

CALIFORNIA DEPARTMENT OF WATER RESOURCES

DWR Conveyance Subsidence Program

Water Commission Meeting, August 2023



Michael Sabbaghian, Executive Advisor

Program Overview

- As the California climate has changed over the last decade, the need to rely on groundwater has increased.
- The excess draw from groundwater over the years has caused subsidence in the Central Valley, especially in the upper San Joaquin Valley.
- Severe subsidence is resulting in a reduction of capacity of 25-50% in four canal facilities.
- California Aqueduct (1) and San Luis Canal (2) are managed by State Water Project (SWP).
- US Bureau of Reclamation (USBR) is responsible for the Central Valley Project (CVP), which includes Friant-Kern (3) and Delta-Mendota (4) canals.
- Sustainable Groundwater Management Act (SGMA) is addressing subsidence issues.
- Conveyance Subsidence Program will address the loss of capacity.



Public Benefit

- Due to significant statewide public benefit, the four canal segments are being addressed through a coordinated approach.
- The initial State contribution is being used to restore the most impacted area within the Friant-Kern Canal and complete the necessary feasibility study and design for all other parts of the system.
- Canals as water delivery systems also benefit flood protection as demonstrated during the historic 2023 winter storms.
- CVP and SWP are critical water sources for over 3 million acres of agriculture and 25 million people in California, directly supporting two-thirds of California's \$2.8 trillion economy.



How is it Funded

- Conveyance Subsidence Program was initiated with the Budget Act of 2021 that included \$100 million with additional \$100 million in the Budget Act of 2022.
- \$2.4 (2.355) billion effort to resolve subsidence issues with the following four California water delivery facilities over the next 10 years.
 - \$288 million (12.2%) - California Aqueduct (SWP)
 - \$582 million (24.8%) - San Luis Canal (SWP)
 - \$924 million (39.2%) - Friant-Kern Canal (CVP)
 - \$561 million (23.8%) - Delta-Mendota Canal (CVP)
- Funding split is 1/3 Federal, 1/3 State, and 1/3 Local



Findings

- 1.1 - The Commission finds that, in addition to supporting the movement of water, state financing of conveyance projects can also support economic stimulus by improving and stabilizing water supply, which is a direct economic input, and by generating construction jobs, engineering and design activities, and ongoing operations that require labor.
 - As this program works to restore the loss of capacity of these canals, the areas served will have direct economic benefit from the construction activities. The ability to move water will also bring stability to the water supply for the regions and Southern California, which helps the agricultural community in central CA and industries in southern CA.



Findings

- 6.1 - In particular, the Commission finds that project design must account for the continued subsidence in areas subject to groundwater overdraft to ensure that state investments will continue to offer benefits as groundwater basins are brought into sustainability. Further, the Commission finds that, to prevent continued damages from subsidence, the state can promote and enforce the implementation of SGMA to correct groundwater overdraft.
 - The program not only required consideration of the current level of subsidence, but the anticipated additional subsidence over the next 20 years.



Conclusions

- 5.1 - Repair and improve aging or damaged infrastructure to prevent supply losses and promote energy efficiency, to safely convey flood flow, to protect against wildfire, and to ensure safe and reliable drinking water for communities that lack it.
 - CSP is restoring four canal segments that have significant capacity loss due to subsidence. California Aqueduct and San Luis Canal restoration is incorporated into California Aqueduct Subsidence Program (CASPP) effort by SWP.



Conclusions

- 8.1 - The state could consider funding ... the cost of repairs to major state and federal backbone infrastructure immediately ... contingent upon federal and local agencies sharing the overall costs ... Prior to investing, the state should explicitly weigh the effectiveness of the projects in which it is investing in improving resilience, identify the public benefits that it will support through its investments, and ensure that subsidence damage to infrastructure does not reoccur.
 - CSP prioritizing the most severe canal segments for restoration. Even though these canal segments include both CVP and SWP, the State is contributing 1/3 funding to start these critical restorations, while a key condition of securing 1/3 federal and 1/3 local funding to complete the project is met over time. The lack of capacity for these segments seriously hampered the State and federal canals' ability to move excess water from the numerous winter storms this year. The project proponents will reach out for public input as part of their CEQA process. SGMA is working to eliminate subsidence over a 20-year period. This program requires that all projected subsidence is considered as part of the project design.



Conclusions

- 9.6 - The state should consider expanding the pool of available funds by advocating to secure more federal funding for California water infrastructure. Where possible, the state should leverage federal, local, and private dollars for suitable conveyance projects.
 - CSP has a requirement of 1/3 each of federal, State, and local funding by project completion. Federal funding has been provided to Friant Water Authority, as they were ready for construction first. Delta-Mendota Canal has received minimal funding for feasibility study and design. Both Friant Water Authority and San Luis Delta-Mendota Water Authority are working to secure federal funding not only for their canal segments, but also other canal segments, especially SWP. SWP is also lobbying at the federal level (USBR and Congress) to secure funding for all four segments.



Questions

