Attachment 9

Environmental Assessment
For the Olive Orchard
Wetland

NEPA Document No. EA-LB-00-02

ENVIRONMENTAL ASSESSMENT
FOR

WETLAND DEVELOPMENT PROJECT
OLIVE ORCHARD

LAKE BERRYESSA

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
CENTRAL CALIFORNIA AREA OFFICE
LAKE BERRYESSA

AUGUST 2000

ENVIRONMENTAL ASSESSMENT

I. OVERVIEW

Date: August 10, 2000

Project Title: Olive Orchard Wetland Development Project

Name and Address of Applicant: Bureau of Reclamation
Lake Berryessa Field Office
5520 Knoxville Road
Napa, CA 94558

Contact Person: Arnold Roessler, Natural Resource Specialist (707) 966-2111

Project Location: Napa County; T8NR3W Section 30; USGS Lake Berryessa Quadrangle

Land Status Verified: Yes

Affected Surface Area: Approximately 5 acres

Authorization for the Action: Reclamation Development Act of 1974 (PL 93-493), Floodplain and Wetlands executive Orders 11988 and 11990, Endangered Species Act (16 USC Sec.1531 et seq.), Fish and Wildlife Coordination Act (16 USC Sec. 661 et seq.), Environmental Impact Statement Lake Berryessa Reservoir Area Management Plan February 1993.

II. PURPOSE AND NEED FOR ACTION

The purpose of this project is to construct a wetland habitat area on Reclamation land totaling approximately 5 acres. The project includes construction of a control structure on an existing culvert to control water flow and create a ponding basin. The project is a joint effort between Ducks Unlimited and the Bureau of Reclamation. Goals for the project include increasing riparian and wetland vegetation in the region and to use the completed project area as a means to educate the public on the benefits of riparian and wetland habitats. Current lake fluctuations leave areas such as these dry during summer and drought periods causing any vegetation which may have naturally become established to dry up and disappear. The proposed project will help maintain water levels in the area and help establish riparian vegetation on a more permanent basis. Projects such as these will assist in the restoration of seasonal/permanent freshwater wetland habitats and provide areas for waterfowl breeding, wading bird feeding and wildlife nesting, and support other wildlife such as various amphibians, reptiles, neotropical birds, and numerous small mammals in the Lake Berryessa area.

II. PROPOSED ACTION

The proposed Federal action is to authorize construction of a wetland development project on Reclamation land. The location of the proposed action is near Capell Creek in the area known as the Olive Orchard T8NR3W Section 30 Lake Berryessa Quad (see Maps A and B).

The project consists of constructing a concrete control structure on an existing culvert which is on Berryessa Knoxville Road. The existing culvert is 72" in diameter. The structure will be a concrete standpipe with an opening on top for an emergency spillway. A manually controlled 24" valve will be built into the structure to control flows during "normal" lake levels. Once lake levels drop below the desired water level, the valve will be closed to prevent the draining of the pond. Details regarding design standards and engineering for the proposed action are further outlined in the Ducks Unlimited Technical Specifications BOR Wetlands Lake Berryessa "DU Project No. CA-0122-012." (see attached).

Water Control Barrier: The maximum level of the retained water would be near 440' fmsl. The standpipe structure is approximately 14 feet tall and 72" wide.

Heavy Equipment Use/Access: The type of equipment which will be used for construction of the control structure and contouring may include: backhoe, 10 yard dump, excavator, D6 dozer, sheepsfoot, front-end loader, road-grader, scraper, and water-tanker truck. Access to the site would be obtained from the north side of the area from Berryessa/Knoxville Road. This area is mostly fill material currently covered with annual grasses and yellow star thistle.

Wetland Area Contouring: In addition to the control structure some earth moving within the lake bottom and upland areas will take place to deepen, enlarge and contour the area which will be flooded. Island areas will be created and excess sediment will be removed from the site. The amount of material to be cut or stripped is approximately 4113 cubic yards. The amount of fill material would be approximately 662 cubic yards. The island areas will be created by using material excavated from the site.

Revegetation: Wetland plant species such as willow, cottonwood, elderberry, and tule grass will be planted throughout the area once construction activities and contouring are completed. In addition to wetland species some riparian and upland species will also be planted. A revegetation plan will be completed prior to completion of the project.

III. NO ACTION ALTERNATIVE

The no action alternative would be to not create the wetland area and continue to manage the area as a fluctuating lake zone. This action would be a continuation of existing conditions with no wildlife habitat improvements other than minor planting or other vegetation management.

IV. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

A. Existing Environment:

The area consists of an ephemeral creek flowing from Sugarloaf and Little Sugarloaf Peaks. The creek contains running water for much of the year, and supports a healthy riparian corridor for a significant distance down the canyon. The creek bed is gravelly, and during the drier months the creek will become mostly subterranean, occasionally forming small pools on the surface.

At a lake elevation of 440' fmsl a portion of the lake forms west of the road and has a surface area of approximately 2 acres and is about 15' deep at its deepest. However, because the ponded area is connected to the lake directly by an open culvert, its level drops as the lake receeds. When the lake has dropped 10' below 440', the wetland pond is reduced to less than ¼ acre.

The surrounding area is mostly open grassland dominated by annual grasses and forbs. The upland slopes are mostly comprised of woody vegetation such as oak, chamise, ceanothus, and other similar chaparral species. Some riparian species do exist close to the creek but disappear a short distance up slope.

B. Impacts of the proposed action:

General

The development of the proposed action would lead to minor disruption of the area during construction. Heavy equipment working in the area would disturb wildlife populations and cause minor inconveniences to recreational uses. The disturbances would not be long term and other areas adjacent to the project site and would be available to wildlife and the recreating public. The proposed action would not establish a precedent for future actions; is not related to other actions with individuality insignificant but cumulatively significant environmental effects; and will not disproportionately affect minority or low income populations.

Impoundment/Water Rights

Reclamation currently has water rights for fish and wildlife purposes for storage of 1,000 acre feet of water. The impoundment resulting from the proposed action will be intermittent and total approximately 2 acre feet.

Water Quality/Erosion/Sedimentation
Minor erosion and sedimentation will occur in the construction area as a result of this project. However, due to the gradual slope, vegetative cover, and period of construction, the effects of the erosion and subsequent sedimentation will be minimal and within acceptable amounts. The site will be revegetated after construction is completed.

Streamflow
Construction activities may affect the streamflow of the intermittent tributary flowing into Lake Berryessa. To prevent disruption of stream flows the construction activity within the stream will take place during no flow periods and will be monitored by Reclamation and DFG for streambed alteration requirements and Clean Water Act requirements.

Wetlands
The proposed project will result in the creation of a small wetland habitat area. The wetlands will benefit wildlife and assist in improving water quality by filtering the sediment from upland of the pond.

Endangered Species/Sensitive Plants
The project area is comprised of lake shore area which fluctuates seasonally. The site is often dry with annual plants colonizing the once flooded area. The open and wooded grasslands surrounding the area contain mostly annual grass species mixed with large concentrations of noxious and invasive weed species. A few remnants of riparian plant species are established in some locations.

Reclamation has reviewed the current California Department of Fish and Game Rare Find List and found no threatened or endangered plant or animal species listed within the project areas. A visual inspection of the site by Reclamation, DFG, and DU personnel also found no evidence of rare or endangered plant or animal species within the area. No known negative impacts are likely to occur to species listed or proposed to be listed as endangered or threatened as a result of these actions. Some established riparian and upland plant species may be damaged during construction and contouring, however the revegetation plan would mitigate for any destruction of plant species.

Cultural Resources

The Bureau of Reclamation Regional Office Archaeologist conducted two separate cultural resource investigations at the site and found that there was no visible signs of major cultural or historical resources within the proposed project area.

The first survey was conducted in spring of 1998 and the second after a wildfire which removed all vegetative cover from the area in June of 2000. Some obsidian chips were found during the second site visit, but no major evidence of the area being a significant cultural resource site was found.

The area was previously part of a ranch and foundations and other remnants of a house and other out buildings are present in the area. None of these foundations are located within the area which will be disturbed.

Construction activities within the streambed will be dealing mostly with fill material and the occurrence of cultural resource values within this area would be very slight. Recommendations by the Archaeologist were to monitor the site during the construction phase to inspect for evidence of cultural resources and to stop activities if cultural resources are disturbed as a result of the proposed action.

The cultural resource investigation determined that the proposed action would not have a negative affect any properties listed or eligible to be listed in the National Register of Historic Places; will not threaten to violate Federal, State, Local, or Tribal law or requirements imposed for protection of the environment; and will not affect Indian Trust Assets (see attachment).

Unique Resources

The proposed project would not have uncertain environmental effects or involve unique or unknown environmental risks; and would not have an adverse effect on unique geological features such as wild or scenic rivers, refuges, flood plains, rivers placed on the nationwide inventory, or prime or unique farmlands. The areas have been previously disturbed through past ranching and agricultural practices.

Construction

The construction activities will take place during low or no water flow periods in the Fall depending on the amount of soil moisture. The construction activities will minimally interfere with recreational use activities. Construction activities will be coordinated with local landowners so as not to interfere with their operations. The duration of the construction activities will be approximately 45 days with revegetation projects occurring when weather and moisture conditions are favorable for planting. Best management practices will be used during the construction period.

Access

Vehicle and heavy equipment access to the site will be off of Berryessa Knoxville Road North of the pond site. This area is predominantly fill material which was placed during the construction of the Capell Cove Launch Ramp. Most of the area is covered in annual grasses and yellow-star thistle. A temporary dirt roadway will be created to allow access to the pond area. The road will be routed in such a way to avoid impacts to desired vegetation as much as possible. The area will be restored and a minimally used roadway will be maintained as a trail and to allow for equipment access to the site in the future if needed.

Recreational Use

General public access and recreational opportunities in the area are slight. Access to the area is by foot from a parking area across Berryessa/Knoxville Road. Bank fishing is currently the highest use of the area, and then only during high lake levels. Use would probably increase with the development of better habitat, but that increase is not expected to be significant. Recreational use of the area will be enhanced by improving watchable wildlife opportunities.

Viewshed/Esthetics

The viewshed esthetic qualities of the area will be minimally affected by the creation of the wetland and then only during the construction phase. Once vegetation covers the project area it will blend into the existing natural landscape. The projects will be constructed during low use periods by the public.

Air Quality

Due to the size and techniques used during construction of the ponds the proposed project will minimally affect the air quality. The soil moisture will be sufficient to reduce the amount of dust created from the excavation and will not have a significant effect on the quality of the human environment.

Soil Survey

On August 28, 1997, a Mid-Pacific Regional Soil Scientist augured a series of three test holes for soil profile analysis. All three sites showed some sign of some type of loam material suitable for retention of water. One of the site had a very high content and thick layer of clay and clay loam.

Educational Uses

Reclamation intends to use the area as part of an environmental education program. Students from UC Davis and CSU Chico both have expressed interest in observing the process, and the possibility exists of establishing a more permanent relationship with one of these institutions toward the goal of environmental education.

C. Mitigation Measures for the Proposed Action

The following mitigation measures have already been incorporated or will be incorporated into the proposed action during construction. They are presented here as a convenient summary listing:

V. CONSULTATION AND COORDINATION

Department of Fish and Game Review
Section 1601 of the California Department of Fish and Game Code requires a Streambed Alteration Permit for construction activities causing removal of materials and /or alteration of lake, river, or streambed bottom or margins. Reclamation will consult with the Department of Fish and Game and obtain any necessary permits prior to starting the proposed project. (See Attached Correspondence)

Clean Water Act Compliance
Reclamation has coordinated with the U.S. Army Corps of Engineers and the Regional Water Quality Control Board regarding actions below the high water mark as required by sections 401 and 404 of the Clean Water Act. Reclamation will obtain any necessary permits or waivers prior to starting the proposed project. Work will comply with the general conditions of COE Nationwide Permit General Conditions and Nationwide Permit #27 Stream and Wetland Restoration Activities. (See Attached Permit)

Encroachment Permit
An encroachment permit from Napa County for construction activities done in the right-of-way along Berryessa/Knoxville Road. The Napa County Works Department has been briefed on the project and have had no reservations with the concept of the project. A copy of the plan will be provided and the Department will be advised before any activities will take place. Work will comply with the General Permit Regulations and any special requirements outlined in any improvement plans. (See attached Permit)

People/Agencies Contacted:

Lance Heidi, Napa County Public Works
Justin Cutler, Corps of Engineers, Sacramento District
Fred Botti, California Department of Fish and Game
Matthew Reischman, Regional Water Quality Control Board
Vincent Orlando, Adjacent Land owner