LEGISLATIVE REPORT

Director Saunders

August 2024

District Positions

Federal

Bill	Brief Description	District Position	updates
LIHWAP ACT	Would make the LIHWAP program permanent (US sunset - May 2024)	**Support**	referred to the Committee on Health, Education, Labor, and Pensions

State

Bill	Brief Description	District Position	updates
SB 1110 (Ashby)	Would specify that the Water Board can forgo strict enforcement of water efficiency requirements if there are lower cost water supply options and extends the timeline by two years. https://leginfo.legislature.ca.gov/faces/billCompareClient.xhtml?bill_id=202320240SB1110&showamends=false	**Support**	2024-06-26 Assembly Referred to Appropriations July - lang amended
SB 1072 (Padilla)	Would amend and remedy issues with Prop 218. https://legiscan.com/CA/text/SB1072/id/2925497	**Support**	Ordered to 3rd Reading
AB 2557 (Wilson) **ACWA sponsored**	Ths bill would aid member agencies in defending against Proposition 218 lawsuits by requiring litigants to have participated and raised specific objections during the public administrative process. https://legiscan.com/CA/text/AB2257/id/2921364	**Support**	Passed and amended out of Sen Comm
SB 1088 (Alvarado-Gil)	It is the intent of the Legislature to establish a Rural and Small Community Fire Resilience Program within the Office of Emergency Services to work in coordination with the Department of Water Resources, the State Water Resources Control Board, and other appropriate state entities to develop a program for the distribution of state matching funds to communities within the Wildland Urban Interface, or WUI, to improve water system infrastructure, including upgrading and upsizing waterlines, installing additional fire hydrants of water systems, and enhancing water system delivery to ensure adequate water flow for fire prevention and suppression activities https://legiscan.com/CA/bill/SB1088/2023	**Support**	Amended and Referred back to Assembly Appropriations
AB 1827 (Papan)	Would provide that the fees or charges for property-related water service imposed or increased, as specified, may include the incrementally higher costs of water service due to specified factors, including the higher water usage demand of parcels. https://legiscan.com/CA/text/AB1827/id/2883092	**Support**	Amended ordered to Third Reading
SB 1218 (Newman)	Would declare that it is the established policy of the state to encourage and incentivize, but not mandate, the development of emergency water supplies, and to support their use during times of water shortage. https://legiscan.com/CA/text/SB1218/id/2930729	**Support**	Referred back to Appropriations
SB 1393 (Niello)	Would require the State Air Resource Control Board to establish the Advanced Clean Fleets Regulation Appeals Advisory Committee for purposes of reviewing appeals of denied requests for exemptions from the requirements of the Advanced Clean Fleets Regulation. https://legiscan.com/CA/text/SB1393/id/2932673	**Support**	Reconsideration Granted. Senate Environmental Quality Committee
SB 867 (Dodd)	Climate Resliency Bond https://legiscan.com/CA/text/SB867/id/2829882	**Support**	Passed going to Nov Ballot
Advocacy Coalition	Join ACWA's Coalition to Maintain Funding for Agreements to Support Healthy Rivers and Landscapes	**Support**	
AB 1337 (Wicks)	This bill would authorize the board to issue a curtailment order for any diversion, regardless of basis of right, when water is not available under the diverter's priority of right. Violation would be considered a trespass. https://legiscan.com/CA/text/AB1337/id/2814663	**Oppose Unless Amended**	In Senate Natural Resources and Water Committee - pendng hearing
SB 1255	LIRA Program Bill. Water agencies - must have a Low Income Rate Assistance Program, and funding would be by customers that would not qualify. Customers would automatically be charged a fee unless they "Opt-out" of the contribution fee. Maximum of 10% voluntary contributions for administartive costs. https://legiscan.com/CA/text/SB1255/id/2930767	**Oppose Unless Amended**	In Senate Natural Resources and Water Committee - pendng hearing

Requested Advocacy Position/Changes

None

Neutral/Watch

AB 1820 (Schiavo)	This bill would authorize a development proponent that submits a preliminary application for a housing development project to request a preliminary fee and exaction estimate, as defined. The bill would require a local agency to comply with the request within 10 business days of the submission of the preliminary application. https://legiscan.com/CA/text/AB1820/id/2881906	removed water agencies
SB 937 (Wiener)	This bill makes numerous changes to development fees . Limits when a local agency can collect development fees and connection fees. https://legiscan.com/CA/text/SB937/id/2887560	removed water agencies
AB 460 (Bauer-Kahan)	Fines and Penalties	

Legislative Report - updates

Senate Bill 1110 - Provides options for SWRCB enforcement of water use efficiency regulations
Updated Language:

SEC. 4. *Section 10609.29 is added to the Water Code, to read:*

10609.29. *(a) The board may adopt an enforcement policy to guide its enforcement of regulations adopted pursuant to this chapter.*

(b) Any enforcement policy adopted pursuant to subdivision (a) shall consider enforcement priorities that are consistent with the legislative findings, declarations, and intent established by this chapter.

(c) During the process of formulating, or revising, the enforcement policy adopted pursuant to subdivision (a), the board shall solicit and incorporate input from urban retail water suppliers, local communities, and any other parties or members of the public who may be affected by the board's enforcement of regulations adopted pursuant to this chapter.

(d) Before the board adopts any enforcement policy pursuant to subdivision (a), the board shall hold a public hearing on the policy. At least 60 days in advance of that hearing, the board shall notify all affected parties by notice of hearing through its internet website and release a draft of the enforcement policy for public review.

SEC. 5. *(a) The State Water Resources Control Board may adopt, by emergency regulation, amendments to Chapter 3.5 (commencing with Section 980) of Division 3 of Title 23 of the California Code of Regulations, as may be required pursuant to Senate Bill 1110 of the 2023–24 Regular Session.*

(b) The emergency regulations adopted pursuant to this section shall be adopted by the State Water Resources Control Board in accordance with the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code). The adoption of these regulations is an emergency and shall be considered by the Office of Administrative Law as necessary for the immediate preservation of the public peace, health, safety, and general welfare. Notwithstanding Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government Code, any emergency regulations adopted by the State Water Resources Control Board pursuant to this section shall be filed with, but not repealed by, the Office of Administrative Law and shall remain in effect until revised by the State Water Resources Control Board.

Senate Bill 1088 - Senator Alvardo-Gil Bill worked with Tahoe Public Utility District
Updated Language:
In Assembly Appropriations Comm - Changed
~~Small Community Fire Resilience~~ **to** *Water Infrastructure for Community Wildfire Protection Program*

Assembly Bill 1827 - fees for higher water usage
Updated Language:
To reflect *"incrementally higher* costs *of water service"*
Changed parcel use to water use

Senate Bill 1218 - State to encourage development of emergency water supplies and modify enforcement based on supplies
Language changed from water shortage to -
(a) It is hereby declared to be the established policy of this state to encourage, but not mandate, the development of emergency water supplies, and to support their use during times of ~~water shortage.~~ *drought or unplanned service or supply disruption.*

(c) This section does not require a water supplier to add or modify any operation or demand management plan, or to interfere with any water right or contractual right related to water exchange, conveyance, or storage

ACWA
Association of California Water Agencies

Bringing Water Together

July 22, 2024

The Honorable Buffy Wicks
Chair, Assembly Committee on Appropriations
1021 O Street, Suite 8140
Sacramento, CA 95814

RE: **SB 1255 (Durazo): Water Rate Assistance Program**
POSITION: **OPPOSE UNLESS AMENDED**

Dear Chair Wicks:

The Association of California Water Agencies (ACWA) has an "Oppose-Unless-Amended" position on SB 1255. This bill proposes to require retail water suppliers with more than 3,300 residential connections to implement a water low-income rate assistance (LIRA) program. ACWA agrees with the intent of the bill. **However, SB 1255 would create fiscal uncertainties, and the proposed approach would not allow for successful implementation of the program. ACWA urges the Assembly Committee on Appropriations to hold the bill unless it is amended as suggested in ACWA's mockup (attached).** Following are examples of concerns.

Uncertain Funding Levels – The bill would rely on **voluntary contributions** from ratepayers who would not receive the assistance. **The funding (i.e., total amount of the contributions) for any public water agency's SB 1255 program would be completely uncertain.**

"Voluntary" Contributions (Opt-Out) [Section 116932 (c)(d)(e)] **–** The bill proposes an "opt-out" approach with notice, but many ratepayers would likely not see the notice (e.g., if their water bills are on automatic payment). So many noneligible **ratepayers would be charged the "voluntary" contributions when they were not aware they could opt out**. This would set up a negative reputation for the program from the start. Customers could opt out and seek refunds, but that would create even more funding uncertainty. ACWA is suggesting an "opt-in" approach.

Funding Conundrum (Administrative Costs) [Section 116931 (c)(2)] – Beginning July 1, 2027, the bill would cap administrative costs for the program at not greater than ten percent of the voluntary contributions. This cap would not work because of the uncertain funding amount. As an example, to have the cost covered for one position to administer this program (e.g., $70,000 salary plus $30,000 in benefits), the agency would have to receive over $1,000,000 in voluntary contributions each year, which is highly unlikely for many public water agencies. Agencies could not use rate revenue from noneligible ratepayers to cover the difference because that would violate Proposition 218 (the State Constitution). This provision needs to be deleted.

Communities with Many Ratepayers Just Above Eligibility – Residential ratepayers with an annual household income of no greater than 200 percent of the federal poverty guidelines would be eligible for assistance. ACWA agrees with that threshold. However, funding the proposed rate assistance program would be extremely challenging for communities where many of the noneligible ratepayers have annual household incomes that are not much above the eligibility threshold.

Application of Bill Credit – Drinking Water Not Wastewater [Section 116931 (b)(2)] **– SB 1255 should limit the bill credit to drinking water charges and not apply it to wastewater charges.** SB 1255 would provide that if wastewater charges were on the same bill as drinking water charges, the bill credit would have to be applied for the wastewater charges also. This aspect is problematic. For example, some public water agencies provide drinking water service to all of their customers and wastewater services to some of their customers, etc. There is an **equity issue** if some customers receive a credit for wastewater charges and some customers (who are billed only for drinking water on the water bill) do not receive that additional credit.

Use of Arrearage Data - Needs Assessment [Section 116772 (c)(2)(A) and (B)] **– The bill should not require the collection and use of arrearage data to estimate what funding is needed for a LIRA program for community water systems with fewer than 3,300 connections. Arrearages are not a good basis for estimating this funding need.** Arrearages for nonpayment exist for multiple reasons. Some ratepayers with high incomes may have not paid their bills, and there will be ratepayers with low incomes who have paid their water bills and do not have arrearages, etc. ACWA suggests that the State use existing **income** information the State has and estimate the number of low-income ratepayers for these systems.

Incomplete Process - the bill was **amended in the second house on June 3 to propose a major new program –** a water LIRA program. **No Senate policy committee has heard the proposal, and the Senate Appropriations Committee has not heard the proposal.**

There can be a workable and efficient State water LIRA program in California. However, **ACWA has serious concerns that SB 1255 cannot be successfully implemented.** ACWA remains opposed to SB 1255 unless it is amended as suggested in the attached mockup. We urge your "NO" vote when the Assembly Committee on Appropriations hears the bill. If you have any questions, please contact me at (916) 669-2388 or at cindyt@acwa.com.

Sincerely,

Cindy Tuck

Cindy Tuck
Deputy Executive Director

Legislative Report - additional updates

Senate Bill 1255 - Mandatory Voluntary opt-in program to pay for Low Income rate Assistance plan.

Amendment initially added:
A qualified system that is able to offset and cover all of its program costs without the collection of voluntary contributions may cease collecting voluntary contributions and complying with the related notice requirements set forth in this section. (m) A public water system may choose not to recommend a voluntary contribution for ratepayers that are enrolled in a payment plan or that has arrearages, whether or not the ratepayer is an eligible ratepayer. (n) Except as otherwise provided by this chapter, each public water system is expressly authorized to design and administer its program in the manner of its determination and communicate with its ratepayers in a manner and frequency it determines is appropriate.

Was modified to
If, on or after July 1, 2027, a qualified system can demonstrate the amount of funding available for crisis assistance after accounting for costs directly related to administration of crisis assistance is less than 10 percent of the total amount collected from voluntary contributions, the system may discontinue its program. A qualified system may continue to collect voluntary contributions as necessary to pay for any costs directly related to the program, and shall either refund any remaining funds or distribute them as crisis assistance to residential ratepayers.

Federal Bill: Water Resources Development Act

The Water Resources Development Act is a comprehensive legislative package that provides for the conservation and development of water and related resources. It authorizes the Secretary of the Army, through the Assistant Secretary of the Army for Civil Works, to conduct studies, construct projects and research activities that can lead to the improvement of rivers and harbors of the United States.

WRDA is strictly authorizing legislation; it does not include funding. The funding of WRDA-authorized studies and projects is provided separately through the annual Energy and Water Development appropriations process and, at times, through supplemental appropriations.

District Position Recommendations

Senate Bill 1255 -
Oppose unless amended move to Neutral

The Bill now does provide the ability for the District to not be in the program.

Federal Bill: Water Resources Development Act (H.R. 8812)
Support

The Bill provides authorizing legislation for Georgetown Divide Public Utility District for $20.5 million dollars.

REPORT TO THE BOARD OF DIRECTORS
BOARD MEETING OF AUGUST 1, 2024
AGENDA ITEM NO. 8. B.

AGENDA SECTION:	**ACTION ITEMS**
SUBJECT:	**AUTHORIZE THE EXPENDITURE OF $127,592 TO AWARD CONTRACT TO BRIERLEY ASSOCIATES FOR TUNNEL INSPECTION SERVICES**
PREPARED BY:	Adam Brown, Operations Manager
APPROVED BY:	Nicholas Schneider, General Manager

BACKGROUND

The District operates approximately 70 miles of raw water canal system from Stumpy Meadows to treatment plants for drinking water delivery and irrigation customers on the Georgetown Divide. A section of the raw water delivery system is constructed through Tunnel Hill. The tunnel, spanning approximately 4,900 feet, was constructed in 1959 and last formally inspected in 1994.

DISCUSSION

On May 16, 2024, the District issued a Request for Proposal (**Attachment 1)** for a qualified consultant to perform a formal tunnel inspection of Tunnel Hill. Scope of work includes visual assessment and descriptions of rock mass conditions, water inflow and other conditions such as enlarged sections and rock falls. Conditions will be documented, and a detailed report generated for potential rehabilitation.

By the closing date of June 21, 2024, the District had received two qualified proposals. They were from Brierley Associates (BA) and Delve Underground. BA (**Attachment 2**) met and exceeded the qualifications of the District and was selected as the highest-ranking firm.

The two proposals that were submitted were bid at $163,361 from BA and $84,315 from Delve Underground (**Attachment 4**). Staff determined that technical and safety services provided by Brierley would be a better fit for the District even at a higher cost. In the process of looking at the price of the work being completed staff reached out to Brierley and asked them to renegotiate their bid price and they were able to bring their price to $127,592 (**Attachment 3**).

FISCAL IMPACT

Original cost evaluation of the BA cost proposal was significantly higher than the District's CIP budget of $65,000. The District negotiated a revised scope of work for a total inspection and reporting service cost of $127,592. CIP is proposed to be amended to fund this project.

CEQA ASSESSMENT

No CEQA assessment is associated with inspection and reporting services as there is no possibility that such inspection-only activity may have a significant effect on the environment.

RECOMMENDED ACTION

Staff recommends that the Georgetown Divide Public Utility District Board of Directors adopt Resolution 2024-XX (**Attachment 5**) awarding and, authorizing the General Manager to execute a contract with BA in the amount of $127,592 plus a ten percent contingency of $12,592, totaling $140,184.

ATTACHMENTS

1. Request for Proposal
2. Proposal from Brierley Associates
3. Revised Scope/Proposal from Brierley Associates
4. Proposal from Delve Underground
5. Resolution 2024-XX Awarding Contract to Brierley and Associates

GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

REQUEST FOR PROPOSAL

Raw Water Conveyance Tunnel Inspection

Proposal Submission Deadline (date/time): June 21, 2024 at 2:00 PM

Submit Proposal to:

Adam Brown
Operations Manager
Georgetown Divide Public Utility District Office
6425 Main Street
P.O. Box 4240
Georgetown, CA 95634

REGISTERING YOUR EMAIL ADDRESS

FOR QUESTIONS CONCERNING THIS REQUEST FOR PROPOSAL:

Potential respondents who want to receive changes, additions, and deletions to the RFP, as well as a copy of all the questions and responses by the Georgetown Divide Public Utility District, should register online by following the link on the GDPUD website. The link to open RFPs is at the following website: http://gd-pud.org/bids-proposals

1. INTRODUCTION

The Georgetown Divide Public Utility District (the District) is soliciting proposals to complete an inspection of raw water conveyance tunnel. The tunnel is part of the District larger raw water delivery system that runs generally between the communities of Quintette and Volcanoville approximately 7-miles east of Georgetown.

The District will use a "Qualifications Based Selection" process in determining which firm to select for the contract. The process will include an evaluation and ranking of firms based on set evaluation criteria.

The District will open and review the proposal to establish the top ranked firm. If for any reason an acceptable contract cannot be negotiated with the top ranked firm, negotiations will commence with the next-ranked firm.

The District reserves the right to retain all proposals submitted and to use any ideas in a proposal regardless of whether that proposal is selected.

Proposals submitted will be evaluated by individuals from the District and/or outside agencies. During the evaluation process, the District reserves the right, where it may serve the District's best interest, to request additional information from proposers, or to allow corrections of errors of omissions.

Submission of a proposal indicates acceptance by the firm of the conditions contained in this RFP, unless clearly and specifically noted in the proposal submitted and confirmed in the contract between the District and the firm selected. The District reserves the right, without prejudice, to reject any or all proposals.

1.1 General Description of RFP

This Request for Proposal (RFP) describes the general Scope of Services, necessary RFP components, selection process, and required format of the RFP, as well as a sample copy of the Districts Professional Services Agreement.

1.2 RFP Schedule

Advertisement of RFP	May 16, 2024
Deadline for Questions	May 31, 2024
Response to Questions	June 6, 2024
Deadline for RFP Submittal	**No later than 2:00 PM, June 21, 2024**
Final Selection	Anticipated July 10, 2024

1.3 General Selection Process

The District intends to select a contractor based on demonstrated competence and qualifications for the types of services to be performed at a fair and reasonable price to the public. The District will review all proposals and evaluate them according to the following criteria:

- Qualifications of Team
- Project Understanding and Innovation
- Work Plan / Scope of Work
- Project Schedule
- Similar Experience / References

Contractor may be either selected based on information included in the proposal or the contractor may be requested to interview prior to final selection.

2. BACKGROUND

The District utilizes a 70-mile raw water conveyance system that continuously supplies two, three million gallon per day water treatment plants and delivers raw water to seasonal irrigation customers. The system is constructed with open (unlined and lined canal), pipe, culverts, natural features, syphons, and a tunnel. The tunnel located generally between the communities of Quinette and Volcanoville spans approximately 4,900 feet and is identified a critical District infrastructure. District's objective is for qualified professional to inspect the tunnel and provide a report detailing any findings, condition assets and repair or rehabilitation recommendations.

3. SCOPE OF SERVICES

The District's intent with this RFP is to retain a qualified professional that has the knowledge, experience and capability to inspect raw water tunnel.

3.1 Task 1 – Project Management, Records Review and Schedule

The consultant shall be responsible for providing all contract management and quality control services throughout the duration of the project. The District will provide available construction and inspection records for review upon award. Consultant shall provide schedule updates in conjunction with submittals of invoices.

3.2 Task 2 – Field Inspection

This task includes coordination with the District for field inspection of the tunnel. Based on District operations inspections periods can occur after October 15, 2024, and before winter season.

Inspection activities should include photo documentation of the tunnel every 50 to 100 feet to be delivered on an external hard drive.

3.3 Task 3 – Reporting

Upon completion of tunnel inspection the contractor shall develop a report that details inspection findings, condition assessment and provide repair and/or rehabilitation recommendations.

4. RFP SUBMITTAL REQUIREMENTS

The intent of the requirements is to establish qualifications to oversee quality control and simplify the review process for the District. One signed original, two (2) copies, and one electronic copy of the proposal must be received, and date stamped by the District no later than **June 21, 2024** at **2:00PM**. If a Proposal is sent by mail or other delivery system, the sender is totally responsible for the mail or delivery system delivering the Proposal to the District on or before the deadline.

Proposals shall be clearly marked *"Raw Water Conveyance Tunnel Inspection"* and submitted to:

Adam Brown
Operations Manager
Georgetown Divide Public Utility District
6425 Main Street
P.O. Box 4240
Georgetown, CA 95634

Note: Late submittals or submittals delivered to the wrong location will be rejected.

The District requires the proposer to submit a concise proposal clearly addressing all the requirements outlined in this RFP. The proposal must be signed by proposer's representative authorized to execute a contract between the District and proposer. The proposal must include, at a minimum, the following sections; however, the proposer is encouraged to expand on the scope as needed:

4.1 Cover Letter

- List the name, address, and telephone number of the firm.

- Signed by an authorized representative of the contractor. The contractor shall furnish documentation that the person signing the proposal is empowered with signatory authority for the contractor. The form could be a Corporate Resolution.
- State the proposal is firm for a 90-day period from the proposal submission deadline.
- Provide the name, title, address and telephone number of the individual to whom correspondence and other contacts should be directed during the contractor selection process.
- Provide the location of the contractor's headquarters. In addition, provide the location of any local support offices, which will provide service to the District.
- Acknowledge that the contractor will provide the insurance and indemnification required per the attached Professional service agreement.

4.2 Project Team Information

Contractor must provide the names and positions of all staff proposed including staff for proposed sub-consultants. The proposal should also designate who will be the project manager in charge of the project, and who will be the District's contact throughout the project. It is allowable for a single individual to fulfill multiple roles by the Consultant's staff.

4.3 Project Understanding and Innovation

Include visions or concepts for performing the services.

4.4 Work Plan / Scope of Work

Include a work plan/scope of work meeting the minimum requirements of the Scope of Services identified in this RFP. Consultant is encouraged to modify or expand the minimum Scope of Services if they believe it is necessary to achieve the goals. Include an estimate of man hours.

4.5 Project Schedule

Schedule needs to adequate and reasonable to ensure timely completion of the tasks listed in the work plan/scope of work. Emphasis should be placed on realistic review cycles.

4.6 Sub-Contractor & Work by Others

Identify any and all sub-contractor proposed to serve on the project, with background information for each and particular experience of key personnel, including project descriptions and resumes.

This section should describe all work not included in the proposal. Any work that is needed to complete the project that is not listed in the "Work Done by Others" will be considered part of the

work provided by the Consultant and included in the proposal. Please include a list of tasks which the Consultant expects District staff to perform, information the Consultant expects the District to provide, and an estimated amount of District staff time required for each task of the scope of work.

4.7 Relevant Experience and References

The consulting firm must state the qualifications and experience of the proposed team, emphasizing the specific qualifications and experience acquired while providing services similar to those being sought by the District, particularly for the Project Manager and other key project staff members assigned to the project. Except under circumstances beyond the firm's control, the District will not accept substitutions of key members of the team put forth as part of the winning proposal.

For all staff members, describe their role giving not only their title but also the specific services they will perform and illustrate clearly the applicability of the individual's background, education, and experience to his or her assigned role.

Provide a brief description of at least three similar projects for which the inspection firm has provided services during the past five years. For all referenced projects list the:

- Client (contact person, address and phone number);
- Project description and location;
- Description of services by inspection firm;
- Total value of services provided by inspection firm;
- Inspection firm's project manager;
- Key personnel involved; and
- Sub consultant employed.

4.8 Cost Proposal

Cost proposal shall be submitted under separate, sealed envelope. This section shall include a cost matrix showing the following information, detailed by tasks listed in the Scope of Work:

- The hourly rates for each design team member; and
- Total cost estimate.

The cost proposal shall identify any other direct and indirect costs. The cost proposal shall also include any exceptions or assumptions made in its preparation.

5. SELECTION OF CONSULTING FIRM

The District intends to select a firm based on the, demonstrated competence and qualifications for the types of services to be performed at a fair and reasonable price to the public. The District will review all proposals and evaluate them according to the following criteria:

- Qualifications of Team;
- Project Understanding and Innovation;
- Work Plan / Scope of Work; and
- Similar Experience / References.

Consultant will be selected based on information included in the proposal.

6. QUESTIONS

If you have any questions regarding this RFP, prior to **May 31, 2024**, please contact:

Adam Brown, Operations Manager
Email: abrown@gd-pud.org

7. GENERAL TERMS AND CONDITIONS

7.1 Limitation

This RFP does not commit the District to award a contract, to pay any cost incurred in the preparation of the Consultant's RFP response, or to procure or contract for services or supplies. The District is not responsible for proposals that are delinquent, lost, mismarked, and sent to an address other than that given above, or sent by mail or courier service. The District reserves the right to accept or reject any or all RFP responses received because of this request or to cancel all or part of this RFP.

7.2 Public Records

All proposals shall become the property of the District and will become public records and, as such, may be subject to public review.

7.3 Contract Agreement

Once a proposed contract agreement is accepted, the Consultant will be required to sign the Agreement for Consultant Services and submit all other required certifications and documentation within ten (10) calendar days of the Notice of Selection from the District.

The contents of the submitted proposal will be relied upon and incorporated into the awarded contract and shall become a contractual obligation. Failure of the Consultant to agree to include the proposal as part of the contractual agreement will result in cancellation of the award. The District reserves the right to reject those parts that do not meet with the approval of the District, or to modify the Scope of Services, as agreed by Consultant, in the final negotiated contract.

A sample agreement that will be used for this contract is included as Attachment A. The District will require the selected Consultant to provide the indemnification and insurance required per the attached sample agreement. Consultant is advised to pay close attention to the indemnification and insurance requirements.

ATTACHMENT A

SAMPLE PROFESSIONAL SERVICES AGREEMENT

PROFESSIONAL SERVICES AGREEMENT

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is made and entered into this XXth day of [month] 20XX, (the "Effective Date") by and between the Georgetown Divide Public Utilities District, a California Public Utilities District ("District"), and [CONSULTANT NAME] ("Consultant"). District and Consultant may herein be referred to individually as a "Party" and collectively as the "Parties". There are no other parties to this Agreement.

RECITALS

A. District has determined that consultant services are required for XXX (the "Project").

B. Consultant has submitted a proposal to District that includes a scope of proposed consultant services, attached hereto and described more fully in **Exhibit A** ("Services").

C. Consultant represents that it is qualified, willing, and able to provide the Services to District, and that it will perform Services related to the Project according to the rate schedule included in the scope of proposed consultant services attached hereto as **Exhibit B** (the "Rates").

NOW, THEREFORE, in consideration of the promises and covenants set forth below, the Parties agree as follows:

AGREEMENT

1. Recitals. The recitals set forth above ("Recitals") are true and correct and are hereby incorporated into and made part of this Agreement by this reference. In the event of any inconsistency between the Recitals and Sections 1 through 20 of this Agreement, Section 1 through 20 shall prevail.

2. Consulting Services. Consultant agrees, during the term of this Agreement, to perform the Services for District in connection with the Project. Any request for services in addition to the Services described in **Exhibit A** will be considered a request for additional consulting services and not compensated unless the Parties otherwise agree in writing. No subcontract shall be awarded, or an outside consultant engaged by Consultant unless prior written approval is obtained from District.

3. Compensation. District shall pay Consultant according to the fee schedule set forth in **Exhibit B** for a time and materials cost not to exceed $_____, as full remuneration for the performance of the Services. Consultant agrees to maintain a log of time spent in connection with performing the Services. On a monthly basis, Consultant shall provide District, in reasonable and understandable detail, a description of the services rendered pursuant to the Services and in accordance with the Rates. If the work is satisfactorily completed, District shall pay such invoice within thirty (30) days of its receipt. If District disputes any portion of any invoice, District shall

pay the undisputed portion within the time stated above, and at the same time advise Consultant in writing of the disputed portion.

5. Term. This Agreement shall become effective on the Effective Date and will continue in effect until the Services provided herein have been completed, unless terminated earlier as provided in Section 6 or 7 below (the "Term").

6. Termination. District may terminate this Agreement prior to the expiration of the Term ("Termination"), without cause or reason, by notifying Consultant in writing of District's desire to terminate this Agreement (the "Termination Notice"). Upon receipt of a Termination Notice, Consultant shall immediately cease performing the Services. Consultant will be entitled to compensation, as of the date Consultant receives the Termination Notice, only for Services actually performed.

7. Termination for Cause. Notwithstanding Section 6 above, this Agreement may be terminated by District for cause based on the loss or suspension of any licenses, permits or registrations required for the continued provision of the Services, or Consultant's malfeasance. Termination of the Agreement for cause as set forth in this Section shall relieve District from compensating Consultant.

8. Confidential Information. Consultant understands and agrees that, in the performance of Services under this Agreement or in the contemplation thereof, Consultant may have access to private or confidential information that may be owned or controlled by District and that such information may contain proprietary or confidential details, the disclosure of which to third parties may be damaging to District ("Confidential Information").

Consultant shall not, either during or after the Term, disclose to any third party any Confidential Information without the prior written consent of District. If District gives Consultant written authorization to make any such disclosure, Consultant shall do so only within the limits and to the extent of that authorization. Such authorization does not guarantee that the District will grant any further disclosure of Confidential Information. Consultant may be directed or advised by the District's General Counsel on various matters relating to the performance of the Services on the Project or on other matters pertaining to the Project, and in such event, Consultant agrees that it will treat all communications between itself, its employees and its subcontractors as being communications which are within the attorney-client privilege.

9. Performance by Key Employee. Consultant has represented to District that _____ will be the person primarily responsible for the performance of the Services and all communications related to the Services. District has entered into this Agreement in reliance on that representation by Consultant.

10. Property of District. The following will be considered and will remain the property of District:

A. Documents. All reports, drawings, graphics, working papers and Confidential Information furnished by District in connection with the Services ("Documents").

Nothing herein shall be interpreted as prohibiting or limiting District's right to assign all or some of District's interests in the Documents.

B. Data. All data collected by Consultant and produced in connection with the Services including, but not limited to, drawings, plans, specifications, models, flow diagrams, visual aids, calculations, and other materials ("Data"). Nothing herein shall be interpreted as prohibiting or limiting District's right to assign all or some of District's interests in the Data.

C. Delivery of Documents and Data. Consultant agrees, at its expense and in a timely manner, to return to District all Documents and Data upon the conclusion of the Term or in the event of Termination.

11. Duties of District. In order to permit Consultant to render the services required hereunder, District shall, at its expense and in a timely manner:

A. Provide such information as Consultant may reasonably require to undertake or perform the Services;

B. Promptly review any and all documents and materials submitted to District by Consultant in order to avoid unreasonable delays in Consultant's performance of the Services; and

C. Promptly notify Consultant of any fault or defect in the performance of Consultant's services hereunder.

12. Representations of Consultant. District relies upon the following representations by Consultant in entering into this Agreement:

A. Qualifications. Consultant represents that it is qualified to perform the Services and that it possesses the necessary licenses, permits and registrations required to perform the Services or will obtain such licenses or permits prior to the time such licenses or permits are required. Consultant represents and warrants to District that Consultant shall, at Consultant's sole cost and expense, keep in effect or obtain at all times during the Term of this Agreement, any licenses, permits, and registrations that are legally required for Consultant to practice Consultant's profession at the time the Services are rendered.

B. Consultant Performance. Consultant represents and warrants that all Services under this Agreement shall be performed in a professional manner and shall conform to the customs and standards of practice observed on similar, successfully completed projects by specialists in the Services to be provided. Consultant shall adhere to accepted professional standards as set forth by relevant professional associations and shall perform all Services required under this Agreement in a manner consistent with generally accepted professional customs, procedures, and standards for such Services. All work or products completed by Consultant shall be completed using the best practices available for the profession and shall be free from any defects. Consultant agrees that, if a Service is not so performed, in addition to all of its obligations

under this Agreement and at law, Consultant shall re-perform or replace unsatisfactory Service at no additional expense to District.

13. Compliance with Laws and Standards. Consultant shall insure compliance with all applicable federal, state, and local laws, ordinances, regulations and permits, including but not limited to federal, state, and county safety and health regulations. Consultant shall perform all work according to generally accepted standards within the industry. Consultant shall comply with all ordinances, laws, orders, rules, and regulations, including the administrative policies and guidelines of District pertaining to the work.

14. Independent Contractor; Subcontracting. Consultant will employ, at its own expense, all personnel reasonably necessary to perform the Services. All acts of Consultant, its agents, officers, employees, and all others acting on behalf of Consultant relating to this Agreement will be performed as independent contractors. Consultant, its agents, and employees will represent and conduct themselves as independent contractors and not as employees of District. Consultant has no authority to bind or incur any obligation on behalf of District. Except as District may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of District in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind District to any obligation whatsoever. Consultant is prohibited from subcontracting this Agreement or any part of it unless such subcontracting is expressly approved by District in writing.

15. Insurance. Consultant and all of Consultant's contractors and subcontractors shall obtain and maintain insurance of the types and in the amounts described in this paragraph and its subparagraphs with carriers reasonably satisfactory to District.

A. General Liability Insurance. Consultant shall maintain occurrence version commercial general liability insurance or an equivalent form with a limit of not less than Two Million Dollars ($2,000,000) per claim and Two Million Dollars ($2,000,000) for each occurrence.

B. Workers' Compensation Insurance. Consultant shall carry workers' compensation insurance as required by the State of California under the Labor Code. Consultant shall also carry employer's liability insurance in the amount of One Million Dollars ($1,000,000.00) per accident, with a One Million Dollar ($1,000,000.00) policy limit for bodily injury by disease, and a One Million Dollar ($1,000,000.00) limit for each employee's bodily injury by disease.

C. Automobile Insurance. Consultant shall carry automobile insurance for the vehicle(s) Consultant uses in connection with the performance of this Agreement in the amount of One Million Dollars ($1,000,000.00) per occurrence for bodily injury and property damage.

D. Errors and Omissions Liability. Consultant shall carry errors and omissions liability insurance in the amount of no less than One Million Dollars ($1,000,000.00) per occurrence or greater if appropriate for the Consultant's profession. Architects and engineers' coverage is to be endorsed to include contractual liability. Any deductibles or self-insured

retentions must be declared to and approved by the District. At the option of the District, either the insurer shall reduce or eliminate such deductibles or self-insured retentions with respect to the District, elected and appointed councils, commissions, directors, officers, employees, agents, and representatives ("District's Agents"); or the Consultant shall provide a financial guarantee satisfactory to the District guaranteeing payment of losses and related investigations, claims administration and defense expenses.

E. Other Insurance Requirements. Within five (5) days of the Effective Date, Consultant shall provide District with certificates of insurance for all of the policies required under this Agreement ("Certificates"), excluding the required worker's compensation insurance. Such Certificates shall be kept current for the Term of the Agreement and Consultant shall be responsible for providing updated copies and notifying District if a policy is cancelled, suspended, reduced, or voided. With the exception of the worker's compensation insurance, all of the insurance policies required in this Agreement shall: (a) provide that the policy will not be cancelled, allowed to expire, or materially reduced in coverage without at least thirty (30) days' prior written notice to District of such cancellation, expiration, or reduction and each policy shall be endorsed to state such; (b) name District, and District's Agents as additional insureds with respect to liability arising out of Services, work or operations performed by or on behalf of the Consultant; products and completed operations of the Consultant; premises owned, occupied, or used by the Consultant, or automobiles owned, leased, or hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the District; (c) be primary with respect to any insurance or self-insurance programs covering District or District's Agents and any insurance or self-insurance maintained by District or District's Agents shall be in excess of Consultant's insurance and shall not contribute to it; (d) contain standard separation of insured provisions; and (e) state that any failure to comply with reporting or other provisions of the policy including breaches of warranties shall not affect the coverage provided to the District.

16. Indemnification. Consultant hereby agrees to indemnify and hold harmless District, its agents, officers, employees and volunteers, against all liability, obligations, claims, loss, and expense (a) caused or created by Consultant, its subcontractors, or the agents or employees of either, whether negligent or not, pertaining to or related to acts or omissions of Consultant in connection with the Services, or (b) arising out of injuries suffered or allegedly suffered by employees of Consultant or its subcontractors (i) in the course of their employment, (ii) in the performance of work hereunder, or (iii) upon premises owned or controlled by District. Consultant's obligation to defend, indemnify and hold District and its agents, officers, employees and volunteers harmless is not terminated by any requirement in this Agreement for Consultant to procure and maintain a policy of insurance.

17. Consequential Damages. Notwithstanding any other provision of this Agreement, in no event shall District be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect, or incidental damages, including, but not limited to, lost profits or revenue, arising out of or in connection with this Agreement or the Services performed in connection with this Agreement.

18. Litigation. In the event that either Party brings an action under this Agreement for the breach or enforcement hereof or must incur any collection expenses for any amounts due hereunder the prevailing Party in such action shall be entitled to its costs including reasonable attorney's fees, whether or not such action is prosecuted to judgment.

19. Notices. Any notice or communication required hereunder between District or Consultant must be in writing, and may be given either personally, by registered or certified mail (return receipt requested), or by Federal Express, UPS or other similar couriers providing overnight delivery. If personally delivered, a notice shall be deemed to have been given when delivered to the Party to whom it is addressed. Notices given by registered or certified mail shall be deemed to have been given and received on the first to occur of (a) actual receipt by any of the addressees designated below as the party to whom notices are to be sent, (b) on the date delivered as shown on a receipt issued by the courier, or (c) five (5) days after a registered or certified letter containing such notice, properly addressed, with postage prepaid, is deposited in the United States mail. If given by Federal Express or similar courier, a notice or communication shall be deemed to have been given and received on the date delivered as shown on a receipt issued by the courier. Any Party hereto may at any time, by giving ten (10) days written notice to the other Party hereto, designate any other address in substitution of the address to which such notice or communication shall be given. Such notices or communications shall be given to the Parties at the addresses in this paragraph set forth below:

If to District:

Georgetown Divide Public Utility District
P.O. Box 4240
6425 Main Street
Georgetown, CA 95634
Attention: General Manager

With courtesy copies to:

If to Consultant:

Attention:

20. General Provisions.

A. Modification. No alteration, modification, or termination of this Agreement shall be valid unless made in writing and executed by all Parties.

B. Waiver. The waiver by any Party of a breach of any provision hereof shall be in writing and shall not operate or be construed as a waiver of any other or subsequent breach hereof unless specifically stated in writing.

C. Assignment. No Party shall assign, transfer, or otherwise dispose of this Agreement in whole or in part to any individual, firm, or corporation without the prior written consent of the other Party. Subject to the forgoing provisions, this Agreement shall be binding upon, and inure to the benefit of, the respective successors and assigns of the Parties.

D. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state of California.

E. Venue. Venue for all legal proceedings shall be in the Superior Court of California for the County of El Dorado.

F. Partial Invalidity. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

G. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall constitute an original and all of which shall be deemed a single agreement.

H. Severability. If any term, covenant, or condition of this Agreement is held by a court of competent jurisdiction to be invalid, the remainder of this Agreement shall remain in effect.

I. Audit. District shall have access at all reasonable times to all reports, contract records, contract documents, contract files, and personnel necessary to audit and verify Consultant's charges to District under this Agreement.

J. Entire Agreement. This Agreement sets forth the entire understanding between the Parties as to the subject matter of this Agreement and merges all prior discussions, negotiations, proposal letters or other promises, whether oral or in writing.

K. Headings Not Controlling. Headings used in this Agreement are for reference purposes only and shall not be considered in construing this Agreement.

L. Time is of the Essence. Time is of the essence in this Agreement for each covenant and term of a condition herein.

M. Drafting and Ambiguities. Any rule of construction that ambiguities are to be resolved against the drafting party does not apply in interpreting this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the last day and date below written.

DISTRICT:

GEORGETOWN DIVIDE PUBLIC UTILITIES DISTRICT, a California Public Utilities District

By: _____
, General Manager

Date: _____

Approved as to Form:

_____
, General Counsel

CONSULTANT:

By: _____

Name: _____

Date: _____

EXHIBIT A

Services

EXHIBIT B

Rates

Technical Proposal
Raw Water Conveyance Tunnel Inspection

Prepared for
Georgetown Divide Public Utility District

June 21, 2024

Prepared by:

BRIERLEY ASSOCIATES
Creating Space Underground
1999 25 years 2024

In association with:

BARR

Original

June 21, 2024

Mr. Adam Brown
Operations Manager
Georgetown Divide Public Utility District Office
6425 Main Street, P.O. Box 4240
Georgetown, CA 95634

Re: Raw Water Conveyance Tunnel Inspection

File No: 124141-970

Dear Mr. Brown,

Brierley Associates, in association with Barr Associates, is proud to share our knowledge, experience and work ethic with Georgetown Divide Public Utility District (GDPUD) on this utmost important evaluation of a critical asset that supports the districts mission to:

- **Provide reliable water supplies**
- **Ensure high quality drinking water**
- **Promote stewardship to protect community resources, public health and quality of life**
- **Provide excellent and responsive customer services through dedicated and valued staff**
- **Ensure fiscal responsibility and accountability are observed by balancing immediate and long term needs.**

As specialists in "Creating Space Underground," we will use our knowledge of geologic conditions and ground behavior, along with our understanding of historic and current construction techniques to develop practical solutions that balance immediate and long term serviceability needs of the GDPUD Raw Water Conveyance tunnel.

Brierley Associates' address and telephone number are included at the bottom of this page. The attached signature policy provides documentation that Bill Zietlow, as Senior Associate, is empowered to sign this proposal. This proposal is firm for a 90-day period from the proposal submission deadline.

Brierley Associates' headquarters is located in Denver, Colorado. Project Manager, Nathan Stubley, works out of our office in Woodland Hills, CA. In addition, support will be given by staff in our Moraga, California office and by Barr's Reno, Nevada office.

Our team would like the opportunity to discuss certain aspects of the Professional Services Agreement (PSA), including the insurance and indemnification requirements, should our bid be successful. A summary of our comments on the PSA are included in Appendix A.

Kindest Regards,
BRIERLEY ASSOCIATES CORPORATION

Bill Zietlow, PE
Senior Associate

Correspondence should be directed to:
Nathan Stubley, Associate
6355 Topanga Canyon Blvd., Suite 502
Woodland Hills, CA 91367
Mobile: 323-819-3612
Email: nstubley@brierleyassociates.com

BRIERLEY ASSOCIATES
Creating Space Underground

DATE: July 6, 2020

TO: All Employees

FROM: Brierley Associates Corporation Executive Team

SUBJECT: Signature Policy for Proposals/Contracts and Expenditures/Purchases

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The purpose of this memo is the summarize the minimum levels of review and signature required for contracts and proposals, expenditures and purchases. Within this document, the signatory authority herein sometimes refers to specific personnel, dependent upon level. Signatory authority is defined by level for two categories within this document: Proposals/Contracts, and Expenditures/Purchases. Brierley personnel identified for signature authority for each category and level are as defined below:

- Associate – Current Stockholder, often defined by a minimum level of stock ownership
- Executive – inclusive of the Chief Executive Officer (CEO), Chief Financial Officer (CFO), Chief Operations Officer (COO), and Director of Engineering (DOE)
- Director – An elected and currently serving internal member of Brierley's Board of Directors

Contracts and Proposals
Associates (with ≥2% Ownership) who are familiar with contract language and pitfalls will review all contracts and proposals that commit the company to financial and/or legal obligations. The threshold dollar amounts for these reviews are as follows:

- Up to $100,000: Associate (≥2% Stockholder)
- $100,001 to $250,000: Associate (≥3% Stockholder) or Executive
- $250,001 to $1,000,000: Associate (≥5% Stockholder) or Executive
- $1,000,001 to $2,500,000: Associate (≥5% Stockholder) and Executive
- >$2,500,000: Executive, Associate (≥5% Stockholder), and a Director
- >Current Liability Coverage: Executive, Associate (≥5% Stockholder), and a Director

In addition, all contracts regardless of size, and other documents that legally bind the Corporation, will be reviewed by Brett Gough <BGough@amesgough.com> for insurance purposes, simultaneously with Donovan Hatem AEcontracts@donovanhatem.com for legal purposes.

Expenditures/Purchases
Brierley will have all non-billable expenditures and purchases over $2,500 initially reviewed by an Executive and/or ≥3% Stockholder (excluding routine employee billable expenses for project work such as travel, lodging, and meals). Business development, administration, and software expenses are examples of non-routine expenditures. Additional approvals will be required for larger expenditures/purchases as follows:

- Associate (≥5% Stockholder) – $2,500 up to $5,000
- Executive/CFO - $5,001 to $10,000
- CFO and ≥5% Stockholder - $10,001 to 100,000
- Executive and CFO - >$100,000 or requiring ≥12 months of payments

Table of Contents

Section 1

Project Team Information

Section 1: Project Team Information

Brierley Associates Corporation (Brierley) and Barr Engineering Co. (Barr), serving as a subconsultant to Brierley, have compiled a team that has the capacity, experience, and skills to complete the work detailed in the request for proposal for the District's Raw Water Conveyance Tunnel Inspection. The project management will be undertaken by Mr. Nathan Stubley of Brierley's Woodland Hills, California office with engineering support from Mr. Bill Zietlow from Brierley's Denver, Colorado office. Support from our Subconsultant will be provided out of Barr's Reno, Nevada office.

Description of the Brierley/Barr Team

Brierley Associates is a nationwide tunnel, trenchless, geotechnical, and geo-structural design firm that specializes exclusively in the planning, design, rehabilitation and construction of subsurface projects. Founded in 1999, we have grown to more than 80 geotechnical and geo-structural engineers, and engineering geologists specializing in underground construction, tunneling, trenchless installation. We work on a variety of underground projects in support of owners and contractors during project inception, design, construction, and inspection.

Barr Engineering Co. provides engineering and environmental consulting services to clients across North America and around the world. Barr has been employee-owned since 1966 and traces their origins to the early 1900s. Working together, their 800 engineers, scientists, and technical specialists help clients develop, manage, process, and restore natural resources.

Personnel from Brierley and Barr have the experience, qualifications, registrations, and certifications to inspect the tunnel safely and thoroughly. Our inspection team will focus on constructability, efficiency, and practicality for rehabilitation means and methods.

Together Barr and Brierley have partnered on tunnel rehabilitation and design projects for Minneapolis, Omaha, and Detroit. Our company cultures align around technical expertise, dedication to thorough yet practical solutions, and quality customer service. Together our companies have experience ranging from design to construction in the tunnel inspection and rehabilitation sector to handle the unique complexities of the project Georgetown Divide Public Utility District has described. More information can be found at brierleyassociates.com and barr.com.

Responsible Professional Engineer

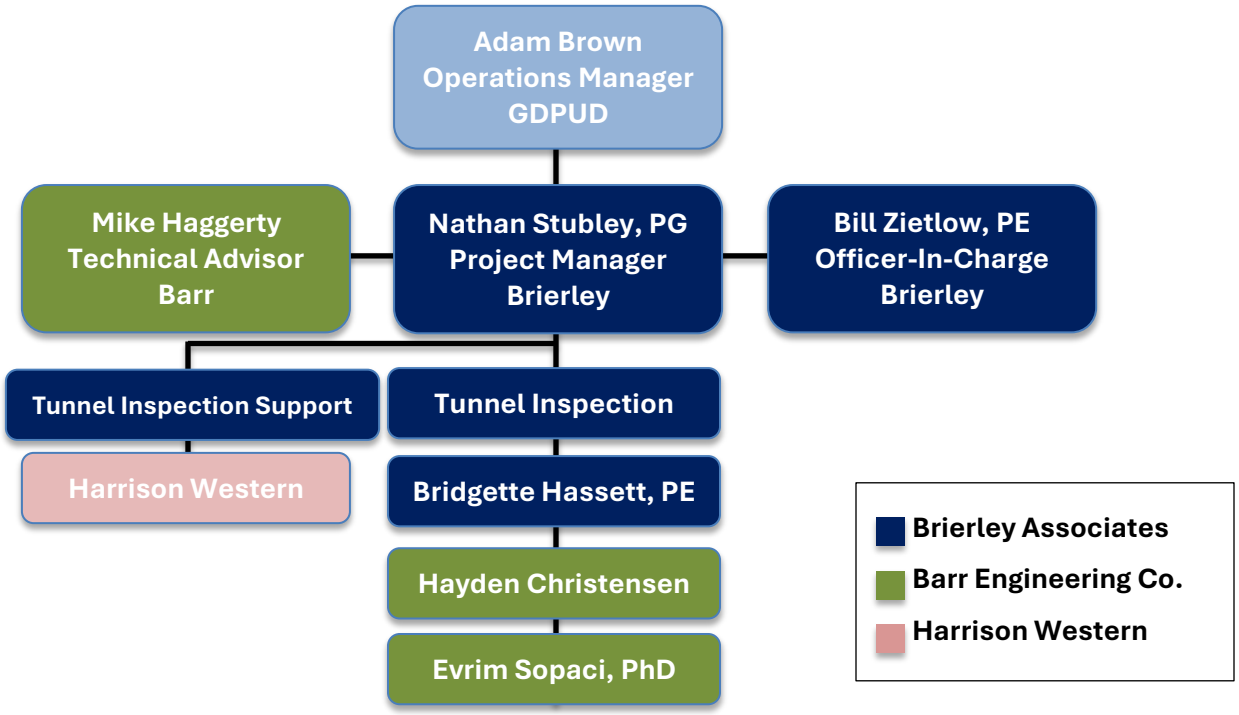
Brierley's Mr. Bill Zietlow (Denver) will serve as the project's responsible professional engineer and will also lead one of the two tunnel inspection teams. Bill is a licensed professional engineer in the State of California.

Project Manager

Mr. Nathan Stubley will serve as project manager (PM) out of our Woodland Hills, California office and will also be on site as the California registered Professional Geologist to support the crews and manage the overall tunnel inspection. Nathan has many years of experience in the underground construction industry.

Resumes for Bill and Nathan, along with the other members of the team, can be found at the end of this section.

A proposed organizational chart of the Brierley/Barr team is provided below.



Tunnel Inspectors

- Ms. Bridgette Hassett from Brierley's Moraga, California office will support the Brierley team as a tunnel inspector.
- Mr. Evrim Sopaci from Barr's Reno, Nevada office will be a tunnel inspector as part of the inspection team.
- Mr. Hayden Christensen from Barr's Duluth, Minnesota office will be a tunnel inspector as part of the inspection team.

Subcontractor Support and Emergency Response Superintendent

- Mr. Troy Guy from Harrison Western's Lakewood Colorado office will support the Brierley team as a superintendent.
- Mr. Rick Thomas from Harrison Western's Lakewood Colorado office will support the Brierley team as a superintendent.

NATHAN D. STUBLEY, PG

SENIOR GEOLOGIST

Mr. Stubley has more than 20 years of experience as a geologist and field project manager. He has been involved in planning and execution of large scale getechnical and geophysical site investigations on marine terminals, highways, transport systems, tunnels and pipelines, offshore wind farms, and industrial developments within North America, Europe, Australia and Africa. Nathan's extensive construction experience encompasses observations and performance documentation during trenchless installations for water/wastewater conveyance and utilities; geologic mapping of shafts and tunnels during construction; and implementing and managing geotechnical instrumentation programs for open cut, braced, and tunnel excavations. His geologic background includes characterization of subsurface conditions using information from field mapping; onshore and marine geotechnical and geophysical subsurface exploration; and in-situ testing. His project management experience includes leading and coordinating permits; production and supervision of project documentation including HSE, Security, and Work Execution Plans; and overall administration of contracts throughout the project lifecycle, including HSE reporting, invoicing, and QA/QC aspects.

Years of Experience: 23

Years with Brierley: 9

Education

BS, Applied Geochemistry, University of Greenwich, UK, 2001

Professional Registrations

Professional Geologist
CA (9375)

Certifications

Confined Space Entry, (Attendant/Supervisor)
First Aid/CPR

Professional Societies

Association of Environmental and Engineering Geologists (AEG)
N American Society for Trenchless Technology (NASTT)

RELEVANT PROJECTS

Clearwater Project Tunnel & Outfall, Sanitation Districts of Los Angeles County, CA
Roles: Geotechnical Investigation Field Manager
Construction Phase: CM Team Member-Geologist
The Sanitation Districts of Los Angeles County (LACSD) undertook a multi-year program to evaluate the feasibility of constructing a new tunnel and ocean outfall to discharge effluent from their Joint Outfall System, which serves a large portion of metropolitan Los Angeles. The new tunnel alignment extends from the Joint Water Pollution Control Plant (JWPCP) in Carson and will tie-in to a manifold structure at Royal Palms State Beach. The total length of the tunnel is approximately 7 miles (11.2km) with an excavated diameter of approximately 21.5-ft (655cm) and a nominal internal diameter of 18-ft (548.6cm). Mr. Stubley has been involved with the project for over 10 years, initially responsible for management of the extensive geotechnical investigation and recently transition to a member of the construction management team. As a member of the CM Team, Mr. Stubley has taken part in tunnel inspection activities and led a team of up to four inspectors during ongoing construction.

Calleguas MWD Santa Susana Tunnel, Chatsworth, CA
Role: Lead Geologist
Responsible for characterizing geologic conditions and faulting near this existing 1.3-mile long, 8-ft diameter water tunnel. The Santa Susana Water Tunnel is a critical piece of Calleguas Municipal Water District's (Calleguas) infrastructure that needs to perform acceptably during a significant earthquake since Calleguas receives 100-percent of its potable water supply

through this tunnel. Mr. Stubley was responsible for the initial geologic assessment, including identification of informational sources and collection of documents for input into the assessment, such as LiDAR data, geologic maps, aerial imagery (including stereopairs), and previous geotechnical reports. Mr. Stubley subsequently developed a program and led a three-day geologic field reconnaissance to collect field measurements on possible faults and bedrock rock mass characteristics and was responsible for preparation of the geologic and geotechnical characterization report. Mr. Stubley was also responsible for the coordination and management of the tunnel inspection involving two inspection teams and multiple subcontractors. The scope of work consisted of tunnel observations, installation of laser targets on a 200 ft spacing for a tunnel survey, a tunnel survey, a ground penetrating radar survey to identify type and spacing of tunnel liner reinforcement, and a LiDAR and photogrammetric survey. The scope required methodical planning and was successfully completed within the maximum 48 hour tunnel shutdown allowed by Calleguas MWD.

Alexander Dam Tunnel Rehabilitation, Kauai, HI
Role: Engineering Geologist (Investigation Phase) and Lead CM/Geologist (Rehabilitation Phase)
Alexander Dam water supply system includes a storage reservoir, outlet tunnels, a forebay, a transmission penstock to a power generating plant, and a final ditch system delivering water for irrigation purposes. The reservoir and existing tunnels are located on the south side of Kauai, approximately 2 miles north of the town of Kalaheo. The two approximately 300-ft long unlined and unsupported rock tunnels, which vary in size from 4- to 8-ft in height, increasing to 20-ft in some areas due to previous collapse, house three HDPE pipes between 18- and 24-in in diameter. These tunnels provide controlled transmission of water through the dam abutment operations downstream. Working directly for the owner, Mr. Stubley participated in the initial tunnel inspection to gather geologic and geotechnical data to be used in the analysis and design development for rehabilitation of dry side portions of the outlet tunnels and a decline access tunnel. Brierley designed the rehabilitation scope consisting of 8-in of shotcrete through sections of tunnel where bedrock had completely decomposed and a combination of rock bolts and 4-in of shotcrete for fresh jointed basaltic bedrock. Mr. Stubley oversaw the Contractor performing the work as part of the construction management.

Kaneohe–Kailua Wastewater Conveyance Tunnel, Southland Construction, Honolulu, HI
Role: Tunnel Geologist
American Council on Engineering Companies – Engineering Excellence 2019
Grand Conceptor Award, People's Choice Award and Honor Award
Brierley served as the design engineer for tunnel and shaft contractor Southland/Mole JV for this 3-mile-long by 13-ft diameter tunnel. At the west end of the alignment is the 77-ft deep by 87-ft diameter Kailua TIPS Shaft; at the east end is the 40-ft deep by 30-ft diameter Kaneohe Shaft. Temporary support for each shaft consists of a 3- to 4-ft thick concrete diaphragm wall installed using a hydromill. The conventionally mined tunnel at the TIPS shaft was constructed through weathered and unweathered rock as a 19-ft horseshoe shaped tunnel which narrowed to 16-ft for the remainder of the 300-ft long starter tunnel. Nathan served as one of Brierley's Tunnel Geologists during construction. Mr. Stubley was Tunnel Geologist responsible for tunnel mapping, identifying the appropriate ground support system, and installation inspection QA/QC.

BILL ZIETLOW, PE

ASSOCIATE ENGINEER

Mr. Zietlow has 27 years of experience in a variety of tunneling and geotechnical engineering experience on heavy civil infrastructure projects including: water, wastewater, and transportation tunnel design and construction; inspection and rehabilitation of tunnels, temporary and permanent earth retention systems, and deep foundations. He is experienced with a variety of ground improvement techniques used to stabilize existing improvements and facilitate tunnel rehabilitation. Bill primarily provides engineering design services for owners and specialty contractors for design-bid-build and design-build projects across the Western and Midwestern United States. He also assists in plan and specification reviews and litigation support for projects across the country involving both tunnels and other types of construction.

Years of Experience: 27

Years with Brierley: 17

Education

MS Geotechnical Engineering, University of Minnesota, 1997

BS Geotechnical Engineering, University of Minnesota, 1995

BS Economics, University of Minnesota, 1990

Professional Registrations

Professional Engineer

CA (77972)

AK, AZ, CO, IA, FL, LA, MN, MT, NV, NM, ND, SD, MO, KS, & UT,

RELEVANT PROJECTS

WATER TUNNEL INSPECTION AND ASSESSMENTS

Calleguas MWD Santa Susana Tunnel, Chatsworth, CA

Responsible for characterizing geologic conditions and faulting near this existing 1.3-mile long, 8-ft diameter water tunnel. The Santa Susana Water Tunnel is a critical piece of Calleguas Municipal Water District's infrastructure that needs to perform acceptably during a significant earthquake since Calleguas receives 100-percent of its potable water supply through this tunnel. Mr. Zietlow performed tunnel observations and assisted with a ground penetrating radar survey to identify type and spacing of tunnel liner reinforcement.

Denver Water Tunnel Inspection Manual, Denver, CO

Brierley managed the revisions to the Denver Water Tunnel Inspection Manual, which they originally prepared in 2008. In 2013, Denver Water retained Brierley to update the manual to be comprehensive for use by facility caretakers, Denver Water technical staff, and other outside consultants and contractors. The manual has become the standard document used in inspections of all of Denver Water's tunnels and underground facilities. Mr. Zietlow had a significant role in development of the manual and worked directly with staff from Denver Water.

Gumlick Tunnel, Clear Creek County, CO

Mr. Zietlow performed the reconnaissance condition survey inspection of the 3.0 mile long Gumlick Water Tunnel. This reinforced concrete-lined tunnel is a 7-foot diameter horseshoe shape. Brierley's inspection team worked with the owner to inspect the tunnel lining for major defects and assess the tunnel's general condition. A report was prepared, including photo

documentation and measurements of noted defects. Mr. Zietlow helped prepare the final report and assisted with design of repairs.

Vasquez Tunnel, Clear Creek County, CO
Mr. Zietlow performed the reconnaissance condition survey inspection of the 3.4 mile long Vasquez Water Tunnel. The reinforced concrete lined tunnel is a 7-foot diameter horseshoe shape. Our inspection team worked with owner to inspect the lining for major defects and assess the general condition of the tunnel. A report was prepared that included photo documentation and measurements of noted defects. Mr. Zietlow helped prepare the final report and assisted with repair design.

Arrow Tunnel, Grand County, CO
Mr. Zietlow performed the reconnaissance condition survey inspection of the tunnel. Tunnel length is 3,972 feet. It is both unlined and concrete lined, with an approximate 8-foot high by 6-foot wide horseshoe shape. Brierley's inspection team worked with owner to walk the tunnel, inspecting the lining for major defects and assessing the general condition of the tunnel. A report was prepared that included photo documentation and measurements of noted defects. Mr. Zietlow helped prepare the final report and assisted with design of repairs.

St. Louis Tunnels, Lake County, CO
Mr. Zietlow performed the reconnaissance condition survey inspection of the 3 tunnel system. The tunnels range in length from 2,250 to 2,828 feet. The tunnels are either unlined or concrete lined and are approximately 8-foot diameter. Brierley's inspection team worked with owner's staff to walk the tunnel inspecting the lining for major defects and assessing the general condition of the tunnel. A report was prepared that included photo documentation and measurements of noted defects. Mr. Zietlow helped prepare the final report and assisted with design of repairs.

Shoshone Hydroelectric Plant Adit No. 9 Rehabilitation, Glenwood Springs, CO
The Shoshone Power Plant, located on the Colorado River just east of Glenwood Springs, has been in operation since 1915. One component of the plant is "old" adit No. 9. This horse-shoe shaped tunnel had a variety of condition concerns, namely the leaky bulkhead separating the "old" adit and the "new" No.9 adit. Brierley was selected to evaluate the condition of the bulkhead, existing timber supports and concrete lining. Brierley inspected the tunnels and bulkhead. Subsequently, we provided designs for temporary and permanent support to: improve the tunnel linings and bulkhead; remove flow restrictions and, replace damaged structural elements. Brierley also provided a construction cost estimate for the rehabilitation work. Mr. Zietlow was the Engineer of Record and the Design Lead.

MIKE HAGGERTY, PE

TECHNICAL ADVISOR

Mike has over 22 years of experience managing complex geotechnical engineering projects involving mines, tunnels, dams, and slope stability. Mike will contribute to the project as principal in charge by taking responsibility for its long-term success. His expertise includes tunnel rehabilitation and inspection, complex project management, and ground control at mine sites. Mike will enhance the project deliverables by providing oversight, reviewing work product, and serving as a technical resource. He is underground MSHA and confined space OSHA certified and has participated in over 40,000 linear feet of tunnel assessments.

Years of Experience: 23

Years with Barr: 18

Education

MS, Geological Engineering, University of Minnesota – Twin Cities, 2004

BGeoE, Geological Engineering, University of Minnesota – Twin Cities, 2001

BS, Geology, University of Minnesota – Twin Cities, 2001

Training

MSHA Training – surface and underground

OSHA 10 Hour Training

Professional Registrations

Professional Engineer: MN, FL, IA, LA, IA, MI, MS, NM, ND, TX

Certification

MSHA Surface and Underground Miner Certified

RELEVANT PROJECTS

Confidential client; confidential mining project; Nevada; project principal

Provided coordination, oversight for geotechnical investigation, laboratory testing, slope stability analysis, and reporting for open-pit mine development at a lithium mine site in northern Nevada. The field investigation program consisted of geotechnical boring, point-load testing data, downhole televiewer data capture and analysis, and sample selection for laboratory testing. Responsibilities included oversight of subcontractors, including the driller, televiewer service provider, and testing laboratory.

Minnesota Department of Transportation; I-35W stormwater storage project; Minnesota; engineer of record and project manager

Served as engineer of record and project manager for the concept development of deep-storage facilities along Interstate 35W for the Minnesota Department of Transportation; the project is being administered by construction manager/general contractor (CM/GC) delivery. Provided oversight of hydraulic and geotechnical assessments to develop concepts for additional underground stormwater storage along I-35W, including deep structures with shafts and possible tunnel construction. Oversaw development of the geotechnical data report (GDR) and geotechnical interpretive report (GIR) for glacial alluvium deposits, St. Peter Sandstone, Glenwood Shale, and Platteville Limestone. Worked collaboratively with design partners on addressing constructability issues in the design documents.

Specifically managed multiple phases of geotechnical investigation and assessment, including two field pump tests to help determine the surrounding formation's hydraulic properties. Managed subcontractor relationships, including those for hollow-stem auger, mud-rotary, dual-casing, and rotosonic drilling; laboratory testing for geotechnical parameters; and multiple lines of MASW geophysical investigation.

BARR

Confidential; Underground Mine Development; Michigan; engineer of record
Served as engineer of record and project manager for stability analysis of underground rock pillars and a rock bolt design at a former underground copper mine in the Upper Peninsula of Michigan. Redevelopment of the site required a review of existing hard-rock pillars, which supported an open underground area. Work consisted of a geotechnical investigation, 3D modeling, design of rock bolts, and design of additional pillar support. Barr worked with the owner and contractor during ground control upgrades to confirm that the installed supports corresponded to design requirements. Barr oversaw field determination of in-situ stresses through CSIRO hollow inclusion cell testing. Stability of the pillars was performed using Midas software.

Minnesota Department of Transportation; I-35W stormwater tunnel rehabilitation; Minnesota; engineer of record
Served as the engineer of record for the design of an I-35W stormwater tunnel rehabilitation for the Minnesota Department of Transportation (MnDOT). Roles includes waling observation of more than 25,000 linear feet of stormwater tunnel ranging in diameter from 8 to 13 feet. Work included assessment and documentation of tunnel condition and prioritization of the defects for repair. Barr prepared plans a nd specifications for tunnel repair including spalling repair, shotcrete lining, crack sealing, and contact ground for void filling. Barr provided bid and construction administration for the owner throughout construction of the tunnel repair.

City of Minneapolis; stormwater-tunnel rehabilitation -various projects; Minnesota; engineer of record
Served as the engineer of record for design of a stormwater-tunnel rehabilitation project in the city of Minneapolis. Coordinated tunnel inspections including development of safety plans and safety standby teams.

Capital Region Watershed District; Trout Brook stormwater sewer interceptor replacement project; Minnesota; geotechnical design engineer of record
Serving as geotechnical design engineer of record for Trout Brook stormwater sewer interceptor replacement project in St. Paul. Work included tunnel inspection and assessment, design for replacement and foundation rehabilitation, and field oversight of construction of foundation upgrades and helical anchor piles and resistance piers installations**.**

EVRIM SOPACI, PHD

GEOTECHNICAL ENGINEER/TUNNEL INSPECTOR

Evrim has over two decades of experience managing and conducting surface and under-ground geotechnical field investigations, drilling programs, rock and soil characterizations, geohazard studies, and slope stability analyses for both civil- and mining-related projects. This work has involved geotechnical characterization and engineering analysis for highways, dams, hydropower plants, underground structures, and onshore pipelines. Evrim's work in slope stability has entailed open-pit inspections, slope-monitoring and ground-control reviews, drilling programs, and rock-slope support designs. He will contribute to the project as a tunnel inspector and senior geotechnical engineer.

Years of Experience: 23

Years with Barr: 2

Education

BSc, Geological Engineering, Middle East Technical University, 2000

MSc, Geological Engineering, Middle East Technical University, 2003

PhD, Geological Engineering, Middle East Technical University, 2012

Affiliations

ISRM Turkish National Society for Rock Mechanics (TUKMD)

IAEG Turkish Society for Engineering Geology

Turkish Road Association

Society for Mining, Metallurgy and Exploration

Geological Society of Nevada

RELEVANT PROJECTS

NextEra Energy; Eagle Mountain Pumped Storage Project; California; senior geotechnical engineer
Currently providing support for the project tasks including on- site field geotechnical data collection from core drillings along power tunnel, core sampling for laboratory testing, and reporting.

Specialty Granules LLC; Panamint Valley Limestone Quarry; California; senior geotechnical engineer
Provided support for the project tasks including on-site field geotechnical data collection from core drillings and surface rock mass mapping, sampling for laboratory testing, pit slope stability analysis and reporting.

North American Coal Corporation and Lithium Americas; Thacker Pass lithium mine; Nevada; senior geotechnical engineer
Provided support for the project tasks, including on-site field geotechnical data collection from rock coring, sampling for laboratory testing, pit slope stability analysis, and reporting.

McEwen Mining; gold bar mine; Nevada; senior geotechnical engineer
Provided senior review and support for project tasks, including pit wall inspections, geotechnical data review, and slope monitoring implementation.

Florida Canyon Mining; Florida Canyon mine; Nevada; senior geotechnical engineer
Provided senior review and support for the project tasks, including on-site field geotechnical data collection from drillings, sampling for laboratory testing and reporting.

Work before Barr
Temelsu International Engineering Services; Türkiye; senior geological engineer

State Highways; tunnel rehabilitation works; Türkiye; senior geological engineer
For five different tunnels, evaluated and processed existing geotechnical data, completed rock mass characterization and classification using Q-system, compared tunnel supports for retrofitting and strengthening of the existing tunnels and viaducts in clayey limestone, siltstone, clay stone, marl, co-authored geological and geotechnical engineering reports.

State Highways; tunnel support design; Türkiye; senior geological engineer
For 11 different tunnels, developed, supervised and managed field and laboratory geotechnical tests, performed rock mass characterization for preliminary tunnel support design using Q -system, RMR and GSI Classifications in andesite, basalt, tuff, agglomerate, limestone, volcano-sedimentary rocks, performed two-dimensional finite element numerical analysis of feasibility level tunnel support design with software Phase 2, co-authored geological and geotechnical engineering reports.

State Highways; tunnel support design; Türkiye; senior geological engineer
For 10 different tunnels, participated in developing, supervising and managing field and laboratory geotechnical tests, completed rock mass characterization for preliminary tunnel support design using Q -system, RMR and GSI Classifications in andesite, basalt, tuff, agglomerate, limestone, volcano-sedimentary rocks; authored geological and geotechnical engineering reports .

State Highways; tunnel support design; Türkiye; senior geological engineer
For two different tunnels, Evaluated and processed field and laboratory geotechnical data, performed rock mass characterization for preliminary tunnel support design using Q-system, RMR and GSI Classifications in andesite, basalt, tuff, agglomerate, limestone, volcano-sedimentary rocks, performed two-dimensional finite element numerical analysis of feasibility level tunnel support design with software Phase 2, authored geological and geotechnical engineering reports.

State Highways; tunnel support design; Türkiye; senior geological engineer
Developed, supervised and managed field and laboratory geotechnical tests, performed rock mass characterization for preliminary tunnel support design using Q-system, RMR and GSI Classifications in andesite, tuff, Tertiary sandstone, claystone, siltstone; authored geological and geotechnical engineering reports.

State Highways; tunnel support design; Türkiye; senior geological engineer
Developed, supervised and managed field and laboratory geotechnical tests, performed rock mass characterization for preliminary tunnel support design using Q-system, RMR and GSI Classifications in limestone, sandstone, schist, serpentinite, basalt and ultramafic rocks as part of ophiolitic complex; authored geological and geotechnical engineering reports.

Soyak Enerji, Güllübağ Dam and HEPP, Türkiye, senior geological engineer
Completed rock and soil site characterization, provided support for dam foundation, tunnel support design, grout curtain and rock slope geotechnical assessments for construction in granodioritic rocks, and Quaternary alluvium and slope debris; developed rock mass characterization and material properties for stability modelling, authored geotechnical engineering report.

BRIDGETTE HASSETT, PE

TUNNEL INSPECTOR

Ms. Hassett is a geotechnical engineer with nine years of professional engineering experience on infrastructure, commercial, and residential construction projects. Ms. Hassett has worked on construction projects involving deep excavations, retaining walls, tunnels, pipelines, deep and shallow foundations, ground improvement, and assessment and repair of slope failures and seismically-induced damage. Ms. Hassett's experience includes management and performance of geotechnical investigations, geotechnical report preparation and performance of construction observations. Ms. Hassett has experience performing slope stability, liquefaction, lateral spreading, and settlement analyses, design of temporary and permanent earth-retaining structures, and structural steel design. Ms. Hassett has performed geotechnical construction observation and inspection services for projects throughout the United States and New Zealand.

Years of Experience: 9

Years with Brierley: 2

Education

MS, Civil (Geotechnical) Engineering, University of California, Berkeley, 2016

BS, Civil & Environmental Engineering, University of California, Los Angeles, 2014

Professional Registration

Professional Engineer: CA (#92127)

Certifications

FHWA NHI 130110 Tunnel Safety Inspection

OSHA Confined Space Training

Professional Societies

Deep Foundations Institute Member

RELEVANT PROJECTS

Calleguas MWD Santa Susana Tunnel, Chatsworth, CA
Role: Inspector

Responsible for characterizing geologic conditions and faulting near this existing 1.3-mile long, 8-ft diameter water tunnel. The Santa Susana Water Tunnel is a critical piece of Calleguas Municipal Water District's (Calleguas) infrastructure that needs to perform acceptably during a significant earthquake since Calleguas receives 100-percent of its potable water supply through this tunnel. Brierley Associates was responsible for the coordination and management of an inspection of the existing 8-ft diameter water tunnel. The Santa Susana Water Tunnel is a critical piece of Calleguas Municipal Water District's (Calleguas) infrastructure that needs to perform acceptably during a significant earthquake since Calleguas receives 100-percent of its potable water supply through this tunnel. Brierley previously performed a geologic assessment of the tunnel. The scope of work consisted of tunnel observations, installation of laser targets on a 200 ft spacing for a tunnel survey, a tunnel survey, a ground penetrating radar survey to identify type and spacing of tunnel liner reinforcement, and a LiDAR and photogrammetric survey. The scope required methodical planning and was successfully completed within the maximum 48 hour tunnel shutdown allowed by Calleguas MWD. Ms. Hassett's role on the project included tunnel inspection, processing data obtained during tunnel inspection, review of LiDAR survey data, performing condition state assessment of observed defects, and report preparation.

Second Lower Feeder Reach 9, Long Beach, CA
Role: Engineer
The existing Second Lower Feeder Pipeline is an approximately eight-foot diameter water pipe in the Los Angeles area owned by the Metropolitan Water District of Southern California (MWD). The Reach 9 portion of the pipe is located in Long Beach and crosses the active Newport-Inglewood fault. This project consisted of analysis of the performance of the pipe in the event of surface fault rupture following an earthquake on the Newport-Inglewood fault. Ms. Hassett reviewed as-built drawings for the pipe, characterized subsurface conditions along the portion of Reach 9 adjacent to the fault, and developed bi-linear soil spring parameters to be used for structural modeling of the pipe (by others).

Anderson Dam Tunnel Project, Santa Clara County, CA
Role: Engineer
Brierley Associates designed 10,000 feet of microtunneling as part of a new diversion system that will allow for releases from the existing Anderson Lake. Ms. Hassett assisted in performing analysis to assess the stability of the lake slope during the breakout of the microtunnel boring machine. This involved review of subsurface information to determine appropriate strength parameters to be used within rock formations present at the site.

HAYDEN CHRISTENSEN

TUNNEL INSPECTOR

Hayden has over five years of geotechnical engineering experience on projects that involve tunnels and underground construction, slope stability, mining, fuels, and renewables.

Years of Experience: 5

Years with Barr: 1

Education

MS, Geological Engineering, University of Minnesota – Twin Cities, 2004

BGeoE, Geological Engineering, University of Minnesota – Twin Cities, 2001

BS, Geology, University of Minnesota – Twin Cities, 2001

Training

MSHA Training – surface and underground

OSHA 10 Hour Training

Professional Registrations

Professional Engineer: MN, FL, IA, LA, IA, MI, MS, NM, ND, TX

Certification

MSHA Surface and Underground Miner Certified

RELEVANT PROJECTS

City of Minneapolis; Phillips storm tunnel inspection; Minneapolis, MN; project engineer
Inspection of 3,000 feet of concrete liner storm tunnel in Minneapolis using NAASCO grading system. Led deliverable which included inspection report with recommended repair concepts.

Capitol Region Watershed District; Trout Brook Interceptor tunnel repairs Sta 135+00 to 180+50; St. Paul, MN; field engineer
Provided construction oversight of concrete-tunnel liner repairs. Performed ground penetrating radar (GPR) survey of concrete to assess condition, depth to reinforcement, and presence of voids with and behind the tunnel liner.

Savion, LLC; Clermont County Ohio solar field; Clermont County, OH; geotechnical engineer
Ongoing analysis of the risks to a proposed solar development from the presence of an underground mining operation below a portion of the proposed development. Tasks include an assessment of underground-mine pillar stability and potential surficial effects from mining blast vibrations.

Tunnel and underground work before Barr
Hayden previously served as an underground geotechnical and tunneling engineer for another engineering consultant in Minneapolis with work that included:

City of Minneapolis; Central City parallel tunnel; Minneapolis, MN; project engineer
Various inspection, design, and construction observation roles for a new 4,200-foot stormwater tunnel below downtown Minneapolis. Project roles included design inspection and survey; construction inspection of mining, ground support installation, and concrete pours; and support of geotechnical baseline and data reports.

Minnesota Department of Natural Resources; Soudan Mine shaft rehabilitation; Soudan, MN; project manager
Rehabilitation of 500 feet of unlined mine shaft through the banded-iron and Ely greenstone formations at Lake Vermilion-Soudan Underground Mine State Park. Tasks included detailed geostructural inspection and mapping, ground control design, cost estimation, construction oversight and project administration.

BARR

City of St. Paul; Kittsondale storm tunnel inspections; St. Paul, MN; geotechnical engineer
Various detailed inspections in the Kittsondale storm-tunnel system using NAASCO tunnel-grading system. Deliverables included inspection reports with findings and repair recommendations and estimated costs.

Lumen; utility tunnels; St. Paul, MN; geotechnical engineer
Various geostructural assessments of unlined sandstone electrical-utility tunnels for void identification, additional drillhole installation, and condition of electrical rack connections.

City of St. Paul; outfalls Inspection Inventory; St. Paul, MN; geotechnical engineer
Lead inspector of 185 city stormwater outfalls, including structural and geologic conditions of the outfall. Deliverable included detailed inspection report with repair recommendations and priority ranking for urgency of repairs.

Minnesota Department of Natural Resources; Mystery Cave Cathedral Room; Spring Valley, MN; geotechnical engineer
Geostructural inspection of limestone cavern where a previous rockfall in a closed section of the cave had damaged the entrance stairway. Tasks included mapping geologic structures including bedding, jointing, and areas of groundwater infiltration to design repair methods and ongoing stability monitoring.

Metropolitan Council Environmental Services; Channel Rock Cavern inspection; Minneapolis, MN; geotechnical engineer
Geostructural inspection to assess the effect of potential rockfall hazards on the condition of the 1-MN-340 sanitary interceptor tunnel that intersects a portion of the cavern. Tasks included mapping geologic struc - tures, including bedding, jointing, and groundwater infiltration, and reviewing 3D scan data to provide a condition assessment to the council.

University of Minnesota; geostructural inspection of East River Road parking garage; Minneapolis, MN; project engineer
Inspection of the geostructural conditions of this garage on the East Bank Campus, including the condition of the unlined Platteville Limestone, reinforced shotcrete covering the Glenwood Shale and St. Peter Sandstone, drainage conditions, and corrosion of steel walkways. Deliverable included inspection report with recommended repair and remediation concepts.

Section 2

Project Understanding and Innoviation

Section 2. Project Understanding and Innovation

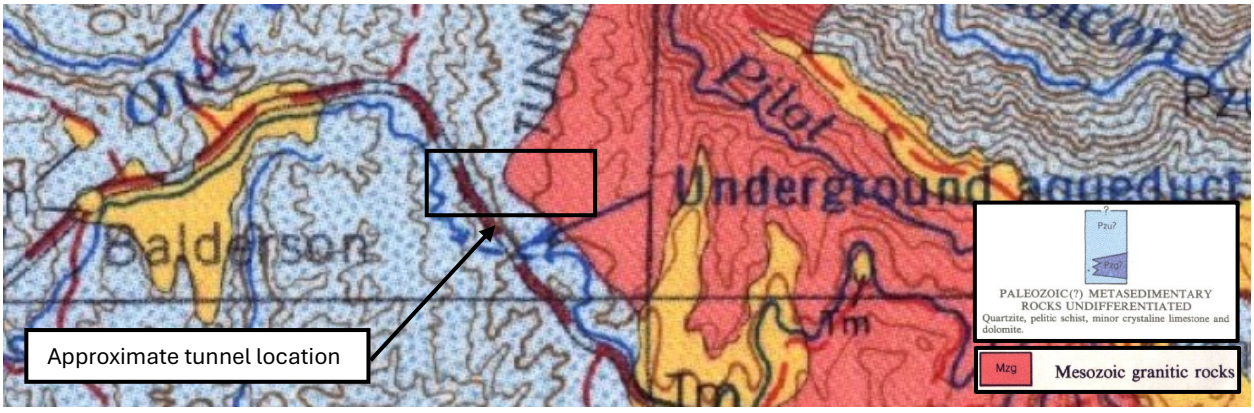
1 - Project Understanding

The District is responsible for the provision of domestic treated and irrigation water serving multiple communities within El Dorado County, California. This water originates from the approximately >21,000 acre foot Stumpy Meadows Reservoir and travels through approximately 70 miles of open ditches, pipelines, tunnels and conduits to Walton Lake Treatment Plant and Sweet Water Treatment Plant.

The El Dorado conduit tunnel, approximately 6 miles downstream of the Stumpy Meadows Reservoir, was constructed in 1959 and is a vitally important asset considering many of the District's served communities are downstream of this tunnel. We understand the District would like to perform a condition assessment of this tunnel, which consists of an inlet portal, approximately 4900 ft of unlined 8 ft horseshoe shaped tunnel, and an outlet portal. The purpose of the inspection is for preventative maintenance, such that if areas of potential risks are identified that might compromise the integrity of the tunnel, recommendations for repair and rehabilitation can be given.

Based on our review of the documents provided with the RFP and Q&A document, we understand the tunnel is unlined. The approximate location of the tunnel suggests it was constructed in an area where undifferentiated Paleozoic rocks consisting of pelitic schist, quartzite, and crystalline limestone and Mesozoic granitic rocks are present, based on the local geologic map, as shown in Figure 1 below. Core holes shown on as-built drawings provided in the "Response to Questions" document show at towards the inlet portal, actual conditions in the upper portion of the tunnel consisted of quartz schist, while above the tunnel towards the outlet portal, slates and phyllites, with micaceous gouge and brecciated material were identified. Our assessment criteria for the inspection will therefore rely more on rock mass characteristics than typical lined tunnel concrete standards. The presence of gouge and cemented brecciated material suggests movement to some extent, therefore particular attention will be given in this area. A California certified Professional Geologist (PG) will be a member of the team overseeing the overall inspection and provide support to tunnel inspectors.

Figure 1. Excerpt from the Geologic map of the Sacramento quadrangle, California (Wagner et al, 1981)



Our proposal includes a scope for the tunnel inspection based on the requirements of the RFP consisting of a visual assessment and documentation of tunnel conditions. The visual assessment

will include descriptions of rock mass conditions, water inflow, and other observations such as enlarged tunnel dimensions which may be indicative of previous collapse. As required by the RFP, photographs of the tunnel will be taken on a minimum spacing of 50 to 100 feet, but also on an as needed basis of any other areas which may require continued monitoring or assessment, to be delivered on an external hard drive. In addition to this we have included tunnel access and support services, which would entail additional personnel to provide support at the tunnel portals and throughout the tunnel, including air monitoring, communications, and general safety.

We have also provided details of optional tasks which the District may find add value to the inspection, but which have not been included within the final scope of work, program, or cost proposal. These optional items include conducting a LiDAR scan of the tunnel and associated survey and a Ground Penetrating Radar survey at the tunnel portals. Further information is included below in our Innovation section.

2 - Innovation

LiDAR Survey

We have performed tunnel inspections recently which utilized a track mounted robot with various attachments capable of collecting LiDAR data and a complete photogrammetric scan of a tunnel. However, ease of access and an improved (lined) tunnel invert are required for collection of high quality, accurate data which do not appear to be present at the El Dorado conduit. Nevertheless, alternative solutions are available including our inhouse handheld Hovermap LIDAR scanner to generate a point cloud map from which tunnel characteristics can be determined, such as tunnel dimensions and tunnel wall features. The data collected can be used for both comparison with future surveys, identification of sections with dimensions varying significantly from normal, and for preparation of tunnel improvement designs and design drawings should any rehabilitation be required. An example of the data collected from another project completed by the Brierley Team is shown in Figure2 below.

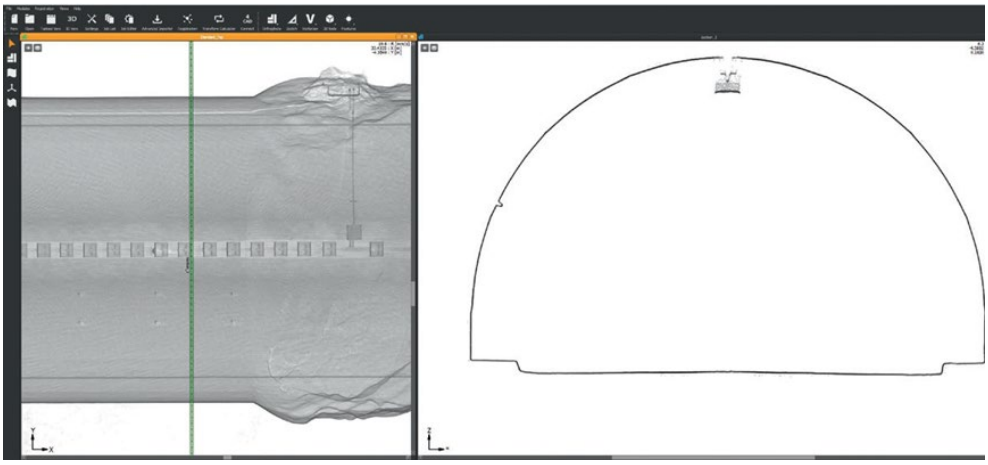


Figure 2. Example of LiDAR scan data

To conduct the LiDAR survey, reflective 3D targets would need to be installed on both sides of the tunnel at 100 to 200 ft spacing. A survey crew would then survey these targets to generate baseline horizontal and vertical datum to which the subsequent LiDAR scan can be tied into. This ensures accuracy and allows for repeatability/comparison for future surveys. Once the targets have been

installed and surveyed, the LiDAR scan is conducted by traversing the entire tunnel in one direction and then returning in the opposite direction.

We have not included any costs associated with this potential scope of work as additional information would be required to provide an accurate cost estimate. If this optional scope is of interest to the District, we would be happy to provide additional details.

Ground Penetrating Radar of Tunnel Portals

Tunnel portals are also sensitive to seismic risk and therefore analysis of their condition and confirmation their construction conforms to the as-built drawings is considered a key aspect when considering tunnel performance. We have therefore provided details below for conducting a Ground Penetrating Radar (GPR) survey using a handheld scanner as an optional task.

The GPR survey would be used to characterize general properties of the support installed prior to the placement of the cast-in-place concrete portal structures, including:

- Reinforcement/support type (steel sets, rebar).
- Spacing between reinforcement/supports.
- Areas without installed reinforcement/support.

This data can be collected using handheld scanners such as Proceq 8800 or StructureScan Mini XT and technical specification sheets are included in Appendix B. An example of the data that can be collected is shown in Figure 3 below.

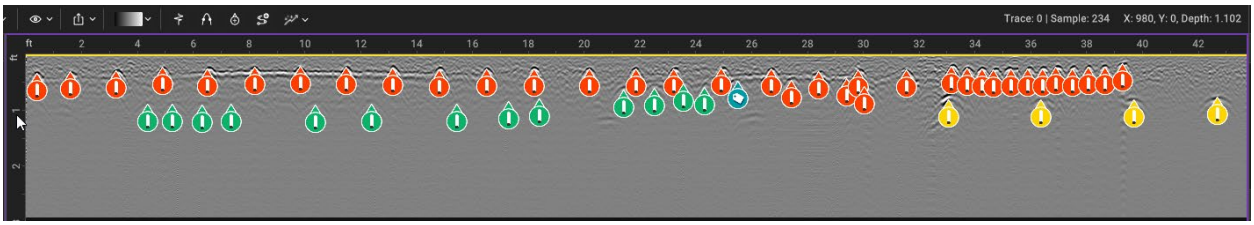


Figure 3 – GPR profile at a transition from the cut and cover conduit to a tunneled section near a tunnel portal.

The data collected was compared to the as-built drawings to identify if the various types of reinforcement were installed. The left side of the figure shows two layers of rebar (red and green markers) with a layer nearest the tunnel walls on approximately 18 inch spacing (red) and a deeper layer on a less consistent spacing of between 12 and 36 inches (green). Towards the right of the figure, the transition from cut and cover section to tunnel is identified by significantly decreased spacing of rebar, and the start of steel sets (yellow markers) on a 36 to 48 inch spacing.

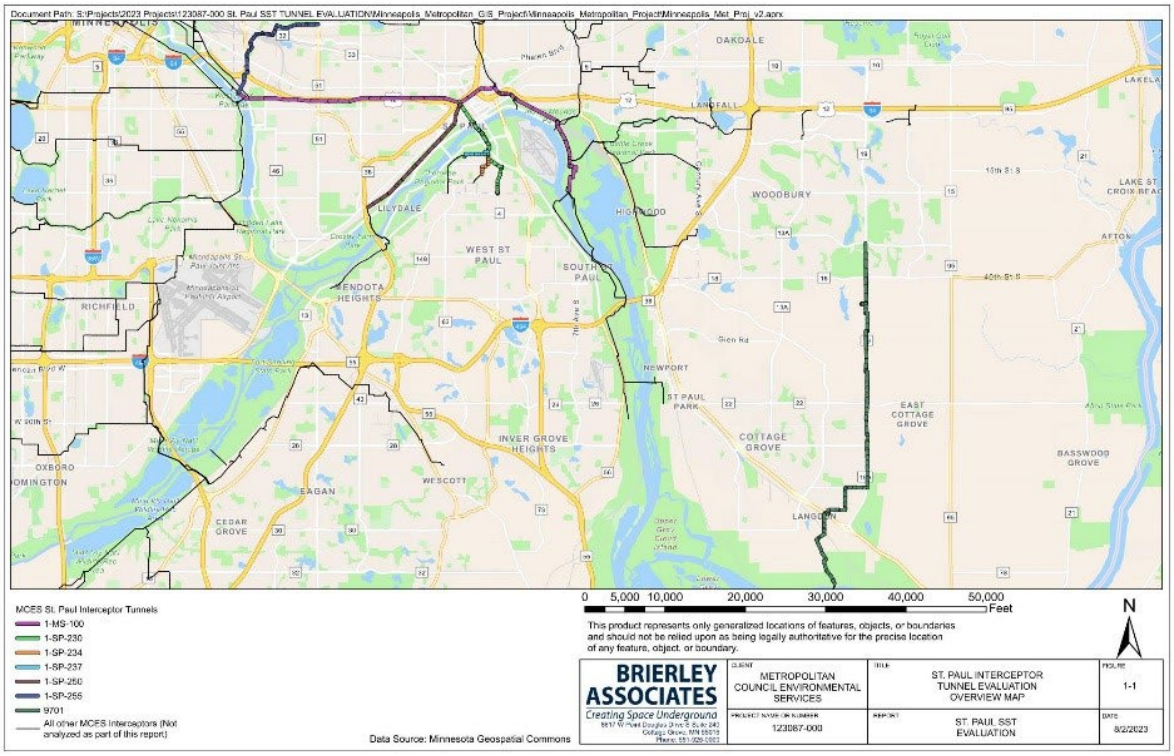
Understanding the characteristics of the reinforcement can be used to analyze the structural resiliency of the portal during seismic events and is therefore something infrastructure owners often find important.

Geographic Information System

Data collection and organization is paramount to the success of an asset management program. We recommend incorporating the findings of this inspection project into a live GIS story that can be updated during the life of the asset. Below is example of how this tool was used for a major utility in the Midwest.

Metropolitan Council Environmental Services (MCES) operates and maintains regional sewers and wastewater treatment within the Twin Cities metropolitan area in Minnesota. This includes nearly 640 miles of interceptors, 61 lift stations, 188 meter stations, and 18 rain gauge stations. Although much of this infrastructure is relatively shallow, there are deep, large diameter interceptors that serve as the collection point for the shallower sewer infrastructure. These deep interceptors are within the Ordovician St. Peter Sandstone, known for being weakly cemented and highly friable. These characteristics made it an ideal tunneling rock when the Twin Cities and a majority of its large diameter, deep sewer infrastructure were built in the late 19th and early 20th centuries. Brierley was contracted by MCES to complete an evaluation and create a risk register for seven (7) of the deep interceptors in the St. Peter Sandstone within the MCES System in Saint Paul.

Figure 4. Map of infrasture in the GIS database



Based on the availability of as built and inspection records, and geotechnical and structural information, a qualitative approach was used to establish the risk level of each interceptor. Additionally, interceptors were broken into segments and risks for each segment were determined. Risk levels were broken into three categories, Priority Level 1, Priority Level 2, and Priority Level 3

based on the consequence of failure of an interceptor or a specific segment. All interceptors and their resultant risk priority levels were placed within a GIS portal for future asset management by Metropolitan Council.

All data given to Brierley from Metropolitan Council, including inspection reports, as-builts, and design drawings were categorized in a document library by segment number, risk IDs, and keywords. To better maintain the storage of the provided data, Brierley connected the data to the GIS portal containing the risk prioritized interceptors. The GIS portal allows Metropolitan Council to access the relevant documents and drawings for future project planning and asset management purposes.

If any of these options are of interest to the District, we would be happy to incorporate them into the tunnel inspection program and can discuss further upon contract award.

Section 3

Work Plan / Scope of Work

Section 3: Work Plan / Scope of Work

Task 1 - Project Management, Records Review and Schedule

This task includes three (3) subtasks and is used for communication with the District; planning and coordination with the District and our team; review documents prior to performing the tunnel inspection; and preparation of supporting documents.

Task 1.1. Project Coordination and Management

Brierley's Project Manager (Nathan Stubley) will undertake all subtasks associated with overall contract management and quality control including management of resources, logistics, and schedule throughout the duration of this contract. We will attend meetings with the District in person and virtually as needed, with the objective of maintaining clear communication. We assume the District will coordinate with any other agencies and stakeholders and obtain required permits and permissions required to complete the tunnel inspection.

Although not identified within the RFP, a project specific Work and Health, Safety and Environmental (HSE) Plan will be prepared. The HSE plan would take into account the District's access requirements, emergency procedures, and OSHA rules for confined space entry, as necessary. These plans will be prepared in advance of the inspection and submitted to the District's for review.

The Work Plan would include a summary of planned field activities, anticipated schedule, field personnel entry and working requirements, operation requirement of planned equipment, contact information for key personnel, and necessary forms and references to complete the work.

The HSE plan will be appended to the work plan and includes a summary of project information, site description, field task breakdown/summary, hazard assessment, protective measures, monitoring plan and equipment, and contingency plan for emergencies.

In addition, confined space entry requirements will be described in both the Work and HSE Plans, if required.

Task 1.2. Records Review

Prior to the inspection, the Brierley Team will review existing drawings, as-built construction records, reports, and photographs provided by the District including any previous construction and inspection records. Having this information available during the inspection planning process will inform our team where prior areas of concern have been documented so we can observe if changes have occurred.

Task 1.3. Schedule

Our PM, Nathan Stubley, will ensure close communication with the District's project representative from initial contract award through completion of the project. Throughout the initial stages of the project prior to any inspection work Brierley's PM will provide regular email updates to the District's team on progress in the lead up to the commencement of fieldwork. This will ensure all parties are well informed and prepared for the start of on-site operations.

Post-fieldwork communications will also include a weekly or bi-weekly update on the progress of reporting and, importantly, any potential issues that need to be brought to the District's attention immediately.

Task 2 - Tunnel Inspection

Based upon the RFP documents, there do not appear to be any time constraints on the duration of the tunnel shutdown. We therefore plan to perform the inspection over two consecutive days using two, two-person crews composed of inspectors from Brierley and Barr. A site manager will also be on site to oversee and coordinate the work and provide support to the inspectors when necessary. The work will be performed over a 10 hour period. We do not anticipate supplementary ventilation will be required so it is not included in our proposal. Nevertheless, should this be of interest to the District, our team has the equipment and expertise to provide supplementary ventilation, and can be discussed at the District's request if our bid is successful.

Tunnel operation and worker safety are of the utmost importance, therefore Brierley will coordinate and plan the inspection with District staff in a meeting prior to the tunnel inspection. We anticipate that communications and tunnel safety will be our responsibility and have included these operations within our proposal. As part of these operations, Brierley's Team will have single support personnel posted at each portal and a two-person crew who will generally operate within the tunnel for the duration of the inspection. As outlined earlier, a Work Plan and HSE plan will be prepared and provided to the District for review prior to mobilization to ensure the work adheres to the District's operational, safety, and OSHA's confined space entry requirements.

We assume the District will provide access to the tunnel portals and general field oversight during the tunnel inspection. However, depending on District and stakeholder requirements not considered within our proposal or that arise during the planning period, our proposal can be modified accordingly.

We have provided details of optional services that can be incorporated into the scope of work within the innovation section consisting of a GPR survey and LiDAR scan survey. The time to conduct these surveys is not included in the outline of our proposed work plan below. However, we would not expect a significant extension of the fieldwork program to perform these optional tasks. The GPR scan would be incorporated into the tunnel portal assessment at the beginning of the program and so no additional time would be expected during fieldwork. The LiDAR survey may add in the order of 1 to 2 days total to install the targets, establish benchmarks at each portal and survey the targets, and conduct the LiDAR scan. We would be happy to discuss any of these options if they are of interest to the District.

Table 1 below includes a summary of the anticipated number of personnel for each activity and estimated hours. A detailed outline of the schedule is included in Section 4-Project Schedule.

Table 1. Estimated hours for tunnel inspection activities.

Task	Team Member	No of personnel and hours	Total Estimated Hours
Perform tunnel and portal inspections	Brierley	3 persons at 10 hrs per day	60 hrs
	Barr	2 persons at 10 hrs per day	40 hrs
Tunnel access, tunnel safety, communications, emergency response standby	Harrison Western	4 persons at 10 hrs per day	80 hrs
Estimated Total Personnel Hours			180 hours

Additional information as it pertains to our proposed work plan and technical services is provided subsequently.

Task 2.1. Mobilization/Demobilization

Mobilization/Demobilization will involve transportation of all Brierley and Subconsultant employees and the equipment necessary for inspections to and from the project site; confined space entry briefing; installation and removal of ventilation equipment; and preparation of inspection paperwork. We anticipate all personnel will need to mobilize the day before planned inspection activities commence. Any personnel requiring confined space training will complete an approved course prior to mobilizing to the project worksite.

Task 2.2. Tunnel Inspection

This task will include coordination with the district and the field operations consisting of tunnel inspection through visual observations during a shutdown of water supply through the tunnel. Staff and equipment from our team will be utilized to perform the inspection and provide tunnel support services including specific training from the District will be completed as part of this task.

Following an onsite briefing, at which attendance will be mandatory for all involved with the accessing and supporting tunnel activities, including District personnel, observations, mapping, measurements, and collection of general conditions at and around the access portal will be recorded.

We propose to access the tunnel from the inlet portal. This will assist with stationing, as we intend to use the same stationing as the design drawings produced by Clair. A. Hill & Associates in 1959 for continuity, assuming the structures identified on the drawings are easily recognized. One crew will begin collection of tunnel condition information from the inlet portal end of the tunnel and the second crew will traverse through the tunnel to the outlet portal marking stations on the tunnel wall at 50 ft increments, before commencing the inspection from the outlet portal towards the inlet portal. Station markings will consist of spray paint or lumber chalk, the use of which will depend on any constraints applied by the District to prevent contamination of the water supply, if any.

Our Team will collect data along the tunnel alignment at a 50 to 100 ft spacing. Special attention will also be given to areas of specific interest or concern within the tunnel and portals and to areas that were identified in any previous inspection or construction/repair documents. The aim will be to not only assess its current condition but also identify any areas that may pose a potential risk to the asset in the future. The specific data to be collected will consist of, but is not limited to:

- Assessment of tunnel portal conditions - Exposed and readily accessible surfaces of the structural elements of the portal structures will be visually identified and inspected. Any significant defects will be documented.
- Collection of rock and rock mass characteristic data consisting of:
    - Lithology – overall description including bedding thickness, strength, weathering, discontinuities (spacing, size, opening, infill, etc.). This will be in general accordance with the United States Bureau of Reclamation Engineering Geology Field Manual (USBR, 1998)
    - Areas of water inflow
    - Structural data – dip and strike measurements, signs of structural deformation, foliation.
    - Fault/shear data – any areas which may show offset, gouge, brecciated material.
    - Preliminary assessment of Geologic Strength Index (GSI) (Hoek and Marinos, 2000)
- Tunnel dimensions.
    - Visual assessment of dimensions to identify any areas of previous collapse.
- Tunnel alignment – Although rare, older tunnels constructed using drill and blast methods have been found to deviate and correct, subsequently incorporating minor dog legs. Depending on the severity, this can impact potential construction and rehabilitation methods. Attention will be paid to tunnel alignment during the inspection.
- Photographic and/or video survey – Photographs will be collected on 50 to 100 ft spacing and throughout the tunnel at closer spacing in areas of any specific interest. Collection of video data may also be collected to document areas of interest over larger areas.

At the portal locations, defects of interest within concrete lining are based upon ACI 201.1R-08, Visual Inspection of In-Service Concrete. The Inspection team will document the severity of these defects (minor, moderate, and severe). Each defect type is described and the abbreviations that will be used to name it during inspection are summarized in Table 1. To ensure continuity of the nomenclature used, these abbreviations will also appear on the blank, pre-printed inspection forms that will be used by the inspection team to record these defects according to the established field stationing and the vertical orientation of the defects based on clock positioning (12 o'clock being at the crown of the tunnel and clock positioning radially out from that location). Field equipment used during inspection may include hammers for identification of delamination or voiding by striking the liner, crack gages and calipers to measure depth and width of cracks, 4 ft level, and laser tape measure to assess areas of possible differential settlement, folding rulers, screwdriver or chisel, graduated container to measure water inflow rate, and scrapers. Upon completion of the inspection, the field team will re-assemble to review all the documentation to confirm uniform information and completeness.

Table 2. Summary of Defect Types in Concrete Structures/Liners

Defect	Measured Quantity	Description
Scaling (SC)	Length, Width, Depth	Scaling is degradation of the liner due to chemicals or abrasion.
Cracking (C)	Length, Width, Offset, Orientation [Transverse (T), Longitudinal (L), Horizontal (H), Vertical (V), Diagonal (Di), Pattern or Map (P), D-Cracks (D), Random (R), Construction Joint (CJ)],	Orientation documentation for cracks provides insight on external stress conditions of the liner. Brierley will pay particular attention to evidence of differential movement within transition areas of the tunnel such as the portals.
Spalling (SP)	Length, Width, Depth	Spalling occurs in the liner when steel reinforcement corrodes, or delamination exists, and the bonds of the cement degrade.
Staining (ST)	Length, Width, Type (Rust Staining (ST-R), Efflorescence (ST-E)	Rust staining shows deterioration of steel reinforcement. Efflorescence, or mineralization (gypsum in the RFQ), can be indicative of water inflow from rock formations.
Hollow Area (HA)	Length, Width	Brierley will use a hammer strike on the liner to find "drummy" areas indicative of delamination or voiding behind the structure.
Water Inflow (WF)	Flow Rate from cracks or weep holes as measured by amount of time to fill graduated container of known volume. Depth of weep hole.	Water infiltration can introduce hydrostatic stress on the liner and expose steel reinforcement to corrosion.
Concrete Anchorage	Displacement; pitted corrosion; loose connections; spalling;	Concrete anchorage will be evaluated on an as needed basis during the inspection.

Along the unlined tunnel, observations will be documented by use of field notebooks, tunnel maps showing geological data, and photographs. All notes will include time and date as well as station within the tunnel to ensure areas of interest can be relocated during future inspections. Tunnel maps will consist of short longitudinal profiles of the tunnel, typically up to 20 ft in length, with graphic representations of typical geologic features within that section. Tunnel springline and crown will be shown on the map to provide scale and stationing will be identified along the profile section. The photographic survey will follow a consistent pattern whereby the tunnel walls and crown will be photographed, followed by any specific areas of detail. Typical tools and equipment that will be utilized include Brunton compass, geologic hammer, hand lens, measurement devices (100 ft tape, 20ft tape measure, 6 ft folding ruler), graduated container, lights, camera, personal gas monitors, spray paint and lumber crayons, and 5% hydrochloric acid for testing rock samples (in a pipette dropper bottle).

Our subcontractor will also provide a range of equipment for work within the tunnel to help create a safe environment for the team. This equipment includes:

- Scaling bar.
- Self-rescuers for crew.
- Lamps / lighting equipment.
- Standard frequency radios for communications.
- Fan for ventilation in the event it is needed (it is not anticipated at this time).
- If required, a basket stretcher can be provided for rescue from the crown of vertical concrete flume structure

Task 3 - Reporting

A Draft Condition Assessment Report (DCAR) will be prepared for review 4 weeks after completion of the inspection. The DCAR will include a description of inspection methods and techniques; summary of inspection findings that includes evaluation of defects with example photographs; conclusions and recommendations. The information in the report will be compared to previous inspection records to determine if further deterioration of deficiencies from pervious inspections has occurred. Appendices will include tabulated inspection logs summarizing defects and noting location in the tunnel, type of defect, severity of defect, and photo numbers; plan and profile drawings with stationing of the tunnel with areas of concern identified and select photographs. Photographs documenting the inspection will be provided to the District on a USB drive or Microsoft SharePoint File. We assume that reports and other documentation will be provided in electronic format.

Also, budgetary costs for any additional testing or improvements that may be recommended from the findings of the tunnel inspection will be provided if requested. However, provisions for these recommendations are not included in our proposed scope since it is uncertain as to what would be recommended at this time.

Section 4

Project Schedule

Section 4: Project Schedule

Our intention will be to commence work as soon as the contract is agreed and notice to proceed is given. A preliminary schedule is provided at the end of this section but is subject to modification based on discussions with the District should our bid be successful.

An ongoing task throughout the project will be project coordination and management with the Project Team, which includes the District, Brierley, and our Subconsultants and Subcontractors. This will not be a full time task, but may include weekly meetings with the Project Team, contact between Brierley's PM and the Districts representative, and internal discussion about logistics, resource management, and reporting.

A subtask not identified within the RFP, but which underpins a fundamental belief within the Brierley Team, is worker safety. We have therefore included time to prepare a project specific Health, Safety, and Environmental (HSE) Plan. Close coordination with the District will be required to ensure this living document includes all of their requirements. This document will be prepared and delivered for review to the District 14 days prior to mobilization to complete the tunnel inspection and a final document issued prior to mobilization to site.

As part of Task 1, we will complete a review of all documents provided by the District. These documents may consist of previous tunnel inspections, drawings and documents related to any previous construction, and any previously completed rehabilitation. The volume of this documentation will dictate how long this review will take; however given the length of time between the award date and tunnel shutdown, we do not anticipate any delays to the start of fieldwork. This phase can often be overlooked and treated as a step in the process; however, we understand that carefully scrutinizing such documents can provide an advantage when conducting the inspection. Going into a tunnel for the first time with "fresh eyes" is important to ensure nothing is overlooked or missed, but having insight to any areas of previous damage, repair, or identified for ongoing monitoring from previous studies allows for efficiency in the schedule. We have preliminarily allowed for two weeks to complete this work.

The tunnel inspection is preliminarily expected to take place over five days, as outlined below:

- **Day 1 – Mobilize all personnel to site.**
- **Day 2 – Site safety orientation, safety equipment set-up, commence tunnel and portal inspection.**
- **Day 3 – Complete tunnel inspection, removal of site safety equipment.**
- **Day 4 – Demobilization.**

Should the District have any time constraints regarding the duration of the shutdown, the Brierley Team will do their best to accommodate the inspection on a reduced schedule. This could consist of longer shifts or adding crews and will be dependent on the District's needs, to be discussed during negotiation of the final contract.

It should also be noted that this schedule is based on conducting an assessment, consisting of collection of notes, measurements, and photographs on a 50 to 100 ft spacing. The inspection may proceed at a quicker pace if the tunnel is in a reasonable condition. Conversely, if the tunnel has deteriorated to an extent that demands additional time, the inspection may take longer.

We will provide a draft version of the DCAR 4 weeks after demobilization from the project site. We have included for up to 1 week for review by the District and return of a final report 1 week after receipt of comments.

PRELIMINARY PROJECT AND FIELDWORK SCHEDULE

PRELIMINARY PROJECT SCHEDULE

Task Description	Estimated Start Date	Estimated End Date	July	August	September	October	November
Contract Award / Notice to Proceed	10-Jul-24	10-Jul-24					
Task 1 - Project Management, Records Review, Schedule							
Task 1.1 - Project Management	11-Jul-24	7-Dec-24					
Task 1.2 - Records Review	22-Jul-24	2-Aug-24					
Task 1.3 - Schedule	11-Jul-24	7-Dec-24					
Task 2 - Tunnel Inspection							
Mobilization	14-Oct-24	14-Oct-24					
Tunnel Inspection	15-Oct-24	16-Oct-24					
Demobilization	17-Oct-24	17-Oct-24					
Task 3 - Reporting							
Draft Report	21-Oct-24	15-Nov-24					
Final Report	18-Nov-24	29-Nov-24					

PRELIMINARY FIELDWORK SCHEDULE

Task Description	Time		October																			
			Tuesday, October 15, 2024												Wednesday, October 16, 2024							
	From	To	8:00		10:00		12:00		14:00		16:00		18:00		8:00		10:00		12:00		14:00		16:00		18:00	
Day 1																										
Site safety orientation / tunnel safety and access	8:00	11:00																								
Tunnel/Portal Inspections	8:00	18:00																								
Day 2																										
Tailgate meeting	8:00	8:15																								
Complete Tunnel Inspections	8:15	18:00																								
Remove any equipment and demobilize from site	16:00	18:00																								

Section 5

Sub-Contractor & Work By Others

Section 5: Sub-Contractor and Work by Others

The Brierley Team will consist of Brierley, Barr, and Harrison Western. Company and key personnel information for Barr has been included in Section 4.2 – Project Team, who will support the project as our subconsultant. Details of Harrison Western's responsibilities, experience, and key personnel, follows.

1. Sub-Contractor

Harrison Western was founded in 1968 and has provided design and construction services to the mining and tunneling industries for over 50 years, as well as providing a variety of geotechnical and underground scopes for civil projects. Since their inception, Harrison Western has performed tunneling work for railroads, mining companies, departments of transportation, utilities and water/sewer/irrigation operators. This extensive experience means they are well versed in tunnel safety requirements, which is a fundamental aspect of any of their projects.

Harrison Western will support the project by providing confined access safety services and inspection assistance to ensure safe and compliant access for inspection personnel. This will consist of:

- Provision of qualified Underground Safety Personnel to ensure safe and compliant ingress/egress into and out of the tunnels during two days of inspection work.
- Provision of qualified underground personnel to accompany the inspection team during the assessment.
- Perform safety assessments of the tunnel portal and inby workings, observing and communicating conditions of the back, ribs and invert, as well as monitoring air quality in advance of the inspection team and ensuring communications with any surface personnel associated with the client.
- Supply all necessary tools, radios and 4-gas meters for two inspection teams and the scaler.

Two key personnel from Harrison Western will be on site to oversee tunnel access and safety. Details are provided below and their resumes, detailing experience and project descriptions, are included with this document.

Rick Thomas. Rick currently serves as a Superintendent with Harrison Western where he leverages a 25+ year career in the utility, civil tunneling and underground mining fields. He brings a wealth of experience with soft ground and hard rock tunneling and shaft projects. His wide-ranging background includes work on layout, installation and testing of wet utilities and civil tunnels for municipal, state and private projects. Rick also brings over 32 years of experience in public safety as a volunteer fireman and significant training in EMS services.

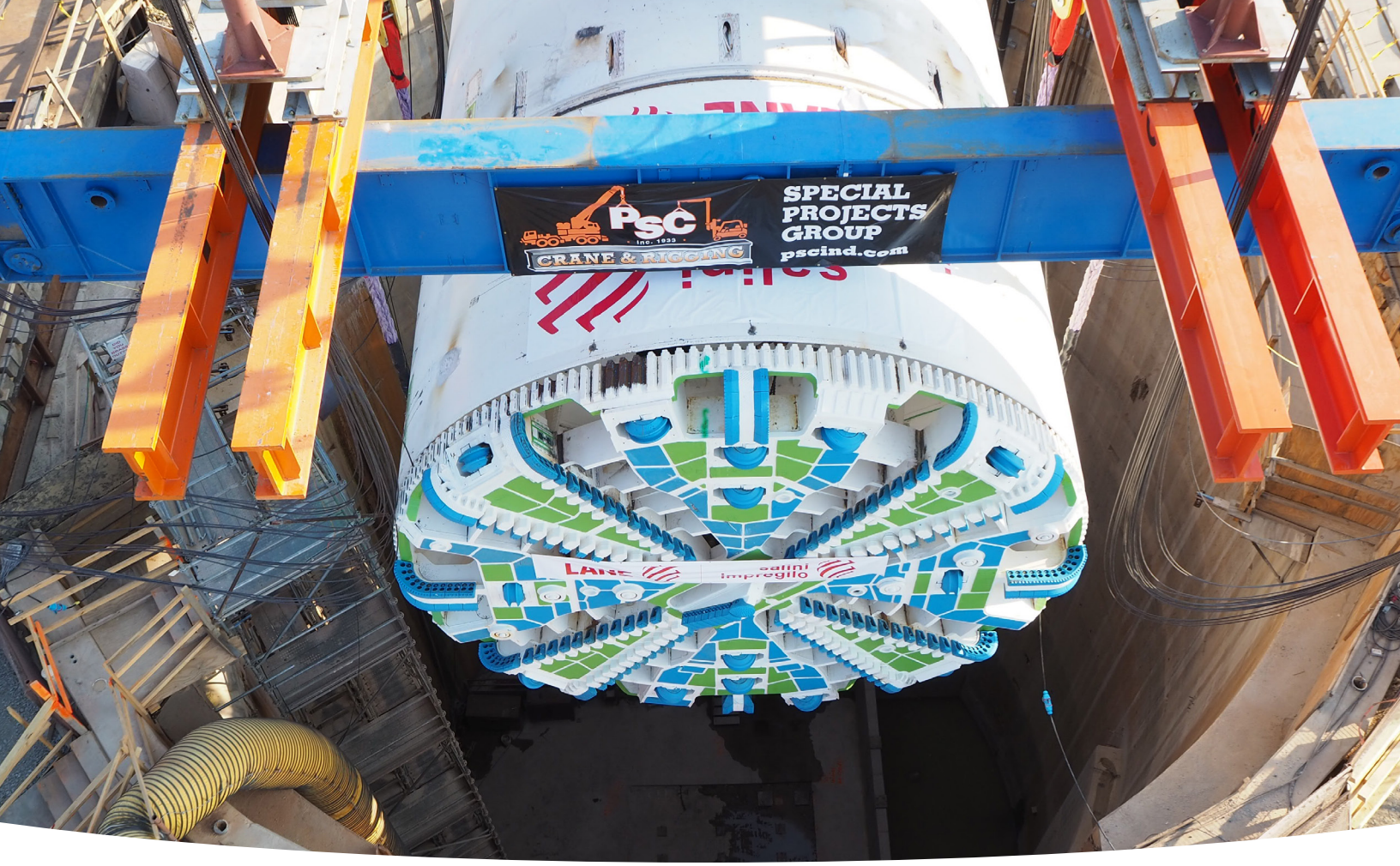
Troy Guy. Troy is the General Superintendent for Harrison Western Construction. He is a versatile supervisor who has extensive understanding of a diverse range of construction projects. Some of his responsibilities include but are not limited to scheduling, inspections, quality control and job site safety. He is highly competent in hazard recognition in the trades and crafts he supervises.

Work by Others

Table 3 below identifies a list of tasks we request the District to perform on our behalf prior to completing the tunnel inspection.

Table 3. Identification of tasks to be provided by the District.

Task	Estimated Time
Please provide all available documents related to tunnel and portal construction and rehabilitation. No time has been included for the Brierley Team to do any research on any aspect of the tunnel from construction until present.	Unknown
Permission to access the tunnel at both portals from stakeholders, private property owners, etc., to be provided by the District. Confirmation that the Brierley Team will have unimpeded access to and from the tunnel and portals between the start and end of tunnel inspection shifts.	Unknown
Any permits required for the Brierley Team to perform any aspect of the tunnel aspect to be provided by the District. Copies of any permits to be provided to Brierley prior to mobilization for the inspection.	
Removal of plates at the tunnel entrance.	~1 hr
Notification of the project to the nearest emergency response service (fire department), including scope of work, expected shift times and dates, and necessary contact telephone numbers.	~1 hr
At least one District representative at each portal throughout the performance of the tunnel inspection to provide guidance and information regarding tunnel operations, assist with any emergency situations including notification of the emergency response team	~60 hrs (2 persons, 3 shifts, max 10 hrs)
At least one District representative	
Provision of boom truck, or similar, to assist with emergency rescue from tunnel entrance where access is through the top of the transition structure. Boom should have sufficient capacity to lift basket stretcher and person.	~30 hrs



Section 6

Relevant Experience and References

Section 6: Relevant Experience and References

Brierley Qualifications and Experience

Brierley offers over 20 years of experience providing tunnel design, construction support, and inspection services to owners and contractors. We are well experienced with tunnel inspections and condition assessment for vehicular, rail, mass transit, water, wastewater, and utility tunnels. We have several staff that are FHWA Nationally Certified Tunnel Inspectors, the only tunnel inspection certification program of its kind. We have helped clients with routine inspection and assessment of their underground assets and even helped them develop their guidelines to where they can perform follow up inspections themselves.

Tunnel Rehabilitation

A natural extension of tunnel inspection and assessment is devising rehabilitation measures that can be implemented to avoid the risk of failure and/or extend the design life of an underground asset. Tunnel rehabilitation is not unlike design for new tunnels with respect to the need for stability analysis and long-term performance of the selected solution. Brierley offers full geo-structural design for water tunnels, conveyances and related assets which gives us the required tools to assess various options. Brierley has provided analysis, design and complete biddable drawings and specifications for tunnel lining repair work if needed. A significant advantage Brierley provides, relative to the wide array of constructable rehabilitation and improvement scenarios, is our extensive nationwide work with tunnel contractors. We work closely with tunnel contractors, with a keen understanding of their approaches, preferences, and means and methods. Because of this grounded insight, Brierley produces contractor compatible designs which very often result in favorable bids and fewer change order requests in a wide variety of tunnel construction environments.

Brierley Associates Relevant Project Experience

Study of Seismic Impacts to Santa Susana Tunnel
Simi Valley, CA

The Santa Susana Tunnel is a 60-year-old, 1.3-mile-long, 8 feet diameter, concrete lined, rock tunnel that extends between Chatsworth and Simi Valley, CA. Prior inspections documented numerous deficiencies in the tunnel liner (cracking and seeps). Calleguas receives 100 percent of its water through this tunnel and it needs to perform acceptably during a significant earthquake.

Brierley was retained to assess the seismic impacts to the tunnel and develop conceptual mitigation measures and repair options that can be implemented. The first phase included performing a desktop study to quantify the risk of tunnel damage resulting during a significant earthquake, field geologic study, and tunnel inspection program. The second phase consists of preparing conceptual designs of improvements to reduce the risk of damage during a significant earthquake and develop repair options that could be implemented if the tunnel is damaged during a significant earthquake.

Brierley completed the site characterization, limited geologic and fault survey, estimating ground motions and fault displacement for a worst-case scenario earthquake, and using closed-form solutions and 3-D numerical modeling assess tunnel damage potential during a worst-case scenario earthquake. Brierley also completed the time constrained tunnel inspection, which

consisted of visual observation of liner condition, GPR survey to identify reinforcement, and a hybrid LiDAR and photogrammetric survey, all within a maximum 48 hour tunnel shutdown period. All of the data collected was provided to the Owner as a final report summarizing the inspection finings including compilation of all field photographs, a summary of GPR scans, and the LiDAR and photogrammetric survey.

Owner/Client:
Calleguas Municipal Water District
Jay Lukiewski, PE
Senior Project Manager
2100 Olsen Rd.
Thousand Oaks CA 91360
Phone: (805) 579-7169

Professional Fees:
Design Phase: $200,000
Construction Phase: $50,000

Key Personnel:
Patrick Smith-Project Manager & Lead Engineer
Nathan Stubley-Geologist & Site Lead
Bill Zietlow – Tunnel Inspector
Bridgette Hassett – Tunnel Inspector
Kyle Friedman – Tunnel Inspector

Twin Lakes Tunnel No. 2 Condition Assessment
Pitkin County, CO

The Twin Lakes Reservoir Tunnel #2 is a trans-mountain tunnel that begins at Lost Man Reservoir on the western slope of Independence Pass and discharges into Lincoln Gulch Connection Canal which conveys water into Grizzly Reservoir in Pitkin County. The tunnel was constructed sometime around 1936 and is partially unlined, and partially concrete lined. It is 9,200-ft long and has a lined cross section of about 6 ft 7 in. The tunnel carries water part of the year and runs full during the spring runoff season.

The unlined rock portions of the tunnel transitioned through several different geologic units. In general, the rock was seamy to blocky Several areas of rock fallout that appeared recent were observed. Jointing, shear zones, veins, pegmatite intrusions, mineralization, and water leakage were noted throughout the unlined sections of the tunnel. A few areas of unreinforced shotcrete were observed within the sections of unlined rock.

The tunnel condition assessment report included inspection of the natural unlined rock sections as well as the horseshoe shaped concrete lined and shotcrete lined sections. The majority of the tunnel was unlined rock. Inspections were based on the National Tunnel Inspection Standards (NITS) with modifications to include Geologic Strength Index (GSI) to characterize the unlined rock sections of the tunnel.

The inspection work was completed with Harrison Western Construction who provided tunnel safety, including rock scaling. Brierley Associates and Harrison Western provided a tunnel assessment report that included recommendations for new tunnel lining in areas of low rock quality.

Owner/Client:
Bruce Hughes
The Twin Lakes Reservoir & Canal Company
331 Main Street – P.O. Box 8
Ordway, CO 81063
719-267-4411

Professional Fees:
$86,000

Key Personnel:
Greg Van Etten – Tunnel Inspector – NHI Certified
Kyle Friedman – Tunnel Inspector

Water Tunnel Collapse Repair, Fort Laramie Canal Tunnel 2
Goshen County, WY

During an early morning in July 2019, a collapse in Tunnel 2 on the Fort Laramie Canal caused water to back up and breach the canal bank upstream of the tunnel. The Fort Laramie Canal provides irrigation water to approximately 104,000 acres in Wyoming and Nebraska served by the Goshen and Gering-Fort Laramie Irrigation Districts and the Wright and Murphey Ditch Company. Brierley Associates was employed by the contractor to provide response to this disaster in the form of grouting operation investigation and supervision as well as investigation the as-is condition of the tunnel. Following the emergency response, the Owner's Engineer, Anderson Consulting Engineers, Inc., retained us to continue work on the permanent repair/replacement solution.

The tunnel was constructed by the USBR in 1917 with timber supports. The tunnel is approximately 14-ft high by 14-ft wide in a horseshoe configuration with an unreinforced concrete liner. The tunnel passes through the Arikaree Formation, sand and loess, and terrace gravels. The Arikaree formation consists of fine-grained sandstone containing some siltstone, limestone, tuff, and conglomerate.

Brierley Associates provided emergency engineering support involving initial assessment, inspection of the concrete lining and adjacent voids, and design of temporary steel set supports, a void-filling grouting program, and other temporary measures to repair the collapsed lining to restore water flow in the canal. Later, Brierley inspected two other tunnels on the canal and provided repair and support recommendations to prevent additional collapses. Brierley is

continuing to work on evaluation, cost estimating, and design of alternative permanent repair options for the owner.

Owner:
Goshen Irrigation District
Rob Posten
PO Box 717
Torrington, WY 82240
307-532-7031

Clients:
Brad Anderson
Anderson Consulting Eng, Inc.
375 East Horsetooth Rd, Bldg 5
Ft. Collins, CO 80525
970-226-0120

James Byrd, Operations Manager
SAK Construction
864 Hoff Road
O'Fallon, MO 63366
636-385-1000

Professional Fees:
$200k

Key Personnel:
Bill Zietlow-Project Manager
Kyle Friedman-Design Engineering
Russ Berends-Geostructural Engineering

Pike – San Isabel National Forest Tunnel Inspections
El Paso County, West of Colorado Springs, CO

Gold Camp Road Tunnels No.4 and No.5 are located on a former railroad line that once connected Colorado Springs (east) with the historic mining towns around Cripple Creek (west). The railroad was taken out of service in the 1920's resulting in the current Gold Camp Road. Today this section of Gold Camp Road is open to the public for hikers and bikers but not vehicles.

Gold Camp Road Tunnel No.4 and Tunnel No.5 are unlined rock tunnels without alterations since they were constructed in 1901. Tunnel No.4 is 521-ft long and Tunnel No. 5 is 263-ft long. Both tunnels are about 20 ft high and 20-ft wide. The tunnels were constructed using traditional drill and blast methods. There are no structural ground supporting elements inside the tunnels.

Inspections were completed consistent with the National Tunnel Inspection Standards (NITS) with Modifications made to the NTIS as necessary to include Geologic Strength Index (GSI) to characterize the unlined rock sections of the tunnel. Similar inspection was done for the tunnel portal areas and approach rock cuts.

The unlined rock tunnels are in a rock type known as the Pike's Peak Granite. In general, the rock was blocky with several local areas of rock fallout and very block ground corresponding with natural shear zones in the rock mass.

A condition assessment report was provided and commented on by both the engineer-client and their owner-client (US Forest Service). A final report was provided after addressing all comments.

Owner:
Scott F. Mitchell, P.E.
US Forest Service
1617 Cole Blvd. Building 17
Lakewood, CO 80401
303-275-5196

Client:
Samuel Lopez, P.E.
Alfred Benesch & Company
7979 E. Tufts Avenue, Suite 800
Denver, CO 80237
303-771-6868

Professional Fees:
$11,115

Key Personnel:
Bill Zietlow-Principal-in-Charge

Barr Engineering Relevant Project Experience

Minneapolis-area tunnel inspection and rehabilitation projects
City of Minneapolis & MnDOT• Minnesota

Barr has performed inspection, design, and construction oversight services for numerous stormwater conveyance tunnels in Minneapolis for the City of Minneapolis and for Minnesota DOT for projects ranging between $50k and $500k in value. Tunnels worked on include the Old Bassett Creek Tunnel, St. Mary's tunnel, Phillips tunnel, 38th St tunnel, I-94 tunnel, and I-35W tunnel. Work consists of quantifying the tunnel condition per NASSCO rating system, prioritizing repairs, and developing the design and specifications for contact grouting, backfill grouting, crack sealing, and surface and invert repair along identified priority sections of tunnel. Barr provides onsite observation and project administration during construction. All inspection and construction work was considered confined space and Barr has coordinated safe entry for inspections to be in accordance with OSHA requirements. Barr has partnered with Brierley Associates on some of the tunnel projects mentioned here and are teams have proven they work together seamlessly on these projects.

Owner:
Joe Klejwa, Professional Engineer
Surface Water & Sewers Division
City of Minneapolis;
612-673-5608;
joe.klejwa@ci.minneapolis.mn.us

Tim Nelson, Resident Engineer
MNDOT Golden Valley Central Construction Office;
651-775-1021;
tim.nelson@state.mn.us

Professional Fees:
$100,000 to $500,000

Key Personnel:
Mike Haggerty- PM/PIC:
Hayden Christensen-Inspector

Trout Brook Interceptor repair projects
Capital Region Watershed District • Minnesota

Barr inspects the Trout Brook Interceptor storm tunnel for the Capitol Region Watershed District (CRWD) on a five-year reoccurring cycle. As part of the inspections, Barr documents the tunnel's condition and provides recommendations to CRWD regarding prioritized areas of repair. Together, Barr and CRWD have completed several repair projects of the nearly 5-mile-long system that were prioritized as part of the inspections. The construction projects typically consist of in-pipe repairs, including removal of encrustation/mineralization deposits, infiltration repairs using chemical grout

injection, and general concrete repairs. Recent repairs have included the removal of mineral deposits and the injection of hydrophilic and hydrophobic chemical grout to seal tunnel defects.

Client:
Anna Eleria, Administrator
Capital Region Watershed District;
612-618-4357
aeleria@capitolregionwd.org

Professional Fees:
$100,000 to $500,000

Key Personnel:
Mike Haggerty-Project Manager
Hayden Christensen-Inspector

Field Investigation and Geotechnical Support to Nevada Lithium and Gold Mines
Confidential Client • Nevada

Barr has performed various geotechnical investigation for ground control studies at open pit lithium and gold mines at various sites in Nevada ranging between $120k and $200k in value. Work consists of planning geotechnical studies, field mapping of fault and joint features, review of rock core, review of samples and development of rock mass ratings (RMR), performance of point load testing on rock samples in the field, develop a plan for tele-viewer data to assess geologic structure, analysis of material properties, kinematic stability analysis, limit-equilibrium slope stability for open pit mines, and recommendation of open pit mine wall geometry. Often at these mine sites, the orientation of the joint sets and major faults controls stability and long-term wall stability. Barr's experience in the regional geology, rock assessment, and considerations on long term stability are applicable to the current project.

Client:
George Lovland, Engineering Manager
NACCO Natural Resources
5340 Legacy Drive, Suite 300,
Plano, Tx 75024;
210-363-9819

Professional Fees:
$120,000 to $200,000

Key Personnel:
PM: Evrim Sopaci-Project Manager
Mike Haggerty-Principal-in-Charge

Appendix A

Exceptions to Professional Services Agreement

PROFESSIONAL SERVICES AGREEMENT

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is made and entered into this XXth day of [month] 20XX, (the "Effective Date") by and between the Georgetown Divide Public Utilities District, a California Public Utilities District ("District"), and [CONSULTANT NAME] ("Consultant"). District and Consultant may herein be referred to individually as a "Party" and collectively as the "Parties". There are no other parties to this Agreement.

RECITALS

A. District has determined that consultant services are required for XXX (the "Project").

B. Consultant has submitted a proposal to District that includes a scope of proposed consultant services, attached hereto and described more fully in **Exhibit A** ("Services").

C. Consultant represents that it is qualified, willing, and able to provide the Services to District, and that it will perform Services related to the Project according to the rate schedule included in the scope of proposed consultant services attached hereto as **Exhibit B** (the "Rates").

NOW, THEREFORE, in consideration of the promises and covenants set forth below, the Parties agree as follows:

AGREEMENT

1. Recitals. The recitals set forth above ("Recitals") are true and correct and are hereby incorporated into and made part of this Agreement by this reference. In the event of any inconsistency between the Recitals and Sections 1 through 20 of this Agreement, Section 1 through 20 shall prevail.

2. Consulting Services. Consultant agrees, during the term of this Agreement, to perform the Services for District in connection with the Project. Any request for services in addition to the Services described in **Exhibit A** will be considered a request for additional consulting services and not compensated unless the Parties otherwise agree in writing. No subcontract shall be awarded, or an outside consultant engaged by Consultant unless prior written approval is obtained from District.

3. Compensation. District shall pay Consultant according to the fee schedule set forth in **Exhibit B** for a time and materials cost not to exceed $, as full remuneration for the performance of the Services. Consultant agrees to maintain a log of time spent in connection withperforming the Services. On a monthly basis, Consultant shall provide District, in reasonable and understandable detail, a description of the services rendered pursuant to the Services and in accordance with the Rates. If the work is satisfactorily completed, District shall pay such invoice within thirty (30) days of its receipt. If District disputes any portion of any invoice, District shall

pay the undisputed portion within the time stated above, and at the same time advise Consultant in writing of the disputed portion.

5. Term. This Agreement shall become effective on the Effective Date and will continue in effect until the Services provided herein have been completed, unless terminated earlier as provided in Section 6 or 7 below (the "Term").

6. Termination. District may terminate this Agreement prior to the expiration of the Term ("Termination"), without cause or reason, by notifying Consultant in writing of District's desire to terminate this Agreement (the "Termination Notice"). Upon receipt of a Termination Notice, Consultant shall immediately cease performing the Services. Consultant will be entitled to compensation, as of the date Consultant receives the Termination Notice, only for Services actually performed.

7. Termination for Cause. Notwithstanding Section 6 above, this Agreement may be terminated by District for cause based on the loss or suspension of any licenses, permits or registrations required for the continued provision of the Services, or Consultant's malfeasance. Termination of the Agreement for cause as set forth in this Section shall relieve District from compensating Consultant.

8. Confidential Information. Consultant understands and agrees that, in the performance of Services under this Agreement or in the contemplation thereof, Consultant may have access to private or confidential information that may be owned or controlled by District and that such information may contain proprietary or confidential details, the disclosure of which to third parties may be damaging to District ("Confidential Information").

Consultant shall not, either during or after the Term, disclose to any third party any Confidential Information without the prior written consent of District. If District gives Consultant written authorization to make any such disclosure, Consultant shall do so only within the limits and to the extent of that authorization. Such authorization does not guarantee that the District will grant any further disclosure of Confidential Information. Consultant may be directed or advised by the District's General Counsel on various matters relating to the performance of the Services on the Project or on other matters pertaining to the Project, and in such event, Consultant agrees that it will treat all communications between itself, its employees and its subcontractors as being communications which are within the attorney-client privilege.

9. Performance by Key Employee. Consultant has represented to District that _____ will be the person primarily responsible for the performance of the Services and all communications related to the Services. District has entered into this Agreement in reliance on that representation by Consultant.

10. Property of District. The following will be considered and will remain theproperty of District:

A. Documents. All reports, drawings, graphics, working papers and Confidential Information furnished by District in connection with the Services ("Documents").

Nothing herein shall be interpreted as prohibiting or limiting District's right to assign all or some of District's interests in the Documents.

B. Data. All data collected by Consultant and produced in connection with the Services including, but not limited to, drawings, plans, specifications, models, flow diagrams, visual aids, calculations, and other materials ("Data"). Nothing herein shall be interpreted as prohibiting or limiting District's right to assign all or some of District's interests in the Data.

C. Delivery of Documents and Data. Consultant agrees, at its expense and in a timely manner, to return to District all Documents and Data upon the conclusion of the Term or in the event of Termination.

D. Consultant shall not be liable for any claims arising from District's use of the Documents or Data for any purpose other than the purpose they were prepared for under this Agreement.

11. Duties of District. In order to permit Consultant to render the services required hereunder, District shall, at its expense and in a timely manner:

A. Provide such information as Consultant may reasonably require to undertake or perform the Services;

B. Promptly review any and all documents and materials submitted to District by Consultant in order to avoid unreasonable delays in Consultant's performance of the Services; and

C. Promptly notify Consultant of any fault or defect in the performance of Consultant's services hereunder.

12. Representations of Consultant. District relies upon the following representations by Consultant in entering into this Agreement:

A. Qualifications. Consultant represents that it is qualified to perform the Services and that it possesses the necessary licenses, permits and registrations required to perform the Services or will obtain such licenses or permits prior to the time such licenses or permits are required. Consultant represents and warrants to District that Consultant shall, at Consultant's sole cost and expense, keep in effect or obtain at all times during the Term of this Agreement, any licenses, permits, and registrations that are legally required for Consultant to practice Consultant's profession at the time the Services are rendered.

B. Consultant Performance. Consultant represents and warrants that all Services under this Agreement shall be performed in a professional manner and shall conform to the customs and standards of practice observed on similar, successfully completed projects by specialists in the Services to be provided. Consultant shall adhere to accepted professional standards as set forth by relevant professional associations and shall perform all Services requiredunder this Agreement in a manner consistent with generally accepted professional customs, procedures, and

standards for such Services. All work or products completed by Consultant shall be completed using the ~~best~~ appropriate practices available for the profession ~~and shall be free from any defects~~. Consultant agrees that, if a Service is not so performed, in addition to all of its obligations under this Agreement and at law, Consultant shall re-perform or replace unsatisfactory Service atno additional expense to District.

13. Compliance with Laws and Standards. Consultant shall insure compliance with all applicable federal, state, and local laws, ordinances, regulations and permits, including but not limited to federal, state, and county safety and health regulations. Consultant shall perform all work according to generally accepted standards within the industry. Consultant shall comply with all ordinances, laws, orders, rules, and regulations, including the administrative policies and guidelines of District pertaining to the work.

14. Independent Contractor; Subcontracting. Consultant will employ, at its own expense, all personnel reasonably necessary to perform the Services. All acts of Consultant, its agents, officers, employees, and all others acting on behalf of Consultant relating to this Agreement will be performed as independent contractors. Consultant, its agents, and employees will represent and conduct themselves as independent contractors and not as employees of District. Consultant has no authority to bind or incur any obligation on behalf of District. Except as District may specify in writing, Consultant shall have no authority, express or implied, to act on behalf of District in any capacity whatsoever as an agent. Consultant shall have no authority, express or implied, pursuant to this Agreement to bind District to any obligation whatsoever. Consultant is prohibited from subcontracting this Agreement or any part of it unless such subcontracting is expressly approved by District in writing.

15. Insurance. Consultant and all of Consultant's contractors and subcontractors shall obtain and maintain insurance of the types and in the amounts described in this paragraph and its subparagraphs with carriers reasonably satisfactory to District.

A. General Liability Insurance. Consultant shall maintain occurrence version commercial general liability insurance or an equivalent form with a limit of not less than Two Million Dollars ($2,000,000) per claim and Two Million Dollars ($2,000,000) for each occurrence.

B. Workers' Compensation Insurance. Consultant shall carry workers' compensation insurance as required by the State of California under the Labor Code. Consultant shall also carry employer's liability insurance in the amount of One Million Dollars ($1,000,000.00) per accident, with a One Million Dollar ($1,000,000.00) policy limit for bodily injury by disease, and a One Million Dollar ($1,000,000.00) limit for each employee's bodily injury by disease.

C. Automobile Insurance. Consultant shall carry automobile insurance for the vehicle(s) Consultant uses in connection with the performance of this Agreement in the amount of One Million Dollars ($1,000,000.00) per occurrence for bodily injury and property damage.

D. Errors and Omissions Liability. Consultant shall carry errors and omissions liability insurance in the amount of no less than One Million Dollars ($1,000,000.00)

per ~~occurrence or greater if appropriate for the Consultant's profession~~claim/annual aggregate limit.~~ Architects and engineers' coverage is to be endorsed to include contractual liability.~~ Any deductibles or self-insured retentions must be declared to and approved by the District. At the option of the District, either the insurer shall reduce or eliminate such deductibles or self-insured retentions with respect to theDistrict, elected and appointed councils, commissions, directors, officers, employees, agents, andrepresentatives ("District's Agents"); or the Consultant shall provide a financial guarantee satisfactory to the District guaranteeing payment of losses and related investigations, claims administration and defense expenses.

E. Other Insurance Requirements. Within five (5) days of the Effective Date, Consultant shall provide District with certificates of insurance for all of the policies required under this Agreement ("Certificates"), excluding the required worker's compensation insurance. Such Certificates shall be kept current for the Term of the Agreement and Consultant shall be responsible for providing updated copies and notifying District if a policy is cancelled, suspended, reduced, or voided. With the exception of the worker's compensation insurance, all of the insurance policies required in this Agreement shall: (a) provide that the policy will not be cancelled, or allowed to expire~~, or materially reduced in coverage~~ without at least thirty (30) days' prior written notice to District of such cancellation, or expiration~~, or reduction and each policy shallbe endorsed to state such~~ or terminated for non-payment without at least ten (10) days prior written notice to District; (b) include District, and District's Agents as additional insureds (with the exception of Workers Compensation and Omission insurance with respect to liability arising out of Services, work or operations performed by or on behalf of the Consultant; products and completed operations of the Consultant; premises owned, occupied, or used by the Consultant, or automobiles owned, leased, or hired or borrowed by the Consultant. The coverage shall contain no special limitations on the scope of protection afforded to the District;
(c) be primary with respect to any insurance or self-insurance programs covering District or District's Agents and any insurance or self-insurance maintained by District or District's Agents shall be in excess of Consultant's insurance and shall not contribute to it; (d) contain standard separation of insured provisions; and (e) state that any failure to comply with reporting or other provisions of the policy including breaches of warranties shall not affect the coverage provided to the District.

16. Indemnification.

A. Claims Arising From Consultant's Professional Services. In accordance with California Civil Code, §2782.8, Consultant shall indemnify District against claims arising from Consultant's professional services to the extent that any such claim arises out of Consultant's negligence, recklessness, or willful misconduct. In no event shall the cost to defend charged to the Consultant exceed the Consultant's proportionate percentage of fault.

B. Claims Not Arising from Consultant's Professional Services. For claims not arising from Consultant's professional services, Consultant hereby agrees to indemnify and hold harmlessDistrict, its ~~agents,~~ officers, employees and volunteers, against all liability, obligations, claims, loss, and expense (a) caused or created by the negligent acts or omissions of Consultant, its subcontractors, or the agents oremployees of either, ~~whether negligent or not,~~ in connection with the Services, or (b) arising out of injuries suffered or allegedly suffered by employees of Consultant or its subcontractors (i) in the course of their employment, (ii) in the performance of work

hereunder, or (iii) upon premises owned or controlled by District.Consultant's obligation to defend, indemnify and hold District and its agents, officers, employeesand volunteers harmless is not terminated by any requirement in this Agreement for Consultant toprocure and maintain a policy of insurance.

17. Consequential Damages. Notwithstanding any other provision of this Agreement, in no event shall District be liable, regardless of whether any claim is based on contract or tort, for any special, consequential, indirect, or incidental damages, including, but not limited to, lost profits or revenue, arising out of or in connection with this Agreement or the Services performed in connection with this Agreement.

18. Litigation. In the event that either Party brings an action under this Agreement for the breach or enforcement hereof or must incur any collection expenses for any amounts due hereunder the prevailing Party in such action shall be entitled to its costs including reasonable attorney's fees, whether or not such action is prosecuted to judgment.

19. Notices. Any notice or communication required hereunder between District or Consultant must be in writing, and may be given either personally, by registered or certified mail (return receipt requested), or by Federal Express, UPS or other similar couriers providing overnight delivery. If personally delivered, a notice shall be deemed to have been given when delivered to the Party to whom it is addressed. Notices given by registered or certified mail shall be deemedto have been given and received on the first to occur of (a) actual receipt by any of the addressees designated below as the party to whom notices are to be sent, (b) on the date delivered as shown on a receipt issued by the courier, or (c) five (5) days after a registered or certified letter containing such notice, properly addressed, with postage prepaid, is deposited in the United States mail. If given by Federal Express or similar courier, a notice or communication shall be deemed to have been given and received on the date delivered as shown on a receipt issued by the courier. Any Party hereto may at any time, by giving ten (10) days written notice to the other Party hereto, designate any other address in substitution of the address to which such notice or communication shall be given. Such notices or communications shall be given to the Parties at the addresses in this paragraph set forth below:

If to District:

Georgetown Divide Public Utility District
P.O. Box 4240
6425 Main Street
Georgetown, CA 95634
Attention: General Manager

With courtesy copies to:

If to Consultant:

Attention:

20. General Provisions.

A. Modification. No alteration, modification, or termination of this Agreement shall be valid unless made in writing and executed by all Parties.

B. Waiver. The waiver by any Party of a breach of any provision hereof shall be in writing and shall not operate or be construed as a waiver of any other or subsequent breach hereof unless specifically stated in writing.

C. Assignment. No Party shall assign, transfer, or otherwise dispose of this Agreement in whole or in part to any individual, firm, or corporation without the prior written consent of the other Party. Subject to the forgoing provisions, this Agreement shall be binding upon, and inure to the benefit of, the respective successors and assigns of the Parties.

D. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state of California.

E. Venue. Venue for all legal proceedings shall be in the Superior Court of California for the County of El Dorado.

F. Partial Invalidity. If any provision of this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

G. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall constitute an original and all of which shall be deemed a single agreement.

H. Severability. If any term, covenant, or condition of this Agreement is held by a court of competent jurisdiction to be invalid, the remainder of this Agreement shall remain in effect.

I. Audit. District shall have access at all reasonable times to all reports, contract records, contract documents, contract files, and personnel necessary to audit and verify Consultant's charges to District under this Agreement.

J. Entire Agreement. This Agreement sets forth the entire understanding between the Parties as to the subject matter of this Agreement and merges all prior discussions, negotiations, proposal letters or other promises, whether oral or in writing.

K. Headings Not Controlling. Headings used in this Agreement are for reference purposes only and shall not be considered in construing this Agreement.

L. Time is of the Essence. Time is of the essence in this Agreement for each covenant and term of a condition herein.

M. Drafting and Ambiguities. Any rule of construction that ambiguities are to be resolved against the drafting party does not apply in interpreting this Agreement.

IN WITNESS WHEREOF, the Parties have executed this Agreement as of the last day and date below written.

DISTRICT:

GEORGETOWN DIVIDE PUBLIC UTILITIES DISTRICT, a California Public Utilities District

By: _____
, General Manager

Date: _____

Approved as to Form:

_____
, General Counsel

CONSULTANT:

By:_____

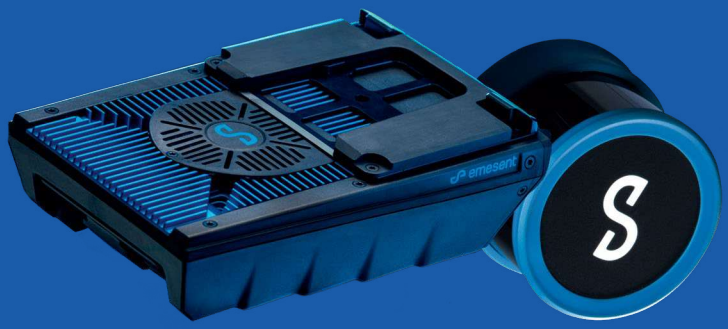
Name:_____

Date: _____

Appendix B
Technical Spec Sheets

HOVERMAP ST RANGE

emesent

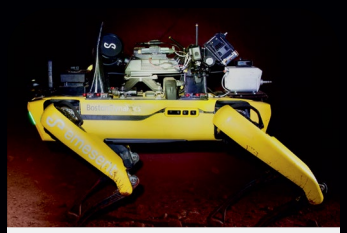


Hovermap's product range has extended to ensure you have the right tool for the job. Building on the proven success of Hovermap's versatile autonomy and mapping capability, ST and ST-X models are available to extend the areas you can map and capture data.

All Hovermaps in the ST product range are designed with the tough, lightweight, IP65 weather sealed design giving you the confidence to capture harsher areas. The award winning Wildcat SLAM solution and Emesent autonomy algorithms ensure safety for the drone and asset, even in hazardous, GPS-denied environments. Emesent Aura, the integrated processing and visualization software, and its Automated Ground Control feature further increases the accuracy of Hovermap point clouds and enhance the capabilities of its SLAM-based mapping.

ROBUST, AUTONOMOUS CAPABILITY

Autonomy modes designed to suit your needs with pilot assist with omnidirectional collision avoidance or beyond line of sight Guided Exploration.

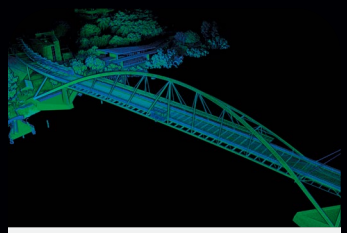


UNIQUE VERSATILITY AND DEPLOYMENT OPTIONS

The plug and play design allows easy switching from drone-based use to handheld, backpack-, vehicle-, or ground robot-mounted scanning.

LIVE STREAMED POINT CLOUD

Hovermap streams the live point cloud to the Hovermap app, allowing a real-time preview of the data as it is captured.



HIGH DENSITY DATASETS

Capture shadowless, dense, detailed point clouds of an entire complex asset and add a level of reality capture with Colorization (optional).

HOVERMAP VERSATILITY

All products in the ST range have Hovermap's unique versatility that allows users to capture data from previously inaccessible areas, either from the air or on the ground. Accessories are compatible with both ST and ST-X, meaning if you expand your Hovermap fleet, you can use the same accessories on different Hovermaps.

Deployment options include:

- HANDHELD
- DRONE MOUNTED
- VEHICLE MOUNTED
- BACKPACK MOUNTED
- GROUND ROBOT MOUNTED

WHAT ARE THE MAIN TECHNICAL SPECIFICATION DIFFERENCES?

There are a few key technical specification differences between ST and ST-X, which offers additional benefits to users.

	ST	ST-X	BENEFIT OF ST-X
MAPPING SPECIFICATIONS			
LiDAR range	0.40m to 100m 1.3 to 330 ft	0.50m to 300m 1.6 to 984 ft	The extended range captures more data points from further distances and reduces the time to scan larger areas.
LiDAR Precision	± 30 mm	± 10 mm	ST-X achieves a significant improvement in overall point accuracy - creating maps with more precisely defined features.
Mapping Accuracy	± 20 mm (3/4 in) in general environments ± 15 mm (19/32 in) in typical indoor and underground environments ± 5 mm (7/32 in) isolated change detection capability	± 15 mm (19/32 in) in general environments ± 10 mm (3/8 in) in typical indoor and underground environments ± 5 mm (7/32 in) isolated change detection capability	
LiDAR Channels	16	32	Doubling the number of Laser sensors, effectively doubles the resolution of map and is able to create a map of equivalent density (ST) in a reduced scan time.
LiDAR Data acquisition speed	Single Return Mode: up to 300,000 points/sec Dual Return Mode: up to 600,000 points/sec	Single Return Mode: up to 640,000 points/sec Multi Return Mode (3 return): up to 1,920,000 points/sec	A triple return mode, is important where a detection beam may traverse several layers - for example flying above forest canopies. Second and third returns will reveal additional ground detail underneath the forestry.
Storage	512 Gigabytes – approximately 8 hours of sensor data	512 Gigabytes – approximately 4 hours of sensor data	Datasets have more data points.
PHYSICAL SPECIFICATIONS			
Weight	1.6 kg (3.5 lb)	1.57kg (3.4 lbs)	The reduced weight improves ease-of-use.

RIGHT TOOL FOR THE JOB WITH HOVERMAP ST AND ST-X.

HOVERMAP ST OR HOVERMAP ST-X, PLUS

HOVERMAP HARDWARE KIT

- Custom fitted tough case with space for accessories
- Hovermap handle and belt clip
- 1.5 m power cable (handle-mount/battery)
- 0.35 m power cable (drone/platform)
- V-Mount 98Wh, 14.8v 6600mAh battery
- Standard charger with international adaptors (US/Canada/Japan, AUS/NZ, and Europe)
- Emesent data processing licence key with Aura Lite software
- Hovermap scanning software USB

ENTITLEMENTS

- Hovermap Autonomy
- Hovermap Plus
- Hovermap Mapping

TRAINING & SUPPORT

- Introductory training session /video, and manual
- Global Support and Service

SOFTWARE

- Aura Software, with Automated Ground Control (GCP) and Colorization, is included in all subscription entitlements

ADDITIONAL HARDWARE

- Emesent Control Point targets
- GoPro and colorization kit
- Hovermap fitting kits for DJI M210 and M300
- Samsung tablet and tablet display kit for DJI Smart Controller

ACCESSORIES

- Backpack (hardcase for walking scans and storage)
- Cavity Monitoring System adaptor kit
- Long Range Radio
- Magnetic or Suction vehicle mounts
- Cage
- Telescopic Boom Pole

Proceq Ground Penetrating Radars

GP8800

Concrete inspections and structural imaging with SFCW ground penetrating radar technology now fits at the palm of your hand

Performance

Superior depth and clarity of data thanks to the unique Swiss Made radar technology with all the frequencies you'll ever need. Immediate insights with 3D and Augmented Reality.

Versatility

Inspect with ease of use, from the tightest spots to the tallest walls to the longest streets. Superior ergonomics to tackle any challenge with comfort, without cables.

Productivity

A mobile app that lets you annotate measurements with voice, photos and comments. Generate reports and share them instantly. Access your data from anywhere, anytime.

Proceq GPR App
Tech Specs

Measurement modes	Superline Scan (1000m / 3281 ft) Area Scan (with Flexible Grid up to 100m2 / 1076 ft2)
Review modes	Superline scan[1] A-scan (incl. envelope) Migrated view Non-migrated view Split view[1] Time-Slice view[2] Basic 3D view AR
Advanced visualization	Time-Slice view Pro 3D view Augmented Reality (AR)
Reporting	Workspace integration Automatic Logbook SEG-Y export Instant report generation Share via URL
Export formats	JPG PNG CSV SEGY HTML
Display Unit Specs*	Latest Apple® iPad recommended (iPad with iOS 11.0 and higher) Screen size: From 7.9" to 12.9" Resolution: Up to 2732-by-2048 Memory: Up to 2TB Weight: Down to 301 g / 10.6 oz Camera: Up to 12MP Wide and 10MP Ultra Wide Optional: USB-C, 5G, Face ID
Display Unit Sensors*	LiDAR Scanner (optional) Three-axis gyro Accelerometer Ambient light sensor Barometer Built-in GPS/GNSS

1. GP8100 only, 2. GP8000 & GP8100 only

* Depending on iPad model

Download on the App Store

Instrument
Tech Specs

Radar technology	Stepped-frequency continuous-wave (SFCW) GPR
Modulated frequency range	400 – 6000 MHz
Penetration depth	65 cm / 25.6 in
Battery	Flight-safe, removable pack, 4x AA (NiMH)
Dimensions	8.9 x 8.9 x 7.6 cm 3.5 x 3.5 x 3 in
Weight	487 g / 17.2 oz (excl. battery pack)
Ground clearance	0 cm
Antennas	1
Antenna distance to edge	4.5 cm / 1.77 in
Special features	Wireless wheel, reconfigurable at any time without tools. Cross-polarization (trailing and side-car configurations) USB-C tethering to battery pack/power bank
Connections	WiFi (802.11n) and USBC to display unit
Autonomy	2.5 h (up to 8 hours with off-the-shelf 10'000 mAh power bank, not included)

Our Accessories

Image	PartNumber	Description
	79330235	Universal tablet holder for direct mounting on Proceq GPR 8000/8100 and Pundit PD8050
	39380010	Telescopic rod kit for Proceq GPR instruments including the universal tablet holder UTH100 Compatible with GP8000, GP8100 and GP8800...
	79330345	Chest harness kit for hands free operation of all iPad app based instruments: GP8000, GP8100, GP8800, PD8050, PM8000, PI8000...

Standards & Guidelines	Description
ACI 228.2R.98	
ASTM D4748-10	
ASTM D6087-08	
ASTM D6432-11	
EN 302066 - ETSI	
NCHRP Synesis 255	
SHRP H-672	
SHRP S-300	
SHRP S-325	

StructureScan™ Mini XT

The StructureScan™ Mini XT is a powerful tool designed for today's professional concrete scanner and built to handle all your job site and survey needs. This rugged system is designed with an integrated display for single operator data collection and interpretation. Reduce safety risks, financial exposure, costly delays and provide the full-range of services to your customers by adding this concrete scanner to your toolbox.

The Mini XT Advantage

The StructureScan Mini XT is ideal for concrete inspection and evaluation. Easily and accurately locate the position and depth of metallic and non-metallic objects in concrete structures, including rebar, conduit, post-tension cables, pan decking, voids and service utilities.

For challenging or large surveys, the Mini XT Kit has got you covered. Expand your survey capabilities and enhance job site efficiency with accessories that include the Palm XT antenna, LineTrac XT, extension pole and Mini XT harness.

MAX DEPTH 60 cm (24 inches)	**ANTENNA FREQUENCY** 2700 MHz
WEIGHT 1.8 kg (4 pounds)	**STORAGE CAPACITY** 14.5 GB
OPTIONAL SOFTWARE RADAN 7 for StructureScan Mini	**ACCESSORIES** Palm XT Antenna, LineTrac XT, Extension Pole, Carry Harness

See our website for more information and detailed specifications: www.geophysical.com

STRUCTURESCAN MINI XT FEATURES

Enhanced Target Visualization

The StructureScan Mini XT provides excellent near-surface resolution while also maintaining the ability to see deeper targets. The Mini XT provides multiple modes for data collection and interpretation:

Scan EZ: With the press of just one button, this mode provides the ideal amount of information with 2D data views for efficient mark-and-go surveys

Scan Max: Focus mode is designed to simplify the data to better highlight embedments, locate voids and see closely spaced targets

Scan 3D: 3D visualization is often used in complicated structural scenarios where the survey area may contain multiple levels of targets. This mode helps the user visualize congested areas and non-linear targets

Increase Job Site Efficiency with the Mini XT Kit

Today's professional scanners need a variety of tools to conquer all job site obstacles. For large survey areas, the extension pole allows for better ergonomics and ease of use. Using the Mini XT harness and Palm XT antenna together allows the user to collect data with one-hand operation ensuring you maintain three points of contact to comply with OSHA regulations.

ACCESSORIES

Palm XT Antenna

Palm XT gives users the ability to scan tightly spaced areas and between obstacles. The survey wheel orientation can quickly be rotated between three positions for increased survey flexibility. This feature also makes it simple to switch between standard and cross polarized data collection.

- Cross Polarization scanning can reduce the top layer of mesh from view and assist with material discrimination
- Full keypad control via the antenna top provides remote control of the user interface

LineTrac XT

LineTrac XT adds the ability to detect AC power present in conduits. This accessory detects low amplitude AC signals associated with difficult to locate conduits.

- Seamless fusion with GPR data
- Aids in target discrimination
- Detection at 50/60 Hz
- Rugged, IP-65 rated enclosure

Geophysical Survey Systems, Inc.
40 Simon Street • Nashua, NH 03060-3075 USA • www.geophysical.com

01.10.2022

BRIERLEY ASSOCIATES
Creating Space Underground
1999 25 years 2024

July 19, 2024

Mr. Adam Brown
Operations Manager
Georgetown Divide Public Utility District Office
6425 Main Street, P.O. Box 4240
Georgetown, CA 95634

Re: Raw Water Conveyance Tunnel Inspection – Revised Scope and Cost Estimate

File No: 124141-970

Dear Mr. Brown,

Subsequent to discussions that took place between Georgetown Divide Public Utility District (GDPUD) and Brierley Associates (Brierley) on Monday July 15 and Thursday July 18, 2024,our review of the tunnel inspection report dated February 25, 1994, and internal discussions within the Brierley Team, we herein present our revised scope and cost estimate to perform the Raw Water Tunnel Conveyance Tunnel Inspection.

We would like to reassure GDPUD that the Brierley Team and the key personnel identified in our original proposal to perform the work will remain unchanged.

In addition to maintaining the same key personnel, the overall scope of work for "Task 1 - Project Management" and "Task 2 - Tunnel Inspection" outlined in our original proposal will also generally remain unchanged. We will provide a detailed work plan and health and safety plan prior to the start of work, review any documents associated with the tunnel construction and previously completed tunnel inspection reports, and provide a report detailing our findings upon completion of the tunnel inspection. It is recommended that the expectation of this inspection is to identify locations of the tunnel that warrant subsequent evaluation(s) based on impacts to serviceability and levels of condition severity. We anticipate this inspection will be part of phased program that's intent is to enhance reliability and resiliency for this critical GDPUD asset.

The scope of work outlined in "Task 2 – Tunnel Inspection" of our original proposal will also generally remain unchanged. However, we propose to conduct the work in a single 10 hour inspection shift and provide a single three person crew. This 10 hour shift presumes a minimum of ~8 hours of inspection time, allowing ~2 hours for the tunnel safety personnel to work ahead of the inspection crews and access and egress for crew breaks. A revised program is included for reference. GDPUD should note, however, that the impact of reducing the number of inspection personnel and tunnel inspection time will likely result in a reduced volume of data collected.

Our original proposal allowed for a detailed assessment of the inlet and outlet portals and collection of measurements along the entire tunnel alignment (rock mass characteristics, tunnel dimensions, and existing liner conditions, etc.) with the aim of providing an overall tunnel condition assessment. While it is still the intention to record and collect this type of data, the emphasis of the tunnel inspection will shift to focus on the identification and inspection of discrete areas we assess to be in critical condition and in need of immediate repair or rehabilitation, if any. We will still adhere to the original requirements established in the Request for Proposal (RFP) of a photographic survey at intervals of 50 to 100 feet and if time permits, as much information in other areas of the tunnel will also be collected.

The original cost estimate has been revised based on the reduced tunnel inspection time and number of inspection personnel. This accounts for reduced mobilization and demobilization costs, field time based on reduction in field crews, as well as a reduction in reporting time. The revised cost estimate is provided in the enclosed attachments.

It should be noted that the records provided to us indicate the last inspection was completed in 1994 and we are unaware of any subsequent inspections or if GDPUD personnel have entered the tunnel since to assess its condition. We therefore recommend that GDPUD include a contingency in addition to the provided costs to allow for additional inspection time should it be needed. Each additional day would be billed on a day rate of $16,000 per day.

The Brierley Team would like to express our gratitude for the opportunity to provide GDPUD with our services and we look forward to finalizing our agreement to complete the Raw Water Conveyance Tunnel Inspection.

Kindest Regards,

BRIERLEY ASSOCIATES CORPORATION

Bill Zietlow, PE
Senior Associate

Correspondence should be directed to:
Nathan Stubley, Associate
6355 Topanga Canyon Blvd., Suite 502
Woodland Hills, CA 91367
Mobile: 323-819-3612
Email: nstubley@brierleyassociates.com

Attachments

1. Updated Project Schedule
2. Raw Water Conveyance Tunnel Inspection Fee Estimate Summary

PRELIMINARY PROJECT AND FIELDWORK SCHEDULE

PRELIMINARY PROJECT SCHEDULE

Task Description	Estimated Start Date	Estimated End Date	July	August	September	October	November
Contract Award / Notice to Proceed	10-Jul-24	10-Jul-24					
Task 1 - Project Management, Records Review, Schedule							
Task 1.1 - Project Management	11-Jul-24	7-Dec-24					
Task 1.2 - Records Review	22-Jul-24	2-Aug-24					
Task 1.3 - Schedule	11-Jul-24	7-Dec-24					
Task 2 - Tunnel Inspection							
Mobilization	14-Oct-24	14-Oct-24					
Tunnel Inspection	15-Oct-24	15-Oct-24					
Demobilization	16-Oct-24	16-Oct-24					
Task 3 - Reporting							
Draft Report	21-Oct-24	15-Nov-24					
Final Report	18-Nov-24	29-Nov-24					

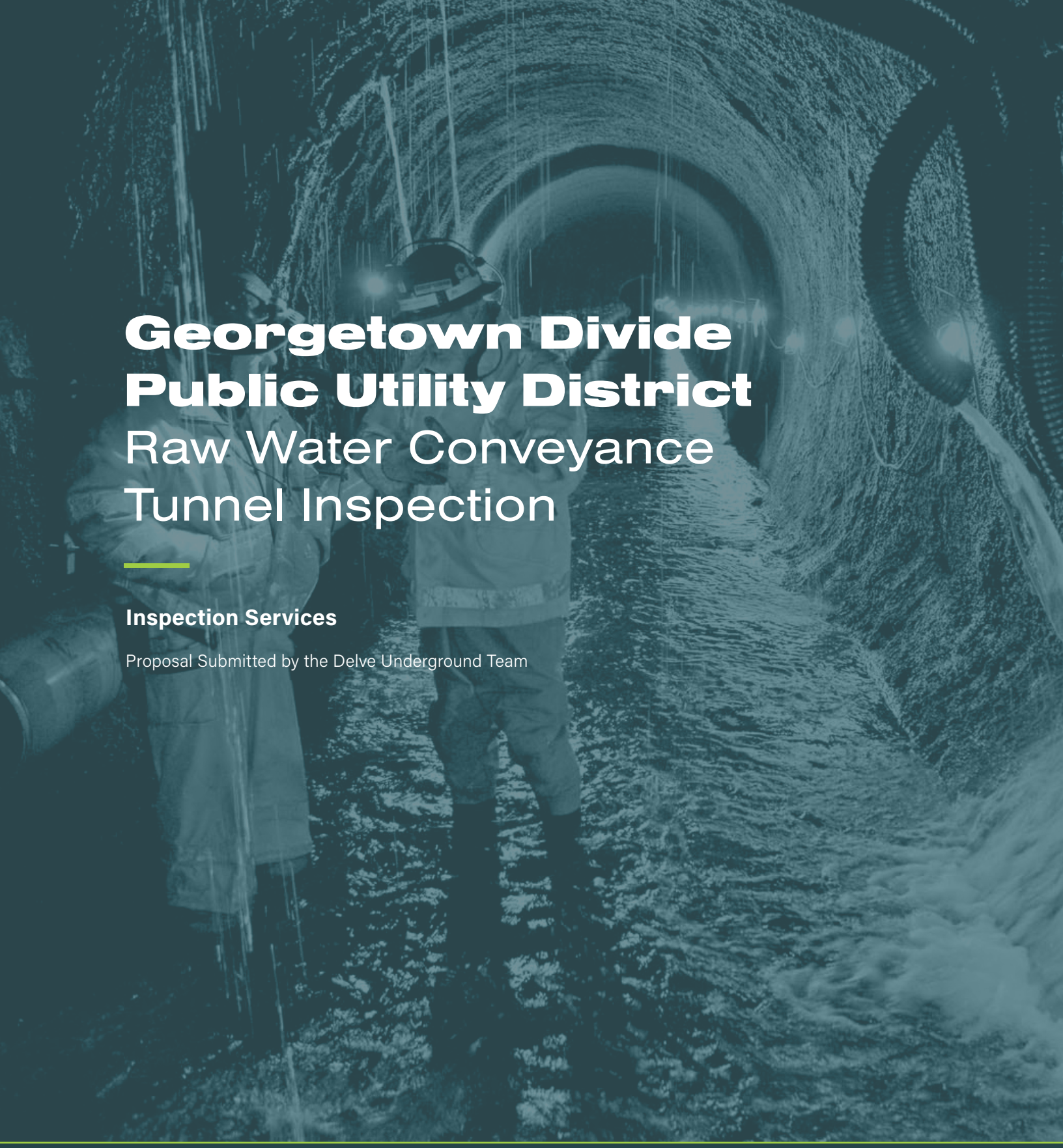
PRELIMINARY FIELDWORK SCHEDULE

Task Description	Time		October Tuesday, October 15, 2024
	From	To	8:00 10:00 12:00 14:00 16:00 18:00
Day 1			
Site safety orientation / tunnel safety and access	8:00	9:00	
Tunnel/Portal Inspections	8:00	18:00	

FEE ESTIMATE SUMMARY
Raw Water Conveyance Tunnel Inspection
July 19, 2024
124141-970

BRIERLEY ASSOCIATES
Creating Space Underground
BARR

Task	Task Description	Brierley Labor Costs	Subcontractor Costs w/markup	Other Direct Costs w/markup	Lab Testing	Total
1	**Project Management, Records Review, Schedule**					
1.1	Project Management	$ 19,100	$ 4,853	$ -	$ -	$ 23,953
1.2	Record Review	$ 2,660	$ 2,484	$ -	$ -	$ 5,144
1.3	Schedule	$ 650	$ -	$ -	$ -	$ 650
2	**Tunnel Inspection**					
2.1	Mobilization and Demobilization	$ 8,800	$ 35,662	$ 3,146	$ -	$ 47,608
2.2	Tunnel Inspection	$ 5,500	$ 9,879	$ -	$ -	$ 15,379
3	**Reporting**					
3.1	Tunnel Inspection Report	$ 19,840	$ 15,019	$ -	$ -	$ 34,859
	Total	$ 56,550	$ 67,896	$ 3,146	$ -	$ 127,592



Georgetown Divide Public Utility District

Raw Water Conveyance Tunnel Inspection

Inspection Services

Proposal Submitted by the Delve Underground Team

DELVE underground

June 21, 2024 | **delveunderground.com**

DELVE
underground

1614 19th Street,
Suite A
Sacramento, CA 95811

June 21, 2024

Adam Brown, Operations Manager
Georgetown Divide Public Utility District Office
6425 Main Street, P.O. Box 4240
Georgetown, CA 95634

REQUEST FOR PROPOSAL: Raw Water Conveyance Tunnel Inspection

Adam,

The Georgetown Divide Public Utility District (the District) is seeking to ensure long-term reliability for their larger, 70-mile raw water conveyance system through an inspection and evaluation of a 4,900-foot tunnel segment of critical infrastructure. Delve Underground brings unparalleled experience in tunnel inspection and evaluation, as well as specialized experience in tunnel rehabilitation, design, and construction. The Delve Underground team will be supported by ENGEO and KASL Consulting Engineers, firms which possess intricate knowledge of the District's entire raw and treated water conveyance systems. Our team brings differentiated value to the District through the following expertise:

✓ **Tunnel Inspection and Rehabilitation Experts:** At Delve Underground, we are underground engineering experts. Our strong tunnel rehabilitation and construction expertise is built from supporting the many owners who want to extend the service life of their previously built assets. Key members of our team are also members of our Tunnel Inspection and Rehabilitation Practice Group (TRIP), which is spearheaded on the West Coast by Kush Chohan, PE, GE, PMP, our proposed Project Manager. Recent examples of our local rehabilitation design experience include El Dorado Irrigation District's Esmeralda Tunnel, Yuba Water Agency's Colgate Tunnel, East Bay Municipal Utility District's (EBMUD) Claremont Tunnel, and San Francisco Public Utilities Commission's (SFPUC) Mountain Tunnel, Canyon Tunnel, and Irvington Tunnel. We will work closely with the District to develop practical, lasting solutions.

✓ **Highly Experienced Local Team:** The proposed tunnel inspection team of Delve Underground, ENGEO, and KASL consulting engineers bring highly experienced group of tunnel engineers, geotechnical engineers, and geologists that understand the unique geological challenges in the region, having inspected many lined and unlined tunnels in the area. Our team also understand Georgetown Divide PUD's system and their needs. Our team leads are based locally in Sacramento and Placer Counties, ensuring easy accessibility to the project site and Georgetown PUD's local offices. Our local advantage positions us to provide exceptional responsiveness and streamlined communications. This translates to faster response times to your questions, reduced mobilization costs, and deeper understanding of the local geotechnical and geological conditions.

✓ **Uniquely Qualified Project Manager:** Our team will be managed by a proven leader, Kush Chohan, PE, GE, PMP, with more than 12 years of project management experience and 18 years of professional engineering experience. Kush understands the full project life cycle of planning, design, construction, commissioning, and operation with projects ranging from small up to $2.5 billion. Kush has served as a lead tunnel engineer on other tunnel rehabilitation projects assessing the condition of over 48 miles of tunnels. He provides technical guidance on best practices for the Underground Construction Association committees on Maintenance and Repair of Structures.

DELVE
underground

1614 19th Street,
Suite A
Sacramento, CA 95811

The Delve Underground team will commit local resources and specialized tunneling expertise across our firm to deliver an exceptional project that will exceed the District's expectations. If you have any questions about the material presented herein, please do not hesitate to contact me directly. No addenda were provided as part of this proposal package.

Please note, Delve Underground verifies that this proposal is firm for a 90-day period from the proposal submission deadline. Delve Underground also acknowledges that the contractor will provide the insurance and indemnification required per the provided Professional Service Agreement.

Sincerely,

Rachel Martin, PE
Vice President
925.705.4137
martin@delveunderground.com

Primary Office: Sacramento, CA

1614 19th Street, Suite A
Sacramento, CA 95811

Supporting Offices: Walnut Creek and San Francisco, CA

2999 Oak Road, Suite 710
Walnut Creek, CA 94597

49 Stevenson Street, Suite 1200
San Francisco, CA 94105

Headquarters: Seattle, WA

1011 Western Avenue, Suite 706
Seattle, WA 98104

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206.588.8200
1011 Western Avenue
Suite 706
Seattle, WA 98104

June 19, 2024

Adam Brown, Operations Manager
Georgetown Divide Public Utility District
6425 Main Street
PO Box 4240
Georgetown, CA 95634

Subject: **Raw Water Conveyance Tunnel Inspection**
Re: **Delve Underground Corporate Officer – Rachel Martin**

Dear Mr. Brown:

As Corporate Secretary for Delve Holdings, Inc., parent/holding company of Jacobs Associates d.b.a. Delve Underground, I certify that Rachel Martin is a Vice President and officer of Jacobs Associates d.b.a. Delve Underground with authority to execute contracts up to $10 million.

Sincerely,

Lori Lyons-Lachman
Corporate Secretary

cc: File

Project Team Information

Experience and Qualifications

Teaming History

For over a decade, Delve Underground has successfully teamed with ENGEO on geotechnical-focused water and wastewater initiatives, specifically in California, across North America, and abroad. Previous projects include the Sacramento Regional County Sanitation District's Upper Northwest Interceptor Sections 1&2 Geotechnical Investigation Ground Improvement, the Warkworth to Snells Pipeline-Detailed Design for New Zealand's Watercare Services Limited, and the Southern Pipeline Tauranga Harbour Crossing also located in New Zealand.

ENGEO and KASL Consulting Engineers have previously worked together on projects for the District, including the 2022-2023 Water System Reliability and Conditions Assessment Study. Their knowledge of the conveyance system condition and surrounding terrain in the wake of the Mosquito Fire, paired with their collective knowledge of the District's protocols and needs, will be an invaluable resource to the collective team.

Key Personnel

Our diverse staff, the knowledge and mastery of our subject matter experts, and our client-focused approach to developing customized solutions make Delve Underground stand out from the competition. We have experts in feasibility, alternatives analysis, condition assessment, inspection, design, and construction management for tunnel rehabilitation projects. Our team includes structural engineers, geotechnical engineers and engineering geologists, cost estimators, and construction managers who provide responsive and comprehensive solutions to clients' needs.

The Delve Underground team has the qualifications, registrations, and certifications to complete the tunnel engineering services that the District may require. Their full credentials and project history are provided in detail on their resumes in Appendix 1.

Our team, which includes support from ENGEO and KASL Consulting Engineers, have been carefully selected based on the scope of work items specified in the RFP. Our organizational chart and short biographies of our Key Personnel are included on the following pages.

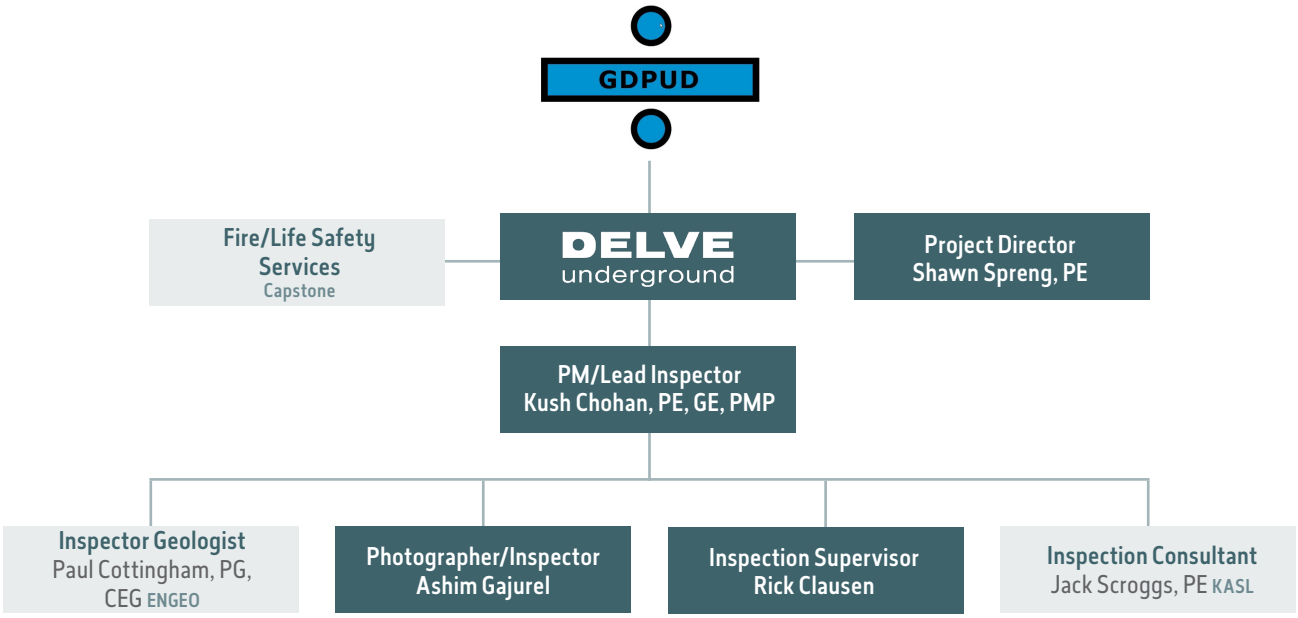
Figure 1. *Shawn Spreng Examining Outlet Tunnel Ventilation Pipe; Lenihan Dam Outlet Modification Project, Los Gatos, California, USA*

Services

- Geotechnical and Rock Engineering
- Geology and Hydrogeology
- Emergency Response
- Foundation Engineering for Rock and Soil
- Tunnel Assessment and Rehabilitation Design
- Tunnel Capacity Improvements Design
- Retaining Walls and Structures
- Embankment Stability Design and Settlement Analysis
- Slope Stability Mapping, Analysis, and Mitigation Design
- Blasting Design and Review
- Seismic Analysis
- Trenchless Technologies
- Structural Engineering
- Condition Assessment
- Construction Management
- Cost Estimating
- Planning and Feasibility Studies

Organizational Chart

Our team is structured to provide solutions that add value and reduce risk, and includes subconsultants chosen for their depth of client knowledge and expertise. We offer unequaled tunnel expertise, seamless integration, and commitment to the project to assure the District that our team can meet any need. The key leads are supported by technical experts and extensive resources. The designated contact for the District throughout the duration of the project will be Kush Chohan, Project Manager: chohan@delveunderground.com; 916.229.6967



Our client-centered relationships are key to our success - achieving over 80% of our work from repeat clients including:

- Los Angeles Department of Water and Power
- Metropolitan Water District of Southern California
- San Francisco Public Utilities Commission
- East Bay Municipal Utility District
- DC Water
- New York City Department of Environmental Protection
- Massachusetts Water Resources Authority

Figure 2. *Enloe Dam Dewatered Inspection, Geologic Reconnaissance, Oroville, Washington, USA*

Staff Biographies

Kush Chohan, PE, GE, PMP
Project Manager/Lead Inspector, Delve Underground

Location: Sacramento, CA
Highest Education: MS, Geotechnical Engineering

Kush has 18 years of hands-on civil and geotechnical engineering experience. He has provided project management, design and construction support services on several major infrastructure projects. Kush's most recent leadership roles include serving as task order manager responsible for guiding the planning design support and field investigation for San Francisco Public Utilities Commission's San Joaquin Pipeline Valve and Safe Entry Improvement project, and serving as resident engineer for the Keddie Tunnel #4, which involved the emergency repair of collapsed BNSF Railway tunnel and required both design support and construction monitoring for a 24/7 construction schedule.

Shawn Spreng, PE
Project Director, Delve Underground

Location: Walnut Creek, CA
Highest Education: MS, Civil Engineering

Shawn has more than 20 years of civil and underground engineering experience, encompassing extensive expertise providing construction support services to owners and contractors. He specializes in the inspection and design of reservoir outlet tunnels, along with geologic mapping and evaluation of ground conditions for tunnel support installation, and is also familiar with the FERC part 12 process. As project director, Shawn draws from his background managing large tunnel projects which include the Bay Tunnel and Vista Grande, together with rehabilitation projects such as the Elizabeth Tunnel and Reach 9 for the Metropolitan Water District of Southern California.

Paul Cottingham, PG, CEG
Inspector Geologist, ENGEO

Location: Rocklin, CA
Highest Education: BS, Geology

Paul has over 21 years of experience practicing engineering geology and has served as project manager and technical lead for a multitude of public- and private-sector clients throughout Northern California and Nevada. Paul's expertise includes complex subsurface investigations, geologic mapping, levee evaluation and design, dam instrumentation, landslide mitigation design, hillside grading, rockfall modeling, and slope stability evaluation. Paul's experience has included technically challenging projects teaming with multi-firm project teams including Delve Underground and KASL Engineers. He has worked in mountainous terrain with complex geology and lives in the Sierra Nevada which has resulted in a deep understanding of the Sierra's bedrock geology, quaternary geomorphology, slope stability, and terrain. Paul is comfortable navigating steep terrain in variable weather and ground conditions allowing for the collection of critical geologic data.

Richard (Rick) Clausen
Inspection Supervisor, Delve Underground

Location: Sacramento, CA
Highest education: BS, Civil Engineering

Richard (Rick) Clausen brings over 35 years in the construction industry with 28 years of experience in varying positions including Field Engineer, Lead Inspector, Quality Manager, Materials Engineer and Technical Consultant overseeing design, construction management, quality assurance programs, testing and compliance of a multitude of heavy civil structures involving tunnels, shafts, masonry, concrete, shotcrete, post-tension, and prestressed, precast and composites. His background in Engineering Services During Construction (ESDC) includes experience with submittal reviews, developing RFI responses, and resolving field issues. Rick has established QA procedures and

managed projects for clients including State of Alaska DOT, Washington DOT, Oregon DOT, Sound Transit Authority, King County, Burlington Northern SFRR, Microsoft, Safeco, and Vulcan NW. He has the communication and leadership skills to coordinate between construction contractor, owner, and designers during construction and takes a proactive approach in resolving field issues. Rick has extensive experience authoring, critiquing, and reviewing specifications relating to mass concrete, precast products, concrete repairs, complex structures, as well as material and procedural submittals. He is a seasoned innovator in the manufacture of custom and standard prefabricated architectural features utilizing state of the art technology and effective supply chain logistics.

Ashim Gajurel
Photographer/Inspector, Delve Underground

Location: San Francisco, CA
Highest Education: MS, Geotechnical Engineering

Ashim has over 5 years of technical expertise in civil and geotechnical engineering, with specific experience in tunnel design and analysis, microtunneling, hydropower design, retaining structures design, foundation design, tunnel construction and roadway/retaining wall construction. He has worked on projects in the water, wastewater, hydropower, and transit markets.

Jack Scroggs, PE
Inspection Consultant, KASL Consulting Engineers

Location: Citrus Heights, CA
Highest Education: MS, Civil Engineering

Jack is a California Registered Civil Engineer and California Registered Traffic Engineer with over 50 years of experience in the design and construction management of water resource and civil engineering improvements. He has supervised and directly participated in the preparation of water system assessment studies and reports, water master plans, engineering plans and technical specifications for water resource projects throughout Northern California.

For the District's Raw Water Conveyance Tunnel Inspection, Jack will provide engineering background and support regarding the conveyance systems. He will assist the Delve Underground Project Team to assess the conditions of the existing Tunnel Hill tunnel improvements to reliably and adequately convey existing and projected raw water flows to serve the District's water treatment plants and raw water irrigation demands.

Inlet & Outlet Works

Inlets and outlets are critical interfaces between water conveyance systems and their specific components such as dams, water intake structures and outlet works, and hydroelectric facilities. These interfaces typically require careful consideration of the existing site conditions, method of operation, and other structural components, in addition to coordination with multiple disciplines. Delve Underground has the inlet/outlet design experience and structural and geotechnical expertise to address all aspects of this scope working with other mechanical/hydraulic design teams. Our work includes new facilities as well as improvement of existing ones for flow control, seismic resiliency, and added redundancy based on operational needs. We are experienced in working with integrated design teams to develop innovative, flexible, and sustainable solutions to meet client needs.

Figure 3. *Coast Range Tunnel Inspection Team, Sunol, CA*

Project Understanding

Our Expertise

Who We Are
For more than six decades, Delve Underground has assisted owners, agencies, and contractors with designing and constructing underground infrastructure for the water market. In just the last 15 years, we have designed and managed more than 120 water tunnel, pipeline, trenchless, hydropower facility, and long-distance interregional conveyance projects. Our specialized Inspection, Repair, and Rehabilitation (IRR) services focus on evaluating the remaining service life of underground facilities.

We assess facility conditions, develop rehabilitation concepts, and provide preliminary cost estimates and schedule analysis for repairs. Through our team's expert inspection, analysis, and rehabilitation planning, the longevity of a tunnel can be extended. This can be as an alternative to new construction, to accommodate a change in usage, or to address tunnel deterioration and/or failure.

Delve Underground's services include inspection and full documentation of assets and design rehabilitation measures, including grouting, removal and replacement of damaged ground support elements, tunnel lining repair, supplemental lining design, and ground modification recommendations. We consult for owners, contractors, and other engineering firms on the inspection and rehabilitation of hydropower and dam system tunnels, flood control systems, and water and wastewater tunnels

Summary of Understanding
We understand that Georgetown Divide Public Utility District (District) is soliciting proposals to complete an inspection and condition assessment of their tunnel located between the communities of Quinette and Volcanoville. The inspection and condition assessment will include findings, condition assessment of the infrastructure, and repair and rehabilitation recommendations, if necessary.

This tunnel is a critical part of the District's 70-mile raw water conveyance system that supplies two 3-million-gallon-per-day water treatment plants and delivers water to their customers. The tunnel is approximately 4,900 feet long, straight, with an average slope of 0.00462 ft/ft. The tunnel is horseshoe shaped with a nominal height of 6 feet-6 inches and a width of 7 feet. The tunnel can be accessed on either ends of the tunnel through reinforced concrete flumes with a width of 7 to 8 feet and height of 5 feet. The tunnel was mined through gray to black schist on the western end and gray slate and phyllite on the eastern end. The as-built drawings presented in the RFP show that the tunnel is unlined but details do exist of sections of the tunnel which contain steel sets encompassed in at least 1 inch of gunite coating. The locations and extent of these steel set support sections are unknown.

The Delve Underground Team is proposing to provide tunnel inspection and condition assessment services for this tunnel and provide repair and rehabilitation recommendations, if needed.

Figure 4. *Lower Baker Unit 4 Powerhouse Project, Concrete, Washington, USA*

PSE PUGET SOUND ENERGY

"The Delve Underground team provided superior technical design and construction services as our Owner's Engineer for the challenging and complex Lower Baker Powerhouse Design-Build Project. They partnered with us throughout all phases of the project, including helping us develop contract documents that helped us manage cost and risk. Their staff were called upon to regularly develop solutions that resolved design and construction challenges. Once such challenge was the activation of a large landslide that threatened the powerhouse and tunnel excavation, forcing a project shutdown. Delve Underground rapidly delivered an emergency design that was used to stabilize the landslide and get the project back on track. I would highly recommend Delve Underground for similarly complex and challenging projects."

DAN KOCH, DIRECTOR (now VP of Ops)
Puget Sound Energy
Lower Baker Dam, Unit 4 Powerhouse

Differentiators

Manned and Remote Inspections
Delve Underground understands the importance of regular inspections of critical infrastructure, in particular the intricate details and steps involved with inspections of underground structures and tunnels. Such details include difficult access, challenging communication in long tunnels that are confined spaces, and the need to perform a safe and efficient inspection in limited time periods. Whether the project requires manned entry and inspection or a technological remote option, Delve Underground has expertise in both and is ready to assist on short notice.

Condition Assessment
Delve Underground has decades of experience in providing our clients with detailed condition assessment reports that allow stakeholders to make informed decisions on funding for capital improvement projects, prioritization and methods of repair and rehabilitation, overall system compliance with original design and engineering intent, documentation for regulatory agencies, and determination of remaining useful life. We help our clients increase the reliability of their assets and provide recommendations to extend the serviceable life of their existing underground facilities.

Tunnel Rehabilitation Programs
Delve Underground has extensive experience with the design and construction management of tunnel rehabilitation programs. These programs can include multifaceted tunnel repairs, multiple tunnels along an alignment or on an agency's system, or repairs to a facility that are prioritized and completed over several limited outage periods. We can assess facility conditions, define design parameters, design rehabilitation measures involving removal and replacement of damaged and deteriorated ground support elements, repair tunnel linings, design supplemental linings, and provide recommendations for ground modifications. Our experience includes different types of tunnels, including water conveyance, wastewater, heavy and light rail, former railroad ("rails to trails"), hydropower, and highway tunnels. Each of these projects is unique, with diverse site and geologic conditions, access, and requirements. A major factor for these programs is often tunnel availability for construction; many of these projects require work windows where the tunnel is temporarily taken out of service, either for hours, days, or weeks, depending on the nature of the project.

Scope of Work

Introduction

We will work collaboratively with the District to capture the requirements of the project and develop a plan to safely and efficiently perform the tunnel inspection and condition assessment. This collaborative process will expedite the preparation of the inspection plan to execute the inspection in Fall 2024/Winter 2025. Our approach to delivering a successful project is presented in the following section.

The Scope of Services presented in Section 3 of the Request For Proposal has been slightly modified to facilitate the organization of our approach. Details on our proposed project schedule, level of effort, and budget associated with out work plan can be found in their designated sections of this proposal; the Project Schedule on page 12, and the Cost Proposal on page 20.

Task 1: Project Management and Background Document Review

Task 1.1 Project Management and Schedule
The project management style that we intend to use on this project is a hands-on, solution-oriented project management style based on our knowledge of all aspects of this project and the contract. The success of these tunnel inspection and condition assessments projects comes down to strong project management skills, experience in performing inspections, and close communication and collaboration with the owner.

We fully believe that successful tunnel inspections only happen with great planning and this will start off with a project kickoff meeting to discuss the project description, roles and responsibilities, scope of work, schedule, budget, special project procedures, the quality plan, and subconsultant coordination. We will also hold regular meetings with the District to discuss overall project progress, upcoming milestones, technical items, deliverables, and to clearly establish work activities and expectations. This ensures that the District is consistently informed and ready to advance. The items to discuss in these meetings may include dates of the shutdown, lock-out-tag-out and safety procedures, confined space entry planning, communication protocol inthe tunnel, etc. The meeting agenda and minutes from each of these meetings will be distributed prior and after the meeting with clear action items for the project team. We have a local presence and can plan on having these meeting in person, or can organize these meetings to be held virtually using Microsoft Teams.

Invoices and progress reports will be prepared for the District and submitted on a monthly basis and will include hours broken down into a work breakdown structure and budget tracking. We will also track the progress of the project by maintaining a project schedule that includes the Notice to Proceed, dates of deliverables, review and comment resolution, and inspection of the tunnel.

Task 1.2 Records Review
The team will acquire past inspection reports, survey files, tunnel construction reports, as-builts, and any other information available from the District in order to plan for a safe entry into the tunnel and assess the condition. The examination of this information will commence promptly upon receipt of the Notice to Proceed.

Task 1.3 Site Visit
We will perform a site visit, which can be planned concurrently with the project kickoff meeting, to visit the site and assess staging areas, safe entry and egress, site geology, portal stability, power sources (if needed), and anything else needed to prepare the tunnel inspection plan and support a safe tunnel inspection.

Task 2: Tunnel Inspection and Safety Plan

Our first step after reviewing the background and as-built information and the site visit is to prepare a Tunnel Inspection and Safety Plan. The Inspection and Safety Plan summarizes the process of entering the tunnel safely and identifies pre-inspection tasks, lock-out-tag-out procedures, communication protocols, sanitation work practices, roles and responsibilities, and lists the information to be collected and how it will be collected during the inspection. This document is meant to convey to the District our plan to safely and efficiently perform the inspection. The report will be submitted to the District for review and agreement before entry into the tunnel.

Task 3: Inspection Protocol

Inspection Team
With each inspection performed, we continue to refine our inspection approach to allow the maximum amount of information to be collected and documented, during the shortest durations, and with a total focus on safety. For this tunnel, we are proposing a manned (aka boots on the ground) visual inspection by professional engineers and geologists with extensive experience with tunnel inspections, design, and rehabilitations.

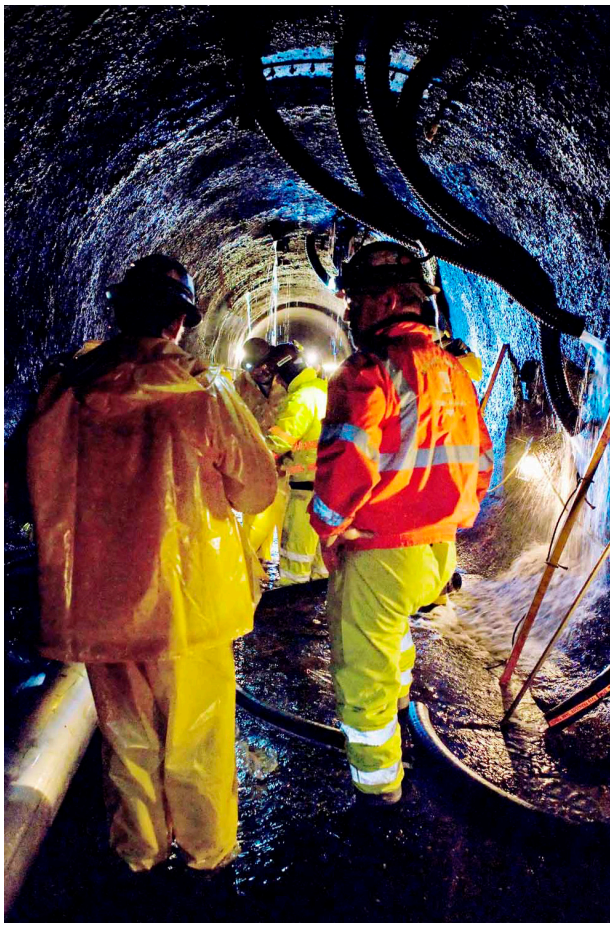


Figure 5. *Southfork Adit Mountain Tunnel repairs manifold discussions*

The goal of the inspection is to provide a condition and stability assessment of the unlined and lined tunnel in a safe manner. The data to be collected will include:

- Rock mass characterization (quantitative and qualitative)
- Fault and shear zones
- Areas of tunnel instability
- Defects or structural deficiencies in the existing tunnel supports
- Deformation in the tunnel cross section
- Location of gas and groundwater intrusion
- Magnitude of groundwater inflows
- Photographic documentation of tunnel condition

Our recent inspection of Placer County Water Agency's Auburn Tunnel in 2022 closely matches the proposed inspection, and we look to use the same inspection approach in the District's raw water conveyance infrastructure. The approach uses a single group of inspectors walking the tunnel together in series (within walkie-talkie range of each other), with each inspector assigned a specific task, while maintaining continuous communication with the portal guard and outside rescue team. The walking order of our proposed inspection team would consist of the following:

1. Safety person to test the air and looks for potential hazards. Transports first aid kids and backup communication equipment. Also assists with stationing.
2. Inspector to add stationing along the tunnel wall with temporary wall markings.
3. Lead Inspector/Tunnel Engineer to identify tunnel support elements, rock mass features and characteristics, locations of instability or rock, and locations of faults/shears/groundwater infiltration.
4. Photographer to capture each defect. The other two inspectors will assist the photographer to hold an erasable board and scale for each photograph taken.

The tunnel inspection entry team includes a leading safety person whose responsibility it is to test the air, look for potential hazards, and respond to emergencies. This safety person, as well the outside rescue team described elsewhere, will be furnished by **Capstone Fire & Safety Management**. They will be certified EMTs and certified gas testers. They will be an integral part of the team and immediate first responders to any accidents that could occur.

District staff can enter the tunnel to visually inspect the tunnel alongside the inspection team if they choose. The District staff can make their own observations of the tunnel alongside the inspection team. Areas in the tunnel needing potential future repairs can be identified during this time.

Inspection Process and Duration

The inspection team will walk through the tunnel in unison, as a series of subgroups. The working distance between the lead safety person and the trailing person will be no more than about 500 feet, within the working range of the walkie-talkies. The group will add temporary stationing to the wall of the tunnel, and identify and record features on the initial walk up the tunnel. They will also measure and record areas of water infiltration. The detailed information collected will be compared with the existing maps and repair records, and any changes to the tunnel's condition will be recorded. Photographs of the tunnel will be made at each 50 foot station marker and at locations of significant rock features or structural deficiencies in the tunnel.

The inspection team will assess the overall stability of the rock mass in the unlined section of the tunnel by performing geologic mapping in the tunnel. Data collected during the mapping will included rock type and hardness; persistence, surface roughness, type, surface shape, and spacing of discontinuities. To maintain a proper pace for the inspection team, the data will typically be recorded at 500-foot intervals and will reduce the interval if different features are noted e.g. rock type, change in fracture spacing, weather, fault and shear zones. Each of these intervals will be given a Rock Mass Rating (RMR). The Rock Mass Rating (RMR) system, also known as the Geomechanics Classification is a classification system in which rock masses are rated using six parameters. Each parameter of the rock mass is evaluated according to a predefined range of values and a rating is assigned. Finally, ratings given to each parameter are added to produce the overall RMR rating. This engineering classification provides a general rock mass rating increasing with rock quality from 0 to 100. These parameters are measurable in the field and can also be obtained from borings. The six parameters are that will be measured in the tunnel would be compressive strength of the rock, rock quality designation (RQD), spacing of discontinuities, condition of discontinuities, orientation of discontinuities, and groundwater conditions.

We will also note that, based on our experience of raw water tunnel inspections, a layer of biofilm may be present on walls and crown of the tunnel. The biofilm obstructs and artificially smooths the wall of the tunnel, making it difficult to fully assess the existing discontinuities visually. The inspection team will scrape the bio film with their rock hammers in areas to identify discontinuities and also use the invert of the tunnel, which tends to be free of biofilm, to assess and identify rock features.

Based on our past inspections, an average advance rate of 2,000 feet per hour (ft/hr) is an ideal pace for documentation. The walk back would be faster – on the order of 5,000 ft/hr assuming additional documentation and inspection would not be needed. The pace of the inspection may vary due to the condition of the tunnel, number of features identified, and depth of standing water in the tunnel after dewatering. We believe the inspection of the 4,900-foot-long tunnel between the communities of Quinette and Volcanoville will take one 10 hour day. This includes the pre-inspection safety briefing, entering and exiting the tunnel, food and hydration breaks, and walking back out the same location in which the team entered.

Ventilation

Based on the as-built information provided in the RFP and subsequent RFP questions and answers, and the size and length of the tunnel, we are assuming that forced ventilation will not be required to support the inspection. Natural ventilation provided through the two open portals will be able to support the inspection team during the confined space entry.

If it is determined during the planning phase that forced air ventilation will be required, we have worked with area tunnel contractors who can provide a ventilation fan, ducting, bulkhead, and portable power in order to allow for a safe tunnel

Figure 6. *San Pablo Tunnel Inspection; Capstone lowering inspector down into East Shaft*

inspection. Furthermore, if any construction work beyond an inspection is planned within the tunnel during the outage, the work would fall under Cal-OSHA Tunnel Safety Orders (TSOs) and would require forced air ventilation, with a system designed based on the number of workers and the types of equipment in the tunnel. We have experience designing such systems with contractors.

Outside Portal Attendant and Rescue/Safety Team

In addition to the proposed 4-person inspection team, we will provide outside support for safety, communication, and rescue. Outside personnel includes a communications specialist (Portal Attendant) who will use the communication system to maintain constant communication with the tunnel entrants and track the Inspection Team's progress as required for a confined space entry. We will also have an Outside Safety/Rescue Team located at the portal during the inspection. The team will consist of a mobile two-person rescue team, furnished by Capstone Fire & Safety Management, to enter the tunnel in an emergency or following an accident. An exterior communication system (cell phones or walkie-talkies) will be used to allow constant communication between the communication specialist and the mobile rescue team.

Communication

Because the tunnel inspection is within a confined space, the tunnel entrants will need a communication system to the outside rescue team. As noted above, we propose to use a wireless communication system consisting of radios to communicate to the Portal Attendant and Outside Rescue Team. The wireless radio system will be provided by Capstone Fire and Safety Management. Backup radios will be provided to the team and a third option will be able to use air horns to communicate status of the inspection team. Our experience has shown that air horns are effective for similarly sized tunnels up to 5,000 feet. The Inspection and Safety Plan will provide the communication frequency and protocols.

Optional Supplemental Services

The following optional services are available for consideration of the District:

1. If significant features are discovered within either tunnel that puts their remaining service or function in jeopardy, Delve Underground has extensive experience designing and implementing both emergency and planned tunnel repairs.
2. The existence or condition of stationing in the existing tunnel is unknown. An additional task would be to install permanent station markers in the tunnel and establish reference stationing in the tunnel for future inspections.
3. We can collect groundwater and biofilm samples throughout the tunnel for the District to test.

Task 4: Inspection Report and Recommendations

Within two days of performing the tunnel inspection, a brief Preliminary Inspection Report will be prepared highlighting the significant rock features or structural deficiencies of the tunnel, if any of these are observed. We will include a PowerPoint presentation as an attachment to the report providing visual documentation of our findings. This Preliminary Inspection Report will provide the District with information from the inspection and facilitate a discussion on if any immediate repairs or rehabilitation should be performed during the current shutdown, if needed.

Within four (4) weeks of the end of the tunnel inspection, a draft Final Inspection Report will be submitted for the District's review, summarizing the findings and providing description of the tunnel condition. Recommendations for maintenance, repairs, and future inspection will be made. Data from the inspection will be tabulated and a complete photographic record will be delivered via an external hard drive. We have assumed that the District will take ten (10) business days to complete their review of the submitted draft report, and if needed, a comment resolution meeting will be scheduled. The Final Inspection Report will then be submitted two (2) weeks after receipt of the District comments.

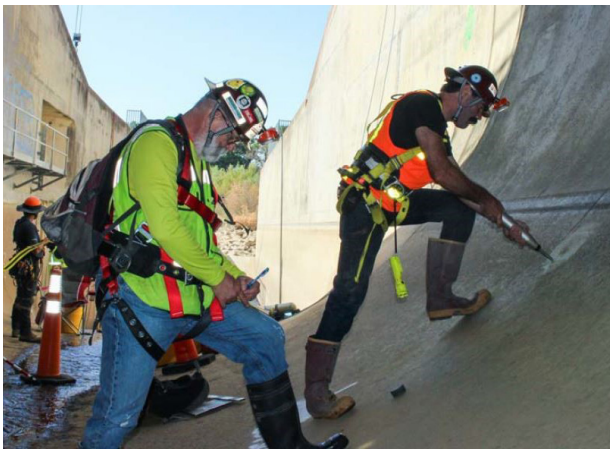
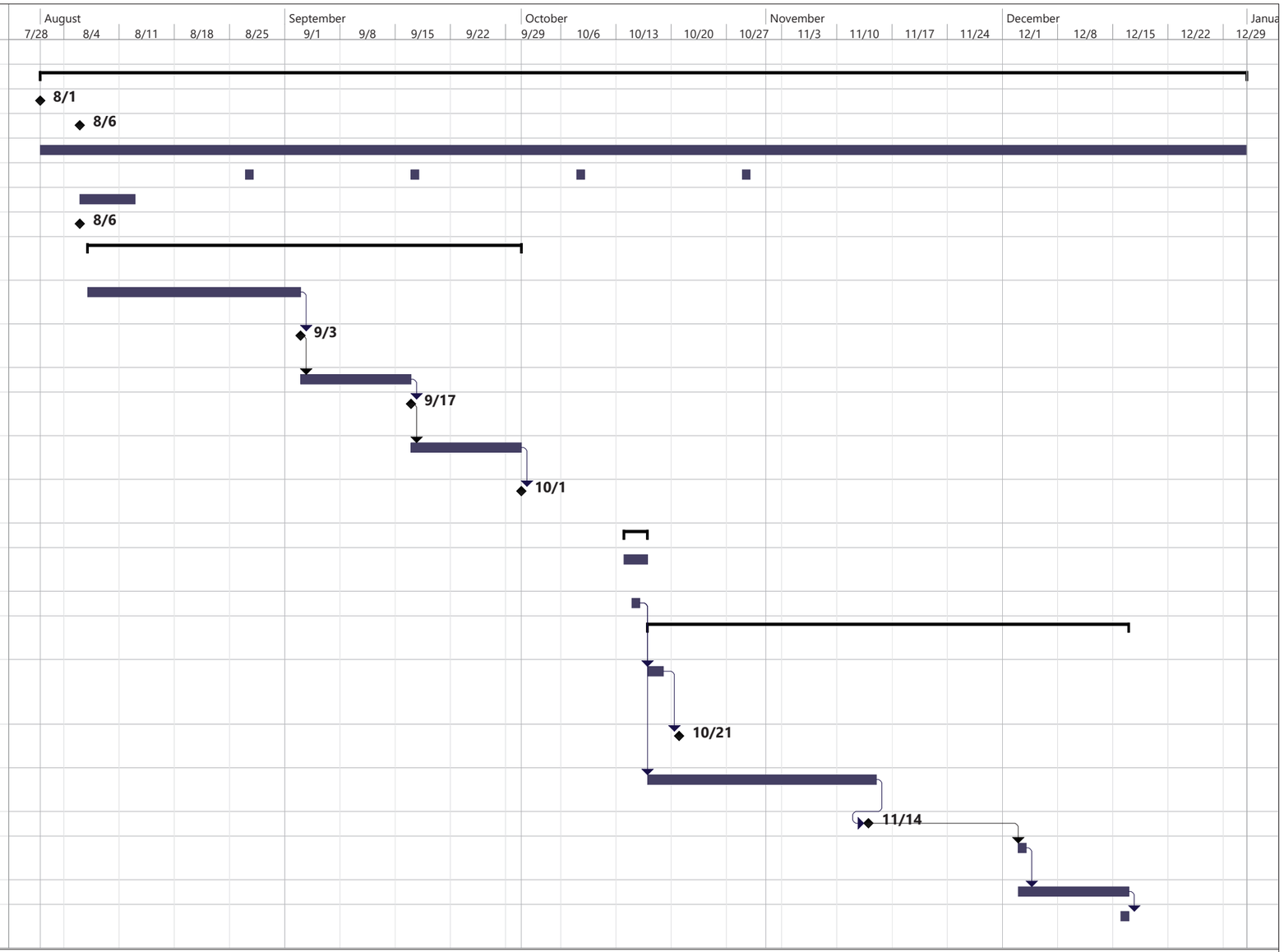


Figure 7. *Shawn Spreng (upper left) during penstock inspection at Hyatt Power Plant shutdown, Oroville, CA, USA; Ashim Gajurel (bottom left) and Kush Chohan (right) facilitating tunnel diameter measurements and photo documentation during the San Pablo Tunnel inspection, San Leandro, CA, USA.*

Project Schedule

ID	Task Name	Duration	Start	Finish
1				
2	**Task 1: Project Management**	**109 days**	**Thu 8/1/24**	**Tue 12/31/24**
3	Notice to Proceed	0 days	Thu 8/1/24	Thu 8/1/24
4	Project Kickoff Meeting	0 days	Tue 8/6/24	Tue 8/6/24
5	Project Management	109 days	Thu 8/1/24	Tue 12/31/24
6	**Progress Meetings**	**46 days**	**Tue 8/27/24**	**Tue 10/29/24**
11	Records Review	5 days	Tue 8/6/24	Mon 8/12/24
12	Site Visit	0 days	Tue 8/6/24	Tue 8/6/24
13	**Task 2: Tunnel Inspection and Safety Plan**	**39 days**	**Wed 8/7/24**	**Tue 10/1/24**
14	Prepare Draft Inspection and Safety Plan	19 days	Wed 8/7/24	Mon 9/2/24
15	Submit Draft Inspection and Safety Plan	0 days	Tue 9/3/24	Tue 9/3/24
16	District Review	10 days	Tue 9/3/24	Mon 9/16/24
17	Inspection Plan Coordination Meeting	0 days	Tue 9/17/24	Tue 9/17/24
18	Prepare Final Inspection and Safety Plan	10 days	Tue 9/17/24	Mon 9/30/24
19	Submit Final Inspection and Safety Plan	0 days	Tue 10/1/24	Tue 10/1/24
20	**Task 3: Tunnel Inspection**	**3 days**	**Mon 10/14/24**	**Wed 10/16/24**
21	Mobilize/Demobilize for Tunnel Inspection	3 days	Mon 10/14/24	Wed 10/16/24
22	Conduct Inspection	1 day	Tue 10/15/24	Tue 10/15/24
23	**Task 4: Tunnel Inspection Report and Recommendations**	**43 days**	**Thu 10/17/24**	**Mon 12/16/24**
24	Prepare Preliminary Inspection Report and Presentation	2 days	Thu 10/17/24	Fri 10/18/24
25	Preliminary Inspection Presentation	0 days	Mon 10/21/24	Mon 10/21/24
26	Prepare Draft Inspection Report	21 days	Thu 10/17/24	Thu 11/14/24
27	Submit Inspection Report	0 days	Thu 11/14/24	Thu 11/14/24
28	Conduct Inspection Report Review Meeting	1 day	Tue 12/3/24	Tue 12/3/24
29	Finalize Inspection Report	10 days	Tue 12/3/24	Mon 12/16/24
30	Submit Final Inspection Report	1 day	Mon 12/16/24	Mon 12/16/24



Project: Georgetown Divide PUD Tunnel Inspection
Date: Tue 6/18/24

Task	Project Summary	Manual Task	Start-only	Deadline
Split	Inactive Task	Duration-only	Finish-only	Progress
Milestone	Inactive Milestone	Manual Summary Rollup	External Tasks	Manual Progress
Summary	Inactive Summary	Manual Summary	External Milestone

Subcontractors

ENGEO

Role on Project: Engineering Geology Support
Location: Rocklin

"I worked with ENGEO and found their professional and administrative staff to be responsive, highly competent, and very cooperative. They asked appropriate questions during project scoping and execution, understood our needs very well, prepared an accurate and properly focused proposal, and delivered quality work products."
- David Myerson, PE
San Francisco Public Utilities Commission (SFPUC)

To support the raw water conveyance tunnel inspection, ENGEO will perform engineering geology support, including review of geologic data (including their previous work in the area), geologic mapping on the ground surface near the tunnel portals, and observations of bedrock inside the tunnel (if exposed) to develop a geologic framework for the tunnel inspection.

ENGEO is an award-winning, employee-owned U.S. Corporation of more than 400 geotechnical and civil engineers, geologists, hydrologists, hydrogeologists, environmental scientists, coastal engineers, construction quality-assurance representatives, and laboratory testing specialists serving clients in the U.S. and abroad for over 50 years. ENGEO serves all types of projects including conveyance and distribution pipelines, transportation, flood control, water storage, quarry stability, industrial facilities, civic structures, healthcare, education, energy, manufacturing, ports, harbors, waterfront development, residential, mixed-use communities, and urban development.

KASL Consulting Engineers

Role on Project: Client Project Knowledge
Location: Citrus Heights, CA

KASL is certified by the State of California Department of General Services as a Small Business Enterprise (SBE); Small Business Certificate #20121.

KASL Consulting Engineers will provide the Delve Underground team with engineering background and support regarding the District's existing UpCountry raw water conveyance improvements and the raw water system capacity upstream and downstream of the Tunnel Hill improvements. KASL will also be available to provide the team with surveying support to help identify and measure existing raw water inverts and capacities at the inlet and outlet of the Tunnel Hill improvements.

Founded in 1982, KASL Consulting Engineers, Inc., is a City of Citrus Heights-based, locally owned, professional civil engineering, water resources and land surveying firm. KASL provides civil engineering, water resources engineering and land surveying services to public agencies and to private development interests throughout Northern California, the Foothill Communities and the Western United States.

Relevant ENGEO Experience

Georgetown Divide Public Utility District 2022-2023 Water System Reliability and Conditions Assessment Study
El Dorado County, CA
ENGEO supported a system wide conditions assessment of the Georgetown Divide Public Utility District's raw and treated water infrastructure led by KASL Consulting Engineers.

Placer County Water Agency Foothill Raw Water Pipelines (FRWP) Pahse 2
Auburn, CA
ENGEO provided geotechnical testing and special inspection services during construction of this ASCE award winning project.

Relevant KASL Experience

Georgetown Divide Public Utility District 2002 Water System Reliability Study
El Dorado County, CA
Jack Scroggs served as the Project Manager for the 2002 GDPUD Water System Reliability Study, which included field mapping and evaluation of approximately 70 miles of the GDPUD raw water delivery and storage network and approximately 200 miles of the GDPUD treated water pumping, storage and distribution system.

Georgetown Divide Public Utility District 2022-2023 Water System Reliability and Conditions Assessment Study
El Dorado County, CA
For the 2022-2023 Reliability Study, KASL evaluated the UpCountry raw water conveyance system both before and after the Mosquito Fire, including 35 miles of raw water conveyance system upstream of the District's water treatment plants and on updated evaluation of the District's treated water distribution system network

Relevant Experience

Please Note:

For staff who participated on the projects listed in this section, details on their roles and contributions are included in their resumes in Appendix 1.

San Leandro, CA

Planning and Inspection of Upper San Leandro and San Pablo Supply Tunnels (2021-2024)

✓ Delve Underground Client Reference

Contact: Stephanie Matula, PE, Associate Engineer Transmission Pipelines & Tunnels, East Bay Municipal Utility District (EBMUD)
2020 Wake Ave, Oakland, CA 94607
510.287.1337 | stephanie.matula@ebmud.com
Services: Tunnel Inspection Services, Tunnel Rehabilitation, Ventilation Design
Contract Value: $562,066
Project Manager: Shawn Spreng
Key Personnel: Kush Chohan, Ashim Gajurel
Subs/Vendors: Lacamas Consulting PLLC, Norcal Geophysical Consultants Inc., Capstone Fire & Safety Management, Drill Tech Drilling and Shoring

The San Pablo Tunnel and Upper San Leandro (USL) Supply Tunnel both convey raw water from reservoirs east of the Berkeley/Oakland hills to the cities on the west side of the hills. Both tunnels are generally constructed of unreinforced concrete and were completed in the 1920's.

The San Pablo tunnel's western half was inspected in 1986, but the last full inspection of the tunnel was conducted in 1978. The last inspection of the USL Supply Tunnel was completed in 1987. Since both tunnels are approximately 100 years old, it is important to document every aspect of the tunnels—noting debris accumulation, water inflow quantities, and structural defects; all tied to a reproducible stationing system so we can compare the current findings with the observations from previous inspection maps and subsequent repair records, and so future inspections can compare what they see with what was documented in 2021-2023.

The purpose of this project was to inspect two EBMUD tunnels. The scope of work included development of inspection and entry plans for each tunnel, including ventilation and safety requirements. Each tunnel was inspected by Delve Underground, with features and defects measured and recorded. Ground penetrating radar surveys were performed within both tunnels by a geophysical subconsultant. The findings of each inspection were summarized and documented in tunnel inspection reports.

Moccasin, CA

Mountain Tunnel Improvements (2016-Present)

✓ Delve Underground Client Reference

Contact: Joe Buitrago, San Francisco Public Utilities Commission (SFPUC)
525 Golden Gate Avenue, San Francisco, CA 94102
415.551.4862 | jbuitrago@sfwater.org

Services: Feasibility Studies, Alternatives Analysis, Preliminary Engineering, Final Design, Risk Management, Geotechnical Services, Cost Estimating, Contract Packaging, Procurement, Scheduling, Design Services During Construction, Inspection Services

Contract Value: $25,000,000 (approximately)

Project Manager: Rachel Martin (Delve Underground California Regional Manager)

Key Personnel: Kush Chohan, Shawn Spreng, Ashim Gajurel, Risk Clausen

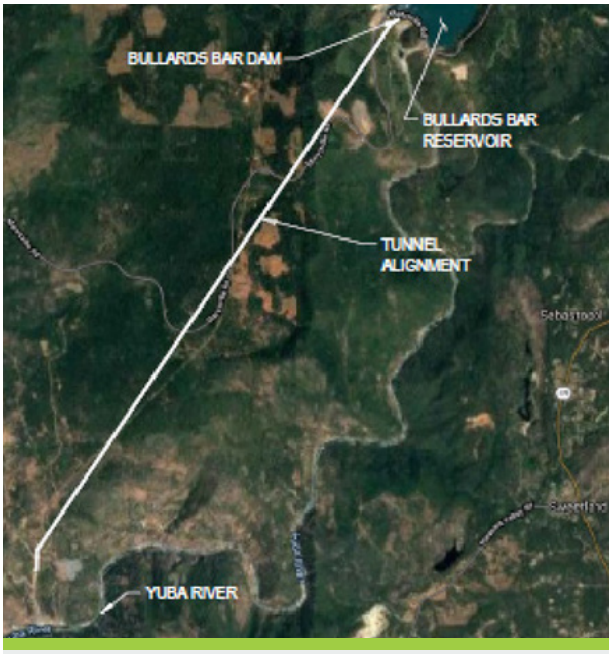
Subs/Vendors: Quantum Spatial Inc., Lettis Consulting International Inc., On-Site Health & Safety, Norcal Geophysical Consultants Inc., Wiss Janney Elstner Associates Inc. (WJE), Towill Inc., Gustafson Guthrie Nichol Ltd., Geovision Geophysical Services, Njirich & Son's Inc., QR Enterprises LLC, Ean services LLC, Moore Brothers Scavenger Co Inc., ABC Imaging of Washington Inc., Agapito Associates Inc., Black & Veatch Corporation, Crew-Noble Info. Services
Drill Tech Drilling & Shoring Inc., GEI Consultants Inc, Geokon Inc., Geopentech Inc., Geotesting Express, Inspection Services Inc., Joe Hill Consulting Engineers, Lee & Associates Rescue Inc., Robert Y. Chew Geotechnical Inc., Ruen Drilling Incorporated, Structus Inc., Telamon Engineering Consultants Inc., Underwater Resources Inc.

The Hetch Hetchy Water System delivers an average of 222 million gallons (840 million L)of drinking water per day to 2.6 million people in the San Francisco Bay Area. The Mountain Tunnel, originally built in 1925, carries water from the Early Intake Reservoir to Priest Reservoir. Over 60% of the tunnel is concrete lined, and mostly horseshoe-shaped of varying dimensions from 10 to 15 feet 4.6 m). The tunnel is approaching the end of its original design life. Delve Underground has led multiple repair projects and participated in over half a dozen outages over 50–65 days associated with improvements to Mountain Tunnel.

Access Improvements: To meet water delivery goals, the Mountain Tunnel must be capable of returning to service within three months if water service is interrupted. To ensure timely access into the tunnel by construction crews and equipment in case of emergency, certain adits and access roads needed to be improved. Delve Underground developed an Emergency Restoration Plan that addressed preliminary access requirements and provided design for improvements including larger bulkhead entrances and enlarged intersections at the adit-tunnel interfaces to accommodate emergency equipment. The new tunnel bulkheads sized for repair equipment were constructed, grouted, hydrostatically tested before the existing bulkheads were demolished (during an outage), and replaced.

Inspection and Repairs: Delve Underground performed inspections and condition assessment of the 19-mile (31 km) tunnel in 2008 and 2017. The SFPUC can only take the Mountain Tunnel out of service for short intervals during the winter months when water demand is low. Reconnaissance-level inspection services were provided to document rockfall quantities in the unlined sections, assess defects in the lined sections, and estimate lining thickness and potential voids behind the lining using Ground Penetrating Radar. Information about the condition of the tunnel was evaluated to develop tunnel repair design for a future contract. An intermediate repair plan was designed to remove defective lining, power wash the exposed lining and repair area, apply reinforcement and shotcrete, and trowel finish the repairs. Delve Underground prepared the Basis of Design Report and contract documents. Services for engineering support during construction were also provided.

Long-Term Improvements: Inspection and condition assessment findings determined that the existing tunnel is still in sound structural condition. Delve Underground completed the design and contract documents for the Mountain Tunnel Improvements Project managing a team of 16 subconsultants. The improvements include completing the tunnel lining repairs and contact grouting, constructing a new 150-foot-deep (46 m) flow control facility and new Priest access adit, building a new siphon extension for improved water quality, making significant mountain roadway improvements to the adits, and finalizing the adit improvements. Delve Underground is currently providing engineering support services during construction.



Dobbins, CA

Construction Management for Colgate Tunnel Outage (2023-Present)

✓ Delve Underground Client Reference

Contact: Matt Murray, PE, Senir Hydro Engineer, Yuba Water Agency
1220 F Street, Marysville, CA 95901
530.740.7086 | mmurray@yubawater.org

Services: Construction Management, Tunnel Rehabilitation and Inspection, Pressure Tunnels Risk Assessment, Geologic and Geotechnical Evaluations, Field Evaluations, Change Order/Claims Negotiation, Contract Administration, Progressive Payment Processing, Resident Engineer, Constructability Review, Contractor Qualifications, Procurement Support, Cost Estimating, Bid Evaluations

Contract Value: $3,874,199

Project Manager: Kush Chohan

Key Personnel: Ashim Gajurel, Shawn Spreng

Subs/Vendors: John R Leahy

Delve Underground is providing Construction Management Services to the Yuba Water Agency's rehabilitation project on their Colgate Tunnel and Penstock. The Colgate Tunnel and Penstock convey water to the Colgate Powerhouse in Dobbins, CA, through a 27,400-foot-long (8.4km) pressurized single conduit consisting of rock-lined tunnel 26-ft (7.9m) diameter horseshoe shaped) and 9-ft to 15-ft (2.7-4.6m) diameter steel-lined penstock. The major construction activities include the repairs in the Colgate tunnel and replacement of a critical hydro-mechanical component at the penstock location, most of which must be completed during a 12-week winter outage scheduled to begin October 2025. Delve's team of engineers has the unique combination of construction management expertise and tunnel rehabilitation experience to tackle this extensively choreographed project.

Yuba Water Agency has requested for three phases of the project: pre-construction, construction, and post construction. As part of the pre-construction services, Delve Underground is currently providing overall project management services, including assisting with review and completion of contract documents, value engineering and constructability review, cost estimating, scheduling, risk assessment, pre-construction planning and procurement support.

The construction phase will require full-time outage construction services from the beginning of October 2025 to the beginning of January 2026. Construction is scheduled with varying shifts based on work; however, Certified Construction Manager shall be prepared for 24/7 operation. Delve Underground will provide construction management services during construction including construction inspections, quality assurance, document management, schedule review, oversight of as-built drawings, labor compliance services, safety consultant services, geotechnical and structural engineering support, construction claims related tasks, and budget review. The post construction services are required from the end of construction activities to project close out and it is estimated as part-time work for approximately 2 months.

San Bernadino, CA

Iron Mountain (2024-Present)

✓ Delve Underground Client Reference

Contact: Dennis R. LaChaine, PE, GE, Senior Engineer,
Metropolitan Water District of Southern California
700 N. Alameda Street, Los Angeles, CA 90012
213.217.6437 | DLaChaine@mwdh2o.com
Services: Records Review, Tunnel Rehabilitation and Inspection, Conceptual and Preliminary Design, Constructability Review, Construction Sequencing, Cost Estimating, Scheduling
Contract Value: $242,707
Project Director: Kush Chohan
Key Personnel: Rick Clausen
Subs/Vendors: N/A

The Iron Mountain Tunnel is part of the Colorado River Aqueduct (CRA) for the Metropolitan Water District of Southern California (MWD). The CRA is a 242-mile-long conveyance system that transports water from the Colorado River to Lake Mathews in Riverside County. The CRA consists of five pumping plants; 124 miles of tunnels, siphons, and reservoirs; 63 miles of canals; and 55 miles of cut-and-cover conduits. The aqueduct was constructed in the late 1930s and was placed into service in 1941.

The Iron Mountain Tunnel was constructed downstream of the Iron Mountain Pump Plant. The west portal of the tunnel was constructed in alluvial soils. In 2003 an inspection found a longitudinal a crack in the crown of approximately 2,500 ft in length. In 2005 instrumentation, crackmeters and extensometers, were installed to monitor the growth of the crack and settlement in the soil above the tunnel. A study was conducted which produced a feasibility study 2009 that highlighted several possible repair options. In 2011, a value engineering workshop expanded the list possible options and lead to the development of the steel plate lining with grout option.

Delve Underground is tasked with advancing the tunnel rehabilitation design to a 30% level. The work will consist of a visual inspection and condition assessment of the existing tunnel. The inspection will involve work windows for surface ground penetrating radar surveys, in tunnel concrete coring, in tunnel concrete probing, and in tunnel geotechnical investigations. After the initial investigation, the design team will prepare rehabilitation options for MWD to consider alongside with a preliminary design report to initiate the project. Delve Underground will participate in a multi-day value engineering workshop with various stakeholders to present the findings from the preliminary design.

Auburn, CA

Auburn Tunnel Inspection (2021-2022)

✓ Delve Underground Client Reference

Contact: Kelly Shively, Placer County Water Agency
144 Ferguson Road, Auburn, CA 95604
530.823.4883 | kshively@pcwa.net
Services: Records Review, Tunnel Rehabilitation
Contract Value: $64,960
Project Manager: Kush Chohan
Key Personnel: Ashim Gajurel, Sahwn Spreng
Subs/Vendors: Drill Tech Drilling and Shoring

The Auburn Tunnel was constructed in 1965 and is an approximately 3 mile (15,865-foot long), mostly unlined rock tunnel with average inside height of approximately 12 feet high and width approximately 12 feet that is used to convey water from the American River near Auburn, CA to the Auburn Ravine for municipal and agricultural customers. The shape of the tunnel is generally an arch tunnel with straight sided walls. PCWA operates two separate pumping stations above the tunnel. The pumps from the pumping station were drilled through the rock mass into the existing tunnel. Through typical and planned maintenance, rocks were discovered in the pump assemblies and PCWA was concerned that stability

of the tunnel may be comprised. Delve Underground, alongside Drill Tech, were retained to provide a tunnel inspection and condition assessment of the existing tunnel, and tunnel rehab design services during the limited tunnel outage. Delve Underground inspector provided a confined space entry of the tunnel through the American River inlet and inspected all 3 miles of the tunnel. After the inspection, tunnel rehabilitation and repair designs were submitted to the Agency and repairs were completed within 2 weeks of the inspection. The repairs consisted of removal of tunnel muck around the pump assemblies, new pump screens, and repair of spalled concrete near the ventilation shafts.

Keddie, CA

Keddie Tunnel Emergency Repair (2021-2022)

✓ Delve Underground Client Reference

Contact: Ronald Berry, General Director: Structures-Engineering, BNSF Railway
303 S Garrard Blvd, Richmond, CA 94801
510.231.2632 | Ronald.Berry@bnsf.com

Services: Design and Analysis, Bid Document Preparation, Construction Monitoring, Design Services During Construction, Site inspection, Construction Management

Contract Value: $928,570

Project Manager: Carol Ravano

Key Personnel: Kush Chohan, Ashim Gajurel, Shawn Spreng

Subs/Vendors: Drill Tech Drilling and Shoring

In July and August 2021, the Dixie Fire ravaged the area around the Plumas National Forest in California, causing a collapse in the 480-foot-long (146 m) BNSF Keddie Tunnel #4. The original tunnel liner consisted of timber sets and lagging, concrete panels, and steel sets with C-channel lagging. After the 188 feet of timber liner at the tunnel center burned, the tunnel collapsed and blocked the main rail line, which connects Klamath Falls, Oregon, to Keddie, California. Responding to an emergency request by BNSF, Delve Underground performed a site reconnaissance to assess the extent of damage within two days of the collapse and provided a conceptual repair design and bid documents for prospective contractors within five days.

Delve Underground assisted with the bidding process and continued to refine the repair design and provide design services during construction after bid award. Drill Tech was the successful emergency repair contractor and mobilized to the site on August 1, 2021. The firm provided full-time construction management, utilizing inspectors from our Seattle, San Francisco, Walnut Creek, and Portland offices. The inspectors worked in shifts to cover the contractor's 24/7 construction schedule, reviewed contractor's invoices, and responded to contractor's RFIs.

The Delve Underground design team consisted of tunnel, geotechnical, and structural engineers as well as members of the company's Design Technology group. Final tunnel support consisted of W8x40 steel members. When the tunnel face was particularly unstable, fiberglass dowels were used, and 4-foot-long or 8-foot-long (1.2 or 2.4 m) horizontal wall plates provided support of the arch during installation. Delve Underground drone services were utilized to understand the extent and location of a 40-foot-wide by 10-foot-deep (12 x 3 m) sinkhole above the tunnel. This information was subsequently incorporated into the surveyor's 3D model of the tunnel interior and exterior.

The tunnel reopened, with no reportable injuries, in October 2021, 10 weeks after collapse. Additional work continued under work windows both inside and outside the tunnel and was completed in December 2021. In 2022, the Keddie Tunnel Emergency Repair Project was awarded the Transportation Project of the Year Award by the Northern California CMAA.

El Dorado County, CA

Water System Reliability Study Update and Conditions Assessment (2022-2023)

✓ KASL Consulting Engineers and ENGEO
Client Reference

Contact: Adam Brown, Operations Manager,
Georgetown Divide Public Utility District
6425 Main Street, Georgetown, CA 95634
530.333.4356 x 110 | abrown@gd-pud.org
Services: Canal Rehabilitation and Inspection, Geologic Evaluations, Geotechnical Characterization
Contract Value: $50,000
Project Manager: Jack Scroggs
Key Personnel: Paul Cottingham
Subs: N/A

The scope of the 2022-2023 Water System Reliability Study Update included field evaluation of the 35 miles of raw water conveyance system upstream of the District's water treatment plants and on updated evaluation of the District's treated water distribution system network including pipelines, storage tanks, booster pump stations, pressure reducing stations, hydrants and valves. Existing raw water improvements evaluated in the vicinity of the Tunnel Hill improvements included Upcountry Ditch and piped improvements, the Tunnel Hill Powerhouse Penstock, Structure 7 (upstream), and Tom Brown's Wastegate (downstream), of Tunnel Hill.

For the 2022-2023 Reliability Study, KASL led the evaluation of the UpCountry raw water conveyance system both before and after the Mosquito Fire. In a subconsultant role, ENGEO performed a geotechnical/geologic reconnaissance for approximately 15 miles of the raw water ditch/pipeline and compiled geologic data in GIS including landslides, erosion, and seepage areas that were used to develop geotechnical risk categories for various portions system. The Mosquito fire significantly damaged Structure 7 and caused significant erosion and fire debris impacts upstream of Tunnel Hill. Immediate term improvements recommended after the Mosquito Fire included seeding, silt fence and straw bale erosion control measures. ENGEO also performed post wildfire evaluation after the Mosquito Fire burned much of the higher elevation canal area that included providing sediment and debris flow control measure alternatives.

Longer term system reliability and sustainability improvements included piping all of the ditch sections (22,300 feet) upstream of Tunnel Hill Replacement of the damaged flow monitoring equipment at Station 7 was also recommended. Lining and coating the Tunnel Hill Penstock, maintenance, clearing of brush and trees, and recording permanent easements within the Penstock corridor are also recommended in the 2022-2023 Reliability Study Update. System Challenges include very steep terrain, varied geologic formations, many miles of unlined canal, existing landslides, and prior slope failure areas including the UpCountry repair consisting of a 23-foot-high Gabion wall (designed by KASL and ENGEO in 2006).

Cost Proposal

Firm	All Firms		Consultant - Delve Underground								Subconsultant							
Staff			Shawn Spreng, PE	Kush Chohan, PE, GE	Rick Clausen	Ashim Gajurel					Inspector/Geologist	Advisor						
Discipline	Total Labor (hours)		Project Director	PM and Lead Inspector	Inspection Supervisor	Photographer/Inspector	Total Labor (hours)	Total Labor Costs	Other Direct Costs		Paul Cottingham (ENGEO)	Jack Scroggs (KASL)	Total Labor (hours)	Total Labor (Costs)	ODCs	SUBCONSULTANT TOTAL	Subconsultant Markup	TOTAL
Labor Rates			$ 320.00	$ 300.00	$ 280.00	$ 160.00					$ 330.00	$ 202.00						
Total Hours	298	TOTAL	24	70	23	108	225	$52,400.00	$ 7,893.00	TOTAL	59	14	73	22,298	$ 580.00		5%	
Task 1: Project Management	**65**	**$ 18,240.20**	**9**	**19**	**0**	**13**	**41**	**$ 10,660.00**	**$ 100.00**	**$ 10,760.00**	**17**	**7**	**24**	**$ 7,024.00**	**$ 100.00**	**$ 7,124.00**	**$ 356.20**	**$ 18,240.20**
Task 1.1: Project Management and Schedule	**49**	**$ 13,516.20**	**9**	**13**	**0**	**9**	**31**	**8,220**	**-**	**$ 8,220.00**	**11**	**7**	**18**	**5,044**	**-**	**5,044**	**252**	**13,516**
Monthly Progress Report and Invoicing	8	$ 2,145.10	1	2		2	5	$ 1,240.00	$ -	$ 1,240.00	2	1	3	$ 862.00	$ -	$ 862.00	$ 43	$ 2,145
Project Kickoff Meeting	5	$ 1,338.60	1	1		1	3	$ 780.00	$ -	$ 780.00	1	1	2	$ 532.00	$ -	$ 532.00	$ 27	$ 1,339
Progress Meetings (assume 4 meetings, 1 hour each)	13	$ 3,758.10	2	4		2	8	$ 2,160.00	$ -	$ 2,160.00	4	1	5	$ 1,522.00	$ -	$ 1,522.00	$ 76	$ 3,758
Meeting Minutes and Agenda	4	$ 920.00		2		2	4	$ 920.00	$ -	$ 920.00	-	-	-	$ -	$ -	$ -	$ -	$ 920
Project Schedule	5	$ 1,240.00	1	2		2	5	$ 1,240.00	$ -	$ 1,240.00	-	-	-	$ -	$ -	$ -	$ -	$ 1,240
QA/QC of Deliverables	14	$ 4,114.40	4	2			6	$ 1,880.00	$ -	$ 1,880.00	4	4	8	$ 2,128.00	$ -	$ 2,128.00	$ 106	$ 4,114
													-					
Task 1.2: Records Review	**8**	**$ 1,933.00**	**0**	**2**	**0**	**4**	**6**	**$ 1,240.00**	**$ -**	**$ 1,240.00**	**2**	**-**	**2**	**660**	**-**	**660**	**33**	**$ 1,933**
Review Existing Documents	8	$ 1,933.00		2		4	6	$ 1,240.00		$ 1,240.00	2		2	$ 660.00		$ 660.00	$ 33	$ 1,933
											-		-					$ -
Task 1.3:Site Visit	**8**	**$ 2,791.00**	**0**	**4**	**0**	**0**	**4**	**$ 1,200.00**	**$ 100.00**	**$ 1,300.00**	**4**	**-**	**4**	**$ 1,320.00**	**$ 100.00**	**$ 1,420.00**	**$ 71.00**	**$ 2,791.00**
Site Visit	8	$ 2,586.00		4			4	$ 1,200.00		$ 1,200.00	4		4	$ 1,320.00		$ 1,320.00	$ 66	$ 2,586
Travel ODC	-	$ 205.00					0	$ -	$ 100.00	$ 100.00			-	$ -	$ 100.00	$ 100.00	$ 5	$ 205
																		$ -
Task 2: Tunnel Inspection and Safety Plan	**48**	**$ 11,732.50**	**5**	**9**	**2**	**19**	**35**	**$ 7,900.00**	**$ -**	**$ 7,900.00**	**8**	**5**	**13**	**3,650**	**-**	**3,650**	**183**	**$ 11,732.50**
Prepare Draft Inspection and Safety Plan	25	$ 5,850.20	2	4	1	12	19	$ 4,040.00		$ 4,040.00	4	2	6	$ 1,724.00		$ 1,724.00	$ 86	$ 5,850
Conduct Tunnel Inspection and Safety Plan Coordination Meeting	10	$ 2,677.20	2	2		2	6	$ 1,560.00		$ 1,560.00	2	2	4	$ 1,064.00		$ 1,064.00	$ 53	$ 2,677
Respond to Comments from District	3	$ 806.50		1		1	2	$ 460.00		$ 460.00	1		1	$ 330.00		$ 330.00	$ 17	$ 807
Prepare Final Inspection and Safety Plan	10	$ 2,398.60	1	2	1	4	8	$ 1,840.00		$ 1,840.00	1	1	2	$ 532.00		$ 532.00	$ 27	$ 2,399
	-	$ -					0	$ -		$ -			-	$ -		$ -	$ -	$ -
							0				-		-					$ -
Task 3: Tunnel Inspection	**80**	**$ 29,191.70**	**1**	**17**	**19**	**24**	**61**	**$ 14,580.00**	**$ 7,793.00**	**$ 22,373.00**	**17**	**2**	**19**	**$ 6,014.00**	**$ 480.00**	**$ 6,494.00**	**$ 324.70**	**$ 29,192**
Mobilize and Demobilize for Tunnel Entry	22	$ 5,259.50	1	3	5	10	19	$ 4,220.00	$ -	$ 4,220.00	3	-	3	$ 990.00	$ -	$ 990.00	$ 50	$ 5,260
Complete Entry and Insepction of Tunnel	42	$ 11,289.20	0	10	10	10	30	$ 7,400.00	$ -	$ 7,400.00	10	2	12	$ 3,704.00	$ -	$ 3,704.00	$ 185	$ 11,289
Tunnel Inspection Schedule Float (if needed)	16	$ 4,346.00	0	4	4	4	12	$ 2,960.00	$ -	$ 2,960.00	4	-	4	$ 1,320.00	$ -	$ 1,320.00	$ 66	$ 4,346
Tunnel Rescue Team (CAPSTONE) ODC	-	$ 6,293.00	0	0	0	0	0	$ -	$ 6,293.00	$ 6,293.00	-	-	-	$ -	$ -	$ -	$ -	$ 6,293
Travel ODC	-	$ 626.00					0	$ -	$ 500.00	$ 500.00	-	-	-	$ -	$ 120.00	$ 120.00	$ 6	$ 626
Lodging ODC	-	$ 1,378.00					0	$ -	$ 1,000.00	$ 1,000.00	-	-	-	$ -	$ 360.00	$ 360.00	$ 18	$ 1,378
											-		-					$ -
Task 4: Tunnel Inspection Report and Recommendations	**105**	**$ 25,150.50**	**9**	**25**	**2**	**52**	**88**	**$ 19,260.00**	**$ -**	**$ 19,260.00**	**17**	**-**	**17**	**$ 5,610.00**	**$ -**	**$ 5,610.00**	**$ 280.50**	**$ 25,151**
Prepare Preliminary Inspection Report and Presentation	14	$ 3,866.00	2	4		4	10	$ 2,480.00		$ 2,480.00	4		4	$ 1,320.00		$ 1,320.00	$ 66	$ 3,866
Prepare Draft Inspection Report	68	$ 15,172.00	2	16	2	40	60	$ 12,400.00		$ 12,400.00	8		8	$ 2,640.00		$ 2,640.00	$ 132	$ 15,172
Conduct Inspection Report Review Meeting	9	$ 2,899.50	3	3			6	$ 1,860.00		$ 1,860.00	3		3	$ 990.00		$ 990.00	$ 50	$ 2,900
Finalize Inspection Report	14	$ 3,213.00	2	2		8	12	$ 2,520.00		$ 2,520.00	2		2	$ 660.00		$ 660.00	$ 33	$ 3,213
	-	$ -					0				-		-					$ -
							0				-		$ -					$ -
Totals	298	$ 84,314.90	24	70	23	108	225	$ 52,400.00	$ 7,893.00	$ 60,293.00	59	14	73	$ 22,298.00	$ 580.00	$ 22,878.00	$ 1,143.90	$ 84,314.90
		$ 84,315								$ 60,293						$ 22,878	$ 1,144	$ 84,315

Appendix 1: Resumes

Inspection Services

Proposal for Georgetown Divide Public Utility District

Kush S. Chohan, PE, GE, PMP

Project Manager/Lead Inspector

Education

- MS, Geotechnical Engineering, The University of Texas at Austin, 2009
- BS, Civil Engineering, California State University, Chico, 2005

Registrations/Certifications

- Professional Engineer: CA #79730, FL #97888, NY #092933, NV #023832 UT #13813452-2202
- Professional Geotechnical Engineer: CA #3115
- Project Manager Professional (PMP®)

Expertise

- Geotechnical engineering
- Rock engineering/ Rock mass characterization
- Project management
- Initial support and exacavation analysis
- Geotechnical instrumentation and monitoring
- Tunnel/shaft excavation and support
- Development of geotechnical baseline and data reports
- Soil and rock slope stability analyses
- Tunnel condition assessments,rehabiltation and repairs
- Geoenviromental engineering

Kush is a California-certified professional engineer and geotechnical engineer with 18 years of hands-on civil and geotechnical engineering experience. He has provided project management, design and construction support services on a wide variety of major infrastructure market sectors, including tunnels, transportation, transit, hydropower, water supply, and wastewater projects. His work has included all phases of project development including identification and concept studies, feasibility studies, detailed design and construction, and inspection and rehabilitation.

Kush's area of expertise includes project management, geotechnical instrumentation; tunnel inspection, condition assessment, and rehabilitation; slope stability analyses; retaining wall design and construction; tunnel and shaft initial and final support design; and coordination. Additionally, Kush has experience producing contract drawings, specifications, calculations, design reports and technical memoranda, and has provided construction services on a number of projects which included submittal review, RFI responses and involvement in a dispute resolution process.

Kush's recent experience has involved high level coordination between different disciplines of design for complicated water and transit tunnel projects. In the past seven years, he has served and project manager and design lead on some of Northern California's most significant transportation and water projects, which includes work with Caltrans, Caltrain, BART, CA High Speed Rail, and SFPUC's various Mountain Tunnel Improvements covering numerous water conveyance tunnels that supply residents statewide. Kush has pursued specialized training in project management, leading to his Project Management Professional designation.

Relevant Experience

Inspection Services San Pablo & Upper San Leandro Supply Tunnels, East Bay Municipal Utility District, San Leandro, CA (2021–2022)

Kush was the lead tunnel inspector for the inspection of the San Pablo Supply Tunnel within the EBMUD water distribution system. The tunnel convey raw water from reservoirs east of the Berkeley/Oakland hills to the cities on the west side of the hills. San Pablo tunnel is generally constructed of unreinforced concrete and was completed in the 1920's. The San Pablo tunnel is considered gassy. Delve Underground is responsible for developing inspection plans for the tunnel inspection, and coordinating safety, ventilation, photography, and geophysics for the tunnel inspection.

SFPUC Mountain Tunnel Improvements, SFPUC, Moccasin, CA (2016-2022)

Kush was responsible for the geotechnical investigation and planning, rock mass characterization, initial support design, and designing, planning, and prepare contract documents for the 2018 Mountain Tunnel shutdown and Interim Tunnel Repairs. Kush contributed to the development of the Geotechnical Data Report. During the 2017 tunnel shutdown, Kush was a geotechnical and structural inspector during the tunnel shutdown. He gathered geotechnical and structural data during the inspection to contribute to tunnel inspection report and the condition assessment report and detailed as-built drawings of the tunnel locating all features found during the inspection. The

information collected was used to support the Mountain Tunnel Interim Repairs project and to help the owner plan on whether to repair the existing tunnel or build a new bypass tunnel. In 2018 and 2019, Kush was the Lead Designer of the Priest Adit which consists of a new access point into the tunnel, bulkhead and portal structures, and the construction sequencing. Kush managed the design and engineering services during construction of contact grouting and invert paving of the 2019 Interim Repairs Project.

Construction Management for 2023 Colgate Tunnel Outage, Yuba Water Agency, Dobbins, CA (2022-Present)
Kush is the Resident Engineer and the project manager for Yuba Water Agency's rehabilitation project on their Colgate Tunnel and Penstock. The Colgate Tunnel and Penstock convey water to the Colgate Powerhouse in Dobbins, CA, through a 27,400-foot-long pressurized single conduit consisting of rock-lined tunnel (26-ft diameter horseshoe shaped) and steel-lined penstock (15-ft to 9-ft diameter). The major construction activities include the repairs in the Colgate tunnel and replacement of a critical hydro-mechanical component at the penstock location, most of which must be completed during a 12-week winter outage. As part of the pre-construction services, Delve Underground is providing overall project management services, and will provide construction management services during construction.

Iron Mountain Tunnel Rehabilitation, Metropolitan Water District of Southern California (MWD), San Bernardino, CA (2024-Present)
Kush is the Project Manager and Lead Tunnel Designer. Kush is responsible for planning and conducting the tunnel inspection and is the Lead Tunnel Designer for the rehabilitation of the tunnel. Kush also managed bi-weekly coordination meeting agenda and minutes, monthly progress reports and invoices, and managing of the design team. The Iron Mountain Tunnel is part of the Colorado River Aqueduct (CRA) for the Metropolitan Water District of Southern California (MWD). The CRA is a 242-mile-long conveyance system that transports water from the Colorado River to Lake Mathews in Riverside County. The CRA consists of five pumping plants; 124 miles of tunnels, siphons, and reservoirs; 63 miles of canals; and 55 miles of cut-and-cover conduits. Delve Underground is tasked with advancing the tunnel rehabilitation design to a 30% level.

Auburn Tunnel Inspection, Placer County Water Agency (PCWA), Auburn, CA (2021-2022) 6327
Kush is the Project Manager and Lead Tunnel Inspector responsible for planning and conducting the tunnel inspection. After the tunnel inspection Kush led planning meetings, managed invoices, and prepared the tunnel rehabilitation design. Repairs in the tunnel were implemented within two weeks of the inspection. The Auburn Tunnel was constructed in 1965 and is an approximately 3 mile (15,865-foot long), mostly unlined rock tunnel with average inside height of approximately 12 feet high and width approximately 12 feet that is used to convey water from the American River near Auburn, CA to the Auburn Ravine for municipal and agricultural customers. PCWA operates two separate pumping stations above the tunnel. Through typical and planned maintenance, rocks were discovered in the pump assemblies and PCWA was concerned that stability of the tunnel may be comprised. Delve Underground, alongside Drill Tech, were retained to provide a tunnel inspection and condition assessment of the existing tunnel, and tunnel rehab design services during the limited tunnel outage.

BNSF Keddie Tunnel 4 Repair MP 199.6, BNSF Railway Company, Keddie, CA (2021-2022)
Kush is the resident engineer for the reopening of a collapsed BNSF railroad tunnel near Keddie, California. Tunnel #4 is a 480-foot- long tunnel on an active rail line that experienced partial collapse once the 188-feet of timber sets burned in the Dixie Fire of July 2021. Delve Underground performed a site reconnaissance two days after the collapse to assess the extent of damage, and, working with a team of in-house structural and geotechnical engineers, provided a conceptual repair design for prospective contractors within 5 days. Delve Underground assisted with the bidding process and continued to refine the repair design and provide design services during construction after bid award. The tunnel reopened, with no reportable injuries, in October 2021, 10 weeks after collapse.

Shawn Spreng, PE

Project Director

Education

- MS, Civil Engineering, University of California, Berkeley, 2005
- BS, Civil Engineering, Geology minor, San Francisco State University, CA, 2002

Registrations/Certifications

- Professional Engineer: CA #73743, 2009

Expertise

- Civil engineering
- Geotechnical and geological engineering
- Water treatment and conveyance facilities
- Tunnel initial support design
- Tunnel repair and rehabilitation
- Construction administration services

Shawn has over 20 years of civil and underground engineering experience, including geotechnical and geologic site characterizations, developing tunnel and shaft designs, static and seismic slope stability analyses, civil layout and design, engineering site support, tunnel inspection and field engineering. As project manager, Shawn has planned, implemented, and managed several large tunnel projects. As tunnel design lead, Shawn has developed the design approaches, planned geotechnical investigations around design needs, and implemented detailed designs. Shawn also has extensive experience providing construction support services to owners and contractors, including geologic mapping and evaluation of ground conditions for tunnel support installation, review of submittals and RFIs, and active participation in the claim and dispute resolution process. He has extensive experience inspecting and designing reservoir outlet tunnels and is familiar with the FERC part 12 process.

Relevant Experience

Inspection Services San Pablo & Upper San Leandro Supply Tunnels, East Bay Municipal Utility District (EBMUD), San Leandro, CA (2021-2022)

Shawn is the project manager and lead tunnel inspector for the inspections of the San Pablo and Upper San Leandro Supply Tunnels within the EBMUD water distribution system. Both tunnels convey raw water from reservoirs east of the Berkeley/Oakland hills to the cities on the west side of the hills. Both tunnels are generally constructed of unreinforced concrete and were completed in the 1920's. The San Pablo tunnel is considered gassy. Delve Underground is responsible for developing inspection plans for both tunnels, and coordinating safety, ventilation, photography, and geophysics for the tunnel inspections.

Mountain Tunnel Inspection, Moccasin, CA (2017)

Shawn was the firm's tunnel lead for the unlined portion of the re–inspection of the Mountain Tunnel within the Hetch Hetchy water supply system. The non–gassy Mountain Tunnel, originally built in 1925, is 99,655 feet long and carries water from the Early Intake Reservoir (Kirkwood Powerhouse) to the downstream Priest Reservoir. This re–inspection concentrated on the lined tunnel from Priest Portal to Sta. 386+26 and in collecting geological information on the unlined tunnel from Sta. 386+26 to Early Intake. During the unlined tunnel inspection geologic features were identified, measured, mapped and logged. Rock Mass Ratings (RMR) were performed at regular intervals throughout the unlined section. The information collected was used to support the Mountain Tunnel Interim Repairs project and to help the owner make a decision on whether to repair the existing tunnel or build a new bypass tunnel.

Construction Management for 2023 Colgate Tunnel Outage, Yuba Water Agency, Dobbins, CA (2022-Present)

Shawn is the Lead Tunnel Engineer responsible for review and implementation of the tunnel repairs for Yuba Water Agency's rehabilitation project on their Colgate Tunnel and Penstock. The Colgate Tunnel and Penstock convey water to the Colgate Powerhouse in Dobbins, CA, through a 27,400-foot-long pressurized single conduit consisting of rock-lined tunnel (26-ft diameter horseshoe shaped) and steel-lined penstock (15-ft to 9-ft diameter). The major construction activities include the repairs in the Colgate tunnel and replacement of a critical hydro-mechanical component at the penstock location, most of which must be completed during a 12-week winter outage. As part of the pre-construction services, Delve Underground is providing overall project management services, and will provide

construction management services during construction.

Auburn Tunnel Inspection, Placer County Water Agency (PCWA), Auburn, CA (2021-2022)
Shawn provided oversight and senior level review of the Inspection Plan and Inspection Report. The Auburn Tunnel was constructed in 1965 and is an approximately 3 mile (15,865-foot long), mostly unlined rock tunnel with average inside height of approximately 12 feet high and width approximately 12 feet that is used to convey water from the American River near Auburn, CA to the Auburn Ravine for municipal and agricultural customers. PCWA operates two separate pumping stations above the tunnel. Through typical and planned maintenance, rocks were discovered in the pump assemblies and PCWA was concerned that stability of the tunnel may be comprised. Delve Underground, alongside Drill Tech, were retained to provide a tunnel inspection and condition assessment of the existing tunnel, and tunnel rehab design services during the limited tunnel outage.

BNSF Keddie Tunnel 4 Repair MP 199.6, BNSF Railway Company, Keddie, CA (2021-2022)
Shawn was a resident engineer for the reopening of a collapsed BNSF railroad tunnel near Keddie, California. Tunnel #4 is a 480-foot- long tunnel on an active rail line that experienced partial collapse once the 188-feet of timber sets burned in the Dixie Fire of July 2021. Delve Underground performed a site reconnaissance two days after the collapse to assess the extent of damage, and, working with a team of in-house structural and geotechnical engineers, provided a conceptual repair design for prospective contractors within 5 days. Delve Underground assisted with the bidding process and continued to refine the repair design and provide design services during construction after bid award. The tunnel reopened, with no reportable injuries, in October 2021, 10 weeks after collapse.

Claremont Tunnel Inspection, EBMUD, Oakland, California (2016-2017)
Shawn was Delve Underground's assistant project manager and an inspector for the Claremont Tunnel within the EBMUD water distribution system. The gassy tunnel originally built in 1926 to 1929 is 18,065 feet long and carries water from the Orinda Water Treatment Plant to the Claremont Cistern in Oakland. The tunnel is a 9–foot horseshoe, concrete lined, and was last inspected in 2006 when a new bypass tunnel through the Hayward Fault Zone was constructed. The reconnaissance level inspection occurred over two days and documented overall lining conditions, measured water inflows, measured lining strength with a Schmidt Hammer, videotaped the entire length of tunnel, and collected water samples. The tunnel was a permit required confined space and required the inspection team to use a wireless paging system for communication with an outside entry supervisor/rescue team, emergency response plans, and continuous air monitoring for methane and hydrogen sulfide. The information collected was summarized in an inspection report.

Esmeralda Tunnel Emergency Repairs, El Dorado Irrigation District, Pollock Pines, CA (2014-2017)
Project manager. Shawn was the project manager for the emergency repairs to the Esmeralda Tunnel. The Tunnel is part of the El Dorado Irrigation District's (EID) El Dorado Federal Energy Regulatory Commission (FERC) Hydroelectric Project No. 184. The Tunnel suffered a complete collapse in the altered and weathered rock near its upstream portal, blocking all flow in the critical El Dorado Canal. Emergency repairs were undertaken during an extended 2014/2015 winter outage to re–mine and stabilize the collapsed zone, as well as stabilize other areas of the tunnel where collapse was imminent. He worked closely with both the contractor and the owner to develop and design emergency repairs of the tunnel. He performed geological site reconnaissance and worked closely with the contractor to develop a safe approach to enter and remine the collapsed zone. He then designed the initial support system and the final lining for the collapsed zone. He inspected and assessed the condition of the remaining tunnel downstream of the collapsed zone and helped to develop a staged repair scheme where the most critical area was repaired during the 2014/2015 outage. The rotted timber supports in weak rock were replaced with temporary steel supports, then the entire zone was supported with a new cast–in–place concrete liner. Subsequent repairs have taken place during the 2015/2016 and 2016/2017 outages, where the remaining timber sets in the tunnel have been replaced with a shotcrete and rock bolt lining system.

ROLE
ENGEO Project Manager

EDUCATION
BS Geology, Humboldt State University, 2002

EXPERIENCE
Years with ENGEO: 21
Total Years of Experience: 21

REGISTRATIONS
Certified Engineering Geologist, CA-CEG 2505
Professional Geologist, CA-PG 8320

SPECIALIZATIONS
- Geologic Mapping
- Geotechnical Exploration
- Geologic Hazard Evaluation
- Subgrade Stabilization
- Grading Project Management
- Landslide Investigations and Repairs
- Geomorphology
- Geotechnical/Geologic Instrumentation
- Levee Analyses
- Seepage Evaluation
- Seismic Instrumentation

AFFILIATIONS
AEG Association of Engineering Geologists

CONTACT INFORMATION
2213 Plaza Drive
Rocklin, CA 95765
(916) 417-8440
pcottingham@engeo.com

PAUL COTTINGHAM, PG, CEG
Inspector Geologist

Paul has over 21 years of experience practicing engineering geology. He has served as project manager and technical lead for a multitude of public- and private-sector clients throughout Northern California and Nevada. Paul's expertise includes complex subsurface investigations, geologic mapping, levee evaluation and design, dam instrumentation, landslide mitigation design, hillside grading, rockfall modeling, and slope stability evaluation. He is adept at developing economical engineering designs and practical solutions for problems that arise during construction. Paul's experience has included technically challenging projects teaming with multi-firm project teams including Delve Underground and KASL Engineers. He has worked in mountainous terrain with complex geology and lives in the Sierra Nevada which has resulted in a deep understanding of the Sierra's bedrock geology, quaternary geomorphology, slope stability, and terrain. Paul is comfortable navigating steep terrain in variable weather and ground conditions allowing for the collection of critical geologic data.

SELECT PROJECT EXPERIENCE

GDPUD Conditions Assessment—El Dorado County, CA (2022 to 2023)
Project Manager. Paul performed a geotechnical reconnaissance for approximately 15 miles of raw water ditch/pipeline, compiled data in GIS (including landslides, erosion, and seepage), and developed geotechnical risk categories for various portions system. Paul also performed post wildfire evaluation after the Mosquito Fire burned much of the higher elevation canal area that included providing sediment and debris flow control measure alternatives. This project was to support a system wide conditions assessment of the Georgetown Divide Public Utility District's raw and treated water infrastructure led by KASL Consulting Engineers.

GDPUD Up Country Ditch Slide—El Dorado County, CA (2006 to 2007)
Project Manager. Paul performed the site characterization, subsurface exploration and developed recommendations for mitigation of a landslide threatening the Georgetown Divide Public Utility District (GDPUD) water distribution system. Recommendations included geotechnical design for a gabion wall and engineering support during construction. This design solution met the utility district goals for the project to be constructable by local general contractors as opposed to a specialty contractor. The landslide was very steep and approximately 80 feet wide by 150 feet in length, encroaching

on the down slope of the Georgetown water supply canal. The gabion wall required a stability keyway excavated into rock and unique drainage considerations.

GDPUD Greenwood Reservoir WTP and Treated Water Mains—Greenwood, CA (2006 to 2008)
Project Manager. Paul performed the subsurface exploration, developed recommendations, and prepared the geotechnical report. The project consisted of a water treatment plant located on Greenwood Reservoir that included the construction of a 1 MG water storage tank, retention ponds, and 15,400 lineal feet of 20-inch transmission main. The 20-inch transmission main would deliver treated water to existing distribution facilities in the Georgetown Divide Public Utility District.

PCWA Foothill Raw Water Pipelines (FRWP) Phase 2 - CM and Inspection Services—Auburn, CA (2019 to 2021)
Project Manager. Paul managed the design support and materials testing services during construction. The project includes design and construction of more than 1-1/2 miles of new pipeline with an elevation increase of 165 feet to the top of Indian Hill Road. The project also includes two energy dissipation structures and a hydraulic control standpipe. The American Society of Civil Engineers, Sacramento Section has awarded the Foothill Raw Water Pipeline with the 2021 Outstanding Water Project Award. Construction cost was $20 million. The Foothill Raw Water Pipeline Project's purpose is to pump water from the American River and deliver it to the Foothill Treatment Plant, located in Newcastle, CA.

HNTB, Hwy 101 Last Chance Grade Repair—Cresent City, CA (2020 to 2022)
Project Manager. Paul performed geologic research, landslide mapping, coordination of subsurface exploration logging, quality assurance rock core logging, LiDAR time history landslide comparison, landslide model development, report preparation, and participated in the development of conceptual designs for various mitigation alternatives. The Last Chance Grade Project alternatives include various new highway alignments, slope stabilization concepts, and a one to two-mile-long tunnel. Challenges include completing deep rock cores in difficult helicopter access areas in sensitive redwood habitat and developing preliminary engineering concepts for a tunnel portal located within an active earth flow, approximately 80 feet deep.

California High Speed Rail, Pacheco Pass—Santa Clara County, CA (2018 to 2020)
Senior Geologist. Paul performed geotechnical exploration, rock core logging, aerial photograph review, geologic field mapping, and preparation of geologic reports. The HSR project includes large cuts and embankments, viaducts, and extensive tunneling in the coastal mountains near Highway 152 in Pacheco Pass. This tunneling requires the excavation of a large portal at the tunnel entrances within the very geologically complex Franciscan Formation. Mapping included characterizing a large deep-seated landslide complex near Highway 152 at the proposed HSR tunnel portal location. Paul was able to determine that major movement of the landslide complex likely had not occurred since the Pleistocene epoch, and therefore, was not likely to present a fatal flaw to the project. This saved the project significant costs in further exploration of this landslide complex, as well as potential design changes that could have increased project costs by many millions of dollars.

Central Subway Project Chinatown Station—San Francisco, CA (2016)
Senior Geologist. Paul provided consultation and oversight during tunnel instrumentation QA/QC. The project included the installation of Geokon shotcrete and earth pressure sensors at various locations in the tunnel excavation. An ENGEO representative was on-site during sensor installation and provided installation consultation, initial readings, and documentation. The Central Subway Project will connect major employment and population centers in San Francisco that are underserved by rapid transit. The project included both conventional tunneling and used tunnel boring machines (TBMs).

Richard Clausen

Inspection Supervisor

Education

- BS, Civil Engineering, Washington State University, 1987
- Advanced Paralegal Program, Edmonds Community College, 2001

Registrations/Certifications

- Professional Instructor for Concrete I, II, and III for required WABO Certification
- Mediation Training

Expertise

- Quality assurance & management
- Project planning & management
- Lean leadership
- Construction Management/ESDC
- Team building & mediation
- Contract law

Richard (Rick) Clausen brings over 35 years in the construction industry with 28 years of experience in varying positions including Field Engineer, Lead Inspector, Quality Manager, Materials Engineer and Technical Consultant overseeing design, construction management, quality assurance programs, testing and compliance of a multitude of heavy civil structures involving tunnels, shafts, masonry, concrete, shotcrete, post-tension, and prestressed, precast and composites. His background in Engineering Services During Construction (ESDC) includes experience with submittal reviews, developing RFI responses, and resolving field issues. Rick has established QA procedures and managed projects for clients including State of Alaska DOT, Washington DOT, Oregon DOT, Sound Transit Authority, King County, Burlington Northern SFRR, Microsoft, Safeco, and Vulcan NW. He has the communication and leadership skills to coordinate between construction contractor, owner, and designers during construction and takes a proactive approach in resolving field issues. Rick has extensive experience authoring, critiquing, and reviewing specifications relating to mass concrete, precast products, concrete repairs, complex structures, as well as material and procedural submittals. He is a seasoned innovator in the manufacture of custom and standard prefabricated architectural features utilizing state of the art technology and effective supply chain logistics.

Relevant Experience

Mountain Tunnel Improvements, San Francisco Public Utilities Commission, Moccasin, CA (2022–Present)

Rick is the Technical Construction Lead providing engineering services during construction. In this role, Rick has a number of responsibilities including assisting the CM team with redesigns, review of RFIs and submittals, both internally and with a multi-discipline subcontractor, leading daily construction meetings, performing filed observations, and coordinating work with subconractors. The 18.9-mile Mountain Tunnel delivers water from Hetch Hetchy Reservoir via Kirkwood Powerhouse into the Priest Reservoir and Priest Bypass Pipeline. In service since 1925, the tunnel consists of lined and unlined sections. The project will improve reliability of daily water delivery to customers, ensure water quality, and provide continued capacity to meet future demands. A tunnel inspection was performed in 2017 to update the previous condition assessment. The long-term project provides for evaluation of alternatives for repair or replacement of the tunnel and then design and construction of a preferred engineering alternative. Delve Underground is Prime Consultant, actively managing 16 subconsultants and a $21M contract while successfully delivering multidisciplinary design services.

Iron Mountain Tunnel Rehabilitation, Metropolitan Water District of Southern California (MWD), San Bernardino, CA (2024-Present)

Rick was the Inspection Supervisor and Resident Engineer for the tunnel inspection and field investigation during the March 2023 Iron Mountain Tunnel shutdown. Rick was responsible for maintaining safe entry, safety, daily organization of duties from various contractors, managing field investigations, and reporting on daily progress.

The Iron Mountain Tunnel is part of the Colorado River Aqueduct (CRA) for the Metropolitan Water District of Southern California (MWD). The CRA is a 242-mile-long conveyance system that transports water from the Colorado River to Lake Mathews in Riverside County. The CRA consists of five pumping plants; 124 miles of tunnels, siphons, and reservoirs; 63 miles of canals; and 55 miles of cut-and-cover conduits. Delve Underground is tasked with advancing the tunnel rehabilitation design to a 30% level.

Prior Experience

Silicon Valley Clean Water Regional Environmental Sewer Conveyance Upgrade, CA (2021–2022)

A major upgrade to the regional wastewater treatment system combining a total of eleven projects. Rick was the quality lead inspector, technical advisor, and mentor to engineers and inspectors covering tunneling, three pump station retrofits, and the new construction of a replacement station, as well as micro-tunneling and force main upgrades. Rick's work included developing a QA and inspection program and coordinated the inspections and oversights too all projects simultaneously, implementing procedures for inspecting and tracking a variety of activities, including tunneling, micro-tunneling, sheet pile, and shafts. Rick also provided technical assistance with regards to ground improvement challenges, coatings, moisture mitigation, and grouting.

Auburn Tunnel, Placer County Water Agency, CA (2022)

Rick served as Inspection Supervisor on a team for a physical inspection of Placer County Water Agency's Auburn Tunnel. The Auburn Tunnel is an approximately 15,865-foot-long unlined rock tunnel with average inside height of approximately 12 feet high and width approximately 12 feet. The project consisted of a boots-on-the-ground visual inspection and geotechnical assessment of the unlined tunnel in preparation of a condition assessment report. Rick's duties were to track the active progress of the inspection team in the tunnel, maintain communication contact with the tunnel inspection team during the inspection, maintain and apply the conditions of the confined space permit, and maintain communication with tunnel rescue teams.

SR 99 Alaskan Way Viaduct Replacement, Seattle, WA (2013–2015)

As Logistics Manager, Rick provided support for many roles for the SR 99 Alaskan Way Viaduct Replacement Project including overseeing the production quality and at the segmental precast plant and conducted preparatory work for the tunnel interior. Additional tasks included implementing reinforcement handling and fabrication procedures improving production by 87%, segment shipping and delivery efficiency by nearly 600%, redesigning the existing decant facility and developed an environmental compliance program to meet County compliance, developing and implementing a repair and approval system increasing daily segment repair and approval, initiating several satellite yards and coordinated mapping, handling/storage and shipping logistics to accommodate the emergency long term storage requirements, and conducting ongoing quality control inspections and mentoring for the cast in place interior structure within the excavated tunnel.

Brightwater Conveyance System, Seattle, WA (2006–2011)

As QA Manager and Lead Inspector, Rick provided support by preparing the inspection QA/QC plan including testing procedures for the shaft liner and invert systems for a large tunnel and microtunnel. The project worked included a large tunnel excavation, casisson and secant pile shafts, wet excavation of a shaft, and slipform liner for conveyance pipe out of a pump station. In addition to daily inspection requirements, created and implemented QA and auditing systems and inspection procedures for a variety of activities including the following: precast tunnel liner fabrication and handling, slurry walls, shaft excavations and liner installations. Highlights of Rick's role and work included inspection for several micro tunnels, connector tunnels utilizing drill and road header as well as Slurry Shield and Earth Pressure Balance TBM; Inspection of ground improvements including Bentonite slurry walls utilizing hydrofraise and clamshell excavation methods, jet grout soil columns, vibration rock columns, and ground freezing. Rick's work continued with developing QA protocol and audit procedures, material and construction reviews for all components and fabrication methods required to manufacture the tunnel liner segments for all five contracts with differing size and strength requirements and responsible for the quality of all moisture mitigation projects including various polymer-based systems, and superfine cement grout applications.

Ashim Gajurel

Photographer/Inspector

Education

- MS, Geotechnical Engineering, University of Texas at Austin, 2019
- BS, Civil Engineering, Kathmandu University, 2015

Registrations/Certifications

- Registered Civil Engineer (No: 13487) in Nepal Engineering Council
- Cal/OSHA-10 Construction
- First Aid and CPR/AED
- BNSF Railway Safety Training
- Confined Space Training

Expertise

- Geotechnical Engineering
- Rock Mechanics & Characterization
- Tunnel Inspections
- SEM Tunneling
- Numerical Modeling
- Retaining Structures

Ashim has over 5 years of technical expertise in civil and geotechnical engineering, with specific experience in tunnel design and analysis, microtunneling, hydropower design, retaining structures design, foundation design, tunnel construction and roadway/retaining wall construction. He has worked on projects in the water, wastewater, hydropower, and transit markets.

Relevant Experience

Inspection Services San Pablo & Upper San Leandro Supply Tunnels, East Bay Municipal Utility District, San Leandro, CA (2021–2022)

Ashim served as Project Engineer and Tunnel Inspector for the inspections of the San Pablo and Upper San Leandro Supply Tunnels within the EBMUD water distribution system. He was responsible for managing the logistics for the inspection, coordinating with multiple subs. Ashim also contributed as Tunnel Inspector, performing visual inspection, photography, and some physical tests, and tackling preparation of inspection reports afterwards. He coordinated with safety personnel, providing briefing to all the entrants. The San Pablo and Upper San Leandro Supply Tunnels convey raw water from reservoirs east of the Berkeley/Oakland hills to the cities on the west side of the hills. San Pablo tunnel is generally constructed of unreinforced concrete and was completed in the 1920's and is considered gassy. Delve Underground is responsible for developing inspection plans for the tunnel inspection, and coordinating safety, ventilation, photography, and geophysics for the tunnel inspection.

SFPUC Mountain Tunnel Improvements (Construction) - CS-249, San Francisco Public Utilities Commission, Moccasin, CA (2019–Present)

Ashim provides support for the Engineering Services During Construction (ESDC) contract, including submittal and RFI reviews, inspection of existing tunnels and shafts, and geologic mapping of tunnels and shafts during construction. Ashim maintained geologic records through construction for conformance with the geotechnical baseline report and for anticipating future construction issues. The 18.9-mile Mountain Tunnel delivers water from Hetch Hetchy Reservoir via Kirkwood Powerhouse into the Priest Reservoir and Priest Bypass Pipeline. In service since 1925, the tunnel consists of lined and unlined sections. The project will improve reliability of daily water delivery to customers, ensure water quality, and provide continued capacity to meet future demands. A tunnel inspection was performed in 2017 to update the previous condition assessment. The long-term project provides for evaluation of alternatives for repair or replacement of the tunnel and then design and construction of a preferred engineering alternative. Delve Underground is Prime Consultant, actively managing 16 subconsultants and a $21M contract while successfully delivering multidisciplinary design services.

Colgate Tunnel Outage CM, Yuba Water Agency, Dobbins, CA (2022-2025)

Ashim is a Project Engineer for the 5-mile-long tunnel and penstock project. Currently, as part of the pre-construction services, Ashim has been involved in the constructability review of design documents, helping manage various design consultants and their deliverables, scheduling, and logistical task such as setting meetings, preparing minutes, invoicing, etc. The Colgate Tunnel and Penstock convey water to the Colgate Powerhouse in Dobbins, CA, through a 27,400-foot-long pressurized single conduit consisting of rock-lined tunnel (26-ft diameter horseshoe shaped) and steel-lined penstock (15-ft to 9-ft diameter). The major construction activities

include the repairs in the Colgate tunnel and replacement of a critical hydro-mechanical component at the penstock location, most of which must be completed during a 12-week winter outage. As part of the pre-construction services, Delve Underground is providing overall project management services, and will provide construction management services during construction.

Auburn Tunnel Inspection, Placer County Water Agency (PCWA), Auburn, CA (2021-2022)
Ashim served as Tunnel Inspector, performing visual inspection, photography, and some physical tests, and tackling preparation of inspection reports afterwards. The Auburn Tunnel was constructed in 1965 and is an approximately 3 mile (15,865-foot long), mostly unlined rock tunnel with average inside height of approximately 12 feet high and width approximately 12 feet that is used to convey water from the American River near Auburn, CA to the Auburn Ravine for municipal and agricultural customers. PCWA operates two separate pumping stations above the tunnel. Through typical and planned maintenance, rocks were discovered in the pump assemblies and PCWA was concerned that stability of the tunnel may be comprised. Delve Underground, alongside Drill Tech, were retained to provide a tunnel inspection and condition assessment of the existing tunnel, and tunnel rehab design services during the limited tunnel outage.

BNSF Keddie Tunnel 4 Repair, BNSF Railway Company, Keddie, CA (2021)
Ashim served as a field engineer on this project, responsible for providing quality assurance and tracking payment quantities during construction. Ashim was mostly involved in night construction shift for few weeks where he was often the only representative from the owner/designer's side. The tunnel fire in BNSF Keddie Tunnel #4, MP 199.6, resulted in timber set and tunnel collapse. The tunnel is 470 feet long, with an estimated 240 LF of collapsed section. Delve Underground provided bidding assistance to BNSF and design documents for construction. The firm also provided resident engineers, DSDC, and construction monitoring for a 24/7 construction schedule, estimated at 4 to 6 weeks.

East of Hills System Tunneling Study, East Bay Municipal Utility District, Oakland, CA (2020–2021)
Ashim was responsible for providing various inputs to the alternative analysis study for different alignments for the project. He was responsible for helping in preparing the report for The East Bay Municipal Utility District (EBMUD) has selected Delve Underground to provide tunnel alignment studies for the Acalanes and Larinda Aqueducts as part of the planning phase of the East of Hills (EOH) System Study. Delve Underground will evaluate alignments for 7 miles of new 52- to 58-inch aqueducts, which will connect the Walnut Creek and Orinda Water Treatment Plants (WTPs) to the Lafayette WTP. Delve Underground conducted the original 2005 Lamorinda Tunnel Conceptual Study, which included an evaluation of a short 1.8-mile tunnel and long 3.25-mile tunnel between Orinda to Lafayette. Our team will build on the original study while also evaluating a second aqueduct alignment to Walnut Creek. As part of an alternatives analysis, Delve Underground will evaluate tunneled, trenchless, and open cut pipeline installation options along the study corridor.

New Bullards Bar Secondary Spillway, Yuba Water Agency, Dobbins, CA (2019–2020)
Ashim characterized the site based on the provided bore logs and provided preparation of cross sections of tunnel with overlying rock type and quality. Delve Underground is currently working on the preliminary design of this 500 ft long bypass tunnel at New Bullards Bar Reservoir. It is anticipated to be 38 ft finished diameter, concrete lined and designed for flow velocities approaching 90 ft/s. Delve Underground is responsible for design of the tunnel initial support and final lining, downstream portal permanent support, and the geotechnical baseline report (GBR) for the project.

PROPOSAL FOR ENGINEERING SERVICES
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT
RAW WATER CONVEYANCE TUNNEL INSPECTION

RESUME

John (Jack) Scroggs, P.E.
Inspection Consultant

The Project Manager for water resource and public works projects conducted by KASL Consulting Engineers is **Jack Scroggs**. Mr. Scroggs is a California Registered Civil Engineer and California Registered Traffic Engineer. He is also a Registered Civil Engineer in Oregon and Nevada. He has supervised and directly participated in the preparation of water system assessment studies and reports, water master plans, engineering plans and technical specifications for water resource projects throughout Northern California. Mr. Scroggs has over 50 years of experience in the design and construction management of water resource and civil engineering improvements.

Mr. Scroggs received his BS and an MS Degree in Civil Engineering from the University of California, Davis. He is extremely accomplished with local County, State and Federal requirements pertinent to water development, water conveyance facilities, treatment, storage, booster pump stations and distribution systems.

Jack is currently serving as Project Manager for water supply and distribution Projects in Sacramento County, El Dorado County, Calaveras County and Amador County.

For the GDPUD Raw Water Conveyance Tunnel Inspection, Jack will provide engineering background and support regarding the GDPUD raw water conveyance systems. He will assist the Delve Underground Project Team to assess the conditions of the existing Tunnel Hill tunnel improvements to reliably and adequately convey existing and projected raw water flows to serve the District's water treatment plants and raw water irrigation demands.

Mr. Scroggs has served as the Principal Design Engineer and Project Manager for Water Master Plans, Reliability Studies and CIP Programs and for the design of open channel conveyance systems, raw water and treated water pipeline improvements, groundwater water supply wells, water treatment systems, water storage tanks, water booster, pump stations and pipeline plans and technical specifications for the following recent water resource projects:

- 2022-2023 Water System Reliability Study Update, Georgetown Divide Public Utility District
- 2002 Water System Reliability Study, Georgetown Divide Public Utility District
- Kaiser Siphon Emergency Replacement Project, GDPUD
- Upcountry Slide Repair, GDPUD
- Skyway and New York Well Phase 1 and Phase 2, Water Well Supply Projects, Fair Oaks Water District, Sacramento County
- North Plumas Water Wells, Treatment Plant, Storage Tank, Booster Pumps and Transmission Mains, Yuba County
- Polo Grounds Well and Water Treatment Plant, Soquel Creek Water District, Santa Cruz County
- City of Plymouth Water Master Plan
- Valley Springs PUD Network Analysis and System Extension Plans, Calaveras County
- Wildflower Water Storage and Booster Pumps, Amador County
- Lindhurst High School Water Storage Tank and Booster Pump Station, Yuba County
- Willow Street Pump Station Investigation and Improvement Design, City of Fort Bragg
- Plymouth Pipeline and Water Storage Tank, Amador County
- Linden Storage Tank and Booster Pump Station, Linden County Water District, San Joaquin County
- Orange Vale Water Company Water Model and GIS Project, Sacramento County
- Auburn Bluffs Water Storage Tank, Placer County
- Copper Cove Water Treatment Plant, Water Storage and Booster Pump Station Project, Calaveras County Water District
- Jenny Lind Water Treatment Plant, Water Storage and Booster Pump Station Improvements, Calaveras County Water District
- Plymouth Water Supply Well, City of Plymouth Wastewater Treatment Plant
- Groundwater Supply, Distribution and Storage Project, River Pines Public Utility District, Amador County
- Ebbetts Pass Reach 1 Water Transmission Main Replacement Project, Calaveras County Water District
- E. Hacienda CVS and Timber Ridge Valve Project, Nevada Irrigation District
- North Gualala Water Company Water Treatment Plant, Mendocino County
- El Dorado Water Agency Infrastructure Study
- River Pines Public Utility District, Water System Improvement Project, Amador County

DELVE
underground

RESOLUTION NO. 2024-XX

OF THE BOARD OF DIRECTORS OF THE GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT AWARDING A CONTRACT WITH BRIERLEY AND ASSOCIATES IN THE AMOUNT OF $127,592 AND AUTHORIZING THE GENERAL MANAGER TO NEGOTIATE AND EXECUTE CONTRACT AMENDMENTS IN AN AGGREGATE AMOUNT NOT TO EXCEED $12,592

WHEREAS, the Tunnel Hill section of the water delivery system was constructed in 1959 and last formally inspected in 1994; and,

WHEREAS, on May 16, 2024, the District issued a Request for Proposals (RFP) for a qualified consultant to perform inspection of the tunnel. The District received two bids. Brierley Associates met and exceeded the qualifications and was selected as the highest ranking, most qualified, and most responsible responsive bidder with a final bid amount of $127,592; and,

WHEREAS, sufficient funds to award the Project are available in the Capital Improvement Plan budget; and,

WHEREAS, staff recommends the Board of Directors to award a professional services contract to Brierley Associates; and,

WHEREAS, staff recommends the Board of Directors to authorize the General Manager to negotiate and execute contract amendment(s) in an amount not to exceed $12,592, which is ten percent (10%) of the total contract value, due to the Project's completion schedule and staff's capability to respond swiftly to unanticipated conditions to limit potential claims or risk to the District.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT THAT:

1. The Board of Directors has considered the full record before it, which may include but is not limited to such things as the staff report, testimony by staff and the public, and other materials and evidence submitted or provided to it. Furthermore, the recitals set forth above are found to be true and correct and are incorporated herein by reference.

2. The Board of Directors hereby awards a professional services contract for the inspection of Tunnel Hill to Brierley Associates and authorizes the General Manager to execute the contract in a form approved by General Counsel, in an amount of $127,592 for the Project.

3. The General Manager is hereby authorized to negotiate and execute contract amendment(s) in an aggregate amount not to exceed $12,592.

PASSED AND ADOPTED by the Board of Directors of the Georgetown Divide Public Utility District at a meeting of said Board held on the 1st day of August 2024, by the following vote:

AYES:

NOES:

ABSENT/ABSTAIN:

_____
Mitch MacDonald, President, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

Attest:

_____
Nicholas Schneider, Clerk, and Ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

CERTIFICATION

I hereby certify that the foregoing is a full, true, and correct copy of Resolution 2024-XX duly and regularly adopted by the Board of Directors of the Georgetown Divide Public Utility District, County of El Dorado, State of California, on this 1st day of August 2024.

_____
Nicholas Schneider, Clerk, and Ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

REPORT TO THE BOARD OF DIRECTORS
Board Meeting of August 1, 2024
Agenda Item No. 8. C.

AGENDA SECTION: **Action Items**

SUBJECT: **Consider Establishing A Checking And Savings Account At River City Bank And Closing The District Account At El Dorado Savings Bank**

PREPARED BY: Jessica Buckle, Office/Finance Manager

Approved By: Nicholas Schneider, General Manager

BACKGROUND

The Georgetown Divide Public Utility District (GDPUD) opened financial banking accounts with El Dorado Savings Bank on March 15, 2002.

DISCUSSION

In July 2023 the District switched our banking methodology to incorporate California CLASS as a high-yield savings account. In utilizing this operation, it was learned that El Dorado Savings Bank did not have the banking options we required. This has resulted in increased fees, including transfer and wire fees. Switching to River City Bank we can alleviate these fees by utilizing the interest income they generate at the bank to offset their fees. The District will be able to utilize remote deposit of checks and positive pay, ensuring we will never receive a fraudulent check. GDPUD can benefit greatly by moving the District's financial accounts for day-to-day operations to River City Bank which was established in the City of Sacramento and has a branch located in the city of Placerville.

Georgetown Divide Public Utility District	El Dorado Savings Bank	River City Bank	Benefit of River City Bank
Interest Rate	0.03% - 0.09%	4.4%[1]	Higher Interest Rate and Full FDIC Insurance
Average Monthly Interest Income	$27.85	$1,763.75	Greater Interest Income
Average Monthly Service Fees	$28.80	$438.98 (Includes Remote Deposit and Positive Pay)	Enhanced Cash Management Solutions
Average Monthly Interest Income less Service Fees	-$0.95	$1,324.77	Positive Monthly Interest Income less Fees
Net Annual Result to Cash Flow	-$11.40	$15,897.24	$15,908.64[2] Net Benefit

FISCAL IMPACT

An increase of $15,900 in annual interest.

CEQA ASSESSMENT

Not a CEQA Project

RECOMMENDED ACTION

Staff recommends the Board of Directors of the Georgetown Divide Public Utility District (GDPUD) adopt the attached Resolution 2024-XX authorizing moving daily operational banking accounts from El Dorado Savings Bank to River City Bank.

ALTERNATIVES

Retain our current financial institution and forego the $15,900 in annual interest.

ATTACHMENTS

1. River City Account Analysis Proposal
2. River City Bank Presentation
3. Resolution 2024-XX Authorizing Establishment of River City Banking Accounts and Designating Signatories

Account Analysis Proposal with a Zero Balance Sweep[1] for :

Georgetown Divide Public Utility District

	Earnings Credit Rate
	1.00%
Average Ledger Balance	$0.00
Average Float	0
Average Collected Balance	$0.00
Reserve Required	$0.00
Number of Days in Month Analyzed	30
Earnings Credit	$0.00

----------General Account Services----------

Analysis of Account Acitivity	Volume[2]	River City Bank Unit Charge	River City Bank Total
Monthly Maintenance Fee	1	$15.00	$15.00
Account Activity			
Deposits - Per Ticket	0	$1.25	$0.00
Deposits - Per Item	0	$0.10	$0.00
Debits Paid	121	$0.14	$16.94
ACH Credits	75	$0.10	$7.50
ACH Debits	16	$0.14	$2.24
Wire Transfers			
Incoming Wires	1	$15.00	$15.00
Outgoing Wires - Domestic	1	$35.00	$35.00
Commercial Cash Management Services			
Online Banking - Multi-User Access	1	$5.00	$5.00
Remote Deposit Services			
Remote Deposit - Monthly Maintenance	1	$25.00	$25.00
Remote Deposit - Per Batch	33	$1.25	$41.25
Remote Deposit - Per Item (estimate)	2000	$0.10	$200.00
Positive Pay Services			
Positive Pay - Monthly Maintenance	1	$25.00	$25.00
Positive Pay - Per Account	1	$10.00	$10.00
Positive Pay - Per Item Issued / Uploaded	121	$0.05	$6.05
Positive Pay - ACH - Per Account	1	$5.00	$5.00
Total Cost of Services Rendered Before Earnings Credit			$408.98
less Earnings Credit			$0.00
Estimated Account Analysis Fees			**$408.98**
Combined Balances Required Across All Entities to Offset Fees			**$525,843.30**
Average Balance to be Invested[2]			$481,021.60
Current High Yield Money Market Rate[3]			4.4%
Annual Interest Income			**$21,164.95**
Monthly Interest Income			**$1,763.75**

* The above calculations are assumptions based upon activity provided by your company. These are estimates and may not reflect exact fees charged by Bank. If your earnings credit is less than the accumulated total of fees for services used within a given month, a designated account will be charged on the 25th day of the next month. You will receive an itemized statement monthly. If your earnings credit is more than the accumulated total of fees for services used within a given month, you will not receive monetary credit nor will a credit be carried to the following month. See our Deposit Agreement and Disclosure for other terms and conditions applicable to these accounts. Also refer to our Schedule of Miscellaneous Fees and Service Charges Disclosure Statement for additional information about other activity fees and service charges that may apply to your account.

[1]See account structure slide for detail on zero balance account structure and functionality.

[2]Balances and volumes are based on average of YTD El Dorado Savings Bank account informaiton provided by the client.

[3]Rates are subject to change. Based on an average balance of $100,000+.

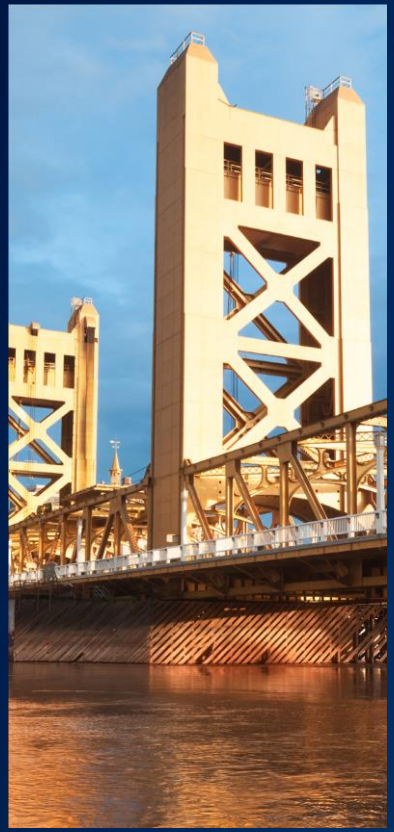
River City Bank

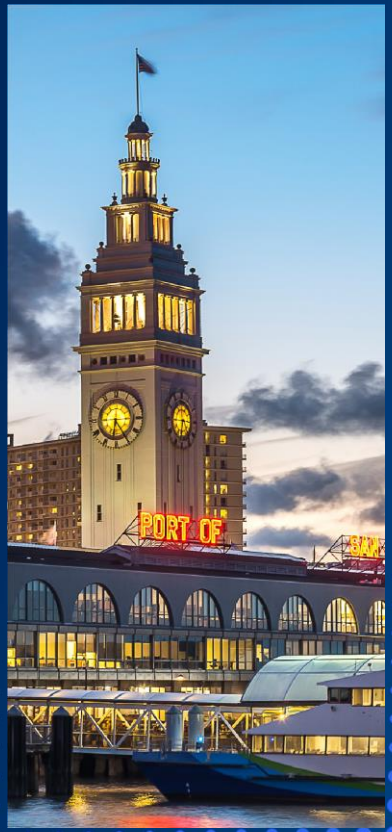
Banking Proposal prepared for:

GDPUD

Georgetown Divide Public Utility District

Summer 2024





MESSAGE FROM STEPHEN FLEMING, PRESIDENT AND CEO

Your money is safe at River City Bank due to our proven conservative financial management over the past 50 years. Since its founding in 1973, River City Bank has maintained a rigorous policy of conservative risk management. This is reflected in the numbers, as well as in the accolades we have earned from numerous respected independent ratings agencies—and it all contributes to the confidence that clients experience when banking with us. The strength of a bank's balance sheet is typically based on three factors: its loan quality, capital levels, and liquidity position:

Loan Quality. The Bank's philosophy is to seek out clients which are well-managed and have proven success over a sustained period of time. These clients tend to pay their bills in a timely fashion. The Bank's $3.75 billion loan portfolio, had a delinquency percentage of 0.00% as of March 31, 2024.

Capital Strength. As of March 31, 2024, River City Bank boasts a Tier 1 Leverage ratio of 8.5% and a Total Risk Based Capital ratio of 13.5%. Both ratios are significantly higher than regulatory minimum capital ratios.

Healthy Liquidity. With assets of over $4.9 billion and a net loan-to-deposit ratio of 81% as of March 31, 2024, River City Bank has a liquid balance sheet; this means that clients can rest assured the bank is able to meet all their deposit and withdrawal needs in a timely fashion. In addition to our balance sheet liquidity, we have immediate access to significant funding sources from other financial institutions and governmental agencies.

Third Party Validation. Top independent bank rating services have awarded River City Bank consistently high ratings. Bauer Financial has rated River City Bank as "Superior." Veribanc awarded us their "Green Three Out Of Three" highest rating, and Findley Reports has given River City Bank their highest rating: "Super Premier."

Simply put, River City Bank is one of the healthiest banks in the United States, providing the strength and security that clients require and expect. Family owned and local in the Sacramento region for over five decades, we are in the business of meeting and exceeding our clients' expectations. Thank you for considering us as your commercial-banking partner.

Sincerely,

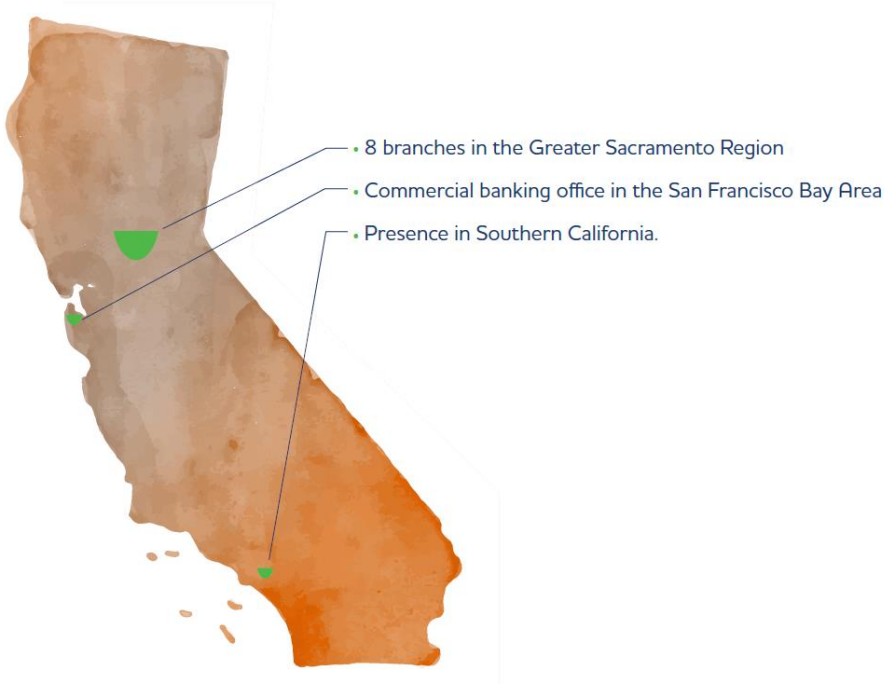
Stephen Fleming
President and CEO

About River City Bank

River City Bank is the largest, independent, locally-owned bank in the Sacramento region in terms of assets and capital with two offices in the San Francisco Bay Area and a growing presence in Southern California.

With assets of over $4.9 billion, our mission is to be recognized and respected as the premier commercial bank for successful mid-sized businesses and affluent individuals in California

River City Bank offers a comprehensive suite of banking services, including various types of commercial loans, deposits, home mortgages, commercial real estate loans, plus online banking and cash management services to the consumer, business and commercial real estate sectors.



River City Bank Executives

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President & CEO
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sfleming@rivercitybank.com

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Rosa Cucicea
SVP- Director of Clean Energy Division
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rosa.cucicea@rivercitybank.com

Rebecca Fabisch Miller
EVP- Director of Commercial Banking
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Ken Imwinkelried
SVP-Chief Credit Officer
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ken.imwinkelried@rivercitybank.com

Patricia Lewis
EVP- Chief Operating Officer
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Brian Killeen
EVP- Chief Financial Officer
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Dave Brockmyer
SVP- Chief Information Security Officer
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Tony Eyer
SVP- Director of Information Technology
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tony.eyer@rivercitybank.com

Jeremy Spencer
SVP- Chief Risk Officer
(916) 567-2644
jeremy.spencer@rivercitybank.com

Dedicated Relationship Team

Michael Bloss
VP – Relationship Manager
Phone: (916) 567-2751 Cell: (916) 233-7054
michael.bloss@rivercitybank.com

When to contact: Michael will oversee the whole relationship and should be contacted for borrowing needs and overall relationship needs and concerns.

Taylor Ost-Ousley
VP – Cash Management Sales Officer
Phone: (916) 567-2613 Cell: (816) 809-2427
taylor.ost-ousley@rivercitybank.com

When to contact: New Cash Management needs such as Integrated Payables, Lockbox, and fraud tools.

Rebecca Fabisch Miller
EVP – Director of Commercial Banking
Phone: (916) 567-2642 Cell: (707) 724-2848
rebecca.miller@rivercitybank.com

Lauren Falk
AVP – Commercial Banking Operations Manager
Phone: (916) 288-1157 Cell: (916) 842-9315
lauren.falk@rivercitybank.com

When to contact: Daily account needs such as new accounts, modifications to signers, wire origination, fraudulent account transactions and inquiries.

Commercial Cash Management Team
River City Bank, Commercial Group
Phone: (916) 567-2660
cashmgmt@rivercitybank.com
8:00am to 5:00 pm Monday – Friday

When to contact: Daily support needs such as password resets, assistance with online banking, training, and transaction inquiries.

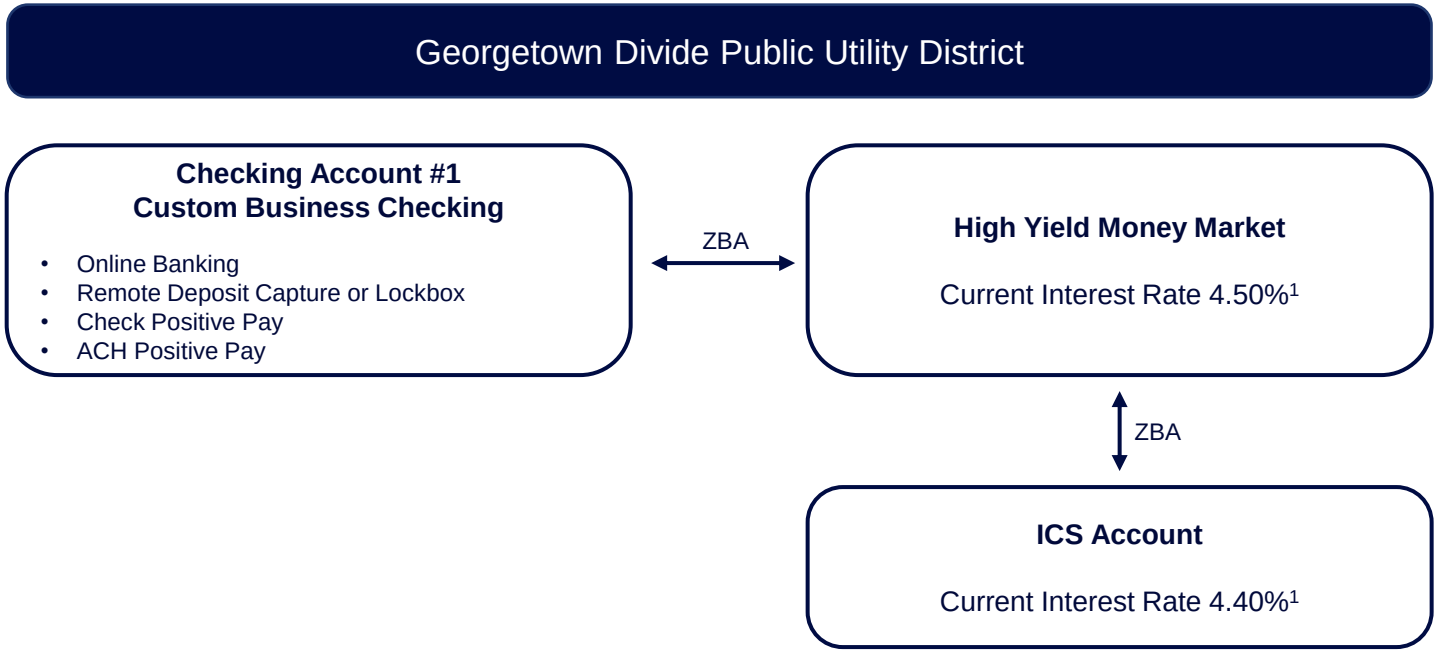
Ken Imwinkelried
SVP – Chief Credit Officer
Phone: (916) 567-2647 Cell: (916) 295-2017
ken.imwinkelried@rivercitybank.com

Executive Summary

On behalf of the entire River City Bank team, thank you for the opportunity to present a proposal that will assist Georgetown Divide Public Utility District in meeting—and exceeding—its commercial banking needs.

- Georgetown Divide Public Utility District will benefit by approximately ***$15,900*** annually by moving the relationship to River City Bank.
- A high yielding money market account tied to an ICS account allows you to earn ***interest income*** with the security of ***FDIC insurance*** for all funds.
- Our robust online banking and ***customized cash management solutions*** will allow you the ease of moving money seamlessly, while preventing fraud.
- You will have a ***dedicated local relationship team*** to provide concierge service and local decision making.

Recommended Account Structure



[1]Rates are subject to change.

Financial Benefit of Moving to River City Bank

Georgetown Divide Public Utility District	El Dorado Savings Bank	River City Bank	Benefit of River City Bank
Interest Rate	0.03% - 0.09%	4.4%[1]	**Higher Interest Rate and Full FDIC Insurance**
Average Monthly Interest Income	$27.85	$1,763.75	Greater Interest Income
Average Monthly Service Fees	$28.80	$438.98 (Includes Remote Deposit and Positive Pay)	Enhanced Cash Management Solutions
Average Monthly Interest Income less Service Fees	-$0.95	$1,324.77	Positive Monthly Interest Income less Fees
Net Annual Result to Cash Flow	-$11.40	$15,897.24	**$15,908.64**[2] **Net Benefit**

[1]Quoted rate is for a High Yield Money Market Account with ICS Account and is subject to change. Rate is based on balances of $100,000 and over.
[2]Overall financial impact is based on averages of El Dorado Savings Bank statements provided by client.

Potential Enhancement: Lockbox Services

Our efficient, accurate, and sophisticated lockbox services will streamline your accounts receivable process, saving you time and money.

With our breadth of payment processing experience and robust online platform, we are able to customize lockbox services to your business. Whether you are receiving a few high-dollar payments or receiving thousands of consumer payments each month, our services will mitigate potential fraud and error, and reduce your overhead costs while increasing your productivity.

Lockbox Services include:

- Daily transaction counts and funds deposited reports
- Robust online platform to assist with image retrieval
- Customized correspondence and document delivery options
- Preparation and delivery of all deposits, including paper and electronic bill pay items and ACH
- Sorting and classifying specific to each client
- Ability to scan walk-in lockbox items from your office to be merged with daily bank reporting

Image and Data Capture Services include:

- Daily updating of the do not process list to ensure only authorized payments are processed
- High speed electronic file transfers to client database
- Scan, image, or manual entry of customer records and related bank information
- Table edits and check digit routines to save time and eliminate data errors
- Web access for image storage and retrieval

Potential Enhancement: Integrated Payables

Integrated Payables is a web-based, B2B and B2C payments platform that can take a payment file from your accounting system and execute, V-Card, ACH, check and wire through a single online portal to support your payments across the globe. By streamlining the AP process, Integrated Payables creates a streamlined process while reducing AP costs and mitigating fraud.

1 Streamline payments

— Execute AP payments to individuals and suppliers across the globe through a single online portal.

2 Mitigate fraud

— Mitigate fraud risk associated with gathering and maintaining supplier payment information.

3 Reduce costs

— Reduce supplier enablement costs as well as the cost of printing and mailing checks

Serving the Community

River City Bank is devoted to the communities where our clients and employees live and work. We have a vested interest in the economic health of our local communities. We continually offer financial knowledge and training to community leaders, and our support of local non-profit organizations is an essential value within our corporate culture.

In addition, **River City Bank** provides funding to a myriad of non-profit organizations through the Kelly Foundation, a non-profit organization that was started by River City Bank's founder, Jon S. Kelly. Today the Kelly Foundation is the 3rd largest foundation in the Sacramento region. The Foundation provides grants to various charitable organizations in the community with an emphasis on organizations that benefit children.

Kelly Foundation

Go Big with Your Vision. Choose River City as Your Commercial Banking Partner.

River City Bank is a boutique commercial bank with experienced bankers, offering full relationship banking with concierge service, competitive pricing, and access to Executive Management

- **Local Decisions:** When it comes to making decisions, we don't need to wait for approvals from corporate offices. Our decisions are made locally, quickly, and with your business in mind.
- **Concierge Service:** Whether it is business or personal banking, you deserve high-touch service that anticipates your financial needs and shares new suggestions before you ask.
- **A Knowledgeable Team:** Our team is well-versed in a multitude of industries and fully prepared to leverage our expertise to you.
- **Customized Solutions:** Let's work with you to develop solutions that are as unique as your business.
- **An Open Invitation:** As our client, you are our guest. You will be invited to exclusive, invitation-only events that keep you in touch with business trends, best practices, and a social business network that's second to none.

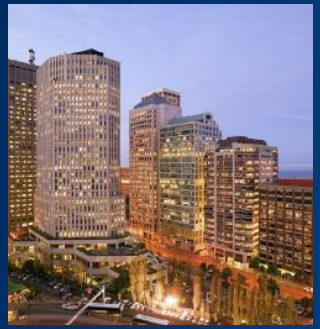
"*I have been working with River City Bank since 2010. River City Bank always strives to go above and beyond what you would expect from a bank. Having a relationship officer that understands our business is paramount to us. Through the years having that relationship has really helped us grow to who we are today, as well as into the future.*"

- **Roger Cornwell**
General Manager | Sutter Mutual Water Company and Reclamation District 1500

Offices

Corporate Headquarters
Sacramento

2485 Natomas Park Dr.
Sacramento, CA 95833
916.567.2600



Commercial Banking
San Francisco

201 Mission Street
Suite 1300
San Francisco, CA 94105
415.293.4200

Appendix

FDIC Insured Accounts

ICS® – Insured Cash Sweep

Through the Insured Cash Sweep, or ICS, service, we can provide clients with easy access to multi-million-dollar FDIC protection on its saving deposits. With ICS, your business will enjoy the benefit of money market deposit account (MMDA)-level interest rates, the convenience of working directly with only one bank and the security and peace of mind of knowing that your funds are eligible for protection that is backed by the full faith and credit of the federal government.

With ICS, you set up or use an existing checking or other transaction account with us, and we place your ICS funds into MMDA or Demand Accounts at other banks in the ICS Network—in amounts less than the standard FDIC insurance maximum—so that both principal and interest are eligible for FDIC insurance protection. As a result, your company can receive coverage from many banks while working with just one. Program withdrawals are limited to 6 per month.

With ICS, you get one bank, one rate and one statement. These statements include the list of accounts, interest and other details. In addition, you can see where your funds are at all times by using online tools specially developed for ICS.

River City Bank team members will be the only people you need to deal with at any time or for any service—including deposits, investments, withdrawals and statements.

CDARS® - Certificate of Deposit Account Registry Service

Through the CDARS® service, we can provide clients with easy access to multi-million-dollar FDIC protection on its CD investments. With CDARS, you will enjoy the benefit of CD-level interest rates, the convenience of working directly with only one bank, the security and peace of mind of having your large deposits eligible for FDIC insurance and the satisfaction of putting your money to work in the local community.

When you place a large deposit through the CDARS® service, River City Bank places those funds into CDs issued by other banks in the CDARS® Network—in increments less than the standard FDIC insurance maximum—so that both principal and interest are eligible for FDIC insurance protection. As a result, your company can receive coverage from many banks while working directly with just one. Early withdrawal penalties may apply for any funds withdrawn before the maturity date of the CD.

With CDARS®, you get one bank, one rate and one statement. Your statement includes the list of CDs, the maturity dates and issuers, interest earned and other details. River City Bank team members will be the only people you need to deal with at any time or for any service—including deposits, re-investments, withdrawals and statements.

*Placement of funds through the ICS or CDARS service is subject to the terms, conditions, and disclosures in the agreements for the service, including the Deposit Placement Agreement ("*DPA*"). Limits apply and customer eligibility criteria may apply. In the ICS savings option, program withdrawals are limited to six per month. Although funds are placed at destination banks in amounts that do not exceed the FDIC standard maximum deposit insurance amount ("*SMDIA*"), a depositor's balances at the relationship institution that places the funds may exceed the SMDIA (*e.g.*, before ICS or CDARS settlement for a deposit or after ICS or CDARS settlement for a withdrawal) or be ineligible for FDIC insurance (if the relationship institution is not a bank). As stated in the DPA, the depositor is responsible for making any arrangements it finds necessary to have such balances adequately protected in a manner consistent with applicable law.

Cyber Security Awareness

Avoiding a Cyber-Attack

Cyber-attacks are a permanent and persistent threat to your organization, and there is no way to entirely remove that risk. However, by implementing cybersecurity controls, you can minimize the probability of a successful cyber-attack.

- **Keep your software, applications, web browsers, and operating systems up to-date.**
  - Set updates to occur automatically. Do not use software that is no longer supported by the vendor.
- **Know where your important data is located. Secure your physical and electronic files.**
  - Ensure important files and systems are encrypted and regularly backed up. Perform periodic back up data recovery tests.
- **Require strong passwords, or passphrases which are longer and more complex than passwords, on all your applications and devices.**
  - Use a password manager to securely store all passwords.
- **Use Multi-Factor Authentication (MFA) wherever possible.**
  - MFA reduces risks associated with compromised passwords.
- **Create a culture of security.**
  - Conduct employee information security awareness training consistently. Training should include common attacks and tactics used by cyber-criminals (such as social engineering, phishing, etc.).
- **Know your vendors.**
  - Your vendors are ultimately your responsibility, and software supply chain risk is often an overlooked area of cyber risk. Review your software vendor contracts to understand what the vendor responsible are in the event that your business is affected by a cyber- incident.
- **Cyber Insurance.**
  - Cyber insurance is one option that can minimize incurred costs in the event of a cyber incident. Review your cyber insurance to understand the policy coverage.

Business Email Compromise

Business Email Compromise is when legitimate business email accounts are either compromised or impersonated, and then used to order or request the transfer of funds. The following best practices can minimize your risk of an email compromise.

- **Solid internal controls are key to guarding against these scams.**
- **Educate and train employees to recognize, question and independently authenticate changes in payment instructions.**

RCB Branches

Corporate Headquarters
2480 Natomas Park Dr., Suite 150
Sacramento, CA 95833
(916) 567-2600
Mon-Fri: 8am – 5pm

Citrus Heights
5650 Sunrise Blvd.
Citrus Heights, CA 95610
(916) 863-2265
Mon-Fri: 10am – 4pm

Davis
239 E St.
Davis, CA 95616
(530) 753-1131
Mon-Fri: 10am – 4pm
Closed between 1pm – 2pm daily

Elk Grove
8923 Elk Grove Blvd.
Elk Grove, CA 95624
(916) 503-7200
Mon-Fri: 10am – 4pm

Granite Bay
4033 Cavitt Stallman Rd.
Granite Bay, CA 95746
(916) 780-6515
Mon-Fri: 10am – 4pm

Placerville
348 Main St.
Placerville, CA 95667
(530) 626-0700
Mon-Fri: 10am – 4pm
Closed between 1pm – 2pm daily

Sacramento
2480 Natomas Park Dr.
Sacramento, CA 95833
(916) 567-2669
Mon-Fri: 10am – 4pm

Sacramento
900 Howe Ave.
Sacramento, CA 95825
(916) 567-2800
Mon-Fri: 10am – 4pm

Woodland
199 Main St.
Woodland, CA 95695
(530) 666-6681
Mon-Fri: 10am – 4pm

RESOLUTION NO. 2024-XX

OF THE BOARD OF DIRECTORS OF THE GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT AUTHORIZING ESTABLISHMENT OF RIVER CITY BANKING ACCOUNTS AND DESIGNATING SIGNATORIES

WHEREAS, the Board of Directors (Board) of the Georgetown Divide Public Utility District (District) utilizes the banking services of El Dorado Savings Bank ("Bank"); and

WHEREAS, in 2023 the District evolved its banking methodologies to incorporate California CLASS a high-yield savings account. El Dorado Savings Bank did not have the needed banking options and account features to accommodate this change which resulted in increased fees to the District; and

WHEREAS, the Board of Directors has determined it to be in the best interest of the Company to establish a banking account with River City Bank given available account services and features that will serve District processes while avoiding increased banking costs; and

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT THAT the General Manager of the Georgetown Divide Public Utility District is authorized and directed to establish a checking account with River City Bank and to deposit the line of credit fund. The authority to transact business, including but not limited to the maintenance of savings, checking, and other accounts as well as borrowing by the District, shall be contained in said resolution with the named officers therein authorized to so act on behalf of the Georgetown Divide Public Utility District as specified hereto.

BE IT FURTHER RESOLVED that the following officers and/or representatives, and only those listed, shall be authorized signatories to said accounts:

1. That any of the following individuals may sign checks or other instruments withdrawing funds from the accounts:

   Michael Saunders, Director

   Mitch MacDonald, Director

   Michael Thornbrough, Director

   Donna Seaman, Director

   Robert Stovall, Director

   Nicholas Schneider, General Manager

2. That the Bank may honor and pay all checks or other instruments signed in accordance with this Resolution, including those payable checks or other instruments payable by the District whether they are endorsed in writing or by stamp.

3. That this authorization remains in force until the Board of Directors gives written notice to the Bank to the contrary.
4. That the General Manager is authorized to execute, and the signers are authorized to sign the required signature cards and any other documents required by the Bank for maintenance of the existing accounts.
5. That the General Manager or Office Finance Manager is authorized to enter into certificates of deposit on behalf of the District.
6. That the General Manager or Office Finance Manager is authorized to initiate wire transfers as needed for District business.
7. That the District funds on deposit with River City Bank will be collateralized pursuant to the Contract for Deposit of Moneys document dated September 1, 2024.
8. That the District requires two signatures for all checks.
9. That none of the foregoing shall abridge, circumvent, or otherwise modify existing relevant financial policies of the District.

BE IT FURTHER RESOLVED that River City Bank be instructed to accept and act upon any instructions relating to the account kept in the name of the Georgetown Divide Public Utility District or relating to any transactions of the District with the Bank, provided the instructions are signed by the authorized signatories of the Georgetown Divide Public Utility District in the manner mentioned as above and at least one shall be a Director.

PASSED AND ADOPTED by the Board of Directors of the Georgetown Divide Public Utility District at a meeting of said Board held on the 1st of August 2024, by the following vote:

AYES:

NOES:

ABSENT/ABSTAIN:

_____

Mitch MacDonald, President, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

Attest:

_____

Nicholas Schneider, Clerk, and Ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

CERTIFICATION

I hereby certify that the foregoing is a full, true, and correct copy of Resolution 2024-XX duly and regularly adopted by the Board of Directors of the Georgetown Divide Public Utility District, County of El Dorado, State of California, on this 1st Day of August 2024.

_____

Nicholas Schneider, Clerk, and Ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

REPORT TO THE BOARD OF DIRECTORS
Board Meeting of JULY 1, 2024
Agenda Item No. 8. D.

AGENDA SECTION: **ACTION ITEMS**

SUBJECT: **CONSIDER AMENDMENTS TO POLICY 5030 WATER TRANSFER**

PREPARED BY: Elizabeth Olson, Executive Assistant

Approved By: Nicholas Schneider, General Manager

BACKGROUND

A water transfer is "a voluntary sale of water proposed and initiated by willing sellers who have legal rights to a supply of water to an interested buyer." The Division of Water Rights of the State Department of Water Resources manages the Water Transfers Program covered by Water Code Sections 1725, temporary transfers. The ability of the District to engage in the water transfer market is a way to generate additional revenue. This revenue can be used to maintain and upgrade District infrastructure. All transfers must be reviewed and approved by the Board of Directors.

The Board acknowledged public comments received about flaws in the process of approving the water transfer refill agreement adopted by the Board on May 12th, 2020. In response to those public comments, on December 13th, 2022, the Board directed Staff to initiate the process for seeking consulting services to develop a water transfer policy, to help guide future water transfer opportunities. On February 14th, 2023 the General Manager was authorized to develop a Public Service Agreement (PSA) with Zanjero Inc. In conjunction with Zanjero Inc. Policy 5030 Water Transfer was developed and adopted by the Board on July 11, 2023.

DISCUSSION

The adoption of the Water Transfer Policy is in no way a guarantee of any future transfers of District Water. This policy guides staff and the Board in determining if it is appropriate to engage in a water transfer. The current adopted policy language contains restrictive language stipulating rigid time frames for the process. In conjunction with the consultants, the policy has been amended to allow for fluid responses to transfer interests allowing for real-world business interactions and transactions. The following amendments to the policy are presented for adoption.

Section 5030.04-Water Transfer Determination Process

3) At or before the April ~~the March~~ Board meeting the General Manager and staff shall:

4) At or before the June ~~the April~~ Board meeting:

b) If it is determined that water will seek to be transferred through the normal water availability process held by the District, schedule a public workshop targeted to occur between April and June ~~during April.~~ The objective of the workshop is to inform the public of the possible water transfer and be available to communicate the water transfer process with the public.

5) The General Manager will provide an update on the Water Transfer at all future meetings until the Water Transfer is complete including any Reservoir Refill Agreement criteria that might exist.

   e) A Reservoir Refill Agreement may be completed after the final Purchase Agreement has been finalized.

FISCAL IMPACT

The future fiscal impact of this policy will allow for a net gain of revenue in the District.

CEQA ASSESSMENT

This is not a CEQA Project. However, due to the nature of water transfers, an environmental review will be done with all future associated water transfers.

RECOMMENDED ACTION

Staff recommends the Board of Directors of the Georgetown Divide Public Utility District (GDPUD) approve the attached Resolution 2024-XX Amending 5030 Water Transfer Policy.

ALTERNATIVES

Request substantive changes to the Resolution for staff to implement or reject the Resolution.

ATTACHMENTS

1. Policy 5030 red-lined
2. Resolution 2024-XX Amending Policy 5030 Water Transfer
3. Policy 5030 – Exhibit A of Resolution 2024-XX Water Transfer

Policy Title: **WATER TRANSFER POLICY**

Policy Number: **5030** **Date Approved:** **July 11, 2023** **Date Amended:**

5030.01 – PURPOSE:

The Georgetown Divide Public Utility District Board of Directors seeks to voluntarily transfer water to interested buyers when such opportunities to transfer water occur in a manner that appropriately protects customers and other fiduciary responsibilities of the District (see Attachment for more information). This policy provides guidance for evaluating when to pursue water transfer opportunities.

5030.02 – DEFINITIONS

For the purposes of this policy, unless otherwise apparent from the context, certain words and phrases used in this policy are defined as follows:

Transfer Water – shall refer to water provided to a Buyer pursuant to a Purchase Agreement between the Buyer and the District whereby the water provided is derived from water rights or water supply entitlements the District controls.

Seller – shall refer to the Georgetown Divide Public Utility District.

Buyer – shall refer to the legal entity purchasing the Transfer Water.

Transfer Period – shall mean when Seller will make Transfer Water available to Buyers at the Point of Transfer.

Point of Transfer – refers to the location where Seller delivers the Transfer Water to the Buyers.

Transfer Amount – means the total maximum amount of Transfer Water provided before any losses.

Purchase Agreement – means the agreement signed by both Seller and Buyers for the purchase of Transfer Water.

Reclamation – means the United States Department of the Interior Bureau of Reclamation.

Reservoir Refill Agreement – means the agreement signed by the Seller, Reclamation, and Department of Water Resources defining the refill criteria and refill impacts accounting procedure that pertain to full refill of the Vacated Storage in a Stumpy Meadows storage-based transfer, when the Transfer Water is derived from water stored in Stumpy Meadows.

Vacated Storage – means the reduction in water storage of Stumpy Meadows Reservoir resulting from making Transfer Water available in a storage-based transfer.

5030.03 – GUIDING PRINCIPLES

Guiding principles to support the District's evaluation and implementation of water transfer opportunities are as follows:

1) **Protect Customer Water Supply:** ensure a water transfer does not increase customer water shortage risks.

2) **Optimize Water Resources:** utilize water resources assets to benefit the District and the community.
3) **Facilitate Economic Stability:** optimize economic benefits of water transfers to the District.
4) **Strive for Certainty:** support long-term planning and business decisions by minimizing the potential for significant changes to policies and procedures.
5) **Allow for Adaptability:** allow for periodic adjustments to reflect changing conditions and improved understanding, while minimizing disruptions to certainty.
6) **Target Simplicity:** create policies that are easy to understand and implement.
7) **Ensure Transparency:** provide a full and straightforward accounting of all facts, information, and context to the Board and customers to ensure an informed and equitable decision-making process.
8) **Encourage Engagement:** Support and encourage interested participants working together with ongoing discussions where differences are explored, and a shared vision of water transfers can emerge.

5030.04 – WATER TRANSFER DETERMINATION PROCESS

When considering a Water Transfer, the first priority for the District is to ensure adequate water availability for the customers. The following additional provisions apply:

1) Prior to January 31 of each potential water transfer year, file with the State Water Resources Control Board a notice of Potential Temporary Transfer pursuant to Water Code Section 1727.
2) At the January Board meeting, Board decides whether to direct General Manager to hold initial discussions that water might be available.
3) At or before the April~~the March~~ Board meeting the General Manager and staff shall:
    a) present information regarding the risk to customer shortfalls at various potential Transfer Water quantities based upon current and projected supply conditions, including Stumpy Meadows storage forecast, and projected customer demand by customer classification.
    b) Update the Board regarding any discussions with potential buyers.
4) At or before the June~~the April~~ Board meeting:
    a) The General ~~Manger~~ Manager and staff shall present information to allow the Board to make a decision whether or not to transfer water that year. Information could include a draft Purchase Agreement, petition to the State Water Resources Control Board for temporary transfer, and a draft Reservoir Refill Agreement with Reclamation. Should an interested transfer partner approach for a late-year transfer the General Manager shall present the information to the Board 2 weeks prior to the potential action.
    b) If it is determined that water will seek to be transferred through the normal water availability process held by the District, schedule a public workshop targeted to ~~occur~~ occur between April and June ~~during April~~. The objective of the workshop is to inform the public of the possible water transfer and be available to communicate the water transfer process with the public.
    c) Direct the General Manager to pay the required State Water Resources Control Board Water Transfer processing fee and the California Department of Fish and Wildlife fee.

d) Authorize General Manager to execute a final Purchase Agreement when such is finalized.

~~d)~~e) A Reservoir Refill Agreement may be completed after the final Purchase Agreement has been finalized.

5) The General Manager will provide an update on the Water Transfer at all future meetings until the Water Transfer is complete including any Reservoir Refill Agreement criteria that might exist.

5030.05 – ENVIRONMENTAL PROTECTION

The District shall comply with all applicable laws and regulations including but not limited to the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA) and the federal and state endangered and threatened species guidelines. The District shall secure any required consents, permits, reports, and orders prior to transferring water under this Policy.

5030.06 – REVENUE RECEIVED

Revenue received from the Water Transfer will be directed by the Board to best serve the needs of the District in meeting operating and maintenance expenses. This could include providing funding for the District's capital improvement program or other District expenses helping water rate stabilization.

5030.07 – VOLUNTARY SETTLEMENT AGREEMENT (VSA):

Voluntary Settlement Agreements (VSA) are agreements that the State Water Resources Control Board (SWRCB) could consider in its Water Quality Control Plan update for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and Watershed in lieu of its "unimpaired flow" approach to achieve multiple water quality, water supply, and sustainable water management objectives. The District is currently in VSA discussions that could include modification to Stumpy Meadows operation. The District will ensure that all VSA terms protect the District's water supply availability and do not interfere with this Water Transfer Policy.

CERTIFICATION

I hereby certify that the foregoing is a full, true, and correct copy of Policy 5030 adopted by the Board of Directors of the Georgetown Divide Public Utility District on the 1st___ of August 2024

_____

Nicholas Schneider, Clerk and Ex-Officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

Policy Title: **WATER TRANSFER POLICY**

Policy Number: **5030** **Date Approved: July 11, 2023**

ATTACHMENT

Water Transfer Year Types:

Water transfers can occur in all hydrologic year types, with the ability to transfer water more available during wetter years. Year types are based on the forecasted runoff into Stumpy Meadows Reservoir. Generally, anticipated water transfers for different water year types are as follows:

Critically Dry Years: A Water Transfer is unlikely to occur during a critically dry year as the District water supply is needed to meet its water supply demands. This is especially the case if the critical year includes a Reservoir Refill requirement from a previous year Water Transfer.

Dry Years: A Water Transfer could occur in a dry year type if water is available in an amount greater than that required to meet District water demands. This would be unlikely if the dry year includes a Reservoir Refill requirement from a previous year Water Transfer.

Below Normal, Above Normal Year: A Water Transfer could occur in below normal and above normal year types. In these water year types; the District likely has water supply greater than needed to meet its water supply requirements. This may be the case even if the year includes a Reservoir Refill requirement from a previous year Water Transfer.

Wet Years: A Water Transfer could occur as the District has plenty of water supply. There may be a limited transfer market. A Water Transfer could utilize the potential for groundwater recharge or other beneficial uses during wet years allowing for a Water Transfer.

RESOLUTION NO. 2024-XX
OF THE BOARD OF DIRECTORS OF THE
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT
AMENDING POLICY 5030, WATER TRANSFER POLICY

WHEREAS, a water transfer is a voluntary sale of water proposed and initiated by willing sellers who have legal rights to a supply of water to an interested buyer; and

WHEREAS, The Division of Water Rights of the State Department of Water Resources manages the Water Transfers Program covered by Water Code Sections 1725, temporary transfers. The ability of the District to engage in the water transfer market is a way to generate additional revenue. This revenue can be used to maintain and upgrade District infrastructure. All transfers must be reviewed and approved by the Board of Directors; and

WHEREAS, on February 14th, 2023, the Board authorized the General Manager to execute a Professional Services Agreement with Zanjero, Inc., to develop a water transfer policy to help guide future water transfer opportunities; and

WHEREAS, the Policy Committee reviewed the draft policy prepared by the consultant and presented Policy 5030, Water Transfer Policy for adoption by the Board of Directors on July 11th, 2023; and

WHEREAS, the policy language was restrictive in its stipulation of actionable time frames, thus the policy has been amended to allow for more flexibility in transfer agreements.

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT THAT Policy 5030, Water Transfer Policy, be amended, and the General Manager shall be authorized to certify the policy and include it in the District's Policy and Procedures Manual.

PASSED AND ADOPTED by the Board of Directors of the Georgetown Divide Public Utility District at a meeting of said Board held on the 1st day of August by the following vote:

AYES:

NOES:

ABSENT/ABSTAIN:

_____
Mitch MacDonald, President, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

Attest:

_____
Nicholas Schneider, Clerk, and Ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

REPORT TO THE BOARD OF DIRECTORS
Board Meeting of August 1, 2024
Agenda Item No. 8. E.

AGENDA SECTION: **ACTION ITEMS**

SUBJECT: **Discuss Board Member Conference Attendance Charges**

PREPARED BY: Elizabeth Olson, Executive Assistant

Approved By: Nicholas Schneider, General Manager

BACKGROUND

Per Policy 4030 Board Compensation, Expense Reimbursement, and Travel Expenses are reimbursable for Directors if that representation has been previously approved at a Board meeting.

DISCUSSION

The Association of California Water Agencies (ACWA) holds two conferences annually. The Joint Powers of Insurance Authority (JPIA) holds its conference prior to the semi-annual ACWA Conference. It typically runs on the Monday and Tuesday of the week and the ACWA conference takes place on Tuesday, Wednesday, and Thursday. It is required for the JPIA Board member representative from the District (Mitch MacDonald) to attend the JPIA portion of the week to participate in voting activities. It is recommended that the Board member's alternate representative (Michael Saunders) also be present at the meeting. Furthermore, Director Saunders represents the District on the Region 3 board and the ACWA Executive Committee. It is highly requested that this person attend the conference. Per Policy 4030 lodging was to be preapproved under the approved Policy 4030 that was in effect at this time.

The following charges were incurred by the directors in the attendance of this conference:

JPIA and ACWA Spring Conference-Director Saunders	**$692.13**
JPIA and ACWA Spring Conference-Director MacDonald	**$355.45**

FISCAL IMPACT

The fiscal impact is estimated at $1,047.58. This amount was budgeted for in the FY 23-24 budget under the board travel portion of the budget.

CEQA ASSESSMENT

This is not a CEQA project.

RECOMMENDED ACTION

Staff recommends the Board of Directors of the Georgetown Divide Public Utility District (GDPUD) approve the attendance at the ACWA Spring Conference for Director Saunders and Director MacDonald for Fiscal Year 2023-24.

ALTERNATIVES

The Board may (a) Request substantive changes to the current reimbursement arrangements, or (b) Reject the discussion.

CERTIFICATION

I hereby certify that the foregoing is a full, true, and correct copy of Resolution 2024-XX duly and regularly adopted by the Board of Directors of the Georgetown Divide Public Utility District, County of El Dorado, State of California, on this 1st day of August 2024.

_____

Nicholas Schneider, Clerk, and Ex Officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

ATTACHMENT:

Exhibit A – Policy 5030 – Water Transfer Policy

Policy Title: **WATER TRANSFER POLICY**

Policy Number: **5030** **Date Approved:** **July 11, 2023** **Date Amended:**

5030.01 – PURPOSE:

The Georgetown Divide Public Utility District Board of Directors seeks to voluntarily transfer water to interested buyers when such opportunities to transfer water occur in a manner that appropriately protects customers and other fiduciary responsibilities of the District (see Attachment for more information). This policy provides guidance for evaluating when to pursue water transfer opportunities.

5030.02 – DEFINITIONS

For the purposes of this policy, unless otherwise apparent from the context, certain words and phrases used in this policy are defined as follows:

Transfer Water – shall refer to water provided to a Buyer pursuant to a Purchase Agreement between the Buyer and the District whereby the water provided is derived from water rights or water supply entitlements the District controls.

Seller – shall refer to the Georgetown Divide Public Utility District.

Buyer – shall refer to the legal entity purchasing the Transfer Water.

Transfer Period – shall mean when Seller will make Transfer Water available to Buyers at the Point of Transfer.

Point of Transfer – refers to the location where Seller delivers the Transfer Water to the Buyers.

Transfer Amount – means the total maximum amount of Transfer Water provided before any losses.

Purchase Agreement – means the agreement signed by both Seller and Buyers for the purchase of Transfer Water.

Reclamation – means the United States Department of the Interior Bureau of Reclamation.

Reservoir Refill Agreement – means the agreement signed by the Seller, Reclamation, and Department of Water Resources defining the refill criteria and refill impacts accounting procedure that pertain to full refill of the Vacated Storage in a Stumpy Meadows storage-based transfer, when the Transfer Water is derived from water stored in Stumpy Meadows.

Vacated Storage – means the reduction in water storage of Stumpy Meadows Reservoir resulting from making Transfer Water available in a storage-based transfer.

5030.03 – GUIDING PRINCIPLES

Guiding principles to support the District's evaluation and implementation of water transfer opportunities are as follows:

1) **Protect Customer Water Supply:** ensure a water transfer does not increase customer water shortage risks.

2) **Optimize Water Resources:** utilize water resources assets to benefit the District and the community.
3) **Facilitate Economic Stability:** optimize economic benefits of water transfers to the District.
4) **Strive for Certainty:** support long-term planning and business decisions by minimizing the potential for significant changes to policies and procedures.
5) **Allow for Adaptability:** allow for periodic adjustments to reflect changing conditions and improved understanding, while minimizing disruptions to certainty.
6) **Target Simplicity:** create policies that are easy to understand and implement.
7) **Ensure Transparency:** provide a full and straightforward accounting of all facts, information, and context to the Board and customers to ensure an informed and equitable decision-making process.
8) **Encourage Engagement:** Support and encourage interested participants working together with ongoing discussions where differences are explored, and a shared vision of water transfers can emerge.

5030.04 – WATER TRANSFER DETERMINATION PROCESS

When considering a Water Transfer, the first priority for the District is to ensure adequate water availability for the customers. The following additional provisions apply:

1) Prior to January 31 of each potential water transfer year, file with the State Water Resources Control Board a notice of Potential Temporary Transfer pursuant to Water Code Section 1727.
2) At the January Board meeting, Board decides whether to direct General Manager to hold initial discussions that water might be available.
3) At or before the April Board meeting the General Manager and staff shall:
    a) present information regarding the risk to customer shortfalls at various potential Transfer Water quantities based upon current and projected supply conditions, including Stumpy Meadows storage forecast, and projected customer demand by customer classification.
    b) Update the Board regarding any discussions with potential buyers.
4) At or before the June Board meeting:
    a) The General Manager and staff shall present information to allow the Board to make a decision whether or not to transfer water that year. Information could include a draft Purchase Agreement, petition to the State Water Resources Control Board for temporary transfer, and a draft Reservoir Refill Agreement with Reclamation. Should an interested transfer partner approach for a late-year transfer the General Manager shall present the information to the Board 2 weeks prior to the potential action.
    b) If it is determined that water will seek to be transferred through the normal water availability process held by the District, schedule a public workshop targeted to occur between April and June. The objective of the workshop is to inform the public of the possible water transfer and be available to communicate the water transfer process with the public.
    c) Direct the General Manager to pay the required State Water Resources Control Board Water Transfer processing fee and the California Department of Fish and Wildlife fee.

d) Authorize General Manager to execute a final Purchase Agreement when such is finalized.
e) A Reservoir Refill Agreement may be completed after the final Purchase Agreement has been finalized.

5) The General Manager will provide an update on the Water Transfer at all future meetings until the Water Transfer is complete including any Reservoir Refill Agreement criteria that might exist.

5030.05 – ENVIRONMENTAL PROTECTION

The District shall comply with all applicable laws and regulations including but not limited to the California Environmental Quality Act (CEQA), the National Environmental Policy Act (NEPA) and the federal and state endangered and threatened species guidelines. The District shall secure any required consents, permits, reports, and orders prior to transferring water under this Policy.

5030.06 – REVENUE RECEIVED

Revenue received from the Water Transfer will be directed by the Board to best serve the needs of the District in meeting operating and maintenance expenses. This could include providing funding for the District's capital improvement program or other District expenses helping water rate stabilization.

5030.07 – VOLUNTARY SETTLEMENT AGREEMENT (VSA):

Voluntary Settlement Agreements (VSA) are agreements that the State Water Resources Control Board (SWRCB) could consider in its Water Quality Control Plan update for the San Francisco Bay/Sacramento-San Joaquin Delta Estuary and Watershed in lieu of its "unimpaired flow" approach to achieve multiple water quality, water supply, and sustainable water management objectives. The District is currently in VSA discussions that could include modification to Stumpy Meadows operation. The District will ensure that all VSA terms protect the District's water supply availability and do not interfere with this Water Transfer Policy.

CERTIFICATION

I hereby certify that the foregoing is a full, true, and correct copy of Policy 5030 adopted by the Board of Directors of the Georgetown Divide Public Utility District on the 1st Day of August, 2024.

_____

Nicholas Schneider, Clerk and Ex-Officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

Policy Title: **WATER TRANSFER POLICY**

Policy Number: **5030** **Date Approved:** **July 11, 2023** **Date Amended:**

ATTACHMENT

Water Transfer Year Types:

Water transfers can occur in all hydrologic year types, with the ability to transfer water more available during wetter years. Year types are based on the forecasted runoff into Stumpy Meadows Reservoir. Generally, anticipated water transfers for different water year types are as follows:

Critically Dry Years: A Water Transfer is unlikely to occur during a critically dry year as the District water supply is needed to meet its water supply demands. This is especially the case if the critical year includes a Reservoir Refill requirement from a previous year Water Transfer.

Dry Years: A Water Transfer could occur in a dry year type if water is available in an amount greater than that required to meet District water demands. This would be unlikely if the dry year includes a Reservoir Refill requirement from a previous year Water Transfer.

Below Normal, Above Normal Year: A Water Transfer could occur in below normal and above normal year types. In these water year types; the District likely has water supply greater than needed to meet its water supply requirements. This may be the case even if the year includes a Reservoir Refill requirement from a previous year Water Transfer.

Wet Years: A Water Transfer could occur as the District has plenty of water supply. There may be a limited transfer market. A Water Transfer could utilize the potential for groundwater recharge or other beneficial uses during wet years allowing for a Water Transfer.

REPORT TO THE BOARD OF DIRECTORS
Board Meeting of August 1, 2024
Agenda Item No. 8. E.

AGENDA SECTION: **ACTION ITEMS**

SUBJECT: **Discuss Board Member Conference Attendance Charges**

PREPARED BY: Elizabeth Olson, Executive Assistant

Approved By: Nicholas Schneider, General Manager

BACKGROUND

Per Policy 4030 Board Compensation, Expense Reimbursement, and Travel Expenses are reimbursable for Directors if that representation has been previously approved at a Board meeting.

DISCUSSION

The Association of California Water Agencies (ACWA) holds two conferences annually. The Joint Powers of Insurance Authority (JPIA) holds its conference prior to the semi-annual ACWA Conference. It typically runs on the Monday and Tuesday of the week and the ACWA conference takes place on Tuesday, Wednesday, and Thursday. It is required for the JPIA Board member representative from the District (Mitch MacDonald) to attend the JPIA portion of the week to participate in voting activities. It is recommended that the Board member's alternate representative (Michael Saunders) also be present at the meeting. Furthermore, Director Saunders represents the District on the Region 3 board and the ACWA Executive Committee. It is highly requested that this person attend the conference. Per Policy 4030 lodging was to be preapproved under the approved Policy 4030 that was in effect at this time.

The following charges were incurred by the directors in the attendance of this conference:

JPIA and ACWA Spring Conference-Director Saunders	**$692.13**
JPIA and ACWA Spring Conference-Director MacDonald	**$355.45**

FISCAL IMPACT

The fiscal impact is estimated at $1,047.58. This amount was budgeted for in the FY 23-24 budget under the board travel portion of the budget.

CEQA ASSESSMENT

This is not a CEQA project.

RECOMMENDED ACTION

Staff recommends the Board of Directors of the Georgetown Divide Public Utility District (GDPUD) approve the attendance at the ACWA Spring Conference for Director Saunders and Director MacDonald for Fiscal Year 2023-24.

ALTERNATIVES

The Board may (a) Request substantive changes to the current reimbursement arrangements, or (b) Reject the discussion.

REPORT TO THE BOARD OF DIRECTORS

BOARD MEETING OF August 1, 2024
AGENDA ITEM NO. 9

AGENDA SECTION: **PUBLIC HEARING**

SUBJECT: **PUBLIC HEARING AND WAIVER OF READING AND ADOPTION OF ORDINANCE 2024-02 CONFIRMING DELINQUENT WATER CHARGES TO BE PLACED ON THE PROPERTY TAX ROLL FOR FISCAL YEAR 2024-25**

PREPARED BY: Jessica Buckle, Office/Finance Manager

APPROVED BY: Nicholas Schneider, General Manager

BACKGROUND

The deadline for submitting the required documents to place delinquent water charges on the County's secured property tax bills is August 10, 2024. The notice (**Attachment 1)** from the El Dorado County Auditor-Controller provides a checklist of items to be delivered to the Auditor's Office by the deadline.

The District has elected to collect delinquent water service charges via the tax roll as permitted by Health and Safety Code sections 5473 et seq. Health and Safety Code sections 5473 and 5473a authorize the District to collect delinquent water charges via the property tax roll by preparing and filing a written report of delinquent water service charges (Report), giving notice, and holding the required public hearing.

The written report must contain a description of each parcel of real property receiving such services and facilities and the amount of the charge for each parcel for the year. This report is attached as Exhibit A to Ordinance 2024-02 **(Attachment 2)**. Ordinance 2024-02 places the charges on the property tax roll, and it is a lien on the property of property owners with delinquent balances as of June 30, 2024.

The District must notice the filing of the report and the public hearing at which the collection of delinquent charges on the property tax roll will be considered. The was published in the Georgetown Gazette. Any delinquent accounts that are paid before the District submits the list of properties and charges to the County will be updated. The list will be updated up to the date of submission to the County with the removal of customers who have made payments on the balances. At the public hearing, the Board must hear and consider all information and testimony related to the Report.

The Ordinance requires a two-thirds vote for approval (i.e., at least 4 Directors).

DISCUSSION

The following chart is a summary of the Certification Submission Forms delivered by the District to the County in 2020, 2021, 2022, and 2023.

Year	Date Submitted	Number of Accounts	Total Amount
2020	8/31/2020	54	$16,305.16
2021	8/10/2021	122	$58,442.40
2022	8/10/2022	140	$44,636.00
2023	8/10/2023	46	$15,868.56

The District's efforts to notify customers; are outlined below.

1. On July 1st penalty notices were mailed out to customers with past-due balances and notification letters were sent to property owners, which included tenant accounts. (**Attachment 3**) is a copy of this notice).

2. On July 15th, notice of the filing of the report and the public hearing, which included a list of delinquent accounts using APN numbers and amounts owed was published in the Georgetown Gazzette.

3. On July 22nd WaterSmart notifications were sent out to the remaining customers with outstanding balances subject to tax lien. The WaterSmart system allowed for notification methods including email, phone calls, and text messaging which were received by 145 customers. Door hanger notices were placed on 25 properties which did not have updated contact information in our system.

4. On July 26th, notice of the filing of the report and the public hearing, which included the updated list of delinquent accounts using APN numbers and amounts owed was published in the Georgetown Gazzette.

5. On July 29th the final WaterSmart notifications were sent out to the remaining customers with outstanding balances subject to tax lien.

FISCAL IMPACT

This action is required for the District to collect the annual assessments and any unpaid charges. There are currently 131 delinquent water customer accounts with a total outstanding balance of $28,242.63.

CEQA ASSESSMENT

This is not a CEQA Project.

RECOMMENDED ACTION

Staff recommends the Board of Directors:

1. Receive the Report.
2. Open the Public Hearing to receive all written and oral objections or protests to the Report.
3. Close the Public Hearing and consider taking action to adopt, revise, change, reduce, or modify any charge or overrule any or all objections.
4. It is recommended that the General Manager or his designee be authorized to remove or modify any assessment from the approved Report should all or part of the delinquent water service

charges be paid prior to the Report being referred to the County Auditor-Controller for placement onto the tax roll.
5. Waive reading of and adopt Ordinance 2024-02.

ALTERNATIVES

The Board may request substantive changes to the Ordinance for staff to implement.

ATTACHMENTS

1. Notice from the County Auditor-Controller's Office
2. Ordinance 2024-02
3. Notice sent to past due customers on July 1, 2024.
4. Proof of Publications of Public Hearing Notice (July 15 & 26)

County of El Dorado

OFFICE OF AUDITOR-CONTROLLER

360 FAIR LANE
PLACERVILLE, CALIFORNIA 95667
Phone: (530) 621-5487 FAX: (530) 295-2535
Property Tax Division (530) 621-5470, ext. 4

JOE HARN, CPA
Auditor-Controller

TSUNG-KUEI HSU
Assistant Auditor-Controller

Date: May 17, 2024
To: All Districts Placing Direct Charges on the 2024/25 Secured Tax Roll
From: Property Tax Division
RE: 2024/25 Direct Charge Information/Instructions/Checklist

*** Monday AUGUST 12 (5PM) DEADLINE ***

The Assessor is expected to deliver his 2024/25 assessment roll on July 1, 2024, thereby opening the timeframe for districts to add direct charge levies to the 2024/25 tax bills. Any levy additions/changes/deletions subsequent to the deadline may occur if authorized by state statute (at an estimated $15 cost recovery per parcel).

This courtesy letter provides a checklist of items necessary for districts to place direct charge levies on the tax bills. Forms, links, lookups, and the Direct Charges Manual are available online at a new website URL:
https://www.eldoradocounty.ca.gov/County-Government/County-Departments/Auditor-Controller/Property-Tax/Direct-Charges-Non-Value-Based-Items/Direct-Charge-Information-for-Districts

The district may deliver (email/fax/mail/hand deliver) the necessary items, in their entirety, to the Property Tax Division beginning July 1 (the data file can't be faxed). Early submission following July 1 is suggested because no additional time is allotted beyond August 12, regardless of reason.

*** DISTRICT DELIVERABLES TO AUDITOR PROPERTY TAX DIVISION BY AUGUST 12 ***

[1]Districts should review each form's Background and Instructions page prior to completing the form

Checklist of items to be prepared and delivered to the Auditor's office Property Tax Division:

1. **Governing Authorization Certification** fillable PDF form[1].
2. **Proposition 218 Certification** fillable PDF form[1].
3. **Local Agency Special Tax and Bond Accountability Act – Response** fillable PDF form[1].
4. **Secured/Unsecured Tax Roll Certification** fillable PDF form[1].
5. **Direct Charge Information Sheet** fillable PDF form[1].
6. **Annual Certification of Levy and Data Submission** fillable PDF form[1].
7. **Electronic Data File**. Use one of the four format options as shown in the online Exhibits ("tab delimited" option is generally the easiest).
   - Since procedures and calculations vary from district to district, the Auditor's office is unavailable to assist the district with this process.
   - For districts using ParcelQuest's software, information from the Auditor's purchased copy is available by calling (530) 621-5470, ext. 4.

After compiling the entire package (all 7 items above), submit the entire package directly to the Property Tax Division staff member shown on the Direct Charge Information Sheet form. The Property Tax Division will process once the entire compiled package is received.

The Property Tax Division will load the district's direct charge levies to the property tax system. If the district has more than one tax code, the levies may either be placed on one large file or broken into separate files for each tax code; however, all levies with the same tax code must be on the same file. The Property Tax Division will notify the district of the results via email. Any updated submissions overwrite the previous submission and may be made as late as August 12 (5pm).

For questions, please contact the specific direct charge tax code's assigned "contact person" in the Property Tax Division via email or phone as noted on the Direct Charge Information Sheet.

*** Additional DIRECT CHARGE INFORMATION ***

Districts should review the information contained in the online Direct Charges Manual. This document details the entire life cycle of direct charges on the tax roll, information regarding the 12-digit AN, and various responsibilities.

"Parcel split/combine" reports are available online that will greatly assist many districts:

- Compares the most recent actual direct charge levies to determine if the ANs remain valid for the upcoming tax roll year. This report is updated monthly and is applicable as of its run date.
- Particularly helpful for those districts that have a "set list" of ANs levied (e.g., a 1915 bond or Mello-Roos district).
- If ParcelQuest is used to determine a fresh set of ANs each year, the reports' value is more limited.

There is a cost recovery for placing the Direct Charges levies on the tax roll. Information regarding the cost recovery can be located online at the website address noted above and in the Direct Charges Manual section titled *Cost Recovery Amounts*. The amount will be deducted from the district's general ledger account after the December 10 posting of property tax collections to ensure that the district's fund doesn't earn negative interest.

ORDINANCE 2024-02

AN ORDINANCE OF THE GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT CONFIRMING DELINQUENT WATER CHARGES TO BE PLACED ON THE PROPERTY TAX ROLL FOR FISCAL YEAR 2024-25

BE IT ENACTED by the Board of Directors of the GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT, County of El Dorado, State of California, as follows:

1. The Board of Directors of GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT hereby declares that for Fiscal Year 2023-24 the Georgetown Divide Public Utility District water service and related water quality services were furnished to and used on certain parcels of land upon which the annual assessment is, by this said ordinance levied for unpaid charges thereof as of June 30, 2024. Said parcels, and the delinquent water service charges for those parcels, are identified in the written report set forth in Exhibit A attached hereto and made a part hereof. The District caused notice of the filing of the report and the setting of the time and place for a public hearing on August 1, 2024, regarding said report and to consider whether to place delinquent water charges ("Delinquent Charges") on the property tax roll, as required in Health and Safety Code sections 5473 et seq. A notice was also mailed to each person to whom any parcel or parcels of real property described in said report is assessed in the last equalized assessment roll available on the date the report was prepared pursuant to Health and Safety Code section 5473.1 A public hearing was held on August 1, 2024 by the Board of Directors to hear and consider all objections and protests to the report on the Delinquent Charges. At the public hearing, there was not a protest of the majority of owners of separate parcels of property described in the report.

2. The Delinquent Charges set forth in the report, attached hereto as Exhibit A, and incurred by property owners of the identified parcels described in the report are hereby confirmed and the report is hereby adopted.

3. The Board hereby elects to collect the Delinquent Charges in Exhibit A, on the property tax roll, in the same manner, by the same persons, and at the same time as, together with and not separately from, its general taxes.

4. Pursuant to the authority set forth in Health and Safety Code sections 5473 et seq., on or before August 10, 2024, the Board Secretary is hereby authorized and directed to file with the Auditor-Controller for the County of El Dorado a copy of the Report, with a statement endorsed on the Report over his or her signature that the Report has been adopted by the Board of Directors. Once such action is taken, the amount of the Delinquent Charges shall constitute a lien against the lot or parcel of land against which the Delinquent Charges have been imposed, and the tax collector shall include the amount of the Delinquent Charges on bills for taxes levied against the respective lots and parcels of land.

5. If any section, subsection, clause or phrase in this Ordinance or the application thereof to any person or circumstances is for any reason held invalid, the validity of the remainder of this Ordinance or the application of such provisions to other persons or circumstances shall not be affected thereby. The Board hereby declares that it would have passed this Ordinance and each section, subsection, sentence, clause, or phrase thereof, irrespective of the fact that one or more sections, subsections, sentences, clauses or phrases or the application thereof to any person or circumstance be held invalid.

6. This Ordinance shall take effect thirty days following its adoption. The Ordinance shall be published and posted in accordance with Public Utilities Code section 16075 and Government Code section 6061.

7. The Board of Directors hereby orders the Clerk of said GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT to transmit to the County Auditor the forms required to levy the annual assessments for the assessment districts within the Georgetown Divide Public Utility District with outstanding debt. For fiscal year 2024-25, outstanding debt remains for the following assessment districts:

Stewart Mine Water Assessment District
Kelsey North Water Assessment District

8. A certified copy of this Ordinance shall be transmitted to the County-Auditor of the County of El Dorado, State of California, upon its adoption.

PASSED AND ADOPTED at a regular meeting of the Board of Directors of the GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT held on the 1st day of August 2024, by the following vote:

AYES:

NAYS:

ABSENT/ABSTAIN:

_____

Mitch MacDonald, President
Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

ATTEST:

_____

Nicholas Schneider, Clerk, and ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

CERTIFICATION

I hereby certify that the foregoing is a full, true, and correct copy of **Ordinance 2024-02** duly and regularly adopted by the Board of Directors of the GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT, El Dorado County, California, at a meeting duly held on the 1st day of August 2024.

_____
Nicholas Schneider, Clerk, and ex officio
Secretary, Board of Directors
GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT

****EXHIBIT A****

Report

Tax Parcel Number	Balance
060-011-003-000	$152.61
060-060-015-000	$407.64
060-090-027-000	$89.90
060-110-022-000	$773.10
060-122-028-000	$10.00
060-140-014-000	$354.07
060-140-045-000	$339.24
060-170-001-000	$66.62
060-180-016-000	$128.24
060-180-022-000	$177.11
060-240-007-000	$543.48
060-240-009-000	$25.75
060-320-033-000	$606.66
060-351-019-000	$133.32
060-351-021-000	$317.24
060-351-022-000	$404.41
060-351-023-000	$159.16
060-351-027-000	$462.18
060-352-150-000	$141.59
060-361-050-000	$101.11
060-401-008-000	$408.20
060-401-014-000	$125.35
060-420-017-000	$15.38
060-450-020-000	$339.24
060-700-049-000	$143.95
060-700-053-000	$15.70
061-042-058-000	$93.73
061-061-019-000	$247.78
061-061-029-000	$327.27
061-100-035-000	$115.06
061-190-017-000	$111.18
061-220-013-000	$606.66
061-231-016-000	$199.61
061-231-023-000	$103.35
061-252-003-000	$137.91
061-310-006-000	$692.20
061-310-007-000	$164.80
061-311-013-000	$136.06
061-342-019-000	$18.43
061-343-007-000	$17.45
061-352-027-000	$260.99
061-381-023-000	$158.86
061-410-032-000	$241.14
061-410-056-000	$271.76
061-441-029-000	$1.52
061-450-014-000	$10.71
061-471-007-000	$122.45
061-500-030-000	$152.28
061-511-025-000	$123.75
061-511-039-000	$156.35
061-511-045-000	$408.43
061-520-017-000	$152.58
061-520-031-000	$58.72
061-520-052-000	$122.52
061-530-025-000	$339.24
061-560-049-000	$384.79
061-560-083-000	$0.70
061-571-041-000	$101.61
061-600-030-000	$835.45
061-643-001-000	$271.76
061-720-043-000	$133.68
061-740-013-000	$129.21
061-751-003-000	$134.24
062-390-046-000	$101.15
062-400-018-000	$326.49
071-100-015-000	$339.24
071-142-005-000	$943.48
071-142-006-000	$217.53
071-171-008-000	$128.14
071-280-024-000	$126.72
071-280-067-000	$339.24
071-310-017-000	$141.03
071-380-016-000	$32.22
071-380-018-000	$110.66
071-461-018-000	$268.82
071-470-009-000	$206.45
071-500-020-000	$16.19
072-081-006-000	$153.44
072-093-002-000	$173.78
072-122-008-000	$230.68
072-132-003-000	$249.39
072-202-007-000	$753.12
072-363-018-000	$8.89
072-411-004-000	$138.91
073-031-040-000	$10.99
073-031-041-000	$2.55
073-053-012-000	$116.66
073-072-014-000	$38.70
073-112-005-000	$77.40
073-153-002-000	$162.94
073-201-002-000	$113.84
073-293-002-000	$160.34
073-321-011-000	$116.10
073-411-002-000	$140.12
073-421-043-000	$2.39
073-441-005-000	$159.86
073-452-006-000	$77.40
073-453-013-000	$12.24
073-461-007-000	$136.28
073-492-005-000	$753.12
073-501-003-000	$19.35
074-030-037-000	$520.50
074-110-002-000	$177.69
074-161-010-000	$383.89
074-230-034-000	$135.88
088-021-042-000	$106.98
088-031-010-000	$104.26
088-050-054-000	$130.17
088-060-038-000	$91.87
088-080-011-000	$145.63
088-110-013-000	$8.07
088-140-001-000	$15.13
088-160-008-000	$407.64
088-170-020-000	$101.26
088-200-048-000	$209.45
088-200-050-000	$185.64
088-200-056-000	$126.50
088-234-011-000	$129.77
088-241-020-000	$182.40
088-241-021-000	$74.12
088-241-022-000	$74.12
088-242-012-000	$121.52
088-261-005-000	$606.66
088-263-005-000	$141.56
088-284-005-000	$157.44

088-284-006-000	$12.74
088-310-007-000	$132.60
088-310-012-000	$1,929.90
088-320-017-000	$339.24
104-250-032-000	$119.98
104-450-006-000	$278.69
	$28,242.63

GEORGETOWN DIVIDE
Public Utility District
P.O. BOX 4240
GEORGETOWN, CALIFORNIA 95634-4240
PHONE (530) 333-4356
FAX (530) 333-9442
gd-pud.org

July 1, 2024

Customer Name
Address
City/State/Zip

APN#: XXX-XXX-XXX-XXX

RE: Notice of Public Hearing on August 1, 2024, at 2:00 p.m. or shortly thereafter to Hear and Consider Objections to the Report of Delinquent Water Charges and Placement of Such Charges on the Property Tax Roll

The Georgetown Divide Public Utility District (District's) records show that there are unpaid water charges on your account more than 30 days overdue. The District is taking further action to collect this debt. This letter is to notify you that the placement of delinquent water fees in the amount of **$XXX.XX** for your parcel **XXX-XXX-XXX-XXX** on the property tax roll will be considered at a public hearing scheduled on August 1, 2024, at 2:00 pm at 6425 Main St., Georgetown, CA 95634.

Delinquent charges paid before the hearing will not be referred to the Auditor-Controller and placed on the tax roll. If you have questions regarding the District's collection process, please contact us at (530) 333-4356 or info@gd-pud.org for more information.

Thank you,

Georgetown Divide Public Utility District

GEORGETOWN GAZETTE

PROOF OF PUBLICATION
(2015.5. C.C.P.)

STATE OF CALIFORNIA
County of El Dorado

I am a citizen of the United States and a resident of the County aforesaid; I'm over the age of eighteen years, and not a party to or interested in the above-entitled matter. I am principal clerk of the printer at the El Dorado Gazette, Georgetown Gazette & Town Crier, a newspaper of general circulation, printed and published once each week in the town of Georgetown, Ponderosa Judicial District, County of El Dorado, and which newspaper has been adjudged a newspaper of general circulation by the Superior Court to the County of El Dorado, State of California, under the date of March 7, 1952, Case Number 7258; that the notice, of which the annexed is a printed copy (set in type no smaller than non-pareil), has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following dates, to-wit:

7/18, 7/25

ALL IN THE YEAR 2024

I certify (or declare) under penalty of perjury that the foregoing is true and correct.

Dated at Placerville, California, this 25th day of JULY, 2024

Allison Rains

Signature

Allison Rains
Legals Clerk

Proof of Publication
NOTICE OF PUBLIC HEARING

GEORGETOWN DIVIDE PUBLIC UTILITY DISTRICT
NOTICE OF PUBLIC HEARING
TO PLACE DELINQUENT WATER CHARGES ON THE PROPERTY TAX ROLL

NOTICE IS HEREBY GIVEN that the Georgetown Divide Public Utility District Board of Directors will conduct a public hearing on Thursday, August 1, 2024, beginning at 2:00 p.m. or shortly thereafter at 6425 Main St., Georgetown, CA 95634, to consider the adoption of a report that describes the amount of delinquent water charges to be imposed on parcels of property within the District and to be collected on the property tax roll. The public may view the meeting via Zoom at; https://us02web.zoom.us/j/81476655076?pwd=UlZJNEw4eVZ1STJNTHZ5TXFiNGp3Zz09, Meeting ID: 814 7665 5076. To dial into the meeting by phone, call (530)333-4356. At the hearing, the Board will hear and consider all objections or protests to the Report of Delinquent Water Charges on file in the District Office located at 6425 Main St., Georgetown, CA 95634. If the Board finds that a protest is made by a majority of the property owners subject to water charges described in the report, then the report will not be adopted, and the fees will be collected separately from the tax roll and will not constitute a lien against any parcel or parcels of land. If there is no majority protest, upon conclusion of the hearing, the Board may adopt, revise, change, reduce or modify any charge or overrule any or all objections and shall make its determination upon each charge as described in said delinquency report, which determination shall be final. If the said delinquency report is adopted, the delinquent charges contained therein shall be submitted to the County Auditor for placement on the tax roll for collection.
Secretary of the Board,
/s/ Nicholas Schneider
Nicholas Schneider
Published on July 18, 2024 and July 26, 2024

Tax Parcel Number	Balance
060-011-003-000	$152.61
060-031-018-000	$339.24
060-060-015-000	$407.64
060-090-010-000	$231.68
060-090-011-000	$148.67
060-090-027-000	$89.90
060-110-022-000	$773.10
060-122-028-000	$10.00
060-140-014-000	$354.07
060-140-045-000	$339.24
060-160-005-000	$136.10
060-170-001-000	$66.62
060-180-016-000	$128.24
060-180-022-000	$177.11
060-200-049-000	$132.19
060-220-020-000	$40.69
060-240-007-000	$543.48
060-240-009-000	$25.75
060-240-011-000	$198.68
060-270-021-000	$304.56
060-320-033-000	$606.66
060-351-019-000	$133.32
060-351-021-000	$317.24
060-351-022-000	$404.41
060-351-023-000	$159.16
060-351-027-000	$962.18
060-351-028-000	$678.48
060-352-150-000	$141.59
060-361-050-000	$101.11
060-401-006-000	$161.04
060-401-008-000	$408.20
060-401-014-000	$125.35
060-420-017-000	$15.38
060-420-034-000	$113.67
060-450-020-000	$339.24
060-450-024-000	$191.72
060-521-006-000	$59.11
060-611-007-000	$76.24
060-700-039-000	$131.21
060-700-049-000	$143.95
060-700-053-000	$15.70
061-042-058-000	$93.73
061-061-017-000	$124.10
061-061-019-000	$247.78
061-061-029-000	$327.27
061-100-035-000	$115.06
061-190-017-000	$111.18
061-220-013-000	$606.66
061-220-022-000	$10.32
061-220-050-000	$43.07
061-231-009-000	$147.75
061-231-016-000	$199.61
061-231-023-000	$103.35
061-231-029-000	$242.37
061-252-003-000	$137.91
061-252-012-000	$102.03
061-310-006-000	$692.20
061-310-007-000	$164.80
061-311-013-000	$136.06
061-342-019-000	$18.43
061-343-007-000	$29.10
061-352-027-000	$260.99
061-361-013-000	$10.36
061-381-002-000	$67.94
061-381-023-000	$158.86
061-381-029-000	$113.59
061-410-032-000	$241.14
061-410-056-000	$271.76
061-441-025-000	$154.86
061-441-029-000	$1.52
061-441-058-000	$30.32
061-450-014-000	$10.71
061-463-001-000	$160.04
061-471-007-000	$122.45
061-471-023-000	$193.80
061-500-010-000	$5.39
061-500-030-000	$152.28
061-511-025-000	$123.75
061-511-039-000	$156.35
061-511-045-000	$408.43
061-520-017-000	$152.58
061-520-031-000	$58.72
061-520-052-000	$122.52
061-530-025-000	$339.24
061-560-026-000	$13.79
061-560-049-000	$384.79
061-560-052-000	$51.24
061-560-083-000	$142.49
061-571-041-000	$101.61
061-600-030-000	$835.45
061-642-005-000	$339.24
061-643-001-000	$271.76
061-720-034-000	$11.64
061-720-043-000	$133.68
061-740-013-000	$129.21
061-751-001-000	$56.11
061-751-003-000	$134.24
061-752-003-000	$173.34
062-390-046-000	$101.15
062-400-018-000	$326.49
071-070-001-000	$458.78
071-100-004-000	$1.47
071-100-015-000	$339.24
071-142-005-000	$943.48
071-142-006-000	$217.53
071-171-008-000	$128.14
071-193-004-000	$183.10
071-231-009-000	$13.55
071-271-007-000	$1.95
071-271-017-000	$27.42
071-280-024-000	$126.72
071-280-060-000	$11.03
071-280-067-000	$339.24
071-310-017-000	$141.03
071-380-016-000	$32.22
071-380-018-000	$110.66
071-380-020-000	$123.34
071-430-012-000	$13.61
071-461-014-000	$30.84
071-461-018-000	$268.82
071-461-034-000	$9.67
071-470-009-000	$206.45
071-500-020-000	$16.19
072-072-013-000	$162.73
072-081-006-000	$153.44
072-082-010-000	$154.00
072-093-002-000	$173.78
072-103-008-000	$15.01
072-122-008-000	$230.68
072-132-003-000	$249.39
072-201-001-000	$146.04
072-202-007-000	$753.12
072-344-004-000	$282.15
072-352-018-000	$12.35
072-361-021-000	$16.57
072-363-018-000	$8.89
072-363-019-000	$332.86
072-411-004-000	$138.91
073-020-044-000	$53.47
073-031-030-000	$43.19
073-031-040-000	$10.99
073-031-041-000	$72.55
073-053-012-000	$116.66
073-072-014-000	$38.70
073-111-001-000	$23.69
073-112-001-000	$227.23
073-112-005-000	$77.40
073-153-002-000	$162.94
073-154-001-000	$19.35
073-201-002-000	$113.84
073-203-009-000	$97.72
073-231-005-000	$185.60
073-293-002-000	$160.34
073-321-011-000	$116.10
073-322-001-000	$38.70
073-351-018-000	$172.74
073-371-025-000	$156.60
073-381-003-000	$188.55
073-381-027-000	$338.12
073-401-003-000	$133.07
073-401-027-000	$12.92
073-402-004-000	$30.00
073-411-002-000	$140.12
073-421-038-000	$170.09
073-421-043-000	$2.39
073-441-005-000	$159.86
073-452-006-000	$77.40
073-453-013-000	$12.24
073-461-007-000	$136.28
073-492-005-000	$753.12
073-501-003-000	$19.35
074-030-037-000	$520.50
074-110-002-000	$177.69
074-161-010-000	$383.89
074-230-034-000	$135.88
088-021-042-000	$106.98
088-031-010-000	$104.26
088-031-012-000	$14.01
088-050-006-000	$9.97
088-050-028-000	$414.90
088-050-046-000	$124.58
088-050-054-000	$130.17
088-060-038-000	$91.87
088-070-017-000	$152.09
088-080-011-000	$145.63
088-080-041-000	$1.69
088-110-013-000	$8.07
088-140-001-000	$15.13
088-160-008-000	$407.64
088-170-020-000	$101.26
088-200-048-000	$209.45
088-200-050-000	$185.64
088-200-053-000	$127.82
088-200-056-000	$126.50
088-223-016-000	$11.11
088-231-007-000	$14.82
088-234-011-000	$129.77
088-241-017-000	$146.16
088-241-020-000	$182.40
088-241-021-000	$74.12
088-241-022-000	$74.12
088-242-012-000	$121.52
088-243-002-000	$113.99
088-253-005-000	$76.19
088-261-005-000	$606.66
088-263-005-000	$141.56
088-284-005-000	$157.44
088-284-006-000	$12.74
088-300-010-000	$133.24
088-310-007-000	$132.60
088-310-012-000	$1,929.90
088-310-014-000	$127.36
088-320-017-000	$339.24
104-250-002-000	$339.24
104-250-011-000	$3.53
104-250-019-000	$13.86
104-250-032-000	$119.98
104-450-006-000	$278.69

7/18, 7/25

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