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EID might pump water to cut rates

By Cathy Locke -- Bee Staff Writer - *(Published October 30, 2003)*

El Dorado Irrigation District staff members have floated an idea that they believe may reduce water rates for El Dorado Hills residents in decades to come.

It calls for pumping water uphill from Folsom Lake, then allowing it to flow downhill during peak periods of power use to supply water and power to the water treatment plant in El Dorado Hills.

David Powell, director of facilities management, presented the idea to district board members last week. A district engineering team is preparing a project proposal that Powell said could increase water supply in El Dorado Hills and reduce electrical costs.

Because of the cost of pumping water from Folsom Lake, El Dorado Hills residents pay higher water rates than district customers who live in areas where pumping is not required. Minus any surcharges, a typical monthly rate for a single-family residence receiving pumped water is $24.32 versus $22.79 for a home where pumping was not required.

Pumping water from Folsom Lake for 18 hours instead of 24 hours a day, Powell said, would save the district an estimated $500,000 annually. The district could save an additional $140,000 per year by installing a turbine at the El Dorado Hills plant to generate electricity to power the plant during the six-hour peak period.

"We're talking about a new project, and we have some opportunities," said General Manager Ane Deister.

Although staff members haven't determined whether it is feasible, the concept is worth studying, she said.

Board president George Osborne noted that Pacific Gas and Electric employs the system, known as pumped storage, in its Helms Project, which supplies electricity to the city of San Francisco.

The Sacramento Municipal Utility District's proposed Iowa Hill project near Camino also calls for pumping water uphill to a reservoir during non-peak periods and allowing it to flow downhill to generate electricity during hours of peak demand.

Such a project also could provide the additional water treatment capacity that El Dorado Hills will need by 2030 if development occurs as projected in the county's 1996 general plan, Powell said.

The El Dorado Hills plant has the capacity to treat 16 million gallons of water per day, with a current demand for 14.7 million gallons daily, he said.

The district is working toward expanding the plant to handle 24 million gallons per day, or 24 MGD. "But as soon as we get that in place, we will need to go to 52 MGD," Powell added.

The plant, however, is next to an El Dorado Hills Community Services District park, and the parkland is not available for a plant expansion, he said.

Under the plan being studied by district engineers, the El Dorado Hills plant would not be expanded

beyond 24 million gallons per day. However, at that point, the district could build a plant capable of treating 28 million gallons daily on land now occupied by a mothballed plant at Bass Lake.

Powell said in an interview that the pipeline to Bass Lake would have to be constructed between 2010 and 2015, and the Bass Lake treatment plant would be built at the same time. However, he said the district probably would start with a small plant and increase the capacity as needed.

Directors noted that the project would require a license from the Federal Energy Regulatory Commission. But director Richard Akin said a project of this type would raise far fewer issues than one involving a dam.

"FERC looks quite favorably on a project like this," he said.

Powell said the engineering staff is preparing cost estimates for constructing such a system and will be assisted by Dave Hinshaw, senior major accounts representative with PG&E, and Lon House, the district's power systems consultant.

Powell said he expects to present the board with a proposal in about 60 days.

The proposal, he said, also would be submitted to outside experts for an independent analysis.

About the Writer

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