Introduction to the Oroville Relicensing Project Inventory

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The Department of Water Resources is conducting studies on its 41,000-acre Oroville Facilities in association with FERC relicensing efforts. Survey of about half the available acreage is complete, documenting over 800 cultural resources, and detailed evaluation studies of 10 percent of the 553 resources with historic-period elements are well underway. The wealth and diversity of cultural resources identified is unparalleled for CRM work, with particularly rewarding findings in the over 9,500 acres of reservoir fluctuation zone. This paper will introduce the Oroville Facilities and summarize the survey findings.

My goal here is to introduce the Oroville Facilities Relicensing Project study area and the nature of the project. Selverston et al. (2005) provides a full natural and cultural context, description of the Oroville Facilities, inventory strategy, and all of the inventory findings. This is a re-licensing project, which means that the Department of Water Resources (DWR) is filing for a renewed license from the Federal Energy Regulatory Commission (FERC). Often there is no new construction for re-licensing projects, as is the case in Oroville. The Facilities are already operating, and DWR simply wants to continue operation while complying with prevailing regulations. For a re-license, FERC requires a management plan, or Historic Properties Management Plan, for the cultural resources within the re-licensing boundary. For Water Resources to prepare an effective plan, they need three things: One - they need to know what needs to be managed. That is, they need to know if they have anything to manage. Two - they need to know the values of their resources; what makes them significant. And Three - they need to understand any affects on those values by continued operations. In sum, a Phase I survey and a Phase II evaluation are needed.

The Oroville Facilities

The Oroville Facilities are located in the northern Sierra foothills of eastern Butte County. The Oroville Dam was constructed between 1961 and 1968 and is situated to capture the North, Middle, and South forks of the Feather River, and the West Branch. The earthen dam is 770 feet tall, with its spillway resting at the 900-foot contour. When the reservoir is full, the shoreline stretches for 167 miles, and it inundates nearly 16,000 acres. Reservoirs in the West are hardly ever full, though; typically a fat, barren band wraps around the reservoir. The facilities can continue operating with water elevations as low as 640 feet, although the lowest Lake Oroville has ever been is 645. The area between the 640- and 900-foot contours is the Lake Oroville fluctuation zone; it adds up to about 9,500 acres. That is a significant piece of real estate that on any given year may be above or below water. In some places this zone can be almost two miles wide when the water gets really low. At its lowest operating level the reservoir shrinks to just over 6,000 acres.

When the reservoir level is low, long stretches of the rivers and their tributaries are exposed. As much as six or seven miles of the forks can revert back to a natural, albeit barren, state. And, of course, cultural resources of all sizes and origins also become exposed: large, placer-mining landscapes and the remains of ranches, Maidu village sites, individual milling boulders and cupules, mule trails and trash scatters. The project boundary generally falls about 200 feet above pool, although there are many areas that do not follow this rule, especially designated recreation areas such as the Craig, Bloomer Boat-in, Lime Saddle, and Loafer recreation areas. In addition to these, there are numerous primitive camping areas and trails throughout the hills around the reservoir. Below the Oroville Dam is the Thermalito Diversion Pool. This area is generally not as steep as above the dam, and is dominated by oak woodland. The purpose of the pool is to catch water and divert it into the Forebay. It also keeps a constant flow going into the original Feather River, which continues on its course around Oroville, assisting, in part, the hatchery operations near town. The flow into the Forebay brings us to the Valley floor. Grasslands and small rolling hills dominate this area. There are some small springs that pop up here and there and host a few riparian habitats, but they are few and far between. The Forebay empties into the Afterbay, and together these two large bodies of water are used to control downriver flows, regulate water temperature, and provide additional recreational opportunities. The spillway empties into the Oroville Wildlife Area that stretches along the Feather River for about five miles in each direction. This 11,000-acre wildlife enhancement consists of a network of sloughs, bogs, ponds, and dredge tailings on both sides of the Feather River.

In all, the Oroville Facilities encompass over 41,000 acres. Contained within this acreage are numerous interrelated components designed to catch floods and store water, generate power, assist in maintaining water quality in the Sacramento/San Joaquin Delta, enhance fish and wildlife, and provide recreational opportunities. The amount of available ground surface fluctuates between about 21,000 and 31,000 acres, depending on the volume of water contained in Lake Oroville. Although the Thermalito Diversion Pool, Forebay, and Afterbay also fluctuate, the degree is negligible.

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METHODOLOGY

Our first task was the Phase I Survey. Sonoma State did not do this alone. We teamed up with Drs. Michael Delacorte and Mark Basgall of California State University, Sacramento, as well as a number of local Maidu people. I also want to point out that Dr. Helen McCarthy and her team conducted studies aimed at the ethnographic resources. The job simply could not have been done without the hard work and insights from the entire team. Our good-faith effort to identify archaeological and historic-period resources potentially eligible to the National Register consisted of a multi-faceted approach. The elements included the following:

(1) re-recording all accessible previously recorded sites. Of the 276 known sites in the study area, 83 remained under water during the study. We relocated and recorded 146 known sites.

(2) surveying all of the exposed fluctuation zone. We were fortunate and had record-low reservoir levels during this component. The reservoir dipped to about 690 feet, which is below full capacity by 210 vertical feet, exposing nearly 8,000 acres. We managed to look at about 7,500 acres.

(3) conducting a probabilistic, 25-percent sample above pool. This sample randomly selected strips of land in the valley, oak-woodland, and pine-forest habitats proportionate to the percentage of the study area each occupied.

(4) conducting a targeted survey of historically sensitive locations. We used historic-era maps and other resources to identify locations with a high probability for historic-period resources.

(5) surveying management-specific parcels. This element was at DWR's discretion and included places like campgrounds and other improvements. The survey was carried out in 2002 and 2003. In all, about 15,500 acres were examined, or about half the available acreage.

FINDINGS

We examined and recorded 803 sites. Another 83 previously recorded sites remained inundated during our study. And, although I'm jumping ahead a bit, this is the time to report that the Phase II evaluation studies that took place in 2004 revealed another 78 sites. Just about every time we took a different path around the project, we stumbled onto another resource. Altogether this adds up to 964 known sites. OK, it is not the 1,000 we advertised; but consider that we only examined half the available acreage; all of the various models we employed to give DWR an estimate of the total sites suggest as many as 2,000. Out of the 803 resources for which we developed new documents, 478 are historic-period, 250 are prehistoric, and 75 are multi-component. Across the board historic-era sites out number prehistoric sites two to one. We discovered 325 sites in the fluctuation zone alone, or about 40 percent of the total sites. The fluctuation zone made up about half of the surveyed acreage. Out of the 325 sites in the fluctuation zone, 112 are historic-period, 166 are prehistoric, and 47 are multi-component. Here the number of prehistoric sites out numbers the historic-period ones. This is probably because they are more visible in the fluctuation zone, often consisting of lithic scatters that are difficult to see in thick vegetation. This explanation suggests a far greater number of prehistoric sites above pool than discovered.

REFERENCES CITED

Selverston, M.D., M.J. Markwyn, M. Walker, M.G. Delacorte, and M. Basgall

2005 *Archaeological and Historical Resources Inventory Report; Oroville Facilities Relicensing FERC Project No. 2100.* Anthropological Studies Center, Sonoma State University. Submitted to California Department of Water Resources. On file, Northeast Information Center, California State University, Chico.

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