



Natural Resources Conservation Service
U.S. Courthouse – Federal Building
230 N. First Avenue, Suite 509
Phoenix, Arizona 85003-1733
(602) 280-8801

**Finding of No Significant Impact
For the Powerline, Vineyard Road,
and Rittenhouse Flood Retarding Structures
Rehabilitation/Replacement Project
Pinal County, Arizona**

Introduction

The Powerline, Vineyard Road, and Rittenhouse Flood Retarding Structures (FRSs) Rehabilitation/Replacement Project is a federally assisted action authorized under the Watershed Protection and Flood Prevention Act (PL-83-566) as amended by the Watershed Rehabilitation Amendments (PL-106-472). The Natural Resources Conservation Service (NRCS), in cooperation with local Sponsors, has prepared Supplemental Watershed Plans determining the feasibility of rehabilitating or replacing the FRSs. Environmental Assessments were conducted in consultation with local, state, and federal agencies, and interested organizations and individuals during the development of the Plans. Data developed during the development of the Supplemental Watershed Plans and Environmental Assessments are available for public review at the following location:

U.S. Department of Agriculture
Natural Resources Conservation Service
230 North First Avenue, Suite 509
Phoenix, AZ 85003

Recommended Action

The Preferred Alternative includes measures to rehabilitate and replace the Powerline, Vineyard Road, and Rittenhouse FRSs to meet current NRCS and State of Arizona dam safety and performance standards. The Preferred Alternative for Powerline FRS is decommissioning, which includes measures to replace the Powerline FRS with a 100-year channel (Powerline Channel) upstream of the dam and direct flows to the Vineyard Road FRS. The Preferred Alternative for the Vineyard Road FRS is rehabilitation, which includes raising the dam, installation of a filter, and installing improvements for the principal and auxiliary spillways. Under the Preferred Alternative, the Rittenhouse FRS will be converted to a levee (Rittenhouse Levee) so that flood flows from the contributing watershed area flow into the Vineyard Road FRS flood pool. Implementation of the Preferred Alternative will meet the project purpose of providing for continued flood protection for the downstream benefitted areas.



Effects of Recommended Action

Total installation cost for the Preferred Alternative is estimated to be \$76,822,100. The average annual cost for project installation, including operation and maintenance, is estimated at \$3,057,200. The proposed project will provide an estimated \$18,983,400 in average annual damage reduction benefits. However, as the "no action" or future without project alternative also provides this same benefit stream, the project does not have a positive incremental benefit. The benefits of the project are tied to reducing the risk of catastrophic failure of the existing structures and thus reducing the risk to life and property. Installation of the Preferred Alternative would address known safety deficiencies related to earth fissures, embankment cracking, and inability of the structures to safely pass the inflow design flood.

Approximately 225 acres of mesquite bosque would be impacted by the proposed project. Mesquite bosque mitigation would include planting of tall-pot mesquite trees and salvage of mature mesquite trees and transplanting along the Powerline Channel, Vineyard Road FRS and Rittenhouse Levee. Construction activities would result in the temporary disturbance of additional areas of vegetation and associated wildlife habitat. Disturbed areas would be hydro-seeded with a native plant mix following construction.

The U.S. Fish and Wildlife Service (USFWS) threatened, endangered, proposed, and candidate species list for Pinal and Maricopa Counties, as well as the Arizona Game and Fish Department (AGFD) Heritage Data Management System, were reviewed. There are no known occurrences of any threatened or endangered species or critical habitat within the project area. Suitable habitat is present for the Tucson shovel-nosed snake (*Chionactis occipitalis klauberi*) and dispersal habitat is present for the Sonoran desert tortoise (*Gopherus agassizii*). These are candidate species and may become listed in the future. Prior to project construction, the status of these species will be re-verified and any required surveys will be performed. During construction, current AGFD and USFWS procedures will be followed.

Cultural resources surveys and research in the vicinity indicate that there are a significant number of archaeological sites located within the area of potential effects (APE) for the project. The proposed project will have an adverse effect on cultural resources in the construction zones and possibly on other cultural resources within the APE. In consultation with the State Historic Preservation Office and Indian tribes who have identified the project area as part of their ancestral territory, cultural resources in the APE that will not be subject to project-related impacts will be avoided by project implementation activities. Cultural resources in the APE that will be subject to project-related impacts, and that are determined to be historic properties, will be subjected to data recovery studies to mitigate impacts.

Alternatives

The following alternatives were identified and assessed during planning for this project:

1. No Federal Action/Future Without Project – Powerline FRS remains in an unsafe condition and Vineyard Road FRS and Rittenhouse FRS remain in existing conditions until Sponsor's eventual Rehabilitation or Replacement of the dams;
2. Decommissioning by Replacing the Powerline FRS and Rittenhouse FRS with Channels to Vineyard Road FRS; Raise and Rehabilitate the Vineyard Road FRS;
3. Decommissioning by Replacing the Powerline FRS with a Channel to Vineyard Road FRS and Replacing the Rittenhouse FRS with a Levee to Vineyard Road FRS; Raise and Rehabilitate the Vineyard Road FRS (Preferred Alternative);
4. Decommissioning by Replacing the Powerline FRS with Basins and Channels; Raise and Rehabilitate the Vineyard Road FRS and Rittenhouse FRS;
5. Raise and Rehabilitate the Powerline FRS, Vineyard Road FRS and Rittenhouse FRS

Consultation and Public Participation

Agency consultation was conducted during planning for this project. Agencies and the public were provided the opportunity to review and comment during three public meetings held for this project. The Draft Powerline, Vineyard Road, and Rittenhouse FRSs Supplemental Watershed Plans/Environmental Assessments were made available to agencies and the public for review and comment. Comments received were considered and incorporated into the Final Plans/Environmental Assessments. Specific consultation was conducted with the Arizona State Historic Preservation Office and the U.S. Fish and Wildlife Service during planning. Agency consultation and public participation has shown no unresolved conflicts with the implementation of this project.

Conclusion

Based on the Environmental Assessments summarized above, I find that the proposed action is not a major Federal action significantly affecting the quality of the human environment and I have determined that an environmental impact statement for the Powerline, Vineyard Road, Rittenhouse FRSs Rehabilitation/Replacement Project is not required.



CURTIS F. ELKE
Acting State Conservationist

4-8-2013

DATE