

Subject: Regional Water Management Plan for the Sacramento River Contractors
Public Comments and Reclamation Responses

Comment #1:

The draft Regional Plan proposes neither, to fully measure the volume of water delivered to each contractor, nor propose a program that is at least as effective as full measurement, as is required by the Criteria.

Response #1

The Regional Planning criteria allows for the implementation of an alternative measurement program if it is determined to be at least as effective as the Standard Criteria. The Settlement Contractors' plan includes a measurement study plan intended for use to develop such an alternative. Reclamation will evaluate any measurement alternative program that is developed based on the criteria.

Comment #2

It is critical that these studies and resulting recommendations address how, in the absence of accurate water measurement and volumetric pricing, a price signal will be conveyed to the water user.

Response #2

The outcome will follow the Regional Criteria. While a volumetric pricing signal can be very effective, the contractors have the opportunity to present an alternative based on, at least in part, a field study that demonstrates it is as effective as the measurement Best Management Practice in Reclamation's Standard Criteria for evaluating Central Valley Project Water Management Plans.

Comment #3

The plan states that the Cooperative Water Management Study will fill out Table 1-4, but Table 1-4 is itself inadequate. It quantifies the types of measurement the districts are currently doing, but does not put those numbers into context. For example, does that number of acres represent 5% of the district or 50%? It is not possible to tell from Table 1-4. We urge the Sacramento River Settlement Contractors to add quantitative information regarding the extent of measurement practices.

Response #3

The participants have agreed to provide a table similar to the one you have described in the first annual update. This table will provide extended information on measurement resources of the districts. Requiring this data to be collected for the Regional Management Plan would significantly delay the Plan implementation.

Comment #4

Districts are urged to provide this information and a map of every district with the location of all measuring devices, preferably with a legend describing the type, accuracy and frequency of data recording for every point.

Response #4

Reclamation has not asked for a similar measurement map from districts preparing Water Management Plans under the Standard Criteria. This may potentially add a significant cost to the preparation of the plan, especially for those districts which currently do not have Geographic Information System capabilities.

Comment #5

The Regional Plan fails to address the issue of water measurement data management. We urge the Bureau and the Sacramento River Settlement Contractors to explain how they are going to collect, store, protect, use and present water measurement data.

Response #5

The Standard Criteria only requests a general description of how the information is managed. Reclamation has not required any district to develop new systems to manage data, as long as the system, each district has in place, is able to provide the data required in the Criteria.

Comment #6

The Regional Plan does not propose to change water pricing policies to make better use of this fundamental tool, despite the illustration in Table 1-6 that most of the Sacramento River Settlement Contractors rely on per-acre charges, rather than charges based on volume of water applied.

Response #6

This item will be addressed after the water measurement study is completed.

Comment #7

The Regional Plan fails to address the issue of temperature as it relates to water quality. An inclusion of an additional subsection in Section 1.10.1 Surface Water Quality, addressing water temperature as it returns to the river and how that contributes to dissolved oxygen levels in the River, is urged.

Response #7

Temperature related Quantifiable Objectives (QOs) and Targeted Benefits (TBs) have not been identified for the Sacramento Valley. The monitoring component of the plan is to determine baseline conditions and related changes based on actions to address QOs. The California State Water Quality Board is tasked with identifying and regulating temperature related water quality problems. If new QOs or TBs are developed related to temperature, they will be included during the criteria revision process at the end of the first 5-year plan.

Comment #8

However, we are concerned that in its reliance on grant funds the Plan fails to describe locally cost-effective actions that will not be undertaken to improve water use efficiency in the region.

Response #8

The Criteria requires that the contractors quantify local benefits in their analysis and implement those actions that are locally cost effective.

Comment #9

If this plan is to be an acceptable alternative to a Plan developed under the Standard Criteria, it cannot be completely dependent on external grant funding.

Response #9

For the Regional Criteria to continue after its 5 year pilot phase, the Settlement Contractors will need to demonstrate that the Plan implemented under this program is as effective as the plans implemented under the Standard Criteria. As stated above, the contractors will be responsible for funding those actions that are locally cost effective or the locally beneficial portion of actions funded by state or federal or local entities.

Comment #10

The Regional Plan does not include a separate section directly addressing efficiency; instead estimated irrigation efficiencies are presented on a Settlement Contractor by Settlement Contractor basis in Section 2. Average estimated efficiencies range from 45 percent to 65 percent, which are compared to a, "practical upper limit of 70 percent". We are unaware of any support for either the estimates of existing efficiencies, or the "upper limit". The Sacramento River Settlement Contractors are urged to explain how each Contractor's estimate is derived (providing both real numbers and the calculations) and the source for the "upper limit".

Response #10

The Standard Criteria does not specifically request irrigation efficiency data. However, like the Standard Criteria, the Regional Criteria request the water demands and water supplies for each district. This information is located in Sacramento River Basin-wide Water Management Plan; Appendix D of the Regional Plan. The Basin-wide Plan also includes information on supply and demand that can be used to calculate sub-basin efficiencies.

Comment #11

For Settlement Contractors that have had Rapid Appraisals completed, those Rapid Appraisals and their suggestions for improving district level conveyance flexibility and efficiency should be incorporated into their respective sub-sections in Section 2, Sub-basin Water Use, Supply and District Descriptions.

Response #11

Reclamation anticipates that the contractors will prioritize actions from information obtained through the Rapid Appraisal Program along with other studies conducted in the area. Several Settlement Contractors continue to work with the Cal Poly, San Luis Obispo, Irrigation Training and Research Center in order to identify improvements that can be incorporated in the Regional Plan.

Comment #12

The Regional Plan does not address issues related to:

- flood management, and its potential synergies for ecosystem protection
- climate change, which is likely to have significant impact on water supply patterns
- winter water, and its potentially significant impact on District operations
- data management and sharing

The Sacramento River Settlement Contractors are urged to revise the Regional Plan to address these critical and related issues.

Response #12

While the analysis of these issues would be beneficial, the financial feasibility of addressing these issues in the planning process is presently beyond the scope of the water conservation planning process. The water conservation planning process is just one component of an integrated water management plan. These issues have not been incorporated into the Quantifiable Objectives process and are not incorporated in the Standard Criteria for evaluating the other water management plans in the Central Valley Project.

Comment #13

As the Sacramento River Settlement Contractors promote cooperation between districts on a regional scale and promote voluntary farm-level water management, we urge them to partner with local Resource Conservation Districts and watershed groups to more fully reflect the range of interests at stake in the Sacramento River watershed.

Response #13

It is envisioned that the contractors will interact with these watershed groups as they have interacted with the Bay Delta watershed program. An important feature of the Regional Criteria is that once the Quantifiable Objectives are analyzed by the Settlement Contractors, this information will be provided to the public so that partnerships may be developed.

Comment #14

The plan fails to clearly identify and analyze potential impacts to existing groundwater dependent orchard agriculture, municipalities and the environment.

Response #14:

The intent of the planning process is not to direct activities conducted by the Settlement Contractors, but rather to be used as a tool to map out the operations and identify planning efforts for improved water management and operational efficiency. The individual actions identified will be reviewed by the necessary agencies for both legal and environmental compliance including the potential impacts of actions prior to implementation.

Comment #15:

Scientific quantification of sustainable aquifer storage has not been attempted or documented. The unfounded assumption of vast underground reserves containing extra available water is the foundation of the numerous conjunctive water management budgets proposed by the Sacramento River Settlement Contractors.

Response #15:

Any actions associated with addressing conjunctive water management will require review by the appropriate agencies for both legal and environmental compliance prior to implementation.

Comment #16:

Figure 1-4 on page 31 of the Sacramento River Water Management Plan document showing wells with falling levels contradicts the statement that groundwater levels recover to pre-drought levels during subsequent wetter periods. The figure is by no means comprehensive and the analysis of hydro-geological dynamics is absent.

Response #16:

Reclamation understands that this is a general statement in the Plan but a more comprehensive analysis is beyond the scope of this program.

Comment #17:

The SRWMP references gaining streams but fails to mention the obvious inverse phenomena; Losing streams.

Response #17:

Losing streams as mentioned in the Plan, states, "Typically, the Sacramento River is a gaining stream between Redding and Grimes, and a losing stream south of Grimes to south of Sacramento (Department, 1978)." Requiring analysis and documentation of all hydraulic information for the Sacramento Valley is beyond the scope of this planning process and would significantly delay the implementation of the Plan. However, as more research is accomplished on the layers of aquifers in the Northern Sacramento Valley, planning efforts should include available data.

Comment #18:

The list of counties with overdraft conditions mentioned in the SRWMP does not include Butte County, but significant declining aquifer levels associated with Tuscan formation dynamics have been identified during the past several years.

Response #18:

Attempts have been made to estimate sustainable yields for different regions of the basin. Analysis in addition to these general estimates is beyond the scope of this document. The Department Bulletin 118-6 identifies three areas of greatest concern (areas where pumping has historically exceeded recharge). The individual actions identified will be reviewed by the necessary agencies for both legal and environmental compliance including the potential impacts of actions prior to implementation.

Comment #19:

No discussion or analysis of critical paleo-climatological data or anthropogenic climate change has been presented in the SRWMP.

Response #19:

It is agreed that planning efforts are improved and made more complete by the addition of extra research and data. However, just as indicated in Response 18, analysis needed to incorporate additional information into this planning process is well beyond the scope of this effort and would significantly delay the implementation of this Plan.

Comment #20:

An often overlooked component of anadromous life cycle are small rearing streams that provide out-migrating fish safe-havens to forage, increase in size, and improve survival. The small streams located that flow over the up-gradient portions of the Tuscan formation require aquifer support to maintain connectivity with the main-stem of the Sacramento River. Converting the aquifer system into a wildly fluctuating reservoir that provides no support to stream flow during dry periods (months, years, even decades) will doom these listed fish.

Response #20:

The acceptance of this plan does not represent approval of the individual actions suggested in the plan. The individual actions identified will be reviewed by the necessary agencies for both legal and environmental compliance at the appropriate times.

Comment #21:

The SRWMP fails to analyze impacts to the environment and the economy of Butte County that will result from overdraft of the down-gradient foot of the aquifer system located outside of Butte County jurisdiction.

Response #21:

The acceptance of this plan does not represent approval of the individual actions suggested in the plan. The individual actions identified will be reviewed by the necessary agencies for both legal and environmental compliance at the appropriate times.

Comment #22:

Some districts seem to be charging a flat per acre rate (as low as \$2/acre/year+annual fee of \$5.42-\$75/acre per year). The wide range and lack of definition of how much water per acre makes it impossible for the public to understand the pricing structure.

Response #22:

This comment captures some of the issues that will be addressed in the water measurement study that is currently ongoing. While the majority of the water delivered to these districts is based on senior river water rights, the contracts only charge for project developed water that is beyond their existing right. The total amount that each district charges their customers is not dictated by the federal government. Each district's pricing structure is discussed in their respective section of the Plan document.

Comment #23:

Groundwater dependent communities do not want to sacrifice their aquifer health to irrigation district operations that have been built using weather-dependent surface water diversions. Plans to tap the down-gradient portion of the Sacramento Valley aquifer system to provide irrigation to annual crops or to meet voluntary Phase 8 water contributions is potentially life-threatening to the residents, the environment and Butte County and will be vigorously contested.

Response #23:

The acceptance of this plan does not represent approval of the individual actions suggested in the plan. The individual actions identified will be reviewed by the necessary agencies for both legal and environmental compliance at the appropriate times.

Comment #24:

The experimental "conditional waiver of waste discharge requirements" coalition has been in place for several years with unsatisfactory results.

Response #24:

Comment noted.

Comment #25:

Areas in Butte County that have contaminated groundwater are likely to spread as the aquifer system exploitation is ramped up. Increased head between aquifer layer levels will accelerate the movement of subterranean contaminate plumes horizontally and vertically.

Response #25:

The individual actions identified will be reviewed by the necessary agencies for both legal and environmental compliance at the appropriate times.

Comment #26:

The statement that the unit is too deep to be tapped would lead the public to imagine an under-utilized aquifer. This would be a false assumption, to say the least. There are numerous wells tapping the Tuscan Formation west of Chico and the SVWMP proposes using public funding to install 10 high-volume production Tuscan wells to supply private GCID contractors.

Response #26:

The acceptance of this plan does not represent approval of the individual actions suggested in the plan. The individual actions identified will be reviewed by the necessary agencies for both legal and environmental compliance at the appropriate times.

Comment #27:

The chart focuses on agricultural operations dependent on surface water diversions but fails to identify the critical value of groundwater dependent orchard crops in the region. This is understandable because SRSC operations have been established by diverting surface water flows. But the SVWMP must consider the full range of interests that may be affected by a plan of action. If SRSCs are provided with public funds to create groundwater infrastructure to prop up rice growing estates that have historically relied on surface water, the impacts to groundwater dependent humans and environments located on the up-gradient portion of the aquifer system must be identified, analyzed, and prevented.

Response #27:

It is not the purpose or scope of this document to determine use of public funds or dictate cropping decisions, nor is it meant to change California water law regarding groundwater use in the state. The acceptance of this plan does not represent approval of the individual actions suggested in the plan. The individual actions identified will be reviewed by the necessary agencies for both legal and environmental compliance at the appropriate times.

Comment #28:

The Ag Waiver has failed to meet its goals. River toxicity continues unabated; operations responsible for the contamination have not been identified; endangered river species have reached all-time low numbers.

Response #28:

Comment noted.

Comment #29:

New information pertaining to the flow regime associated with Phase 8 strategy has been developed and may well extinguish need to employ the lucrative “voluntary” Phase 8 contributions by SRSCs. [See Delta Smelt 07 science article from Center for Biological Diversity]

Response #29:

The Plan is directed at implementing actions to address Quantifiable Objects and does not address the implementation of Phase 8.

Comment #30:

The estimated implementation year is 2007. Since this is August 2, 2007, exactly when is this expected to occur?

Response #30:

That was the year estimated for implementation of the Plan. Since the development of this Plan under the Regional Criteria has been a new process, the Plan has been through an exhaustive review and many changes in order to satisfy these Criteria. The implementation of the plan is to occur during the 5 years following the notification in the Federal Register. Scheduling will be revised according to the date of notice in the Federal Register. The Plan will begin to be implemented sometime in the fall of 2007.

Comment #31:

None of the communities and environments that rely on healthy up-gradient aquifer systems associated with these projects should be forced to contribute to the state water market without a) comprehensive preliminary hydro-geological aquifer science, b) fair compensation (funding resource management activities) for the water which is a precious resource and, c) a guarantee of no third party impacts to the environment, economy, and all ground water users.

Response #31:

The acceptance of this plan does not represent approval of the individual actions suggested in the plan. The individual actions identified will be reviewed by the necessary agencies for both legal and environmental compliance at the appropriate times. In addition, the Regional Criteria does not force any of the Settlement Contractors to participate in a state water bank.

Comment #32:

GCID in partnership with DWR has already installed the first “experimental production well” using a CEQA exemption. In spite of the MOU to communicate and share information this project was completed without contacting interested stakeholders including the Butte County Water Commission. Butte Environmental Council had to ferret out the information from GCID after the well was installed and operated for the first of several planned aquifer extractions/monitoring. Is this lack of notification acceptable to the Bureau of Reclamation? How will future notification be provided to interested parties?

Response #32:

Reclamation has no regulatory authorities to direct the activities of the water districts. GCID’s installation of the well was in cooperation with the DWR and questions pertaining to that program should be addressed to GCID or DWR. Final planning documents filed with Reclamation are a matter of public information and available for review in the Federal Register. Environmental documents pertaining to a discretionary action by Reclamation are of public record.

Comment # 33:

Sequencing of projects requires comprehensive environmental review. Prior to implementation of on-the-ground projects the SVWMP, SVWMA and SVIRWMP should undergo full environmental review. The GCID Conjunctive Water Management Program Schedule Environmental Document should be tiered under the above mentioned umbrella

reviews. It is inappropriate for GCID to be proceeding with conjunctive water management infrastructure projects such as the “experimental production well” mentioned above prior to exhaustive NEPA and CEQA review.

Response #33:

Reclamation requires appropriate environmental documentation prior to the commencement of any project that has Federal involvement. Any Plan actions will be reviewed by the necessary agencies for both legal and environmental compliance at the appropriate times.

Comment #34:

GCID provides water to private business interests. The owners of Sacramento Valley rice operations are by no means impoverished individuals, yet they are seeking public assistance to implement a plan to tap the down-gradient portion of a stratified aquifer system to irrigate their subsidized cash crops and allow them to sell their surface water entitlements to the lucrative California water market.

Meanwhile, orchard agricultural operators who have received no public subsidies are being asked to have faith that the irrigation districts and the state and federal water agencies will do no harm to the up-gradient portion of valley aquifer systems. Sensitive ecosystems dependent on consistent up-gradient groundwater levels will be threatened by plans to convert the tilted aquifer into a water bank. Conversion into an artificially replenished water bank will eradicate long standing legal access to the groundwater by overlying landowners. Upland ecosystems that capture and release the water through the watershed will be further distanced from fair compensation for the most valuable of services and commodities: WATER.

Response #34:

Reclamation is aware of the concern over the potential groundwater issues. While the purposes of these documents are to improve water management, they are not used to determine who should or should not receive public assistance in pursuit of improved water management. Reclamation will encourage the districts to consider your comments during their annual update and continued planning processes. The acceptance of this plan does not represent approval of the individual actions suggested in the plan. The individual actions identified will be reviewed by the necessary agencies for both legal and environmental compliance at the appropriate times.