User Manual for CA Water Board's Tribal Water Data Map

CA Water Board's Office of Information Management and Analysis (OIMA)

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Welcome!

This is an online User Manual for the California Water Board's Tribal Water Data Map (Map), written by the California State Water Resources Control Board's (State Water Board) Office of Information Management and Analysis (OIMA).

The purpose of the Map is to increase awareness of and access to the Water Board's water data resources that intersect with Tribal matters and needs. The interactive Map includes curated data layers that have been requested by tribal partners and that may be useful for California Native American Tribes (tribes) doing environmental or water related work.

The purpose of this User Manual is to provide guidance and context so it's easier for all audiences to use the Map. Content in this User Manual includes curated information that the has been requested by tribal partners and/or that the development Team thinks may be helpful to reference when using the map.

This Quarto book is an open, living, and continuously iterating resource. If you have suggestions for additions or revisions you think should be incorporated into this book, please follow the guidance provided in the Contributing chapter.

1 About OIMA

1.1 Overview

SWAMP sits within the Water Board's Office of Information Management and Analysis (OIMA), which serves as an advocate for data management, a bridge between data collectors and users, as well as, provides transparency of the Water Board's information management infrastructure.

> The SWAMP mission is to provide resource managers, decision makers, and the public with timely, high-quality data, information and tools needed to evaluate the condition of all surface waters throughout California.

1.2 Resources

Purpose	Title & Weblink
Overview of SWAMP	SWAMP Website
Overview of SWAMP IQ	SWAMP IQ Website
Current SWAMP program priorities and strategies	SWAMP Strategic Action Plan, 2020-2023
Detailed overview of SWAMP monitoring standards and requirements	SWAMP Quality Assurance Program Plan (QAPP), 2022-2024
Overview of OIMA	OIMA Website
Strategic actions to improve the way the Water Boards use data and information about CA water resources	State Water Resources Control Board Strategic Data Action Plan (SDAP), draft
Projects carried out in the SDAP	State Water Resources Control Board SDAP, project portfolio summaries

2 Map Guide

3 Layer Guide

4 Resources

Here you will find a curated list of documents, presentations, and other resources related to the implementation and scaling of Openscapes at the Water Boards.

All Water Boards authors are **bolded** below.

4.1 Documents

California Water Boards Openscapes Implementation Strategy. Feb 2022. **Greg Gearheart**, **Anna Holder**, **Corey Clatterbuck**, **Devan Burke**, **Tina Ures**.

4.2 Presentations

Openscapes Opportunities at the California Water Boards. Mar - Jun 2023. **Anna Holder**, **Corey Clatterbuck**, **Devan Burke**, **Tina Ures**. Internal Roundtable Presentations.

Openscapes Opportunities at the California Water Boards. Feb 2023. **Anna Holder**, **Corey Clatterbuck**, **Devan Burke**, **Tina Ures**. Internal Deputy Management Committee (DMC) Presentation.

Better Science for Future Us: Openscapes stories and approaches for the Year of Open Science. Jan 2023. Julia Lowndes, Erin Robinson, Ileana Fenwick, Adyan Rios, Josh London, **Corey Clatterbuck**, Luis Lopez, Cassandra Nickles. Earth Science Information Partners (ESIP) Meeting.

Better Science for Future Us: Planning for the Year of Open Science. Jan 2022. Julia Lowndes, Erin Robinson, Aaron Friesz, Ileana Fenwick, Amy Steiker, Eli Holmes, **Anna Holder**. Earth Science Information Partners (ESIP) Meeting.

4.3 Blog Posts

3 Approaches for the Year of Open Science. Mar 16, 2023. **Corey Clatterbuck**, Ileana Fenwick, Josh London, Luis Lopez, Cassie Nickles, Adyan Rios, Stefanie Butland, Julie Lowndes, Erin Robinson.

Adapting the Champions Program for the California Water Boards. Dec 2, 2022. **Corey Clatterbuck**, **Anna Holder**.

3 Takeways for Planning for the Year of Open Science. Feb 17, 2022. Aaron Friesz, Ileana Fenwick, Eli Holmes, **Anna Holder**, Amy Steiker, Erin Robinson, Julia Lowndes.

California Water Board Mentor Perspectives. Dec 7, 2021. **Anna Holder**, **Corey Clatterbuck**.

Identifying Common Approaches and Needs for Fisheries Dependent Data. Nov 12, 2021. Gavin Fay, Andy Jones, **Anna Holder**, Julia Lowndes.

Strengthening Scientific Workflow and Team Collaboration at NOAA Fisheries. Nov 12, 2021. Eli Holmes, Eric Ward, Hélène Scalliet, **Corey Clatterbuck**, Julia Lowndes.

Visit the Openscapes website to see all Openscapes Blog Posts

5 Meet the Team!

The SWAMP Team is composed of multiple team members at the State Water Board within the SWAMP Unit, SWAMP Information Management and Quality Assurance Center (SWAMP IQ), and others in the Office of Information Management and Analysis (OIMA).

5.1 SWAMP Unit

Name	Title	Program Area(s)
Josh Davenport	Stanford Fellow	Tribal Data Initiatives
Ali Dunn	Senior Environmental Scientist, Supervisor, Unit Lead	SWAMP Coordinator of statewide monitoring programs, plans and budgets
Anna Holder	Environmental Scientist	SWAMP Statewide Bioaccumulation Program Coordinator Data science, data visualization and programming (R [preferred], Python, Unix, SQL, GIS) Science communication Openscapes Tribal Coordinator Racial Equity Trainer
Leah Brosseau	CivicSpark Fellow	Tribal Data Initiatives
Mary Tappel	Environmental Scientist	Webpage updates
Michelle Tang	Environmental Scientist	Data science, data visualization and programming (JavaScript, Python)
Shuka Rastegar-pour	Environmental Scientist	SWAMP Statewide Bioassessment Program Coordinator
Sydney Rilum	California Sea Grant Fellow	Data science, data visualization (R) Science communication

5.2 SWAMP IQ

Name	Title	Program Area(s)
Tessa Fojut	Senior Environmental Scientist, Supervisor, Unit Lead	SWAMP Quality Assurance Officer Database Manager
Candace Levesque	Environmental Scientist	Bioassessment (algae) Data Manager
Cui (Scarlett) Li-Gherman	Scientific Aid	
Delany Broome	Environmental Scientist	Chemistry Data Manager
Jennifer Salisbury	Environmental Scientist	Tissue Data Manager CEDEN Vocabulary Manager
Kimberly Pham	Environmental Scientist	Chemistry Data Manager
Lindsey Metz	Environmental Scientist	Microbiology Data Manager Data science, data visualization and programming (R)
Tony Gill	Environmental Scientist	Toxicity Data Manager SPoT Program Coordinator
Toni Marshall	Environmental Scientist	Bioassessment (benthic macroinvertebrates) Data Manager

For more information, visit the SWAMP IQ Wiki

5.3 OIMA

Name	Title	Program Area(s)
Carly Nilson	Senior Environmental Scientist	SWAMP Statewide Freshwater and Estuarine Harmful Algal Bloom (FHAB) Program Coordinator
Chad Fearing	Associate Governmental Program Analyst	Contracts
Devan Burke	Associate Governmental Program Analyst	Contracts Openscapes Racial equity data projects and communication
Erick Burres	Senior Environmental Scientist	SWAMP Clean Water Team Coordinator
Marisa VanDyke	Senior Environmental Scientist	SWAMP Statewide Freshwater and Estuarine Harmful Algal Bloom (FHAB) Program Coordinator

5.4 Former Fellows & Interns

Table 5.4: *Fellows who have been hired on at the Water Boards

Name	Title	Year	Primary Project Area(s)
Badhia Yunes Katz	CivicSpark Fellow	2023	Tribal Data Initiatives
Lindsey Metz*	California Sea Grant Fellow	2022	
Gabriella Moran	CivicSpark Fellow	2022	Tribal Data Initiatives
Brook Thompson	Stanford Fellow	2021	Tribal Data Initiatives
Corey Clatterbuck*	California Sea Grant Fellow	2021	Healthy Watersheds
Ross Cooper	California Sea Grant Fellow	2020	
Maraid Jimenez	CivicSpark Fellow	2020	Tribal Data Initiatives
Anna Holder*	California Sea Grant Fellow	2019	
Nicole Hack	California Sea Grant Fellow	2018	

6 Contributing

6.1 Who can contribute

Currently, only members of the SWAMP Team are able to actively contribute to this manual.

6.2 How we contribute

We develop the content for this SWAMP Manual using RStudio, build the book using Quarto (via RStudio), and collaborate and publish using GitHub (also via RStudio).

If you are *NOT* a member of the SWAMP Team, but have suggestions for additions or revisions you think should be incorporated into this book, please [**TBD].**

6.2.1 Setup

To contribute, SWAMP Team members must do the following, and it should only take about 20 minutes to complete:

1. **Install R and RStudio**

   Both R and RStudio should be available in the Software Center (for Windows 10) or Company Portal (for Windows 11) – if you don't see them in your Software Center/Company Portal or you have issues/questions during the instillation process, please send a request to the DIT HelpDesk and they can help you install them.

   Also see these step by step instructions on how to install these programs – you will only need to go through steps 1 and 2

   If you are new to R, it would also be helpful if you could review the Getting Started Module so you can begin to familiarize yourself with the fundamentals of the program.

2. **Install Quarto**

   Quarto download and install instructions

3. **Create a GitHub Account**

   Create your free personal account GitHub account

   Tips on choosing your username

4. **Download and Install Git**

   Follow your operating system's normal Git installation process. Note: you will not see an application called Git listed but if the installation process completed it was likely successful, and we will confirm together.