

## June 2005 SJR DWSC Flow and DO

Cathy Ruhl of USGS has forwarded the SJR Garwood preliminary estimated daily flow data for June 2005. This flow is the net downstream flow of the San Joaquin River (SJR) Deep Water Ship Channel (DWSC) near the Port of Stockton/Rough and Ready Island. Attached are these flow data in Word format.

The lowest flow of the month (2,158 cfs) occurred on June 29, 2005. In early June the SJR DWSC flows were over 6,000 cfs. As expected, during June 2005 there were no low dissolved oxygen (DO) concentration problems in the DWSC. All DO concentrations were above the water quality objective of 5 mg/L. Typically the DO was at or above 8 mg/L with some values in late afternoon of 12 mg/L. The lowest values were recorded near the end of the month of about 7 mg/L. See [http://cdec.water.ca.gov/cgi-progs/histPlot?station\\_id=RRI&sensor\\_num=61&dur\\_code=E&start\\_date=06%2F01%2F2005&end\\_date=now&geom=800x300](http://cdec.water.ca.gov/cgi-progs/histPlot?station_id=RRI&sensor_num=61&dur_code=E&start_date=06%2F01%2F2005&end_date=now&geom=800x300)

As I have reported in the Synthesis report and supplements (See [www.gfredlee.com](http://www.gfredlee.com) at <http://www.gfredlee.com/psjriv2.htm>) typically as VAMP flows end in May, the flows of the SJR DWSC decrease to less than a few hundred cfs. These low flows are accompanied by DO Water Quality Objective (WQO) violations with some DOs less than 3 mg/L which are lethal to some fish. The SJR Vernalis flows in June are typically over 2,000 cfs with the State and Federal South Delta export projects (Tracy and Banks pumps) and South Delta irrigation sucking the majority of the SJR Vernalis water into the South Delta through the Head of Old River. This leads to very low flow of the SJR through the DWSC and DO WQO violations.

The June 2005 SJR DWSC flow and DO data further support the previously developed conclusion that if the SJR DWSC flows are maintained above 1,500 to 2,000 cfs, the DWSC low-DO water quality problems do not occur.

If you have questions or comments on these issues please contact me.

Fred

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Data saved to file: \\Nasdcascr\caruhl\DataDrive\Data Requests\huber\stk\_2005\_06\_prelim.dat

Station: San Joaquin River at Garwood Bridge (Stockton)

Postive Direction: North towards confluence

Column 1: Date and Time Stamp: YYYY/MM/DD HH:MM

Column 2: Tidally Averaged Discharge, Daily Flow Estimate, cfs

Column 3: Comments

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