SWEETWATER SPRINGS WATER DISTRICT

TO: Board of Directors **AGENDA NO. V-D**

FROM: Steve Mack, General Manager

Meeting Date: October 1, 2009

SUBJECT: DISCUSSION/ACTION RE RUSSIAN RIVER WATER SHORTAGE

RECOMMENDED ACTION: Receive a report from staff discussing the Russian River water shortage.

FISCAL IMPACT: none.

DISCUSSION:

Because of the water shortage situation in the Russian River, staff will present a monthly update on associated activities. Below are summaries of related activities and information from this past month:

Flows at Hacienda. The Board Order allows minimum flows to be reduced to 35 cfs in the lower Russian River after July 6, 2009 until October 2, 2009 if storage in Lake Mendocino was below 65,630 af on July 1, 2009. At the May 28 public meeting Sonoma County Water Agency (SCWA) staff stated that they thought the flows could be maintained at at least 50 cfs in the lower Russian River through October 2 and still maintain adequate storage in Lake Mendocino for fall fish releases. The Hacienda Bridge is the flow measurement spot for the lower Russian River. Figure 1 shows summer flows at Hacienda Bridge for a number of years – 1977 which is the worst year on record, 2007 which is the most recent year that a Temporary Urgency Change allowed a reduction in the minimum flow to dry year levels (85 cfs), average daily flow for this decade, and daily flow recorded for 2009, along with a projection done starting June 14 for flows this summer. The flow projection is based on a 50 cfs flow after July 6.

The line representing this year's flow shows that the lowest flow reached this summer so far has been 45 cfs and this occurred on August 17. USGS daily average values are not available on the on the Internet for August 12 through August 19. Data in Figure 1 for that period are the daily values given in the Santa Rosa Press Democrat and represent the 7 am instantaneous value, which will be different from a daily average. Flow had been steadily increasing in September to the 90-100 cfs range, but at the latest update (September 23) had dipped below 80 cfs and was very similar to 1977 levels. Figure 1 is on the District website and updated on a weekly basis.

District flow measuring effort. The Board Order requires a 35 cfs minimum flow in the lower Russian River from the Dry Creek confluence to the Pacific Ocean. The measuring point for that flow is at the Hacienda Bridge which is many miles (approximately 20-25 river miles?) from the Pacific Ocean. Flow in an open channel rarely stays at a constant level for such a long distance,

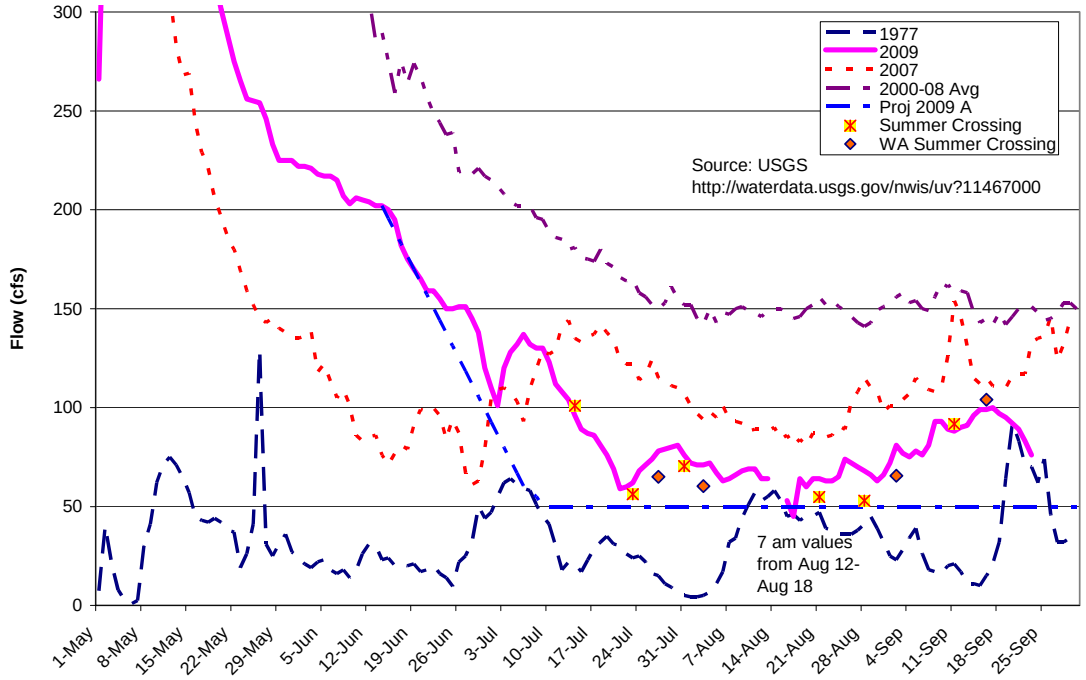
the question is whether it is increasing or decreasing. District staff have the capability to measure river flow and have been doing so this summer at the Vacation Beach Summer Crossing.

To date District staff have measured flow six times at the Vacation Beach summer crossing. The most recent flow measurement was 92 cfs compared to a reported flow of 88 cfs at Hacienda and probably reflects the taking down of summer dams – that action has disturbed flow in the lower river and has made flow measurements more difficult to compare up and down the river as the flow is less steady due to waves coming down the channel. At our last measurement we happened across Water Agency staff measuring flow at the exact same location. We compared notes and found our efforts confirmed each other's results. I have added the Water Agency flow measurements at Summer Crossing as well as our flow measurements to Figure 1. Taken together the measured flows at Summer Crossing show a consistent trend that during July and August; flow at Summer Crossing is approximately 10 cfs lower than Hacienda at the flow levels we experienced this summer. Once the dams were being taken out that trend went away.

Lower River Water Quality. I did not have time to update the water quality figure from last month. I have inspected the data and there continues to be no noticeable adverse trend in the measured water quality constituents.

Summer Water Use. Figure 3. April through September Monthly Sales shows summer water sales for 2004 (the base year), 2008, 75% of 2004 and water sales for 2009. The figure shows that in August we did not meet the 25% goal for sales. It should be noted that August data are for meters read in early September and represent sales from the Monte Rio and a small part of the Guerneville system for water used in July and August. Production, which is for both systems, shows a similar percentage reduction during that period. Depending on when one starts counting and recognizing the differences between the sales and production data, sales are down approximately 20% from 2004 and production is down approximately 10% since April 2009.

Figure 1. Russian River Summer Flow
Hacienda Bridge, updated September 24, 2009



Projected 2009 based on State Board approved TUC minimum flows and SCWA public statements

Figure 3. April through September Monthly Sales
Sweetwater Springs Water District

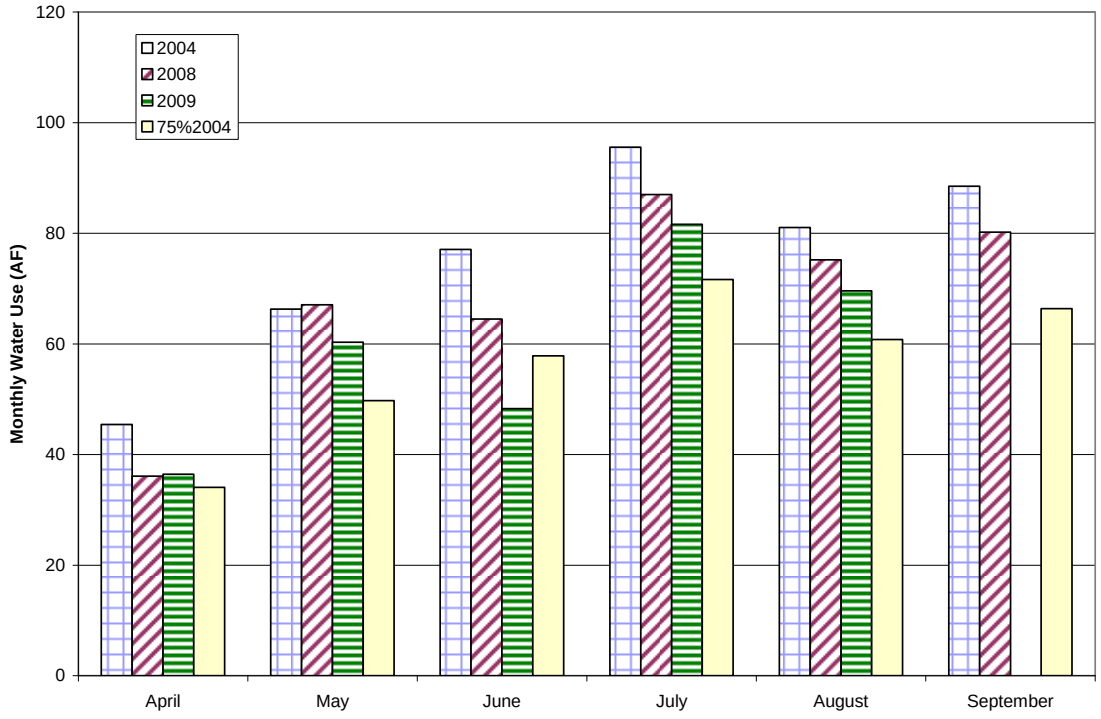
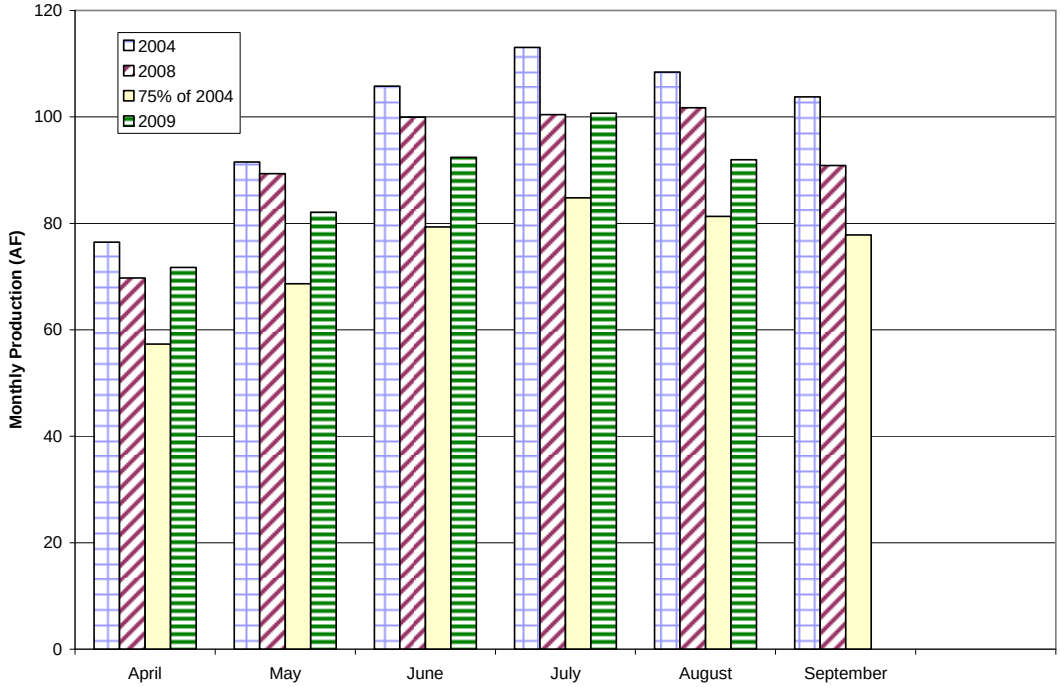



Figure 4. April through September Monthly Production
Sweetwater Springs Water District