

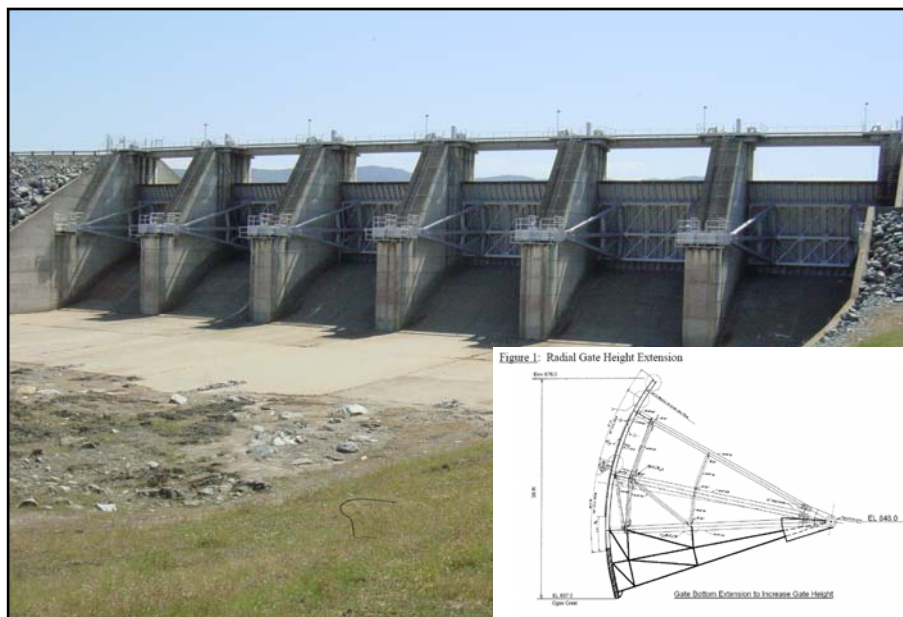
# New Exchequer Dam Spillway Modification

## Project Fact Sheet

Merced Irrigation District (MID) owns and operates New Exchequer Dam and Lake McClure on the Merced River for water supply, flood control, hydropower, and recreational uses. As part of upcoming FERC relicensing MID recently reviewed potential project enhancements, including increased storage in Lake McClure. The existing capacity of Lake McClure is 1,026,400 acre-feet and the average annual reservoir inflow is approximately 975,000 acre-feet. In many years runoff exceeds storage and additional capacity would capture excess runoff for use during future dry years.

### Project Description

The New Exchequer Dam Spillway Modification Project (the Project) would modify the existing spillway gates and un-gated spillway to increase the capacity of Lake McClure. The Project would increase the height of the existing spillway gates and raise the crest elevation of the existing un-gated spillway. Several height increases were evaluated to determine the best balance between cost and additional storage. Results of these analyses indicate an increase in the range of eight to ten feet is both feasible and economical.



### Project Benefits

- Increase water supply up to 70,000 acre-feet in a single year
  - If constructed in 2006, the Project would have provided 70,000 acre-feet of water during the current drought
- Increase average critical year water supply by 15,000 acre-feet
- Generate an additional 10,000 mega-watt hours per year of clean, renewable energy
  - Enough power to serve ~1,700 homes
- Annual power revenue of ~\$1M depending on demand and time of day delivery
- Enhance conjunctive management opportunities
- Expand recreational opportunities in Lake McClure
- Provide incidental flood control benefits

### Project Costs

- Approximately \$40 million in capital costs
- Minimal operations and maintenance costs
- Less expensive in total cost and cost per acre-foot (AF) of new storage than any on-going CALFED Surface Storage Investigation

### Comparison of Project Costs with On-Going CALFED Surface Storage Investigations

Project	New Storage (1,000 AF)	Construction Cost (Mil. \$)	Cost per 1,000 AF of New Storage (Mil. \$)
Exchequer Gate Modification	70	\$40	\$0.6
Upper San Joaquin River Basin Storage Investigation	1,260	\$3,358	\$2.7
Lake Shasta Enlargement	634	\$825	\$1.3
North-of-the-Delta Off-Stream Storage	1,800	\$3,600	\$2.0
Los Vaqueros Expansion	175	\$667	\$3.8
In-Delta Storage	217	\$789	\$3.6

CA Dept. of Water Resources, *California Water Plan Update 2009* (Public Review Draft), Volume 2, Chapter 12.

### Wild & Scenic River Implications

- 122.5 miles of the Merced River above elevation 867 feet is designated as Wild & Scenic
  - Elevation 867 is the current maximum water surface of Lake McClure
- Project would periodically and temporarily inundate less than a mile of this reach
  - Reach may be inundated approximately 5% of the time
  - Typically in June-July of years with above average runoff
    - Approximately one out of three years
  - Inundation may last one to nine weeks

