June 15, 2011

The Honorable John Laird
Office of the Secretary
Natural Resources Agency
State of California
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Dr. Gerald Meral
Deputy Secretary
Natural Resources Agency
State of California
1416 Ninth Street, Suite 1311
Sacramento, CA 95814

Re: COMMENTS OF RECLAMATION DISTRICT NO. 551 ON THE BAY DELTA CONSERVATION PLAN

Dear Honorable John Laird and Dr. Gerald Meral:

This letter is in furtherance of a letter sent by Reclamation District 551 (RD 551) on October 29, 2010 to the Department of Water Resources. In light of your new role with the State of California, we wish to communicate directly with you regarding the below concerns. In addition to the concerns previously raised (and as repeated below), we have included additional concerns.

Although the Draft Bay Delta Conservation Plan Environmental Impact Report/Environmental Impact Statement (EIR/EIS) is still being prepared, the most recent Bay Delta Conservation Plan (BDCP) planning documents demonstrate the potential for severe adverse impacts within RD 551 (Pearson District) on an extraordinary and unprecedented scale.

Reclamation District No. 551

By way of background, RD 551 encompasses approximately 8,537 acres within the Pearson District, including the town of Courtland. RD 551 was established in 1893, and is responsible for operating the Pearson District reclamation works. These works include levees bordering the Sacramento River (which levees are part of the larger Sacramento River Flood Control Project) and Snodgrass Slough, and a network of drainage canals and pumps that remove drainage water from the district and thus keep the water table low enough for productive agriculture. RD 551 raises revenue for these activities by levying an assessment against all specially benefited lands within the district, and currently with supplemental subventions reimbursements from the State for levee maintenance activities.
BDCP Proposed Activities

The BDCP envisions massive temporary construction and, permanently, water conveyance operations within and around the Pearson District. According to recent project descriptions (and some reasonable guesswork), the facilities will include the following:

- A 3,000 cfs intake near Courtland (40 acres of property);
- Forebay to be located within the heart of the district that will cover approximately 750 acres, with water elevations at about 18.5 feet in elevation above the surrounding ground;
- Pumping plant to convey water to and from the forebay;
- Electrical poles and wires to supply power to, at a minimum, the pumping plant, intake and gates;
- Canal/tunnel with a capacity of up to 15,000 cfs, part or all of which may be below ground;
- BDCP levees to protect the infrastructure; and
- Access roads and easements.

RD 551’s initial estimate is that these works will consume over 1,000 acres of land, or at least 12% of the entire land area of the district.

COMMENTS

1. Drainage

   a. Potential for Additional Water Impacts on the Existing Drainage System

Any alternative water conveyance through the Pearson District must include a guarantee that there will be no net increase in seepage of water into the soils or canals of the Pearson District.

One of RD 551’s main efforts is to remove drainage water from the district, primarily by running the district pump stations and drainage ditches. Most of the water currently comes from precipitation events, seepage through the levees, and irrigation tailwater, though district farmers recirculate and reuse water efficiently, minimizing the amount of water that must be pumped out of the district.

The BDCP envisions conveying 4 to 8 million acre feet of exported water through Pearson District, which is an increase of 13,000 to 26,000 times the volume of water that is currently being diverted for beneficial use within district boundaries. Given that the water in the forebay will be at a presumed elevation of 18.5 feet or higher above the surrounding ground, there will be a steep gradient for seepage. Every acre foot of water seeped from the BDCP facilities would contribute to the local water table and would need to be pumped off the island. Even a very
small percentage of seepage from the facilities could overwhelm the existing drainage infrastructure, increase groundwater elevations, and threaten to destroy crops and damage permanent structures. Seepage can also compound existing problems related to the buildup of salt and alkalinity in the soil, which can burn crop roots. If there is an increase in seepage, the district pumps would need to run many more hours each day, and the drainage ditches would need to be more actively maintained—all at great cost to the district. Drainage operations are expensive (e.g., electricity, repair, equipment, maintenance) and are paid for by entirely the local landowners. Unlike with levee maintenance activities, there is no State contribution to pay for drainage activities undertaken by local districts.

If the BDCP forebay is ultimately to be located within Pearson District, seepage considerations will siting a critical consideration. As DWR's own Bulletin 125 seepage investigations have shown, the interior of the district—unlike conditions on some nearby islands and tracts—has significant seepage. In large part, this seepage results from the local peat soils. Any forebay constructed in the district should be located in an area with mineral soils; the surrounding peat would need to be excavated and replaced with imported fill in order to both reduce seepage and provide greater stability.

A related concern is that seepage from the BDCP facilities may contaminate local water supplies, with domestic drinking wells being of singular concern. The water from the Delta channels is less pure than the water drawn from drinking water wells within the district, and could not be consumed without treatment. If seepage from the BDCP facilities commingles in any significant amount with the local water supply, it could contaminate wells. If that happens, the BDCP would need to build a water treatment and delivery system for all affected residences, at no additional cost to the landowners. Construction of certain BDCP facilities will also involve drilling 80 feet or deeper into soils below the river, which could release mercury, again posing serious potential environmental effects on the local water supply that will need to be mitigated.

To avoid the effects described above, every effort must be made to prevent seepage from the BDCP facilities: the forebay, canal/tunnel and all other conveyance or regulating facilities will need to be lined with material that provides the lowest achievable range of seepage, regardless of cost. The Project must also include contingency measures to address incidental seepage. These measures should include, at a minimum: (1) water table and soil moisture detection devices throughout the entire district so that conditions can be constantly monitored; (2) relief wells along the tunnel alignment and forebay so that any seepage can be captured and pumped back to the forebay or the Delta channels, and (3) a response plan that will require BDCP operations to cease long enough to locate and fully repair any leaks or any other cause of high-water elevation conditions.

One final significant and related concern is that if a forebay is located within the District, that forebay will reduce the space within the District over which seepage can spread, thus magnifying the effect of seepage on the remainder of the District. The same is true in regard to the displacement of rainwater which falls into the District. The proposed location of the forebay is currently in productive crops. That land and those crops assist the district in managing rain water and seepage within the District by using such waters for the growth of the crops. By replacing that area with a forebay, not only will the forebay area potentially increase seepage problems, it will also reduce the area over which seepage water and rain water may be managed.
This concern must be addressed and the impacts of this issue must be appropriately mitigated. However, the documents that have been produced to date do not even identify the impacts, let alone propose mitigation.

b. Need to Modify the District’s Drainage System Due to BDCP Facilities

If the BDCP facilities are located on Pearson District, a sizable portion of the district’s existing drainage canals and some components of the pumping stations will need to be reconfigured and relocated. The existing system has been in place for over 100 years, and takes advantage of natural land contours to provide the most efficient drainage possible. The BDCP will need to meet with the RD 551 trustees and engineering staff in order to design the new system modifications, which may require acquiring additional easements or real property as any new ditches or other facilities will need to cross private property and potentially pumping upgradient in some areas. The BDCP will need to pay for all costs associated with modifications to the drainage system, including the costs of design, engineering, construction, and equipment, and any increased costs in pumping. Long-term maintenance costs may be covered by local assessments paid by the BDCP landowner or any successor, as discussed further below.

2. Flooding

a. Impacts Upon RD 551 Levees

Any BDCP facilities built within Pearson District will require protection from tidal and seasonal flooding, and presumably will be bordered by extensive new levees. Any such levees will need to be tied in to the existing Sacramento River and Snodgrass Slough levees. As discussed above, the Pearson District’s Sacramento River levees—which were originally constructed by RD 551 and its predecessor districts—are an integral part of the Sacramento River Flood Control Project, which is a Federal-State project with RD 551 responsible for local operation and maintenance. The BDCP will need to work with the U.S. Army Corps of Engineers, the Central Valley Flood Protection Board, and RD 551 to complete any work that ties in to these Project levees. The Snodgrass Slough levees were built in part by local landowners and by RD 551, and since then have been operated, maintained, repaired, and improved by RD 551 without Federal or State oversight; therefore, any tie in to these levees will require substantial cooperation and collaboration with RD 551’s engineering staff.

Critically, the BDCP will need to ensure that the new levees are designed in a way that will not create a weak point in the adjacent, existing levees. Tie-ins, like repairs, can sometimes introduce weaknesses where the new levee segment has a different fill density than the old, making the new interface vulnerable to erosion, seepage or even failure. Some expected efforts to avoid differential settlement and related impacts may include pre-loading, stability berms, and geotechnical evaluations prior to design and construction.

RD 551 engineering staff will require a significant amount of time to review the proposed tie-ins and/or encroachments upon the district levees, and to propose comments and conditions, all for the purpose of avoiding third-party effects upon district operations and the significant environmental impacts that could otherwise result. As with any other encroachment upon the
district works, RD 551 will look to the BDCP to pay for the hourly cost of RD 551's staff time in conducting this review.

b. Potential Flooding from BDCP Facilities

RD 551 has not been provided with a detailed description of the construction plans for the forebay, but (following the Delta Wetlands model) it could potentially be constructed of levees, with water regulated and stored behind them. The design, engineering and construction of the forebay will be of substantial importance because of the grave consequences of failure. The Draft EIR/EIS must clearly describe the potential for stored water to breach the surrounding levees, with water flowing out of the forebay and onto adjacent land within Pearson District and damaging surrounding property. Given that these levees will contain millions of acre-feet of water intentionally diverted into the Pearson District, the levees will need to be constructed to achieve the lowest risk of failure technically achievable. The Draft EIR/EIS must also describe the effectiveness of any contingency plan for remediating the damage if there is a levee break, and propose suitable mitigation to offset any identified impacts.

3. Assessment Income / Further Impact on Drainage and Flooding.

As discussed above, RD 551 relies on a local assessment roll to fund drainage and flood protection services within the Pearson District. The assessment roll raises the following serious concerns for RD 551.

First, the BDCP will remove a substantial portion of district land from local ownership, potentially interfering with the district's primary funding mechanism. Historically, some State agencies have resisted paying local assessments, despite the constitutional mandate to make payments in proportion to the benefits received from the funded services. (Cal. Const. Art. XIII D, § 4(e).) Any interruption or reduction in funding to RD 551 would necessarily cause an adverse impact on local drainage and flood protection, and therefore would be considered a significant environmental impact under the California Environmental Quality Act. Were the Federal government to own any portion of the property within Pearson District, RD 551 would be unable to collect assessments without a waiver of sovereign immunity. The BDCP would also need to ensure a permanent funding mechanism to make up this portion of RD 551's annual assessment.

Second, the BDCP will need to fund a new assessment roll for RD 551. The installation and operation of the BDCP facilities will change the proportional allocation of special benefits that RD 551's operations provide to parcel owners within the district. The California Constitution requires that assessments be levied in proportion to the special benefits received, and the Reclamation District Law requires assessments to be levied under an operation and maintenance roll. It is therefore highly likely that a new roll—taking the BDCP-related changes into account—will need to be prepared to support a modified district assessment. BDCP should commit to paying for all consulting and engineering costs required for that process. Otherwise, the district would have to pay those costs, which would require using funds needed for flood protection and drainage. Again, any reduction in those services would result in an adverse environmental impact compared with baseline conditions.
Regarding the BDCP facilities’ share of the district assessment, the benefits that the BDCP will receive from RD 551’s operations are unquestionable. Not only will the Sacramento River and Snodgrass Slough levees keep flood and tidewaters from the BDCP facilities (including from any levees constructed by the BDCP to protect the facilities), but the ongoing removal of storm, seepage and other drainage water (i.e., general lowering of the water table) will extend the life of BDCP conduits and other facilities.

4. **Transportation and Access**

From the initial conceptual documents showing the location of the forebay and canal/tunnel, it appears that the BDCP facilities will essentially cut the Pearson District in half, with the canal/tunnel and associated levees running from around Courtland, across the entire district, to and across Snodgrass Slough. RD 551 will thereafter have to operate and maintain drainage and flood control facilities that are (at least potentially) separated by the BDCP’s own system of levees. RD 551 will, at a minimum, require access across all BDCP facilities in order to ensure effective, efficient, and uninterrupted maintenance, operation and repair of the reclamation works of the Pearson District.

The BDCP will also have severe transportation impacts upon the general public and landowners. Routes will need to be planned and provided to ensure there is no reduction in vehicle travel times for emergency response vehicles and schools. Traffic impacts to landowners will also be significant, particularly for farms that will be cut in half by intervening water storage and conveyance facilities. The BDCP must propose measures to mitigate for any and all traffic impacts, including building public access bridges and roadways, and paying to maintain them in perpetuity.

5. **Farming Operations**

The removal of 12% or more of the farmland within the Pearson District must be evaluated for significant environmental effects not only under CEQA, but also under the National Environmental Policy Act. NEPA requires an evaluation of impacts on the “human environment” and defined “effects” to include “economic, social or health” effects. 42 U.S.C. § 4332(C); 40 C.F.R. § 1508.8. Thus, the Draft EIR/EIS must analyze the economic, social and health effects of constructing and operating the BDCP facilities within the Pearson District, including the devastating effect upon the local economy and the severe impacts upon the community of people who live and work in the district. These effects on the human environment must be mitigated, at a minimum, to the extent required under controlling law.

The massive proposed construction efforts within the district will have foreseeable impacts upon farming operations, and mitigation measures must be proposed accordingly. These impacts may include dust, noise, transportation, and drainage. Other economic impacts include making farming operations less efficient by installing infrastructure that breaks up property. Conventional farming also depends on aerial pesticide applications consistent with the product’s FIFRA label and California regulations. The presence of a large forebay in the district may affect how pesticides may be applied. The BDCP must develop effective practical mitigation measures to ensure farming continues without financial impact or physical impediment.
A further issue which must be considered under CEQA and NEPA is the effect on farming operations from birds which nest, feed, and otherwise inhabit the area of and around any new forebay. Due to the District's location along key bird migration paths, and its inclusion in the Delta, it is foreseeable that the new forebay will be a tremendous resource to a large bird population. That population will feed and roost on lands in the District that are in the vicinity of the new forebay. All of these impacts must be completely analyzed and proper mitigation must be proposed.

It is impossible to foresee the numerous potential impacts that the BDCP may have upon farming within the Pearson District, particularly before the project-level documents are prepared and released for comment. Nonetheless, the BDCP should as a general matter include a commitment to set up an administrative process for hearing and remedying complaints from landowners whose operations are affected by the eventual construction and implementation of the conveyance facilities. These complaints should be addressed with the goal of remediating every financial and other impact upon all landowners within the district.

6. **Alternatives**

The Draft EIR/EIS must include a comprehensive discussion of the alternative locations of the water conveyance facilities that will reduce or avoid the substantial impacts that will inevitably result in the Pearson District if the facilities are to be located here. Alternative size and configurations must also be evaluated, and the impacts associated with each option. The current plans call for five intakes of 3,000 cfs each, or a total of 15,000 cfs. The larger the facilities and the more water to be conveyed across the district, the greater the impact and the greater the risks to adjacent landowners and to RD 551. The size of the forebay should also be seriously reconsidered, as should the need for a forebay at all, particularly in light of the local impacts of such a massive water regulating facility upon the district.

Thank you for your attention to these comments.

Very truly yours,

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cc: Gilbert Cosio, MBK Engineers
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