

MEMORANDUM

Northern Integrated Supply Project
Glade Reservoir
Larimer County 1041 – Wildfire Hazard Mitigation Plan

B&V Project Number 403758
B&V File 188754/34.3000
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To: Larimer County Planning Department
From: Tim Engemoen and Mike Johnson, Black & Veatch

Introduction

This technical memorandum is written in support of Larimer County Planning Department’s 1041 Permit for the Glade Unit construction and documents the wildfire hazards per Section 8.3 of the Larimer County Land Use Code and proposed mitigation plan associated with the construction of the Glade Unit.

Project Background

The Northern Integrated Supply Project (NISP) will provide a new raw water supply to several municipal water providers in Northern Colorado. NISP includes the following facilities located in Larimer County: the Glade Unit; the Glade Pump Station; raw water distribution piping; and the relocation of U.S. Highway 287. The Glade Unit features the Glade Reservoir Dam, which is an earthen embankment that will impound an off-channel reservoir complete with the hydraulic structures required by the State Engineer’s Office: the High Level Outlet Works (HLOW); Low Level Outlet Works (LLOW); and spillway. Glade Reservoir Dam is located just to the north of the junction of U.S Highway 287 and State Highway 14, about 10 miles northwest of Fort Collins. The Glade Unit includes an expansion of the existing Poudre Valley Canal (PVC) and a new forebay constructed downstream of the dam at an elevation that will allow delivery of water from the PVC by gravity. A Control Gate Structure will be constructed to control flow to the existing portion of the PVC downstream of the forebay. The existing PVC Diversion Structure will be demolished and rebuilt to allow increased diversion of flow from the Poudre River. A portion of the existing Munroe Gravity Canal alignment will be inundated by Glade Reservoir, this open canal will be replaced by the Munroe Canal Bypass (MCB), a conduit and several control structures that will convey flow beneath the reservoir. The Glade Unit also includes: the Glade Pump Station, which will pump water from the forebay into Glade Reservoir; the Electrical/Control building that will distribute power throughout the site and provide control of the various hydraulic features; the Surge Building that will house surge tanks to protect the pump station discharge conduit; and numerous buried conduits with control valve vaults that connect these facilities. Raw water will be conveyed off site via several buried conduits that are being constructed under different NISP contracts. The Glade Unit will include recreational amenities for the general public, including a Visitor Center, campgrounds, a boat ramp, trails and restroom facilities.

Glade Reservoir will submerge a portion of the existing U.S. Highway 287 alignment which will be relocated to the east of the reservoir. An existing power transmission line and several power

distribution lines will be inundated by the reservoir which will be relocated as part of the Glade Unit construction. A general location map of the Glade Unit facilities is presented on Figure 1.

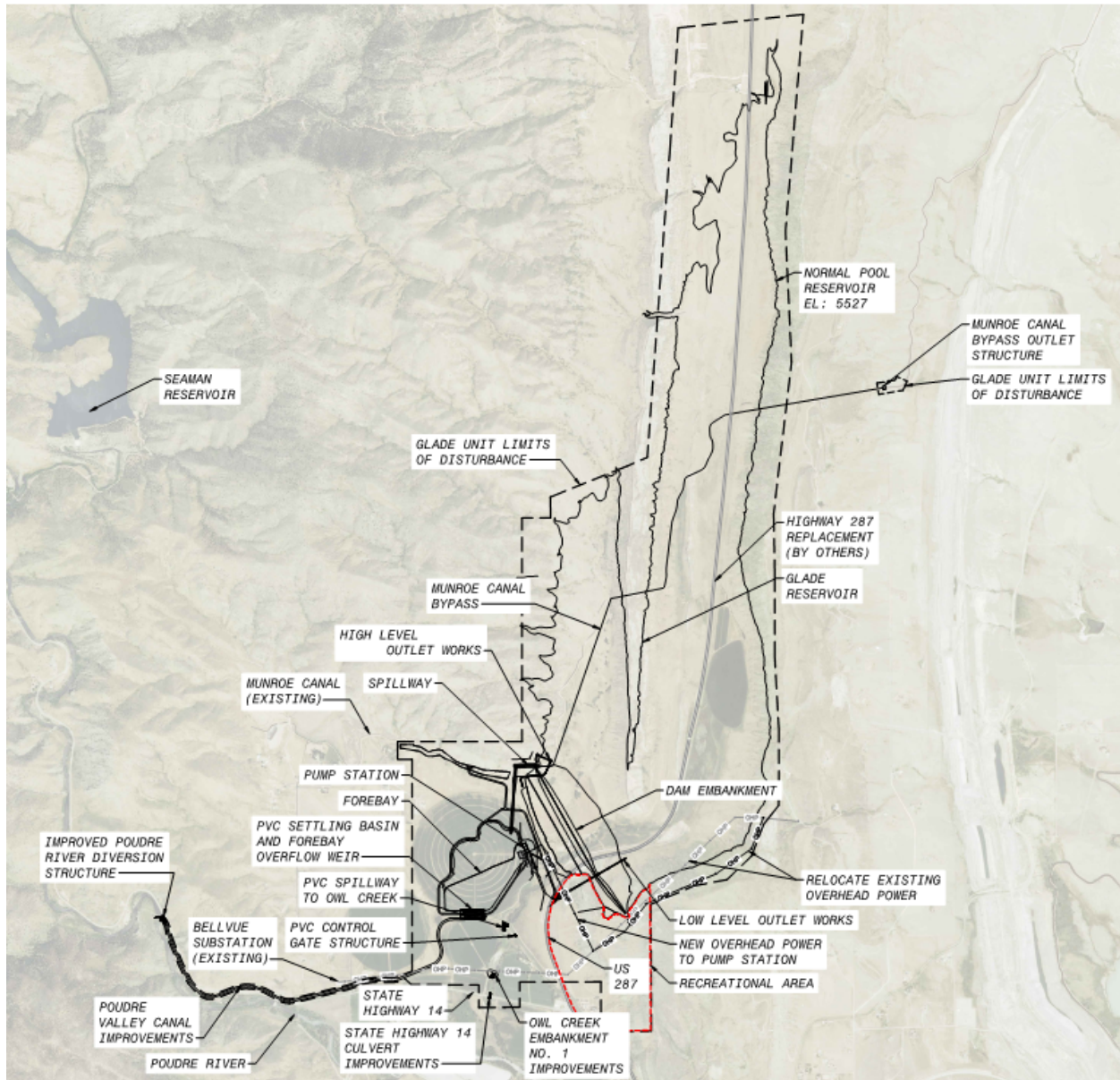


Figure 1 - Glade Unit Overview

The NISP Water Activity Enterprise (NISP Enterprise or Enterprise) assumes financial responsibility for construction of all infrastructure required for the project. The Enterprise is a permanent entity with access to adequate funds to cover project construction and maintenance. The Enterprise's budget will include routine and capital maintenance funds. Northern Water's past performance under other USACE permits demonstrates its commitment to assure that projects will be fully implemented and maintained by the Enterprise.

Wildfire Hazards

Figure 27 (included in Attachment C to the 1041 Permit Project Description) shows the wildfire hazard area levels as provided by Larimer County. The majority of the Glade Reservoir falls within the “Moderate” hazard range, while the majority of the forebay and Poudre Valley Canal improvements fall within the “Lowest” hazard range. None of the project area falls within the “High” or “Very High” category.

Wildfire Hazard Mitigation

During construction of the Glade Unit, it is anticipated that the Contractor will employ fire mitigation strategies that include water trucks, coordination with the local fire department (Poudre Fire Authority), and other standard safety practices. After construction is complete, wildfire mitigation will follow Larimer County’s Recreation Regulations. The fire management practices at the recreational area will include fire rings for campfires and limiting fires to designated locations. Most of the project area that currently exists in the “Moderate” range will become either part of the forebay or reservoir and therefore will no longer be susceptible to wildfires. It is anticipated that construction of Glade Reservoir will improve overall wildfire mitigation in the area as the reservoir becomes a barrier to the spread of wildfire.