

Aquatic Resources Delineation Report

for —
Marlette Lake Intake Structure Replacement Project
Washoe County, Nevada



Prepared For:

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July 22, 2026

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July 22, 2026

(RCI #26-142.1)

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EXECUTIVE SUMMARY

The delineation for the Marlette Lake Intake Structure Replacement Project was prepared at the request of Lumos & Associates on behalf of the Nevada State Public Works Division. The delineation survey area is approximately 8.88 acres in size. The delineation was conducted on June 11, 2026 in accordance with the 1987 *Corps of Engineers Wetland Delineation Manual* (TR-Y-87-1) as amended by the *Western Mountains, Valleys, and Coast Regional Supplement* (2010), and *A Guide to Ordinary High-Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States* (2014).

The delineation survey area is located in the northeast corner of Marlette Lake, which outlets into Marlette Creek, a perennial tributary to Lake Tahoe, a Traditional Navigable Water (TNW). The delineation identified two aquatic resources:

- One impounded reservoir, Marlette Lake (L1OW), and
- One scrub-shrub deciduous /seasonally saturated emergent wetland (PSS1/EMC).

The total on-site area of aquatic resource is approximately 6.15 acres, with Marlette Lake comprising approximately 5.43 acres of the total on-site area.

The USFWS Information for Planning and Consultation website (accessed July 22, 2026) identified seven federally protected species with potential to occur within or be affected by the proposed project. Only Lahontan cutthroat trout have potential suitable habitat within the Survey Area and are known to occur. Based on the reduced population size, small project area, and proposed minimization measures, it was determined that the project is not likely to adversely affect LCT (see page 12).

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Acronyms and Abbreviations

FACW Facultative Wetland (usually occur in wetlands)

L1OW Lacustrine, Limnetic, Open Water/Unknown Bottom

MLWS Marlette Lake Water System

NRCS National Resource Conservation Service

NWI National Wetlands Inventory

OBL Obligate Wetland (occur almost always in wetlands)

OHWM Ordinary High-Water Mark

Project Area Marlette Lake Intake Structure Replacement Project Area

SNOTEL Snowpack Telemetry Network

USACE US Army Corps of Engineers

USDA US Department of Agriculture

USFWS US Fish and Wildlife Service

USGS US Geological Survey

1.0 INTRODUCTION

1.1 Project Description and Purpose

Resource Concepts, Inc. (RCI) was contracted by Lumos & Associates to complete a delineation of aquatic resources with potential to be affected by the Marlette Lake Intake Structure Replacement Project. The delineation survey area is approximately 8.88 acres and includes the Marlette Lake Intake Structure Replacement Project Area (Project Area) and boat ramp used for access to the Project Area. The Marlette Lake intake structure is part of the Marlette Lake Water System (MLWS) owned by the State Public Work Department. The MLWS provides raw water to Carson City and Storey County and is the only source of water for Virginia City, Gold Hill, and Silver City. A significant portion of the MLWS raw water supply is collected in Marlette Lake before it is pumped to the top of a neighboring catchment for delivery via gravity to the rest of the System.

The purpose of the proposed project is to upgrade the existing intake structure to reduce the amount of sediment uptake and buildup within the system. Sediment in the System causes damage to the System's pump impellers, sensors, valves, transducers, and pipeline. The proposed upgraded design will mitigate the current issues with sediment entering the line and damaging the system and be effective for minimizing biofilm and other accumulation on the screens. The self-cleaning system would be fish-friendly and operated off of discharge pressure from the pump station.

The purpose of this report is to identify, describe, and delineate the boundaries of on-site aquatic resources. This report facilitates efforts to:

- Avoid or minimize impacts to aquatic resources during the project design process,
- Document aquatic resource boundaries for review by the US Army Corps of Engineers (USACE), which will be required for state and federal permitting purposes as needed, and
- Provide early identification of known US Fish and Wildlife Service (USFWS) federally listed species with potential to occur within the Survey Area.

The delineation was conducted in accordance with the 1987 *Corps of Engineers Wetland Delineation Manual* (TR-Y-87-1) as amended by the *Western Mountains, Valleys, and Coast Regional Supplement* (2010), and *A Guide to Ordinary High-Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States* (2014).

1.2 Contact Information

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2.0 PROJECT LOCATION

Marlette Lake is located on the eastern side of the Lake Tahoe basin. The lake is situated in the mountains, approximately 1.5 miles above the east shore of Lake Tahoe and seven miles west of Carson City. The Survey Area is located primarily in the northeastern corner of Marlette Lake (Lat. 39.178590°, Long. -119.9074486° NAD 83) and includes an existing boat ramp located on the western shoreline near the dam (Lat. 39.173059°, Long. -119.906535° WGS 84).

The Survey Area is located in portions of:

Sections 01 and 02 T.14N, R.18E

The Survey Area does not include the existing access roads which are routinely used by MLWS, Nevada Division of Public Works, and the public for recreational hiking and biking. No work is proposed along the access roads and no impacts to aquatic resources are anticipated.

Access to the Marlette Intake Structure Survey Area from Reno is via I-580 south for approximately 37 miles to continue straight onto US-50/Hwy 50 west bound. In approximately ten miles, turn right onto NV-28; in less than one mile turn right into the Spooner Lake State Park. Stay left through the parking area and make a right onto Spooner Lake Trail when the pavement ends. After less than one mile, turn left onto North Canyon Road, in 4.5 miles turn right onto Hobart Road. Continue for approximately 1.9 miles, then turn left onto Laxalt Road. Continue along Laxalt Road approximately 1.2 miles to the lake's edge and location of the MLWS pipeline to which the intake structure is attached.

Vehicle access to the Survey Area is gate restricted; for a tour of the site or directions to a specific location within the area of delineation, please contact JoAnne Michael at RCI.

3.0 METHODS

3.1 Methods Used to Delineate and Survey Aquatic Resources

The site was surveyed by RCI's Wetland Specialist on June 11, 2026. This survey was performed by RCI in accordance with the criteria contained in the 1987 *Corps of Engineers Wetland Delineation Manual* (TR-Y-87-1) as amended by the *Western Mountains, Valleys, and Coast Regional Supplement (2010)*, and A

Guide to Ordinary High-Water Mark (OHWM) Delineation for Non-Perennial Streams in the Western Mountains, Valleys, and Coast Region of the United States (2014).

Prior to the field review, aerial photographs, US Geological Survey (USGS) topographic maps, and National Wetland Inventory maps were reviewed. Data points were taken at locations determined by review of the USGS topographic maps, National Wetland Inventory maps, aerial photography (Attachment B), and field observations of hydrophytic vegetation as being potential wetland or other jurisdictional waters. At each data point, data on vegetation, soils, and hydrology were collected. Wetland data forms are provided in Attachment E and OHWM data forms are provided in Attachment F.

4.0 REGULATORY FRAMEWORK

On January 18, 2023, the US Environmental Protection Agency and USACE issued the final “Revised Definition of Waters of the United States” (2023 Rule). This definition was amended on August 29, 2023, based on the recent Supreme Court case of *Sackett v. Environmental Protection Agency*, which found that parts of the 2023 Rule are invalid based on the Supreme Court’s interpretation of the Clean Water Act in the Sackett decision. Therefore, the 2023 Rule was amended to conform to the Supreme Court’s decision.

This revised rule, referred to as the “Revised Definition of Waters of the United States; Conforming” (Conforming Rule), became effective on September 8, 2023. The following sections outline the categories of jurisdictional waters regulated under the Conforming Rule, which is currently being implemented in Nevada and California. Final determination of jurisdiction under the Clean Water Act of all on-site waters can only be made by the USACE.

4.1 Categories of Jurisdictional Waters

(a)(1) Jurisdictional Waters

- (i) Traditional Navigable Waters, waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce;
- (ii) Territorial Seas; or
- (iii) Interstate Waters

(a)(2) Impoundments of Jurisdictional Waters

(a)(3) Tributaries to Jurisdictional Waters that are relatively permanent, standing, or continuously flowing bodies of waters

(a)(4) Adjacent Wetlands

Jurisdictional adjacent wetlands are those wetlands that are “adjacent” to an (a)(1) water, relatively permanent jurisdictional impoundment, or relatively permanent tributary. Adjacent means to have a continuous surface connection.

(a)(5) Intrastate lakes and ponds that do not fall within (a)(1) – (a)(4) that are relatively permanent, standing, or continuously flowing bodies of waters with a continuous surface connection to the water to (a)(1) or (a)(3) waters

4.2 Exclusions

- (b)(1) Wastewater treatment systems
- (b)(2) Prior converted cropland designated by the US Department of Agriculture (USDA)
- (b)(3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water
- (b)(4) Artificially irrigated areas that would revert to dry land if the irrigation ceased
- (b)(5) Artificial lakes or ponds created in dry land, used exclusively for specific purposes
- (b)(6) Artificial reflecting/swimming/ornamental pools
- (b)(7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land, until abandoned
- (b)(8) Swales and erosional features (e.g., gullies, small washes) characterized by low volume, infrequent, or short duration flow

5.0 EXISTING CONDITIONS

5.1 Landscape Setting

The Survey Area is approximately 8.88 acres, including the location of the existing intake structure, boat ramp, and proposed staging areas (Reference Attachment B – Figure 1 and 2). Marlette Lake is a high alpine reservoir that is surrounded by upland red fir forests, large stands of aspen, and wet meadow. There is no development along the lake's shoreline, with exception of the MLWS booster pump. The dam is located on the far west side of the lake near the boat ramp. There are several multi-use trails throughout and surrounding the Survey Area for hikers, bikers, and equestrian riders. Access to the intake structure is via North Canyon Road, a dirt road that runs from Spooner Lake, north to Marlette Lake and is used for lake access and dam maintenance by Spooner Lake State Park personnel.

Topography

This Survey Area includes the existing intake structure located on the floor of Marlette Lake. The Lake is presently drawn down to approximately 20 feet below the normal high-water line due to the separately permitted Marlette Dam rehabilitation project on the opposite shore of the Lake. When the Lake is full, the intake structure is submerged by approximately 32 feet of water and is approximately 600 feet offshore. At the time of the survey, the intake structure was presently submerged by approximately 12 feet of water due to the drawn-down lake level and is approximately 200 feet offshore.

From the normal OHWM, the site slopes steadily upward to the pump station situated at an elevation of 8,080 feet. There is no work proposed within the upland area, but the existing access road will be used for equipment and material storage, as needed, above the OHWM.

Hydrology

Rainfall

On average, the Survey area receives 33.4 inches of precipitation per year (data from water years 1979 to 2021), most of which falls in the form of snow between November and March. Very little precipitation occurs during the growing season. Based on the data from the Marlette Snowpack Telemetry Network (SNOTEL) Station, the Marlette area has received 29.4 inches of cumulative precipitation since the beginning of the

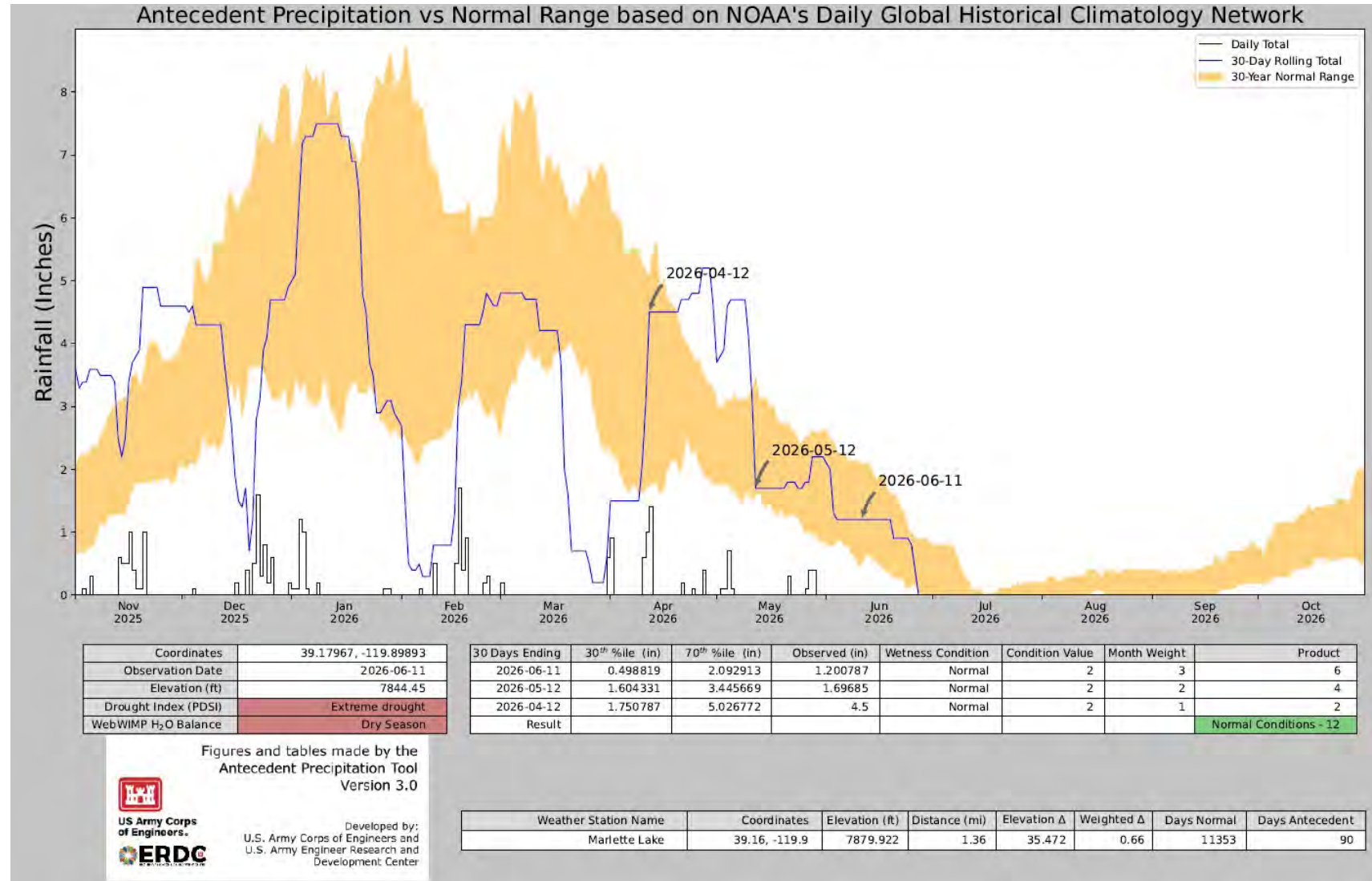
2026 water year (October 1, 2025 – July 20, 2026), or approximately 104% of the average annual precipitation (NRCS SNOTEL, Station 615, data 2026).

Based on the USACE Antecedent Precipitation Tool at the time of the delineation, rainfall at the site was within the 30-year normal range. The Palmer Drought Index indicates the site is experiencing extreme drought.

Surface Water

The Survey Area is located in the Marlette Watershed (HUC 12 160501010201). The primary surface water within the Survey Area is Marlette Lake. Marlette Lake is charged by numerous spring and snowmelt fed streams that flow in the reservoir. The outflow of Marlette Lake is controlled by an earthen dam located along the western shore and discharges to Marlette Creek, which flows west and terminates at Lake Tahoe, a TNW. Flow within Marlette Creek is controlled by an outlet pipe in the dam and water levels are maintained for the benefit of downstream fisheries.

There are no blue-line streams mapped by the USGS hydrology data layer within the Survey Area. The National Wetlands Inventory (NWI) maps the project area as “Lake” that is abutted by Freshwater Forested/Shrub Wetland. Reference Attachment B Figure 3.

Graph 1. Antecedent Precipitation vs. Normal Range Precipitation Graph

Geology

The geology of the Survey area is dominated by Jurassic period granitic rock, consisting of mostly quartz monzonite and granodiorite. A small area of alluvial beach and sand dune deposits from the Quaternary period are found near the Spooner Lake State Park at the southernmost end of the Survey Area (Nevada Bureau of Mines, 2017).

Soils

Based on the National Resource Conservation Service (NRCS) soil survey map (Attachment B – Figure 2), the soils within the Survey Area are mapped as:

- 7531, Toem-Rock outcrop complex, 9-30% slope
- 9442 – Temo-Witefels complex, 15 to 30% slope

Toem-Rock outcrop complex, 9-30% slope

Toem-Rock outcrop complex soils are found on mountain slopes at elevations ranging from 6,230 to 8,270 feet. Mean annual precipitation is 25 to 43 inches. These soils are formed on mountain slopes and are derived from colluvium and/or residuum weathered from granodiorite.

A typical profile of Toem-Rock outcrop complex soils consists of:

- Oi – 0 to 1 inch: slightly decomposed plant material
- A – 0 to 10 inches: gravelly coarse sand
- C – 10 to 18 inches: gravelly coarse sand
- Cr – 18 to 32 inches: bedrock

These soils are classified as being excessively drained, **non-hydric** soils. The frequency of flooding and ponding waters is none. Depth to paralithic bedrock is between 10 to 20 inches. Available water capacity in the soil profile is moderately low to moderately high (0.01 to 1.42 inches) (NRCS Web Soil Survey, accessed July 21, 2026).

Temo-Witefels complex, 15-30% slope

The majority of the site soils are classified as Temo-Witefels complex, which are found at elevations ranging from 6,890 to 9,460 feet. Mean annual precipitation typically ranges between 29 to 65 inches. These soils are formed on mountain backslopes and are comprised of colluvium over residuum weathered from granodiorite. A typical profile of Temo-Witefels complex soils consists of:

- A – 0 to 10 inches: gravelly coarse sand
- C – 10 to 16 inches: gravelly coarse sand
- Cr – 16 to 60 inches: bedrock

These soils are classified as being excessively drained, **non-hydric** soils. The frequency of flooding and ponding waters is none. Depth to paralithic bedrock is between 10 to 20 inches. Available water capacity in the soil profile is very low (about 0.6 inches) (NRCS Web Soil Survey, accessed July 21, 2026).

Community Types and Existing Vegetation

The water intake structure is set upon the bottom of Marlette Lake. When the lake is full, the intake structure is submerged by approximately 32 feet of water and is approximately 600 feet offshore. At the time of the survey, Marlette Lake was drawn down approximately 20 feet below the normal high-water line due to a separately permitted dam rehabilitation project on the opposite shore of the lake. There is no vegetation within the project disturbance area (see Attachment C – photo 1).

Two access points will be utilized for staging, storage, and operations to replace the intake structure. The main location is on the east shore of the Lake, adjacent to the intake. It will be used for coordination of offshore activities and to manage spoil piles if any sand is removed. This site is currently used by MLWS to access the system pump station and for vehicular turn around. As such, vegetation is sparse and occurs only on the fringe (see Attachment C – photos 2 and 3).

The second point is at the established boat ramp adjacent to the Dam on the opposing shoreline. This area consists of gravel road base with no vegetation (see Attachment C – photo 5).

A complete list of observed plant species is provided in Attachment C.

5.2 Aquatic Resources

One (1) aquatic resource was identified within the Survey Area and is depicted on the Aquatic Resources Delineation Map 1 in Attachment A. A complete USACE Aquatic Resources Excel spreadsheet is included in Attachment H.

Aquatic Resource – 1 (AR-1): Marlette Lake

The survey area includes a small portion of Marlette Lake in the northeast corner. Marlette Lake is identified by the Cowardin classification system as a Lacustrine, Open Water with an unknown bottom, limnetic system (L1OW). At the upper edge of the water, the lake edge is lined with small boulders that quickly transition to an unconsolidated bottom below. Water within the lake is derived from snowmelt and several small unnamed streams by snowmelt runoff. There is an earthen dam at the western end of the lake that outlets to Marlette Creek, which flows to Lake Tahoe, a TNW. The depth of the lake within the Survey Area is 0 inches to > 6 feet. At full capacity, the project area is approximately 32 feet below the OHWM and located 600 feet lakeward. At the time of the survey, water levels were drawn down and estimated to be 12 feet below the water. The OHWM was identified in the field by a change in water line on boulders and an impressed line on soil when present. The on-site area of the lake is 5.43 acres. AR-1 is described on OHWM-1 data form located in Attachment F and documented in photo 4 in Attachment C.

Aquatic Resource – 2 (AR-2): Palustrine Scrub-shrub / Emergent Scrub-shrub Wetland

Aquatic Resource 2 (AR-2) is identified by the Cowardin classification system as a Palustrine Emergent/Scrub-shrub, Deciduous, Seasonally Saturated wetland (PSS1/EMC). The wetland is formed from springs and snowmelt in the upper mountain slopes and extends to the OHWM of Marlette Lake (AR-1). This wetland extends to the edge of the Project Area, and its boundaries delineated in order for project activities to clearly avoid.

Wetland Vegetation: Wetland vegetation is dominated by a dense stand of sedges (*Carex aquatilis*, OBL) interspersed with clusters of willow (*Salix lemonii*, FACW). The wetland vegetation criterion is met by a dominance of greater than 50% hydrophytic vegetation.

Wetland hydrology: AR-2 hydrology is supported by overflow springs and snowmelt runoff. Wetland hydrology indicators observed in the field included soil saturation to the surface and presence of a shallow water table.

Wetland soils: The wetland soil criterion was met by observation of a thick dark surface.

The area of AR-2 is 0.72 acres and located entirely outside of the Project Area. AR-2 is described on data form 2 located in Attachment E.

Table 1. Summary of Aquatic Resources within the Survey Area

Aquatic Resource Name	Aquatic Resource Classification		Size (acres)	Size (linear feet)
	Cowardin	Location (Lat/Long)*		
AR-1	L10W	39.178013, -119.899448	5.43	--
AR-2	PSS1/EMC	39.179466, -119.898231	0.72	--
Total:			6.15	0

5.3 Federally Protected Species

The USFWS Information for Planning and Consultation website (accessed July 22, 2026) identified seven federally protected species with potential to occur within or be affected by the proposed project. Only Lahontan cutthroat trout have potential suitable habitat within the Survey Area and are known to occur.

Table 2. Evaluation of Potential Occurrence of Federally Protected Species

Federally Listed			
Species	Status	General Habitat	Potential to Occur/Affect
MAMMALS			
Gray Wolf (<i>Canis lupus</i>)	E	Utilize a wide range of habitats including temperate forests, mountains, tundra, taiga, grasslands, and deserts (USFWS 2026).	Based on the California Department of Fish and Wildlife Wolf Tracker Map, the nearest wolf pack is located northwest of Susanville, CA – approximately 150 miles from the Project Area. The Nevada Department of Wildlife reports that there are no gray wolf populations in Nevada, but sporadic sightings have occurred (NDOW 2026). Therefore, this species is not expected to occur within or near the project area. No Effect
Sierra Nevada Red Fox (<i>Vulpes vulpes necator</i>)	FE	High-elevation forested and subalpine habitats. Primarily lives in mountain areas above 9,000 feet in dense growth of trees and underbrush cover. Dens in talus slopes.	The project area is within the historical range of this species, and the surrounding area contains suitable habitat for foraging. The project area does not contain suitable denning habitat and is located below the species' typical inhabited elevation. Therefore, this species is not expected to occur within or near the project area. No Effect

Federally Listed			
Species	Status	General Habitat	Potential to Occur/Affect
BIRDS			
California Spotted Owl, Sierra Nevada distinct population segment (<i>Strix occidentalis occidentalis</i>)	PT	Found in older forests that contain structural characteristics necessary for nesting, roosting, and foraging. In the Sierra Nevada range, a majority of the CA spotted owls occur within mid-elevation ponderosa pine, mixed conifer, white fir, and mixed-evergreen forest types.	The project area is located within secondary growth Jeffrey pine forest and does not contain the structural characteristics typically utilized by CA spotted owls. This species is not expected to occur within the project area. No Effect
REPTILES			
Northwestern Pond Turtle (<i>Actinemys marmorata</i>)	PT	Found in permanent and temporary waters of rivers, creeks, small lakes and ponds, marshes, irrigation ditches, and reservoirs. In Nevada, this species is confined to the Carson and Truckee Rivers (NDOW 2024).	The project area is not located near nor hydrologically connected to the Carson or Truckee River; therefore, would not be present. No Effect
AMPHIBIANS			
Sierra Nevada yellow-legged frog (SNYLF) (<i>Rana sierrae</i>)	FE	Above 4,500 feet. High elevation low-gradient streams and small ponds that are either intermittent or perennial.	The Project Area is located within elevation range and may contain potential breeding and overwintering habitat within the reservoirs; however, the presence of trout within likely precludes the presence of SNYLF. Surveys were completed during the spring of 2022 and resulted in a negative finding (Mellison 2022). This species is not expected to occur within the project area. No Effect
FISHES			

Federally Listed			
Species	Status	General Habitat	Potential to Occur/Affect
Lahontan Cutthroat Trout (LCT) (<i>Oncorhynchus clarkii henshawi</i>)	FT	Cold-water habitats including large terminal alkaline lakes, alpine lakes, slow meandering rivers, mountain rivers, and small headwater tributary streams. Requires gravels and riffles for spawning and generally does not persist or occur with nonnative salmonids. NDOW introduced LCT to Marlette Lake in 1964 and currently manages the population as brood stock for their hatchery program. NDOW annually stocks the lake to maintain the recreation's fishery and continues to develop brood for spawning activities; thus, only adult LCT exist in the lake. Marlette Lake is not identified as a priority population for the conservation and recovery of LCT in the 1995 Recovery Plan or 2019 Updated Goals and Objectives of Conservation of LCT (USFWS 2025).	LCT were known to occur within the Marlette Lake prior to the lake water level drawdown for the NDPW's 2025 Marlette Dam Rehabilitation Project (SPK 2024-00521). Prior to the lake drawdown in 2025, the USFWS were consulted to identify potential impacts to LCT. Based on the USFWS Biological Opinion (USFWS 2025), it was determined that the effects from the project on LCT (estimated loss of greater than 52% of LCT) will significantly and adversely affect LCT within Marlette Lake, but the loss of LCT in this system does not affect the recovery of the species as this population is managed for recreational and broodstock purposes only. There is potential for LCT to occur within the Project Area; however at greatly reduced numbers from those prior to the Dam Rehabilitation Project. No new LCT were stocked in 2026. In order to minimize any impact to LCT, turbidity fences will be installed around the active work area to reduce the potential for LCT to enter the project area. Based on the small size of the project area and already reduced number of LCT within the lake, it is unlikely that any LCT will be impacted by the project activities. <i>May affect, not likely to adversely affect.</i>
Insects			

Federally Listed			
Species	Status	General Habitat	Potential to Occur/Affect
Monarch Butterfly (<i>Danaus plexippus</i>)	PT	Can be found in roadside areas, open areas, wet areas, or gardens where forbs are present. Monarchs will feed on many flowers but breed only on milkweeds. Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico.	The sparse vegetation located along the periphery of the Project Area is dominated by willows, rushes, and sedges. There are few forb species and no occurrences of <i>Asclepias</i> were observed. This species is not likely to occur within the Project Area. No Effect
CONIFERS AND CYCADS			
Whitebark Pine (<i>Pinus albicaulis</i>)	FT	Subalpine and timberline on rocky, well-drained granitic or volcanic soils	The Project Area is within the current range of this species. The sparse vegetation located along the periphery of the Project Area is dominated by willows, rushes, and sedges. There are no trees within the Project Area. No Effect
CRITICAL HABITATS			
No Effect. There are no critical habitats within the project area			
FE = Federal Endangered; FT = Federal Threatened; PT = Proposed Threatened; C = Candidate			

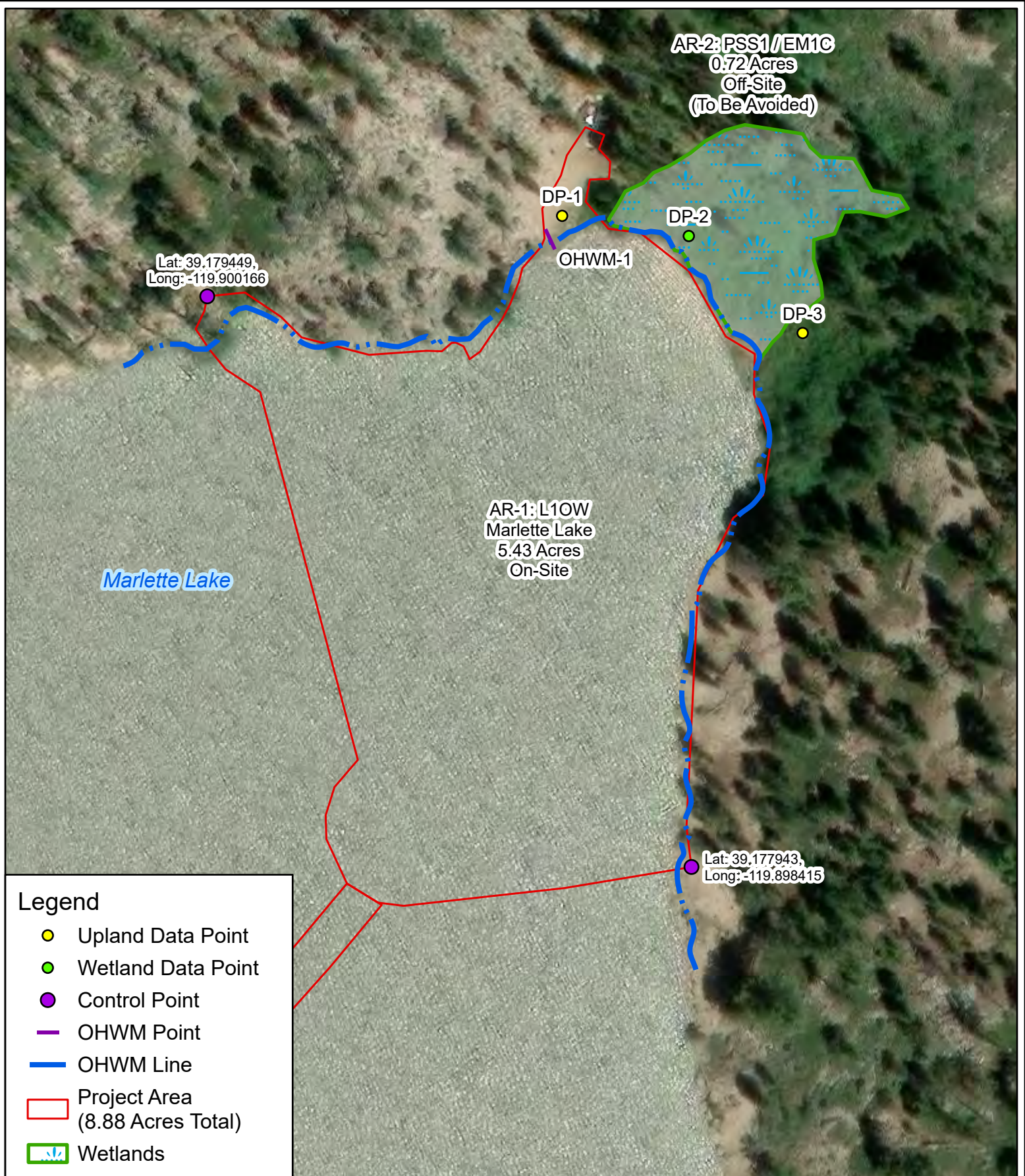
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Attachments

Attachment A

Aquatic Resource Delineation Map



Project: Marlette Lake Intake Structure Replacement
 County: Washoe
 Surveyor: JoAnne Michael
 Date: June 11, 2026
 Source: ESRI Imagery Services
 Vivid Advanced Vantor 6/30/2024

Aquatic Resource Delineation

0 125 Feet
 1 In = 125 Ft

Attachment B

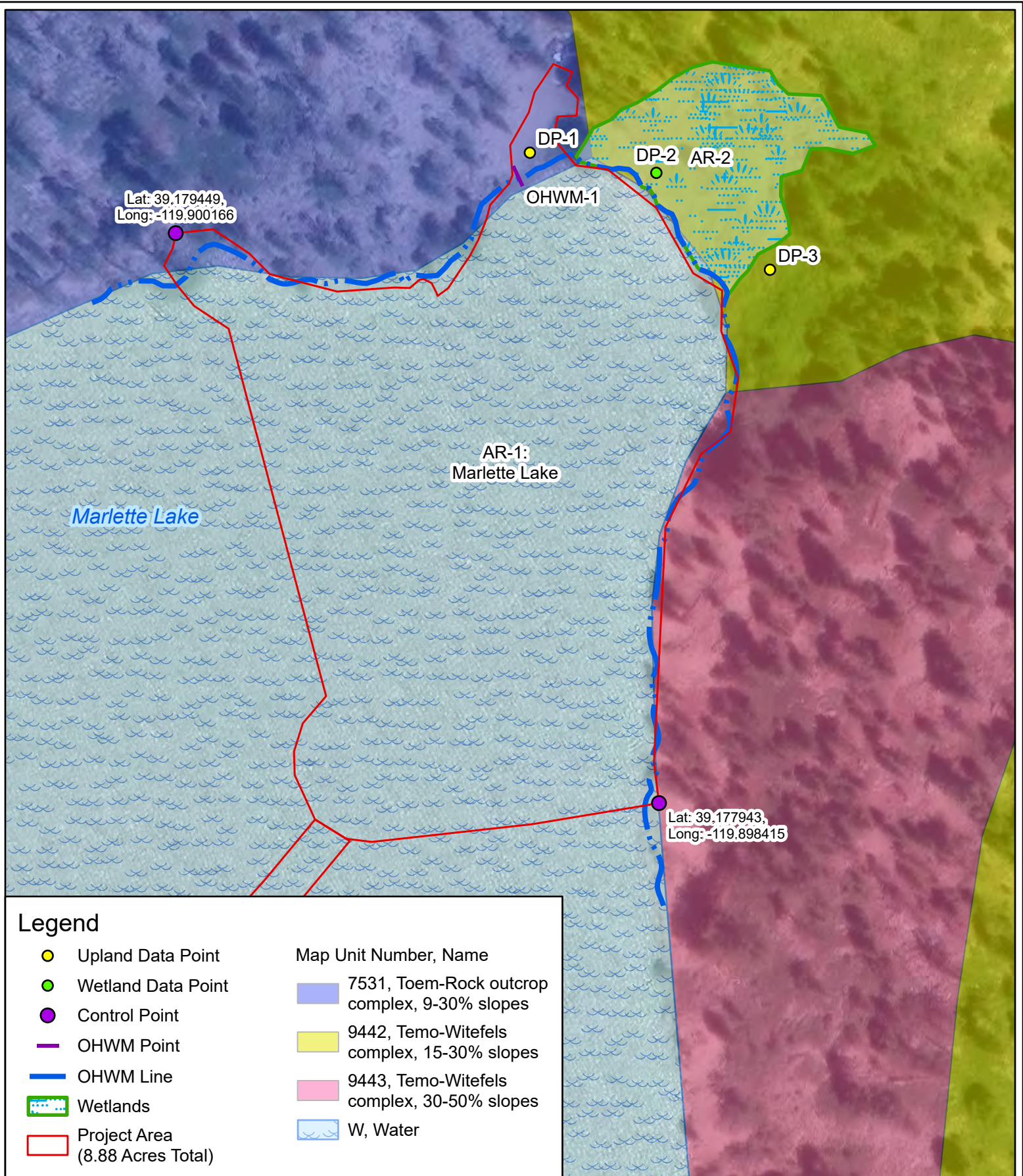
Supporting Maps



Project: Marlette Lake Intake Structure Replacement
County: Washoe
Surveyor: JoAnne Michael
Date: June 11, 2026
Source: USGS The National Map

Figure 1
Location Map

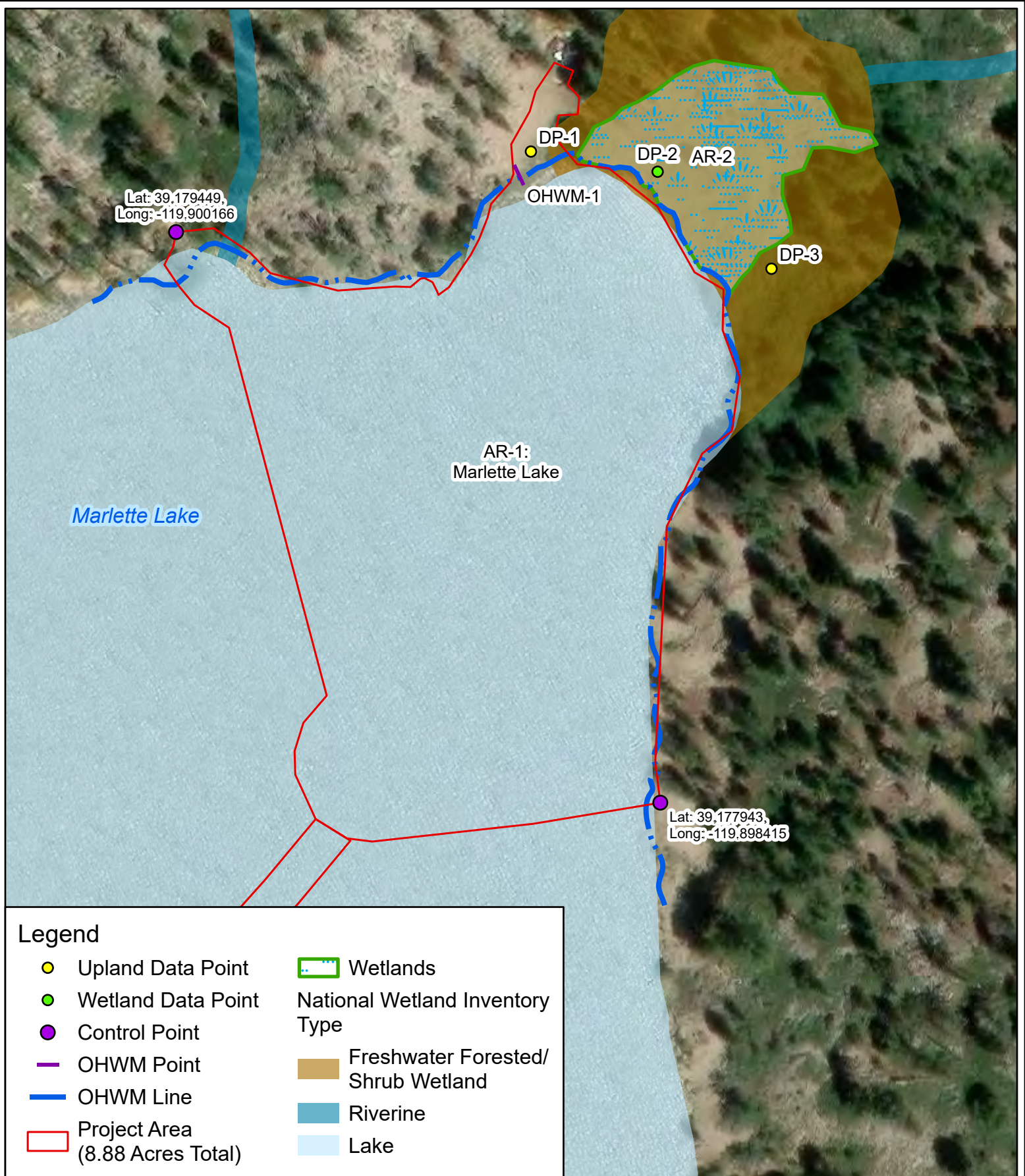
0 200 400 Feet
1 In = 400 Ft



Project: Marlette Lake Intake Structure Replacement
 County: Washoe
 Surveyor: JoAnne Michael
 Date: June 11, 2026
 Source: USA Soil Map, 2024

Figure 2
USA Soil Map

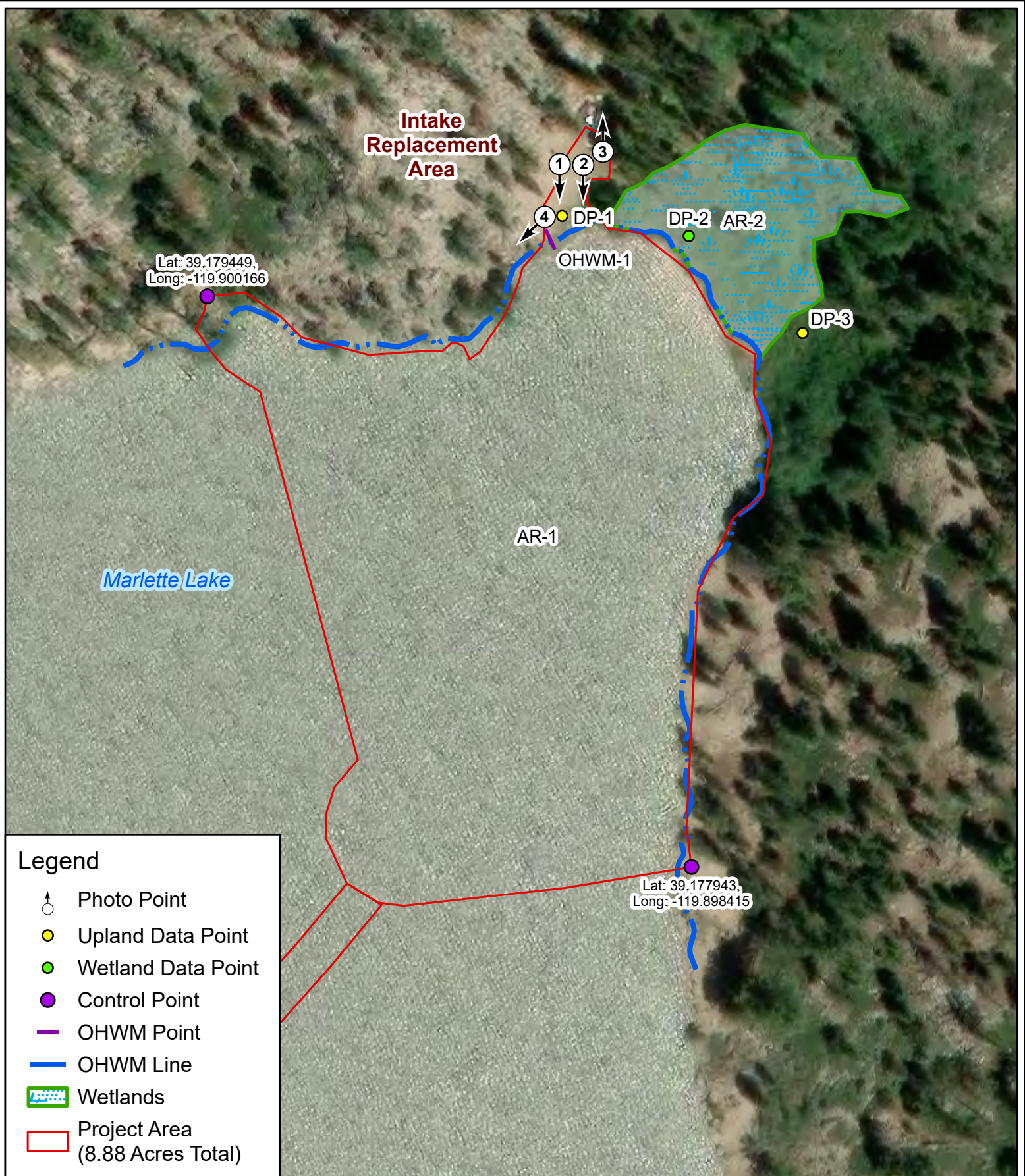
0 125 Feet
 1 In = 125 Ft



Project: Marlette Lake Intake Structure
Replacement
County: Washoe
Surveyor: JoAnne Michael
Date: June 11, 2026
Source: National Wetland Inventory, 2023

Figure 3
National Wetland Inventory

0 125 Feet
1 In = 125 Ft



Project: Marlette Lake Intake Structure Replacement
 County: Washoe
 Surveyor: JoAnne Michael
 Date: June 11, 2026
 Source: ESRI Imagery Services
 Vivid Advanced Vantor 6/30/2024

Figure 4A
Intake Replacement Area
Photo Point Map

0 125 Feet
 1 in = 125 Ft



Legend

-  Photo Point
-  Project Area
(8.88 Acres Total)

Project: Marlette Lake Intake Structure Replacement
County: Washoe
Surveyor: JoAnne Michael
Date: June 11, 2026
Source: ESRI Imagery Services
Vivid Advanced Vantor 6/30/2024

Figure 4B
Boat Ramp Area
Photo Point Map

0 125 Feet
1 in = 125 Ft

Attachment C

Plant List

Attachment C – Plant List

Scientific Name	Common Name	USACE WIS
<i>Abies concolor</i>	White fir	UPL
<i>Achillea millefolium</i>	Common yarrow	UPL
<i>Achnatherum lemmonii</i>	Lemmon's needlegrass	UPL
<i>Anaphalis margaritacea</i>	Pearly everlasting	FACU
<i>Artemisia tridentata</i>	Mountain sagebrush	UPL
<i>Carex aquatilis</i>	Water sedge	OBL
<i>Carex</i> spp.	Carex species	OBL-FAC
<i>Elymus elymoides</i>	Bottlebrush squirrel tail	UPL
<i>Ericameria nauseosa</i>	Rubber rabbitbrush	UPL
<i>Lupinus argenteus</i>	Silvery lupine	UPL
<i>Myosotis microsperma</i>	Large seed forget-me-not	UPL
<i>Penstemon speciosus</i>	Royal penstemon	UPL
<i>Phleum alpinum</i>	Alpine timothy	FAC
<i>Pinus contorta</i>	Lodgepole pine	FAC
<i>Pinus jeffreyi</i>	Jeffery pine	UPL
<i>Poa secunda</i>	Sandberg bluegrass	UPL
<i>Populus tremuloides</i>	Quaking aspen	FACU
<i>Potentilla glandulosa</i>	Sticky cinquefoil	UPL
<i>Potentilla gracilis</i>	Graceful cinquefoil	FAC
<i>Purshia tridentata</i>	Antelope bitterbrush	UPL
<i>Ribes viscosissimum</i>	Sticky current	FAC
<i>Salix</i> sp.	Willow	OBL-FAC
<i>Trifolium longipes</i>	Long-stalk clover	FAC

Attachment D

On-Site Photographs

Attachment D – On-Site Photographs



Photo 1. Photo taken from normal water edge looking south along water line extending into drained lake. Project area is approximately 200 feet lakeward below water.



Photo 2. Data point 1 – Upland disturbed area adjacent to Marlette Lake.

Attachment D – On-Site Photographs



Photo 3. View of existing pump house and adjacent upland vegetation



Photo 4. OHWM-1: Marlette Lake. OHWM defined in the field by distinct topo break, lack of vegetation, and change in substrate.

Attachment D – On-Site Photographs



Photo 5. Existing boat ramp to be used to launch barge that is needed to hoist and raise/lower the old and new intake structure for removal/installation.



Photo 6. Existing access road to boat ramp.

Attachment E

Wetland Delineation Data Sheets

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

Project/Site: Marlette Lake Intake Structure Replacement Project City/County: Washoe Sampling Date: 6/11/2026
 Applicant/Owner: Nevada State Public Works / State Parks State: NV Sampling Point: DP1
 Investigator(s): JoAnne Michael Section, Township, Range: Section 12, T15N, R18E
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5-10
 Subregion (LRR): D Lat: 39.179698 Long: -119.898938 Datum: NAD 83
 Soil Map Unit Name: 7531, Toem-Rock Outcrop complex 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 ☒ No ☐	Is the Sampled Area within a Wetland?	Yes ☐ No ☒
Hydric Soil Present?	Yes ☐ No ☒		
Wetland Hydrology Present?	Yes ☐ No ☒		
Remarks: Data point taken within disturbed access corridor used by MLWS to access water pipeline and pump house. Adjacent to AR-1 Marlette Lake			

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. <u>Pinus contorta (1)</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
2. <u>Salix sp. (1)</u>	<u>2</u>	<u>N</u>	<u>Obl-Fac</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
4 = Total Cover				
Sapling/Shrub Stratum (Plot size: _____) 1. <u>Pinus contorta (1 sapling)</u> <u>3</u> _____ 2. <u>Ribes sp. (1)</u> <u>1</u> _____ 3. _____ 4. _____ 5. _____ 4 = Total Cover				
Herb Stratum (Plot size: _____) 1. <u>Carex sp.</u> <u>10</u> <u>Yes</u> <u>Obl-Fac</u> 2. <u>Potentilla gracilis</u> <u>5</u> <u>Yes</u> <u>FACW</u> 3. <u>Monardella odoratissima</u> <u>1</u> <u>No</u> <u>Upl</u> 4. <u>Juncus balticus</u> <u>5</u> <u>Yes</u> <u>FAC</u> 5. <u>Anaphalis margaritacea</u> <u>2</u> <u>No</u> <u>FACU</u> 6. <u>Penstemon speciosus</u> <u>2</u> <u>No</u> <u>UPL</u> 7. _____ 8. _____ 9. _____ 10. _____ 11. _____ 25 = Total Cover				
Woody Vine Stratum (Plot size: _____) 1. _____ 2. _____ _____ = Total Cover % Bare Ground in Herb Stratum <u>75</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 ☐				
Remarks: Site is disturbed by frequent use to access the MLWS Intake pipeline and pump station. See photo of DP-1 in Attachment D.				

SOIL

Sampling Point: DP1

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:			Secondary Indicators (2 or more required)	
Primary Indicators (minimum of one required; check all that apply)				
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except	☐ Water-Stained Leaves (B9) (MLRA 1, 2,		
☐ High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4B)		
☐ Saturation (A3)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)		
☐ Water Marks (B1)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)		
☐ Sediment Deposits (B2)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)		
☐ Drift Deposits (B3)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Geomorphic Position (D2)		
☐ Algal Mat or Crust (B4)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)		
☐ Iron Deposits (B5)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)		
☐ Surface Soil Cracks (B6)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)		
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)		
☐ Sparsely Vegetated Concave Surface (B8)				
Field Observations:				
Surface Water Present?	Yes ☐ No ☒	Depth (inches): <u>none</u>	Wetland Hydrology Present? Yes ☐ No ☒	
Water Table Present?	Yes ☐ No ☒	Depth (inches): <u>> 15</u>		
Saturation Present? (includes capillary fringe)	Yes ☐ No ☒	Depth (inches): <u>>15</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				
Remarks:				
DP taken on hillslope between upland forest and the shoreline of Marlette Lake.				

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

Project/Site: Marlette Lake Intake Structure Replacement Project City/County: Washoe Sampling Date: Oct 2024 / rev June 11, 26
Applicant/Owner: Nevada State Public Works / State Parks State: NV Sampling Point: DP 2 (formerly 44)
Investigator(s): JoAnne Michael Section, Township, Range: Section 12, T15N, R18E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5-10
Subregion (LRR): D Lat: 39.179655 Long: -119.898495 Datum: NAD 83
Soil Map Unit Name: 9442, Temo-Witefels complex 30-50% 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 ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	
Remarks: AR-2 PSS/EM, abuts Marlette Lake; wetland boundary defined by distinct topo break. Located adjacent to, but outside of project area.		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	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 = _____
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>30 x 20</u>)				
1. <u>Pinus contorta</u>	5	N	FAC	
2. <u>Salix sp.</u>	25	Y	OBL-FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
30 = Total Cover				
Herb Stratum (Plot size: <u>30 x 20</u>)				
1. <u>Carex aquatilis</u>	90	Yes	OBL	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. <u>Juncus sp.</u>	5	No	FACW	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes ☒ No ☐
95 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>5</u>				
Remarks: Data point dominated by dense stand of sedges with willows on margins.				

SOIL

Sampling Point: DP2

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-14	7.5YR 2.5/1	100					Sand	decomposed granit

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.)

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

Indicators for Problematic Hydric Soils³:

- | |
|---|
| ☐ 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 ☐

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

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

- | | |
|--|--|
| ☐ Surface Water (A1) | ☐ Water-Stained Leaves (B9) (except MLRA 1, 2, 4A, and 4B) |
| ☒ High Water Table (A2) | ☐ Salt Crust (B11) |
| ☒ Saturation (A3) | ☐ Aquatic Invertebrates (B13) |
| ☐ Water Marks (B1) | ☐ Hydrogen Sulfide Odor (C1) |
| ☐ Sediment Deposits (B2) | ☐ Oxidized Rhizospheres along Living Roots (C3) |
| ☐ Drift Deposits (B3) | ☐ Presence of Reduced Iron (C4) |
| ☐ Algal Mat or Crust (B4) | ☐ Recent Iron Reduction in Tilled Soils (C6) |
| ☐ Iron Deposits (B5) | ☐ Stunted or Stressed Plants (D1) (LRR A) |
| ☐ Surface Soil Cracks (B6) | ☐ Other (Explain in Remarks) |
| ☐ Inundation Visible on Aerial Imagery (B7) | |
| ☐ Sparsely Vegetated Concave Surface (B8) | |

Secondary Indicators (2 or more required)

- | |
|---|
| ☐ 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 ☐	Depth (inches): 0
Water Table Present?	Yes ☒ No ☐	Depth (inches): 9
Saturation Present?	Yes ☒ No ☐	Depth (inches): SAS

(includes capillary fringe)

Wetland Hydrology Present? Yes ☒ No ☐

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

Remarks:

Water table at nine (9) inches below the surface and soils saturated through pit.
Data point taken within large drainage on mountain slope; hydrology charged by upslope springs and snowmelt.

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

Project/Site: Marlette Lake Intake Structure Replacement Project City/County: Washoe Sampling Date: Oct 2024 / rev June 11, 26
Applicant/Owner: Nevada State Public Works / State Parks State: NV Sampling Point: DP 3 (formerly 45)
Investigator(s): JoAnne Michael Section, Township, Range: Section 12, T15N, R18E
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5-10
Subregion (LRR): D Lat: _____ Long: _____ Datum: _____
Soil Map Unit Name: 9442, Temo-Witefels complex 30-50% 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 _____ No ☒	Is the Sampled Area within a Wetland? Yes _____ No ☒
Hydric Soil Present?	Yes _____ No ☒	
Wetland Hydrology Present?	Yes _____ No ☒	
Remarks: Upl sagebrush scrub adjacent to southside of AR-2		

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B) Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>40 x 60</u>)				
1. <u>Artemisia tridentata</u>	<u>70</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Salix sp.</u>	<u>10</u>	<u>No</u>	<u>OBL-FAC</u>	
3. <u>Populus tremuloides</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
90 = Total Cover				
Herb Stratum (Plot size: <u>40 x 60</u>)				
1. <u>Poa secunda</u>	<u>5</u>	<u>Yes</u>	<u>UPL</u>	
2. <u>Monardella odoratissima</u>	<u>5</u>	<u>Yes</u>	<u>UPL</u>	
3. <u>Unknown forb</u>	<u>5</u>	<u>Yes</u>	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
15 = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
_____ = Total Cover				
% Bare Ground in Herb Stratum <u>85</u>				
Remarks: Data point dominated on mountain slope between adjacent wetland and stand of <i>Populus deltoides</i> (FACU).				Hydrophytic Vegetation Present? Yes _____ No ☒

SOIL

Sampling Point: DP3

[illegible]

HYDROLOGY

Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (2 or more required)	
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9) (except	☐ Water-Stained Leaves (B9) (MLRA 1, 2,	
☒ High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4B)	
☒ Saturation (A3)	☐ Salt Crust (B11)	☐ Drainage Patterns (B10)	
☐ Water Marks (B1)	☐ Aquatic Invertebrates (B13)	☐ Dry-Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Hydrogen Sulfide Odor (C1)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Drift Deposits (B3)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Geomorphic Position (D2)	
☐ Algal Mat or Crust (B4)	☐ Presence of Reduced Iron (C4)	☐ Shallow Aquitard (D3)	
☐ Iron Deposits (B5)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ FAC-Neutral Test (D5)	
☐ Surface Soil Cracks (B6)	☐ Stunted or Stressed Plants (D1) (LRR A)	☐ Raised Ant Mounds (D6) (LRR A)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Frost-Heave Hummocks (D7)	
☐ Sparsely Vegetated Concave Surface (B8)			
Field Observations:			
Surface Water Present?	Yes ☐ No ☒	Depth (inches):	<u>none</u>
Water Table Present?	Yes ☐ No ☒	Depth (inches):	<u>> 15</u>
Saturation Present?	Yes ☐ No ☒	Depth (inches):	<u>> 15</u>
(includes capillary fringe)		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

Attachment F

OHWL Data Sheets

U.S. Army Corps of Engineers (USACE)
**RAPID ORDINARY HIGH WATER MARK
(OHWM) FIELD IDENTIFICATION DATA SHEET**
The proponent agency is Headquarters USACE CECW-COR.

Form Approved -
OMB No. 0710-0024
Expires: 2027-09-30

The Agency Disclosure Notice (ADN)

The Public reporting burden for this collection of information, 0710-0024, is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or burden reduction suggestions to the Department of Defense, Washington Headquarters Services, at whs-mc-alex.esd.mbx.dd-dod-information-collections@mail.mil. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to any penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

Project ID #: _____ Site Name: **Marlette Lake Water Intake Structure** Date and Time: **June 11, 2026**
Location (lat/long): **39.178590, -119.906535** Investigator(s): **JoAnne Michael**

Step 1 Site overview from remote and online resources.

Check boxes for online resources used to evaluate site:

☐ gage data	☐ LiDAR	☐ geologic maps
☒ climatic data	☒ satellite imagery	☐ land use maps
☐ aerial photos	☒ topographic maps	☐ Other: _____

Describe land use and flow conditions from online resources.
Were there any recent extreme events (floods or drought)?

Step 2 Site conditions during field assessment. First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or human-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls, etc.

Marlette Lake was drawn down approximately 20 feet below normal lake level.

Step 3 Mark the boxes next to the indicators used to help identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators used to identify the location of the OHWM may be just below or above the OHWM. Make a slash in boxes next to indicators that are helpful in identifying the OHWM. After the initial assessment, those indicators identified at the OHWM elevation should be changed from slashes to x's. Note, it is not necessary to mark indicators that are present but do not help inform identification of the OHWM.

Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and attach a photo log.

Geomorphic indicators

☒ Break in slope	☐ Channel bar
☒ on the bank	☐ shelving (berms) on bar
☐ undercut bank	☐ unvegetated
☐ valley bottom	☐ vegetation transition (go to veg. indicators)
☐ Other: _____	☐ sediment transition (go to sed. indicators)
☐ Shelving	☐ upper limit of deposition on bar
☐ shelf at top of bank	☐ Instream bedforms and other bedload transport evidence
☐ natural levee	☐ deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)
☐ human-made berms or levees	☐ bedforms (e.g., pools, riffles, steps, etc.)
☐ other berms: _____	☐ Weathered clasts or bedrock
☐ Secondary channels	☐ erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)

Sediment indicators

☐ Soil development
☐ Changes in character of soil
☐ Mudcracks
☐ Changes in particle-sized distribution
☒ transition from _____ to _____
☐ upper limit of sand-sized particles
☐ silt deposits

Vegetation indicators (Consider the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain)

☒ Change in vegetation type from _____ to _____	☐ Vegetation matted down and/or bent
☐ Change in density of vegetation	
☐ Exposed roots below intact soil layer	
☐ Other vegetation observations	

Other physical indicators

☐ Sediment deposited on vegetation or structures
☐ Wracking/presence of organic litter
☐ Presence of large wood
☐ Leaf litter disturbed or washed away
☒ Water staining

Other observed indicators? Describe:

Observed water staining on boulders.

There is typically no vegetation below the OHWM of the reservoir; however, due to the draw down of water levels to repair the Marlette Dam in 2025 (independently permitted project), there are currently patches of annual weeds that have established.

Project ID #: _____

Step 4 Was additional information used to support identification of the OHWM? ☒ Yes ☐ No

If yes, describe and attach information to data sheet:

A prior delineation of Marlette Lake was completed in 2024 as part of the Marlette Dam Rehabilitation Project and prior to the water levels being drawn down. The elevation of the OHWM for that was report was also reviewed and compared to the field indicators observed at this project site in 2026.

Step 5 Is an OHWM present at this site? ☒ Yes ☐ No

Describe rationale for location of OHWM or lack thereof by describing any observed indicators (at, above, and/or below the OHWM location).

OHWL was identified in the field by change in substrate (large boulders on bank to decomposed granite), distinct topo break, and lack of vegetation (no vegetation below the OHWL; upland species above); and

Additional observations or notes

Attach an imagery log of the site.

Imagery log attached? ☒ Yes ☐ No If no, explain why not: See Figure 5 of Attachment A.

List photographs, or other imagery/sketches, and include descriptions in the table below.

Number photographs in the order that they are taken. Attach imagery and include annotations of features.

[illegible]

Attachment F – OHWM Photographs



Photo 1. OHWM-1: Marlette Lake. OHWM defined in the field by distinct topo break, lack of vegetation, and change in substrate.

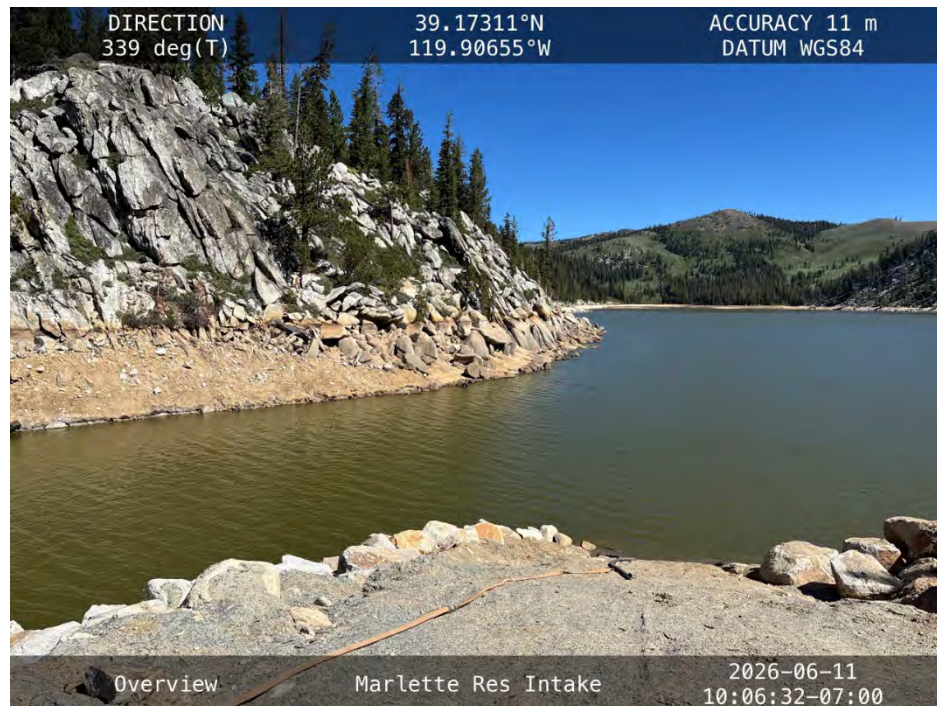


Photo 2. OHWM-1: Marlette Lake. OHWM defined in the field by water stained rock, lack of vegetation, and change in substrate.

Attachment G

Signed Statement from Property Owner Allowing Access

Authorization to Access Site

I, _____, owner of subject survey area, authorize the Corps representatives to inspect and collect samples during normal business hours within the Marlette Lake Water Intake Project Aquatic Resource Delineation Survey Area (Survey Area), located within the northeast corner of Marlette Lake Dam, in Washoe County, Nevada. Vehicle access to the site is restricted and requires coordination with Nevada State Parks division office.

Survey Area located in: Section 12, T.15N, R.18E

Signature _____ Title _____

Date _____

Attachment H

Aquatic Resource Excel Sheet

Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway
AR-1	NEVADA	L1OW	LACUSTRINF	Area	5.14	ACRE	A1-1.TNW-404	39.17801300	-119.89944800	Marlette Lake
AR-2	NEVADA	PSS	SLOPE	Area	0.72	ACRE	A4-1.ADJ.WET.A1-TNW-404	39.17946600	-119.89823100	

Attachment I

Digital Information