

STATE OF CALIFORNIA
STATE WATER RESOURCES CONTROL BOARD

In the Matter of Water Quality Certification for

**ENERGY RECOVERY AERATOR PROJECT
LICENSE AMENDMENT FOR FEDERAL ENERGY REGULATORY COMMISSION
PROJECT NO. 8377**

Sources: Kern River at Lake Isabella tributary to Buena Vista Lake thence the
Tulare Lake Basin

County: Kern County

WATER QUALITY CERTIFICATION FOR FEDERAL PERMIT OR LICENSE

BY THE EXECUTIVE DIRECTOR:

Project Description

1. Isabella Partners (Applicant) operates the Isabella Hydroelectric Project powerhouse located on the downstream toe of the main dam at Lake Isabella, as shown on Attachment A. Applicant's existing hydroelectric turbines cannot effectively generate power when flows are below 100 cubic feet per second (cfs) and Applicant seeks to use bypass flows to optimize power production.
2. Applicant's Energy Recovery Aerator Project will consist of the construction of a new powerhouse about 100 feet east of the existing powerhouse. The new powerhouse will be a 25 by 35 by 18 feet reinforced concrete building that houses a third hydroelectric unit capable of generating 850 kilowatts of electrical power using a crossflow aerator/turbine unit (crossflow unit), as shown on Attachments B-1, B-2, and B-3.
3. Thirty feet of 30-inch diameter pipe will connect an existing buried small bypass conduit (SBC) with the crossflow unit. The rate of diversion of water for the project will range from 25 to 100 cfs.
4. Discharge water from the crossflow unit will be released to the bypass channel via a tailrace having a rectangular opening of 10 feet wide by 4 feet high. The bypass channel merges into the existing hydroelectric plant afterbay, which flows to the Kern River.