

SALINAS RESERVOIR RELEASE REPORT TERMS AND CALCULATIONS

<u>ITEM</u>	<u>UNIT</u>	<u>DESCRIPTION</u>
Date	MM/DD/YY	Date of reading. Measurements of all parameters taken at 7:00 AM.
Lake Elevation	FT	Elevation of lake surface. Value based on automated reservoir stage reporter.
Capacity	AF	Estimated storage volume based on the lake elevation. The lake elevation is correlated to a storage volume based on the 2024 bathymetric survey.
Cap (Capacity) Change	AF	Difference between current capacity and last computed value. Figures can be either a positive value (increase in capacity) or negative value (decrease in capacity).
Pipeline Div (Diversions)	MGD	Water volume diverted to the City of San Luis Obispo over a twenty-four-hour period as recorded by the Dam Pump Station Flowmeter in million gallons.
Pipeline Div (Diversions)	AF	Water volume diverted to the City of San Luis Obispo over a twenty-four-hour period as recorded by the Dam Pump Station Flowmeter in million gallons converted to AF. Acre feet= millions of gallons x 3.0689
Downstream Releases	AF	Estimated water volume released from the Salinas Dam release piping to the Salinas River as determined at the downstream release weir.
SW (Spillway) Discharge	AF	Zero if lake elevation is less than or equal to 1,303.59 feet. If lake elevation is greater than 1,303.59 feet, water is discharged from the Salinas Dam over the spillway. The water volume discharged is estimated based on a spillway rating curve that correlates the height over the spillway to a flow volume discharged over the spillway.
Total Dis (Discharge)	AF	During normal operations this number is the sum of pipeline diversions and downstream releases. During spilling events this number is the sum of pipeline diversions and spillway discharge.
Pan Read	In	Recorded water loss in the evaporation pan over a 24-hour period.
Pan Coeff (Coefficient)	Unitless	Coefficient to relate the pan read to evaporation over the reservoir. The pan coefficient varies based on month.
Lake Surface	Acres	Estimated surface area based on lake elevation. The lake elevation is correlated to a surface area based on the 2024 bathymetric survey.
Lake Evap (Evaporation)	AF	Estimated reservoir water loss due to evaporation. Calculated as $\text{Lake Surface (Acres)} * \frac{\text{Pan Read (in)}}{12 \left(\frac{\text{in}}{\text{ft}}\right)} * \text{Pan Coefficient}$
Precip (Precipitation)	IN	Total rain fall over a 24-hour period. Value based on automated tipping bucket gauge.
Precip (Precipitation)	AF	Estimated reservoir water volume gain due to precipitation. Calculated as $\text{Lake Surface (Acres)} * \frac{\text{Precip (in)}}{12 \left(\frac{\text{in}}{\text{ft}}\right)}$
Daily Outflow	AF	Estimated total reservoir water volume loss due to total discharge and evaporative losses less the estimated total reservoir gains due to precipitation. Calculated as $\text{Total Dis (AF)} + \text{Lake Evap(AF)} - \text{Precip (AF)}$
Inflow	AF	Estimated total inflow to the reservoir. Inflow is estimated as the sum of capacity change and daily outflow. This value is intended to estimate flows into the Salinas watershed from sources other than rainfall over the lake surface. Per the existing water rights permit all calculated inflow must be released. This is value is back calculated from other measurements and is not directly measured. Calculated as $\text{Cap Change} + \text{Daily Outflow}$

Units:

AF – Acre Feet

MGD – Million Gallons per Day

IN – Inch

FT – Feet

All measurements are taken daily and read over a 24 hour interval.