

Presentation #9 – Building Capacity of the California Wetland Program to Protect/Restore Vernal Pools

Thursday, November 19, 2020 – 10:15 a.m.-10:45 a.m. PST

PRESENTERS

- Sarah Lowe, San Francisco Estuary Institute
- Sarah Pearce, San Francisco Estuary Institute

ABSTRACT

The California Wetland Program Plan seeks to strengthen protection for wetlands in many ways, including building capacity to track the net benefits of wetland policies and programs, using the State's Wetlands and Riparian Area Monitoring Plan (WRAMP). This project builds capacity to protect vernal pool habitats in the Great Central Valley using the WRAMP toolset by: (1) updating the CA Aquatic Resource Inventory (CARI) for vernal pools; (2) updating information about vernal pool projects and related impact areas in Project Tracker; (3) developing an ambient baseline assessment of vernal pool systems condition; and (4) creating a Habitat Development Curve to forecast and assess the performance of projects. The inventory update, baseline assessment, and HDC will be advised by the Level-1 and Level-2 Committees of the California Wetland Monitoring Workgroup (CWMW) of the CA Water Quality Monitoring Council (WQMC), following the updated CRAM Technical Bulletin, and will be integrated into EcoAtlas for public use.

BIOS



Sarah Lowe is a Senior Environmental Scientist at the San Francisco Estuary Institute (SFEI). She has over 25 years of experience in environmental monitoring and assessment and project management. In 2010 Sarah joined Josh Collins, Sarah Pearce, and Cristina Grosso in SFEI's Wetland Science Focus Area and Environmental Informatics Program to support the development of standard monitoring and assessment methods and online tools designed (under the supervision of the CWMW) to support WRAMP and the State Water Quality Control Board's 401 Program's need to assess and track the amount, distribution, diversity, and condition of streams and wetlands across the state in a watershed context. Sarah has led several projects that employ USEPA's recommended 3-level approach to monitoring wetlands using the California Aquatic Resources Inventory (CARI, Level-1) geospatial dataset, the California Rapid Assessment Method (CRAM, Level-2), and a spatially balanced random sampling design to characterize the overall ambient condition of riverine, estuarine, slope, and depressional wetlands at a watershed scale in Northern California. Those surveys produce Cumulative Distribution Function estimates of the condition of wetlands with a known level of confidence and help wetland mitigation and restoration projects compare their condition scores to watershed conditions.



Sarah Pearce is a Geomorphologist with the San Francisco Estuary Institute with nearly 20 years of experience in creeks, rivers, wetlands, and coastal areas across California. Sarah splits her time between the Clean Water Program and the Wetland Science Focus Area. With the Clean Water Program, Sarah conducts watershed geomorphic assessments, develops sediment budgets, and plans for regional sediment beneficial reuse. With the Wetland Science Focus Area, Sarah conducts wetland assessments using the California Rapid Assessment Method (CRAM) with over 900 assessments completed in all modules across the state. She also serves on the Level-2 Committee (L2) of the CWMW, is the lead CRAM trainer for Northern California, is the primary “customer service representative” for CRAM, and is an author of multiple modules, guidance documents including a contributing author for the CRAM Technical Bulletin Update. Sarah regularly implements CRAM ambient and project studies, validation studies, and develops training materials, Cumulative Distribution Function plots and Habitat Development Curves to support the methodology.