

In our efforts to evaluate various alternatives, the LSJR Committee will need to hire a consultant to assemble a database that we can use for the modeling. The database will need to meet certain basic criteria in order for the modeling to give us any reasonable results. Having a basic set of questions may help those making a proposal to evaluate their information base and determine how well they will be able to tackle specific questions regarding the basin. Our job here is to propose a set of questions that we can give to the potential consultants for their evaluation during the scoping of work to be done. The focus is on the database, not on the alternatives or the modeling. The intent is have a list of questions that allow the consultants to understand the type of questions that may be posed by the LSJR Committee during their analysis of existing and future water quality in the Lower San Joaquin River. There are certain basic assumptions that should remain constant throughout the questions on reviewing the adequacy of the databases available. Those are:

- Proposed Water Quality Objectives for salinity would fully protect all Beneficial Uses; and
- Salinity is measured by electrical conductivity (EC)

Potential questions for consideration by the consultants might be along the following lines.

Is the database being considered for use sufficient to?

1. Demonstrate or predict what salinity levels have been over the last 50+ years, monthly, seasonally or by water-year types and what the progress in degradation has been for various reaches of the river both above and below the Merced River confluence?
2. Determine the rate of compliance with the Vernalis objective and how this would change with the various alternatives being considered?
3. Determine the salinity levels at various points along the San Joaquin River from the Merced River inflow to Vernalis including during various months, seasons and water-year types and what is the variability in that data?
4. Determine what or when assimilative capacity is available in the San Joaquin River? Can the database be used to determine whether this is best done seasonally or during the entire year?
5. Utilize a simplified Piper Diagram to determine different water quality characteristics for the grassland wetland discharges, subsurface drainage water discharges and river quality between reaches monthly, seasonally or by water-year type?
6. Determine what averaging period should be used during the various analyses and how much variability will we see during that averaging period?
7. Determine salt loadings from the various watersheds and discharge points both within the Lower San Joaquin River and upstream of the Merced River inflow?