Water Accounting and Trading Platform

Agenda

- Introductions
- Water Accounting & Trading Platform Overview
- Scenario Analysis Using GET
- Water Accounting Options
- Workshop #2 Planning – Break-out Sessions
- Q & A

Presenters

John Burns
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Jim Schneider
Olsson

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Rosedale-Rio Bravo Water Storage District

Christina Babbitt
Environmental Defense Fund

PLATFORM OVERVIEW

Initial Development

Landowner-led Pilot Phase:

- Rosedale-Rio Bravo Water Storage District (RRB) initiated Water Trading Platform pilot project in 2018
- Implementation guided by landowner workshops and mock trading sessions

Open Technology

- Leverage data integrations (OpenET, CIMIS, etc.)
- Community technology model

# One Platform, Multiple Functions

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Water use (satellite-based data)

Water trading

Accounting Platform

Water budget

Modeling scenarios

Water supply (district information)

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Rosedale-Rio Bravo Water Accounting Platform

Welcome to the Rosedale-Rio Bravo Water Storage District Water Accounting Platform. The platform is designed to meet these objectives:

- Create a better understanding of water demand and supplies, for Landowners to effectively and efficiently make informed decisions regarding water supply and land use.
- Utilize a satellite based evapotranspiration model, called OpenET, to give landowners a past and present understanding of water demands on their specific parcels.
- Over the long term, develop the accounting platform into a trading platform, encouraging in-district water transfers.

Access Your Water Account

Sign In to view your Water Account. Create a User Profile if you don't have one yet.

Sign In

Create User Profile

Need help logging in?

Forgot Password | Forgot Username | Request Support

https://waterplatform.edf.org/manager-dashboard

EDF
ENVIRONMENTAL
DEFENSE FUND®
Finding the ways that work

**Water Accounting and
Trading Platform**

My Dashboards ▾   Manage ▾   Trade ▾   Scenarios ▾   Learn More ▾

Home / Manager Dashboard

There is 1 user who is waiting for you to configure their account. Manage Users.   ✕

Manager Dashboard

Set Water Allocation   Viewing year **2020** ▾

District-Wide Statistics | ac-ft | ac-ft/ac |

Total Allocation	101,180.4 ac-ft
Project Water ❓	84,827.5 ac-ft
Reconciliation ❓	0.0 ac-ft
Native Yield ❓	4,241.4 ac-ft
Stored Water ❓	0.0 ac-ft
Precipitation ❓	12,111.5 ac-ft
Total Usage	73,769.5 ac-ft
Average Annual Usage	84,732.1 ac-ft

2020 District Allocation and Usage ❓

Volume (acre-feet)

120,000
100,000
80,000
60,000
40,000
20,000
0

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec

■ Cumulative Monthly Usage   ■ Average Usage (All Years)   ■ Annual Supply

Account Usage Report   ⬇

Water Accounting Platform

Pools ▾   Beehive Data ▾   Manage ▾   Download ▾   Learn More ▾

Welcome John Burns ▾
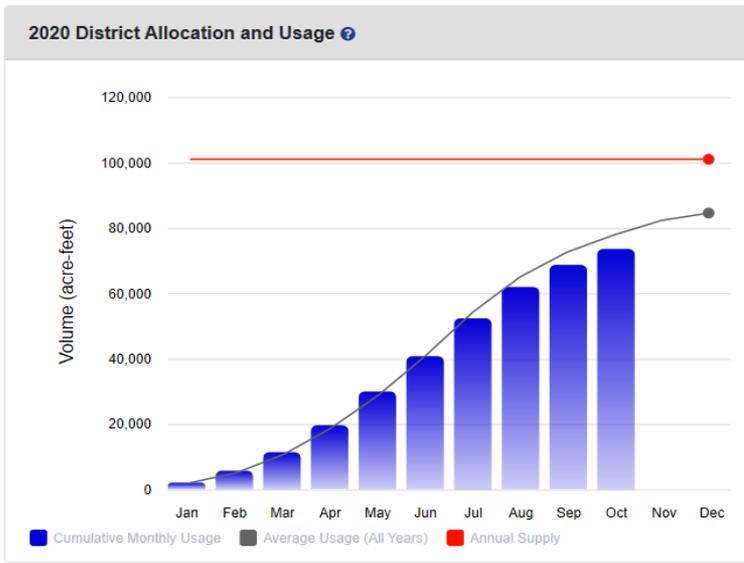
Upper Big Blue Water Accounting Platform

Welcome to the UBBNRD Water Accounting Platform.The UBBNRD Water Accounting Platform is designed to meet these objectives:

- Keep track of the pooling status of every tract.
- Concatenate the water use information for each pool every water use year.
- Compute the average application depth for the tracts within each pool based on the total water use and total certified irrigated acres.
- Re-distribute allocations when tracts move from one pool to another.
- Provide the current status of remaining water available for any tract or pool.

Quick actions

Request Support

INTERACTIVE DEMO

SCENARIO ANALYSIS USING GET

Our Love/Hate Relationship with Models

- Managing groundwater requires groundwater models

- Groundwater models are inherently complex and inaccessible to most people involved in water management

- Groundwater modelers typically have little background in water management

- Ongoing groundwater modeling to support water management decisions is typically unsustainable

Any model can be used in real-time

- Bringing automation technology to water management

- After model setup, even complex model runs can be completed with minimal effort

- Time to completion only depends on model run times

- Automatically view and modify results
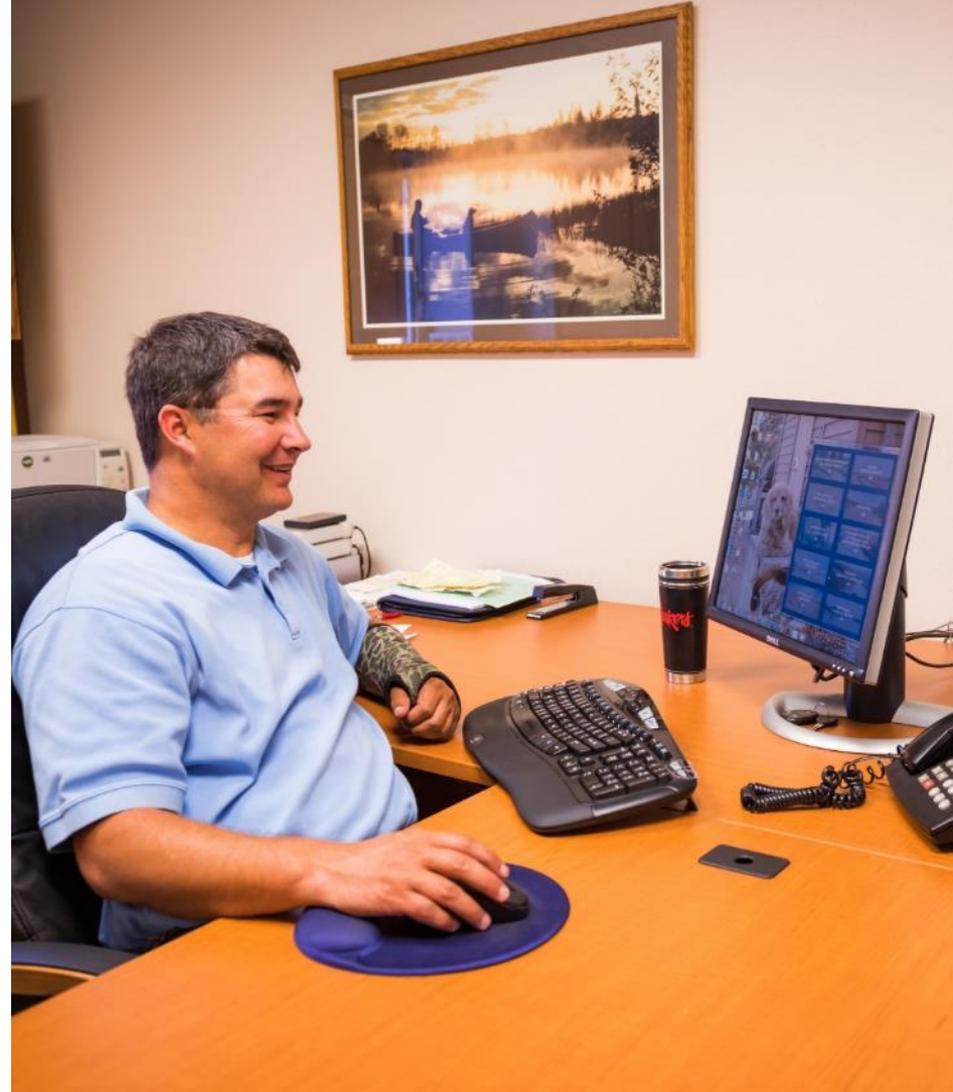
Models are readily available and "live on" after an initial modeling study.
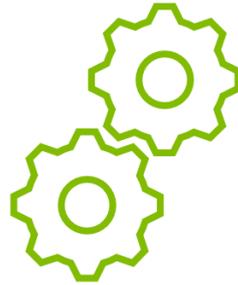
Models can be easily utilized for a variety of applications.

Visualize the results of model runs in real time.

The Groundwater Evaluation Toolbox (GET)

- Impact of water trades
- Long-term management of aquifer drawdown
- Tracking aquifer recharge
- Groundwater – surface water interactions

© Olsson, 2018
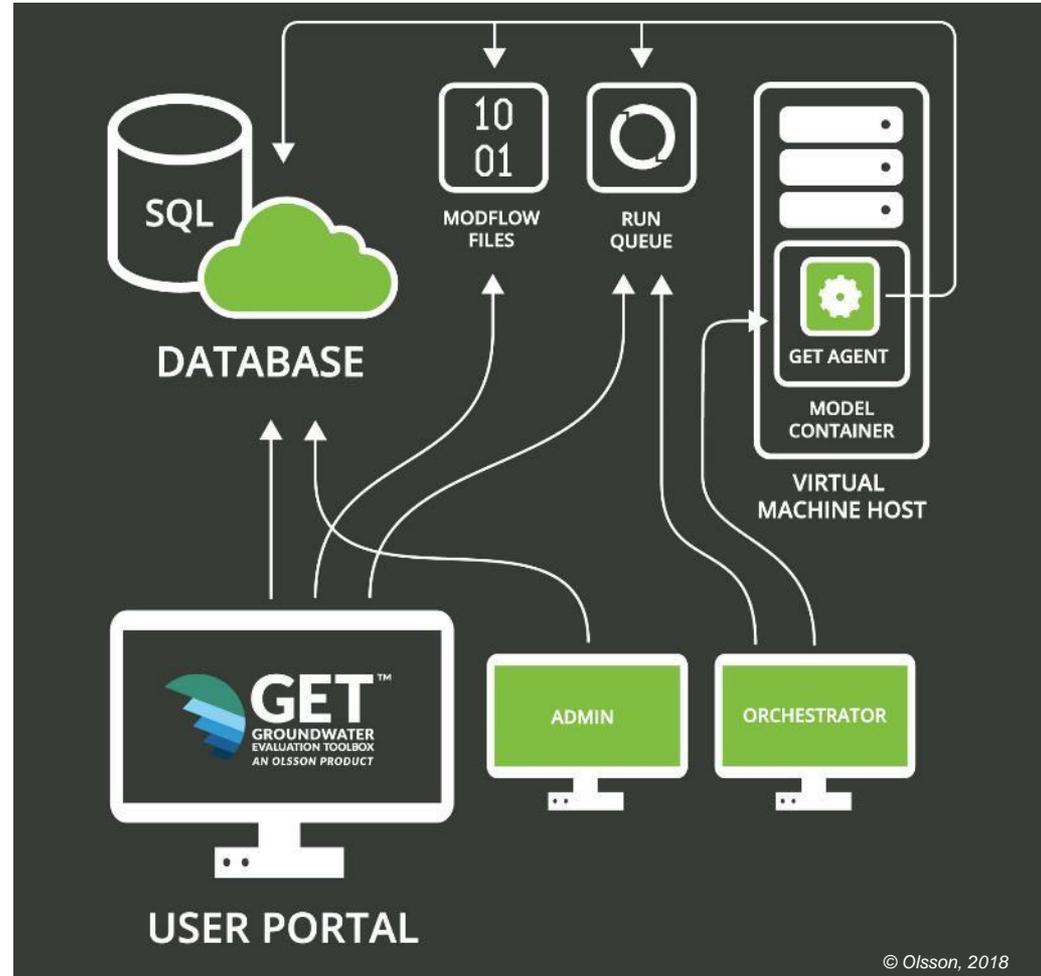
GET can be:

- Used as a stand-alone tool
  - Supporting water management decisions
  - Education
- Integrated into broader platforms
  - Rosedale Water Accounting Platform
 - Twin Platte Natural Resource District Groundwater Managers Dashboard

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Interactive Demo

Option 1: Utilize western recharge basins
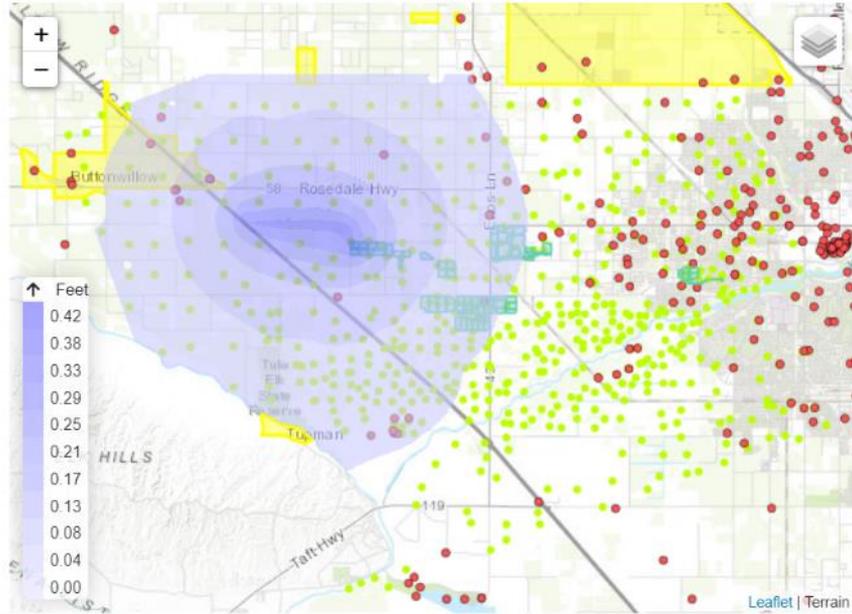
Option 2: Utilize eastern recharge basins
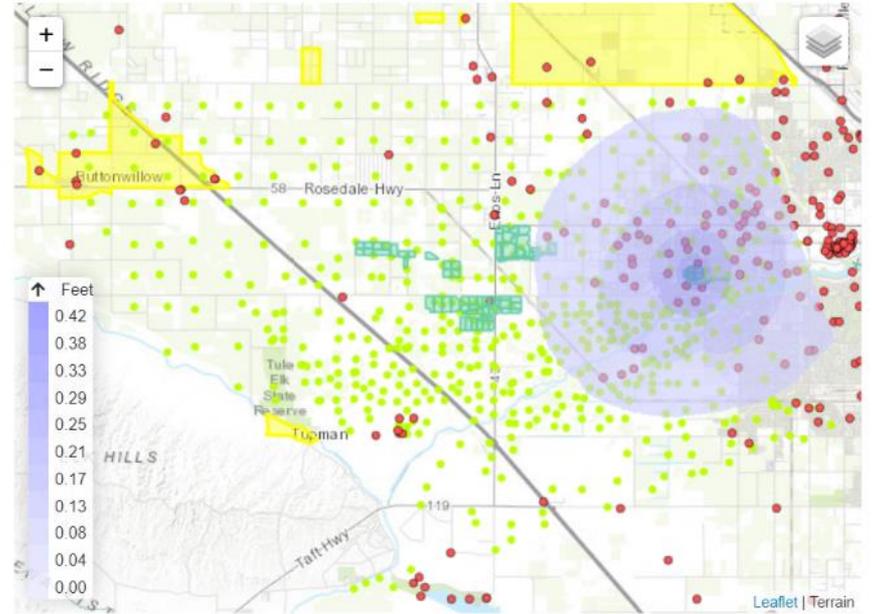
ACCOUNTING FOR WATER USAGE
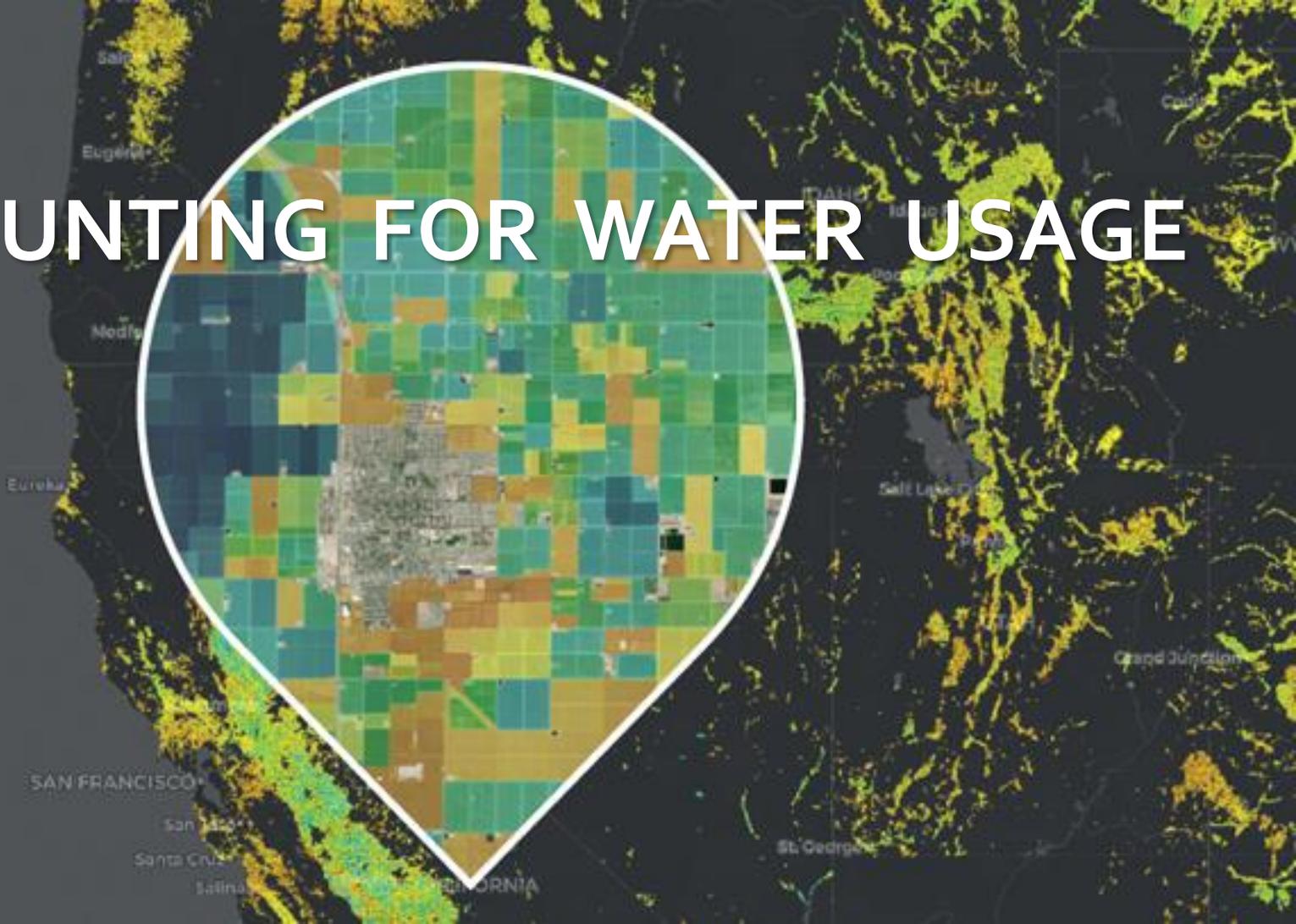
Accounting for Water Usage

Three approaches to consider:

1. **Remote Sensing (e.g., OpenET)**

2. Direct Measurement (e.g., flow meters or electrical usage)
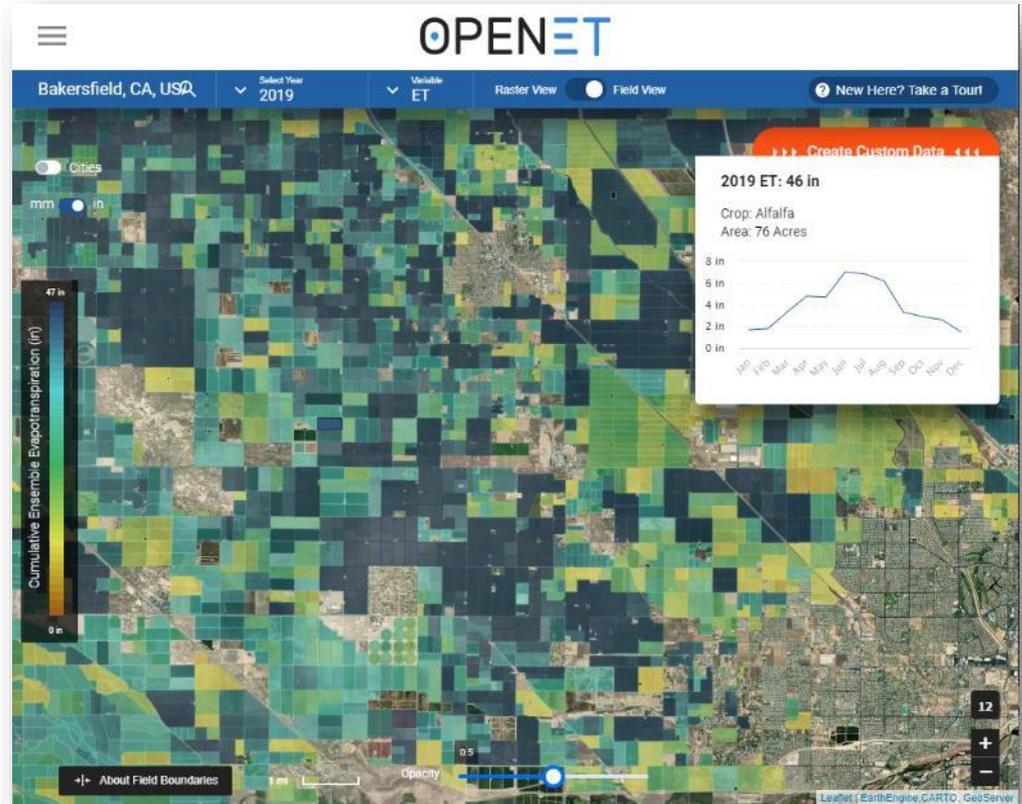
3. Self Reporting

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Accounting for Water Usage

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3. **Self Reporting**

Withdrawals

Date	Name	Total Acre-Inches	Beg Meter Reading	End Meter Reading	GPM
11/01/2019	Comm-York-11N-03W-36-G-072352-80517	538.271	412,664.0	558,826.0	500.0
11/01/2018	Other_Comm-York-11N-03W-36-G-072352-80517	646.085	237,226.0	412,664.0	500.0
11/09/2017	2017 Withdrawal - Other	426.534	121,405.0	237,226.0	500.0
11/01/2016	2016 Withdrawal - Other	447.098	0.0	121,405.0	500.0

WORKSHOP #2 PLANNING BREAK-OUT SESSION

Defining Personas

A user persona is an archetype or character that represents a potential user of a platform. In user-centered design, personas help the design team to a product that best meets the needs of users.

Persona List

- Producer / Landowner
- Groundwater Manager
- Regulator
- Elected Official and Staff
- Groundwater Modeler / Consultant

- Scientist / Academic
- Data Manager
- NGO Partner
- Community Member
- Other?

Break-out Session Goals

Workshop attendees will develop an understanding of how a Water Accounting and Trading Platform could benefit you through a collaborative session to:

- Review persona definition
- Develop the User Tasks that are relevant to each persona ("As a landowner, I want to…")
- Begin prioritizing those User Tasks, including considering "readiness" (e.g., "We like the idea of water trading, but it may not be possible for years.")
- Inventory the types and quality of available data the persona may be able to provide or use

Break-out Session Survey

www.surveymonkey.com/r/KTNW5QB

Growing a User Community

Open-source Software Approach

No license costs, no vendor lock-in

No subscription service fees

Available for anyone to use, contribute, modify

Options to Leverage the Platform

Utilize established functionality and adapt the configuration

Customize functionality and configuration

Self-manage and host

Scaling and Onboarding

Smaller user groups, or those with flexible requirements, can participate with minimal up-front costs

Larger agencies or organizations, or those with more specific requirements, can tailor the platform to their needs

Scalable system focused on integrating with existing data sources and systems

To learn more, please visit ...

Demo Platform
waterplatform.edf.org

StoryMap
edf.org/waterplatformstory
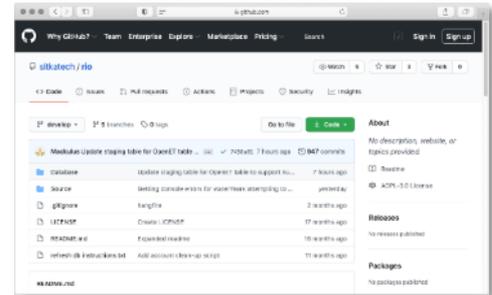
Source Code
github.com/sitkatech/rio

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Q & A