

SNC Reference Number

080139

Environmental Setting and Impacts

Finnon Lake Restoration and Habitat Improvement Project

Environmental Setting and Impacts

Finnon lake recreation area is located in El Dorado County, approximately 6 miles north east of Placerville, CA., near the intersection of Rock Creek Road and Trail Gulch Road. A private airport is located just north east of the reservoir. The 122 acre site, lies at approximately 2,400 feet in elevation within the foothills of the Sierra Nevada

Finnon lake recreation area, owned by the Mosquito Volunteer Fire Association (MVFA), is approximately 55 acres in size and is located approximately 5.5 air miles northeast of the city of Placerville, in El Dorado County. Its location is identified on the USGS 7.5 Minute Grass Valley & Slate Mountain Quadrangle in Township 11 N, and Range 11 East, Section 15 & 16, MDB&M (See Location Map). The elevation of the lake ranges from 2400 ft to 2400 ft, and receives from 30 to 40 inches of rainfall annually. The surrounding properties are mostly owned by private landowners and are managed for residential, grazing, timber production and recreational. A private airport is located just northeast of the lake. Wetland hydrology is supported by groundwater flowing into Finnion Lake. North and south facing slopes have a moderate to gentle gradient with a slope of between 5 percent and 21 percent. Finnion Lake Dam is a hydraulic-filled earth embankment and the reservoir has a drainage area of approximately 0.26 square miles and a storage capacity of 350 ac-ft.

Current hydrology sources include intermittent flows from Jay Bird creek, surrounding swales and ravines, and ground water. However since the construction of the Finnion Lake in 1905, this seasonal water flow during the winter and spring is collected and held over the summer and fall providing a perennial water source.

This change in hydrology over the past 100 years has most likely increased the amount of habitat that existed before and has created new types of other habitats. These habitats consist of open water, emergent wetland non-persistent, emergent wetland persistent, wet meadow, scrub/shrub wetland, and upland meadow. Other habitats include grassland, foothill pine/mixed oak woodland, intermittent creek, swale, seasonal wetland, and tributary waters.

The emergent wetland non-persistent areas are dominated by lovegrass sedge (*Cyperus eragrostis*), creeping spike-rush (*Eleocharis macrostachya*), smart weed (*Poligonum lapathifolium*), quillwort (*Isotes nuttallii*), rice-cut grass (*Leersia oryzoides*), water primrose (*Luwigia peploides*), and knotgrass (*Paspalum distichum*). The emergent wetland persistent areas are dominated by bog rush (*Juncus effusus*), bentgrass (*Agrostis avenacea*), and Cattail (*Typha spp.*). These two habitats are found along the edge to the lake shoreline. The non-persistent areas are generally flooded over long periods throughout the year and the persistent areas are generally flooded over shorter periods over the year.

The wet meadow areas are found at a slightly higher elevation than the emergent wetlands and most of the hydrology that is received in these areas come from the seasonal creek, swales, and tributary. This habitat is dominated by bog rush and velvet grass (*Holcus lanatus*). The scrub/shrub wetlands are found in clumps throughout the meadow areas and are dominated by arroyo willow (*Salix lasiolepis*).

A few seasonal wetlands are found in areas where it was evident that water is received for short durations due to observations in topography and biotic crusts. The dominant plant species found in these areas were a mixture of what is observed in the wet meadow areas and the emergent wetland persistent areas.

The upland meadow areas are found adjacent to the wet meadows, but do not receive the hydrology the wet meadows do. This habitat was dominated by velvet grass, silver European hair grass (*Aira caryphalacea*), lesser hawkbit (*leontodon taraxacoides*), foxtail fescue (*Vulpia myuros*), and medusa head (*Taeneatherum caput-medusae*). The grassland areas were found at a much higher elevation. This habitat is dominated by bristly dog-tail grass (*Cynosurus echinatus*), medusa head (*Taeneatherum caput-medusae*), soft chess (*Bromus hordeaceus*), Italian ryegrass (*Lolium multiflorum*), yellow star-thistle (*Centaurea solstitialis*), ripgut brome (*Bromus diandrus*), and tarweed (*Holocarpha virgata*). The pine/mixed oak woodland areas have a tree and shrub layer dominated by of foothill pine (*Pinus sabiniana*), ponderosa pine (*Pinus ponderosa*), blue oak (*Quercus douglasii*), interior live oak (*Quercus wislizeni*), and manzanita (*Arctostaphylos spp*). Understory vegetation in the pine/mixed oak woodland areas are similar to that of the grassland areas. The intermittent creek, swales, and tributaries are found at the outer portions of the site. These areas are what provide the reservoir with most of the surface water it receives. A large portion of the intermittent creek and swales are dominated by invasive Himalayan blackberries (*Rubis discolor*). In areas where the blackberries are not invasive other dominant vegetation included rabbit's foot grass (*Polypogon monspeliensis*), Bermuda grass, (*Cynodon dactylon*), dallis grass (*P. dilatatum*), curly dock (*Rumex crispus*), lovegrass sedge, Mediterranean barley (*Horeum marinum*) and velvet grass.

Soils of the site consist of Mariposa-Josephine very rocky loam, 15-50 percent slopes (McE), Musick very rocky sandy loam, 15-50 percent slopes (MtE), and Holland very rocky coarse sandy loam, 15-50 percent slopes (HkE). These soils are found on gently rolling to steep mountainous landscapes. All three soils are well drained, have a surface run off that ranges from medium to rapid, and are mapped as non-hydric. These soils differ in their parent material. The Mariposa-Josephine series has a parent material of mica schist. The Musik series is underlain by acid igneous rock. And the Holland series is underlain by weathered granite rock.

On behalf of the Mosquito Volunteer Fire Association (MVFA), the Department of Water Resources, Division of Planning Local Assistance (DWR) has acted as Lead Agency to comply with requirements under the California Environmental Quality Act (CEQA). A Notice of Exemption was filed on December 23, 2005. No public comment or concerns were received.

The following lists all environmental permits required and obtained. Each permit and associated environmental study has been attached for reference.

PERMIT	STATUS
California Environmental Quality Act (CEQA)	Complete. SCH# 2005128322. 1/23/06.
Central Valley Regional Water Quality Control Board (CWA Sec. 401)	Complete. WDID# 5A09CR00063. 5/8/2006
California Department of Fish & Game (1600)	Complete. Notification # 1600-2006-0175-R2. 5/10/06
US Army Corp of Engineers (Nationwide 3 Permit)	Complete. SPK-2002-00467. 9/12/08.
US Fish & Wildlife Service (Biological Opinion for CRLF)	Complete. Biological Opinion Received 7/13/06
El Dorado County Grading Permit (Exemption)	Complete. Storm Water Pollution Prevention Plan Completed. 2/15/06.
Division of Safety of Dams Permit	Complete. DSOD #4466

Section 17 of this application form contains copies of the permits listed in the table above along with all associated surveys, reports, and findings.

The Project proposes to restore Finnon Lake back to its original operating level of 350 acre feet. Approximately 1.25 acres of direct fill of waters of the United States is authorized by ACOE Nationwide Permit Number 3 (SPK-2002-00467). To mitigate for the loss of the flooding of 10.9 acres of waters of the United States, the MVFA is required to implement a Mitigation and Monitoring Plan for Finnon Lake according to the provisions outlined under the Nationwide Permit No.3: Two (2) acres of wetlands will be created as a result of maximum water level soil saturation and vegetation establishment; Three (3) acres of wetlands will be credited as a result of reservoir drawdown and water level fluctuations during spring and summer; The remaining 5.9 acres of mitigable wetlands will be met through forest restoration and wildlife habitat improvements on site. To assure success of the preserved and created waters of the United States, the MVFA will monitor compensatory mitigation, avoidance, and preservation areas for five (5) years until success criteria has been met.

Site improvements and construction methods proposed have been incorporated and integrated into project scope to ensure all environmental conditions associated with each regulatory permit are achieved. Approximately 100,000 cubic yards of material will be removed from the existing embankment and stockpiled in an area immediately to the north and east. This material will be recycled and used in the reconstruction of the restored embankment. Mechanical equipment such as 631E scrapes, D9 dozers, 14h motor grader, 825 compactor, 330 and 345 excavators will be used. There are no sensitive habitats in or around the stockpile area. Restoration activities for wetland and forest habitats will not be impacted.