Sustainable Water Action Plan

A True Portfolio Approach to Delta Water Supplies

California water policy should protect our rivers and the San Francisco-San Joaquin Bay Delta; make clean drinking water available to all Californians; and support a robust and sustainable economy.

We must respond to water supply and demand challenges from global climate change with sound policy and best available science.

Sustainable water solutions must be responsible and cost-effective, and minimize negative effects on local communities.

ACTIONS WITHIN THE DELTA

Improve Conveyance

- ☑ Decrease rates of fish entering "kill zone" of the South Delta by considering efficacy of fish screens or non-physical barriers at Delta Cross Channel and Georgianna Slough.[1]
- ☑ Invest in Delta levee system to continue to convey water through the Delta, protect existing infrastructure, and respond to climate change and seismic risks.[2]
- ☑ Consider temporary and permanent barriers to better protect fish while incorporating state of the art facilities to protect public trust uses such as recreational boating and fishing.
- ☑ Consider brackish water treatment as an adaptation to sea level rise.[3]
- ☑ Conduct targeted dredging to improve conveyance of water through the Delta.

Improve Fish Habitat

- ☑ Carry out the long overdue requirements[4] of the Biological Opinions[5] and CalFed to improve fish survival at CVP/SWP pumps.[6]
- ☑ Develop new habitat on publicly owned lands or lands available from willing sellers.[7]
- ☑ Incorporate good neighbor measures into habitat projects to avoid offsite negative impacts and provide endangered species coverage.[8]
- ☑ Provide take coverage (safe harbor) for adjacent activities where habitat will increase likelihood of take.
- ☑ Provide an ombudsman process and mitigation fund to efficiently address impacts on neighboring properties and uses.
- ☑ Support crops and agricultural practices that reduce subsidence and increase wildlife benefits while maintaining agricultural productivity.

LOCAL AGENCIES
OF THE
NORTH DELTA

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ACTIONS OUTSIDE THE DELTA TO INCREASE RESILIENCY

Urban Water Use Efficiency

- ☑ Promote local water supply projects that reduce reliance on the Delta.
- ☑ Undertake water use efficiency projects to create "new" water supplies.[9]
- ☑ Increase treatment and reuse of wastewater, graywater, and stormwater, especially in coastal areas.[10] For instance, L.A. plans to recycle all of its wastewater by 2035, thereby reducing its need for imported supplies.
- ☐ Desalt brackish groundwater in overdrafted basins and recharge/recycle groundwater.

Increase Water Storage

- ☑ Improve natural water infrastructure in our upper watershed forests, meadows and streams to improve flow regulation, reduce peak flooding, and retain water above dams and rivers later into the summer season. [11]
- ☑ Increase groundwater recharge potential in agricultural and open spaces with cover cropping, weed control[12] and other means.
- ☑ Expand storage south of Delta (e.g., San Luis and Los Vaqueros reservoirs) to facilitate water storage in times of excess flows.[13]
- ☑ Undertake groundwater recharge projects to provide water supplies when diversions from the Delta not possible and to meet SGMA.

Agricultural Areas Receiving Delta Water

- ☑ Reduce reliance on water imported from the Delta with water use efficiency measures.
- ☑ Support south of Delta agriculture that can maintain sufficient profitability to support protective Delta water quality, fish protection and other standards.
- ☑ Convert to more drought resilient and productive uses, potentially including transitioning to crops that can occasionally be fallowed, or other uses altogether, such as solar energy and wind power.
- ☑ Do not rely on imported water supplies that causes undesirable effects in source areas to
- ☑ Retire 300,000 acres of toxic farmland in Westlands Water District and adjacent water districts (Broadview, Panache, Pacheco).
- ☑ Improve infrastructure necessary for continued through Delta water conveyance to prevent earthquake damage, subsidence and conveyance losses.
- ☑ Install modern irrigation technologies and practices, such as drip irrigation and precise irrigation scheduling.
- ☑ Advance the state's healthy soils initiative.[14]

reach supposed "sustainability" under SGMA.

IF ANY NEW DELTA CONVEYANCE IS CONSIDERED, IT MUST:

- ☑ Be based on best available science, consistent with the criteria of Relevance, Inclusiveness, Objectivity, Transparency and Openness, Timeliness, and Peer Review.[15]
- ☑ Be preceded by measurable efforts to improve Delta water supplies and ecosystems while protecting the Delta as a place without new conveyance.
- ☑ Be designed to operate only during high flows to avoid injury to other water users and unreasonable effects on fish and wildlife.[16]
- ☑ Avoid impacts on Delta Legacy communities, Delta agriculture, and fish and wildlife.
- ☑ Be sited on lands already owned by the state or other project proponents, such as Sherman Island or the MWD islands.[17]
- ☑ Be resilient to sea level rise by including flood protection measures and other adaptations.
- ☑ Include an operations plan that includes set parameters to protect other water users and the environment and meet the Delta Reform Act requirement to reduce reliance on the Delta.
- ☑ Include a transparent adaptive management plan that includes a broad range of stakeholders and is guided by best available science.
- ☑ Incorporate best available technology, including fish screens with dynamic baffling that can be adjusted for real time conditions.
- ☑ Cease operations in low flows or during key fish migration/life history periods to avoid new reverse flows, worsened water quality and fisheries impacts. Fish protections should apply to all native fish species regardless of listing status.
- ☑ Consider repurposing of existing water intakes in the Delta, coupled with brackish water treatment (e.g., closed power plants).

Endnotes

1. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=21473; see also studies regarding Georgiana Slough at http://baydeltaoffice.water.ca.gov/sdb/GS/index_gs.cfm#Documents.
2. https://www.nrdc.org/resources/portfolio-based-conceptual-alternative-bay-delta; see also https://www.nrdc.org/sites/default/files/portfolio-based-bdcp-conceptual-alternative-appendices.pdf, pp. 13-14.
3. https://www.fluencecorp.com/california-to-increase-reliance-on-brackish-water-desalination/
4. New state-of-the-art fish screens were supposed to be built at existing South Delta export facilities by 2000. https://www.waterboards.ca.gov/waterrights/water_issues/programs/bay_delta/california_waterfix/exhibits/docs/CSPA%20et%20al/part2/cspa_412.pdf; see CalFed ROD, p. 49, available at: http://www.calwater.ca.gov/content/Documents/ROD.pdf; see also CalFed ROD, Attachment 6A, U.S. Fish and Wildlife, Programmatic Endangered Species Act Section 7 Biological Opinion, p. 36 and Attachment 6B, National Marine Fisheries Service, Programmatic Endangered Species Act Section 7 Biological Opinion, p. 27.
5. 2009 NOAA Fisheries BO discusses improvements to the DCC and the south Delta diversions, pp. 640, 630 et seq.:
Action IV.1: Modify DCC gate operations and evaluate methods to control access to Georgiana Slough and the Interior Delta to reduce diversion of listed fish from the Sacramento River into the southern or central Delta.
Action IV.2: Control the net negative flows toward the export pumps in Old and Middle rivers to reduce the likelihood that fish will be diverted from the San Joaquin or Sacramento River into the southern or central Delta.
Action IV.3: Curtail exports when protected fish are observed near the export facilities to reduce mortality from entrainment and salvage.
Action IV.4: Improve fish screening and salvage operations to reduce mortality from entrainment and salvage.
Action IV.5: Establish a technical group to assist in determining real-time operational measures, evaluating the effectiveness of the actions, and modifying them if necessary.
Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=21473.
6. 2009 NOAA Fisheries BO, p. 640. Available at: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=21473.
7. https://www.wildlife.ca.gov/conservation/watersheds/dcf.
8. https://www.wildlife.ca.gov/Conservation/Watersheds/DCF; https://water.ca.gov/programs/california-water-plan/water-resource-management-strategies/agriculture-and-land-stewardship-framework.
9. https://www.nrdc.org/sites/default/files/portfolio-based-bdcp-conceptual-alternative-appendices.pdf.
10. https://www.latimes.com/local/lanow/la-me-water-recycling-los-angeles-20190222-story.html; https://www.nrdc.org/experts/tracy-quinn/city-angeles-announces-bold-recycled-water-plan.
11. https://www.pacificforest.org/wp-content/uploads/2017/07/HWC-Book_Web.pdf.
12. According to a 2004 study, about "one million acre-feet of water is consumed by star thistle each year in the Central Valley above and beyond what would be consumed by annual grasses. See http://files.ctctcdn.com/3eadd856001/31366a57-0c2f-43fd-92a2-c3ff4e371f64.pdf.

13. 2016 California Water Action Plan, p. 15. Available at: http://resources.ca.gov/docs/california_water_action_plan/Final_California_Water_Action_Plan.pdf.
14. https://www.cdfa.ca.gov/oefi/healthysoils/.
15. http://deltacouncil.ca.gov/sites/default/files/2015/09/Appendix%201A.pdf.
16. See http://www.fixcawater.com/solution2.html.
17. See http://www.mwdh2o.com/DocSvcsPubs/Delta_Islands/.