

Fact Sheet

Seismic-safety study of local dams

A stepped-up District monitoring effort

The Santa Clara Valley Water District is stepping up its dam-safety program, installing an array of sensitive monitoring equipment and conducting field investigations at three dams — Almaden, Calero and Guadalupe — south of San Jose. The study will provide information to evaluate their condition and seismic stability because they are located in the vicinity of a recently studied fault. The District is also including Anderson Dam in the early phase of dam evaluation to confirm that it was built with a transition zone between its earth core and rock shells. The remaining six District-owned dams will be studied later in a second phase.

We expect to complete the seismic-stability study on all four dams by the end of 2007. After the study is complete, we'll know if there is anything that needs to be done to modify or stabilize any of the dams.

Protecting our water supply

Protecting Santa Clara County's water supply system is a high priority for the Santa Clara Valley Water District. Our commitment to public safety is demonstrated by a comprehensive plan to manage, maintain, rehabilitate and/or replace Santa Clara County's water utility assets. The District's 10 dams are among the community's most important and valuable assets.

When new geologic information about dams and their settings are discovered, we conduct an analysis to calculate potential implications.

The Water District has received new information from recent local geologic and earthquake studies. A team of researchers led by a U.S. Geological Survey geophysicist conducted a study, partially funded by the Water District, that has revealed a possible active fault zone between Campbell and San Jose. In response to the study, the Water District is taking a proactive course of action to better understand the fault's behavior and potential impact on three dams near the fault.



A drilling rig prepares holes for monitoring equipment at Anderson Dam.

Voluntary storage limitations

The District is voluntarily limiting water levels at Almaden, Calero and Guadalupe dams as a safety precaution since these dams are known to be in close proximity to the Shannon-Monte Vista fault. Recent studies by the California Division of Safety of Dams have defined this fault as a high-slip-rate fault.

Until the study is completed, the District is adopting a conservative policy of restricting operations to provide an extra measure of safety.

The Water District takes a very conservative approach to dam safety. While studying this new information, we

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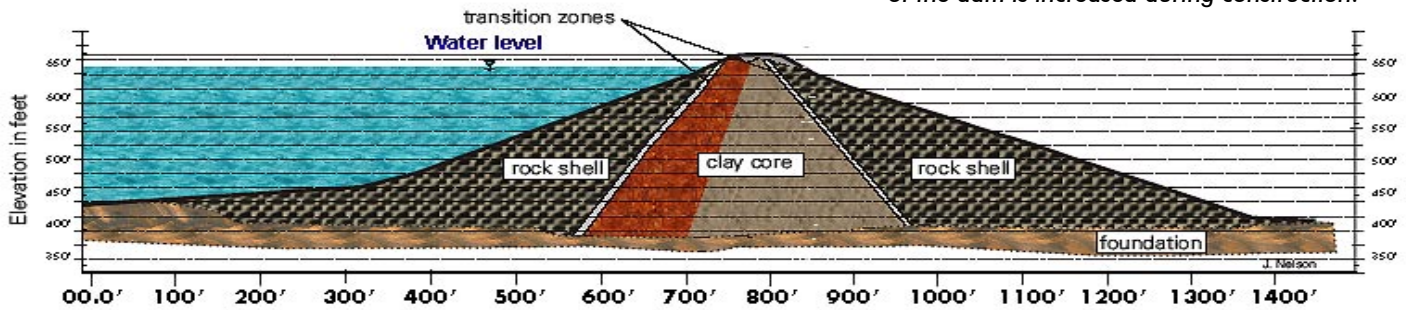
If you have questions or concerns about this project, contact **Dave Hook** at **(408) 265-2607**, ext. **2357**, or by e-mail **dhook@valleywater.org**.

Santa Clara Valley
Water District



Anderson Dam Cross Section

This cross section view of Anderson Dam shows the extreme width of the base of an earthen dam. The various layers of gravel and clay soil are compacted as the height of the dam is increased during construction.



will operate the three dams in an extra safe mode as a precaution. Restricting the water levels in the reservoirs reduces water pressure within the dams and allows a greater measure of safety.

Several other dams around the state are currently operating with capacity restrictions for similar reasons.

How does the Water District know the dams are safe?

- The District carefully maintains all of its dams to ensure public safety. We routinely monitor and study the condition of each dam and provide an annual surveillance report to the state Division of Safety of Dams (DSOD).
- The District is working collaboratively with DSOD (and the Federal Energy Regulatory Commission at Anderson Dam) to assure that our dams continue operating safely.
- Each year, the District jointly inspects each dam with DSOD.
- All licensed dams have a safety cushion known as "freeboard" between the spillway and the crest of the dam to manage overflows.
- All dams also have an outlet, so the reservoir levels can be drawn down if there is a safety concern.

- The Water District has its own Emergency Operations Center and a response team that promptly inspects dams after significant earthquakes.
- Since their construction in the 1930s and 1950s, all District dams have withstood previous seismic events with a minimum of concern.

Reservoir operations

The District's reservoirs are an important component of our county water supply, but also provide recreation and environmental benefits. The reservoirs are also operated to provide a measure of flood protection for homes and businesses downstream.

District reservoirs provide opportunities for recreation, where appropriate. We do not expect the operational restrictions to have a significant impact on recreational visitors. The District understands the importance of recreational use and is working with Santa Clara County Parks and Recreation to minimize inconveniences to boaters and other visitors.

Except for extremely dry years, reservoirs are operated to keep streams below the dams flowing to the bay year-round to benefit fish and riparian environments.

Facts about the reservoirs under study:

	Almaden	Calero	Guadalupe	Anderson
Year constructed	1935	1935	1935	1950
Capacity (in acre/feet)	1,586	10,050	3,228	89,073
Type of dam fill	earth	earth	earth	earth & rock
Old freeboard (feet)	8	6.5	10	15
Current freeboard (under the new voluntary restriction)	14	8.5	17.2	no change