



Madera County

Groundwater Sustainability Agency Measurement Services



Prepared For:
Madera County GSA
Attn: Aleta Allen
200 W. Fourth Street
Madera, CA 93637
aleta.allen@maderacounty.com

Monday, June 16, 2025 3PM

4Creeks, Inc.
324 S. Santa Fe Street
Visalia, CA 93292
(559) 802-3052



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Cover Letter



Monday, June 16, 2025 3PM

Madera County GSA
Attn: Aleta Allen
200 W. Fourth Street
Madera, CA 93637
aleta.allen@maderacounty.com



Madera County Groundwater Sustainability Agency Measurement Services

Dear Ms. Allen,

We are pleased to submit our proposal for Measurement Services issued by the Madera County Groundwater Sustainability Agency (GSA). Our team brings extensive experience supporting GSAs with software solutions that enhance access to and management of evapotranspiration of applied water (ETAW) and related datasets. **While we are not the source of the remote sensing data, we specialize in hosting and integrating these datasets within our secure, user-friendly platform, Basinsafe™. Tailored for GSA and landowner needs, Basinsafe™ currently serves six GSAs and seven water districts across the Central Valley.**

Our Basinsafe™ software enables seamless hosting and visualization of ETAW, precipitation, and land use data—delivered by third-party providers—through an intuitive interface designed to support SGMA compliance and groundwater accounting. This platform allows landowners and GSA staff to clearly view ET visual charts, graphs, and maps. Tools are available to view annual land use, manage allocations, and track credits and penalties with ease.

The 4Creeks team offers a proven track record of performance with groundwater agencies, sophisticated technical capabilities, and a deep understanding of SGMA compliance frameworks. Basinsafe™ was built specifically for GSAs with the help of GSA staff. The tools available are designed for each GSA's specific needs. Reports, landowner portals, water market boards, graphs, and visuals are customizable and flexible to adjust as ongoing policies change.

We appreciate the opportunity to partner with the Madera County GSA and contribute to its continued leadership in sustainable water management. Thank you for considering our proposal. We look forward to the opportunity to build a strong working relationship.

Thank you,

David De Groot, P.E.
Principal-In-Charge

Don Tucker
Water Department Manager



Firm Overview

4Creeks, Inc. is dedicated to providing progressive civil engineering, planning, architecture, land surveying, and construction management and inspection services with logical solutions and designs. Many of our principals and staff have significant work experience with local municipalities as well as federal and state agencies. Our multiple disciplines within the company allow our teams to gather all levels of review efficiently and with a high level of knowledge for our clients. These specialties are a great resource to have and collaborate on for all projects. We currently have a staff of over 200 professionals working in Visalia, Hanford, Tulare, Clovis, San Luis Obispo, and Denver. Our experience and services include:

- **On-Call Contract Services**
- **Municipal Engineering & Planning**
- **Water Resources**
- **Software Development**
- **Project Management**
- **Street Rehabilitation**
- **ADA Design & Compliance**
- **Parks and Recreation Engineering & Planning**
- **Residential, Commercial, Industrial, Educational Design & Planning**
- **Land Surveying**
- **Utility Design & Coordination**
- **Environmental Planning, Design, & Compliance**
- **Geographic Information Systems**
- **Architecture**
- **Structural Engineering**
- **Construction Administration & Management**
- **Public Works Inspection**

Economical design considerations, environmental stewardship, and resource efficiencies are tenets of every project we undertake. We pride ourselves on pioneering innovative solutions for our clients that enhance the value of their projects, keep their costs in check, and deliver lasting results.

We build our reputation one project at a time with consistent, high-quality products, and time-sensitive delivery. Our goal on every project is open communication, honesty, and integrity.

Corporate Headquarters:

324 S. Santa Fe Street
Visalia, CA 93292

Clovis Office:

1275 N. Willow Avenue
Clovis, CA 93619

Phone: (559) 802-3052

Fax: (559) 802-3215

Email: info@4-creeks.com

Website: 4-creeks.com

Point of Contact:

Don Tucker
don.tucker@4-creeks.com

Business Type:

S-Corporation

Tax ID:

4Creeks, Inc.: 26-2565232

Department of Industrial Relations

Registration No.:

1000012032

Sureties:

4Creeks, Inc. carries standard policies for a professional firm, including General and Automobile Liability, E/O, and Worker's Compensation.

Principal Staff:

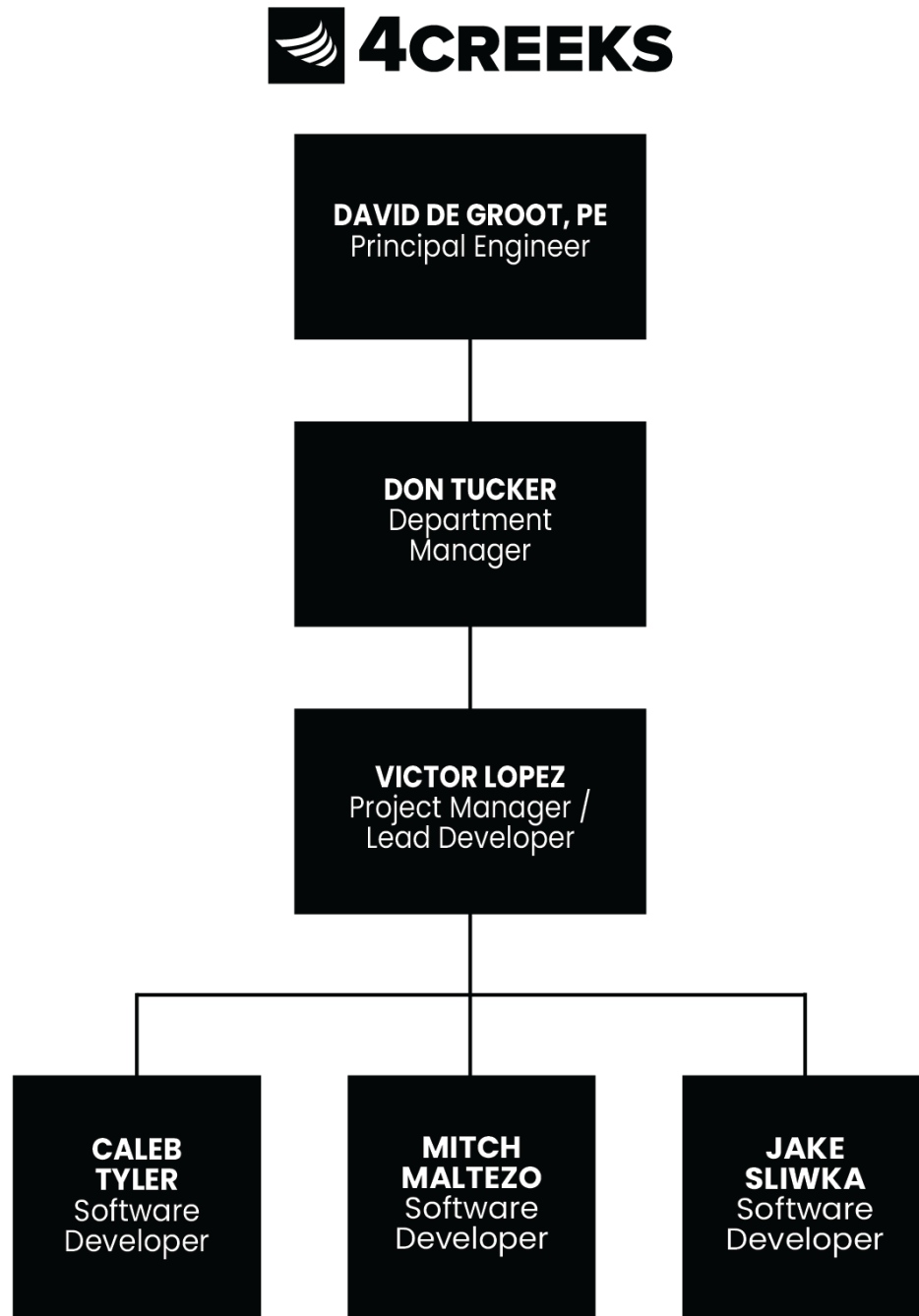
David De Groot, PE #70992
Randy Wasnick, PLS #8163
Matthew Ainley, PE #66233
Matt Razor, PE #81897
David Duda, AICP #29216
Karl Schoettler
Will Ruoff, AIA #C-36886
Doug Janzen #C-14260
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#71262 #TR 1888
Kyle McDonald, PE, QSD, MBA #82531
Mark Sorhouet, SE, PE #71479 #6308
Jason Margraf, PE #37782

Organization Chart



Organization Chart

The proposed project team are shown on the organization chart below. Further qualifications for key personnel, including resumes, can be found in the Qualifications section of the proposal.



Qualifications





Don Tucker

Water Department Manager



8+ Years Experience

P: (559) 802-3052

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A: 324 S. Santa Fe Street
Visalia, CA 93292

EDUCATION

B.S. – Civil Engineering

CSU Fresno
Fresno, CA

AREAS OF EXPERTISE

Project Due Diligence
Feasibility Studies
Water Resources Engineering
Permitting & Compliance
Environmental Planning &
Permitting
Regulatory Program
Compliance & Management
Software Development

EMPLOYMENT

4Creeks, Inc. – Visalia, CA

Water Department Manager
03/16 – Present

EXPERIENCE

Tule Subbasin Basinsafe™

Project Manager

Assisted Groundwater Sustainable Agencies (GSAs) during policy development and translated policy decisions to software team to build customized Basinsafe™ software for implementation of policies. Coordinated with LandIQ on ET data as basis for measuring groundwater use. Manage administrative staff for providing landowner support relating to Basinsafe™ accounts.

Tule Subbasin Sustainable Groundwater Management Act

Technical Project Manager

Assisted Tule Subbasin Plan Manager and Hydrogeologist in preparing technical data for developing Tule Subbasin GSPs, Coordination Agreements, and GSP Annual Reports. Managed Proposition 1 and Proposition 68 grants awarded to the Tule Subbasin including grant components such as the Tule Subbasin Data Management System and installation of monitoring wells.

Consultant for Eastern Tule GSA, Lower Tule River ID GSA, Pixley ID GSA on development of GSPs and adoption of policies to achieve groundwater sustainability. Prepared GSPs based on board direction. Prepare regular technical updates on the progress of GSP implementation.

Tule Basin Water Quality Coalition

Technical Project Manager

Developed and managed implementation of monitoring programs under supervision of Technical Coalition Lead to comply with the Irrigated Lands Regulatory Program (ILRP) general order. Prepared Annual Monitoring Reports, Groundwater Quality Trend Monitoring Plan, and oversaw monitoring efforts.

Tule Basin Management Zone

Technical Project Manager

Developed and managed implementation of Preliminary / Final Management Zone Proposals, Early Action Plan, and Management Zone Implementation Plan for the Tule Subbasin Management Zone compliance with the CV-Salts Nitrate Control Program.



Victor Lopez

Lead Developer



5+ Years Experience

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Visalia, CA 93292

EDUCATION

B.S. – Computer Science

CSU Fresno
Fresno, CA

AREAS OF EXPERTISE

C#, .NET Framework, & .NET Core
ASP.NET MVC
MSSQL & Entity Framework
HTML, CSS, & Java Script
REST API's
UI/UX Designer
DB Schema & Diagrams
Client Relations & Support
Software Development

EMPLOYMENT

4Creeks, Inc. – Visalia, CA

Lead Developer
06/19 – Present

EXPERIENCE

Basinsafe™ Groundwater

Lead Developer

Engineered bespoke features for GSAs to align with specific regulatory requirements and policies, incorporating advanced billing systems for groundwater usage and robust tracking systems for accurate water data analysis. Led the initial deployment and adoption of Basinsafe™ software with Lower Tule River ID GSA, Pixley ID GSA, and Tri-County Water Authority GSA demonstrating the software's effectiveness in managing water resources and facilitating the transition towards fee-based groundwater usage tracking.

Basinsafe™ Surface Water

Lead Developer

Developed and launched additional features to meet the evolving surface water reporting requirements for GSAs, including a real-time water delivery management interface, customized allocations, tracking for Special Management Areas, and a comprehensive suite of water delivery management tools. Led the onboarding processes for five unique surface water entities.

Irrigated Lands Regulatory Program

Lead Developer

Responsible for the project transition into new management while maintaining reporting deadlines and client interaction for continued development and pre-established feature additions. Produced various reporting analysis via programming language and SQL. Assisted with annual landowner data rollover requirements.

California Citrus Mutual

Lead Developer

Assisted in the designing and deploying of a bespoke software application to assist a non-profit association in their efforts to advocate for California citrus growers, by providing management tools for membership, crops, and political action committee's funding efforts.

Grimmius Cattle Co.

Lead Developer

Migrated a classic ASP application from a remote server to an on-premises server that utilizes an FTP management system.

Project Understanding and Approach



Project Understanding and Approach

About Basinsafe™

Basinsafe™ software is an integrated Groundwater Management platform built specifically to manage GSA's in California. This robust web-based platform was created within the Tule Subbasin, from the ground up, to optimize and simplify life for agency staff and the landowners impacted by SGMA. Basinsafe™ takes the guessing game out of your groundwater use and is built with flexibility to grow with the evolving water market. Basinsafe™ puts the necessary tools in your hands to effectively track, report, bill, and manage your GSA.

- Transparency for landowners
- Single system for agency staff
- Ease of use
- Up-to-date information
- Built for expansion
- Safe and secure data storage
- Configurable to fit GSA regulations

Sustainable groundwater management is one of California's most pressing issues for landowners today. With implications that reach from farm to family room, access to a system that manages your data, billing, tracking, and reporting is vital. As GSAs move toward implementing their sustainability plans, Basinsafe™ is the next step towards peace of mind.

Core Basinsafe™ Features

Tracking: Access to timely water tracking information to stay up to date on your water balance.

Consumption: Gain insights into your crop, field, and parcel data to monitor your groundwater consumption so that you can accurately plan your water use and prepare for the future.

Billing: Built-in invoicing tools streamline the billing process so you can keep your operations and finances in view and on track within a single system.

Reporting: Provide stakeholders and government agencies with pertinent information in an easy-to-compile format that can be customized to meet your needs.

Management: Powerful tools to manage individual accounts and agency-wide activities, so your staff can simply and easily manage hundreds of accounts and thousands of ac/ft.

Project Understanding

The Madera County Groundwater Sustainability Agencies (GSAs) operate within a uniquely challenging and critical groundwater management framework encompassing the Madera, Chowchilla, and partially the Delta-Mendota subbasins. With approximately 120,000 acres of irrigated land

and 100,000 acres of non-irrigated terrain, the GSAs have implemented a forward-thinking groundwater allocation system based on evapotranspiration of applied water (ETAW). All acreage is subject to water use monitoring, emphasizing the need for high-resolution, defensible, and accessible remote sensing methodologies to support effective water accounting and policy enforcement.

4Creeks can deliver accurate, scalable, and verifiable satellite-derived datasets on a monthly basis—specifically:

- Annual land use raster files
- Monthly evapotranspiration (ET/ETAW) raster files
- Monthly precipitation raster files

—all with spatial resolution at or finer than 30 meters. We understand that although the GSAs have an existing data management system in place, a gap remains in the availability of an integrated online user interface for stakeholders (including growers) to visualize and engage with farm-specific water allocation data, usage, and associated penalties or credits.



Project Approach

Rooted in precision, transparency, and accessibility, our approach centers on hosting evapotranspiration (ET) and related land-use data within a secure, user-friendly database platform called Basinsafe™. The Basinsafe™ system allows landowners and GSA administrative staff to easily view, access, and manage data collected by the GSA's selected satellite-based remote sensing provider. Scalable across the entire 220,000-acre jurisdiction, the database is designed to support multi-year data storage while maintaining consistency in accessibility, reporting, and integrity.

4Creeks will provide Madera County GSA with Basinsafe™ software to give landowners a portal to track consumption against allocations.

Data Integration Approach

We understand Madera County GSA will contract a separate ET provider consultant to provide data. 4Creeks will work directly with the selected consultant to import the ET data into Basinsafe™.

4Creeks has experience working with firms specializing in remote sensing, geospatial analysis, and soil science. We have worked with LandIQ for five years on water consulting services throughout the Central Valley.

System Set-Up Process

Our typical system set-up process is broken out into the following three phases. It's important to note that these timelines are estimates and can be updated based on the GSA's needs.

Phase 1: Discovery Phase (Week 1)

4Creeks and agency staff will meet to review Basinsafe™ core application features and the specific needs and wants of the agency. For any customized features not included in the core application, 4Creeks will develop an updated scope and fee to be provided to the agency.

Phase 2: Agency Specific Application Development and Deployment (Weeks 2-10)

4Creeks will develop an agency-specific Basinsafe™ domain, create agency administrative login accounts, and work with the agency to collect and format pertinent landowner data.

Agency staff is provided a system overview and training period for verifying accuracy of data within the system. Once the ET data is imported into the system, 4Creeks will work with agency staff on customized landowner and administration views and reporting tools desired, followed by opening the system up for landowner access.

Phase 3: Annual Licensing and Subscription Fee and On-Call Support Services (Week 11 – On-Going)

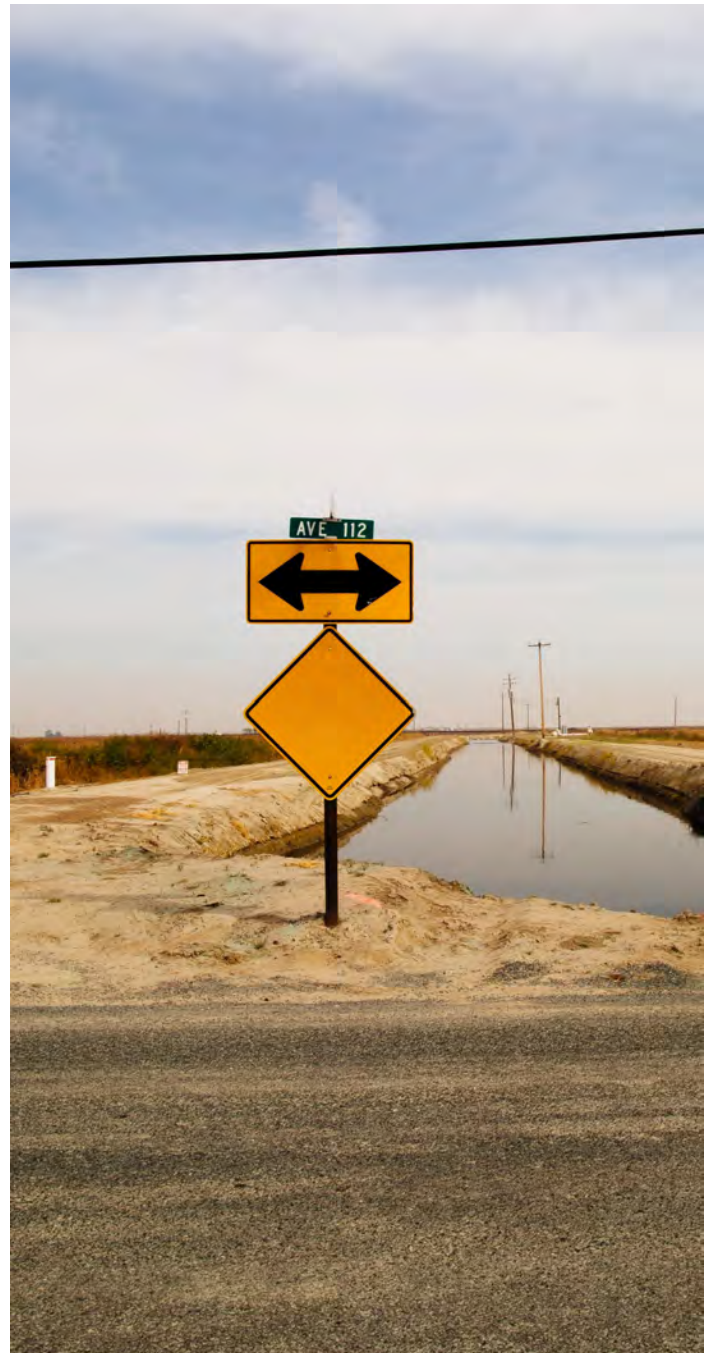
Upon completion of Phase 2, Phase 3 will commence for the on-going support services, licensing, and subscription fees. On-call support services are billed on a time and material basis. Licensing and subscription fixed fees are acreage-based fees covering the continued system and hardware maintenance, data management and storage, core application bug fixes, and improvements. Agency specific upgrades or changes to the system will be billed as "customization" on a time and material basis with approval before customization work begins.

Setup includes:

- Grower imports
- Parcel imports
- Administrative account setup
- Feature setup and permissions
- Base reports

On-going implementation includes:

- Allocation imports
- ET imports
- Well registry
- Meter data collection
- Allocation consumption / extraction
- Reports



Project Experience and Success



**Honest
Authentic
Solutions**

Project Experience and Success



01 Lower Tule River Irrigation District GSA

CONTRACT TYPE: ANNUAL PROJECT-BASED FEE CONTRACT

Lower Tule River Irrigation District was one of the first GSAs to use Basinsafe™ and partnered with 4Creeks in the development of the software. LTRID deployed the software as a pilot program to landowners in 2020 and began collecting fees for groundwater use in 2021. The agency utilizes groundwater and surface water Basinsafe™ tools to account for landowner surface water deliveries, sending annual assessments and invoicing landowners for groundwater use and surface water deliveries.

02 Pixley Irrigation District GSA

CONTRACT TYPE: ANNUAL PROJECT-BASED FEE CONTRACT

Pixley Irrigation District was one of the first GSAs to use Basinsafe™. PID partnered with 4Creeks in the initial development of the software. The GSA deployed the software as a pilot program to landowners in 2020 and began collecting fees for groundwater use in 2021. The agency utilizes groundwater and surface water Basinsafe™ tools to account for landowner surface water deliveries, sending out annual assessments and invoicing landowners for groundwater use and surface water deliveries.

03 Eastern Tule GSA

CONTRACT TYPE: ANNUAL PROJECT-BASED FEE CONTRACT

Development of the Eastern Tule GSA Basinsafe™ account began in 2020 and was deployed for landowner groundwater allocations and usage in 2021 to the diverse group of landowners in the GSA. ETGSA consists of one incorporated city, incorporated community, multiple irrigation districts / private water companies, and groundwater dependent irrigated lands. 4Creeks assisted with administrative landowner support services being that the ETGSA was a new governing agency. ETGSA utilizes groundwater Basinsafe™ tools with add-on features including the Water Market Board, a Craigslist-type group for landowner communication trading groundwater credits, and customized allocations and groundwater tracking for Special Management Areas. The ETGSA Basinsafe™ account covers 149,318 acres and supports 1,483 landowner accounts.

04 Tri-County Water Authority GSA

CONTRACT TYPE: ANNUAL PROJECT-BASED FEE CONTRACT

Development of TCWA GSA Basinsafe™ began in 2020 and was deployed for managing 439 landowner groundwater allocations and usage in 2021. TCWA rules and regulations implemented an extraction-based credit deduction system utilizing a hybrid of LandIQ's ETC, precipitation, and field/crop data. This unique approach required the additional feature add-ons within Basinsafe™ for individual field management along with various reporting capabilities and our groundwater Basinsafe™ tools. TCWA also paved the way for the Basinsafe™ addition of a well registry management tool along with domestic well reporting features.

05 Porterville Irrigation District

CONTRACT TYPE: ANNUAL PROJECT-BASED FEE CONTRACT

Porterville Irrigation District serves 424 landowner accounts across 16,677 acres. PID began onboarding into the Basinsafe™ program in 2022, utilizing surface water Basinsafe™ tools, when GSA reporting requirements became more stringent on their surface water districts. The objective for the district was to assist with replacing an outdated pen and paper accounting system to a streamlined digitized solution. PID is contained within the ETGSA boundary which allows for direct cross-database profile linking at the request of an administrator on either side of the system. PID utilizes the invoicing features for both surface water deliveries and annual assessments.

06 Saucelito Irrigation District

CONTRACT TYPE: ANNUAL PROJECT-BASED FEE CONTRACT

Saucelito Irrigation District encountered similar growing pains to PID due to GSA reporting requirements. The hurdles of overcoming the flexibility of SID's policies ultimately led to the creation of a more advanced, yet streamlined version of the Basinsafe™ surface water delivery system. The limited staffing at SID encouraged further updates to the software that made day-to-day tasks more efficient. SID utilizes surface water Basinsafe™ tools and invoicing features for surface water deliveries, annual assessments, and standby charges. SID serves 174 landowner accounts across 19,890 acres.

07 Consolidated Peoples Ditch Company

CONTRACT TYPE: ANNUAL PROJECT-BASED FEE CONTRACT

Onboarding Consolidated Peoples Ditch Company began in 2022 along with multiple new feature requirements for their unique management practices. CPDC internally manages 15 different share companies by using individual landowner share management tools that were created for the purpose of tracking share transfers and leases along with annual water allocation disbursements. In addition to the base functionality of the surface water tracking system, CPDC staff and landowners utilize a water credit transferring tool that allows their 458 landowners to designate water credits to their specified lands for groundwater accounting purposes. CPDC oversees 66,421 acres.

08 Vandalia Water District GSA

CONTRACT TYPE: ANNUAL PROJECT-BASED FEE CONTRACT

Vandalia Water District has been utilizing Basinsafe™ groundwater and surface water tracking components since 2020 along with LTRID, PIXID, and TPD. In 2024, VWD departed from ETGSA and became their own GSA. The software team assisted in the migration from one database to another, along with all of the grower's historically available credits and data records. In early 2025, software modifications were made to the system to comply with new GSA policies. VWD manages 1,300 acres of farm and domestic lands.

09 Tea Pot Dome Water District GSA

CONTRACT TYPE: ANNUAL PROJECT-BASED FEE CONTRACT

Tea Pot Dome Water District has been utilizing Basinsafe™ groundwater and surface water tracking components since 2020 along with LTRID, PIXID, and VWD. In 2024 TPD departed from ETGSA and became their own GSA. The software team assisted in the migration from one database to another, along with all of the grower's historically available credits and data records. In early 2025, software modifications were made to the system to comply with new GSA policies. TPD manages 3,500 acres of farm and domestic lands.

References



References

JAMES SILVA

CONSOLIDATED PEOPLE'S DITCH

(559) 747-1177

jsilva@cpdc1874.org

JOEL KIMMELSHUE

LANDIQ

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jkimmelshue@landiq.com

JOHN-MICHAEL DOMONDON

LOWER TULE RIVER IRRIGATION DISTRICT

(559) 686-4716

jdomondon@ltrid.org



Costs



Cost Proposal

Task	Description of Activities	Fee
Phase 1: Discovery Phase		
Phase 1	<ul style="list-style-type: none"> In depth review with GSA staff of the "off the shell" application features and current district operations Recommendations on framework configuration and best use of system Updated scope and fee for Phase 2 	T&M (Estimated Budget Varies Upon Needs) \$3,500
Phase 2: Agency Specific Application Development & Deployment Preliminary Fees		
Core Application Development & Configuration Fee	<ul style="list-style-type: none"> Contract initiation - GSA signs and agrees to software setup and one-time development set up fee <ul style="list-style-type: none"> Development fees included in this task: \$55,000 (Fixed Fee) System server requisition Configuration and setup of server GSA database and core Basinsafe™ framework configuration <ul style="list-style-type: none"> Configuration fees included in this task: \$2,500 Deploy software Setup staff accounts and administrative access 	\$57,500
Onboarding	<ul style="list-style-type: none"> System capabilities review with staff – in-depth software overview meeting Data review with recommendations on formatting data appropriately Provide input to staff that can support data preparation efforts 	T&M (Estimated Budget Varies Upon Needs) \$7,500
User Account Setup & Verification	<ul style="list-style-type: none"> Receive formatted landowner (user) data from GSA staff 4Creeks to prepare data for user account importation Setup staff accounts and administrative access, GSA to provide initial landowner (user) data audit Import final landowner (user) data into system 	T&M (Estimated Budget Varies Upon Needs) \$13,000
Testing & Staff Training	<ul style="list-style-type: none"> Test system with specific data Deploy "Beta" version of the application for administrative testing period GSA's final data audits in system Three (3) 2-hour staff training sessions 	T&M (Estimated Budget Varies Upon Needs) \$10,000
Launch for Member Access	<ul style="list-style-type: none"> Work with GSA staff to develop a software launch plan Provide appropriate, useful on-boarding materials Dispense user ID / login information Launch software for member access 	T&M (Estimated Budget Varies Upon Needs) \$8,500
Customization	Includes updates requested to the existing core application that would require substantial reconfiguration efforts to launch for member access (i.e. custom billing and invoicing features, custom reports, staff training beyond 3 meetings, etc.). Customization efforts will be agreed upon by both GSA and 4Creeks and a T&M proposal will be provided for approval before work is started.	Varies
One-Time Development & Configuration Fee		\$57,500
Tasks 1-5 Implementation Service Time & Material Estimate		\$39,000
Total Estimated Cost		\$96,500

Task	Description of Activities	Fee
Phase 3: Annual On-Going Support Services		
On-Call Support	<ul style="list-style-type: none"> Support services will be provided by high-quality, local staff Support will be provided during standard business hours Support services are offered on an hourly basis where support tasks are identified by complexity, length of time to complete, and immediacy Support rates are valued at \$120/hr Example: Support during agency assessments or billing cycles 	T&M (Estimated Budget Varies Upon Needs) \$15,000
Annual Licensing & Subscription Fee Includes: Web-based Access & Data Hosting	<ul style="list-style-type: none"> Agency-specific enterprise-level server configuration for data retention and optimization performance Data confidentiality and encryption Fully supported hardware to ensure uptimes of 98% or greater Low latency, high throughput, and highly redundant data access and storage Built and managed to ensure decades of data is secure and accessible Hardware maintained and replaced at regular/specific intervals to ensure uptime and data security Platform license fee to be billed monthly upon operational setup of system Includes: <ul style="list-style-type: none"> Software optimization (base code management/optimizing) System upgrades (upgrades to system performance/ux/ui) Weekly data backup services Maintaining software documentation / training resources Platform debugging and troubleshooting (Platform critical support) 	Fixed Fee \$45,000/yr (Annual Fixed Fee)
Customization as Requested	Upon request, scope and fees to be provided to client for approval before customization work begins	T&M
Annual On-Going Support Fees		\$60,000



4Creeks, Inc. Fee Schedule – Professional

Fees are based on the median hourly pay rate for employees in each classification, plus, indirect costs, overhead, and profit. These rates are effective for one year from the contract execution date.

Classification	Charges Per Hour	Classification	Charges Per Hour
Architectural Services		Planning Services	
Associate Architect	\$160	Assistant Planner	\$108
Architect	\$185	Associate Planner	\$129
Senior Architect	\$221	Planner	\$149
Principal Architect	\$252	Senior Planner	\$180
		Principal Planner	\$216
Civil Engineering Services			
Assistant Engineer	\$149	Project Manager	
Associate Engineer	\$165	Associate Project Manager	\$124
Engineer	\$180	Associate Project Manager - Design	\$149
Senior Engineer	\$215	Project Manager	\$149
Principal Engineer	\$252	Project Manager – Design	\$175
		Senior Project Manager	\$196
GIS Services		Public Outreach Coordination	
GIS Technician	\$108	Associate Outreach Coordinator	\$108
GIS Analyst/Developer	\$124	Outreach Coordinator	\$129
GIS Manager	\$149		
Drone Pilot	\$180	Software Engineering Services	
		Assistant Software Engineer	\$93
Expert Witness		Associate Software Engineer	\$113
Expert Witness	\$309	Software Engineer	\$139
		Senior Software Engineer	\$170
Land Surveying Services		Structural Engineering Services	
Assistant Surveyor	\$124	Associate Structural Engineer	\$149
Associate Surveyor	\$155	Structural Engineer	\$170
Land Surveyor	\$175	Senior Structural Engineer	\$196
Senior Surveyor	\$200	Principal Structural Engineer	\$221
Principal Land Surveyor	\$235		
Senior Survey Manager	\$165	Technical Services	
1-Man, Survey Crew *	\$185	Project Technician I	\$98
2-Man, Survey Crew *	\$268	Project Technician II	\$113
3-Man, Survey Crew *	\$361	Project Technician III	\$129
		Project Technician IV	\$144
1-Man, Survey Crew – Fresno/Tulare/Tuolumne	\$245		
1-Man, Survey Crew – Kern/Kings	\$245	Utility Design Services	
		Associate Utility Designer	\$129
2-Man, Survey Crew – Fresno/Tulare/Tuolumne	\$400	Utility Designer	\$160
2-Man, Survey Crew – Kern/Kings	\$400	Senior Utility Designer	\$201
3-Man, Survey Crew – Fresno/Tulare/Tuolumne	\$585	Water Consulting Services	
3-Man, Survey Crew – Kern/Kings	\$585	Associate Water Consultant	\$118
		Water Consultant	\$144
		Senior Water Consultant	\$175

Direct Charges

At cost plus fifteen percent (15%):

- Transportation and per-diem expenses (auto mileage @ current IRS rate, off-road charges \$50.00/day)
- Printing and reproduction: \$0.03 per b/w copy, \$0.12 per color copy, \$0.80 per sq. ft. large printing
- Equipment rentals, subcontractors, laboratory analyses

*Prevailing wage rates are subject to change based on the DIR updates.



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