

Sacramento Valley Water Transfers

2010 Background Material

by AquAlliance and the California Water Impact Network

Executive Summary

In 2010 and 2011, the U.S. Bureau of Reclamation (Bureau) and the California Department of Water Resources (DWR) will transfer 395,910 AF of Central Valley Project (CVP) and State Water Project (SWP) water by fallowing rice fields and allowing significant groundwater substitution in Colusa, Glenn, Sacramento, Solano, Sutter, Yolo, and Yuba counties. The *2010-2011 Water Transfer Program* (Program) was presented in a programmatic Environmental Assessment (EA) with a finding of No Significant Impact (FONSI). The agencies want to keep water moving south of the Delta while they prepare for more permanent transfers in a programmatic Environmental Impact Statement in 2012. DWR, while mentioned in the Bureau's federal EA, has not completed programmatic state review as required by the California Environmental Quality Act. Both the Bureau's EA/FONSI and DWR's omission are vulnerable to legal challenges. AquAlliance, the California Sportfishing Protection Alliance, and the California Water Impact Network filed a lawsuit in federal court on July 1, 2010 to challenge the Bureau's EA/FONSI, since we believe that the Program is likely to increase fish mortality, further degrade water quality for agricultural and municipal supplies, endanger many aquatic, terrestrial and avian species, and further strain groundwater basins in the Sacramento Valley.

Introduction

Despite its large water projects, California planned poorly for its water needs from the beginning of its statehood. The "wild west" nature of water procurement has created a tangled web of environmental and economic destruction in its wake. The two modern-day government agencies that facilitate water capture and delivery in California are DWR and the Bureau. These agencies have failed to alter the patterns and practices that leave California with the second largest list of threatened and endangered species (Hawaii is first) and collapsing ecosystems that are crucial for sustainable farming, fishing, and drinking water. One illustration of their limitations has been the creation of water rights, permits, and licenses that seek more than *8.5 times* the amount of water than could possibly be shared in the Central Valley watershed (State Water Resources Control Board 2008) — in other words, too many expectations and commitments for California's hydrologic reality. Due to this systemic paper water problem, the agencies have been focusing on the upper Sacramento River's surface water and ground water basins for decades. The Sacramento Valley is the last large, relatively intact watershed in California. The agencies' multiple plans and programs for the Sacramento Hydrologic Region could easily replicate the hydrologic collapses that have already occurred in the Owens and San Joaquin valleys.

Implications and Risks

Sacramento Valley Ground Water, Agriculture, Communities, and Domestic Wells

Much of the Sacramento Valley has a special right to water as an "area of origin" in the California water code. When valley communities plan to grow, these water rights give them priority over the export of water from the valley by the CVP and the SWP; however, the surface and ground waters of the area of origin confront significant risks. These risks include worsening overdraft, lowering groundwater

elevations, and increasing pumpers' costs, reducing river and stream flows as well as wetland water levels that are critical to protecting endangered salmon and giant garter snake populations. A 2009 NASA report found that urban and agricultural uses between 2003 and 2009 have pumped enough water from Central Valley ground water basins to fill Lake Mead, which can hold 28.5 million acre feet of water (<http://www.jpl.nasa.gov/news/news.cfm?release=2009-194>).

It is entirely likely that injuries to other legal users of water, including those entirely dependent on ground water in the Sacramento Valley, will occur if the Program is allowed to move forward. The Program's environmental review disclosed that there could be a *devastating* impact to groundwater resources throughout the valley: "The reduction in recharge due to the decrease in precipitation and runoff in the past years in addition to the increase in groundwater transfers would lower groundwater levels. Multi-year groundwater acquisition under cumulative programs operating in similar areas of the Sacramento Valley could further reduce groundwater levels. Groundwater levels may not fully recover following a transfer and may experience a substantial net decline in groundwater levels over several years. This would be a substantial cumulative effect" (EA p. 3-108). Despite this acknowledgement, the Program fails to require comprehensive monitoring, mitigation, and project cessation thresholds in the two-year water transfer project. Hundreds of Sacramento Valley dependent farmers could face crippling reduction or outright loss of access to water supplies that are vital to their businesses and property values.

Sacramento River Hydrologic Region's Species

The interaction between ground and surface waters has been largely ignored by the agencies. From research that is currently underway in the northstate (Hoover 2009) and comparisons to ground water declines in the Cosumnes River basin, stream flow declines are anticipated in important salmon rearing habitat in tributaries such as Mud Creek, which is located within the 2010-2011 Water Transfer Program. While a charged aquifer is likely to add to base flow of this stream, a de-watered aquifer would pull water from the stream. According to research conducted by Dr. Paul Maslin, Mud Creek provides advantageous rearing habitat for out-migrating Chinook salmon (1996). Salmon fry feeding in Mud Creek grew at over twice the rate by length as did fry feeding in the main stem of the Sacramento River. *Id.*

Another tributary to the Sacramento River, Butte Creek, hosts spring-run Chinook salmon, a threatened species under the Endangered Species Act. 64 Fed. Reg. 50,394 (Sept. 16, 1999). Butte Creek contains the largest remaining population of the spring-run Chinook and is designated as critical habitat for the species. *Id.* at 50,399; 70 Fed. Reg. 52,488, 52,590-91 (Sept. 2, 2005). Additionally, Butte Creek provides habitat for the threatened Central Valley steelhead. *See* 63 Fed. Reg. 13,347 (Mar. 19, 1998); 70 Fed. Reg. at 52,518. While Butte Creek is mentioned in the Program EA (p. 2-11, 3-4, 3-49, 3-57), the only protection afforded this vital tributary are statements that cropland idling will not occur adjacent to it, yet that is contradicted on page 3-19 of the document.

Delta Impacts

- Hydrographs of the Sacramento and San Joaquin Rivers before and after State Water Project and Central Valley Project operations began show that inflows to the Delta have decreased from both these rivers.

- “Reverse flows” occur in the Old and Middle River portions of the lower San Joaquin River because of the suction from the Delta export pumps. Fish are either lost, eaten or killed at the pumps.
- The Delta’s low salinity zone is important fish habitat. When more fresh water flows through the Delta, this zone grows in size and moves closer to the Golden Gate Bridge, guiding migratory fish to the sea, which reduces competition and increases survival of the estuary’s fish and other species. Since 2000, more intense water project operations have caused the estuary to shrink and resident and migratory fish populations have collapsed.
- Monitoring since the late 1960’s shows significant declines in all runs of salmon, as well as steelhead, green sturgeon, Delta smelt, longfin smelt, striped bass, American shad and threadfin shad.

Sacramento Valley Water Transfers Background

In the last two decades, many north to south water transfers have occurred (see table below). Most of them have benefited the areas of California whose water supplies are the least reliable by state water law at the expense of agriculture, communities, and the environment in and north of the Delta.

The position taken by the agencies and some of the sellers and buyers is similar to the one taken by banks before the housing meltdown: keep going until something collapses. As one of the districts participating in the transfers stated, “Water transfers from the Sacramento Valley through the Delta for consumptive uses and environmental purposes have been occurring on a large scale for over a decade. There have been no known demonstrable adverse impacts resulting from recent water transfers” (Western Canal Water District 2010). Unfortunately, they failed to disclose the complete absence of comprehensive monitoring and that the limited monitoring was done by the sellers and the agencies transferring the water.

Within the 2010-2011 Program, there is a significant increase in ground water substitution, up to 154,200 AF from the 55,000 AF used in the 2009 DWB transfers. This is the exact pattern DWR used in the early 1990s as they increased from tens of thousands of acre feet in groundwater substitution in the 1991 and 1992 Drought Water Banks (DWBs) to 105,000 AF in 1994. That was the year that significant impacts occurred to area farmers, residential wells, and municipal wells in the town of Durham, Butte County. There was no accounting of the impacts to surface or ground waters during the 1991-1994 DWBs and there is no programmatic plan for monitoring them for the 2010-2011 Program. Individual “monitoring and mitigation programs” by the “willing sellers” is the window dressing for legal monitoring and mitigation requirements. Of course, this is not a permissible approach under National Environmental Policy Act; significant, adverse and cumulative impacts should be disclosed and mitigated—or avoided altogether.

The proposed Project will have significant effects on the environment—both standing alone and when reviewed in conjunction with the multitude of other plans and programs that incorporate and are dependent on Sacramento Valley water. This includes impacts to ground and surface waters; avian,

aquatic, and terrestrial species; ground water dependent agriculture, communities, and households; and ground and surface water dependent ecosystems. Ironically, the Bureau appears to recognize in its Environmental Assessment (EA) that there is the potential for significant adverse impacts associated with the Program, but chose not to disclose them in an Environmental Impact Statement where greater analysis of the impacts to the Sacramento Valley would be possible. As noted above, they are relying on the inadequate EA/FONSI in 2010 and 2011 as a quick and cursory substitute for the EIS they hope to have in 2012.

Past Water Transfers From the Sacramento Valley in TAF Annually

| Program | 1991 | 1992 | 1993 | 1994 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 Proposed |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|-------------|-------------|-------------|-------------|--------------------------|
| DWR Drought Water Banks.Dry Year Programs | 820 | 193 | 0 | 220 | 138 | 22 | 11 | 0.5 | 0 | 0 | 0 | 0 | 74 | 0 |
| Environ Water Acct Others (CVP, SWP, Yuba inter alia) | 0 | 0 | 0 | 0 | 80 | 145 | 70 | 120 | 5 | 0 | 147 | 60 | 60 | 60 |
| Total | 820 | 193 | 0 | 220 | 378 | 172 | 206 | 120.5 | 5 | 0 | 147 | 233 | 274 | 430 |

From **Table 3.2** in the DRAFT FINDING OF NO SIGNIFICANT IMPACT FOR RECLAMATION’S CONSENT TO WATER SALE AND TRANSFERS UNDER THE SACRAMENTO RIVER SETTLEMENT CONTRACTORS 2003 IRRIGATION SEASON WATER TRANSFER PROGRAM and the Feather River Diverters/Western Canal Water District 2010 Water Transfer Program Initial Study/Negative Declaration.

Solution Sought by Complaint

The lawsuit filed by AquAlliance, the California Sportfishing Protection Alliance, and the California Water Impact Network seeks comprehensive National Environmental Policy Act environmental review for the water transfer program. Repeated water transfer projects in the last decade have all occurred without the benefit of thorough federal or state environmental analysis, which would require the establishment of baseline conditions, comprehensive monitoring, and the disclosure of impacts.