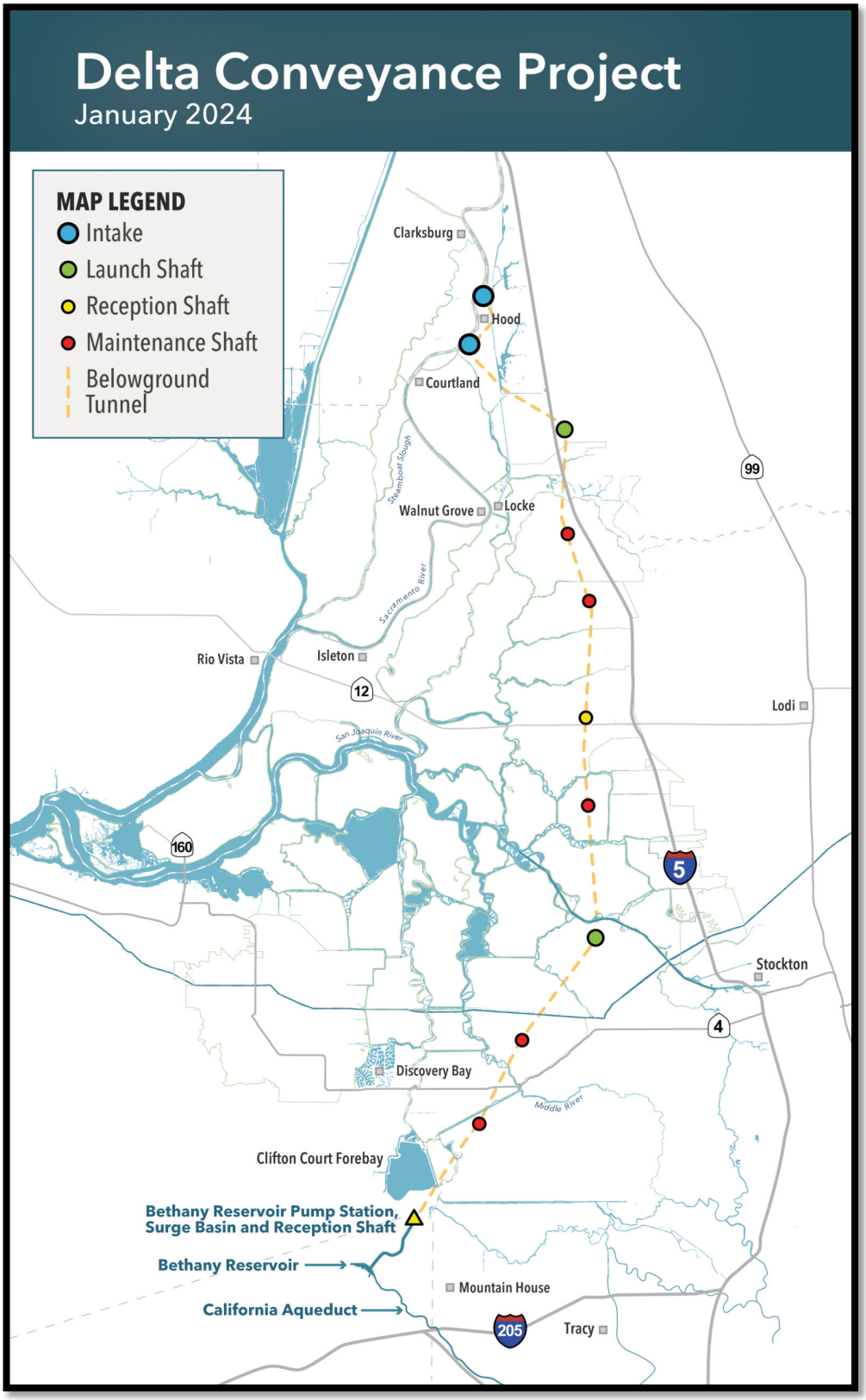

Figure 1. Delta Tunnel Project.

The Delta Tunnel – What it means for Central Valley Fisheries

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The 20-billion-dollar Delta Conveyance Project (DCP, Fig 1), commonly referred to as the Delta Tunnel, is going through its final planning processes in state water right permit hearings. The DCP is the further incarnation of the failed Peripheral Canal (1982) and Twin Tunnels/Delta Water Fix (2018) projects of the State Water Project (SWP) to increase water supply exports from the Central Valley via Delta diversions.

The proposed DCP involves two 3,000-cfs screened diversion intakes on the Sacramento River in the north Delta near Hood and a concrete-lined 6000-cfs-capacity tunnel to Bethany forebay located at the north entrance to the California Aqueduct (see Fig. 1). There the DCP would connect with the outlet from the existing SWP's Clifton Court Forebay and Banks South Delta Pumping Plant. The California Aqueduct carries the Delta water southward as far as southern California.

The Tracy Pumping Plant of the federal Central Valley Project (CVP) also exports water from the South Delta. It feeds water into the Delta Mendota Canal that carries Delta water south to the San Joaquin Valley. It also connects to SWP facilities to allow joint uses and operates under a cooperative operations agreement (COA)

Together the two existing south Delta water export projects have water rights and a total capacity to export of 14,750 cfs – 10,350 cfs (SWP) and 4,400 cfs (CVP). Delta channel capacities presently limit exports to 11,400 cfs under most conditions – 7,000 cfs SWP and 4,400 cfs CVP.

The DCP would add 6,000 cfs export capacity but from a new north Delta point-of-diversion unconstrained by channel capacity. The SWP's 10,350 cfs water right permit would not change. The new point of diversion would increase the SWP's ability to divert a greater proportion of its 10,350 cfs water right from the Delta. The new DCP north Delta diversion also adds advantages of redistributing total Delta exports allowed among the three export locations.

Despite the addition of the DCP providing a total export capacity of 20,000 cfs, the state has promised not to exceed the 14,750 cfs total export limit and its 10,350 cfs share. The state also promises not to divert water into the new tunnel unless Delta outflow to the Bay is maintained at a minimum of 35,000 cfs. Even with these restrictions, total allowable SWP exports from the Delta in some months would double or more yielding in some wetter years up to a million acre-ft of new water supply exports (Figure 2). In drier years new exports would only be about 200,000-300,000 acre-ft but would likely come in the important winter and early spring months for salmon, smelt, sturgeon, and striped bass (Figures 3 and 4).

While the added exports from the DCP may seem small, they entail a proportionally greater effect on the Bay-Delta fish. First, the new diversion location exposes salmon, sturgeon, smelt, steelhead, and striped bass fry to a new intake system in the North Delta, which though screened represents a significant potential threat to fry and juvenile salmon salmon and sturgeon emigrating into the north Delta. Second, reduced Delta inflow from the DCP diversion increases the proportion of outflow then removed by the existing two South Delta diversions. Third, the loss of further added freshwater outflow on Bay nurseries of the fish is a significant added effect especially in drier years.

Finally, It is not so much what the proposed operation commitments are, its more about how the state and federal water projects may use the added capacity in the future if commitments change. Decades ago, the water agencies committed to not further reducing freshwater outflow to the Bay – that commitment has not been met. Second, rules have been abandoned or relaxed in drought years to allow additional water exports.

Third, permit requirements and water quality standards have been ignored particularly by the CVP to provide federal contractors more water or to save reservoir storage.

Higher exports into the range of 8000-10,000 cfs SWP plus 4000 cfs CVP with the DCP would be high and unprecedented. Based on past experience such increases would be detrimental to smelt, salmon, sturgeon, steelhead, striped bass, and other Central Valley resident and migratory fish populations and their critical habitats in all water year types. If adverse effects occur once the DCP is built, major refinements to North and South Delta operations and facilities as well as project reservoir operations and infrastructure may be needed to provide the necessary protection of Central Valley public trust fishery resources.

In summery, over the past five decades, past and present SWP/CVP project operations have devasted Central Valley fish populations, leading to sport and commercial fishery closures and restrictions. The benefits of prior mitigation have deteriorated from aging infrastructure, poor management, and climate change. Adding the further burden of the DCP without first addressing the long-term damage in the Central Valley and Bay-Delta ecosystem will limit recovery of these important public trust fisheries resources. The DCP could be a key element in a recovery/restoration effort, but in its present proposed design and operation scheme, it would be a significant added burden to an already compromised ecosystem.

For further reading see:

https://calmatters.org/newsletter/delta-tunnel-project-newsletter/

https://mavensnotebook.com/2025/02/14/dwr-delta-conveyance-project-checks-off-another-important-milestone/

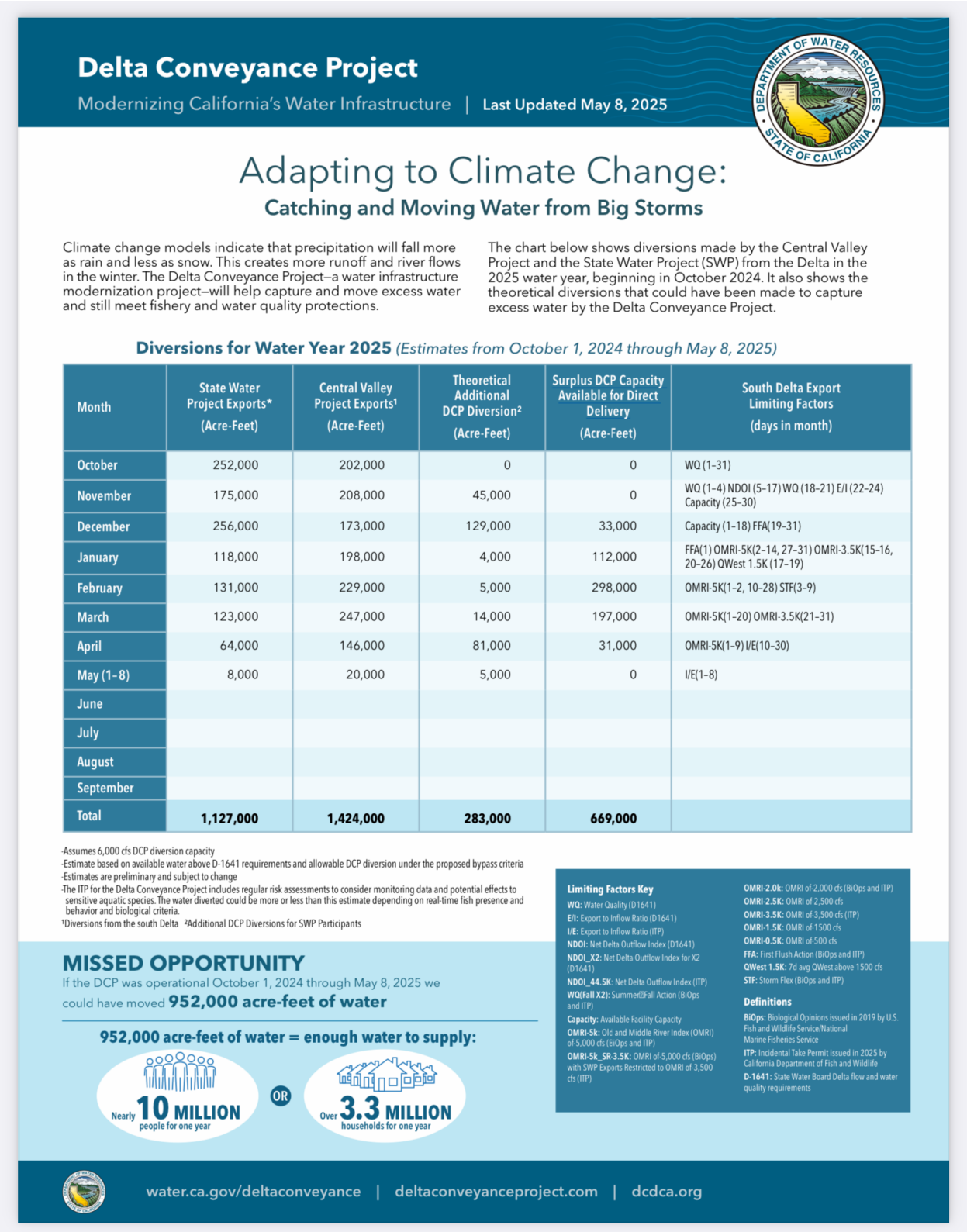

Figure 2. CDWR estimated water supply benefits of DCP in a year like 2025. Source: CDWR www.dcdca.org

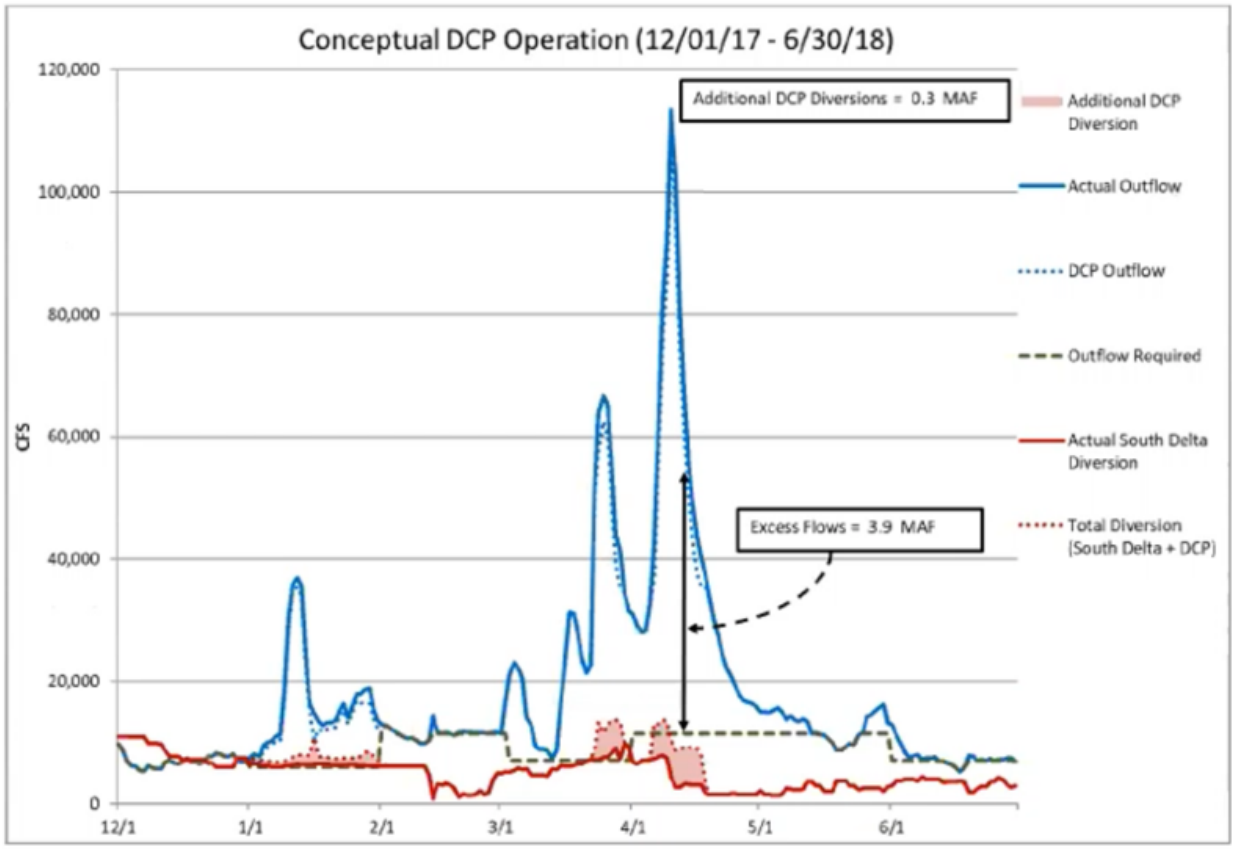

Figure 3. CDWR conceptual operation of DCP in normal water year 2018. Added water supply from DCP would be about 300,000 acre-ft during a late April to early May storm period. Source: CDWR.

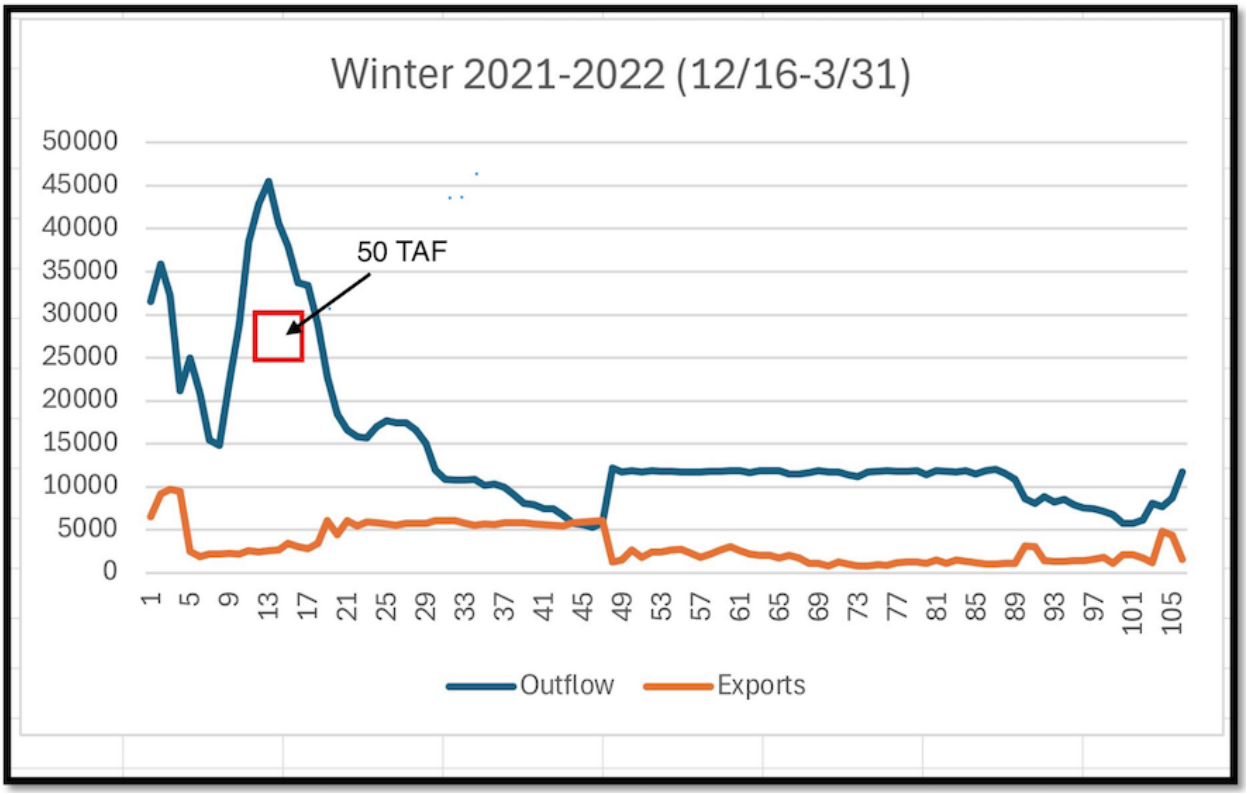

Figure 4. Actual Delta outflow (cfs) and total Delta SWP/CVP exports (cfs) in critical drought water year 2021-2022. The red box represents the approximate amount of water that could be diverted in the north Delta by the DCP under proposed operation restrictions (when Delta outflow exceeds 35,000 cfs). Water year data source: CDEC.