**Project Summary**

Eightmile Lake Storage Restoration Project

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**Overview**

**Figure 1**

- **Legend:**
  - MAXIMUM (FULL LAKE) WSEL (HISTORICAL/PROPOSED)=4,671 FEET
  - MAXIMUM (FULL LAKE) WSEL (EXISTING)=4,667 FEET
  - LOW WSEL, WITHOUT PUMPING (EXISTING)=4,640 FEET
  - LOW WSEL, WITHOUT PUMPING (PROPOSED EIS ACTION ALTERNATIVES)=4,636 FEET

- **Horizontal Datum:** Washington State Plane North, North American Datum (NAD83), U.S. Survey Feet
- **Vertical Datum:** North American Vertical Datum (NAVD88)

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**Author:** drice

**Filepath:** K:\Projects\1810-Peshastin Irrigation District\Eightmile Lake Final Design\1810-RP-Existing Site\Figures\Figure 1
EIGHTMILE LAKE

EXISTING INFRASTRUCTURE

LEGEND:

PRIOR BATHYMETRIC SURVEY AND LIDAR DATA:
- MAJOR CONTOUR (5')
- MINOR CONTOUR (1')

OTHER FEATURES:
- ROCK MASONRY DAM
- EARTHEN EMBANKMENT DAM
- PORTION OF EMBANKMENT ERODED BY WINTER STORMS
- RIP-RAP (PLACED MAY 2018)
- CURRENT HIGH WATER
- EXISTING PIPE (BURIED)

HORIZONTAL DATUM: Washington State Plane North, North American Datum (NAD83), U.S. Survey Feet

VERTICAL DATUM: North American Vertical Datum (NAVD88)

Figure 2 Existing Infrastructure

Project Summary
Eighthmile Lake Storage Restoration Project
Figure 3
Existing Dam Profile

Project Summary
Eightsmile Lake Storage Restoration Project

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**Project Summary**

**Eightmile Lake Storage Restoration Project**

**Proposed Improvements - Narrow Spillway with Gates Alternative**

- **High Water Level (Gates Down)**: 4,667' ±
- **High Water Level (Gates Up)**: 4,671' ±

**15 Wide Intermediate Spillway, Crest = 4,671.5'**

**60 Wide Primary Spillway with Gate to Control Water Level, Crest = 4,667'**

**Log Boom**

**15 Wide Intermediate Spillway, Crest = 4,671.5'**

**80 Wide Primary Spillway with Gate to Control Water Level, Crest = 4,667'**

**Embankment with Rip-Rap Armoring**

**120' Low-Level Outlet Pipe (Buried)**

**Embankment with Rip-Rap Armoring**

**Pipeline Inlet with Debris Rack, IE = 4,632.0'**

**Log Boom**

**15 Wide Intermediate Spillway, Crest = 4,671.5'**

**Spillway Gates**

**Pipeline Outlet to Creek, IE = 4,636.0'**

**Automated Control Valve in Enclosure**

**Valve and Priming Equipment in Enclosure**

**Parcel Boundary from Chelan County GIS**

**Armor Low Spot with Rip-Rap and Gabions to Create Secondary Spillway, Crest = 4,673.0'**

**Reinforced Concrete Dam Structure**

**Valve and Priming Equipment in Enclosure**

**120' Low-Level Outlet Valve in Enclosure**

**Overflow to Eightmile Creek**

**Proposed Improvements - Narrow Spillway with Gates Alternative**

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**VERTICAL DATUM:** North American Vertical Datum (NAVD88)
HORIZONTAL DATUM: Washington State Plane North, North American Datum (NAD83), U.S. Survey Feet

VERTICAL DATUM: North American Vertical Datum (NAVD88)

Figure 5-1A

Dam Profile and Section - Narrow Spillway with Gates Alternative

Project Summary
Eightmile Lake Storage Restoration
Figure 4-1B
Proposed Improvements - Wide Spillway without Gates Alternative

**EIGHTMILE LAKE**

- **High Water Level**: 4,671' ±
- **Low Water Level (Normal Conditions)**: 4,642' ±
- **Low Water Level (Drought Conditions)**: 4,638' ±

**REINFORCED CONCRETE DAM STRUCTURE**

**VALVE AND PRIMING EQUIPMENT IN ENCLOSURE**

**PIPE OUTLET TO CREEK, H=4,631.2**

**PIPE INLET WITH DEBRIS RACK, H=4,632.0**

**LOG BOOM**

**180' WIDE PRIMARY SPILLWAY, NO GATE, CREST=4,671**

**EMBANKMENT WITH RIP-RAP ARMORING**

**10" LOW-LEVEL OUTLET PIPE (BURIED)**

**LOW-LEVEL OUTLET PIPE (BURIED)**

**OVERFLOW TO EIGHTMILE CREEK**

**AUTOMATED CONTROL VALVE IN ENCLOSURE**

**LOW WATER LEVEL (NORMAL CONDITIONS)=4,642' ±**

**LOW WATER LEVEL (DROUGHT CONDITIONS)=4,638' ±**

**EMBANKMENT WITH RIP-RAP ARMORING**

**ARMOR LOW SPOT WITH RIP-RAP AND GABIONS TO CREATE SECONDARY SPILLWAY, CREST=4,673.0**

**PARCEL BOUNDARY FROM CHELAN COUNTY GIS**

**HIGH WATER LEVEL=4,671' ±**

**LEGEND:**
- **EXISTING MAJOR CONTOUR (5')**
- **EXISTING MINOR CONTOUR (1')**
- **MAJOR CONTOUR (5' INTERVAL)**
- **MINOR CONTOUR (1' INTERVAL)**
- **PROPOSED SLOPE ARMORING**
- **PROPOSED REINFORCED CONCRETE DAM**
- **PROPOSED EARTHEN EMBANKMENT**
- **PROPOSED MAXIMUM WSEL (4.671')**
- **PROPOSED LOW-LEVEL OUTLET PIPE (BURIED)**

HORIZONTAL DATUM: Washington State Plane North, North American Datum (NADE83), U.S. Survey Feet

VERTICAL DATUM: North American Vertical Datum (NAVD88)
Figure 5-1B
Dam Profile and Section - Wide Spillway without Gates Alternative

PROJECT SUMMARY
Eightmile Lake Storage Restoration

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