Build Kansas Fund | Fiscal Year 2025 Application Package | Memo

To: Representative Troy Waymaster, Chair, Build Kansas Advisory Committee
Chardae Caine, Kansas Legislative Research Department
Shauna Wake, Office of the Kansas State Treasurer

From: Jason Fizell, Interim Executive Director, Kansas Infrastructure Hub

RE: Build Kansas Fund Application #2025-091-GP

Date: June 17, 2025

Attached, please find an application made to the Build Kansas Fund by the Southwest Kansas Groundwater Management District #3. The application packet includes the following items:

- Coversheet – provides a high-level overview of the application including a unique identification number, page 1 of 16 of the Build Kansas Fund Application Package.
- Build Kansas Fund Application – includes information submitted with the Build Kansas Fund Application, pages 2-8. Page 8 provides the table of funding sources and zip codes served by the project.
- Attachments – executive summary and project map images, pages 9-16.

Project Overview
The Southwest Kansas Groundwater Management District #3 seeks funding from the U.S. Department of Interior for funding available through the WaterSMART Applied Science Grants program for their Creation of a Groundwater Accounting Platform for Irrigation Water Management in Southwest Kansas project which includes providing irrigators with real-time water use tracking infrastructure to improve efficiency, and support data-driven decision-making for sustainable resource planning.

This opportunity is a discretionary BIL program with a local match requirement of 50% of the total project cost. The entity is requesting $380,866.49 from the Build Kansas Fund, and is providing a local match of $19,113.51. This request has the potential to unlock $400,000.00 in federal funds, for a total project cost of $800,000.00.

The deadline is to be determined and this Build Kansas Fund application was received on February 12, 2025.

Build Kansas Fund Steering Committee Recommendation
The Build Kansas Fund Steering Committee reviewed this application on May 28, 2025 following a successful completeness check. The Steering Committee **RECOMMENDS APPROVAL** of Build Kansas Funding to the Build Kansas Advisory Committee for final advice.

Build Kansas Fund | Fiscal Year 2025
Application Package | Coversheet

Build Kansas Fund Application Number	2025-091-GP
Applicant Name	Southwest Kansas Groundwater Management District #3
Application Date Received	2/12/2025
Project Name	Creation of a Groundwater Accounting Platform for Irrigation Water Management in Southwest Kansas
Project Description	Providing irrigators with real-time water use tracking infrastructure to improve efficiency, and support data-driven decision-making for sustainable resource planning.
Entity Type	Local government
Economic Development District (EDD) Planning Commission	Great Plains Development, Inc.
Infrastructure Sector(s)	Water
BIL Program	WaterSMART Applied Science Grants
BIL Program Type	Discretionary
Application Type	Implementation
BIL Application Deadline	Paused - TBD
Build Kansas Fund Request	$380,886.49
Technical Assistance Received	General Yes ☒ No ☐
	BIL Application Yes☐ No☒
	Build Kansas Fund Application Yes☒ No☐
	Other (Brief Description): Provided general and BKF Application support.
Application Notes	Build Kansas Fund contribution of $380,886.49 will unlock $400,000.00 in federal BIL funding, with additional project contributions of $19,113.51 for a total project cost of $800,000.00.
Steering Committee Funding Recommendation	**5/28/2025	Recommend ☒ Declined ☐**
Advisory Committee Funding Recommendation	**6/17/2025	Recommend ☐ Declined ☐**

Title	**Southwest Kansas Groundwater Management District 3**	02/12/2025
		id. 49645260

by **Trevor Ahring** in **Build Kansas Fund Application**

trevora@gmd3.org

Original Submission

02/26/2025

Score	n/a
	Part 1: Applicant Information
The name of the entity applying for the Build Kansas Fund:	Southwest Kansas Groundwater Management District 3
Project Name:	Creation of a Groundwater Accounting Platform for Irrigation Water Management in Southwest Kansas
Entity type:	Local Government
Entity Population:	100,000
Applicant Contact Name:	Trevor Ahring
Applicant Contact Position/Title:	Civil Engineer
Applicant Contact Telephone Number:	+16202909947
Applicant Contact Email Address:	trevora@gmd3.org
Applicant Contact Address:	2009 E Spruce St
Applicant Contact Address Line 2 (optional):	
Applicant Contact City:	Garden City
Applicant Contact State:	Kansas

Applicant Contact Zip Code:	67846
Is the Project Contact the same as the Applicant Contact?	Yes

	Part 2: Build Kansas Fund - Eligibility Criteria
Certify that you are pursuing a Bipartisan Infrastructure Law (BIL) funding opportunity for which your entity is eligible:	Yes
Certify that the Bipartisan Infrastructure Law (BIL) funding opportunity you are pursuing has a required non-federal match component:	Yes
What is the primary county that the project will occur in?	Finney County

The Build Kansas Fund is intended to support Kansas-based infrastructure projects. Please provide a list of all the zip codes this project will be located in, along with an estimated percent [%] of the project located in that zip code. For example, if seeking funding for road infrastructure, provide a rough percent of the roads expected in each zip code:

Zip Code Percentage.xlsx

	Part 3: Bipartisan Infrastructure Law (BIL) - Grant Application Information Please Note: This information is related to the federal Bipartisan Infrastructure Law (BIL) funding opportunity to which you will apply. This is NOT information for the Build Kansas Match Fund.
Please enter the Bipartisan Infrastructure Law (BIL) funding opportunity title that the entity is applying for:	WaterSMART Applied Science Grants, Opportunity No. R25AS00038

What is the funding agency for this Bipartisan Infrastructure Law (BIL) funding opportunity?	U.S. Department of Interior
What is the Assistance Listing Number (ALN) for this Bipartisan Infrastructure Law (BIL) funding opportunity?	15.557
What is the federal application due date for this Bipartisan Infrastructure Law (BIL) funding opportunity?	Paused - TBD
Application Type:	Implementation
What is the federal fiscal year for this Bipartisan Infrastructure Law (BIL) funding opportunity?	2025
Enter the amount of funding being applied for, from the Bipartisan Infrastructure Law (BIL) funding opportunity:	$400,000.00 for a total project cost of $800,000.00
Enter the total project cost:	$800,000.00
Enter the required non-federal match percentage:	50%

	Part 4: Build Kansas Fund - Match Application Information Beginning in July 2024 and moving forward, eligible applicants are expected to contribute a portion of the non-Federal match requirement. This contribution can be in the form of cash and/or in-kind contributions. The goal is to demonstrate the applicant's commitment to the project. The contribution should be significant enough relative to the Build Kansas Fund request. For a local public entity, 5% of the non-federal match is a good guideline, but not a requirement. See Build Kansas Fund Program Guidance for exceptions and more information.
Enter the non-federal cash match amount being requested from the Build Kansas Fund:	$380,886.49 for a total project cost of $800,000.00
Enter the non-federal cash match amount being provided by the eligible applicant, if applicable:	00
Enter the estimated value of the non-federal in-kind match amount being provided by the eligible applicant, if applicable:	$19,113.51 for a total project cost of $800,000.00

Expected breakdown of funding sources to support the project: Enter the funding source and projected amount from each source to support this project:

Kansas+DOT+table_V2.xlsx

	Part 5: Build Kansas Fund - Means Test and Eligible Applicant Match
What other available funding sources that are currently planned to go unused by your entity will be leveraged for this project?	N/A

Will any American Rescue Plan Act (ARPA) or Coronavirus State & Local Fiscal Recovery Fund monies will be used for the non-federal match?	N/A
What other sources of in-kind match will be leveraged for this project? Please list and include the actual or estimated value of each.	GMD3 staff will hold a series of producer meetings to provide information on how to use the Groundwater Accounting Platform, and will work with other project partners to ensure that the database is well-maintained and will track changes to water rights.
What other funding sources (local, federal, or non-federal) will be used for this match?	N/A
Describe your efforts to find other available funding sources for this project:	GMD3 is leveraging staff time and effort with projects that will add value to its users, and to keep costs down. Due to federal program requirements, a portion of the local match is required to be cash, which is why Build Kansas Funds have been sought.

Part 6: Additional Information

Please upload a draft or final version of the Bipartisan Infrastructure Law (BIL) program grant application associated with this request OR an executive summary providing an overview of the project:

Zip_Code_Table.xls

GMD3_Accounting_Platform_Project_Overview_BKF.docx

Provide any additional information about this project not covered in previous sections of this application (optional):	

Part 7: Terms and Conditions

Understanding of Fund Release Requirements:	checked
Understanding of Use of Funds:	checked

Understanding of Reporting Requirements:	checked
Authority to Make Grant Application:	checked
Persons and Titles: The following persons are responsible for making this Build Kansas Fund application.	Trevor Ahring
Position/Title:	Civil Engineer, GMD3
Additional:	Rachel O'Connor
Position/Title:	Senior Manager, Climate Resilient Water Systems, Environmental Defense Fund
Additional:	Jim Schneider
Position/Title:	Technical Expert, Groundwater Team, Olsson Associates
Additional:	John Burns
Position/Title:	Technology Services Lead, Environmental Science Associates

Source	Amount	% of project
Build Kansas Funds (non-federal match)	$ 380,886.49	48%
Eligible Applicant Cash Match	$ -	
Eligible Applicant In-Kind Match (estimated value)	$ 19,113.51	2%
BIL Federal Funds (applied for)	$ 400,000.00	50%
Additional Project Contribution (if applicable)	$ -	
TOTAL PROJECT COST	$ 800,000.00	100.00%

*Applicant match contribution is 4.78% of total match requirement

Kansas Zip Code	% of Project		Kansas Zip Code	% of Project
67844	2.564%		67843	2.564%
67869	2.564%		67854	2.564%
67954	2.564%		67855	2.564%
67853	2.564%		67860	2.564%
67865	2.564%		67862	2.564%
67859	2.564%		67864	2.564%
67857	2.564%		67868	2.564%
67901	2.564%		67870	2.564%
67841	2.564%		67876	2.564%
67867	2.564%		67878	2.564%
67950	2.564%		67880	2.564%
67109	2.564%		67951	2.564%
67801	2.564%		67952	2.564%
67837	2.564%		67953	2.564%
67842	2.564%		67547	2.564%
67851	2.564%		67563	2.564%
67871	2.564%		67834	2.564%
67877	2.564%		67835	2.564%
67882	2.564%		67838	2.564%
67846	2.564%			
Total Project in Kansas	**100%**			

Creation of a Groundwater Accounting Platform for Irrigation Water Management in Southwest Kansas

Deployment for Groundwater Management District 3

Scope of Work

Background

The **Groundwater Accounting Platform** is an open-source water accounting platform that provides technology infrastructure to integrate data from a variety of sources and effectively communicate this information to support individual, local, regional, and state water management decisions. The Groundwater Accounting Platform infrastructure delivers satellite data to water users, enabling water managers, landowners, and water users to track water supply and usage in near real-time. The Platform accepts water supply data from a variety of sources including satellite, flow meters, and sensor networks, enabling users to track water budgets at the parcel and field scale. The Groundwater Accounting Platform also features a water manager dashboard to track and account for water across a district or region, which informs management decisions such as planning efforts and resource allocation. The Platform includes a Scenario Planning Module for groundwater modeling, providing a complete set of tools for local water districts to better manage allocations over time.

Groundwater Accounting Platform Background

The Groundwater Accounting Platform was initially developed by the Environmental Defense Fund (EDF) for the Rosedale-Rio Bravo Water Storage District (RRB WSD) in 2018. EDF had a vision to leverage the open-source model to expand and scale the Platform throughout the United States. The open-source model ensures that investment in the Platform's underlying source code is available to any interested party to use and enhance as they see fit.

In 2020, the EDF partnered with the California Water Data Consortium to apply for a US Bureau of Reclamation WaterSMART Applied Science Grant to begin implementing the Platform roadmap. Later, the Platform team was awarded additional funding from the

California Department of Water Resources to launch in five pilot agencies and further implement the Platform roadmap. The California State Water Resources Control Board and California Natural Resources Agency provided letters of support to help acquire project funding, and both organizations continue to serve on the Platform advisory team.

In 2022, with funding secured, the Platform team kicked off the Platform Scaling project. This began with the selection of pilot agencies and the formation of an advisory team comprised of state, local, industry, and community representatives. The Platform Scaling project is continuing through 2025 and will result in the build-out of additional Platform functionality to support groundwater sustainability nationwide.

Tasks

Task 1: District Policy Review and Requirements Analysis

Task 1 will incorporate a thorough review and analysis of current policies and data sources to ensure smooth deployment and configuration of the Groundwater Accounting Platform for GMD3. This task will collaborate with and support GMD3 to identify all required policy decisions and necessary data types for effective implementation of the Platform and will alert GMD3 to gaps that need to be filled before configuration of the Platform.

Task 2: Deploy Kansas Accounting Platform Infrastructure

The existing versions of the Groundwater Accounting Platform are used in Nebraska and California. Task 2 will create the infrastructure for a Kansas version of the Platform to accommodate Kansas-specific needs. This means leveraging the existing data model and source code while deploying a separate instance where on-page content can be customized to incorporate water management terminology that is used specifically in Kansas and refers to Kansas-specific policies. It will also create infrastructure to host distinct user lists. Creating a Kansas-specific instance of the platform will reduce the future costs to other GMDs or water managers who are interested in deploying the platform.

Task 3: Initial Configuration of the Groundwater Accounting Platform Infrastructure

This task will configure the Groundwater Accounting Platform according to GMD3's local policies and data. Data will be imported from existing sources, which may include spreadsheets, GIS files, tax assessor records, databases, or other sources of record maintained by GMD3. During this task, GMD3 staff will review how data is imported to the Groundwater Accounting Platform and provide feedback to ensure data presentation is consistent with GMD3 policies and suitable for roll-out to water users. A review of the Initial Configuration will result in the identification of customization and enhancements to be built as part of the Task 4 Infrastructure.

Task 4: Customization and Enhancements of the Groundwater Accounting Platform Infrastructure

After initial Groundwater Accounting Platform configuration and roll-out, this task will focus on customizing and enhancing the Platform functionality to support GMD3's local policies and requirements. Based on experience rolling out accounting frameworks in other geographies, we anticipate a need for local customization and enhancements to the technical infrastructure. This task will expand the Platform functionality to meet GMD3-specific policies and requirements, leaning on feedback from an advisory group of stakeholders in the district.

Task 5: Landowner Training

When GMD3 management is ready to roll the Groundwater Accounting Platform out to producers, the Platform development team will offer support through this task. This task includes technologically preparing the Platform infrastructure for broader district-wide adoption, and designing, coordinating, and delivering in-person workshops for producers to ensure they are both trained to use the Platform and able to provide feedback on its utility. During and following the workshops, the Platform development team will work with GMD3 management to ensure all water accounts are accurately assigned to water users.

Task 6: Operations Support

This task provides ongoing roll-out support to GMD3 during the first year, post-rollout. The Platform team will continue periodic meetings with GMD3 to ensure GMD policies and Platform configuration are consistent, robust, and meeting needs of GMD3 and growers. The Platform team will support ongoing data management and administration, monthly data review, and training the GMD3 project team to confidently operate the Groundwater Accounting Platform.

Task 7: Communication and Outreach

Throughout the duration of this project, this task will identify and generate materials to support education, communication, and outreach, such as training, onboarding, and outreach to new users. Examples may include: a "Getting Started" guide for producers, informational flyers for distribution, tutorial videos, press releases, blog posts, social media posts, and presentations.

Project Goals and Benefits

GMD3 is currently involved in a planning process to develop action plans to address aquifer declines throughout southwest Kansas. GMD3 hosted a series of four meetings for water users in Dodge City, Garden City, Ulysses, and Sublette, KS November 19-20. These meetings were attended by nearly 400 producers, representing all water use types in southwest Kansas. Most attendees were irrigators, as irrigation accounts for well over 90% of all water use in the region. Multiple attendees of these meetings commented on the need for cost-sharing technologies that will improve efficiency and help them track water use. This proposal will provide every irrigator in GMD3 with the infrastructure to track measured and estimated water use for every field. This will greatly improve their ability to manage multi-year water allocations that have limits much closer to what they are pumping in an average year. It will also greatly reduce the legwork and travel time required to track use in pumping groups with multiple wells during the pumping season by providing accurate real-time water use estimates.

The goal of this project is to introduce technical infrastructure that makes it much easier for water users to track their water use within the five-year allocations they are allotted by the action plans developed by GMD3. This will help to inform decisions by farmers regarding what crops to plant and how many acres to farm each year. The real-time evapotranspiration data will also help farmers identify the effectiveness of local rainfall events and their irrigation schedule and enable them to make changes that will benefit them. GMD3 will track platform engagement to assess how and when the platform is being utilized and work toward maximizing engagement. After the grant period ends, maintenance will be either funded through user fees or directly by GMD3, depending on how much demand there is for the platform.

This tool will also benefit the staff at GMD3 tasked with creating plans to reduce water use while maintaining the local economy and well-being of the people living in southwest Kansas. It will provide in-season water use estimates to allow GMD3 to develop better plans to mitigate drought and identify the best areas to focus staff resources. This project

will also create a repository of software code that makes the development of similar tools much cheaper for other GMDs and water users throughout Kansas.

The Groundwater Accounting Platform has been successfully implemented in California and Nebraska to help manage and track water budgets. This project will bring proven technical infrastructure to Kansas. GMD3 will work to tailor the Groundwater Accounting Platform to local needs, including an actively growing dairy and beef industry. Other districts in Kansas will then be able to leverage the work done in GMD3. Once the initial work for this project is completed, similar efforts in other areas of Kansas can be undertaken at roughly ¼ to ⅓ the cost of this project.

Schedule and Contractual Budget

The project will be completed over a 2-year period. Year 1 will result in Platform deployment throughout GMD3. Year 2 will focus on post-launch operational support for the Platform.

#	Task	2026												2027											
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Policy Review and Requirements Analysis	█	█	█																					
2	Deploy Kansas Accounting Platform		█	█	█																				
3	Initial Configuration				█	█	█																		
4	Customization and Enhancements						█	█	█	█															
5	Landowner Rollout and Training									█	█	█	█	█	█										
6	Operations Support										█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
7	Communications and Outreach				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█

The project budget of $800,000 is structured to support the successful deployment and implementation of the Groundwater Accounting Platform for GMD3. The budget aligns with the tasks outlined above, ensuring a comprehensive approach to platform development, customization, stakeholder engagement, training, and ongoing support. The work will be carried out by a systems development team, an engagement team, and EDF—working in close coordination with GMD3 to ensure the platform meets local needs. A key outcome of this investment is the creation of a Kansas-specific instance of the platform, which will reduce costs for other GMDs or water managers interested in adopting the Groundwater Accounting Platform.

Task #	Task	Systems Development Team (Consultant / ESA)		Engagement Team (Consultant / Olsson)		Engagement Team (EDF)		Total Task Budget
		Hours	Budget	Hours	Budget	Hours	Budget	
1	District Policy Review and Requirements Analysis	80	$ 20,560	160	$ 35,520		$ 31,600	$ 87,680
2	Deploy Kansas GW Accounting Platform Infrastructure	300	$ 77,100	40	$ 8,880		$ -	$ 85,980
3	Initial Configuration of the GW Accounting Platform Infrastructure	120	$ 30,840	80	$ 17,760		$ -	$ 48,600
4	Customization and Enhancements of the GW Accounting Platform Infrastructure	400	$ 102,800	80	$ 17,760		$ 10,200	$ 130,760
5	Landowner Training (Implementation)	80	$ 20,560	400	$ 88,800		$ 62,800	$ 172,160
6	Operations Support	200	$ 51,400	200	$ 44,400		$ 16,500	$ 112,300
7	Communications and Outreach	80	$ 20,560	120	$ 26,640		$ 28,500	$ 75,700
	Labor Total	1260	$ 323,820	1080	$ 239,760		$ 149,600	$ 713,180
	In-Kind Contribution from GMD3							$ 19,114
	Implementer Fees (Front Porch Farms)						$ 40,000	$ 40,000
	Administrative Costs							$ 27,706
	Project Total							$ 800,000
	Build Kansas Funding Request							$ 380,887
	GMD3 In-Kind Funding							$ 19,114
	WaterSMART Grant Request							$ 400,000

Platform Overview

The Groundwater Accounting Platform supports user roles for Landowners/Operators and Water Managers in a single unified environment. High-level functionality for each user role is shown below.
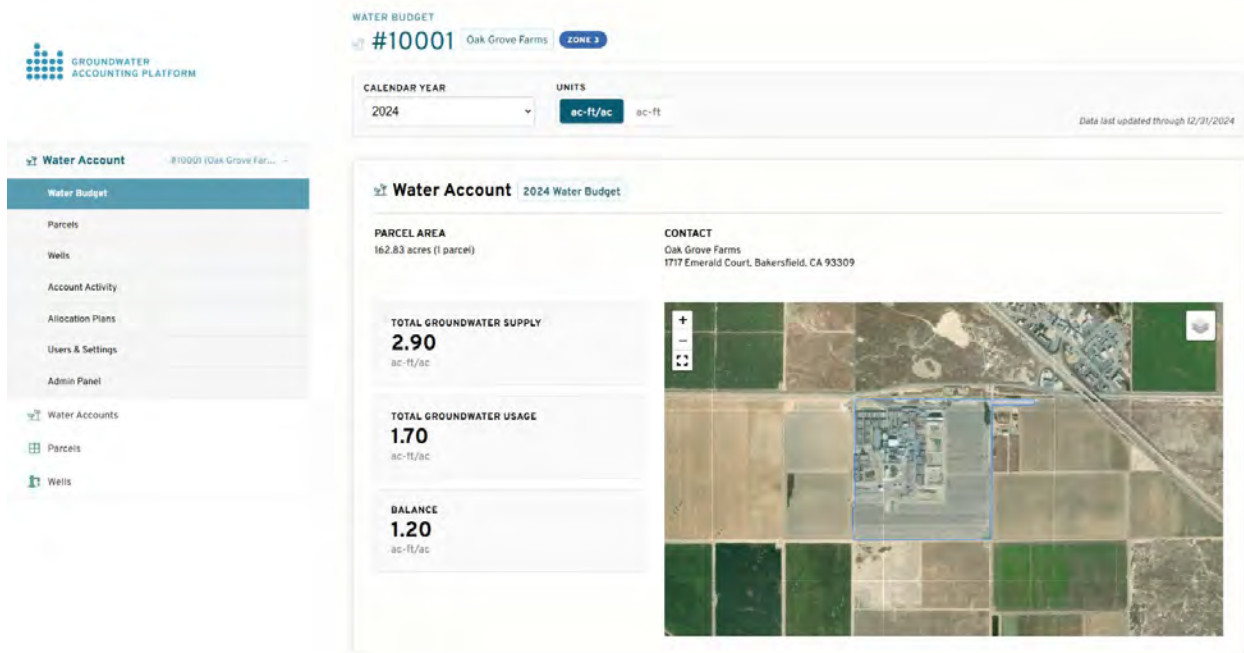
Landowner / Operator: View and manage water budget for their parcels in one or more geographies (i.e. GSAs), including tracking available water supply, water usage, and future allocations.

Water Manager: Configure accounting rules for their geography, administer water budgets and workflows, track GSA water usage and supply, and administer landowner water account, parcel, and field water transaction and user permissions.

Landowner functionality centers around the Landowner Dashboard, which provides streamlined navigation allowing Landowners to access multiple Water Accounts, Parcels, and optional Registered Wells. Each Water Account and Parcel has a detailed page with charts, tables, and visualizations of water usage, water supply, allocations, water measurements, etc.

Water Managers have functionality to configure and administer their local policies and data. Policy configuration options include enabling / disabling workflows and modules such as Well Registration workflows or Allocation Plan visualization. Data administration includes the ability to upload Parcel GIS data, create Water Accounts for individual landowners / operators, set Allocation Plans, and define water supply types and quantities. The figure below shows one of the Water Manager administration pages to view and configure Parcel information, including parcel status, ownership information, and parcel-scale water measurements.

555-115-20

Parcel 555-115-20 ▾

- Parcel Details
- Water Measurements
- Allocation Plan
- Supply Activity
- Admin Panel

⟟ Water Accounts

⊞ Parcels

🛈 Wells

PARCEL AREA
162.83
acres
⊞ Edit Acres

MANAGEMENT ZONES
● Zone 3

⊞ Edit Zone Assignments

OWNER NAME
Oak Grove Farms
OWNER ADDRESS
1717 Emerald Court, Bakersfield, CA 93309

👥 Update Ownership Info

Water Measurements

⬇ Download Water Measurements

● Consumed Groundwater ● OpenET Evapotranspiration ● OpenET Precipitation

Click and drag chart beneath to zoom selection