

STAFF REPORT

REVIEW OF PHASE I OF THE MANAGEMENT AGENCY AGREEMENT WITH THE UNITED STATES BUREAU OF RECLAMATION TO ADDRESS SALT IMPORTED VIA THE DELTA-MENDOTA CANAL, AND CONSIDERATION OF ENTERING INTO A PHASE II AGREEMENT

In 2008, the Board entered into a Management Agreement (MAA) with the United States Bureau of Reclamation (Reclamation). This staff report discusses work completed as the result of that agreement, and the proposed updated MAA.

Background

Because of the problems related to salt and boron in the San Joaquin River, the Central Valley Regional Water Quality Control Board (Regional Water Board), in 2004, adopted an amendment to the Sacramento and San Joaquin River Basin Plan for the control of salt and boron in the lower San Joaquin River that established total maximum daily loads (TMDLs) for salt and boron in the river, and a plan for implementing those TMDLs. The amendment became effective in July 2006. The goal of the amendment was to achieve compliance with salt and boron water quality objectives without restricting the ability of dischargers to export salt out of the river basin. The water quality objective for salt to be achieved is the one established at Vernalis, located near the point at which the river enters the delta. The Vernalis objective is set at an electrical conductivity, or EC, of 700 $\mu\text{mhos/cm}$ during the irrigation season and 1,000 $\mu\text{mhos/cm}$ during the non-irrigation season.

One of the elements prescribed by the amendment was that the Regional Water Board attempt to enter into an MAA with Reclamation to address salt imported by Reclamation via the Delta-Mendota Canal (DMC). The reason for this requirement is that the DMC, a water transmission facility of Reclamation's Central Valley Project, is a major importer of salt into the San Joaquin River basin. On average, Reclamation imports approximately $\frac{1}{2}$ million tons of salt annually into the basin via the DMC. This is equivalent to about 50% of the annual salt load that passes Vernalis.

The amendment holds Reclamation accountable for the DMC salt load by prescribing a DMC salt load allocation and requiring that, if Reclamation exceeds its load allocation, it must provide mitigation and/or dilution flows to offset its excess load. It also imposes a compliance date of July 28, 2014 for Reclamation to meet that requirement. The basic purpose of the MAA is to describe and formalize into an agreement the mechanisms by which Reclamation would fulfill its load allocation requirements and how compliance would be monitored, evaluated, and reported.

In order to enhance their mitigation efforts, Reclamation decided to initiate an effort to develop a comprehensive real-time water quality management program for the San Joaquin River. Real-time water quality management is a mechanism for coordinating the operations of freshwater releases from reservoirs and discharges of saline waste to the river from irrigated lands so that saline waste discharges are made only when the

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river has the assimilative capacity to accommodate those releases without violating the salt objective for the river. The Basin Plan amendment encourages real-time management as the mechanism for achieving the goal of complying with the salinity water quality objectives while at the same time, exporting as much salt from the basin as possible, which would benefit groundwater in the basin.

Phase I MAA

Because of the complexity of the issues involved and the difficulty in evaluating the salt control benefits of Reclamation's projects and activities, Regional Water Board and Reclamation decided to take a phased approach in developing and implementing the MAA. Prior to entering into the MAA, Reclamation prepared and submitted a salt management plan (Action Plan) that identified and described those projects and activities that provided or were being planned to provide mitigation and/or dilution of DMC salt imports. The Action Plan included a commitment by Reclamation to initiate and facilitate an effort to establish a real-time water quality program for the San Joaquin River.

In December 2008, the Regional Water Board and Reclamation entered into the first MAA (Phase I). This phase was to last for 2 years. Through the MAA, Reclamation agreed to:

- implement its Action Plan, which included the real-time management effort;
- submit quarterly activity reports with a summary of activities conducted by Reclamation during the quarter in conjunction with each element included in their Action Plan, including activities related to developing a Real Time Program;
- prepare and submit a plan for monitoring and evaluating the salt offset benefits of their activities and propose the data and quantification methods used to evaluate the salt loads from DMC operations and salinity offset credits to be applied to the various elements of Reclamation's Action Plan;
- offset at least 25% of its excess DMC load by July 2010; and
- submit a report evaluating their progress toward meeting their salt load allocation responsibilities.

Phase I Activity

Since entering into the MAA, Reclamation has fulfilled all the above elements of the MAA. Some of the more significant activities Reclamation has conducted during Phase I were:

1. Initiating an effort to develop a real-time salt management program for the San Joaquin River. As part of that effort, Reclamation:
 - facilitated stakeholder involvement in the development of a real-time program, including an initial stakeholder survey;
 - held two real-time program workshops for stakeholders and facilitated several

- stakeholder work group meetings;
 - contracted for the development of a salinity and flow conceptual model and identification of potential infrastructure needs of a SJR real-time program;
 - developed a water quality data management tool and database model, and
 - modeled various salinity scenarios for the SJR.
2. Preparing and submitting a Compliance Monitoring and Evaluation Plan (Compliance Plan). The purpose of the Compliance Plan was to identify and describe the data and quantification methods to be used to evaluate Reclamation's salt loads from DMC operations and salinity offset credits to be applied to the various elements of Reclamation's Action Plan. In preparing this plan, Reclamation worked closely with Regional Board staff and solicited input from CV-SALTS and other interested parties. During this public process, some technical and policy questions arose that could not be resolved at the time. It was agreed that the effort to resolve those issues would be postponed until after the Phase II MAA was signed, when another stakeholder process would be convened, specifically to address those issues. The Phase II agreement contains a provision that the Regional Board will convene that public process no later than 3 months after execution of this agreement.
 3. Preparing and submitting a Compliance Monitoring and Evaluation Report, based on the methodology and outline developed in the Compliance Monitoring and Evaluation Plan. It describes the salt management-related activities conducted by Reclamation from the beginning of water year 2000 until March 2010 and provides data and quantifies the salt mitigation benefit of those actions.
 4. Providing a significant amount of technical service and participation in the CV-SALTS process. Reclamation has participated on a regular basis in most of the CV-SALTS committee meetings. In addition, Reclamation staff has provided a technical leadership role by:
 - co-chairing the CV-SALTS Technical Advisory Committee;
 - chairing a CV-SALTS subcommittee conducting an evaluation of a salt/nitrate sources pilot study;
 - drafting the first version of the CV-SALTS workplan;
 - participating in the development of a solicitation package for and review of proposals to conduct a salt and nitrate sources pilot study; and
 - awarding a contract for a salt and nitrate sources, fate, and transport study of the Westside region of the San Joaquin River Valley.
 5. Revising its Action Plan. In May 2010, Reclamation submitted a revised Action Plan. The revised plan adds elements Reclamation has recently initiated or begun participation in, which are not contained in the original Action Plan.

Phase II MAA

Reclamation and Regional Board staffs, in conjunction with a public process, have jointly prepared a draft Phase II MAA. The significant changes made to the Phase I MAA in the Phase II agreement are:

1. This agreement would stay in effect longer than the initial agreement. The initial agreement was for approximately two years, while this one would be in effect until July 2014, which is when compliance with Reclamation's load allocations will be required.
2. The agreement does not contain a quantified minimum performance goal as was contained in the first agreement (25%). Over the past two years, Reclamation's actions have met the 25% goal established in the first agreement. However, there are a number of changing factors expected over the next four years that make it difficult to project what percent offset to expect. The most significant of these factors are the 2009 biological opinions on the operation of the CVP and possible new flow objectives for the San Joaquin River that may increase the demands on New Melones. Reclamation cannot predict how these factors will affect its future operations. In addition, other regulatory actions, such as establishment of upstream objectives for the Lower San Joaquin River may change the objectives or the potential role of New Melones in control programs.

Reclamation has demonstrated a desire to meet its salinity obligations in a timely way, but has proposed to eliminate a prescribed numerical performance goal because, under these highly changeable circumstances it is not possible to evaluate or predict the exact details of its future performance (from a load management perspective). Over the next four years, Reclamation has indicated it will continue to operate to meet the Vernalis salinity objective, while examining new and existing and adapting its salinity management approach to meet its requirements under the TMDL.

3. The agreement contains a commitment from Reclamation to continue to provide in-kind services to the CV-SALTS effort and lead the effort to develop a real-time management program.
4. The agreement provides that Reclamation will submit annual activity reports, meet quarterly with Regional Board staff report on their activities and salt reduction/offset progress, and, in conjunction with a public process, conduct a re-evaluation of its Action Plan every two years.

Recommendation

Under consideration are Reclamation's Compliance Monitoring & Evaluation Plan, Reclamation's Compliance Monitoring & Evaluation Report, Reclamation's revised

Action Plan, and the proposed Phase II MAA. Staff recommends that the Regional Board approve by motion all documents and authorize the Executive Officer to sign the Phase II MAA on its behalf.

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