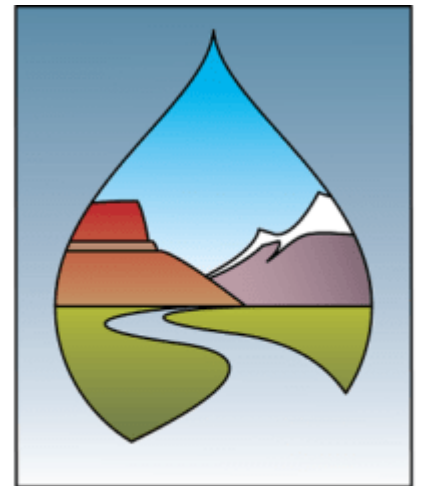


The Western States Water Data Access and Analysis Tool (WestDAAT): Demo and Testing

Western States Federal Agency
Support Team (WestFAST) Webinar
November 29, 2022

Tony Willardson, WSWC Executive Director
Adel Abdallah, WaDE Program Manager
Ryan James, WaDE Data Analyst

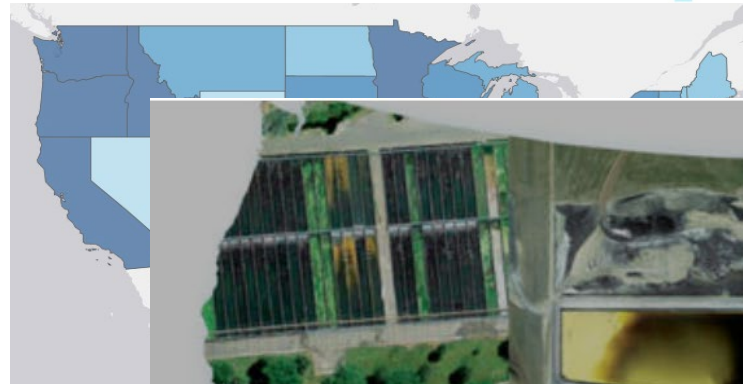


WESTERN STATES
WATER COUNCIL

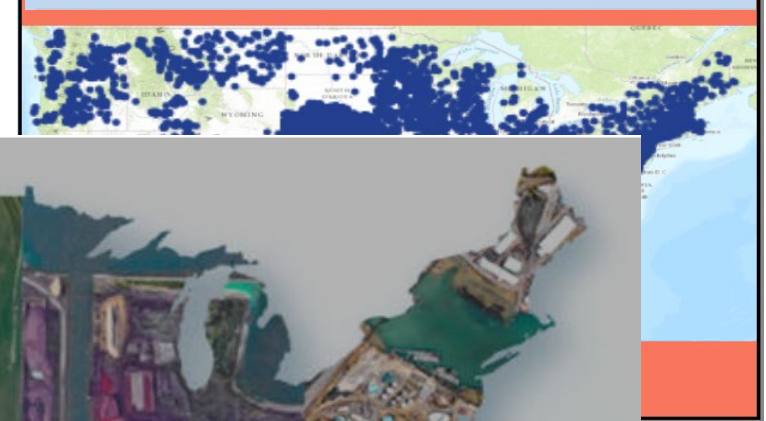
Water Data Shared by WaDE

- Water rights
- Site-specific use and withdrawals
- Aggregated water budget estimates
- Regulatory overlays

Water Data Shared by Federal Agencies

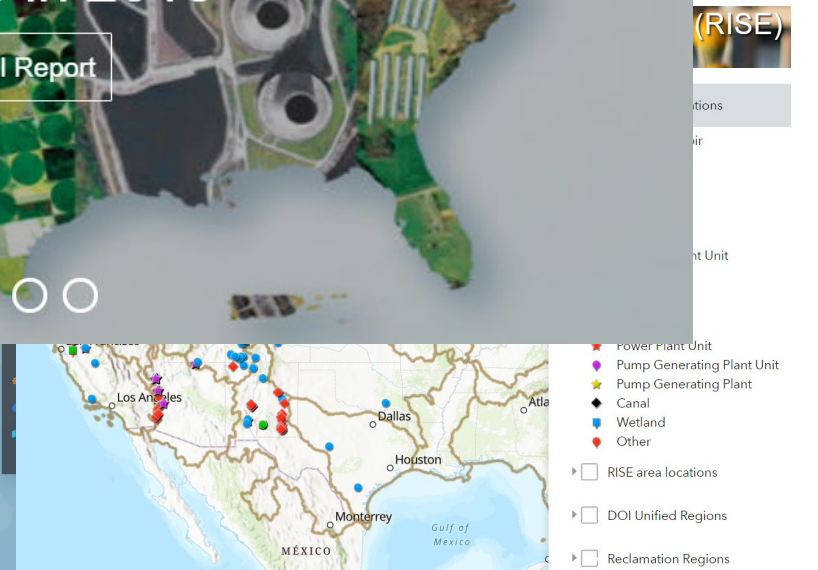
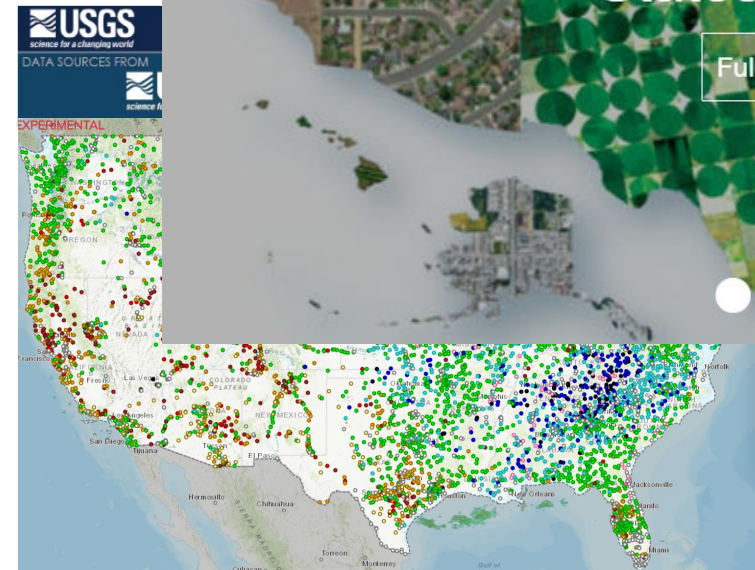
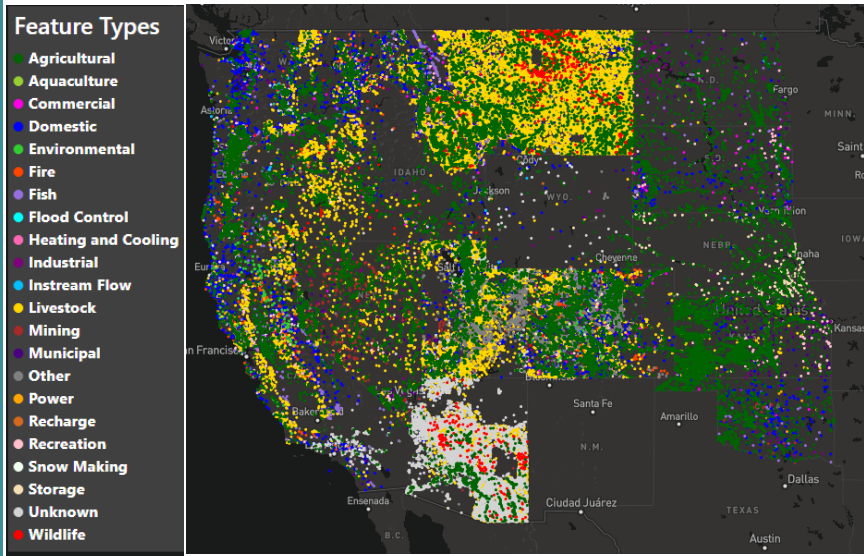


National Ground-Water Monitoring Network



Estimated use of water in the United States in 2015

[Full Report](#)



WaDE Phases

PHASE I (2011-2018)
Establish the WaDE Program, build relationships, identify challenges and needs, and create WaDE 1.0 schema within a distributed data system

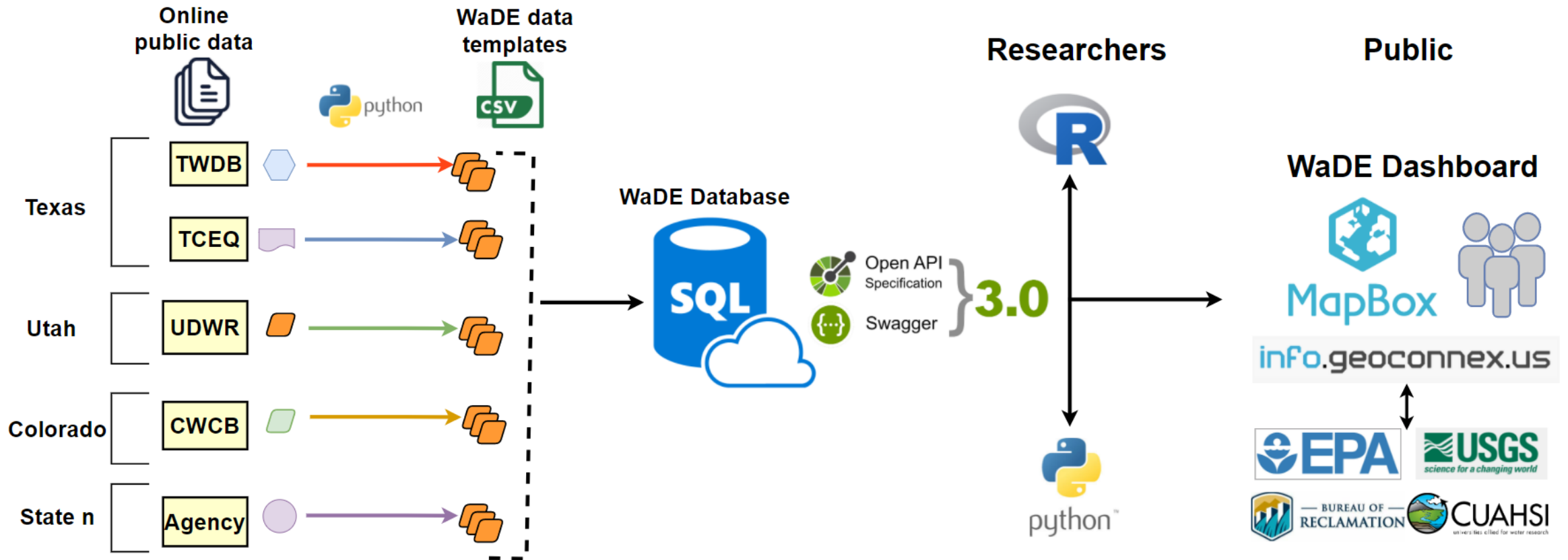
PHASE II (2019-2021)
Improve schema to 2.0, adapt to centralized cloud hosting, partner with the Internet of Water, import states' data to the new database, define use cases, and develop prototype dashboard

We are here

PHASE III (2022-2026)
Develop the Western States Water Data Access and Analysis Tool (WestDAAT), operationalize data services, demonstrate interoperable use cases, and support state and regional water planning, management, and decision-making

<https://westernstateswater.org/western-water-perspectives/2022/wswc-celebrating-ten-years-of-western-water-data-sharing/>

WaDE 2.0 Architecture



<https://github.com/WSWCWaterDataExchange>

WaDE 2.0 “Translates” Water Terminology

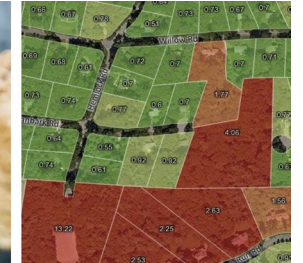
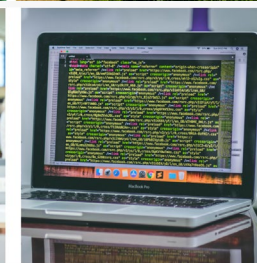
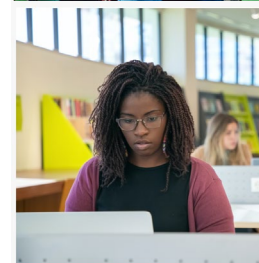
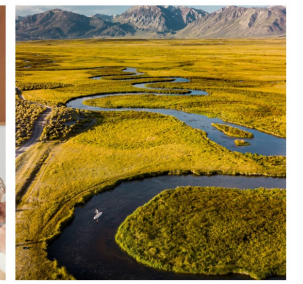
□ 32 + metadata terms

Irrigation Method, Customer Type, Crop Type, Site Type, Water Source Type, Water Allocation Type, Applicable Resource Type, Data Quality Value, Report Year Type, Water Quality Indicator, Water Allocation Basis, Method Type, Legal Status, Regulatory Status, Regulatory type

#	Key Term	# of States Unique Terms	# of WaDE Unique Terms
1	Beneficial Use Category	386	20
2	Water Source Type	56	7
3	Site Type	171	9
4	Legal Status	TBD	TBD
5	Water Allocation Type	TBD	TBD

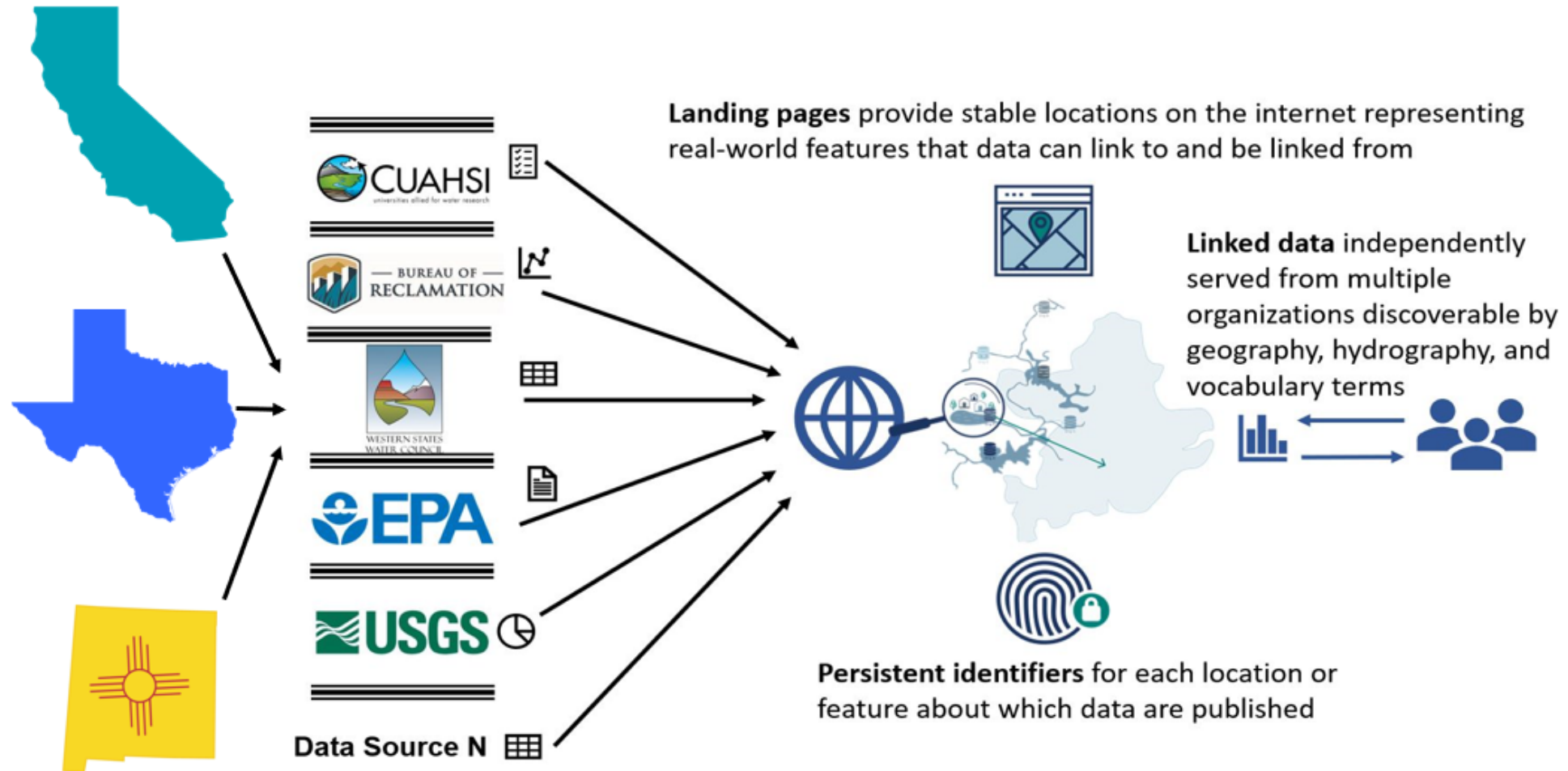
WestDAAT Use Cases and Personas

1. Gary the Governor
2. Stan the State Engineer
3. Maggie the River Basin Manager
4. Laila the Land Use Manager
5. Frank the Farmer
6. Ratibah the Researcher
7. Fred the Fed



<https://westernstateswater.org/wade-updates/2021/westdaat-use-cases-and-personas/>

WaDE Integration with Geoconnex



<https://internetofwater.org/events/geoconnex-a-community-index-for-water-data/>

Funders, Collaborators & Partners

Water Foundation

Mitchell Foundation

Walton Foundation

BHP Foundation

MOORE Foundation

EPA Exchange Network Grant Program

Western States Water Agencies



Demo and Testing

WestDAAT

<https://westdaat.westernstateswater.org/>

Prototypes

1. Reservoir and Gage
<https://waterdataexchangewswc.shinyapps.io/SiteSpecificReservoirAndGageDemo/>
2. Aggregated Area Water Budget
<https://waterdataexchangewswc.shinyapps.io/SiteSpecificPublicSupplyWaterDemo/>
3. Public Supply Water
<https://waterdataexchangewswc.shinyapps.io/AggregatedBudgetWaterUseDemo/>

Promoting Questions

1. What junior water rights are there above a particular senior point of diversion?
2. In the case of a “call,” which water users should be notified?
3. What water rights might be affected by a proposed change in the point of diversion or change in the place of use?
4. In order to protect flows leased or otherwise dedicated to downstream uses, which water users/water right holders may need to be notified to temporarily forego diversions (shepherding conserved water downstream to a specific reservoir or another point)?
5. How do other western states regulate water use and to what beneficial uses?
6. What metadata is associated with the water right?

Thank You!

Questions?

WestDAAT Beta : Whiteboard Feedback

<https://app.mural.co/t/westdaat6713/m/westdaat6713/1636483792155/03a8295ffa91ef6c902d9a03b7b972dc8d0e812d?sender=ubd9657ad60f5132a09853743>

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