THE FARM LANDS OF CENTRAL CALIFORNIA’S SAN Joaquin Valley used to be desert, and are naturally laced with toxic chemical salts (especially selenium and boron compounds) that kill salmon and other aquatic species that make up the San Francisco Bay Delta ecosystem the San Joaquin Rivers drains into.

Since the late 1950’s it has been apparent that without a way to get rid of accumulating toxic salts, hundreds of thousands of acres of the arid San Joaquin Valley’s agricultural lands would have to someday go out of production. An impermeable clay layer below many of these “poisoned lands” causes shallow groundwater laden with salt, selenium, boron, pesticides and other toxins to rise to the surface, making farming difficult and eventually impossible.

A significant portion of these lands is irrigated by the politically powerful and heavily subsidized Westlands Water District.

Even in the 1950’s it was apparent that the shift from haying to irrigated agriculture would render this land unusable if a drainage plan was not created. This led to a requirement in the federal San Luis Act of 1960 that authorized the delivery of water to Westlands and three smaller Central Valley Project agricultural districts within the San Luis Unit, that the federal government must provide drainage to these salt-impaired lands. The government agreed to build and maintain the San Luis Drain to take the untreated salty brine and deposit it in the San Francisco Bay.

For many years this toxic drainage water was dumped into the Kesterson Wildlife Refuge – until the 1980’s, when it was revealed that selenium in the water was causing gross deformities in migratory waterfowl. These deformities sparked public outrage and the demand for the rerouting of the selenium-impaired water. Kesterson was buried, and the drains were plugged, but water continued to flow to Westlands and the salt problem continued to grow.

One solution by the Bureau of Reclamation (BOR) has been to route some of the pollution from the “Grasslands Area” north of Westlands into the San Luis Drain and dump it into a tributary of the San Joaquin River, formerly one of California’s most important salmon rivers. The “Grasslands Bypass Project” as it is now called delivers this toxic witch’s brew of salts, selenium, pesticides and nutrients into Mud Slough, flowing ultimately into the San Joaquin River and San Francisco Bay-Delta estuary. This project has also been given a 25-year blanket waiver of pollution standards by the State of California.

Many tons of toxins are now entering these salmon-producing watersheds. There is no question that this toxic discharge, when coupled with already low flows, is a contributor to the demise of the Central Valley and Bay Delta salmon fisheries, and just one of the many ways unsustainable agricultural in California’s Central Valley are wiping out California’s salmon.

Oregon is also directly affected, since about half of the salmon harvested offshore Oregon come originally from the California Central Valley river system.

Politics and Drainage

The drainage problem has reached a boiling point once again as the Westlands Water District and the Obama Administration are proposing to settle a billion-dollar lawsuit filed by Westlands over the government’s not providing proper drainage. The Administration has proposed giving Westlands, which is a very junior water contractor, a permanent water contract, forgiving Westlands’ $340 million dollar unpaid debt for its subsidized share of the federal Central Valley water project costs, and millions of dollars in public water infrastructure such as pumping stations and treatment plants, in exchange for Westlands providing their own drainage of these salt-impaired irrigation returns.

However, there are no state or federal requirements in the proposed Settlement for Westlands to actually clean up the mess. Furthermore, the Central Valley Regional Water Quality
Control Board does not even require monitoring of Westlands’ groundwater for selenium.

The ongoing “water war” over this issue is also laced with fraud. Westlands, which is a heavily subsidized agricultural water district within the federal California Central Valley Project, was recently slapped with the second largest municipal bond fraud fine in history by the Securities and Exchange (SEC) for misleading investors during a $77 million bond offering with what their General Manager Tom Birmingham joked was “Enron style accounting.” Westlands also loaned $1.4 million at an interest rate of less than 1 percent to a former Deputy Manager, which has never been paid back. Westlands already receives anywhere from $24 million to $110 million a year in taxpayer subsidies according to the Environmental Working Group (EWG).

To add insult to injury, the Obama Administration is now also proposing that three nearby water districts not involved in the lawsuit also be included in the deal. Provisions of the Westlands deal that provide for at least some environmental analysis and very limited land retirement would probably not apply to the non-punitive beneficiaries of the deal. The deal also includes a guarantee of $70 million to the three additional districts.

SF Bay Brine Pipeline Plan

Meanwhile the problem of California Central Valley salt impairment is rapidly growing. Up to 12.8 million acres of farmland there now leak annual salt discharges of up to 7 million tons per year to ground and surface water.

The Central Valley Regional Water Quality Control Board as part of the “CV-SALTS working group” is proposing their own partially publicly funded drainage solution as part of their “Central Valley Wide Salt and Nitrate Management Plan.” If the issue is not dealt with, the Board predicts it could lead to an ecological disaster situation within the State of California within the next 50 years. Many Central Valley salmon runs would be pulled into this whirlpool.

The group called CV-SALTS, which represents the state and regional water Boards, industry, irrigated agriculture, municipalities, and many federal and state agencies is considering whether or not to build a 250 mile, $7 billion pipeline to take either polluted brine or treated brine to a Richmond Wastewater Treatment plant in the east side of the San Francisco Bay as part of a strategy to deal with this salt crisis. They would then theoretically treat and discharge this water into California’s most productive and most heavily populated estuary. While this plan is a step up from former plans by the Bureau of Reclamation (BOR) to simply pipe untreated brine water directly to the ocean, many questions remain, including what pollutants will be treated before they are discharged, and whether or not taxpayers (and not AgriBusiness) should foot the bill for this multi-billion dollar infrastructure project. In particular, there has never been a successful large-scale effort to remove selenium from agricultural pollution and there is no reason to believe that a cost effective solution is near.

What should also be discussed in depth is whether or not reduced irrigation, and/or land retirement of these poisoned lands should be included, what secondary pollutants such as pesticides and ammonia will be released into the Bay through the brine line, how extremely salty brine and possibly toxic waste levels of seleniferous solids from the process will be disposed of, and how this proposal will impact the fishing industry and residents that depend on the bay and its fisheries.

Are Agriculture and Fisheries Compatible?

At the heart of the discussions should be acceptable risk, costs and sustainability. California is suffering from the effects of climate change, decades of unsustainable agriculture and a water allocation system that has allocated out more than five times as much water as actually exists. Yet much of the discussion regarding the salt and nitrate plan is about how to keep as much agriculture in the Central Valley as possible.

California cities have faced mandatory cutbacks during the ongoing drought; however agriculture, in particular groundwater pumping, has not faced the same cutbacks even though some estimates show that agriculture uses as much as 80 percent of the state’s allocated water, and most of its aquifers are badly depleted. The fact is that California has allocated more irrigation water, and is allowing far more agriculture-related pollution into its waters, than is sustainable. Continuing this unsustainable status quo makes no sense.

If California does not make major changes to its water allocation and pollution discharge policies soon, clean drinking water along with the commercial, subsistence and recreational fisheries those waters support could be lost throughout most of the state.

The facts speak for themselves. While the State and Regional Boards have repeatedly failed to take action regarding agricultural pollution from the Central Valley, Sacramento River Fall Chinook ocean abundance projection declined from 652,000 in 2015 to around 300,000 in 2016. The number of salmon-permitted vessels has declined from approximately 5,000 in 1980 to approximately 1,100 today. In 2015, only 585 vessels actually landed salmon in California. In 2015 up to 98 percent of juvenile Winter-run Chinook salmon died in the Sacramento River and only a handful of Delta Smelt, an endangered key indicator species, were counted. This year’s harvest is not even close to meeting expectations.

Sacramento Fall Chinook are not overfished. Their abundance declines are primarily due to over-allocation of water and the lack of cold water in Shasta Reservoir as a result of the Bureau of Reclamation continually delivering too much irrigation water at the expense of fisheries.

The California State Water Resources Control Board has in the past characterized the toxic drain water from the San Luis Drain as a nuisance and as hazardous waste, yet the Board still allows it to be discharged into a tributary of the San Joaquin River. This water then enters the Sacramento Bay Delta where it causes significant harm to the fisheries on which commercial and recreational fishermen rely.

Why should fishermen bear the brunt of pollution-caused fisheries declines while the federal and state governments...
provide additional subsidies, through billion dollar drainage plans and pollution control waivers, for farms that are heavily polluting our rivers?

A “Brine Pipeline” cannot truly solve the issue of the Central Valley land becoming unproductive and its groundwater becoming unusable. The pipeline proposal in its current form will most likely just continue to shift the pollution problems to the San Francisco Bay and West Coast fishing families.

A Real Salt Management Plan

The retirement of salt-laden lands and the use of associated water rights for instream flows to dilute other discharges of salt and nitrates, coupled with on-farm control and disposal of salts, is the only reasonable solution. In fact, the US Fish and Wildlife Service recommended that all 379,000 acres of drainage impaired land in the San Luis Unit be retired. The Bureau of Reclamation’s own Economic Analysis stated that land retirement is the most cost-effective way to resolve problems associated with irrigation of toxic soils.

A study on San Luis Unit land retirement by economics firm EcoNorthwest estimates that 300,000 acres of toxic land in the Westlands Water District and three adjacent northerly water districts could be retired at a cost of $580 million to $1 billion. Retiring this land and curbing the water contracts associated with it would result in a savings to California of up to 455,000 acre-feet of water – for reference, the City of Los Angeles uses 587,000 acre-feet in a typical year.

The fact is our fisheries deserve better than a politically motivated corporate handout, and a selenium-laden brine pipeline. The salt pollution portion of the planning for the Central Valley Salt and Management Plan is still in its early stages, and the Obama/Westlands settlement still has to pass Congress. There is still time to advocate for real solutions to the Central Valley water and salt pollution crisis, chief of which is retirement of these poisoned lands.

For more information on comment periods related to the San Francisco Bay Brine Pipeline proposal, or on how to stop the Westlands Settlement visit the IFR website at: www.ifrfish.org.

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