

MEMORANDUM

August 21, 2007

Re: Elements of a Drainage Solution for the San Luis Unit Irrigation Contractors, Firebaugh, and Central California Irrigation District (CCID)

From: Carolyn Yale
U.S. Environmental Protection Agency
Region 9

To: Federico Barajas
U.S. Bureau of Reclamation
Mid-Pacific Region

We would like to thank you for the August 9, 2007 briefing on the developing negotiations for a drainage solution in the San Luis Unit. This memorandum, which addresses the drainage component of the negotiations, follows up on your request for our suggestions. These comments are initial ideas from those of us at the U.S. Environmental Protection Agency who participated in the conference call.

We appreciate the opportunity for public discussion of the proposal. Action is much needed to arrest drainage-related damage to lands, water resources, and the environment. However, the current proposal assumes unproven feasibility for complete management, treatment, and disposal of drainage on a regional scale. Experience to date, on much smaller sites, reveals technical problems and unacceptable environmental impacts from various steps in drainage management. Even if resolved in the future, these issues will affect project design, anticipated cost, and scale of key drainage solution elements. In light of these uncertainties, a drainage agreement should be based on clear performance objectives and assure continuous oversight, monitoring, assessment and contingency plans which, if necessary, revisit terms of the drainage agreement.

1. We are concerned about the possibility of implementing a drainage plan which allows continued generation of high volumes of contaminated drainage without the assurance of effective and economic treatment and disposal. This issue needs to be confronted and addressed in the negotiated solution. In contrast to several alternatives evaluated in Reclamation's Drainage Feature Reevaluation, the current proposal has substantially scaled back land retirement in the Westlands Water District, which can be a way of reducing problem drainage. The proposal should clarify the objectives of land retirement, and how 'retired' lands might be used.

Experience in the Northerly Area (Grasslands Bypass Project), work done for Reclamation's Drainage Feature Reevaluation, and the limited, small-scale piloting of solar evaporation, show that to date science and technology have not yielded 'final solutions' for safe and effective treatment, reclamation (of commercial salts, e.g.), and

disposal of drainage. Biotreatment for removal of selenium is problematic because it is not complete and has the potential to yield biologically available organic forms of selenium. Accumulation of residues at various steps in drainage treatment could result in contaminated wastes which simply re-locate the problem.

2. The negotiated solution should identify as fully and accurately as possible the activities—including oversight as well as implementation—which comprise a complete drainage program. Details should be provided on infrastructure and management requirements in collecting and reducing drainage, treatment, and disposal. In particular, more detail is needed on drainage treatment processes under consideration, the extent of process treatment, methods for disposal of residues, and the management and maintenance required to operate these processes. Documentation should be provided to support assumptions regarding performance and environmental effects. The solution should incorporate environmentally protective practices and appropriate environmental mitigation. This information should be the basis of comprehensive cost estimates which extend through the anticipated life of the project (see #3 below).

At present the elements of the drainage proposal from the irrigation contractors (San Luis Unit, CCID, and Firebaugh) are stated generally, particularly for the Westlands Water District, which lacks the drainage implementation experience developed in the Northerly Area through the Grasslands Bypass Project. Nonetheless, as you pointed out, cost estimates provided by the districts for their proposal are substantially below the Reclamation's calculations for the implementation of the selected alternative in the Drainage Feature Reevaluation. The level of detail should allow comparison of the plans from Reclamation and the districts.

3. Given that the proposal from the irrigation contractors is based on their assuming responsibility for implementing a drainage solution, the local parties should assume responsibility for the full costs of generating, managing, and disposing of agricultural drainage. These costs should include environmental monitoring, protection, and mitigation features. The drainage agreement and related actions should support this cost allocation.

4. Environmental mitigation and protection measures should be in a form acceptable to and approved by the federal and state agencies with environmental regulatory responsibilities. We strongly recommend that Reclamation and water districts work with the natural resource agencies, particularly the U.S. Fish and Wildlife Service, to develop this information. The Grasslands Bypass Project is an example of appropriate scope and collaborative process.

5. The agreement should provide for monitoring, assessment and reporting which tracks program implementation; drainage water quality; and effects on surface and ground water, and biota. Costs for these activities should be identified and provided for through the agreement.

6. The solution needs provisions assuring implementation and effective performance, with continuity of oversight from the inception of the solution through the anticipated duration of implementation. These provisions should warrant that the agreed-upon manner and timing of the drainage solution will be implemented, and that proposed significant changes to the drainage plan receive appropriate public review. Assurances include (but are not limited to): (a) agreements regarding responsible oversight entities and adequate authorities and funding for oversight activities (including monitoring); (b) a finance plan which addresses oversight costs; (c) performance schedule and targets with consequences for missed targets, and (d) performance bonds.

7. A drainage solution for the San Luis area will have important long-term consequences for the greater San Joaquin region and proposals should be considered in that context. Subsequent versions of the drainage proposal should include information on the approach (timing, responsibilities, and so forth) for environmental documentation, including compliance with the National Environmental Policy Act, if appropriate, and the California Environmental Quality Act. Issues linked to drainage management practices, such as regional-scale trends in ground water quality at various depths, should be examined in detail. The Regional Water Quality Control Board has documented concern over activities contributing to ground water degradation—for example, in the context of the proposed 25-year Groundwater Pumping/ Water Transfer, which is an action associated with these drainage negotiations (U.S. Bureau of Reclamation/ San Joaquin River Exchange Contractors Water Authority).

In conclusion, we appreciate the opportunity to provide comments during this negotiation period and look forward to a continued dialog. If you have any questions, do not hesitate to contact us.

EPA participants:

Karen Schwinn	(415-972-3472)
Tom Hagler	(... -3945)
Eugenia McNaughton	(... -3411)
Laura Fujii	(... -3853)
Carolyn Yale	(415-972-3482)