



US Army Corps
of Engineers®

Fact Sheet

Dam Safety Program

Whitlow Ranch Dam

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Aerial view of Whitlow Ranch Dam

Location and Description

Whitlow Ranch Dam is an ungated flood risk management structure located on Queen Creek in Pinal County, Ariz., about 50 miles southeast of Phoenix and about seven miles northeast of Florence Junction. It helps reduce the risk of flood damage to farmland and developed areas including the communities of Chandler, Gilbert, Queen Creek and Florence Junction and portions of Williams Air Force Base.

The drainage area tributary to Whitlow Ranch Dam comprises about 143 square miles. This upstream area is bordered on the east by the Pinal Mountains and includes the town of Superior. The outlet works do not include any mechanical equipment that will permit significant adjustment

to large outflows. The project includes a slide gate and an outlet-and-diversion structure designed to divert water and satisfy local water rights. Local interests, who have acquired these water rights, operate the slide gate to divert outflow from the reservoir into an irrigation ditch. Diverted flows have a negligible impact on outflows from the dam during a flood event.

Whitlow Ranch Dam was completed in August 1960.

Dam Safety Issues

The primary objective of the Corps' Dam Safety Program is to maintain public safety by making sure dams owned and operated by the Corps are safe, and the risks to the public are minimized. An integral part of the program is the risk-informed screening process. Dams are classified based upon confirmed or unconfirmed dam safety issues, the combination of life or economic consequences should failure occur and the probability of failure. This process enables us to prioritize dam safety actions to correct deficiencies, which include interim risk reduction measures to be undertaken while further investigations are conducted and remedial actions are implemented.

Current Status

Whitlow Ranch Dam received a Dam Safety Action Class IV, or DSAC IV, rating in December 2009 based on a Screening Portfolio Risk Analysis, or SPRA, completed in July 2009. A DSAC IV rating is given to dams that are inadequate with low risk such that the combination of life, economic or environmental consequences with a probability of failure is low, and the dam may not meet all essential USACE engineering guidelines.

Whitlow Ranch Dam received a DSAC IV rating because of the potential for:

- Foundation and Embankment seepage and piping.

As a result of Whitlow Ranch Dam's DSAC IV rating, the Corps has implemented the following Interim Risk Reduction Measures, or IRRMs:

- No action required

What's next?

- No action required

Public Safety is Number One Priority

Public safety is our number one priority. While we cannot completely eliminate risk, we can reduce it. Our screening and classification of Whitlow Ranch Dam does not mean that failure is taking place. It means we have identified dam safety issues that don't meet industry standards and the risk to public safety is unacceptable. Routine inspections and operation of the dam will continue and emergency action plans have been developed in coordination with local emergency management officials. Currently, there is no evidence to suggest an emergency situation exists or is about to occur.

Background

The U.S. Army Corps of Engineers owns and operates 694 dams that serve a variety of purposes, including navigation, flood damage reduction, water supply, irrigation, hydropower, recreation, environmental enhancement and combinations of these purposes. As part of our responsibility in managing these dams, the Corps has a comprehensive Dam Safety Program that has public safety as its primary objective. Corps dams are routinely inspected and continually evaluated for safety in compliance with the Federal Guidelines for Dam Safety issued in 1979 and Engineering Regulation ER 1110-2-1156, Safety of Dams – Policy and Procedures.

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