



Final Outcomes of the Delta Aquatic Resource Inventory (DARI) Mapping Project Staff Report

This agenda item presents the final outcomes of the Delta Aquatic Resource Inventory (DARI) mapping project, supported by competitive grant funds awarded to the Delta Conservancy by the US Environmental Protection Agency. The technical work was led by the Aquatic Science Center (ASC) and concluded in March 2022. The slides for presentation to the Board can be found [at this link](#).

DESCRIPTION

The purpose of DARI was to catalogue the surface waters, wetlands, and other aquatic resources of the Sacramento-San Joaquin Delta (Delta) using a standardized approach developed by a working group of experts and agency staff. This work provided a geospatial inventory of aquatic resources that could be used as a common base map for the Delta. Additionally, DARI provides a baseline of the aquatic resources present in the Delta today, which can be used to analyze change on the landscape as restoration and climate change progress. A similar mapping approach was used to create the California Aquatic Resource Inventory (CARI) that provides a map of the aquatic resources across the state. The final map DARI dataset has been incorporated into CARI and made publicly available through [EcoAtlas](#).

The procedures for developing and updating DARI were developed by a working group including members from the San Francisco Bay Conservation and Development Commission, the Department of Water Resources, California Department of Fish and Wildlife, Delta Stewardship Council, US Fish and Wildlife Service, State Water Resource Control Board, San Francisco Bay Joint Venture, and the Delta Conservancy. The standard operating procedures for updating the dataset will allow end users to provide updates and corrections consistently. Quality control for updating DARI will be performed by SFEI-ASC. In addition to these procedures, the working group developed a common wetland classification system that takes into consideration the unique ecology of the Delta.

DARI maps all channels and wetlands, including woody wetlands such as wetlands vegetated with willows, and may partially capture riparian areas. However, DARI does not include polygons for riparian areas. Riparian areas are important to capture as their loss has affected water quality and habitat conditions and presented numerous challenges for resource managers related to water management and land use planning. Due to the importance of capturing riparian areas and the newly completed DARI dataset, ASC piloted the use of the Riparian Zone Estimation Tool ([RipZET](#)) in the Delta. This pilot exercise was the final deliverable of the DARI contract and provides the groundwork for future efforts to map riparian habitats of the Delta.

BACKGROUND

The Conservancy, supported by a grant from the United States Environmental Protection Agency (EPA) through a Wetland Program Development Grant, contracted the Aquatic Science Center (ASC) to

develop a Delta Aquatic Resource Inventory (DARI). The DARI project developed a comprehensive resource inventory specifically formulated with the Delta's unique ecology in mind. DARI provides a standard regional approach to wetland classification and mapping to support wetland restoration planning, tracking, and reporting.

CONTACT

Dr. Rachel Wigginton, Senior Environmental Scientist
Sacramento-San Joaquin Delta Conservancy
rachel.wigginton@deltaconservancy.ca.gov
(916) 375-4994