California Water
Data Consortium
Environmental
Defense
Fund
Advancing the Groundwater Accounting Platform in California
Hannah Ake | Senior Program Manager - CWDC
Mike Myatt | Senior Director, Climate Resilient Water Systems - EDF
February 1, 2023
Image from: CA DWR

Presentation Overview

- Share the project vision
- Project timeline and venues for participation
- Brief snapshot of the Platform
- Hear questions and comments

Dale Kolke/DWR

Project Vision

The **Groundwater Accounting Platform** is an accessible open-source water accounting platform that integrates data from a variety of sources and effectively communicates this information to support local, regional, and state water management decisions.

Why should open-source matter to you?

Open-source Software Approach

Options to Leverage the Platform

Scaling and Onboarding

Project Objectives

- Platform Scaling
- Co-development of common groundwater data reporting formats

Why is this important?

Why now?

A common accounting platform can…

- Provide a consistent approach while reducing costs
- Be tailored to local conditions
- Support local understanding and decision-making
- Improve water management outcomes
- Promote intra and inter-basin coordination and regional analyses and review
- Serve as the basis for well-designed trading programs

Project Team

- California Water Data Consortium
- Environmental Defense Fund
- OpenET
- Environmental Science Associates
- Olsson
- Pilot Partners
- Advisory groups

Pilot Partners

ROSEDALE-RIO BRAVO WATER STORAGE DISTRICT

Water Accounting Platform Learn More

MERCED IRRIGATION-URBAN GSA

Water Accounting Platform Pilot Learn More

Water Accounting Platform Pilot

Pajaro Valley Water Accounting Platform Pilot

YOLO COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

Water Accounting Platform Pilot Learn More

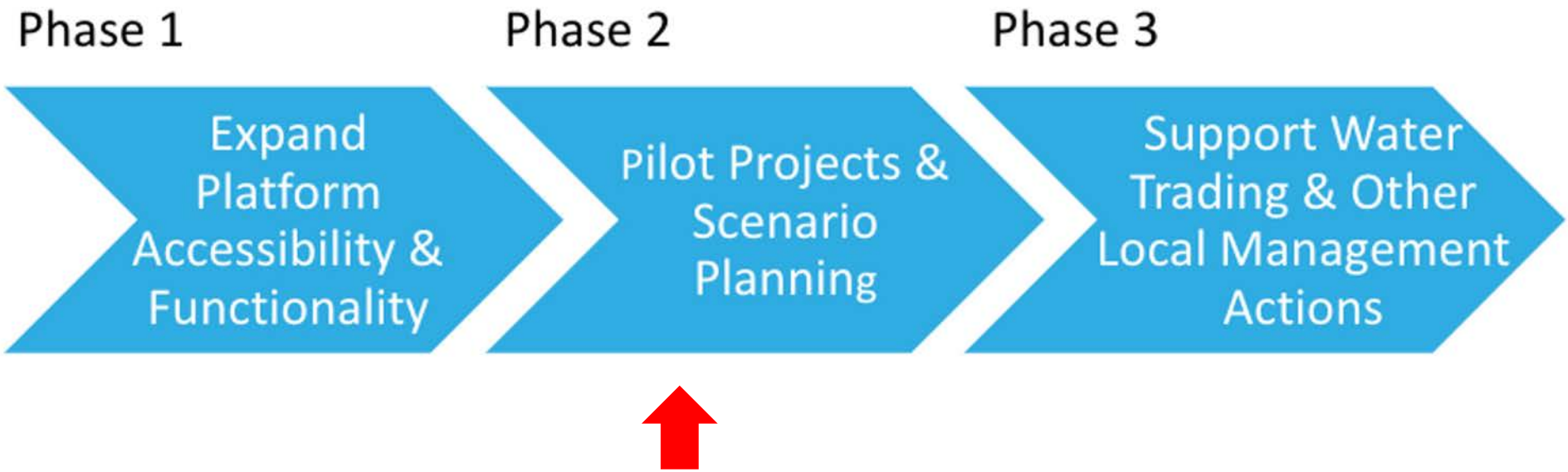
Stakeholder Engagement and Public Outreach

PUBLIC MEETINGS

TARGETED OUTREACH

WORKING GROUPS

Project Implementation



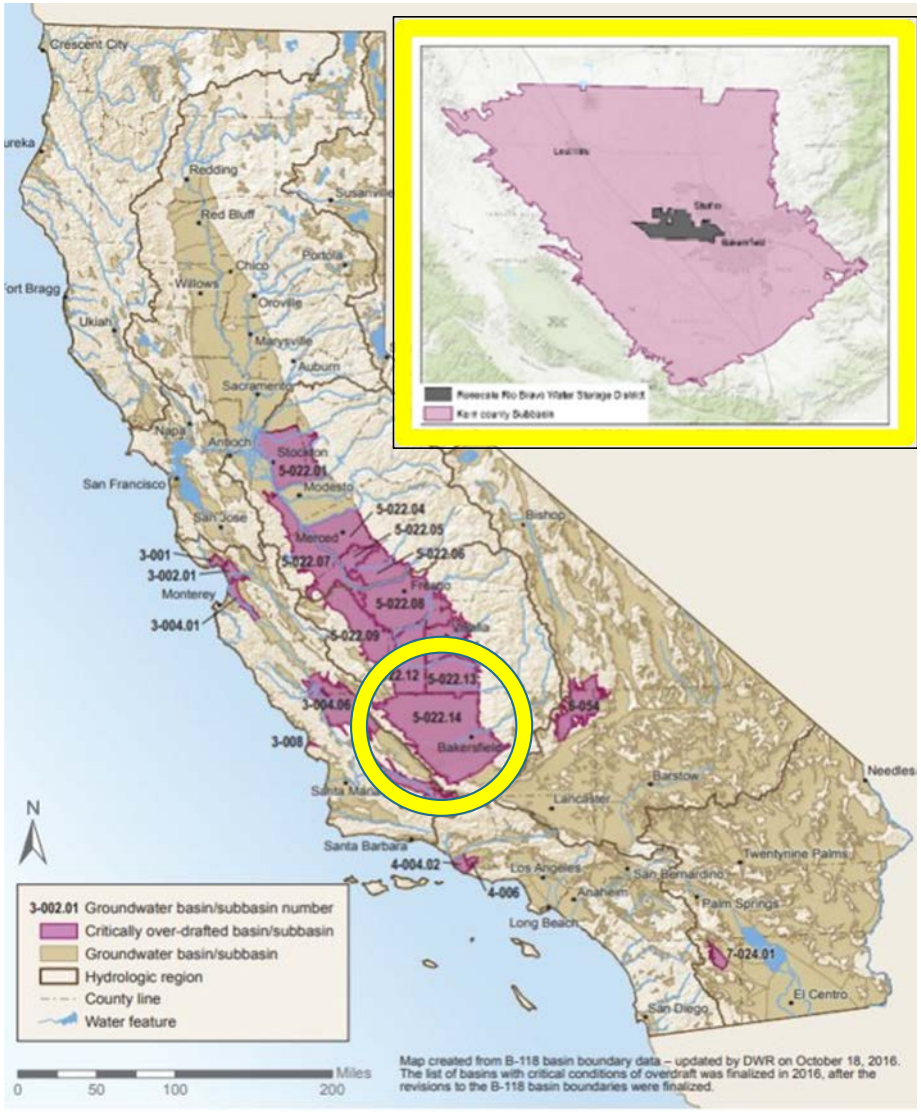
Background

- Developed in 2018 by EDF and Rosedale-Rio Bravo Water Storage District

- Built for ease of use with direct input from water managers and farmers

- The current Platform is:
  - An accounting tool
    - Tracks annual water allocations and water usage in near real time
  - A water budgeting tool

- And it can do more!



Prepared by California Department of Water Resources for *Bulletin 118, Interim Update 2016.*

Platform Expansion and Scaling

- Integration of additional data inputs
- Expansion of accounting functionality
- Integration of open-source scenario planning and visualization features

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Finding the ways that work

Water Accounting and Trading Platform | My Dashboards | Manage | Trade | Scenarios | Learn More

Environmental Defense Fund Water Accounting and Trading Platform

Welcome to the Environmental Defense Fund demonstration Water Accounting and Trading Platform. The platform is designed to meet these objectives:

- Facilitate effective accounting and management of available water resources, enabling water managers and landowners to make informed water supply and land use decisions.
- Advance well-designed water trading programs to help water agencies achieve groundwater sustainability goals and minimize economic costs to the community.
- Evaluate management actions to ensure community and environmental protections and identify opportunities to generate multiple benefits (i.e. benefits to water quality, habitat).

In addition to exploring this demo site, you can learn more about the Rosedale–Rio Bravo Water Accounting and Trading Platform Pilot Project by visiting our story map at

View Your Dashboard

Manager Dashboard

Request Support

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Finding the ways that work

Water Accounting and Trading Platform | My Dashboards | Manage | Trade | Scenarios | Learn More | Welcome Hannah Ake

Home / Manager Dashboard

Manager Dashboard

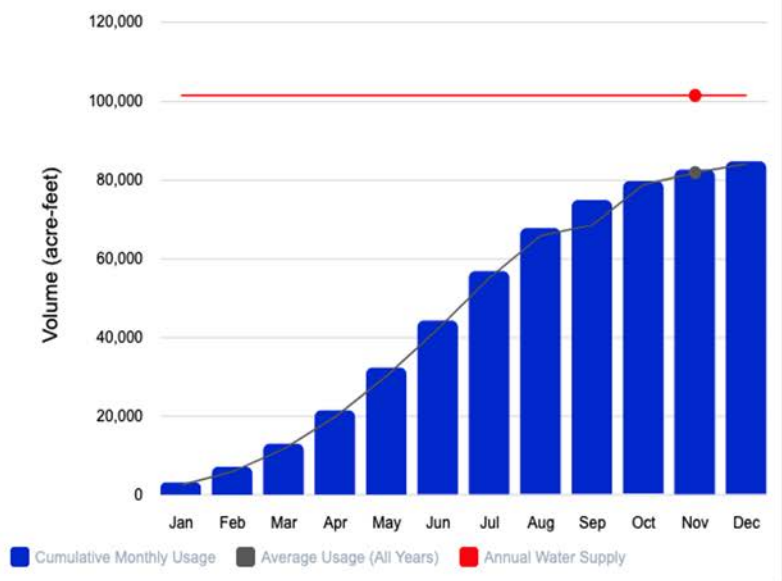
Create Water Transactions | Viewing year 2021

District-Wide Statistics

ac-ft | ac-ft/ac

Total Supply	**101,566.0 ac-ft**
Project Water	84,827.5 ac-ft
Reconciliation	0.0 ac-ft
Native Yield	4,241.4 ac-ft
Stored Water	150.0 ac-ft
Purchased	0.0 ac-ft
Sold	0.0 ac-ft
Total Usage	**84,828.2 ac-ft**
Average Annual Usage	**84,161.2 ac-ft**
Total APN Acreage	**28,275.8 ac**

2021 District Supply and Usage



Account Usage Report

View All Accounts

Account Name	Account Number	Total Supply (ac...	Project Water	Reconciliation	Native Yield	Stored Water	Purchased (a
Farmgistics Industries	10707	1,492.73	1,248.56	0.00	62.43	0.00	
Elecrop Farms	10708	573.01	353.82	0.00	17.69	150.00	
Croppine Farms	10709	559.77	468.21	0.00	23.41	0.00	
Farmcelf Industries	10710	525.51	439.55	0.00	21.98	0.00	
Chersoil Farms	10711	129.27	108.13	0.00	5.41	0.00	
Hotfarm Industries	10714	649.44	543.22	0.00	27.16	0.00	
Farmbean Industries	10715	581.34	486.25	0.00	24.31	0.00	
Wheater Farms	10716	697.29	583.24	0.00	29.16	0.00	

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Trade Activity

Delete All Trade Activity

Trade	Date	Status	Buyer Account	Seller Account	Quantity (ac-ft)	Unit Price	Tota
2021-0013	12/9/2021, 10:43 AM	Awaiting Registration	#Hotplant Farms (10...	#Farminater Industrie...	300	$250.00	$
2021-0012	8/5/2021, 7:44 AM	Awaiting Registration	#Croper Farms (1076...	#Agrove Farms (1077...	50	$350.00	$
2021-0011	6/22/2021, 11:42 AM	Awaiting Registration	#Crosscrop Farms (1...	#Cropejet Farms (107...	300	$225.00	$
2021-0010	4/1/2021, 3:24 PM	Awaiting Registration	#Agrowgrua Farms (1...	#Dairyo Farms (10721)	100	$250.00	$
2021-0009	3/10/2021, 1:21 PM	Awaiting Registration	#Farmcell Industries ...	#Crosscrop Farms (1...	170	$415.00	$
2021-0008	3/1/2021, 11:33 AM	Awaiting Registration	#Agrass Farms (10717)	#Cropejet Farms (107...	200	$250.00	$
2021-0007	2/10/2021, 11:27 AM	Awaiting Registration	#Cropejet Farms (107...	#Farmfruit Industries...	200	$255.00	$
2021-0006	2/9/2021, 10:53 AM	Awaiting Registration	#Croper Farms (1076...	#Wheater Farms (107...	100	$225.00	$

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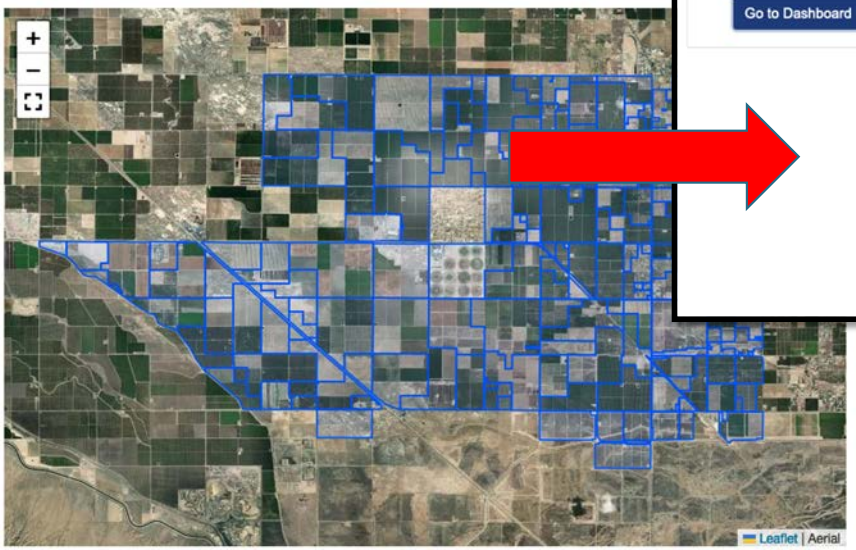
Parcels

This page shows all Parcels managed in the Water Accounting & Trading Platform. Use the map below to select a Parcel to see mo

Selected Parcel

Select a Parcel from the map or the grid

Parcel Map



Parcel List — Viewing year 2021

APN	Area (acres)	Account	Tags	Total Supply	Project Water	Reconciliation	Native Yi
555-00-008	416.2	#10707 (Farmgistics Ind...		1,310.99	1,248.56	0.00	
555-00-011	117.9	#10708 (Elecrop Farms)		521.51	353.82	0.00	

Selected Parcel

APN 555-00-073

Area 406.1 acres

Water Account Agrover Farms

Go to Dashboard

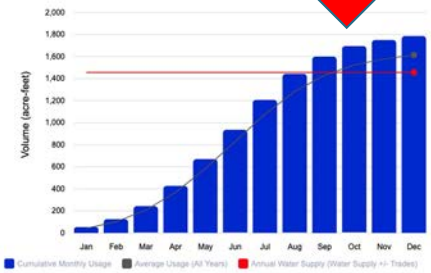
Parcel Map

Agrover Farms (Account #10736)

Viewing year 2021 — Viewing in units of ac-ft | ac-ft/ac

Water Budget | Usage By Parcel | Account Map

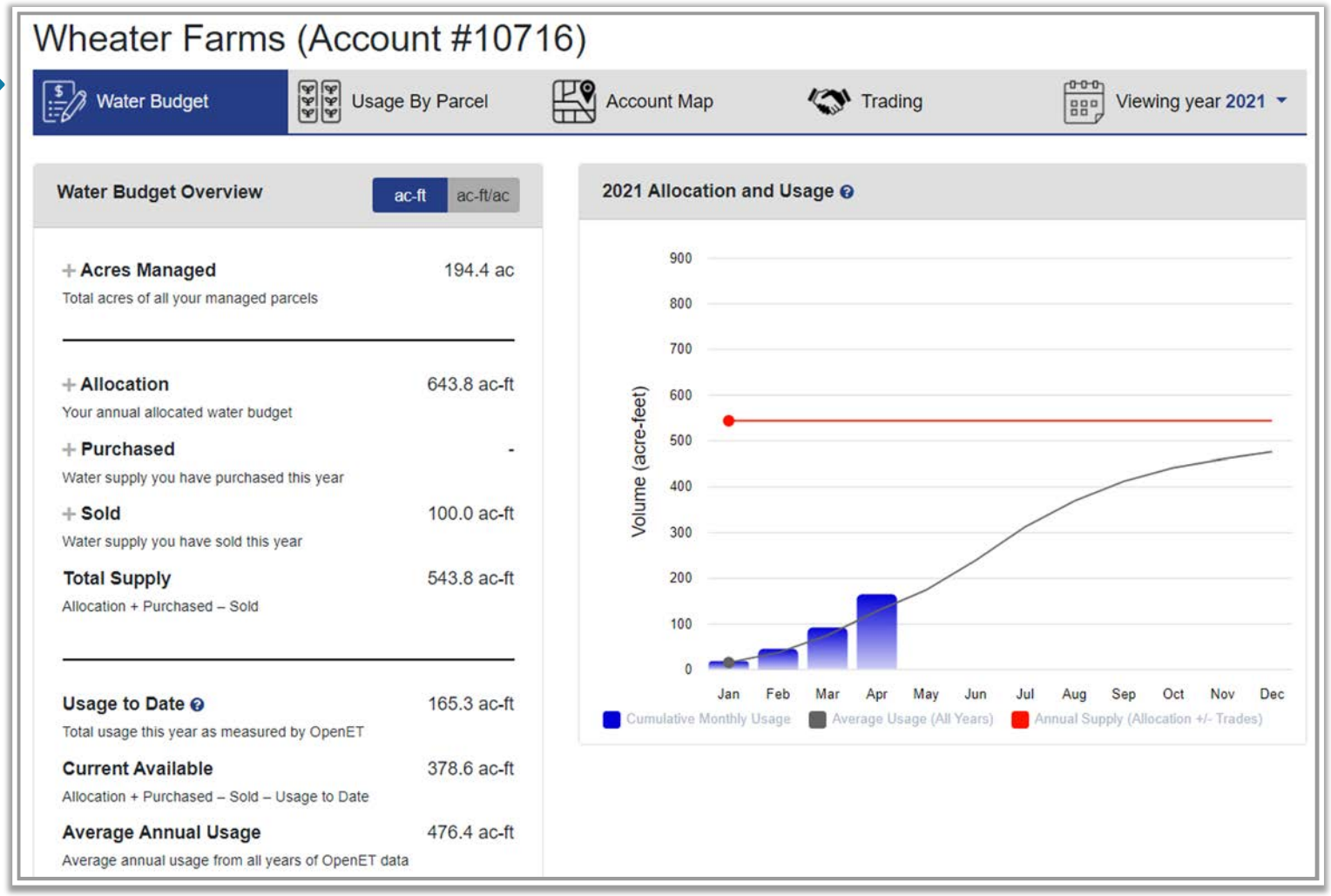
Total Supply	1,279.1 ac-ft
Usage to Date	1,785.2 ac-ft
Current Available	-328.7 ac-ft
Average Annual Usage	1,614.3 ac-ft
Parcel Acres Managed	406.1 ac



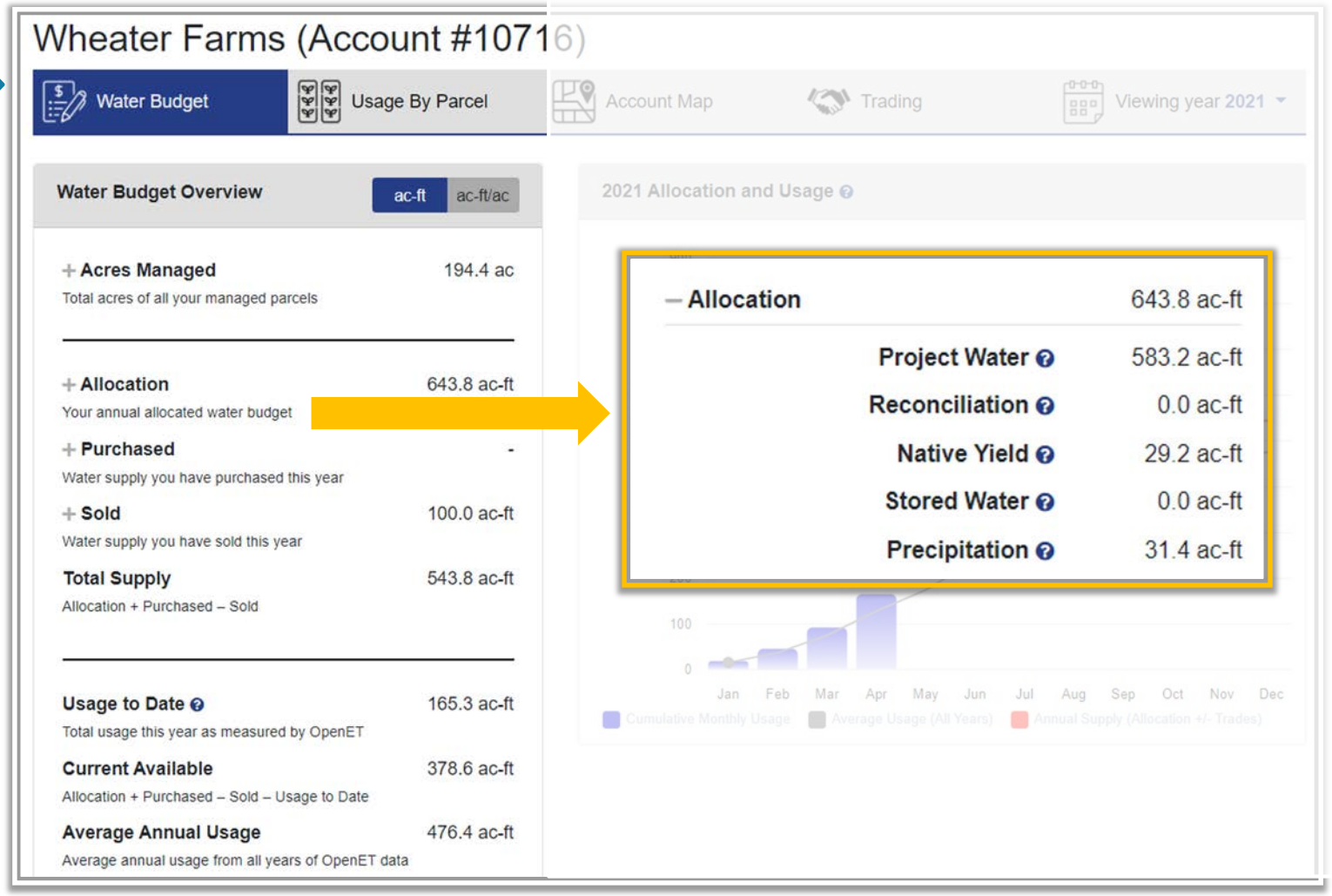
Account Activity — Recent Transactions | All Transaction Details

Effective Date	Transaction Type	Description	Source Type	Parcel	Quantity	Balance
12/31/21	Usage	A correction to 12/2021 has been applied to this water account	OpenET	555-00-073	-0.14 ac-ft	-328.75 ac-ft
12/31/21	Usage	A correction to 12/2021 has been applied to this water account				

Landowner Dashboard



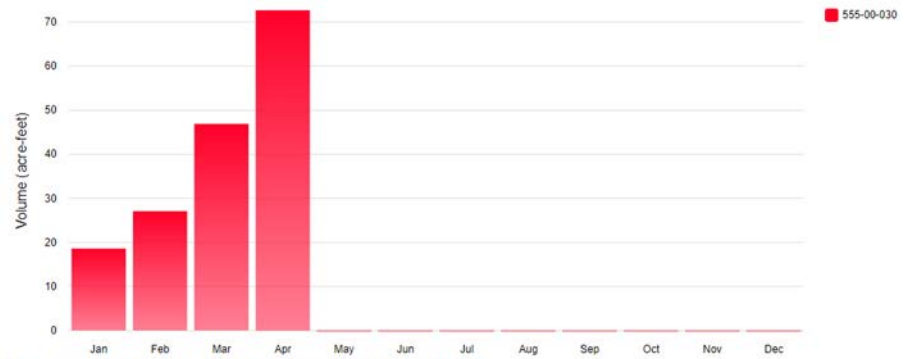
Landowner Dashboard



Wheater Farms (Account #10716)

Water Budget | Usage By Parcel | Account Map | Trading | Viewing year 2021

2021 Water Usage by Parcel Visualization



Estimated water usage is based on satellite imagery and may not be accurate at the APN level.
Details of water use measurements can be found in the OpenET FAQ.

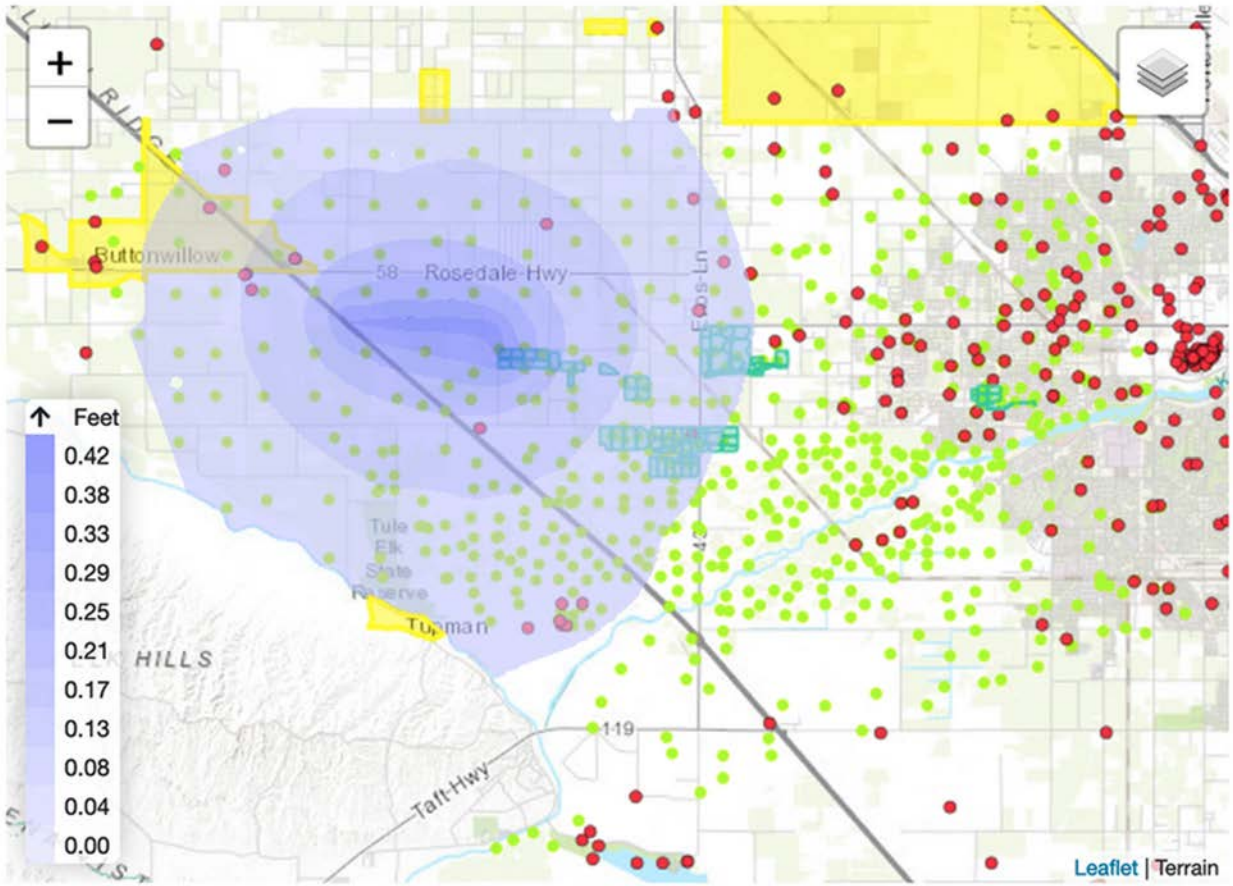
2021 Water Usage by Parcel Tabular

Override OpenET Data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
555-00-030	18.6	27.1	46.9	72.7	-	-	-	-	-	-	-	-	165.3
Total	**18.6**	**27.1**	**46.9**	**72.7**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**165.3**

Account Map | Trading | Viewing year 2021

Scenario Planning: Recharge



Disadvantaged communities

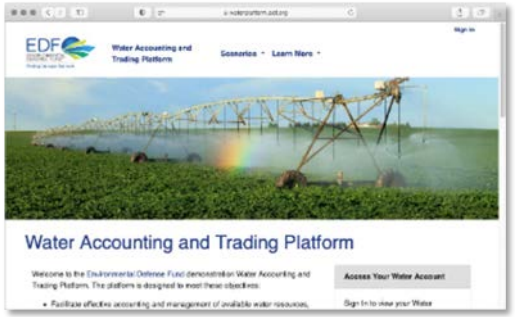
Wells

Monitored arsenic contamination (>10 µg/L)

Recharge basins

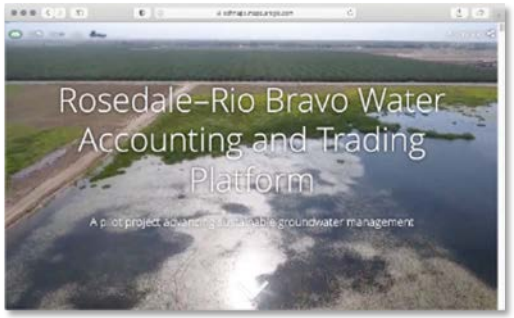
olsson

To learn more, please visit …



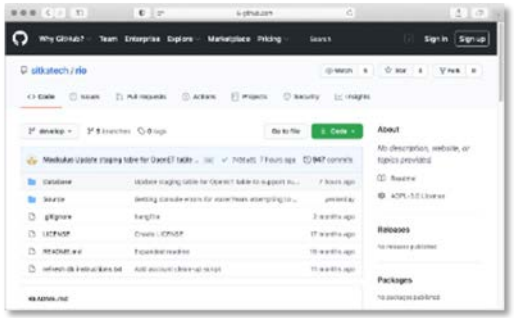
Demo Platform

waterplatform.edf.org



Story Map

edf.org/waterplatformstory



Source Code

github.com/sitkatech/rio

Thank you!

California Water Data Consortium

Hannah Ake
Senior Program Manager

hake@cawaterdata.org

Environmental Defense Fund

Mike Myatt
Senior Director, Climate Resilient Water Systems

mmyatt@edf.org

Questions we have for you:

1. How do you see this tool complementing or integrating with other tools/resources?

2. What do you see as potential opportunities for this tool?

Questions?