Via email: DeltaConveyanceScoping@water.ca.gov

March 20, 2020

Delta Conveyance Scoping Comments
Attn: Renee Rodriguez
California Department of WaterResources
P.O. Box 942836
Sacramento CA 94236

Subject: Delta Conveyance Scoping Comments

Dear Ms. Rodriguez:

Restore the Delta (RTD) advocates for local Delta stakeholders to ensure that they have a direct impact on water management decisions affecting the water quality and well-being of their communities, and water sustainability policies for all Californians. We work through public education and outreach so that all Californians recognize the Sacramento-San Joaquin Bay Delta as part of California’s natural heritage, deserving of restoration. We fight for a Delta whose waters are fishable, swimmable, drinkable, and farmable, supporting the health of the San Francisco Bay-Delta Estuary, and the ocean
Delta Conveyance Project Notice of Preparation Comments from Restore the Delta
March 20, 2020
Page 2 of 14

Beyond. Our coalition envisions the Sacramento-San Joaquin Delta as a place where a vibrant local economy, tourism, recreation, farming, wildlife, and fisheries thrive as a result of resident efforts to protect our waterway commons.

This letter conveys our comments on the Notice of Preparation (NOP) for the Delta Conveyance Project (DCP) issued January 15, 2020, by the California Department of Water Resources (DWR). This letter also seeks to put before you a few key questions and our discussion of them:

• With what water will future Delta tunnel and dams and reservoirs be able to operate?

• Will California’s key water agencies, yours among them, conduct thorough, factual, and honest outreach to all communities, especially environmental justice and disadvantaged communities in their service areas regarding the costs of proposed projects and water outcomes?

• With lengthy and costly construction logistics, have California’s key water agencies, yours among them, done the necessary “due diligence” studies to make fully informed decisions about a future Delta tunnel, dams, and reservoirs?

• Have these decisions been balanced with considerations for maintaining, retrofitting, repairing, and preserving existing water agencies’ infrastructure, especially any future repairs and changes needed at Oroville Dam?

Thank you for considering our comments on the new DCP’s NOP. Email addresses for Barbara Barrigan-Parrilla and Tim Stroshane are included If you wish to reach out to us.

Sincerely,

\Signed via email\  \Signed via email\  \Signed via email\  \Signed via email\  \Signed via email\  \Signed via email\  
Dillon Delvo  Sammy Nunez  Tama Brisbane  Nicholas Hatten  Dillon Delvo  Nicholas Hatten  Dillon Delvo  Nicholas Hatten  Dillon Delvo  Nicholas Hatten  
Executive Director,  Executive Director  Executive Director  Executive Director  Little Manila Rising  Fathers & Families of San Joaquin  With Our Words, Inc.  LGBT+ Social Justice Initiative  Little Manila Rising  LGBT+ Social Justice Initiative  With Our Words, Inc.  LGBT+ Social Justice Initiative  }
Delta Conveyance Project Notice of Preparation Comments from Restore the Delta
March 20, 2020
Page 3 of 14

\Signed via email\\
Jasmine Leek
Founder and Managing Director
Third City Coalition

Nathan Werth
Executive Director
Substratum Systems

Barbara Barrigan-Parrilla
Executive Director
barbara@restorethedelta.org

Tim Stroshane
Policy Analyst
tim@restorethedelta.org

Attachments:
1. Specific Delta Conveyance Project NOP Comments

cc: Mayor Michael Tubbs, City of Stockton
Kathy Miller, San Joaquin County Supervisor
Erik Vink, Delta Protection Commission
Kelley Taber, Somach & Simmons
S. Dean Ruiz, South Delta Water Agency
John Herrick, South Delta Water Agency
Dante Nomellini, Central Delta Water Agency
Osha Meserve, Soluri Meserve LLC
Roger Moore, Law Office of Roger B. Moore
Jonas Minton, Planning & Conservation League
Bill Jennings, California Sportfishing Protection Alliance
Chris Shutes, California Sportfishing Protection Alliance
Carolee Krieger, California Water Impact Network
Michael B. Jackson, California Water Impact Network
Barbara Vlamis, AquAlliance
Regina Chichizola, Save California Salmon
Tom Stokely, Save California Salmon
Patricia Schifferle, Pacific Advocates
Kathryn Phillips, Sierra Club California
Brandon Dawson, Sierra Club California
Molly Culton, Sierra Club California
Bob Wright, Sierra Club California
Elaine Barut, Little Manila Rising
Irene Calimlim, Fathers and Families San Joaquin
Adam Keats
Doug Obegi, Natural Resources Defense Council
Kate Poole, Natural Resources Defense Council
Jon Rosenfield, San Francisco Baykeeper
Gary Bobker, The Bay Institute
John McManus, Golden State Salmon
Michelle Ghafar, Earthjustice
Nina Robertson, Earthjustice
Attachment 1

Restore the Delta’s Specific Delta Conveyance Project NOP Comments

Purpose and Project Objectives

The express purpose of the new DCP is “to develop new diversion and conveyance facilities in the Delta necessary to restore and protect the reliability of State Water Project (SWP) deliveries and, potentially, Central Valley Project (CVP) water deliveries south of the Delta, consistent with the State’s Water Resilience Portfolio [WRP].” Related objectives include responding to anticipated sea level rise and other foreseeable climate change and extreme weather events; minimizing potential public health and safety impacts of reduced SWP water deliveries south of the Delta due to Delta levee failure from earthquakes; protecting SWP, and potentially CVP, ability to deliver water when sufficiently available under biological opinions, Delta Reform Act, and contract terms “and other existing applicable agreements”—the latter of which we take to mean potential execution of voluntary agreements in lieu of adoption and implementation of full Bay-Delta Plan flow objectives by the State Water Resources Control Board; and providing “operational flexibility to improve aquatic conditions in the Delta and better manage risks of further regulatory constrains on project operations.”

DWR continues to avoid in this NOP situating its new DCP (previously its California WaterFix) objectives and purpose in the overall framework of state water and civil rights policies. Questions that need answers include:

- How does this project claim to further the state constitutional requirement that all water use as well as methods of diversion are to be reasonable and beneficial?

- How does it claim to further the statewide mandate from state case law that reasonable and beneficial use of water must protect the public trust resources of the state, which include fish, water itself, and recreational beneficial uses, among others?

- In 2009, the Legislature declared that it is the policy of the state to reduce reliance on the Delta for California’s future water needs. How does the new DCP address this mandate to reduce reliance on the Delta for importation of water?

- How might the new DCP claim to promote environmental justice for Delta communities when it clearly proposes to remove water from the Delta and degrade water quality here in the midst of one of California’s most economically distressed communities in the City of Stockton?

RTD insists that the Draft EIR incorporate answers to these specific questions about purpose and need.

We further urge that the Draft EIR fully evaluate the claim in the objectives of the NOP that the new DCP will actually solve problems raised by both climate and seismic risks.
Though seismic risk to Delta levees may be conceptually reduced relative to what was thought a decade ago when California WaterFix and the Bay Delta Conservation Plan were in early planning stages, this does not mean there is no risk. The reduction in risk, however, merits “attenuation” in the state’s rhetoric about seismic risk to Delta levees, and in the rhetoric of the state’s allies concerning some new type of Delta conveyance.

Delta levees are still needed. Each iteration of California WaterFix’s operations since 2012 relied for some portion of the year on conveyance of state and federal stored water in and through Delta channels to reach the state’s Banks Pumping Plant near Byron and the federal Jones Pumping Plant near Tracy. Through-Delta conveyance means passage of water intended for export between Delta levees for the entire distance. Environmental reviews of the tunnels project revealed that about half the time (48 percent) on average the south Delta pumps would continue to be the point from which state and federal exports would originate. DWR and the Bureau sought to modify their water rights permits from the State Water Resources Control Board between 2015 and 2019 to add points of diversion in the north to augment their south Delta pumping plants—not to replace the south Delta diversions with the north. There would be times when listed fish species would be present or fresh water flows entering the north Delta would be too low (seasonally or from drought) to permit such diversions through the tunnels. Sending water through leveed Delta channels is still vital to the State Water Project and the Central Valley Project in addition to the health of the Delta itself.

Over the last decade of water debates we at Restore the Delta have continually found it irresponsible of tunnels advocates to push for tunnels as some sort of seismic insurance policy while excluding Delta levees from that same treatment. We have no reason to believe at this time that a new DCP would have less need for Delta levee stability in the face of any level of seismic risk than did California WaterFix. Delta levee stability investment is an essential component of any investment in long-term conveyance for the Delta—with or without a single-tunnel concept—whether the levee failure hazard results from earthquakes or sea level rise due to climate change.

If DWR and the Bureau, and their urban and agricultural customers, are to continue exporting water from the Delta for the long haul, they must recognize that Delta levees are essential to their future as well as to the Delta’s—and help persuade the public to support Delta levee investments, and soon. And this is true regardless of whether concerns for Delta levee stability are seismic or climate-based in origin. Delta levees need to be addressed in either case. Why doesn’t the NOP recognize this reality? Does it mean that DWR is an earthquake and climate denier, even as it stresses need for the new DCP as a seismic and sea level rise protection measure? Please consider our report, Climate Equity and Seismic Resilience for the San Francisco Bay-Delta Estuary, where we address both climate and seismic risks to the Delta.

1 Accessible at https://www.restorethedelta.org/climate-equity-and-seismic-resilience-for-the%20San%20Francisco%20Bay-Delta%20Estuary/.
With What Water?

The Fourth California Climate Assessment (4CA) was largely ignored by the Draft WRP. This leaves us with the disturbing impression, which we conveyed to the state in our February comments on the Draft WRP, that DWR regards the 4CA with contempt and ignores water-related findings from its supporting studies provided by some of its own scientists and modelers when it comes to formulating future water strategies for our state. One study supporting the 4CA estimates water supply probabilities for the California State Water Project (SWP) and the federal Central Valley Project (CVP):

- There is a probability of 59 to 65 percent that north-of-Delta (NOD) April storage—at the start of the traditional irrigation season—“will be inferior to current performance.”

- There is a 95 percent probability—a virtual certainty—that NOD carryover storage (on September 30) will be worse than current performance, which was also found for Shasta, Oroville, Folsom, and Trinity lakes’ carryover storage.

- There is between an 89 and 93 percent probability that annual Delta exports will be reduced.  

- By visually interpreting probability distribution surfaces produced to support the 4CA, we estimate that if temperatures rise 2°C by 2050 and precipitation falls about 10 percent, NOD April storage would likely decrease about 10 to 15 percent. But if precipitation decreases 20 percent at that level of warming, NOD end of April storage will decrease 25 to 30 percent.

- The same study estimates (again using probability distribution surfaces) that with 2°C warming by 2050 and precipitation falling about 10 percent, NOD carryover storage (on September 30) would decrease 30 to 35 percent. But if precipitation decreased by 20 percent at this level of warming, NOD carryover storage would decrease by 40 to 50 percent.

---


3 Ibid., Figure 6, p. 19. Schwarz et al note that “End of April storage is less sensitive to temperature increases than carryover storage because end of April storage measures accumulated runoff into NOD reservoirs during the winter rainy season. Higher temperatures are likely to generate less snow and accelerated melting rates, with the result that a higher proportion of the winter precipitation would flow immediately to the reservoirs, and less would remain high in the watershed as snow storage.”

4 Ibid. Schwarz et al note “Carryover storage, on the other hand, is affected by the diminished snow reserves associated with higher temperatures, with smaller late-spring/early-summer snow-fed flows culminating in much lower storage levels at the end of the summer. Carryover storage response is also related to the higher sea levels assumed at higher temperature values...requiring more water to be released from storage (especially during the summer months) to repel sea water intrusion, and meet Delta outflow and salinity requirements.”
Delta Conveyance Project Notice of Preparation Comments from Restore the Delta  
March 20, 2020  
Page 8 of 14

- At 2°C warming by 2050 and a 10 percent decrease in precipitation, average annual Delta exports are estimated to decrease by about 30 percent; at a 20 percent decrease in precipitation, Delta exports may decrease between 40 and 50 percent from historic levels.5

- Another 4CA supporting study of average and extreme climate effects on the State Water Project found that “the flow seasonal pattern shift in rim [that is upstream reservoir] inflows from the Sierra Nevada and sea level rise in the San Francisco bay together would...[lead] to a half million-acre feet export reduction in the middle of this century [2050].”6

- With more progress on greenhouse gas reduction, Delta export reductions could be cut in half and lessen carryover storage reductions.7

- “During drought episodes in the middle of this century, climate change impacts on the SWP and CVP operations are much worse in the driest climate model projection scenario. Delta exports would reduce to half of that in historical droughts. Carryover storage would decrease to one-fifth of that in historical droughts.”8

- Another 4CA study supporting analysis of water impacts states: “Mean annual precipitation is projected to increase modestly in the northern part of the state, but year-to-year variability is also projected to increase, leading to a greater incidence of dry years in future decades, which may affect hydropower generation.”9

- “By the end of the century under the RCP 8.5 [business-as-usual] scenario, winter precipitation is projected to increase by up to 20%, but decrease in spring and autumn by up to 20%. These changes will present a challenge to the operation of existing water storage infrastructure including reservoirs and associated hydroelectric plants, which are an important source of California’s electricity.”10

- “Daily extreme precipitation values are projected to increase 5-15% (RCP 4.5 [moderate GHG reduction scenario]) to 15-20% (RCP 8.5), presenting challenges for storm drainage and flood control.”11

- “Basins that are currently snow dominated show a shift to earlier flow as more winter precipitation falls as rain instead of snow and what snow there is melts

5 Ibid., Figure 11, p. 25.
7 Ibid.
8 Ibid.
10 Ibid.
11 Ibid.
earlier. These shifts will have further implications for the operation of reservoirs and hydroelectric energy generation in addition to those effects noted above.”

- “Moisture deficit is projected to increase over much of the state, but with only small changes in the Central Valley. Top level soil moisture is projected to decrease, especially in the southern half of the state.”

California’s 4CA studies help us prepare for the dramatic conditions that await us: sea level rise, extreme heat, drought, flooding, and water quality degradation—with or without a tunnel—in the Delta and elsewhere. The 4CA also finds reduced upstream reservoir storage at the beginning and at the end of the spring and summer irrigation season, and that Delta exports will likely decrease substantially as a result. The question for water contractors like yours is whether it will make sense to invest in systems that tap the Central Valley as compared with repairing, retrofitting, and maintaining facilities and systems that are closer to home? Will there be enough water to justify bonded debt incurred with construction of a tunnel?

The latest State Water Project Delivery Capability Report for 2019 echoes some of these 4CA findings. The long-term average deliveries from the State Water Project (SWP) decreased from 62 percent of Table A water to 59 percent of total Table A amounts, about a five percent decrease. The average delivery amount also decreased from 2,571 thousand acre-feet (TAF) to 2,453 TAF, also about a five percent decrease and a reduction of about 118 TAF looking forward. Dry period averages decrease significantly. Article 21 surplus supplies remain nearly the same as in prior delivery capability reports, but dry year surplus deliveries are about one-tenth to one-eighth of wet year surplus deliveries, according to the 2019 report.

**Outreach to Environmental Justice Communities**

Environmental justice communities have endured burdens and impacts of environmental harms and where economic and personal effects they impose are disproportionately borne. There are environmental justice communities throughout California. Many are located in the vicinities of local, state, and federal water project facilities, and many more are located within or beyond the service areas of local water agencies. Many lack access to affordable, clean drinking water.

In 2016, Restore the Delta documented environmental justice communities throughout the Delta and has continued advocating that the future of Delta environmental justice communities is profoundly vulnerable to drinking water, recreational, and economic impacts of more water exports, including the problem of spreading harmful algal blooms during spring and summer. We partnered with the Winnemem Wintu people of northern California to build an environmental justice case concerning the last Delta conveyance

---

12 Ibid.
13 Ibid.
The proposed Delta Conveyance Project (DCP) planning process remains behind on doing meaningful outreach to environmental justice communities from the Oregon border to San Diego. The Notice of Preparation for the new DCP proposes the Department of Water Resources’ suggested scope of issues to be covered in the upcoming draft environmental impact report. It failed to include environmental justice and public health concerns as issues to be covered. We are aware that California Department of Water Resources consultants for the new DCP are gearing up to do more outreach on these and other topics. We are happy to see forward movement on environmental justice issues by DWR. But it is deeply frustrating to us that even after environmental justice issues were relevant to the demise of California WaterFix, that the State Water Contractors (including Metropolitan Water District) once again fail to prioritize the redressing of environmental justice grievances and issues.

Affordability of a new DCP for ratepayers in environmental justice communities in the service area of all state water contractors, including Metropolitan’s, must be addressed. In addition, removal of more fresh water from the Delta leads to salt water intrusion which will further spread harmful algal blooms (HABs) in Delta channels. Their growth will increase water treatment costs for the cities of Antioch, Pittsburg, Fairfield, Stockton, and West Sacramento, and our urban water agencies like Contra Costa Water District and Solano County Water Agency.

HABs in Delta river channels and in reservoirs and lakes statewide is a growing concern as our climate warms. Their spread will reduce the public’s enjoyment—including enjoyment by members of environmental justice communities—of public trust water bodies throughout the state. Potentially more HABs will make subsistence fishing more difficult and hazardous for those communities reliant on fish for an affordable and healthy component of their diets. HABs can threaten local drinking water supplies and increase costs for drinking water treatment for all water users, yet will impact environmental justice communities the hardest. In addition, the cyanobacteria from HABs can become airborne and exacerbate air pollution. Many neighborhoods surrounded by HABs in Stockton have been designated AB617 areas due to high rates of air pollution, and the fourth highest rate of asthma in the United States. These areas cannot sustain increases in HABs from reduced flows from climate change, let alone the operation of a Delta tunnel.

Operationally, the new DCP will depend for water on increased storage at Shasta Lake, the new Sites Reservoir, and elsewhere. It will also depend on increased imports from the Trinity River. Water from these sources will come from regions where Indigenous

15 Community Water Center blog: https://www.communitywatercenter.org/droughtplanning
Delta Conveyance Project Notice of Preparation Comments from Restore the Delta
March 20, 2020
Page 11 of 14

peoples reside and who themselves depend upon good quality water and sufficient fresh water flows for the health of Chinook salmon runs. These salmon runs are miraculous for the epic character of the ir life histories. They depend on healthy water ways from the Delta north to the Sacramento River, and from the Pacific Ocean to the Trinity and Klamath Rivers to complete them. Religions and spiritual lives of the region’s Indigenous peoples are bound up with the survival and flourishing of salmon. Their environmental justice fight is for survival of their cultures and their communities. Salmon are at the center of their world and lives. If all Californians—including their powerful water agencies—valued the miracles that salmon perform year-in and year-out, we all (Indigenous and immigrant Californians alike) could enjoy this healthy food source. But they are devalued in favor of supplying water mainly benefiting farm export crops in the current warming climate.

Again, DWR had to play catch-up during the DCP Notice of Preparation process. Tribal cultural resources were included in the NOP as an issue area for the draft EIR to address, but DWR failed to schedule a public meeting about scoping issues in northern California where affected Indigenous tribes reside. After fourteen years of planning some kind of new Delta conveyance facility (twenty-five when one includes the CalFED process), it was beyond belief and unconscionable to Indigenous peoples of northern California and to us that all seven planned meetings announced in the NOP were to be held in Sacramento and points south. After realizing this error, DWR scheduled a new scoping meeting in Redding (El Pom) March 2nd. Over 200 people from seven tribes attended to oppose the new DCP and ask why Trinity River had been omitted from the NOP’s map and from proposed project flows. No other meaningful references to northern California Indigenous tribes appeared in the NOP, even though they will be directly and indirectly affected by new DCP construction and operation.

**No New Facilities for At Least a Generation**

Large and complex new water facilities like dams, reservoirs, and water tunnels require long lead times and complicated schedules. Recently the Delta Conveyance Design and and Construction Authority was informed that a new tunnel has currently a proposed completion date of 2035.

It may seem smart and overdue that California needs to build new infrastructure projects like a Delta tunnel and new reservoir storage will all due haste. It’s just that California has entered a new reality where droughts are expected to be hotter and last longer, and atmospheric river storms are likely to cause more flooding and greater risks to our state.

What are the best uses of Californians’ time, good will, public commitment to efficient use of water, and money?

---

16 “Trinity System” is included in Figure 2 of the NOP, but omits the Trinity River, from which the Trinity System exports water, and which affects Trinity County residents and California Indigenous tribes in the region.
DCP cost was estimated in 2018 at about $11 billion. An inflation rate of 5 percent per year was factored into that budget. We have learned that construction costs have accelerated since 2018. Moreover, a new “unknown” that will have some effect on project planning, design, and construction is COVID-19 pandemic. What effect will the pandemic have on supply chains for such projects as DCP? The world economy is slowing dramatically due to the pandemic, so the U.S. and California governments have yet to enact at this writing some type of fiscal stimulus or response. No one knows how long the pandemic will remain dangerous to human societies, or whether such a large project as DCP will remain feasible and possible for public agencies once it passes.

As the new DCP is still under design, costs for the project—including true mitigation costs—are not fixed. A recent technical report prepared for the Delta Conveyance Design Construction Authority (DCDCA) by construction engineers suggests that the tunnel should move further east as a means to reduce construction costs, rather than construct it under islands purchased by Metropolitan Water District (which are less accessible to highways, rail lines, and Port of Stockton facilities). Plus, a great deal of new infrastructure, such as new roads and rail spurs to supply tunnel construction, will have to be designed, permitted and built before tunnel work may begin, adding years to the project. The DCDCA believes that with permitting and supportive infrastructure creation—including roads, train depots, and barge landings—the project will take at least 23 years to complete.

The report also asserts that tunnel planners should not count on reusing Delta soils that will be removed during construction for shoring up levees or the new forebay to be constructed around the existing pumps. (It is estimated that the DCP’s volume of excavated soil materials will be 40 percent of the volume expected for California WaterFix.) Deep Delta soils contain legacy mercury, arsenic, and chromium-6 and are not considered safe for use near drinking water supplies. It will be costly to remove, safely transport, and store such soils without dirt becoming airborne or leaking into drinking water sources. Safe disposal of tunnel-excavated soils will also be a costly enterprise if not handled correctly because they risk devastating environmental health outcomes.

**Old Binaries, New Realities**

Water officials regularly bemoan the lack of trust that characterizes so much of California water policy and politics. Governor Newsom in 2019 urged Californians to get past “the old binaries.” This is all very well and good. But getting past the old binaries means that water agencies must treat all Californians like their local and regional water concerns matter—including those environmental justice communities who have historically shouldered disproportionate burdens of degraded river and drinking water quality, declining fish populations and contamination, and rising water bills beyond what their incomes can support.

17 Kathryn Mallon of DCDCA email to Barbara Barrigan-Parrilla, 13 March 2020.
Delta Conveyance Project Notice of Preparation Comments from Restore the Delta
March 20, 2020
Page 13 of 14

The governor’s Draft WRP continues to emphasize old binaries in which water importers in the San Joaquin Valley and southern California should have assured and expanded supplies in a desiccating future—coming at the expense of the Delta and northern California environmental justice and Indigenous tribal communities. Examples of this continuing “old binary” are the raising of Shasta Dam and expansion of its lake, construction of Sites Reservoir, and planning and construction of the DCP. In the name of breaking old binaries, Governor Newsom supports projects that instead reinforce the old binaries, with support of water agencies like Metropolitan.

The new reality of climate change means that California water agencies need to ensure that their local and regional systems are well-maintained and in good working order for the long-term. The Federal Energy Regulatory Commission (FERC) recently ordered the Santa Clara Valley Water District to drain Leroy Anderson Reservoir due to strong seismic concerns. Key facilities all along the State Water Project are near (such as San Luis Reservoir) or actually traverse major earthquake faults (like the California Aqueduct). Unfortunately, public safety awareness of the sheer number of dams in highly urbanized regions like southern California is lacking. Hundreds of dams ring southern California cities and communities, only a fraction of which have prepared inundation map, according to the state Division of Safety of Dams (DSOD). This lack of awareness is compounded by an absence of flood inundation maps, as shown in Attachment 2 to this letter, indicated by circled location points (square location points denote dams with inundation maps).18

Lake Oroville and Oroville Dam, the capstone reservoir of the SWP, continues to be under engineering and public safety scrutiny in the wake of its spillway failure in February 2017. While the Federal Emergency Management Agency (FEMA) agreed on February 21, 2020, to pay $113 million that had originally been denied for spillway repairs, it was continuing to withhold about $193 million the state wanted for repairing the adjacent emergency spillway. The Sacramento Bee reported that “all costs not covered by FEMA would be borne by member agencies of the State Water Project, Oroville Dam’s operator.” As you all know, Metropolitan is a member agency of the State Water Project. Metropolitan will need to ensure it budgets adequately to pay its fair share of Oroville Dam repair costs, and for maintenance of its many other dams and facilities—all of which in the south coastal region are exposed to the seismic risks of the San Andreas and many other adjacent fault zones in the region.

Alternatives

Typically, DWR drafts its Delta conveyance EIRs so that alternatives are considered to be simple variations on a theme—if a tunnel is wanted, then different flow capacities and different diversion points are considered as alternatives. But the realities that are dimly recognized within the project’s purpose and objectives (discussed above) include seismic and climate risks. These are significant risks. So it is entirely reasonable that non-tunnel and non-diversion alternatives come under consideration in this Draft EIR.

We urge DWR to devise an investment program that continues through-Delta conveyance, subject to the rules of water quality plans and biological opinions, but which seeks to boost local and regional self-sufficiency as an alternative that seeks to addresses seismic and climate risks for SWP customer service areas. How does such an alternative perform compared with the reliability of supplies garnered by a DCP and other tunnel-based conveyance alternatives? The Draft WRP was short on specifics when it came to a true assessment of California’s future water needs, unfortunately, and missed an opportunity to conduct a meaningful needs assessment along the lines we describe in our report, *Climate Equity and Seismic Resilience for the San Francisco Bay-Delta Estuary* (see Appendix B).

**Potential Environmental Effects**

The list of potential effects in the NOP are inadequate. Environmental justice effects are omitted, when even the California WaterFix and BDCP environmental documents contained analyses of these effects. Public health effects are confined to risk of mosquito-borne diseases, which are routinely controlled by mosquito abatement districts. Harmful algal blooms (HABs) are not mentioned but need to be. Disturbance of channel sediments that may contain mercury and selenium must be addressed for their water quality, public health, and environmental justice effects. Transportation, noise, and air quality effects must also address not just construction effects but operational effects. By what pathways will continued operation of tunnels generate impacts on surrounding communities and businesses (including farms) from tunnel operations?