



## ***SOUTH FEATHER WATER & POWER***

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**TO: Board of Directors**

**FROM: Matt Colwell, Water Division Manager**

**DATE: January 25, 2005**

**RE: General Information (regarding matters not scheduled on agenda)**

### **Distribution Operations**

**Water Division staff** have been accomplishing water distribution system maintenance and betterment projects including increasing the inflow/outflow capacity of the 1 million gallon tank on Kelly Ridge. Staff has installed approximately 150' of 30 inch HDPE pipe replacing a collapsed section of old steel pipe on the South Ditch near Crossacountry Road. The excavation was up to 22 feet deep.

The New Office Building is a priority project and will continue to have dedicated staff to the project.

#### **MRTP Clear-well:**

Water Division staff have removed the 23 year old external blue hypolon liner off of the clear-well as shown in figure 1. The black liner will remain as the protective barrier on the bottom of the clear-well. Temcor construction is progressing rapidly on the construction of the cover (See figure 2.)



Figure 1. Careful removal of blue hypolon while not damaging the remaining black bottom liner

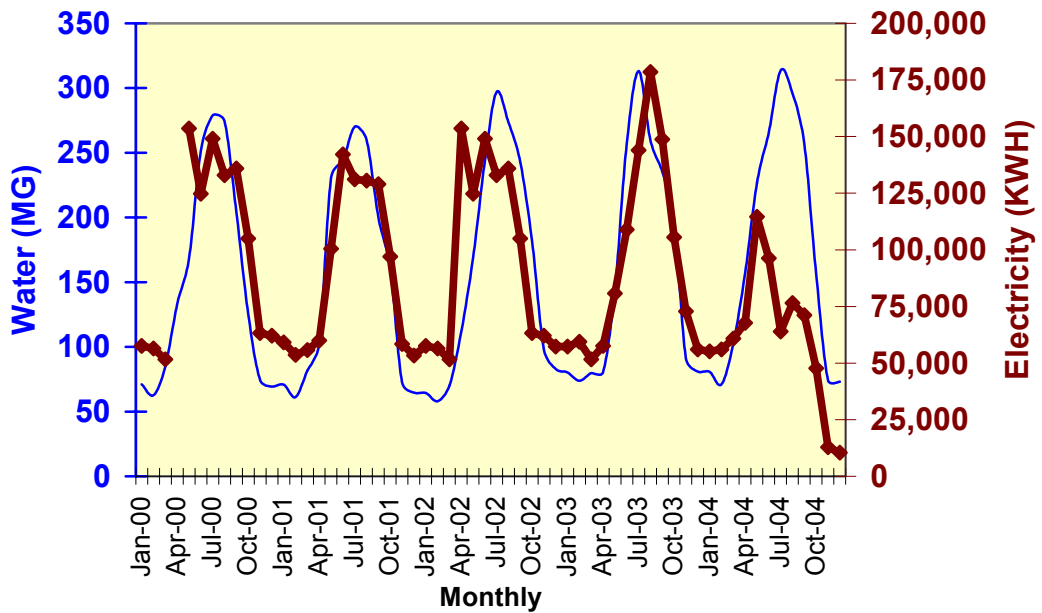
**Leaks:** During the month of December, three service line leaks and one main line leak were repaired. Five new meters and 4 backflow devices were installed.

**Water Treatment Operations**



**Solar Plant Production:** The attached graph provides a perspective of historical energy consumption compared to water production. The historical seasonal low energy usage near 60,000 KWH has been reduced to a new seasonal low approaching 10,000 KWH.

**Miner Ranch Treatment Plant  
Monthly Water Production versus KWH Purchased**



**Water Plant Production:** All bacteriological requirements were met for the Miners Ranch Treatment Plant, Bangor Treatment Plant, Community Line System, Strawberry Campground, and Sly Creek Campground.

**Irrigation Operations:**

**Canal Seepage Reduction Program:** I have developed a Canal Seepage Reduction Program to further the Agency's irrigation water use efficiency efforts. The goal of this program is to identify and quantify canal seepage throughout the 112 miles of irrigation canals and to prioritize canal-lining projects in high seepage areas. As part of our overall Program, SFWPA has submitted two proposals to California Bay-Delta Program's Water Use Efficiency Grant Program (Grant Program) administered by DWR as part of the \$3.44 billion Proposition 50 bond measure. The Grant Program is separated into two types of proposals; 1) is for Section A implementation type projects (including canal lining) and 2) Section B is for research type programs. SFWPA proposal is to identify and quantify canal seepage on the Palermo Canal as part of a Section B research project and to implement 11,500 feet of canal lining as part of a Section A implementation project.

The Section B Proposal is to implement innovative technology as a cooperative research project with California State University Fresno, Center for Irrigation Technology (CIT) designed to assess canal seepage on the Palermo Canal. CIT will lead the research project on the Palermo Canal to identify and quantify canal seepage along 20+ miles of the Palermo Canal. The project is designed to be a model approach for rapidly assessing and quantifying canal seepage that can be applied to the remainder of our canals and for other water agencies seeking to assess irrigation canal seepage. The final product will be a written report documenting the approach and the demonstrated amount of conserved water from the Agency's canal lining projects. The estimated total project cost is \$267,000 with SFWPA contributing \$22,000 of in-kind services (labor and equipment).

The Section A implementation part of the proposal is consistent with Palermo canal-lining projects completed by the Agency in the past. The Proposal requests reimbursement for labor and materials on lining 11,500 feet of the Palermo Canal. The estimated project costs are \$381,000 and SFWPA contributing \$66,000 of in-kind services. Based on results from past canal-lining projects and rough seepage estimates, I have estimated 1,000 acre-feet of potential conserved water.

Naturally these projects are not cost effective for the Agency to undertake alone and the State's WUE Program will fund projects that are not cost effective on the local level and that provide recognized Bay-Delta benefits. Quantifying canal seepage and the amount of conserved water from canal-lining projects is somewhat problematic and is consistent with the objectives of the State's WUE Program. I believe our chances of obtaining funding are high because of the multiple benefits to the Bay-Delta Program.

At this stage we are not obligated to implement any part of these programs or projects. If we are funded the Board will be provided with complete details of the proposal and any potential contractual obligations. The Proposals are available for your review and are 30 pages each.

I have spoken with NCWA regarding any conflicts with water management issues ("Beneficiary Pays") they/we are facing and they do not anticipate any unintended consequences. NCWA has supported both proposals and consider them consistent with the Sacramento Valley Water Management Plan.

Miners Ranch December 2004	
Total	74.5 Million Gallons
High	2.9 MGD
Low	1.6 MGD
Avg.	2.4 MGD
Bangor	
Total	0.19 Million Gallons
High	0.03 MGD
Low	0.00 MGD
Avg.	0.02 MGD
Community	
Total	1.5 Million Gallons
High	0.05 MGD
Low	0.04 MGD
Avg.	0.05 MGD