October 2, 2014

The Shady Rest Parcel

Delineation of Jurisdictional Waters of the U.S.

Prepared For:

Evergreen Mammoth Development
126 Old Mammoth Road #201
Mammoth Lakes, CA 93546

Prepared By:

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

www.rci-nv.com

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(RCI #14-623.1)

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SUMMARY OF ACRONYMS

Wetland Indicator Status:

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.

N/I (No Indicator). Indicator status unavailable.

Water Types:

TNW. TNWs, including territorial seas

TNWW. Wetlands adjacent to TNWs

RPW. Relatively Permanent Waters (RPWs) that flow directly or indirectly into TNWs

RPWWD. Wetlands directly abutting RPWs that flow directly or indirectly into TNWs

RPWWN. Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs

NRPW. Non-RPWs that flow directly or indirectly into TNWs

NRPWW. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs

ISOLATE. Isolated (interstate or intrastate) waters, including isolated wetlands

UPLAND. Uplands

TNWRPW. Tributary consisting of both RPWs and non-RPWs

1.0 INTRODUCTION

1.1 Scope of Work and Purpose

At the request of Mr. Rob Mitchell of Evergreen Mammoth Development, 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 (LRWQCB) jurisdiction on The Shady Rest parcel located at approximately 1/4 mile south of Main Street (Hwy 203), in the Town of Mammoth Lakes, California. The delineation was conducted in accordance with the 1987 Corps of Engineers Wetland Delineation Manual, Western Mountain Valley and Coast Regional Supplement (2010), and Code of Federal Regulations (CFR) definitions of jurisdictional waters.

1.2 Directions to Site

To reach The Shady Rest Project Area (Project Area) from Ventura California, take I-5 to CA-14 North toward Palmdale (118 miles). CA-14 becomes US-395. Follow US-395 north toward Mammoth Lakes (160.9 miles). Turn left onto CA-203 W for approximately 3.2 miles, then turn left onto Laural Mountain Road. Proceed 1 block and turn right onto Tavern Road, and then turn left onto Shady Lane Road. The road will end at the project area.

1.3 Contact Information

PREPARER OF THIS DELINEATION REPORT

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PROJECT PROPONENT

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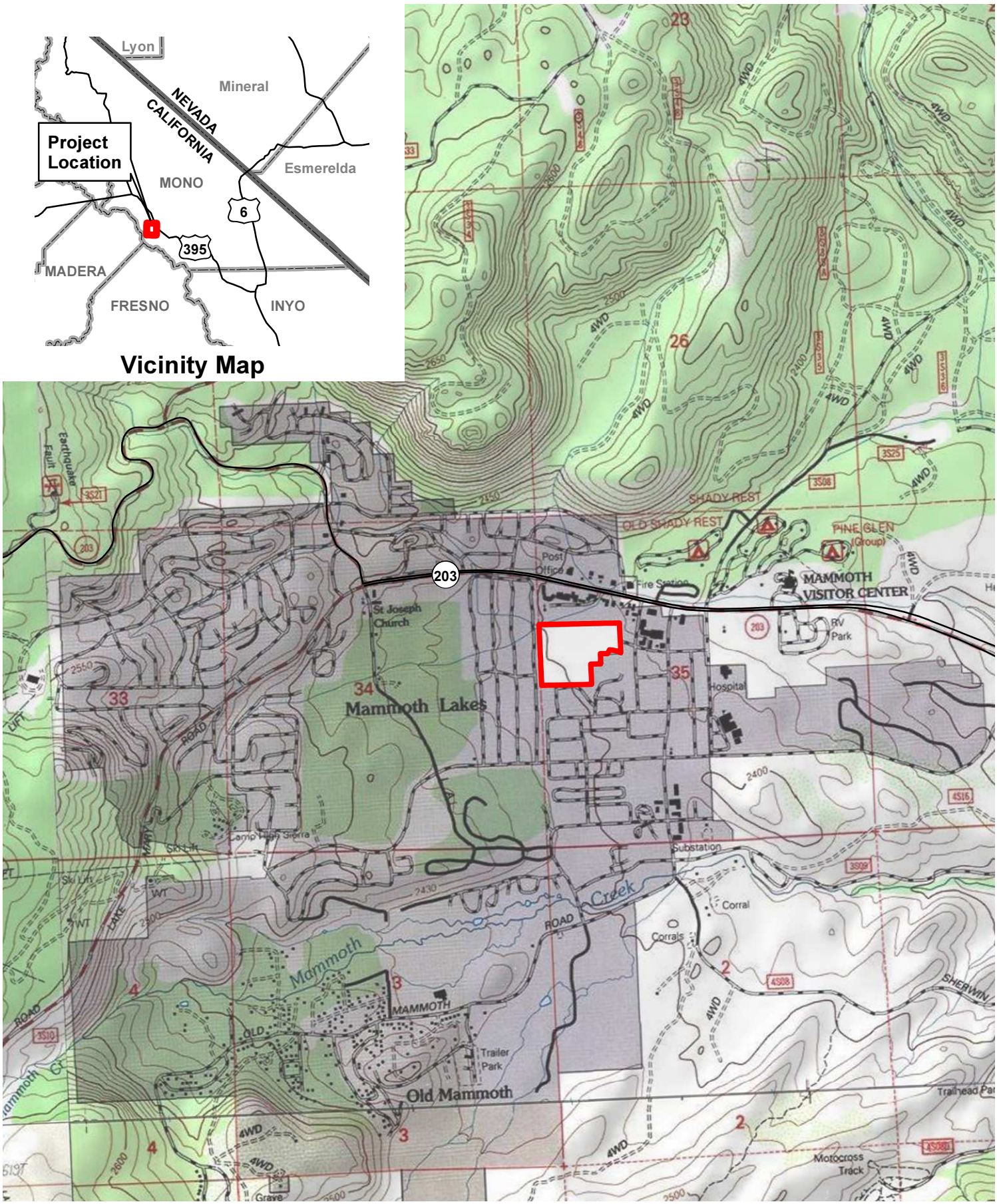
1.4 Location

Township, Range, and Section of the project area: NW 1/4 Sec 35, T 03 S, R 27 E

The center of the site is located at: Lat 37.64527°, Long -118.971254° Datum: WGS 84



Project: The Shady Rest Parcel
County: Mono County, California
Surveyors: JoAnne Michael
Date: Septmember 11, 2014
Source: USGS 7.5' Quad "Old Mammoth"

Figure 1
Location Map

Path: R:\projects\Mitchell_Rob\MXDs\Location.mxd Date: 9/24/2014

2.0 SITE DESCRIPTION

2.1 Topography

The Project Area is located within a relatively flat parcel that gently slopes southwest to northeast at approximately 5% slope. The site is located at approximately 7,880 feet in elevation.

2.2 Geology

The project area is located entirely within Quaternary glacial till and moraines (Jennings, 1973).

2.3 Soils

The soils of the proposed project area are mapped by the Benton-Owens Valley Area Parts of Inyo and Mono Counties, California soil survey (CA802) predominantly as Chesaw family, 5 to 15 percent slope. The Chesaw family consists of glaciofluvial deposits derived from granite. Soils are classified as somewhat excessively drained and depth to the water tables is more than 80 inches. A typical soil profile of the Chesaw family consists of:

0 to 5 inches: gravelly loamy sand
5 to 27 inches: very gravelly loamy sand
27 to 60 inches: gravelly loamy sand

Soil mapping units are also depicted in Figure 2.

2.4 Hydrology

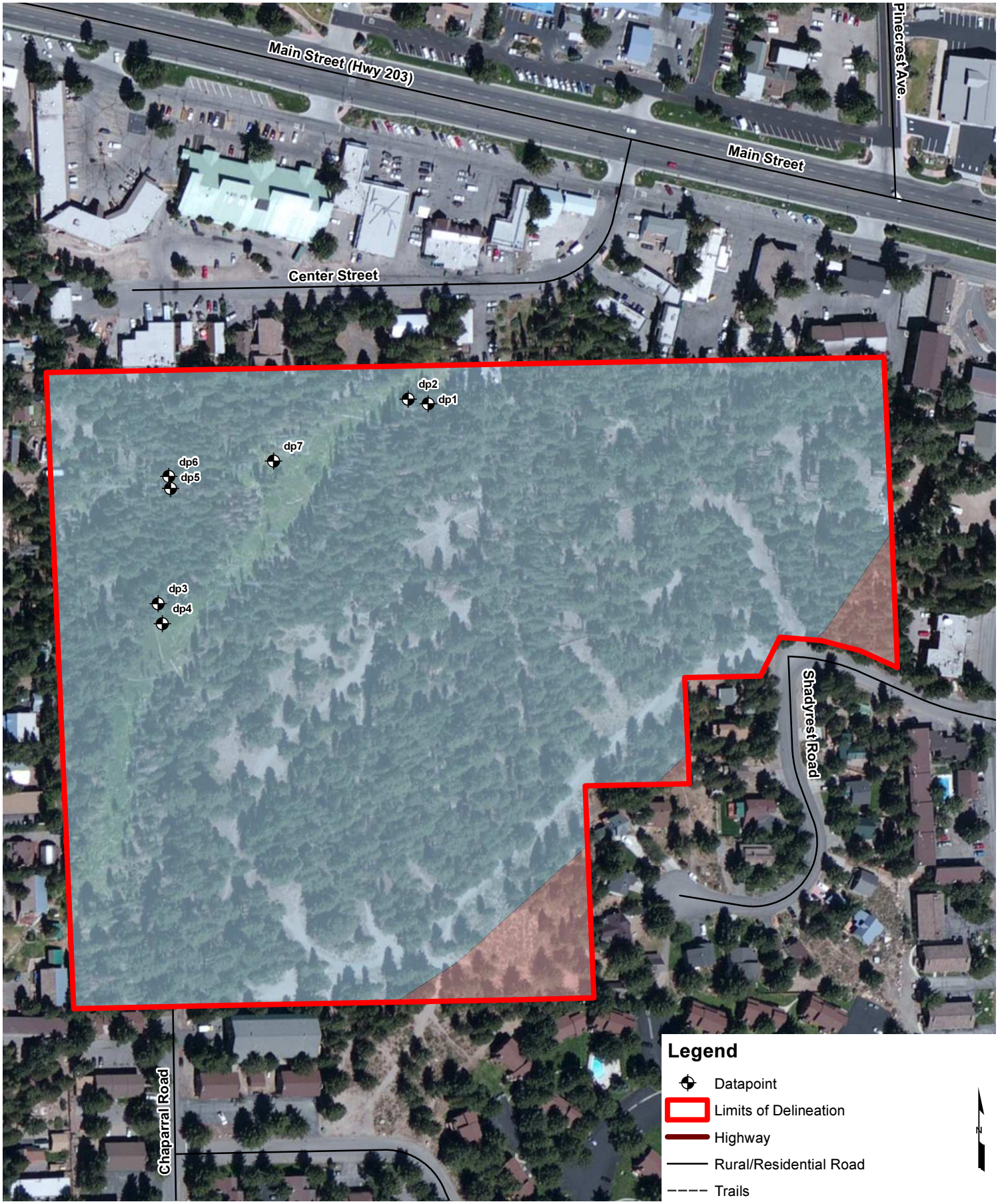
Site hydrology is charged by surface water runoff which falls predominantly as snow. Two small drainages flow southwest to northeast across the site and discharge into a storm drain at the northern property line. The drainages are part of the town's mapped storm drain system and discharge into Murphy Gulch, which terminates in two consecutive large (approximate 43,560 sf. each) siltation basin. There is no apparent surface water connection to a Traditional Navigable Water.

The National Wetland Inventory Map (Figure 3) does not show any mapped wetlands within the project area. The closest mapped wetlands are adjacent to Mammoth Creek located approximately two miles away.

2.5 Vegetation

Site vegetation is characterized by upland forest dominated by Jeffrey pine (*Pinus jeffreyi*, UPL), White fir (*Abies concolor*, FACU), and lodgepole pine (*Pinus contorta*, FAC). Understory shrubs consist of snowberry (*Symphorocarpus alba*, FACU), bitterbrush antelope bush (*Purshia tridentata*, UPL), and (*Ribes cernum*, UPL). Coal town sagebrush (*Artemisia cana*, FACU), Wood's rose (*Rosa woodsii,* FACU), and quaking aspen (*Populus deltoids,* FAC) were common on the transition between upland and wetland.

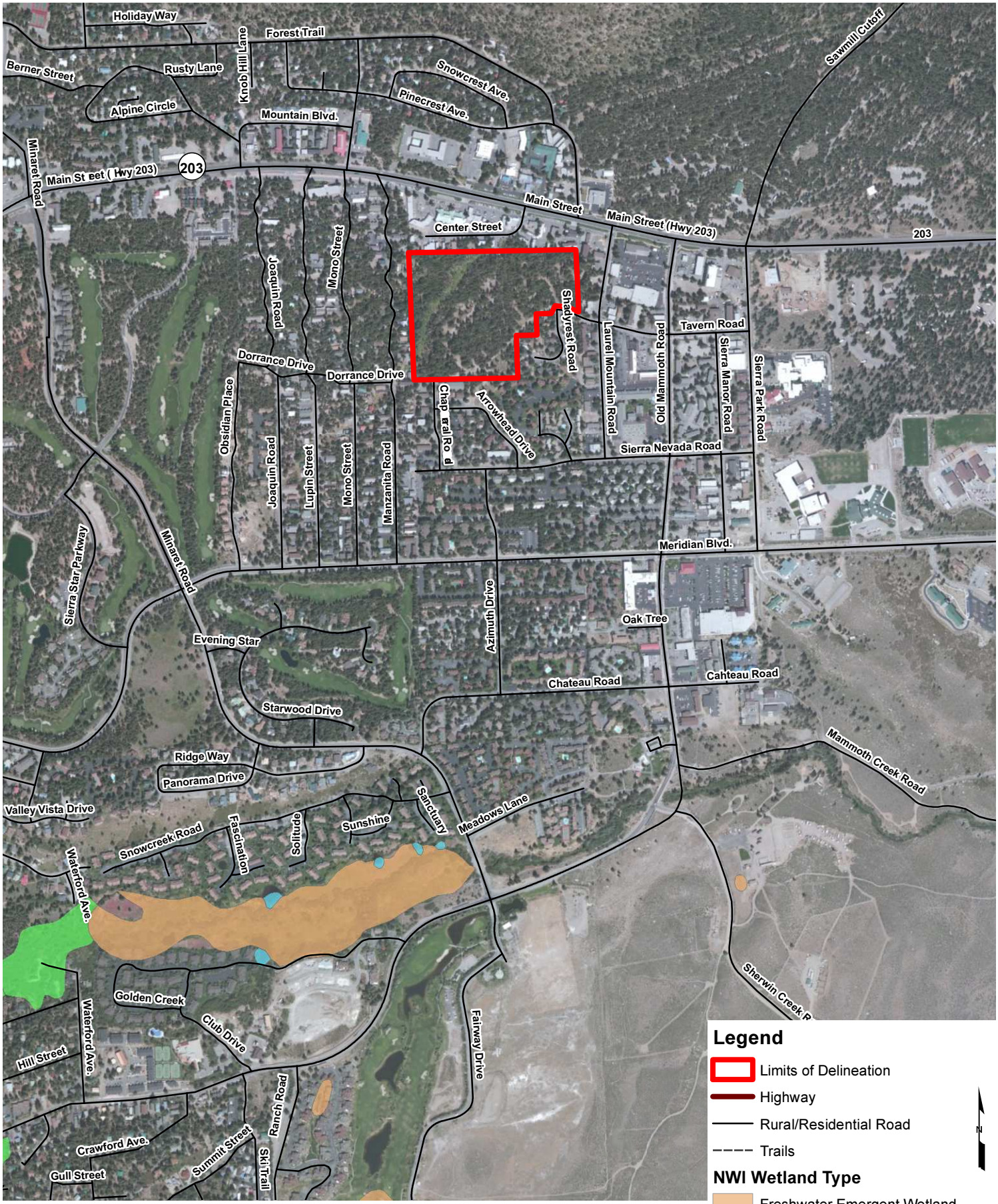
Vegetation within the one (1) on-site wetland area consisted of sedges (*Carex* spp., assumed hydrophytic), reed canary grass (*Phalaris arundinancea*, FACW), tufted hair grass (*Deschampsia ceaspitosa*, FACW) and graceful cinquefoil (*Potentilla gracilis*, FAC). In the northern portion of the wetland there were occasional small stands of willow (*Salix* sp.).



Project: The Shady Rest Parcel
County: Mono County, California
Surveyors: JoAnne Michael
Date: Septmember 11, 2014
Source: ESRI Aerial Imagery Service

Figure 2
Soil Map

Path: R:\projects\Mitchell_Rob\MXDs\Soil.mxd Date: 9/24/2014



Project: The Shady Rest Parcel
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Surveyors: JoAnne Michael
Date: Septmember 11, 2014
Source: ESRI Aerial Imagery Service

Figure 3
National Wetland Inventory Map

Path: R:\projects\Mitchell_Rob\MXDs\Wetland.mxd Date: 9/15/2014

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 State*s (“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 do not directly abut a relatively permanent non-navigable tributary.

3.1.2 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.*

3.2 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:

3.2.1 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.

3.2.2 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

3.2.3 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.

4.0 DELINEATION METHODS

On September 11, 2014 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 Manua*l, 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).

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 located in Appendix B.

5.0 DELINEATION SUMMARY

The delineation of The Shady Rest Project Area did not identify any Traditional Navigable Waters (TNW) or other federally jurisdictional waters of the United States within the project area.

The delineation identified two (2) waters determined to be isolated and non-jurisdictional under the federal Clean Water Act based on a lack of a significant nexus to a TNW or interstate commerce, including navigable recreation. The isolated, non-jurisdictional waters consisted of an ephemeral stream (non-relatively permanent water, NRPW) and an ephemeral stream with abutting emergent wetlands (non-relatively permanent water with abutting wetlands, NRPWW).

The intrastate waters described below are not currently used, or previously used, or susceptible for use in interstate or foreign commerce. The waters do not meet the criteria of 33 CFR 328.3 (a) (3) (i)-(iii). Specifically:

(i) The intrastate waters are not used by foreign or interstate travelers for recreation or other purposes;

(ii) The intrastate waters cannot and do not support a fish or shellfish population that could be taken and sold in interstate commerce, and;

(iii) The intrastate waters have no applicable use or potential for use by industry or for industrial purposes in interstate commerce.

Table 3 summarizes the on-site isolated waters.

Table 3. Summary of Isolated Waters Delineated Within The Shady Rest Project Area.

Water ID	Water Type	Length	Area	Location (center point)*	Photo #	Data Point
W-1	Non-RPW w/ abutting wetlands	1,255 l.f.	1.03 ac. abutting wetlands	855372.9956 m E, 4174153.9164 m N	2-6	DP2, DP4
W-2	Non-RPW	284 l.f.		855378.0231 m E 4174214.2923 m N	9, 10	DP5
Totals		1,539 l.f.	1.03 ac.			

* UTM NAD 83 Zone 10

The delineated isolated waters and location of sample points are shown on Figure 4. Typical site photos are shown in Appendix A, and data forms for sample points are located in Appendix B.

5.1. Isolated Waters

W-1: W-1 is an isolated, intrastate ephemeral drainage that flows northeast across the project area. The on-site channel originates at the outlet of a 36-inch storm drain on the western project boundary and flows northeast to another storm drain inlet located on the northern project boundary at Center Street. At the Ordinary High Water Mark (OHWM) the width of the channel averages 2 feet and the depth averages six (6) inches. The OHWM was identified by the lack of vegetation and a change in substrate. W-1 was delineated at the upper extent of abutting

wetlands. As illustrated in the attached delineation map (Figure 4), the on-site length of the W-1 is 1,255 linear feet (0.06 acres) of open channel and 1.03 acres of abutting wetlands. The wetlands are documented in data point DP2 and DP4 and described below.

Vegetation: Dominant vegetation consisted of *Phalaris arundinacea* (20%, FACW), Carex nebraskensis (30%, OBL), Carex sp. (20%, assumed hydrophytic), and *Hordeum brachyantherum* (FAC, 20%). Populus deltoids (FACW) and Salix sp. (OBL-FAC) were common in small patches along the upper wetland edge.

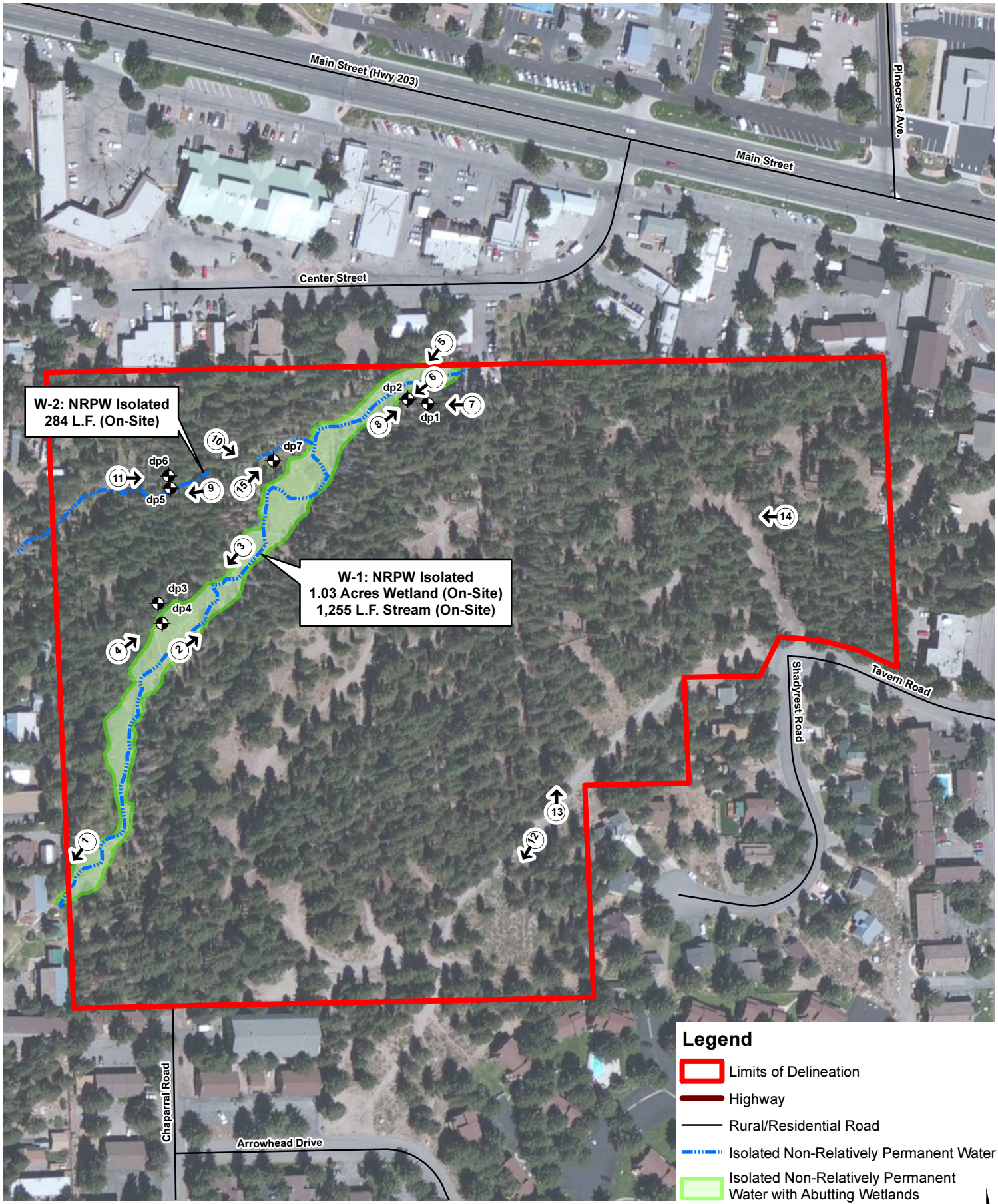
Hydrology: There were no visual observations of hydrology. Indicators of wetland hydrology included drainage patterns, geomorphic position, and a positive FAC-neutral Test.

Hydric soils: This area is listed by the Soil Survey of Churchill County Area, Nevada as playa soils. The Playa soil series is listed as a Hydric Soils of the United States (USDA-NRCS, 2014).

Jurisdictional Determination: W-1 flows off-site and into a storm drain inlet near Center Street. From Center Street, the flow is conveyed to a storm drain within Main Street then into natural and manmade channels that outlet into Murphy Gulch which terminates within in two, large (~43,560 s.f.) consecutive siltation basins (reference Figure 5). The siltation basins were constructed in 2005 and 2011. Murphy Gulch is an intermittent stream that has very little to no flow during dry months. The dual siltation basins were constructed as part of the Town of Mammoth Lakes Master Storm Drain System. Water from Murphy Gulch is captured within the siltation basins. Based on conversations with Triad Engineering, designers of the siltation basins, water is only likely to flow from the second siltation basin in extreme flood events (Tom Platz, personal communication, September 26, 2014). If water overflows the second basin it would likely infiltrate along the flat, well drained scrub-shrub area between the basins and Hwy 203. Since construction of the second siltation, there is no apparent surface water connection to Mammoth Creek located approximately 0.35 miles to the south. There is no nexus to interstate commerce. Based on review of the above information, W-1 is considered to be non-jurisdictional under Section 404 of the Federal Clean Water Act.

W-2: W-2 is an isolated, intrastate ephemeral channel that flows northeast across the project area and discharges into W-1. The channel bed and bank is intermittent and in portions does not have an OHWM. There was sparse vegetation located below the OHWM consisting of 5% orchard grass (FACU) and 5% sedge (*Carex* sp., assumed hydrophytic). Hydrology within the stream is charged by surface runoff from snowmelt or summer rains. The channel substrate consisted of gravel with small cobble. Channel width averaged two (2) feet and the depth at the OHWM was 2 inches. As illustrated in the attached delineation map (Figure 5), the on-site length of the W-2 is 284 linear feet (0.01 acres). The W-2 is described in data point DP5.

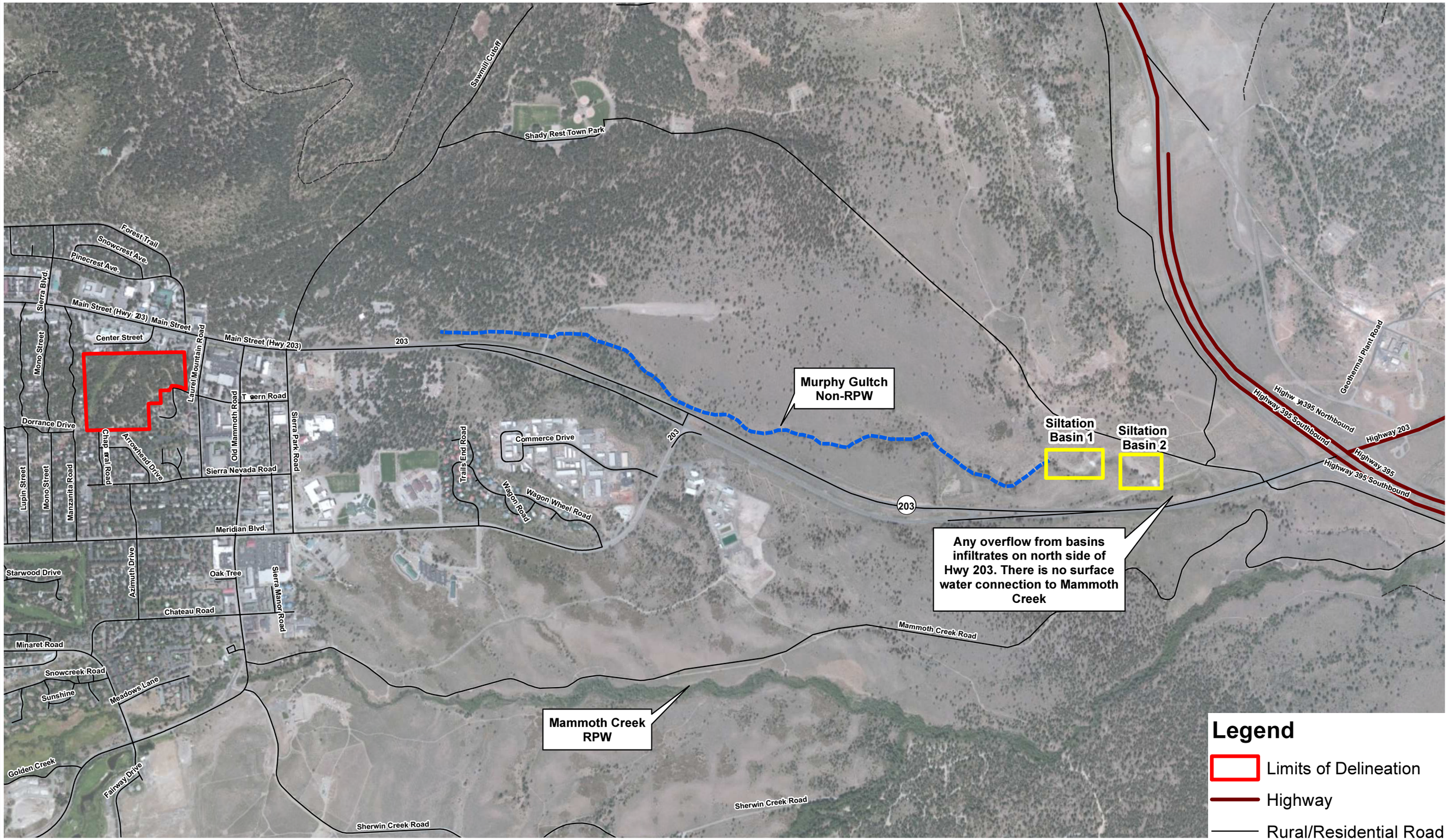
Jurisdictional Determination: W-2 flows into W-1 and follows the same drainage path as described above. W-2 does not have a surface water connection to Mammoth Creek located approximately 0.35 miles to the south. There is no nexus to interstate commerce. Based on review of the above information, W-1 is considered to be non-jurisdictional under the Section 404 of the Federal Clean Water Act.



Project: The Shady Rest Parcel
County: Mono County, California
Surveyors: JoAnne Michael
Date: Septmember 11, 2014
Source: ESRI Aerial Imagery Service

Figure 4
Delineation of Jurisdictional Waters

Path: R:\projects\Mitchell_Rob\MXDs\Delineation.mxd Date: 9/25/2014



Project: The Shady Rest Parcel
County: Mono County, California
Surveyors: JoAnne Michael
Date: Septmember 11, 2014
Source: ESRI Aerial Imagery Service

Figure 5
Drainage System

Path: R:\projects\Mitchell_Rob\MXDs\Drainage_System.mxd Date: 10/2/2014

6.0 CONCLUSIONS AND RECOMMENDATIONS

The delineation did not identify any waters of the United States within the Project Area. The delineation did identify two (2) isolated, non-jurisdictional waters described as: 1) one non-relatively permanent water with abutting wetlands (NRPWW), and 2) a non-relatively permanent water.

Under Sections 404 and 401 of the Federal 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 a Traditional Navigable Water or interstate commerce. The ACOE must make the final determination as to jurisdictional status of all areas within the project limits. It is recommended that a copy of this report be sent to ACOE for a jurisdictional determination and verification. 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.

If the ACOE determines that the waters are not jurisdictional under the Federal Clean Water Act, the waters may be regulated by Lahontan Regional Water Quality Control Board under the Porter-Cologne act as a Water of the State and by the California Department of Fish and Wildlife under Sections 1600 of the Fish and Game Code. If any project activities involves impacts to these waters, a formal notification should be sent to Lahontan and the CA Department of Fish and Wildlife to determine if a permit is needed.

7.0 REFERENCES

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APPENDICES

Appendix A

Site Photographs

APPENDIX A – SITE PHOTOGRAPHS

Photo 1. Storm drain outlet at western property line that discharges into W-1.

Photo 2. **W-1. NRPWW, isolated** An ephemeral stream with adjacent palustrine emergent-scrub shrub wetlands. View to the northeast.

Photo 3. **W-1. NRPWW, isolated.** An ephemeral stream with adjacent palustrine emergent-scrub shrub wetlands. View to the southwest.

Photo 4. **W-1** wetland boundary. View to the northeast. Wetland boundary delineated at distinct topographic break and change in vegetation community.

Photo 5. **W-1. NRPWW, isolated**. View to the southwest from northern parcel boundary.

Photo 6. **W-1. NRPWW, isolated**. View to the southwest along wetland boundary. Wetland boundary delineated by distinct topographic break and change in vegetation community.

Photo 7. DP1. View to the west of upland data point located on rise above wetland.

Photo 8. DP2 view to the northeast of W-1, an isolated non-Relatively Permanent Water with abutting wetland (NRPWW).

Photo 9. **W-2.** View to the west along W-2, an isolated, non-Relatively Permanent Water (NRPW).

Photo 10. **W-2.** View to the east along W-2, W-2, an isolated, non-Relatively Permanent Water (NRPW). Bed and bank dissipate in a portion of the stream channel. No OHWM.

Photo 11. Data point 6. Upland forest adjacent to W-2, north side.

Photo 12. Overview to the southwest of upland forest typical of the project area.

Photo 13. Overview to the north of upland forest typical of the project area.

Photo 14. Overview to the west of upland forest typical of the project area.

Appendix B

Delineation Data Forms

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

Project/Site: The Shady Rest Parcel City/County: Town of Mammoth Lakes / Mono Sampling Date: 11 Sept 2014

Applicant/Owner: Rob Mitchell State: CA Sampling Point: DP1

Investigator(s): Sheila Anderson, JoAnne Michael Section, Township, Range: Sec 35, T 03 S, R 27 E MDM

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2-4

Subregion (LRR): D Lat: 326117.271 Long: 4168433.841 Datum: UTM NAD 83

Soil Map Unit Name: Chesaw family 5 to 15 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 in upland forest adjacent to east side of wetland (W-1) near northern property line.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus contorta	50	Y	FAC
2.			
3.			
4.			
	50 = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. Symphoricarpos albus	10	Y	FACU
2. Rosa woodsii	5	Y	FACU
3.			
4.			
5.			
	15 = Total Cover		
Herb Stratum (Plot size: ____)			
1. Poa pratensis	20	Y	FAC
2. Dactylus glomeratus	15	Y	FACU
3. Achillea millifolium	5	N	FACU
4. Elymus elymoides	20	Y	FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (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 = ____

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:

50% = 30
20% = 12

SOIL

Sampling Point: DP1

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	100						thick, fine roots
2-18	10YR 3/2	100					Loamy sand	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ 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)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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)
- ___ 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)
- ___ 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)

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): None

Water Table Present? Yes ____ No ✓ Depth (inches): >18

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): >18

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.

Data point taken approx 2ft. higher in elevation than adjacent wetland.

Isolated
NRPWW

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

Project/Site: The Shady Rest Parcel City/County: Town of Mammoth Lakes / Mono Sampling Date: 11 Sept 2014

Applicant/Owner: Rob Mitchell State: CA Sampling Point: DP2

Investigator(s): Sheila Anderson, JoAnne Michael Section, Township, Range: Sec 35, T 03 S, R 27 E MDM

Landform (hillslope, terrace, etc.): wetland depression Local relief (concave, convex, none): concave Slope (%): 2-4

Subregion (LRR): D Lat: 326108.021 Long: 4168436.926 Datum: NAD 83, 2011

Soil Map Unit Name: 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: W-1: Palustrine emergent / scrub-shrub, deciduous seasonally flooded Wetland (PEM/SS1C). Formed in depressional swale. Flows NE through site.

Isolated, non-jurisdictional. No nexus to a TNW.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ____)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: ____)			
1. Deschampsia cespitosa	50	Y	FACW
2. Rumex	10	N	FAC
3. Carex sp.	10	N	*
4. Hordeum brachyantherum	10	N	FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	80 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: ____ (A)

Total Number of Dominant Species Across All Strata: ____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (A/B)

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 = ____

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: Dominance of hydrophytic vegetation.

*Assumed hydrophytic

SOIL

Sampling Point: DP2

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 2/2	95	10YR 5/6	5	C	M	sandy loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ 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)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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: Presence 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)
- ___ 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)

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): _____

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

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

Wetland Hydrology Present? Yes ✓ No ___

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

Remarks: Drains to storm drain system under Mainstreet (Hwy 203) to Murphy Gulch. Terminates in series of siltation basins. No surface water connection to a TNW. Stream channel within wetland = 1' wide, 2" deep at OHWM.

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

Project/Site: The Shady Rest Parcel City/County: Town of Mammoth Lakes / Mono Sampling Date: 11 Sept 2014

Applicant/Owner: Rob Mitchell State: CA Sampling Point: DP3

Investigator(s): Sheila Anderson, JoAnne Michael Section, Township, Range: Sec 35, T 03 S, R 27 E MDM

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): _____ Slope (%): 2-4

Subregion (LRR): D Lat: 855372.9956 Long: 4174153.9164 Datum: NAD83

Soil Map Unit Name: Chesaw family 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 in upland Forest adjacent to North side of W-1

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. Abies concolor	40	Y	UPL
2. Pinus jeffreyi	40	Y	UPL
3. Pinus contorta	20	Y	FAC
4.			
	80	= Total Cover	

Sapling/Shrub Stratum (Plot size: _____)			
1. Symphorocarpus alba	10	Y	UPL
2. Purshia tridentata	5	Y	UPL
3. Ribes cernuum	5	Y	UPL
4.			
5.			
	20	= Total Cover	

Herb Stratum (Plot size: _____)			
1. Poa pratensis	5	Y	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	5	= Total Cover	

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 29 (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 = _____

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:

Surface covered w/pine needles, little herbaceous

SOIL

Sampling Point: DP3

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

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/2	100						

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ 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)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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)
- ___ 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)
- ___ 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)

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): None

Water Table Present? Yes ___ No ✓ Depth (inches): >16

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >16

Wetland Hydrology Present? Yes ___ No ✓

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

Remarks:

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

Project/Site: The Shady Rest Parcel City/County: Town of Mammoth Lakes / Mono Sampling Date: 11 Sept 2014

Applicant/Owner: Rob Mitchell State: CA Sampling Point: DP4

Investigator(s): Sheila Anderson, JoAnne Michael Section, Township, Range: Sec 35, T 03 S, R 27 E MDM

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 2-4

Subregion (LRR): D Lat: 855374.98442 Long: 4174144.38167 Datum: NAD84

Soil Map Unit Name: Chesaw 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: W-1, Isolated. Non-RPW w/abutting PEM/SS1C
Flows to stormdrain system, Murphy Gulch, and terminates in siltation basins. No surface water connection to a TNW; No nexus to interstate commerce.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. Salix sp.	5	Y	OBL-FAC
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size: ____)			
1. Phalaris arundinacea	20	Y	FACW
2. Hordeum brach	20	Y	FACW
3. Carex nebraskensis	30	Y	OBL
4. Carex sp.	20	Y	*
5. Sidalcea	3	N	
6. Deschampsia cespitosa	5	N	FACW
7.			
8.			
9.			
10.			
11.			
	98 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (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 = ____

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:
*Assumed hydrophytic

SOIL

Sampling Point: DP4

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 2/1						loamy SAND	thick Rhizomes
6-16	10YR 2/1						loamy sand	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ 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)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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)
- ___ 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)
- ___ 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)

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): NONE

Water Table Present? Yes ___ No ✓ Depth (inches): >16

Saturation Present? (includes capillary fringe) Yes ___ No ✓ Depth (inches): >16

Wetland Hydrology Present? Yes ___ No ___

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

Remarks: Assumed based on vegtation, soils, and topography.

Isolated NRPW

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

Project/Site: The Shady Rest Parcel City/County: Town of Mammoth Lakes / Mono Sampling Date: 11 Sept 2014

Applicant/Owner: Rob Mitchell State: CA Sampling Point: DP5

Investigator(s): Sheila Anderson, JoAnne Michael Section, Township, Range: Sec 35, T 03 S, R 27 E MDM

Landform (hillslope, terrace, etc.): drainage channel Local relief (concave, convex, none): concave Slope (%): 4-5

Subregion (LRR): D Lat: 855378.8423 Long: 4174208.7784 Datum: NAD 83

Soil Map Unit Name: Chesaw 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: W-2 - Non-RPW (ephemeral channel), isolated. Flows to storm drain system, to Murphy Gulch and terminates in series of siltation basins. No surface water connection to a TNW. No nexus to interstate commerce

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1.			
2.			
3.			
4.			
5.			
	____ = Total Cover		
Herb Stratum (Plot size: ____)			
1. Dactylus glomeratus	5	Y	FACU
2. Carex sp.	5	Y	*
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
	10 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (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 = ____

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:

* Assumed hydrophytic

SOIL

Sampling Point: DP5

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

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

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ 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)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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:

gravel/cobble substrate

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)
- ___ 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)

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): _____

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

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

Wetland Hydrology Present? Yes _____ No ✓

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

Remarks: Water identified as a non-relatively permanent water, (Ephemeral channel) Hydrology charged by surface run off. Drains to stormdrainsystem, to Murphy Gulch to series of siltation basins. No surface water connection to a TNW. No nexus to interstate commerce. Channel width = 2' and depth = 2 inches at OHWM.

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

Project/Site: The Shady Rest Parcel City/County: Town of Mammoth Lakes / Mono Sampling Date: 11 Sept 2014

Applicant/Owner: Rob Mitchell State: CA Sampling Point: DP6

Investigator(s): Sheila Anderson, JoAnne Michael Section, Township, Range: Sec 35, T 03 S, R 27 E MDM

Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): _____ Slope (%): 5

Subregion (LRR): D Lat: 855378.0232 Long: 4174214.2923 Datum: Nad 83

Soil Map Unit Name: Cheswa Family 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 on top of bank, north side of W-2. Upland Forest typical.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: ___)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pinus contorta	50	Y	FAC
2. Pinus jeffreyi	5	N	UPL
3. Abies concolor	5	N	UPL
4.			
	60	= Total Cover	
Sapling/Shrub Stratum (Plot size: ___)			
1. Ribes cernuum	5	Y	UPL
2. Artemisia cana	5	Y	FACU
3.			
4.			
5.			
	10	= Total Cover	
Herb Stratum (Plot size: ___)			
1. Elymus elymoides	10	Y	UPL
2. Achillea millifolium	5	N	UPL
3. Trisetopsis dubia	5	N	UPL
4. Hollium sp.	20	Y	
5. Bromus marginatus	20	Y	UPL
6.			
7.			
8.			
9.			
10.			
11.			
	60	= Total Cover	
Woody Vine Stratum (Plot size: ___)			
1.			
2.			
	___	= Total Cover	

% Bare Ground in Herb Stratum ___

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20 (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 = ___

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 X

Remarks:

SOIL

Sampling Point: DP6

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2						Sandy loam	thick roots
2-14	10YR 3/2						Sandy loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ 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)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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:

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)
- ___ 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)

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): none

Water Table Present? Yes _____ No ✓ Depth (inches): >16

Saturation Present? (includes capillary fringe) Yes _____ No ✓ Depth (inches): >16

Wetland Hydrology Present? Yes _____ No X

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

Remarks:

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

Project/Site: The Shady Rest Parcel City/County: Town of Mammoth Lakes / Mono Sampling Date: 11 Sept 2014

Applicant/Owner: Rob Mitchell State: CA Sampling Point: DP7

Investigator(s): Sheila Anderson, JoAnne Michael Section, Township, Range: Sec 35, T 03 S, R 27 E MDM

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2-4

Subregion (LRR): D Lat: 8554797.2 Long: 417422.1623 Datum: NAD83

Soil Map Unit Name: Chesaw Family NWI classification:

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

Are Vegetation ____, Soil ____, or Hydrology ____ significantly disturbed? Are "Normal Circumstances" present? Yes ✓ No ____

Are Vegetation ____, Soil ____, or Hydrology ____ naturally problematic? (If needed, explain any answers in Remarks.)

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

Hydrophytic Vegetation Present?	Yes ____ No ✓	Is the Sampled Area within a Wetland? Yes ____ No X
Hydric Soil Present?	Yes ____ No ✓	
Wetland Hydrology Present?	Yes ____ No ✓	

Remarks: Data point taken between W-1 and W-2
slight rise, approx 2' above wetland elevation

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: ____)			
1. Pinus contorta	10	Y	FAC
2.			
3.			
4.			
	____ = Total Cover		
Sapling/Shrub Stratum (Plot size: ____)			
1. Ribes cernuum	5	X	UPL
2. Art cana	20	Y	FACU
3.			
4.			
5.			
	25 = Total Cover		
Herb Stratum (Plot size: ____)			
1. Potentilla gracillis	40	Y	FAC
2. Artemesia cana	10	N	FACU
3. Dactylus glom	10	N	FACU
4. Achillea millifolium	2	N	UPL
5. Sidalcea	2	N	FA
6. Bromus marg	20	Y	FACU
7.			
8.			
9.			
10.			
11.			
	84 = Total Cover		
Woody Vine Stratum (Plot size: ____)			
1.			
2.			
	____ = Total Cover		

% Bare Ground in Herb Stratum ____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ____ (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 = ____

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:

SOIL

Sampling Point: DP7

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

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 2/2						sandy loam	thick roots
5-16	10YR 2/2						sandy loam	

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

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ 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)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10)
- ___ Red Parent Material (TF2)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators 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:

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)
- ___ 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)

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): NONE

Water Table Present? Yes ____ No ✓ Depth (inches): >16

Saturation Present? (includes capillary fringe) Yes ____ No ✓ Depth (inches): >16

Wetland Hydrology Present? Yes ____ No ✓

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

Remarks: