

Nevada Irrigation District

2014 Dam Safety Activities Report

Nevada Irrigation District (NID) owns and operates 15 dams under the jurisdiction of California Division of Safety of Dams (DSOD). All of these dams, except two (Loma Rica and Deer Creek Diversion Dams), are also under the jurisdiction of Federal Energy Regulatory Commission (FERC). These two regulatory agencies enforce their respective comprehensive dam safety programs on the jurisdictional dams. The Hydroelectric Department is the District's lead in all dam safety issues, with support from the Engineering, Water Operations, and Water Maintenance Departments. In addition to satisfying the regulatory requirements, the Hydroelectric Department has its own ongoing improvements of various dam-safety related facilities and ancillaries. The following summarizes the dam safety activities performed in 2014 by the District:

1. Inspections, Monitoring

In addition to the District's weekly (as conditions permit) and monthly inspections of the dams, FERC performed their annual inspections in August 2014. DSOD performed their annual inspections in September 2014. In 2015 the District also submitted its own 2014 Dam Safety Surveillance Monitoring Reports to FERC and DSOD for review. (Note: The upper-country dams are remotely inspected from a helicopter approximately monthly when the dams are covered in snow and the access roads are not passable.)

The District updated the Owner's Dam Safety Program, Revision 2.0, and submitted to FERC for review and approval.

2. Evaluations and Assessments

FERC and DSOD required updates to evaluations regarding seismic stability, probable maximum floods, spillway/radial gates performance, penstock/inlet/outlet/valve condition, and several other subjects. In 2014, the District planned and scheduled several studies and evaluations that Independent Consultants, FERC, and DOSD asked the District to perform.

3. Emergency Action Plans (EAPs) and Exercise

As mandated by FERC, the District updated and submitted the EAPs for the high-hazard dams on the Middle Yuba, South Yuba, and Bear River Watersheds. The EAPs are for emergency notifications to the public in the event of an unlikely dam failure or other abnormal high flow event. An EAP outreach meeting was held on 10/29/2014 with 18 participants from local authorities and several other agencies and companies involved in the emergency actions.

4. Dam Safety Training

Annual dam safety inspection training was provided on January 24, 2014 to District staff members involved in the inspections of District dams.

5. Other Improvements and Activities

In 2014, the District

- Repaired damage at the 7 radial gates and supporting structures at Bowman South Spillway.
- Performed an underwater inspection and repair of penstock intake gate and the operating stem at Combie South.
- Performed an underwater inspection of the Broome gate at the upstream end of the outlet tunnel of Bowman North. The Broome gate appears to be in very good condition. There is no seal at the metal contact between the gate and the frame, so a certain amount of leakage is anticipated.
- Tested and evaluated the function of the motors for the 3 radial gates at Jackson Meadows Spillway. The motors were found to function normally.

6. Summary of Significant (>\$100,000) Modifications to Dams Completed in 2014

Dam	Type	Year Constructed	Summary of Modification
None			