DAM SAFETY

Reducing flood risk in California's Central Valley

Modernizing Our Aging Dams

The U.S. Army Corps of Engineers Sacramento District owns and operates 17 dams and reservoirs in California's Central Valley, which provide multiple benefits including flood risk management, water storage, hydropower, fish and wildlife conservation, and recreation.

U.S. Army Corps of Engineers dams avoid $236 billion in direct damages and preserve $25 billion a year in economic benefits.

The Corps owns 694 dams nationwide and in Puerto Rico, 95 percent of which are more than 30 years old and 52 percent have reached or exceeded the 50-year service lives for which they were designed. This does not mean they will fail after 50 years, but they may require additional maintenance and modifications to ensure they meet current safety standards and continue to provide multiple benefits for decades to come.

The Corps continually evaluates the condition and safety of its dams through the dam safety program, started in 2005. Extensive study of each dam identifies potential risks and their severity, allowing us to prioritize - using the dam safety action classification system - which dams are in the most urgent need of modernization using limited federal funding.

Chico

Sacramento

Modesto

Fresno

Bakersfield

Black Butte Dam and Lake (1963)

Some safety concerns, to be evaluated.

Daguerre Point Dam (1906)

Safety concerns currently minimal.

Englebright Dam and Lake (1941)

Safety concerns currently minimal.

North Fork Dam, Lake Clementine (1939)

Some safety concerns, to be evaluated.

Martis Creek Dam and Lake (1972)

Currently in investigation/evaluation phase. Safety concerns being evaluated.

New Hogan Dam and Lake (1963)

Some safety concerns, to be evaluated.

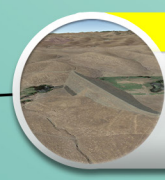
Farmington Dam and Reservoir (1951)

Some safety concerns, to be evaluated.

Burns Dam and Reservoir (1950)

Safety concerns currently minimal.

Bear Dam and Reservoir (1954)

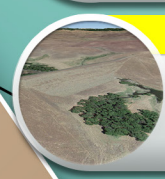


Safety concerns currently minimal.

Owens Dam and Reservoir (1949)

Some safety concerns, to be evaluated.

Mariposa Dam and Reservoir (1948)



Safety concerns currently minimal.

Buchanan Dam, Eastman Lake (1975)

Safety concerns currently minimal.

Pine Flat Dam and Lake (1954)

Safety concerns currently minimal.

Hidden Dam, Hensley Lake (1974)

Potentially urgent safety risks, to be evaluated.

Terminus Dam, Lake Kaweah (1962)

Safety concerns currently being evaluated. Issue evaluation study scheduled to be complete mid-2014.

Success Dam and Lake (1961)

Safety concerns currently being evaluated. Risk assessment scheduled to be complete mid-2014.

Isabella Dam and Lake (1953)

Risk evaluated and modernization project approved. Construction scheduled to start 2017 to raise dams, construct emergency spillway and realign borel canal.

Legend

1. **Play video** (digital version)
2. **Dam safety action class color**
   - Urgent and compelling (unsafe)
   - Urgent (unsafe or potentially unsafe)
   - High priority (conditionally unsafe)
   - Priority (marginally safe)
   - Normal (adequately safe)
3. **Dam name and year built**
4. **Age** - most dams designed with 50-year service life; some older dams may require more maintenance or modifications to meet current safety standards
5. **Safety risks**
   - Earthquake - sudden, violent shaking may cause dam to crack or collapse
   - Overtopping - huge, rare flood fills reservoir and overtops dam causing erosion
   - Seepage - seepage of water through dam may become excessive, causing erosion
6. **Additional information/website** (digital version)
7. **Current status and modernization plan**

ILLUSTRATION BY JOHN PRETTYMAN, SACRAMENTO DISTRICT PUBLIC AFFAIRS

CURRENT AS OF: DEC. 12, 2013