













## CA Save Our Streams Council





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September 8, 2014

Karl E. Longley, Chairman Central Valley Regional Water Quality Control Board 11020 Sun Center Drive, #200, Rancho Cordova, California 95670-6114

Re: Land Retirement Benefits to Grasslands Bypass Project and Draft Waste Discharge Requirements

Dear Chairman Longley and Members of the Regional Board;

Thank you for the opportunity for Tom Stokely to comment at the August 8 Regional Board workshop on the draft Waste Discharge Requirements (WDR) for the Grasslands Bypass Project (GBP) on behalf of our coalition.

Specifically, you asked him for more information on the estimated reduction in the discharges of drainage, salt, selenium and boron from permanent land retirement. We also have additional comments about the need for permitting of the Panoche Demonstration Treatment Plant and your statement about the benefits of building dams for reservoirs on Panoche Creek and other west side streams.

## LAND RETIREMENT

Our coalition has previously submitted comments to the Regional Board about the success of land retirement in relation to the Grasslands Bypass Project drainage volume load reductions.<sup>1</sup> The Bureau of Reclamation's 2004 Broadview Water Contract Assignment Draft Environmental Assessment cites Summer Engineering as predicting a load reduction of 17,000 tons of salt, 1,500 pounds of selenium, and 52,000 pounds of boron to the San Joaquin River each year from the cessation of irrigation on 9,200 acres per Table 4-1 below.<sup>2</sup>

TABLE 4-1
DRAINAGE AND WATER QUALITY EFFECTS OF PROPOSED ACTION ON THE SAN JOAQUIN RIVER

	Existing Conditions	Under Proposed Action Conditions	Estimated Reduction Attributable to Proposed Action
BWD Drainage to San Joaquin River (afy)	3,700	1,100	2,600
BWD Estimated Salt Production (tons/yr)	24,300	7,300	17,000
BWD Estimated Selenium Production (lbs/yr)	2,140	640	1,500
BWD Estimated Boron Production (lbs/yr)	74,000	22,000	52,000

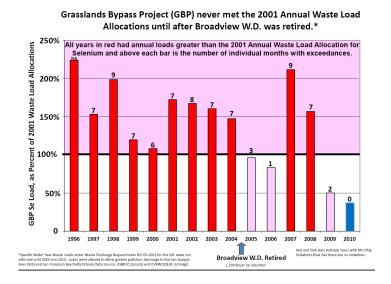
This amounts to a per acre reduction of 0.28 AF of drainage, 1.85 tons of salt, 0.16 pounds of selenium and 5.65 pounds of boron. Multiplying this times an estimated 50,000 acres retired in upslope areas (includes Broadview and much of the northerly portion of Westlands), permanent land retirement of the entire area resulted in an estimated

<sup>&</sup>lt;sup>1</sup> See Coalition letter to CVRWQCB on Selenium Basin Plan Amendment, April 26, 2010, p 15-16; accessed at <a href="http://www.waterboards.ca.gov/centralvalley/water\_issues/grassland\_bypass/grasslands\_bpa\_coalition\_ltr.pdf">http://www.waterboards.ca.gov/centralvalley/water\_issues/grassland\_bypass/grasslands\_bpa\_coalition\_ltr.pdf</a>

<sup>&</sup>lt;sup>2</sup> USBR. Broadview Water Assignment Project Draft EA/FONSI. April 2004 p 4-2; accessed at <a href="http://www.c-win.org/webfm\_send/195">http://www.c-win.org/webfm\_send/195</a>

reduction of 14,000 AF of drainage, 92,000 tons of salt, 8,100 pounds of selenium and 282,000 pounds of boron discharges to aquifers, groundwater and the GBP.

Land retirement could account for all of the reductions in selenium, and the majority of reductions in drainage volume, boron and salt claimed by the Grasslands Bypass Project. It is our understanding that approximately 100,000 acres in Westlands has been retired in addition to Broadview, but we use a smaller acreage for estimating the role of land retirement in meeting the GBP's load reductions. See figure below.



The US Environmental Protection Agency, in a recent letter regarding the Bay Delta Conservation Plan,<sup>3</sup> strongly suggested the Bureau of Reclamation's Land Retirement Program be revived to save water and prevent further selenium contamination and impacts to endangered species (page 13):

Recommendations: To mitigate for the project's impacts to selenium levels in the estuary as a result of the BDCP operations, consider reviving and funding the Bureau of Reclamation's Land Retirement Program<sup>17</sup> to remove from cultivation and irrigation large areas of selenium laden lands on the West side of the San Joaquin Valley. This would save irrigation water, reduce discharges of selenium into the San Joaquin River basin, and advance attainment of selenium reduction targets<sup>18</sup> set by EPA and the Central Valley Regional Water Quality Control Board. Evaluate the extent to which restoration of these "retired" lands to the native plant community could also contribute to the recovery of threatened and endangered plants and animals listed by FWS. Consider analyzing the cost/benefit of implementing treatment technologies vs. land retirement. Although cost/benefit analyses are not required under NEPA, such an analysis may be useful to decision makers and the public in this case."

In regard to cost/benefit analyses, the National Economic Development Act analysis for the San Luis Drainage Feature Re-Evaluation (SLDFRE) Environmental Impact Statement found that land retirement was the most cost effective solution. Three alternatives with land

<sup>&</sup>lt;sup>3</sup> See http://calsport.org/news/wp-content/uploads/bay-delta-conservation-plan-deis.pdf

retirement of 306,000 acres, 194,000 acres and 100,000 acres respectively were considered. The results below show that only the environmentally and economically preferred alternative with 306,000 acres retired showed a net benefit (In-Valley/Drainage Impaired Area Land Retirement).<sup>4</sup>

Table N-10
Benefit/Cost Summary
Changes Relative to the No Action Alternative (\$/year in 2050)

Subarea	In-Valley Disposal	Out-of-Valley Disposal	In-Valley/ Groundwater Quality Land Retirement	In-Valley/ Water Needs Land Retirement	In-Valley/ Drainage- Impaired Area Land Retirement
Total NED Benefit	\$37,962,000	\$38,430,000	\$31,164,000	\$20,629,000	\$9,931,000
Total NED Cost	51,225,000	51,370,000	46,767,000	30,778,000	6,288,000
Net NED Benefit	-\$13,263,000	-\$12,940,000	-\$15,603,000	-\$10,149,000	\$3,643,000

Notes:

Values represent net NED benefits relative to No Action.

Values rounded to nearest \$1,000. Totals may not add due to rounding.

The U.S. Fish and Wildlife Service, in their Fish and Wildlife Coordination Act Report for SLDFRE, recommended that all of the northerly area within the San Luis Unit (Grasslands Drainage Area) be retired as well, but Reclamation did not consider that alternative, although it's clear from the NED findings in Table N-10 above that additional land retirement would provide increased net benefits.

Despite the economic benefits of land retirement by Reclamation, in 2007 Reclamation requested and received an Interior Secretarial waiver from the National Economic Development Act and selected the 194,000-acre land retirement alternative (In Valley/Water Needs Land Retirement) that did not have a positive cost/benefit.

Mr. David Corry's remarks at the August 8 workshop that the selenium will remain in the soil and groundwater regardless of irrigation is misleading. Continuing to add irrigation water mobilizes this unlimited reservoir of selenium in west side soils. Cessation of irrigation leaves the selenium in the soil and reduces salty seleniferous shallow groundwater levels. The U.S. Geological Survey (USGS), has stated that "Land retirement is a key strategy to reduce drainage because it can effectively reduce drainage to zero if all drainage-impaired lands are retired." 5

Reclamation's CVPIA land retirement program has clearly demonstrated that there can be a rapid reduction in shallow groundwater from cessation of irrigation.<sup>6</sup> The CVPIA Land

<sup>&</sup>lt;sup>4</sup> San Luis Drainage Feature Re-Evaluation Final EIS, Appendix N, Table N-10, page N-17, accessed at http://www.usbr.gov/mp/nepa/documentShow.cfm?Doc\_ID=2240

<sup>&</sup>lt;sup>5</sup> USGS Open File Report No. 2008-1210. http://pubs.usgs.gov/of/2008/1210/

<sup>&</sup>lt;sup>6</sup>CVPIA Land Retirement Land Retirement Demonstration Project Annual Reports <a href="http://www.usbr.gov/mp/cvpia/3408h/data\_rpts\_links/index.html">http://www.usbr.gov/mp/cvpia/3408h/data\_rpts\_links/index.html</a>

Retirement Demonstration Program 2001 Annual Report<sup>7</sup> clearly articulates those benefits at the Tranquillity site:

"The average decline in water level observed in 10 monitoring wells for the period between August 1999 and October 2001 was 4 feet. The area of the site underlain by a shallow water table within 7 feet of the land surface decreased from 600 acres (30% of the site) to 34 acres (less than 2% of the site) during the time period from October 1999 to October 2001."

## PERMITTING FOR PANOCHE DEMONSTRATION TREATMENT PROJECT

The Final Environmental Assessment/Finding of No Significant Impact for the Panoche Demonstration Treatment Plant<sup>8</sup> states that NPDES or Waste Discharge Requirements will be issued by the CVRWQCB (page 60 of pdf). An October 6, 2011 e-mail from Joe McGahan states (page 112 of pdf) that WDR's will be issued for the treatment plant. The document also contains a signed application by the Panoche Drainage District for WDR's for the project (pages 114-118 of pdf).

So, we ask you, where is the WDR for the Panoche Demonstration Treatment Plant? Why is it not included as part of the proposed GBP WDR's or as a separate WDR? Much hope is placed on the success of this pilot treatment facility, yet its presence is glaringly absent in the proposed WDR for the Grasslands Bypass Project.

Any WDR or NPDES permit granted to the Grasslands Drainers would need to comply with 40 CFR Section 131.10(b) to ensure any permit conditions adopted protect and maintain water quality for downstream waters and uses.

## DAMMING WEST SIDE TRIBUTARIES FOR WATER SUPPLY

Chairman Longley mentioned support for damming west side streams such as Panoche Creek at the August 8 workshop. While it is possible that the water bond, Proposition 1 could make funds available for such an endeavor, storing runoff from highly seleniferous coast range soils would pose a significant biohazard. Bioaccumulation of selenium would predictably occur with resultant negative impacts on water quality and wildlife. We urge you to discontinue support for such a project.

Please keep us informed of the hearing schedule for regulatory proceedings related to the Grasslands Bypass Project and its demonstration treatment plant. Please contact Tom Stokely of C-WIN (tstokely@att.net) if you have any responses, questions or other information.

Sincerely,

<sup>&</sup>lt;sup>7</sup> Page vii, accessed at

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