



INFORMATION ITEM

Delta Smelt and Native Species Preservation Project Update

Summary

Staff from the Metropolitan Water District (Metropolitan) will provide an update on its Delta Smelt and Native Species Preservation Project. Delta Smelt are listed as endangered under the California Endangered Species Act due to a variety of factors including habitat loss, predation, contaminants, and water export impacts. This multi-faceted project investigates solutions for improving Delta smelt culturing and survival in the Delta. Dr. Shawn Acuña, Principal Resource Specialist in Metropolitan's Bay-Delta Initiatives office, will present on three Delta smelt studies that have or are currently being carried out on Bouldin Island in the Delta.

Background

Delta smelt is endangered due to its extremely low population level in the Delta. Therefore, maintaining water supply reliability from the Delta requires that water operators (like California's Department of Water Resources) and associated water users adhere to regulations that protect Delta smelt and invest in research focused on their recovery.

Recent research efforts to determine how best to recover Delta smelt have focused on "hatch and release" strategies, involving growing Delta smelt in laboratories and releasing them in the wild (like salmon hatcheries). But key challenges remain in sustainably and cost-efficiently producing significant numbers of Delta smelt (in the hundreds of thousands) and ensuring their survival and reproduction once released in the wild. As a key water wholesaler and participant in the State Water Project, Metropolitan Water District (Metropolitan) invests in this Delta smelt recovery research to advance environmental and water supply reliability objectives.

Metropolitan owns multiple islands in the Sacramento-San Joaquin Delta (Delta), including Bouldin Island, Bacon Island, Webb Tract and part of Holland Tract. These islands were purchased by Metropolitan to support the conveyance of freshwater

through the Delta, levee maintenance, sustainable agriculture and habitat restoration. One added benefit of these islands is that they provide living laboratories to carry out research on native fish and plants in the Delta. The Council's Delta Science Program regularly collaborates and coordinates with Metropolitan scientists and closely follows the scientific experiments carried out on these islands.

Metropolitan staff, Dr Shawn Acuña, Principal Resource Specialist in Metropolitan's Bay-Delta Initiatives office, will present on three scientific studies conducted on Bouldin Island focused on Delta smelt. Together these three studies seek to develop and optimize culturing methods (i.e., growing fish) to improve the production and survival of Delta smelt in support of the [Delta Smelt Supplementation Strategy](https://bit.ly/4pwqPvH) (<https://bit.ly/4pwqPvH>), developed by multiple federal and State of California agencies in 2020.

These Delta smelt studies include:

- **The Pilot Pond Study** seeks to assess the feasibility of using ponds for the culturing of Delta smelt outside of a laboratory. Results show that ponds can support good growth and survival of Delta smelt and validate a more cost-efficient method for production of Delta smelt.
- **The Fit for the Wild Study** seeks to understand the survival of Delta smelt released in the wild, using floating wetlands and dynamic water quality as enrichment tools to improve post release survival.
- **The Pond Harvest Study** focuses on the production of Delta smelt by developing and optimizing methods of transferring Delta smelt from ponds to the wild.

Where can you find more information?

More information about Metropolitan's Bay-Delta Initiatives can be found at: <https://www.mwdh2o.com/securing-our-imported-supplies/state-water-project/sacramento-san-joaquin-delta/>

A video describing the pilot pond study is available at: https://www.youtube.com/watch?v=-_XSOLt7FFQ&t=3s

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