

## **Accounting Procedures For Determining Refill Impacts On The Projects of Merced Irrigation District-State Water Contractors Water Transfer**

The following columnar description sets forth the format, criteria, and procedures to be used for the determination of combined impacts to the Projects due to changes in refilling Lake McClure caused by the water transfer. An example of the application is attached.

### **COLUMNAR DESCRIPTION<sup>1</sup>**

The following columnar descriptions set forth the format, criteria, and procedures to be used for the determination of combined impacts to the Projects:

Column 1 – Date

Column 2 – Actual Storage: observed end-of-day storage as reported in Corps of Engineers' Water Control Data System  
([http://www.spk-wc.usace.army.mil/plots/plot\\_menu\\_ca.html](http://www.spk-wc.usace.army.mil/plots/plot_menu_ca.html))

Column 3 – Beginning-of-Day Transfer Account Balance: Transfer Account Balance at beginning of day “i”.  
**Column 3<sub>i</sub> = Column 3<sub>i-1</sub> - Column 8<sub>i-1</sub>**

Column 4 – End-of-Day Transfer Account Balance: Transfer Account Balance at end of day “i”.  
**Column 5<sub>i</sub> = Column 5<sub>i-1</sub> - Column 8<sub>i</sub>**

Column 5 – Beginning-of-Day Theoretical Storage: beginning of day storage as would have occurred absent the water transfer.

$$\text{Column 4}_i = \text{Column 2}_i + \text{Column 3}_i$$

Column 6 – End-of-Day Theoretical Storage: end-of-day storage as would have occurred absent the water transfer

$$\text{Column 6}_i = \text{Column 2}_i + \text{Column 5}_i$$

Column 7 – Allowable Storage: top of conservation storage as reported in the Corps of Engineers Water Control Data System

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<sup>1</sup>Where the Current Day's computation is dependent upon the Previous Day's data: <sub>i</sub> signifies the Current Day and <sub>i-1</sub> signifies the Previous Day.

[http://www.spk-wc.usace.army.mil/plots/plot\\_menu\\_ca.html](http://www.spk-wc.usace.army.mil/plots/plot_menu_ca.html)

Column 8 – Daily Refill Volume: amount of Transfer Water refilled on the current day

**Column 8<sub>i</sub> = Column 4<sub>i</sub> - Column 7<sub>i</sub> but not less than zero and not greater than Column 3<sub>i</sub>**

Column 9 – Cumulative Refill Volume: total volume of Transfer Water that has been refilled through end of current day.

**Column 9<sub>i</sub> = Column 9<sub>i-1</sub> + Column 8<sub>i</sub>**

Column 10 – Delta Condition: "B" indicates that the Delta is in Balanced Condition, "E" indicates that the Delta is not in Balanced Condition. (<http://www.usbr.gov/mp/cvo/.....>)

Column 11 – VernalisRequirement: "Y" indicates that releases are being made from New Melones for San Joaquin River at Vernalis water quality; "N" indicates that releases are not being made from New Melones for San Joaquin River at Vernalis water quality. (Source: Reclamation will, upon request, identify when the San Joaquin River at Vernalis is in Balanced Condition.)

Column 12 – Daily Refill Impact: the daily Refill Impact volume when either Delta Balanced Condition or VernalisRequirement Condition exists, as indicated in Column 10 or Column 11.

**If Column 10<sub>i</sub> = "B" or Column 11<sub>i</sub> = "Y" then Column 12<sub>i</sub> = Column 7<sub>i</sub> otherwise Column 12<sub>i</sub> = 0**

Column 13 – Cumulative Refill Impact: the accumulation of Daily Refill Impacts over the Refill Period. Upon completion of refill operations, this amount of water is owed to the Projects and must be released according to a schedule agreed to by the Parties.

**Column 13<sub>i</sub> = Column 13<sub>i-1</sub> + Column 12<sub>i</sub>**