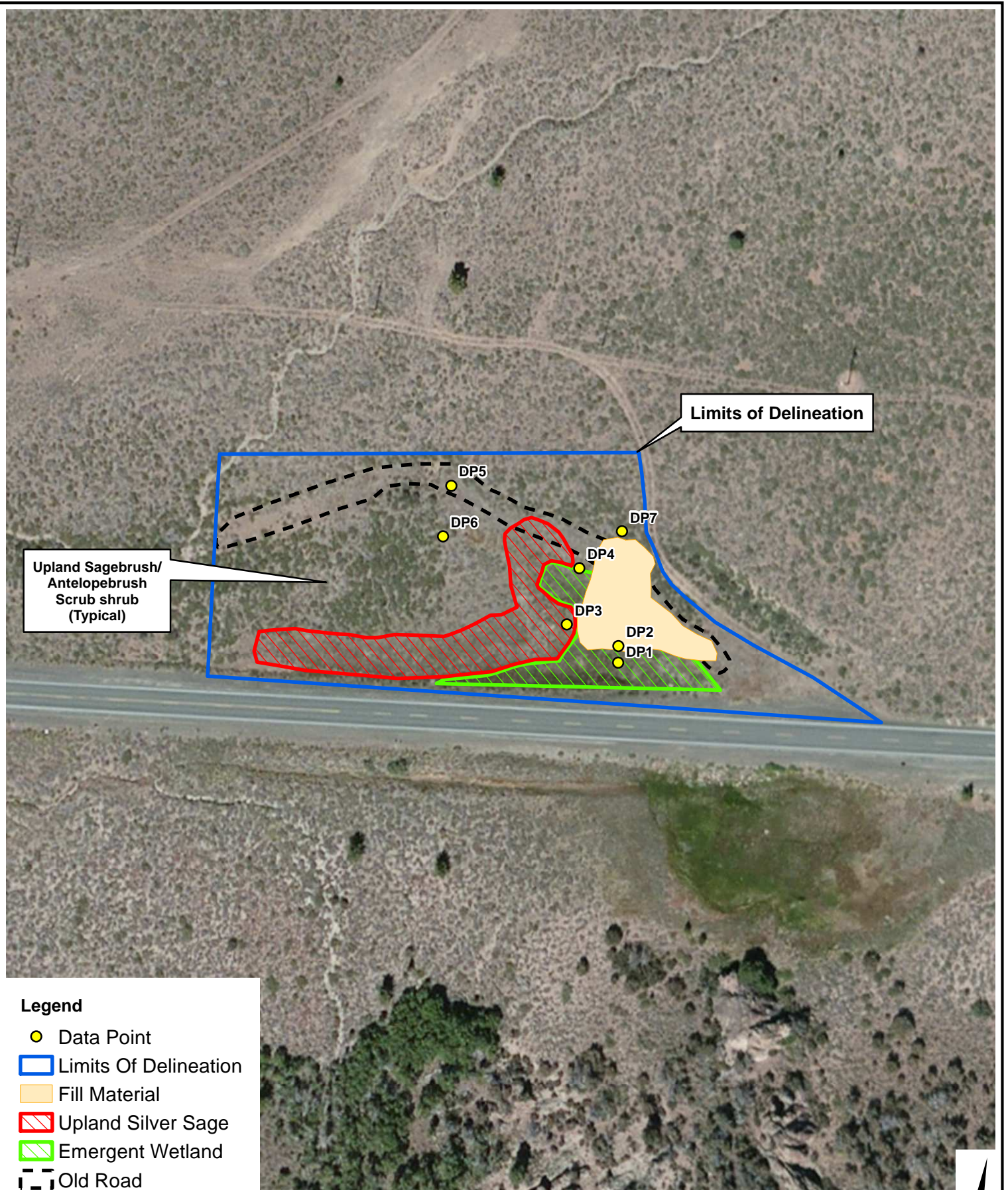


2.5 Vegetation

Site vegetation consists of three distinct communities corresponding to topography and elevation. The three community types are described below:

- 1) **Upland scrub-shrub.** The site is predominately characterized by an upland scrub-shrub community dominated by big sage (*Artemisia tridentata*, UPL) and antelope bitterbrush (*Purshia tridentata*, UPL). Other commonly found species include rubber rabbitbrush (*Ericameria nauseosa*, UPL), mountain mahogany (*Cercocarpus ledifolius*, UPL), and bottlebrush squirrel tail (*Elymus elymoides*, FACU). Reference data point DP6 in Appendix B.
- 2) **Silver sage scrub-shrub.** Silver sage (*Artemisia cana*, FACU) scrub shrub forms a distinct transitional community between the upland scrub-shrub community and the emergent wetlands formed in a natural depression adjacent to the highway. Reference data point DP3 in appendix B.
- 3) **Emergent wetland.** Formed within a natural depression, with a distinct topographic break between uplands, this community is consists of dense sedge (*Carex* sp., OBL-FAC) and Mexican rush (*Juncus mexicanus*, FACW). Reference data points DP1 and DP4 in Appendix B.

These vegetation types are mapped in Figure 4 and illustrated by Photos 4, 5, and 6 (Appendix A).



Upland Sagebrush/
Antelopebrush
Scrub shrub
(Typical)

Limits of Delineation

- Legend**
- Data Point
 - ▭ Limits Of Delineation
 - ▭ Fill Material
 - ▨ Upland Silver Sage
 - ▨ Emergent Wetland
 - - - Old Road

Project: Locke Property
 County: Mono, CA
 Delineator: JoAnne Robben
 Date: Sept. 2010 - July 2011
 Source: ESRI Aerial Imagery

Figure 4
Observed Vegetation Communities
 Locke, Michael

0 50 100 Feet



3.0 REGULATORY FRAMEWORK

3.1 Definition of Wetlands and Other Waters of the United States (WOUS)

Section 404 of the Federal Clean Water Act authorizes the ACOE to regulate activities that discharge dredged or fill material to wetlands and other WOUS. As described by EPA and ACOE regulations (40 CFR § 230.3(s) and 33 CFR § 328.3(a) respectively, the term WOUS encompasses the following resources:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:
 - a. Which are or could be used by interstate or foreign travelers for recreational or other purposes; or
 - b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - c. Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as WOUS under the definition;
5. Tributaries of waters identified in above paragraphs (1)-(4);
6. The territorial seas; and
7. Wetlands adjacent to waters identified in above paragraphs (1-6) except waters that are themselves wetlands.

EPA and the ACOE define wetlands as "areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (EPA regulations at 40 CFR § 230.3(t); ACOE regulations at 33 CFR § 328.3(b)).

3.1.1 Jurisdiction over Waters of the United States

On June 5, 2007, the ACOE and the Environmental Protection Agency issued Guidance on implementing the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* ("Rapanos Decisions") which address the Clean Water Act jurisdiction over Waters of the United States. The Rapanos Guidance identifies which waters will be categorically jurisdictional or be assessed on a case-by-case basis, based on the reasoning of the Rapanos opinions.

Based on the Rapanos Guidance, the agencies will assert jurisdiction over the following waters:

- Traditional Navigable Waters (TNWs);
- Wetlands adjacent to TNWs;

- Non-navigable tributaries of TNWs that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (i.e. typically three months); and
- Wetlands that directly abut such tributaries.

Jurisdiction over the following waters will be based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- Non-navigable tributaries that are not relatively permanent;
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent; and
- Wetlands adjacent to but that does not directly abut a relatively permanent non-navigable tributary.

3.2 Limits of Jurisdiction

The following provides the regulatory definitions and criteria followed in determining the geographic extent of potential EPA/ACOE jurisdiction.

As described at 33 CFR § 328 and § 329, the geographic limits of relevant federal jurisdiction are defined in the following manner:

Non-Tidal WOUS: “The limits of jurisdiction in non-tidal waters: In the absence of adjacent wetlands, the jurisdiction extends to the ordinary high water mark, or [w]hen adjacent wetlands are present, the jurisdiction extends beyond the ordinary high water mark to the limit of the adjacent wetlands...” The term “adjacent” means bordering, contiguous, or neighboring. Wetlands separated from other WOUS by man-made dikes or barriers, natural river berms, beach dunes and the like are “adjacent wetlands.” The term “ordinary high water mark” means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Wetlands: Implicit in the definition is the need for a site to meet certain water, soil, and vegetation criteria to qualify as a jurisdictional wetland. These criteria and the methods used to determine whether they are met are described in the ACOE 1987 *Wetlands Delineation Manual*.

3.3 Wetlands Delineation Criteria

The ACOE 1987 *Wetlands Delineation Manual* identifies the key diagnostic criteria for determining the presence of wetlands. These include:

1. **Wetland Hydrology**: Inundation or saturation to the surface during the growing season.
2. **Hydric Soils**: Soils classified as hydric or that possess characteristics associated with reducing soil conditions.
3. **Predominance of Wetland Vegetation**: Vegetation classified as facultative, facultative wet, or obligate according to its tolerance of saturated (i.e., anaerobic) soil conditions.

Specific criteria used to determine the presence or absence of wetland hydrology, soil, and vegetation conditions are as follows.

3.3.1 Wetland Hydrology

The 1987 ACOE *Manual*, as modified by the May 2010 Regional Supplement for the Western Mountains, Valleys, and Coast Range, states that wetland hydrology conditions occur when a “site is inundated either permanently or periodically at mean water depths less than or equal to 6.6 feet, or the soil is saturated to the surface at some time during the growing season of the prevalent vegetation.” Whether or not a site meets this criterion is determined by the presence of diagnostic indicators of wetland hydrology, which include the following:

Table 1. Primary and Secondary Hydrology Indicators

Primary Indicators		Secondary Indicators
Surface Water	Sparsely Vegetated Concave Surface	Water Stained Leaves
High Water Table	Water Stained Leaves	Drainage Patterns
Saturation	Salt Crust	Dry-Season Water Table
Water Marks	Aquatic Invertebrates	Saturation Visible on Aerial Imagery
Sediment Deposits	Hydrogen Sulfide Odor	Geomorphic Position
Drift Deposits	Oxidized Rhizospheres Along Living Roots	Shallow Aquitard
Algal Mat or Crust	Presence of Reduced Iron	FAC-Neutral Test
Iron Deposits	Recent Iron Reduction in Tilled Soils	Raised Ant Mounds
Surface Soil Cracks	Stunted or Stressed Plants	Frost Heave Hummocks
Inundation Visible on Aerial Imagery		

A March 8, 1992 ACOE memorandum entitled *Clarification and Interpretation of the 1987 Manual* provides further clarification:

Areas which are seasonally inundated and/or saturated to the surface for a consecutive number of days for more than 12.5 percent of the growing season are wetlands, provided the soil and vegetation parameters are met. Areas wet between 5 percent and 12.5 percent of the growing season in most years may or may not be wetlands. Sites saturated to the surface for less than 5 percent of the growing season are non-wetlands.

3.3.2 Hydric Soils

The 1987 ACOE *Manual*, as modified by the May 2010 Regional Supplement for the Western Mountains, Valleys, and Coast Range, states that the diagnostic environmental characteristics indicative of wetland soil conditions are met where "soils are present and have been classified as hydric, or they possess characteristics that are associated with reducing soil conditions." Based on the Manual, indicators of soils developed under reducing conditions are listed in Table 2.

Table 2. Hydric Soil Indicators

Histosols	Sandy Redox
Histic Epipedons	Stripped Matrix
Black Histic	Loamy Mucky Mineral
Hydrogen Sulfide	Loamy Gleyed Matrix
Depleted Below Dark Surface	Depleted Matrix
Thick Dark Surface	Redox Dark Surface
Sandy Muck Mineral	Depleted Dark Surface
Sandy Gleyed Matrix	Redox Depressions

3.3.3 Prevalence of Wetland Vegetation

The ACOE 1987 *Manual* states that the wetland vegetation conditions are met when the prevalent vegetation (i.e., more than 50 percent of vegetation cover or tree basal area) consists of macrophytes that are typically adapted to sites having wetland hydrologic and soil conditions (e.g., periodic or continuous inundation or soil saturation). Hydrophytic vegetation is defined as “plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content” (Cowardin *et al.* 1979). Hydrophytic vegetative species, due to morphological, physiological, and/or reproductive adaptation(s), have the ability to grow, effectively compete, reproduce, and/or persist in anaerobic soil conditions. Positive indicators of the presence of hydrophytic vegetation include:

1. More than 50 percent of the dominant species are rated as Obligate ("OBL"), Facultative Wet ("FACW"), or Facultative ("FAC") on lists of plant species that occur in wetlands (see Reed 1988 for California);
2. Visual observations of plant species growing in sites of prolonged inundation or soil saturation; and
3. Reports in the technical literature indicating the prevalent vegetation is commonly found in saturated soils.

3.3.4 Atypical Delineations

The ACOE 1987 *Manual* provides methods for completing delineations when recent human activities or natural events have affected the ability to identify positive indicators of hydrophytic vegetation, hydric soils, and/or wetland hydrology. These methods are applicable to delineations made under the following types of situations: 1) alteration or removal of vegetation; 2) placement of dredged or fill material over hydric soils; and/or 3) construction of levees, drainage systems, or dams that significantly alter the area hydrology.

4.0 DELINEATION METHODS

On July 5, 2013 a wetland delineation was performed by RCI in accordance with the criteria contained in the Technical Report Y-87-1, *Corps of Engineers Wetland Delineation Manual*, January 1987 (Manual) and as amended by the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valley and Coast Region (2010) and in accordance with Corps guidance on performing Atypical Delineations.

Data points were taken at all locations identified on USGS topographic maps (Figure 1), soil survey map (Figure 2), National Wetland Inventory Map (Figure 3) and aerial photography (Figure 4) as being potential wetland locations. At each data point, data on vegetation, soils, and hydrology were collected. Data forms are found in Appendix B.

Additional steps taken to identify positive wetland indicators within the fill area included:

- Aerial photography. Recent and past aerial photography was used to document the type of previous on-site vegetation and evidence of flooding or saturation (Figures 4A, 5, 5A, and 5B)
- Onsite inspection. The fill area and remaining stockpile of topsoil were visually inspected for partially removed plants and plant fragments. The stock pile of topsoil was also inspected to determine presence of hydric soils.
- Adjacent vegetation. Adjacent vegetation within the same topographic position was documented and are assumed to be similar to those in adjacent fill areas.
- Permit applicant. The pre-disturbance site conditions and vegetation was discussed with the land owner.
- National Wetland Inventory Maps. The NWI map for the site was reviewed (Reference Figure 3).



Legend

- Data Point
- Limits Of Delineation
- Emergent Wetland
- Fill Material
- Old Road

Project: Locke Property
 County: Mono, CA
 Delineator: JoAnne Robben
 Date: Sept. 2010 - July 2011
 Source: ESRI Aerial Imagery

Figure 5
Delineation of Waters of the U.S.
 Locke, Michael

0 50 100 Feet





Legend

- Limits Of Delineation
- Emergent Wetland
- Old Road

Project: Locke Property
County: Mono, CA
Delineator: JoAnne Robben
Date: 6/5/09
Source: USDA Farm Imagery

Figure 5A
Delineation of Waters of the U.S.
Locke, Michael

0 50 100 Feet





Legend

- Limits Of Delineation
- Emergent Wetland
- Old Road

Project: Locke Property
County: Mono, CA
Delineator: JoAnne Robben
Date: 7/29/12
Source: Google Earth

Figure 5B
Delineation of Waters of the U.S.
Locke, Michael

0 50 100 Feet



5.0 DELINEATION SUMMARY

The delineation identified one (1) waters of the United States within the Project Area described as palustrine emergent, seasonally flooded wetland (PEMC). The wetland is charged by groundwater and surface runoff. The wetland appears to have been a part of a larger wetland complex that parallels valley and has been dissected and fragmented by Hwy 395. All on-site waters drain to the Walker River, a Traditional Navigable Water.

Table 3. Summary of WOUS Delineated Within the Locke Project Area.

WOUS ID	TYPE	Length or Area	Location (center point)	Photo #	Sample Point
WOUS 1	PEMC	0.27 ac	816184.32809, 4250788.9623*	2	1, 4

*NAD 83, UTM Zone 11

The delineated WOUS and location of sample points are shown on Figure 5. Typical site photos are shown in Appendix A, and data forms for sample points are located in Appendix B.

WOUS 1: Palustrine Emergent Seasonally Flooded Wetland

WOUS 1 is an emergent wetland located along the southern edge of the delineation area. The wetland is charged by surface runoff from the surrounding watershed that collects in a natural topographic low. Historically, it appears to have been part of a larger wetland complex located within the valley that has been fragmented by the presence of Hwy 395. As such, there is a likely shallow, subsurface hydrologic connection to the wetlands on the south side of the highway, which flow to Hot Creek and the Walker River, a Traditional Navigable Water. The wetland is classified by the Cowardin Methodology (FWS) as a palustrine emergent seasonally flooded wetland (PEMC).

During the July 5th 2013 site visit, it was apparent that fill material had been placed adjacent to and potentially within the emergent wetland. To verify the extent and original limits of the wetland based on identification of positive wetland hydrology, hydric soils, and hydrophytic vegetation criteria, Atypical Delineation (USACE Technical Report Y-87-1) methods were used.

Hydrophytic Vegetation: Vegetation of WOUS 1 was determined through examination of undisturbed wetland areas in the field (DP1), mapping of vegetation communities on aerial photographs (Figure 4), examination of spoiled topsoil remaining on site (Appendix A photo 9) and discussions with the land owner. Based on this information, it was determined that the dominant vegetation within WOUS 1 consisted of:

Unknown Sedge	<i>Carex sp.</i>	OBL-FAC
Mexican rush	<i>Juncus mexicanus</i>	FACW

The hydrophytic vegetation criterion is met by a dominance (greater than 50%) of FAC, FACW, or OBL species.

Wetland Hydrology: Primary indicators of hydrology included inundation visible on aerial photos. Secondary indicators of hydrology include geomorphic position in the landscape and a positive FAC-Neutral Test. Additionally, the landowner stated that the area sometimes floods during spring runoff. The wetland hydrology criterion is met by the presence of primary and secondary indicators.

Hydric Soils: This area is listed by the *Toiyabe Nation Forest Area Soil Survey* as Heenlake-Loop Association. The Heenlake and Loope soils are not listed as hydric by the NRCS. The observed soil matrix color in the upper twelve inches below the surface was 10YR 2/1 with no mottles (Munsell Soil Color, 1992). The stock piled soils removed from the fill area were also examined and determined to be a 10YR 2/1 soil color. The hydric soil criterion is met by the presence of a depleted matrix.

Jurisdictional Extent of Wetland: The wetland boundaries were determined through review of aerial photos and field reconnaissance of existing vegetation communities on-site (Figure 4). Additionally, the landowner stated that there was a distinct topographic break along the northern edge where he started the placement of fill. The location of the topographic break corresponds with the change in vegetation observed on the aerial photos. As illustrated in Figure 5, the area of the on-site wetland is 0.27 acres. Approximately 0.1 acres of the wetland has been filled.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The delineation identified one (1) waters of the United States within the Project Area. The water is described as a palustrine emergent seasonally flooded wetland (PEMC). Total acreage of the on-site WOUS is 0.27 acres.

Under Sections 404 and 401 of the Clean Water Act, the Army Corps of Engineers (ACOE) and/or the Lahontan Regional Water Quality Control Board have jurisdiction over WOUS. This includes adjacent wetlands and other waters with an identifiable connection to interstate commerce. Any activity that involves the placement of fill, and/or excavation within these jurisdictional areas may require notification and authorization of the appropriate regulatory agency.

State Water Quality Certification, Section 401 of the Clean Water Act, ensures that discharges to waters of the state meet state water quality standards. Any Section 404 permit obtained by the ACOE requires a Section 401 Water Quality Certification obtained from Lahontan Regional Water Quality Control Board.

7.0 SUMMARY OF ACRONYMS

Wetland Indicator Status Acronyms:

OBL (Obligate Wetland). Occur almost always in wetlands.

FACW (Facultative Wetland). Usually occur in wetlands.

FAC+ (Facultative). More likely to occur in wetlands than uplands.

FAC (Facultative). Likely to occur in wetlands or uplands.

FAC- (Facultative). Less likely to occur in wetlands than uplands.

FACU (Facultative Upland). Usually occur in uplands.

UPL (Obligate Upland). Occur almost always in uplands.

NI (No Indicator). Indicator status unavailable.

8.0 REFERENCES

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APPENDICES

Appendix A

Site Photographs

Appendix A – Site Photographs



Photo 1. View to the west along Hwy 395. Remaining wetland is located within Caltrans right-of-way and the fill area on the right.



Photo 2. View to the north of DP 1 characterizing emergent wetland dominated by *Carex* sp. and *Juncus mexicanus* (FACW).



Photo 3. View to the north of DP2 describing fill material. Note darker colors of original soils and presence of *Juncus mexicanus* (FACW) in clumps of remaining original soil on edge of fill.



Photo 4. View to the east of DP 3 describing Silver Sage vegetation community.



Photo 5. View to the west of DP4 describing emergent wetland adjacent to west side of fill area.



Photo 6. View to the west describing DP 6 taken within old roadbed. Vegetation dominated by upland shrubs. Fill will be removed from emergent wetland and placed within footprint of old road bed and adjacent uplands.



Photo 7. View to the east of DP 6 characterizing upland scrub-shrub typical of site. Dominant vegetation consists of antelope bitterbrush and big sage.



Photo 8. Overview of fill area.



Photo 9. Example of native soils and plants spoiled

Appendix B

Delineation Data Forms

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Locke Property City/County: Mono County Sampling Date: 5 Jul 2013
 Applicant/Owner: Michael Locke State: CA Sampling Point: DP1
 Investigator(s): JoAnne Robben Section, Township, Range: Section 19, T 06 N, R 24 E
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): concave Slope (%): 5
 Subregion (LRR): _____ Lat: 816184.32809 Long: 4250788.9623 Datum: NAD 83
 Soil Map Unit Name: Heenlake-Loope Association NWI classification: Freshwater emergent

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: PEMC - located between highway and fill area. Wetland has subsurface hydrologic connection to wetland on south side of road. Drains to Hot Creek and into Walker River, a TNW.

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. _____	_____	_____	_____	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 = _____					
Sampling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:	
1. _____	_____	_____	_____	___ 1 - Rapid Test for Hydrophytic Vegetation	
2. _____	_____	_____	_____	___ 2 - Dominance Test is >50%	
3. _____	_____	_____	_____	___ 3 - Prevalence Index is ≤3.0 ¹	
4. _____	_____	_____	_____	___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____	_____	_____	_____	___ 5 - Wetland Non-Vascular Plants ¹	
6. _____	_____	_____	_____	___ Problematic Hydrophytic Vegetation ¹ (Explain)	
7. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Carex sp. (no fruit or flower)</u>	<u>45</u>	<u>yes</u>	<u>obl-fac</u>		
2. <u>Juncus mexicanus</u>	<u>45</u>	<u>yes</u>	<u>facw</u>		
3. <u>herbaceous thatch</u>	<u>10</u>	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
_____ = Total Cover					
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
_____ = Total Cover					
% Bare Ground in Herb Stratum _____					

Remarks: Dominance of hydrophytic vegetation

SOIL

Sampling Point: DP1

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 2/1	100						dense fine roots
8-20	10YR 2/1	100						fine roots, gravels

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)	Indicators for Problematic Hydric Soils³: <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: Presence of hydric soils

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-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Salt Crust (B11)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Aquatic Invertebrates (B13)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)		
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		

Field Observations:

Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>> 20</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>> 20</u>	
Saturation Present? (includes capillary fringe)	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches): <u>> 20</u>	

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

Remarks: Presence of wetland hydrology indicators.

Per land owner, area floods in spring in some years. Historically, this wetland areas appears to be part of a larger wetland system divided by highway

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Locke Property City/County: Mono County Sampling Date: 5 Jul 2013
 Applicant/Owner: Michael Locke State: CA Sampling Point: DP2
 Investigator(s): JoAnne Robben Section, Township, Range: Section 19, T 06 N, R 24 E
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): concave Slope (%): 5
 Subregion (LRR): D Lat: 8161683.9590 Long: 4250793.6026 Datum: NAD 83
 Soil Map Unit Name: Heenlake-Loope Association NWI classification: Freshwater emergent

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: <u>PEMC</u> This area has been filled with ~4 feet of fill.	

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. _____	_____	_____	_____	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. _____	_____	_____	_____	Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
= Total Cover					
Herb Stratum (Plot size: _____)					
1. <u>Carex sp. (no fruit or flower)</u>	_____	<u>yes</u>	<u>obl-fac</u>		
2. <u>Juncus mexicanus</u>	_____	<u>yes</u>	<u>facw</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
100 = 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 _____					

Remarks: Dominance of hydrophytic vegetation
 Soil removed from disturbed area remained on-site. Juncus and Carex species were identified in stock piled soils. No shrubs or other species observed. Based on aerial photos, appears to be same vegetation type as described in DP1.

SOIL

Sampling Point: DP2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
	10YR 2/1	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"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input checked="" type="checkbox"/> Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present): Type: _____ Depth (inches): _____	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Remarks: Presence of hydric soils top 12 inches of soil has been removed and stockpiled. Based on color of soil, appears to be hydric.

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-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>> 20</u>	
Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>> 20</u>	
Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>> 20</u>	

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

Remarks: Presence of wetland hydrology indicators. Based on review of topo, this was a natural depression. Per land owner, area floods in spring in some years. Historically, this wetland areas appears to be part of a larger wetland system divided by highway

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Locke Property City/County: Mono County Sampling Date: 5 Jul 2013
 Applicant/Owner: Michael Locke State: CA Sampling Point: DP3
 Investigator(s): JoAnne Robben Section, Township, Range: Section 19, T 06 N, R 24 E
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): concave Slope (%): 5
 Subregion (LRR): D Lat: 816169 Long: 4250798.42067 Datum: NAD 83
 Soil Map Unit Name: Heenlake-Loope Association NWI classification: Freshwater emergent

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 type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: <u>Upland shrub community dominated by Silver Sage, located between wetland and upland sage/bitterbrush community.</u>			

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>2</u> (B)	
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)	
4. _____	_____	_____	_____	Prevalence Index worksheet:	
= Total Cover				Total % Cover of: _____ Multiply by:	
Sapling/Shrub Stratum (Plot size: _____)				OBL species _____ x 1 = _____	
1. <u>Artemisia cana</u>	<u>60</u>	<u>Y</u>	<u>FACU</u>	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 mexicanus</u>	<u>50</u>	<u>yes</u>	<u>facw</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
2. <u>Achillea millefolium</u>	<u>5</u>	<u>no</u>	<u>facu</u>	<input type="checkbox"/> 2 - Dominance Test is >50%	
3. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹	
4. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
5. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹	
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)	
7. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
= Total Cover					
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
= Total Cover					
% Bare Ground in Herb Stratum _____					
Remarks: <u>Dominance of hydrophytic vegetation</u>					

SOIL

Sampling Point: DP3

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 2/2	100						dense fine roots
8-20	10YR 2/2	100						fine roots, gravels

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:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1) (except MLRA 1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

- 2 cm Muck (A10)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- 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 _____ No X

Remarks: Absence of hydric soils

HYDROLOGY

Wetland Hydrology Indicators:

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

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Surface Soil Cracks (B6)
- Inundation Visible on Aerial Imagery (B7)
- Sparsely Vegetated Concave Surface (B8)

Secondary Indicators (2 or more required)

- Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Oxidized Rhizospheres along Living Roots (C3)
- Presence of Reduced Iron (C4)
- Recent Iron Reduction in Tilled Soils (C6)
- Stunted or Stressed Plants (D1) (LRR A)
- Other (Explain in Remarks)
- Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
- Drainage Patterns (B10)
- Dry-Season Water Table (C2)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- Shallow Aquitard (D3)
- FAC-Neutral Test (D5)
- Raised Ant Mounds (D6) (LRR A)
- Frost-Heave Hummocks (D7)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): > 20
 Water Table Present? Yes _____ No X Depth (inches): > 20
 Saturation Present? Yes _____ No X Depth (inches): > 20
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks: Absence of wetland hydrology indicators.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Locke Property City/County: Mono County Sampling Date: 5 Jul 2013
 Applicant/Owner: Michael Locke State: CA Sampling Point: DP4
 Investigator(s): JoAnne Robben Section, Township, Range: Section 19, T 06 N, R 24 E
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): concave Slope (%): 5
 Subregion (LRR): D Lat: 816171.1000 Long: 4250814.4851 Datum: NAD 83
 Soil Map Unit Name: Heenlake-Loope Association NWI classification: Freshwater emergent

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 <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	

Remarks: PEMC - data point taken approx 15 ft west of fill pile. Wetland has subsurface hydrologic connection to wetland on south side of road. Drains to Walker River, a TNW.

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. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____
= Total Cover				
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>Carex sp. (no fruit or flower)</u>	<u>45</u>	<u>yes</u>	<u>obl-fac</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Juncus mexicanus</u>	<u>45</u>	<u>yes</u>	<u>facw</u>	<input type="checkbox"/> 2 - Dominance Test is >50%
3. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
100 = Total Cover				
Woody Vine Stratum (Plot size: _____)				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground in Herb Stratum _____				

Remarks: Dominance of hydrophytic vegetation. Thick duff and thatch present. Distinct change in vegetation - exclusion of all shrubs within wetland.

SOIL

Sampling Point: DP4

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 2/1	100						shallow roots

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"/> 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) (except MLRA 1) <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)

2 cm Muck (A10)
 Red Parent Material (TF2)
 Very Shallow Dark Surface (TF12)
 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): 12

Hydric Soil Present? Yes No

Remarks: Presence of hydric soils

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) <input checked="" type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) <input type="checkbox"/> Salt Crust (B11) <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"/> Stunted or Stressed Plants (D1) (LRR A) <input type="checkbox"/> Other (Explain in Remarks)

Field Observations:

Surface Water Present? Yes No Depth (inches): > 14

Water Table Present? Yes No Depth (inches): > 14

Saturation Present? Yes No Depth (inches): > 14
 (includes capillary fringe)

Wetland Hydrology Present? Yes No

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

Remarks: Presence of wetland hydrology indicators.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Locke Property City/County: Mono County Sampling Date: 5 Jul 2013
 Applicant/Owner: Michael Locke State: CA Sampling Point: DP5
 Investigator(s): JoAnne Robben Section, Township, Range: Section 19, T 06 N, R 24 E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): roadbed Slope (%): 2-3
 Subregion (LRR): D Lat: 816132.9388 Long: 4250834.5578 Datum: NAD 83
 Soil Map Unit Name: Heenlake-Loope Association NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes _____	No <u>X</u>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u>
Hydric Soil Present?	Yes _____	No <u>X</u>	
Wetland Hydrology Present?	Yes _____	No <u>X</u>	
Remarks: <u>Data point taken in old road bed through north side of project area.</u>			

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>4</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</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. <u>Artemisia tridentata</u> <u>20</u> <u>yes</u> <u>UPL</u> 2. <u>Purshia tridentata</u> <u>10</u> <u>yes</u> <u>UPL</u> 3. _____ 4. _____ 5. _____ = Total Cover <u>30</u>				
Herb Stratum (Plot size: _____) 1. <u>Juncus mexicana</u> <u>50</u> <u>yes</u> <u>FACW</u> 2. <u>Poa secunda</u> <u>10</u> <u>no</u> <u>FACU</u> 3. <u>Elymus elymoides</u> <u>20</u> <u>yes</u> <u>FACU</u> 4. <u>Leymus cinereus</u> <u>10</u> <u>no</u> <u>FAC</u> 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ = Total Cover <u>90</u>				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ = Total Cover _____				
% Bare Ground in Herb Stratum <u>10</u>				
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ 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 <u>X</u>				
Remarks: <u>Dominance of non-hydrophytic vegetation</u> <u>Data point taken in old road bed, soils compacted and may hold some water, influencing vegetation species and density.</u>				

SOIL

Sampling Point: DP5

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-6	10YR 2/2	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"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	

Restrictive Layer (if present):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Presence of non-hydric soils
 soils compacted. Old road bed.

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-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Raised Ant Mounds (D6) (LRR A)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Frost-Heave Hummocks (D7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): > 6

Water Table Present? Yes _____ No X Depth (inches): > 6

Saturation Present? Yes _____ No X Depth (inches): none
 (includes capillary fringe)

Wetland Hydrology Present? Yes _____ No X

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

Remarks: Absence of wetland hydrology indicators.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Locke Property City/County: Mono County Sampling Date: 5 Jul 2013
 Applicant/Owner: Michael Locke State: CA Sampling Point: DP6
 Investigator(s): JoAnne Robben Section, Township, Range: Section 19, T 06 N, R 24 E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2-3
 Subregion (LRR): D Lat: 816131.8854 Long: 4250820.1068 Datum: NAD 83
 Soil Map Unit Name: Heenlake-Loope Association NWI classification: none

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 type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: <u>Data point taken in upland scrub-shrub typical of on-site uplands. Located west side of fill area.</u>			

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>4</u>	(B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</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 = _____	
Sapling/Shrub Stratum (Plot size: _____) 1. <u>Artemisia tridentata</u> 30 yes UPL 2. <u>Purshia tridentata</u> 50 yes UPL 3. <u>Ericameria nauseosus</u> UPL 4. _____ 5. _____ _____ = Total Cover				Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 ¹ ___ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ___ 5 - Wetland Non-Vascular Plants ¹ ___ 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. <u>Juncus mexicana</u> 50 yes FACW 2. <u>Poa secunda</u> 10 no FACU 3. <u>Elymus elymoides</u> 20 yes FACU 4. <u>Leymus cinereus</u> 10 no FAC 5. _____ 6. _____ 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ _____ = Total Cover					
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover					
% Bare Ground in Herb Stratum <u>10</u>					
Remarks: <u>Dominance of non-hydrophytic vegetation</u>					
Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>					

SOIL

Sampling Point: DP6

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-8	10YR 2/2	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"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) | 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"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) | |

Restrictive Layer (if present):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks: Presence of non-hydric soils

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-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) | <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) | <input type="checkbox"/> Raised Ant Mounds (D8) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Frost-Heave Hummocks (D7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | |

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): > 8
 Water Table Present? Yes _____ No X Depth (inches): > 8
 Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): none

Wetland Hydrology Present? Yes _____ No X

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

Remarks: Absence of wetland hydrology indicators.

WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Locke Property City/County: Mono County Sampling Date: 5 Jul 2013
 Applicant/Owner: Michael Locke State: CA Sampling Point: DP7
 Investigator(s): JoAnne Robben Section, Township, Range: Section 19, T 06 N, R 24 E
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2-3
 Subregion (LRR): D Lat: 816182.1886 Long: 4250825.9682 Datum: NAD 83
 Soil Map Unit Name: Heenlake-Loope Association NWI classification: none

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 type="checkbox"/>	No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: Data point located north side of fill area and taken in upland scrub-shrub typical of on-site uplands.			

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>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (A/B)
4. _____	_____	_____	_____	Prevalence Index worksheet:
= Total Cover				
Sapling/Shrub Stratum (Plot size: _____)				OBL species _____ x 1 = _____
1. <u>Artemisia tridentata</u>	<u>40</u>	<u>yes</u>	<u>UPL</u>	FACW species _____ x 2 = _____
2. <u>Purshia tridentata</u>	<u>50</u>	<u>yes</u>	<u>UPL</u>	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 mexicana</u>	<u>10</u>	<u>yes</u>	<u>FACW</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Elymus elymoides</u>	<u>5</u>	<u>yes</u>	<u>FACU</u>	<input type="checkbox"/> 2 - Dominance Test is >50%
3. _____	_____	_____	_____	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> 5 - Wetland Non-Vascular Plants ¹
6. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
7. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
11. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
= Total Cover				
% Bare Ground In Herb Stratum _____				

Remarks: Dominance of non-hydrophytic vegetation

SOIL

Sampling Point: DP7

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-12	10YR 2/2	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"/> 2 cm Muck (A10) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (TF2) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Loamy Mucky Mineral (F1) (except MLRA 1) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Matrix (F3) | |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Dark Surface (F6) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) | <input type="checkbox"/> Depleted Dark Surface (F7) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Redox Depressions (F8) | |

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 X

Remarks: Presence of non-hydric soils

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-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) | <input type="checkbox"/> Water-Stained Leaves (B9) (MLRA 1, 2, 4A, and 4B) |
| <input type="checkbox"/> High Water Table (A2) | <input type="checkbox"/> Salt Crust (B11) | <input type="checkbox"/> Drainage Patterns (B10) |
| <input type="checkbox"/> Saturation (A3) | <input type="checkbox"/> Aquatic Invertebrates (B13) | <input type="checkbox"/> Dry-Season Water Table (C2) |
| <input type="checkbox"/> Water Marks (B1) | <input type="checkbox"/> Hydrogen Sulfide Odor (C1) | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |
| <input type="checkbox"/> Sediment Deposits (B2) | <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3) | <input type="checkbox"/> Geomorphic Position (D2) |
| <input type="checkbox"/> Drift Deposits (B3) | <input type="checkbox"/> Presence of Reduced Iron (C4) | <input type="checkbox"/> Shallow Aquitard (D3) |
| <input type="checkbox"/> Algal Mat or Crust (B4) | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> FAC-Neutral Test (D5) |
| <input type="checkbox"/> Iron Deposits (B5) | <input type="checkbox"/> Stunted or Stressed Plants (D1) (LRR A) | <input type="checkbox"/> Raised Ant Mounds (D8) (LRR A) |
| <input type="checkbox"/> Surface Soil Cracks (B6) | <input type="checkbox"/> Other (Explain in Remarks) | <input type="checkbox"/> Frost-Heave Hummocks (D7) |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) | | |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) | | |

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): > 12

Water Table Present? Yes _____ No X Depth (inches): > 12

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): none

Wetland Hydrology Present? Yes _____ No X

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

Remarks: Absence of wetland hydrology indicators.

ATTACHMENT C

CLEANUP AND ABATEMENT ORDER NO. R6T-2013-0076

LOCKE PROPERTY PROPOSED RESTORATION PLAN

PREPARED BY RCI

JULY 31, 2013



July 31, 2013

Ms. Tobi Tyler
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd.
South Lake Tahoe, California 96150

Subject: *Locke Property Proposed Restoration*
Owner: Michael Locke, P.O. Box 2582, Santa Clara, CA 95055
Agent: Joanne Robben, Resource Concepts, Inc.

Dear Ms. Tyler:

Per our previous discussions, the intent of this letter is to provide background information for the Locke Property site activities, and describe the measures to be completed by Mr. Locke for removal of fill material and restoration of the emergent wetland located on his parcel along US Highway 395 in Mono County, CA (APN 007-040-036-000). A formal wetland delineation and description of the impacts has been provided with this submittal.

Upon review of the information provided, please advise Mr. Locke and myself if a formal permit application is required.

Project Location Information

The Locke Property Project Area (Project Area) is a 2.3-acre area located approximately 12 miles north of Bridgeport, one mile east of Fales Hot Springs, and just west of Devils Gate on Highway US 395 California (APN 007-040-036-000) in Mono County, CA.

Township, Range, and Section for the project area: SE 1/4 Sec 19, T 6 N, R 24E.

The center of the site is located at: Lat 38.351023°, Long -119.392753° Datum: WGS 84. (See Figure 1).

To reach the Locke Property from South Lake Tahoe, California, head north on US-50 E/Lake Tahoe Blvd toward Stateline. Turn right onto NV-207 E/Kingsbury Grade Road to US-395 south. Turn right onto US-395 and continue for approximately 50 miles. The Locke Property is located on the left one mile past Fales Hot Springs and just before Devils Gate.

Site and Project Description

The Locke Property is characterized by steep slopes and upland scrub-shrub vegetation consisting predominately of sagebrush (*Artemisia tridentata*) and antelope bitterbrush (*Purshia tridentata*). Along US Highway 395 and the southern portion of the property, there is a natural topographic low where a potential emergent wetland was observed.

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340 North Minnesota St.
Carson City, NV 89703-4152
775 / 883-1600 • fax: 775 / 883-1656

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212 Elks Pt. Rd., Ste. 443 • PO Box 11796
Zephyr Cove, NV 89448-8020
775 / 588-7500 • fax: 775 / 589-6333

In June 2013, Mr. Locke began construction of a residential dwelling and access road. Excess fill material generated during grading activities was deposited within the topographic low as approved by Mr. Locke's Mono County Grading permit. Per the conditions of the grading permit, the top 12 inches of topsoil were removed and stockpiled on-site prior to placement of the fill. The grading permit authorized up to 800 cubic yards of fill to be placed in the depressional area.

Per the request of the Lahontan Regional Water Quality Board (LRWQCB), Mr. Locke was asked to stop work and placement of fill within the depressional area until a formal wetland delineation could be completed. The LRWQCB was concerned that the fill material was being placed into a portion of a jurisdictional wetland.

On July 5, 2013, Resource Concepts, Inc. completed a formal wetland delineation of the filled area in accordance with the criteria contained in the Technical Report Y-87-1, *Corps of Engineers Wetland Delineation Manual*, January 1987 (Manual) and as amended by *the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valley and Coast Region* (2010) The formal delineation report has been included in this submittal. Based on the findings of the delineation, it was confirmed that a 0.27-acre emergent wetland was present on-site. Approximately 0.1 acres of wetland had been filled. The fill material consisted of approximately 320 cubic yards of clean earthen material.

Restoration Proposal

To restore the impacted wetland area, Mr. Locke proposes the following measures:

1. The fill material will be removed, and the wetland area will be restored to original grade and slope.
2. The fill material will be relocated to an upland area located along the old road through the site as indicated on Figure 4 and described by DP5 of the delineation report. The designated fill location is characterized by upland vegetation and soils are disturbed and compacted by the presence of the old road.
3. The top 12 inches of topsoil, which is currently stock piled on site, will be replaced and compacted.

The following BMPs will be implemented during restoration to minimize impacts to water quality:

1. The work would be completed as soon as possible this summer before the fall rains commence to minimize the chances of sediment entrainment from run-off.
2. The disturbed area would be protected from run-on and runoff using silt fence, straw wattles, or similar measures.
3. All machinery shall be clean and free from weed seed prior to coming onto the property.
4. All work will be conducted when the dirt access roads are not wet.
5. All work will be confined to the upland or disturbed areas. No machinery will be allowed into the undisturbed wetland area.

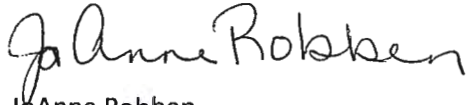
Ms. Tobi Tyler

July 31, 2013

Page 3

If you have any questions or concerns, please contact me at 775-883-1600. Thank you for your time.

Sincerely,

A handwritten signature in black ink that reads "JoAnne Robben". The signature is written in a cursive style with a large initial "J" and "A".

JoAnne Robben

Sr. Environment Specialist

JRR:td

Attachment

ATTACHMENT D

CLEANUP AND ABATEMENT ORDER NO. R6T-2013-0076

LOCKE PROPERTY PROPOSED RESTORATION PLAN AMENDMENT

PREPARED BY RCI
AUGUST 27, 2013



August 27, 2013

Ms. Tobi Tyler
Lahontan Regional Water Quality Control Board
2501 Lake Tahoe Blvd
South Lake Tahoe, California 96150

Subject: Locke Property Proposed Restoration
Owner: Michael Locke, P.O. Box 2582, Santa Clara, CA 95055
Agent: Joanne Robben, Resource Concepts, Inc.

Dear Ms. Tyler:

Per our previous discussions and guidance provided by the Lahontan Regional Water Quality Control Board (LRWQCB), the intent of this letter is to provide background information for the Locke Property site activities and describe the measures to be completed by Mr. Locke for removal of fill material and restoration of the emergent wetland located on his parcel along US Highway 395 in Mono County, California (APN 007-040-036-000). A formal wetland delineation and description of the impacts has been provided with this submittal.

Upon review of the information provided, please advise Mr. Locke and myself if a formal permit application is required.

PROJECT LOCATION INFORMATION

The Locke Property Project Area (Project Area) is a 2.3-acre area located approximately 12 miles north of Bridgeport, one mile east of Fales Hot Springs, and just west of Devils Gate on US Highway 395 California (APN 007-040-036-000) in Mono County, California.

Township, Range, and Section for the project area:
SE 1/4 Sec 19, T 6 N, R 24E.

The center of the site is located at:
Lat 38.351023°, Long -119.392753° Datum: WGS 84. (See Figure 1).

To reach the Locke Property from South Lake Tahoe, California, head north on US Highway 50 E/Lake Tahoe Blvd toward Stateline. Turn right onto NV-207 E/Kingsbury Grade Rd to US Highway 395 south. Turn right onto US-395 and continue for approximately 50 miles. The Locke Property is located on the left one mile past Fales Hot Springs and just before Devils Gate.

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212 Elks Pt. Rd., Ste. 443 • PO Box 11796
Zephyr Cove, NV 89448-8020
775 / 588-7500 • fax: 775 / 589-6333

SITE AND PROJECT DESCRIPTION

The Locke Property is characterized by steep slopes and upland scrub-shrub vegetation consisting predominately of sagebrush (*Artemisia tridentata*) and antelope bitterbrush (*Purshia tridentata*). Along US Highway 395 and the southern portion of the property, there is a natural topographic low where a potential emergent wetland was observed.

In June 2013, Mr. Locke began construction of a residential dwelling and access road. Excess fill material generated during grading activities was deposited within the topographic low as approved by Mr. Locke's Mono County Grading permit. Per the conditions of the grading permit, the top 12 inches of topsoil were removed and stockpiled on-site prior to placement of the fill. The grading permit authorized up to 800 cubic yards of fill to be placed in the depressional area.

Per the request of the LRWQCB, Mr. Locke was asked to stop work and placement of fill within the depressional area until a formal wetland delineation could be completed. The LRWQCB was concerned that the fill material was being placed into a portion of a jurisdictional wetland.

On July 5, 2013, Resource Concepts, Inc. completed a formal wetland delineation of the filled area in accordance with the criteria contained in the Technical Report Y-87-1, *Corps of Engineers Wetland Delineation Manual*, January 1987 (Manual) and as amended by *the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valley and Coast Region* (2010). The formal delineation report has been included in this submittal. Based on the findings of the delineation, it was confirmed that a 0.27-acre emergent wetland was present on-site. Approximately 0.1 acres of wetland had been filled. The fill material consisted of approximately 320 cubic yards of clean earthen material.

RESTORATION PROPOSAL

To restore the impacted wetland area, Mr. Locke proposes the measures listed below.

1. The fill material will be removed and relocated to an upland area located along an old road through the site as indicated on Figure 4 and described by DP5 of the delineation report. The designated fill location is characterized by upland vegetation, and soils are disturbed and compacted by the presence of the old road.
2. The wetland area will be restored to the original grade and slope. If necessary, the disturbed area will be ripped and de-compacted prior to placement of the original topsoil.
3. The top 6-12 inches of topsoil, which is currently stockpiled on site, will be replaced. The top soil contains sedge rhizomes and a seed bank to facilitate revegetation of the disturbed wetland area. To minimize compaction of topsoil during restoration:
 - A backhoe will be used to scarify any areas that have been compacted by heavy equipment.
 - The operator will back out of the wetland area, de-compacting the soil as he goes.
 - Once the topsoil is replaced, the bucket will be used to tamp down the topsoil, removing air pockets and insuring a good contact with the subsoil below.
 - On-site biological monitors will observe the construction process and insure that the replaced soils form a firm, but not over-compacted soil bed.

The following BMPs will be implemented during restoration to minimize impacts to water quality:

1. The work would be completed as soon as possible this summer and early fall before the fall rains commence to minimize the chances of sediment entrainment from run-off.
2. The disturbed area would be protected from run-on and runoff using silt fence, straw wattles, or similar measures.
3. All machinery shall be clean and free from weed seed prior to coming onto the property.
4. All work will be conducted when the dirt access roads are not wet.
5. All work will be completed from upland areas to the extent possible, and as necessary for removal of fill, limited to the existing area of disturbance. No machinery will be allowed into the undisturbed wetland area.

MONITORING, RESTORATION SUCCESS CRITERIA, AND REPORTING

A wetland scientist will monitor the on-going restoration activities and the site will be monitored annually for a period of five (5) years or until final success criteria have been met.

Monitoring Protocol

- Immediately post construction, the restored area will be visually checked for over-compaction or void areas by using a soil probe and comparing the ease of insertion in the undisturbed areas to the reclaimed area. Areas will be fixed as needed by hand or via backhoe as appropriate.
- The site will be visually inspected to ensure there is no evidence of excessive erosion (such as ruts, gullies, etc).
- The areas will be visually assessed from permanent sample points. Species composition and ocular estimates of percent cover will be documented.
- Permanent photo documentation points within the revegetated area will be established to document revegetation success and document areas of erosion.

Restoration Success Criteria

Interim Success Criteria

By 3 years the site must have:

- greater than 60% total live cover
- less than 5% non-native or noxious weeds
- no visual evidence of erosion (eg. no rills, ruts, or sediment deposition)
- Species composition similar to that of adjacent undisturbed wetland

Final Success Criteria

At 5 years the site must have greater than 80% total live cover and less than 10% noxious weeds.

- greater than 80% total live cover

- less than 5% non-native or noxious weeds
- no visual evidence of erosion (eg. no rills, ruts, or sediment deposition)
- Species composition similar to that of adjacent undisturbed wetland

If the site achieves final success criteria earlier than 5 years, the owner may apply to the LRWQCB for release from further monitoring.

Annual Reports

A qualified professional shall inspect the restored areas each year during the growing season and prepare annual reports on the performance of the restoration efforts as it relates to the success criteria. The monitoring reports shall also contain descriptions on the success and progress made during the current year, as well as any problems, and shall include recommendations for any remedial actions identified as necessary to fulfill the success criteria.

Annual monitoring reports will detail the need for and make recommendations regarding noxious weed removal. Noxious weeds will be removed pursuant to the best available methods identified within the scientific literature for a given species. Emphasis will be placed on manual or mechanical removal.

Annual monitoring reports will be submitted to the LRWQCB by December 31 of each year of monitoring and for five (5) years after completion of the project, or until Final Success Criteria have been met.

If you have any questions or concerns, please contact me at 775-883-1600. Thank you for your time.

Sincerely,



JoAnne Robben
Sr. Environment Specialist

JR:jm

Attachments

ATTACHMENT E

CLEANUP AND ABATEMENT ORDER NO. R6T-2013-0076

CLEAN WATER ACT SECTION 401 CONDITIONS

CLEAN WATER ACT SECTION 401 CONDITIONS

1. This Order is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to California Water Code section 13330 and California Code of Regulations title 23, section 2867.
2. This Order is not intended and must not be construed to apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license unless the pertinent certification application was filed pursuant to CCR title 23, section 3855(b) and the application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought.
3. Neither Restoration Plan construction activities nor operation of the project may cause a violation of the Basin Plan, may cause a condition or threatened condition of pollution or nuisance, or cause any other violation of the Water Code.
4. The restoration must be constructed and operated in accordance with the Restoration Plan in Attachment C and Restoration Plan Amendment in Attachment D of this Order. Deviation from the Restoration Plan, as amended, constitutes a violation of these conditions upon which this Order was issued. Any significant changes to this Restoration Plan or its implementation would have a significant or material effect on the findings, conclusions, or conditions of this Order, including project operations, must be submitted to the Executive Officer for prior review and written approval.
5. This Order is subject to the acquisition of all local, regional, state, and federal permits and approvals as required by law. Failure to meet any conditions contained herein or any conditions contained in any other permit or approval issue by the State of California or any subdivision thereof may result in the rescission of this Order and civil or criminal liability.
6. The Water Board may add to or modify the conditions of this Order as appropriate to implement any new or revised water quality standards and implementation plans adopted or approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Federal Water Pollution Control Act (Clean Water Act), 33 U.S.C.A. § 1251 et seq., or as appropriate to coordinate the operations of this Restoration Plan with other projects where coordination of operations is reasonably necessary to achieve water quality standards or protect the beneficial uses of water. Notwithstanding any more specific conditions in this Order, the Restoration Plan must be constructed and operated in a manner consistent with all water quality standards and implementation plans adopted or

approved pursuant to the Porter-Cologne Water Quality Control Act or section 303 of the Clean Water Act.

7. This Order does not authorize any act which results in the taking of a threatened or endangered species or any act which is now prohibited, or becomes prohibited in the future, under the California Endangered Species Act (Fish and Game Code section 2050 et seq.) or the federal Endangered Species Act (16 U.S.C. section 1531 et seq.). If a "take" will result from any act authorized under this Order, the Discharger must obtain authorization for the take prior to construction or operation of the restoration. The Discharger is responsible for meeting all applicable requirements of the Endangered Species Act for the restoration authorized under this Order.

ATTACHMENT F

CLEANUP AND ABATEMENT ORDER NO. R6T-2013-0076

WATER CODE SECTION 13267 FACT SHEET

**Fact Sheet – Requirements for Submitting Technical Reports
Under Section 13267 of the California Water Code**

October 8, 2008

What does it mean when the regional water board requires a technical report?

Section 13267¹ of the California Water Code provides that "...the regional board may require that any person who has discharged, discharges, or who is suspected of having discharged...waste that could affect the quality of waters...shall furnish, under penalty of perjury, technical or monitoring program reports which the regional board requires".

This requirement for a technical report seems to mean that I am guilty of something, or at least responsible for cleaning something up. What if that is not so?

Providing the required information in a technical report is not an admission of guilt or responsibility. However, the information provided can be used by the regional water board to clarify whether a given party has responsibility.

Are there limits to what the regional water board can ask for?

Yes. The information required must relate to an actual or suspected discharge of waste, and the burden of compliance must bear a reasonable relationship to the need for the report and the benefits obtained. The regional water board is required to explain the reasons for its request.

What if I can provide the information, but not by the date specified?

A time extension can be given for good cause. Your request should be submitted in writing, giving reasons. A request for a time extension should be made as soon as it is apparent that additional time will be needed and preferably before the due date for the information.

Are there penalties if I don't comply?

Depending on the situation, the regional water board can impose a fine of up to \$1,000 per day, and a court can impose fines of up to \$25,000 per day as well as criminal penalties. A person who submits false information is guilty of a misdemeanor and may be fined as well.

What if I disagree with the 13267 requirement and the regional water board staff will not change the requirement and/or date to comply?

Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must *receive* the petition by 5:00 p.m., 30 days after the date of the Order, except that if the thirtieth day following the date of this Order falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at:

http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

Claim of Copyright or other Protection

Any and all reports and other documents submitted to the Regional Board pursuant to this request will need to be copied for some or all of the following reasons: 1) normal internal use of the document, including staff copies, record copies, copies for Board members and agenda packets, 2) any further proceedings of the Regional Board and the State Water Resources Control Board, 3) any court proceeding that may involve the document, and 4) any copies requested by members of the public pursuant to the Public Records Act or other legal proceeding.

If the discharger or its contractor claims any copyright or other protection, the submittal must include a notice, and the notice will accompany all documents copied for the reasons stated above. If copyright protection for a submitted document is claimed, failure to expressly grant permission for the copying stated above will render the document unusable for the Regional Board's purposes, and will result in the document being returned to the discharger as if the task had not been completed.

If I have more questions, who do I ask?

Requirements for technical reports normally indicate the name, telephone number, and email address of the regional water board staff person involved at the end of the letter.

¹ All code sections referenced herein can be found by going to www.leginfo.ca.gov. Copies of the regulations cited are available from the Regional Board upon request.