



Powerline, Vineyard Road, and Rittenhouse Flood Retarding Structures Design Project

Background

The Flood Control District of Maricopa County (District), in cooperation with the Natural Resources Conservation Service (NRCS), is rehabilitating and replacing the Powerline, Vineyard Road, and Rittenhouse (PVR) Flood Retarding Structures (FRS) in order to extend the useful life of the structures and maintain flood control benefits to downstream properties. Currently, the FRSs are earthen flood control dams that were constructed from 1967 to 1969 by the Soil Conservation Service (now NRCS). These FRSs are coming to the end of their design life of 50 years and the District has retained the services of Stantec Consulting Inc. to design the PVR FRS project.

Project Overview

The District operates and maintains the PVR FRSs and associated flood control facilities, located in northwestern Pinal County. These dams currently provide flood hazard protection from the 100-year rainfall event for the Central Arizona Project (CAP) canal, 72 square miles of downstream property, and more than 150,000 persons within portions of both Pinal and Maricopa counties. Upon completion, the PVR project will continue to provide flood hazard protection from the 100-year rainfall event for a design life of 100-years. The major project elements include:

- Replacing the Powerline FRS with a channel. The channel is approximately 3.5 miles in length starting at the Superstition Freeway and outfalls to the Vineyard Road FRS flood pool.
- Raise and rehabilitate the Vineyard Road FRS and the the Rittenhouse FRS.
 - Raising the embankment to provide sufficient water storage behind the dam.
 - Reconstruction of new principal spillways and auxiliary spillways.
 - Rehabilitating the earthen dam foundation and embankment.
- Due to funding constraints, only the Powerline Channel and Vineyard Road FRS are being designed and constructed. The rehabilitation of Rittenhouse FRS will occur when funding becomes available.

Project Timeline

- 30% design plans due: July 2015
- Final design plans for Vineyard Road FRS due: July 2016
- Final design plans for Powerline Channel due: October 2016
- Vineyard Road FRS and Powerline Channel construction substantially complete: September 2018

To view online information about this project, go to
<http://www.fcd.maricopa.gov/Projects/PPM/projStructDetails.aspx?ProjectID=214>

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