

October 18, 2023

**Attention: Imported Water Committee**

**Bay-Delta Update. (Presentation)**

**Purpose**

This memo provides an update on Sacramento-San Joaquin Bay-Delta (Bay-Delta) related activities and projects that may impact the State Water Project (SWP) supplies of Metropolitan Water District of Southern California (MWD).<sup>1</sup>

**Executive Summary**

- The Bay-Delta is the hub of the SWP and federal Central Valley Project (CVP) that supplies water to more than 27 million Californians, including the 19 million who reside in MWD's service area, and has been in ecological decline for decades, resulting in regulatory limitations on water exports. Agencies have been working on potential solutions to address the deteriorating ecosystem and to stabilize supply.
- San Diego region's decades long supply diversification efforts have significantly reduced its reliance on the Bay-Delta supplies, consistent with state policy.
- In 2019, the Water Authority Board conditionally supported a Bay-Delta fix so long as the project costs are properly allocated as supply charges, consistent with its purpose and as it has historically been envisioned for a similar project.
- As part of its ongoing planning process for the proposed single tunnel Bay-Delta fix (Single-Tunnel Project),<sup>2</sup> the California Department of Water Resources (DWR) released the project's Draft Environmental Impact Report (DEIR) in July 2022; a final document is expected in late 2023.
- The Sites Project Authority (Sites Authority) applied for a water rights permit from the State Water Resources Control Board (State Water Board) and expects to release final environmental documents for Sites Reservoir in late 2023.
- Last month, the State Water Board issued a draft staff report and Substitute Environmental Document (SED) for updating the San Francisco Bay/Sacramento-San Joaquin Delta Estuary Water Quality Control Plan (Bay-Delta Plan). The SED evaluates implementation approaches, including several flow-only approaches and the negotiated Voluntary Agreements (VAs).
- A federal environmental decision about the 2019 biological opinions that govern the operations of the SWP and CVP is pending and could result in changes in 2024.
- MWD is undertaking a long-term planning process dubbed Climate Adaptation Master Plan for Water (CAMP4W), which among other things, intends to support MWD's supply reliability investments and strategies, which may cost tens of billions of dollars, to meet the challenges of a changing climate.

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<sup>1</sup> [San Diego County Water Authority Imported Water Supplies: Northern California.](#)

<sup>2</sup> [Delta Conveyance Project Planning Process Road Map](#)

## **Background**

The Bay-Delta supplies drinking water to almost 27 million residents, supports a \$32 billion agricultural industry, and provides an important habitat to more than 750 animal and plant species, several of which are threatened or endangered. It is also vital to the fishing industry, supporting about 80% of the state's commercial salmon fishery. For several decades, the Bay-Delta ecosystem has been in decline due to various factors, including reduced water and sediment supply, invasive species, toxic pollutants, land use changes, levee systems, and land subsidence.<sup>3</sup> The declining fish species, increasing regulatory requirements to protect remaining populations,<sup>4</sup> and climate change are impacting the reliability of the Bay-Delta water supply. Because of its importance, in 2009, the state legislature adopted the 2009 Delta Reform Act establishing the co-equal goals of improving water supply reliability and protecting and restoring the Bay-Delta ecosystem, and its policy of reducing reliance on the Bay-Delta. It also requires that a Bay-Delta Fix be paid for by water contractors.<sup>5</sup> Many state and federal agencies are engaged in efforts to balance the need to export water and to protect the environment. These include proposing such things as a conveyance system to export water by bypassing the Bay-Delta, updating water quality control plans, undertaking vulnerability assessments, and issuing biological opinions aimed to protect threatened and endangered species.

### ***Potential SWP Supply Reliability Programs***

More than 70 years ago, since before the SWP's inception, a facility around or through the Bay-Delta to move water from north to south has been contemplated,<sup>6</sup> and the water community has been exploring opportunities to improve the SWP and CVP yields while protecting the Bay-Delta's delicate and unique ecosystem. Voters rejected the Peripheral Canal, which would have gone around the Bay-Delta, in 1982. More recently, such a proposed project has evolved from initial studies under the CALFED Program, to previous proposals including the Bay-Delta Conservation Plan and later California WaterFix (the Twin-Tunnel Project). In 2019, Governor Newsom directed the development of a water resilience portfolio approach to water resource management that included a single tunnel Bay-Delta project. The Water Authority Board updated its Bay-Delta Policy Principles in July 2019 to support the Governor's portfolio approach and a single tunnel project *contingent* that its costs are properly allocated as supply charges,<sup>7</sup> in the same manner as the Peripheral Canal was defined.<sup>8</sup>

DWR's current Draft EIR, issued in July 2022, identified its proposed alternative as a single tunnel with an export capacity of 6,000 cubic feet per second (CFS), two intakes on the Sacramento River, and a tunnel alignment to the east of the Bay-Delta connecting to the existing Bethany Reservoir on the California Aqueduct. The new tunnel will operate together with the existing waterways as a dual facility. DWR is in the process of reviewing and responding to comments on the Draft EIR and plans to issue a Final EIR in late 2023. At that time, DWR will

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<sup>3</sup> U.S. Geological Survey, "[Sediment transport, streamflow, and climate change: long-term resilience of the Bay-Delta.](#)"

<sup>4</sup> California Department of Water Resources, "[Bay Delta.](#)"

<sup>5</sup> [California Water Code §85089.](#)

<sup>6</sup> John Hart, [A Century of Delta Conveyance Plans](#), California Water Library, August 2022.

<sup>7</sup> [Water Authority's Bay-Delta and Project Policy Principles](#) (adopted July 25, 2019).

<sup>8</sup> As described in DWR's Bulletin 132 Appendix D, which is used to determine water charges. (For example, see [page B-14 of Bulletin 132-21 Appendix B](#)).

determine whether to approve the proposed project, an alternative, or no project. Concurrently, the U.S. Army Corps of Engineers (ACE) issued its Draft Environmental Impact Statement (DEIS) to comply with federal environmental law. The public comment period for the DEIS closed March 2023. ACE has not indicated when a Final EIS will be released. DWR's Draft EIR does not include a cost estimate for the 6,000 CFS single tunnel. Although during the California WaterFix planning phase, the cost estimate for a 6,000 CFS single tunnel—albeit with a different alignment and ancillary facilities—was priced at \$15.9 billion (2020 \$).

DWR filed a “validation action” in 2020 seeking the court’s confirmation of its authority to issue revenue bonds to finance a Bay-Delta Fix. The thought is, if confirmed, SWP contractors could fund the Fix under the existing ad valorem taxing authority. Trial was set for earlier this year, with final ruling pending. If DWR is not able to issue debt under its existing authority, then the debt to pay for the single tunnel project will need new voter approval to be paid via property taxes, or participating contractors will need to use water rates revenues.

Sites Reservoir (Sites) is a proposed \$3.9 billion (2021 \$)<sup>9</sup> off-stream, 1.5 million acre-feet (AF) reservoir located in a valley about 70 miles north of Sacramento. It is independent of the Single Tunnel Project and is not associated with the SWP and CVP. The project has 30 participating agencies. It has been awarded up to \$875 million in state grant money<sup>10</sup> and \$244 million in federal grant money for the project’s environmental and other public benefits. The Sites Authority<sup>11</sup> applied for a water right permit from the State Water Board in 2022. The State Water Board issued a notice for public comment regarding the permit in June 2023 and extended the protest period to August 31, 2023. On that date, a coalition of conservation groups and tribes submitted a protest against the water rights application,<sup>12</sup> arguing that the Bay-Delta and Sacramento River “are already over-allocated and in environmental collapse,” the reservoir would release large amounts of greenhouse gases, and that there are better ways to deliver more water at a lower cost.<sup>13</sup> The Sites Authority has up to six months to resolve the protests before the State Water Board holds a formal hearing to decide whether to issue the water right permit. It separately is planning to release final environmental documents in late 2023 with construction beginning in 2025.<sup>14</sup>

During 2023 California budget negotiations, Governor Newsom asked that lawmakers include a set of bills that would streamline and speed up environmental planning and permitting, and limit litigation for various types of projects.<sup>15</sup> Sites Reservoir and the Single-Tunnel Project were

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<sup>9</sup> In February 2023, [CalMatters reported](#) the project’s cost as \$4.4 billion.

<sup>10</sup> Sites Authority has received about \$44 million.

<sup>11</sup> The Sites Project Authority is a joint powers authority (JPA) of 29 local public and government entities. Although not a member of the JPA, MWD is a member of the Sites Reservoir Project Committee which has certain decision-making authority in carrying out the budget and work plan. More information found in [MWD’s February 12, 2019 board letter](#).

<sup>12</sup> California Sportfishing Protection Alliance, Friends of the River, et al. [Protest, Sites Reservoir](#), August 31, 2023.

<sup>13</sup> “[Press Release: Coalition of Conservation Groups Unite in Opposition To Sites Reservoir, Formally Protest Water Right](#),” *Maven’s Notebook*, September 1, 2023.

<sup>14</sup> Don A. Wright, “[Sites Reservoir: Greenhouse Gas Threat or Hot Air?](#)” *Water Wrights*, September 11, 2023.

<sup>15</sup> Ben Christopher, Alastair Bland, Julie Cart and Alejandro Lazo, “[Gavin Newsom wants to make it easier to build roads, dams and more. What’s in his plan?](#)” *CalMatters*, May 19, 2023.

specifically included in the initial budget trailer bill, but later, the Single-Tunnel Project was dropped due to lack of political support. The budget ultimately passed without the Single-Tunnel Project,<sup>16</sup> effectively leaving it to continue the current permitting path and open to potential prolonged litigation. On October 5, 2023, taking advantage of the new law, Sites Authority applied to the California Office of Planning and Research to be “certified as an infrastructure project under Senate Bill 149” for judicial streamlining. Guidelines for certification eligibility are expected to be released in fall 2023.<sup>17</sup>

### ***Regulations Affecting SWP Supplies***

At least two regulations governing operation of the SWP are pending update and could impact SWP supplies. One is the State Water Board’s Bay-Delta Plan and the other, the biological opinions that govern SWP and CVP operations.

The State Water Board adopted the San Francisco Bay/Sacramento-San Joaquin Delta Estuary Water Quality Control Plan (Bay-Delta Plan) to establish water quality objectives for designated beneficial uses of water in the Bay-Delta watershed, along with an implementation program to meet those objectives in 1978. The federal Clean Water Act requires review and appropriate updates to the water quality standards every three years. However, the State Water Board has not comprehensively reviewed the plan since 1995 (minor changes to the plan were made in 2006). The State Water Board is currently updating the Bay-Delta Plan through two separate amendment phases: one for the San Joaquin River and the other for the Sacramento River and Delta watersheds. Phase one for the San Joaquin River update was completed in 2018 but has not yet been implemented; it is already a subject of several lawsuits. Some of the flow objectives would be implemented by requiring the maintenance of 40% of unimpaired flows.<sup>18</sup>

Related to the Sacramento River, the U.S. Bureau of Reclamation, along with various local and state agencies including MWD (but not the State Water Board), are simultaneously developing Voluntary Agreements (VAs) (recently christened to “Agreements to Support Healthy Rivers and Landscapes”) with the intent to achieve the Bay-Delta Plan objectives without relying only on unimpaired flows. The VAs would use measures such as habitat restoration to achieve lower unimpaired flow requirements, so long as those measures provided the same level of habitat and species protection as 55% unimpaired flows. In March 2022, negotiating parties, including MWD, signed a Memorandum of Understanding (MOU) with a proposed term sheet the parties would use to finalize the agreements.<sup>19</sup>

However, groups like Restore the Delta have criticized the VA negotiation process for excluding conservation, environmental justice, fishing, and tribal interests and other members of the public.

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<sup>16</sup> Wes Venteicher, Rachel Bluth, Christopher Cadelago, “[California budget deal scrap Newsom bid to speed Delta tunnel](#),” Politico Pro, June 27, 2023.

<sup>17</sup> “[Notice: Sites Reservoir requests certification as an infrastructure project under SB 149](#),” *Maven’s Notebook*, October 11, 2023.

<sup>18</sup> Unimpaired flow is defined as the natural water production of a river basin without any upstream diversions, storage, exports, or imports.

<sup>19</sup> “[MOU Advancing a Term Sheet for the Voluntary Agreements to Update and Implement the Bay-Delta Water Quality Control Plan, and Other Related Actions](#)” dated March 29, 2022,

In May 2022, a coalition of California tribes submitted a petition to the State Water Board. The petition alleged that the State Water Board was violating federal law and urged it to review and update the Bay-Delta Plan promptly. This coalition's effort is to ensure adequate flows for water and environmental quality to sustain imperiled fish and resources that are "fundamental to [tribes'] identity, culture, spirituality, and ways of life," including species that are at risk of extinction. The petition also contended that the steps the State Water Board had taken thus far were not transparent, prioritized the VAs that did not adequately protect flows, and alienated "California tribes and Delta communities of color most directly harmed by that shortfall."<sup>20</sup> The coalition said the ecological crisis in the Bay-Delta has its roots in California's history of violence against Native people, the taking of land from tribes, and structural racism that shaped how the water rights system was established more than a century ago, and that deteriorating conditions in the Bay-Delta represent a "continuation of California's discriminatory water management history."<sup>21</sup> In June 2022, the State Water Board denied the petition stating it was already performing a review of the Bay-Delta Plan.<sup>22</sup>

In December 2022, the coalition filed a civil rights complaint against the State Water Board. The group contended that the State Water Board's failure to update the Bay-Delta plan was violating the Civil Rights Act of 1964, constituting discrimination based on race, color or national origin.<sup>23</sup> In August 2023, the U.S. Environmental Protection Agency issued a decision agreeing to accept the complaint for investigation.<sup>24</sup> The EPA has 180 days to issue preliminary findings (around February 2024 for this complaint), although a full investigation could take longer.

Shortly after, in late September 2023, the State Water Board issued a draft staff report and Substitute Environmental Document (SED) for updates to the Bay-Delta Plan. The SED evaluates implementation approaches, including several flow-only approaches as well as the VAs.<sup>25</sup> The main flow-only approach is termed the "proposed Plan amendments," and calls for minimum flows of at least 55% of unimpaired flows, which is an average of 1.5 million AF more water flowing out the Bay-Delta than existing outflow. The VA approach would require significantly less, about 500,000 to 700,000 AF of additional flow through the Bay-Delta, and less in very wet or very dry years.<sup>26</sup> A coalition, including MWD, issued a letter expressing

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<sup>20</sup> ["Petition For Rulemaking to Review and Revise Bay-Delta Water Quality Standards,"](#) *Restore the Delta*, May 24, 2022.

<sup>21</sup> Ian James, ["Delta water crisis linked to California's racist past, tribes and activists say,"](#) *Los Angeles Times*, May 26, 2022.

<sup>22</sup> State Water Resources Control Board, [Decision on Petition to Revise Bay-Delta Water Quality Standards](#), June 24, 2022.

<sup>23</sup> Hayley Smith, ["Tribes accuse California water board of discrimination and urge EPA oversight of Bay-Delta,"](#) *Los Angeles Times*, December 17, 2022.

<sup>24</sup> [Press Release: EPA Accepts Civil Rights Complaint Against California State Water Board](#), *Maven's Notebook*, August 9, 2023.

<sup>25</sup> State Water Resources Control Board, [Sacramento/Delta Update to Bay-Delta Plan 2023 Draft Staff Report](#).

<sup>26</sup> Rachel Becker, ["The Bay-Delta ecosystem is collapsing. California just unveiled rival rescue plans,"](#) *CalMatters*, September 29, 2023.

“strong support” for the VAs.<sup>27</sup> Written comments on the SED are due mid-December 2023 with adoption and implementation of a Bay-Delta Plan possibly years away.<sup>28</sup>

A decision about the biological opinions could also significantly affect operations of the SWP (and CVP). In 2019, California filed a lawsuit challenging the Trump administration’s biological opinions that govern the operations of the SWP and CVP,<sup>29</sup> which allowed greater project exports. The lawsuit alleged the opinions “[provided] a limited analysis of climate change impacts,” put various fish species at risk of extinction, and did not provide a “meaningful opportunity” for the public to provide input. In January 2021, President Biden issued an Executive Order calling for a review of several environmental rules and regulations issued during the Trump Administration, including the biological opinions. In September 2021, Reclamation requested review of the biological opinions to meet the requirements of the Executive Order and “voluntarily reconcile” SWP and CVP operations, which will likely result in changes to the biological opinions in 2024.

### ***Other Future SWP Supply Considerations***

In May 2023, the California State Auditor released an audit report of DWR.<sup>30</sup> The audit found that DWR did not adequately account for changes in climate leading it to “significantly” overestimate water supply in some drought years. The report also said that DWR “has not developed comprehensive plans to respond to the effects that more severe future droughts may have on State Water Project operations.” The audit makes several recommendations to improve DWR’s SWP forecasting capability and transparency. The report notes that DWR “generally disagrees with our report findings and recommendations.” The same day the state auditor published the audit, DWR posted a blog titled “State Water Project Operations Continues to Adapt to Climate Change.”<sup>31</sup> The report includes a May 2023 response from DWR detailing its disagreements with the audit and a response from the auditor.<sup>32</sup>

### **Discussion**

Through its CAMP4W process, MWD described that the SWP could face climate challenges stemming from increased frequency and intensity of wildfire, further environmental regulations, sea level rise, and flashier weather (“more intense dry periods with flashes of abundance” like what was experienced with the 2020-2022 drought followed by the historically wet 2023), among other things. MWD is the largest SWP contractor, with a maximum allocation of about 1.9 million AF, or about 46% of the total Table A allocation; however, the amount of SWP water it actually receives depends on hydrology and regulatory regimes. MWD is obligated to pay its share of the bonds for the SWP construction, as well as associated costs, including labor and power, for

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<sup>27</sup> Coalition [letter to SWRCB](#) supporting VAs dated September 28, 2023.

<sup>28</sup> See footnote 18.

<sup>29</sup> “[Press Release: Attorney General Becerra Files Lawsuit Against Trump Administration for Failing to Protect Endangered Species in the Sacramento and San Joaquin Rivers](#),” California Office of Attorney General, February 20, 2020.

<sup>30</sup> California State Auditor, “[Department of Water Resources: Its Forecasts to Not Adequately Account for Climate Change and Its Reasons for Some Reservoir Releases Are Unclear.](#)”

<sup>31</sup> California Department of Water Resources, “[State Water Project Operations Continues to Adapt to Climate Change](#),” May 25, 2023.

<sup>32</sup> California State Auditor, “[Response to Audit.](#)”

maintaining and operating the SWP facilities, regardless of the amount of water received.<sup>33</sup> The average amount MWD receives from the SWP has been declining, from about 1 million AF in a 20-year average to about 830,000 AF over a 10-year average. SWP's costs represent MWD's largest budget expenditure category (in Fiscal Year 2024 MWD's budget includes \$726.7 million for SWP costs, about 34% of its total expenditures).

Over the past 30 years, MWD has spent almost \$300 million on costs for a potential Bay-Delta Fix. It has also spent almost \$32 million over the last ten years for planning and internal costs for Sites Reservoir for its reserved 50,000 AF of annual participation rights, or about 29.8% of the water user participants' rights based on an assumed project yield of about 168,000 AF per year. Besides paying for SWP debt and operations, Sites, and a Bay-Delta Fix, MWD also funds a Bay-Delta science program. In FY 2023, MWD spent \$3.4 million for various fish studies to "[increase] knowledge of how the ecosystem can be managed." In 2016, MWD also bought five islands in the Bay-Delta for about \$175 million (funded with debt). It has since sold one for slightly less than \$1 million (for a profit of about \$372,000), leaving it with four. Although MWD reports about \$7 million in revenue from the islands since purchase, it has spent almost \$54 million on debt service and upkeep, leaving the islands with a net loss of \$47 million since purchase.

The Water Authority has a long history of supporting efforts to address the Bay-Delta's complex environmental and water supply challenges. Through the region's decades-long supply diversification efforts, San Diego region has reduced its reliance significantly, as its only source of Bay-Delta water is through water purchases from MWD. In the 1990's, the Water Authority was 95% reliant on MWD, including its Bay-Delta supplies; in 2022 less than 1% of its supplies came from the SWP.<sup>34</sup> Reducing pressure on the Bay-Delta aligns with state law designed to balance the environmental and water supply functions of the estuary and protect its fragile ecosystem. The Board's 2019 policy to conditionally support the Bay-Delta fix with its cost recovery on supply affirms this long-held position. The San Diego region is fully prepared to do its part and support a Bay-Delta Fix through purchases of MWD supplies, its sole source of Bay-Delta supplies, but the region's ratepayers cannot bear that support through payments to MWD for transferring the Water Authority's independently obtained Colorado River supplies.

### ***Next Steps***

The Water Authority's MWD Delegates (Delegates) have asked MWD for due diligence analysis and information about costs, liabilities, and benefits of its actions in the Bay-Delta – especially related to MWD's continued ownership of the Delta islands, The Delegates also seek analysis of the vulnerability of the existing waterways since even with a new tunnel, operation of the SWP will still heavily rely on the existing waterways. They have also requested that the board be given comprehensive information to be able to evaluate MWD's Bay-Delta activities as part of a holistic analysis and Bay-Delta strategy through MWD's CAMP4W.<sup>35</sup> The supply benefit and

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<sup>33</sup> California Department of Water Resources, "[SWP Management](#)" and "[SWP Financing and Cost Recovery](#)."

<sup>34</sup> The Water Authority has averaged about 13% demand for SWP supplies since 2010. In 2022, for more than seven months, the Water Authority took zero SWP supplies to help MWD meet its SWP Dependent Area needs.

<sup>35</sup> More information on CAMP4W and the Draft LRFP-NA found in the memo *Metropolitan Water District's Climate Adaptation Master Planning Process* in the [Water Authority's September 2023 board packet](#).

exact costs of Sites and a Bay-Delta Fix to MWD are being updated, but at a minimum, combined would cost MWD billions of dollars. SWP supply has been unstable (as seen in 2022 with a 5% allocation turning into a 100% allocation in 2023) and becoming more unpredictable with a changing climate, including from projected changes in runoff and shrinking snowpack.<sup>36</sup> The regulatory environment is also unsettled, with increasing ecosystem health demands and more recognition of environmental justice needs and concerns. Considering these changed conditions, the Delegates have requested that MWD provide analysis of the implications of the Bay-Delta Plan on its SWP supplies and the benefits of Sites and Single-Tunnel Project.

MWD staff provided a report summarizing MWD's Bay-Delta expenditures<sup>37</sup> last month and this month reported it would bring an update on the SED in November 2023 and additional information including the due diligence the Delegates have requested on its investments in the Bay-Delta in January 2024. The Delegates remain actively engaged. They are focused on ensuring that those who benefit from projects and activities pay equitably and that project costs for supply reliability projects are properly allocated as supply charges. They are also looking to levee maintenance and potential upgrades to ensure a fresh-water pathway is maintained. Water Authority staff is supporting the Delegates' efforts and will return to the Imported Water Committee with key updates.

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<sup>36</sup> A recent [Delta Stewardship Council vulnerability assessment](#) found that Bay-Delta exports could decrease by 10% on average and 20% in drier years by 2050.

<sup>37</sup> "[Metropolitan Bay-Delta Investments and Expenditures](#)" dated September 6, 2023.