

Lisa Palmer, President  
Tom Fayram, Vice President  
Mike Arme, Director  
Brian O'Neill, Director  
Brad Ross, Director



POSTED 10-8-2021

**LOS OLIVOS COMMUNITY SERVICES DISTRICT**  
**Board of Directors Regular Meeting October 13, 2021, 6:00 PM**

This meeting will be held both in-person and electronically via Zoom Meetings. In-person the meeting will be held at the following Location: St Mark's in the Valley Episcopal Church, Stacy Hall. The public will also be able to hear and participate electronically:

1. Join Zoom Meeting from PC, Mac, or Android: <https://us02web.zoom.us/j/86910226634?pwd=S3NTa-WxDT1JydE1WY3huM2xBeHhoUT09>
2. Via telephone: +1 (408) 638-0968 **Meeting ID: 869-1022-6634** **Passcode: 523136**

**REGULAR MEETING AGENDA**

**1. CALL TO ORDER**

**2. ROLL CALL**

**3. PLEDGE OF ALLEGIANCE**

**4. DIRECTOR COMMENTS**

Directors will give reports on any meetings that they attended on behalf of the District and/or choose to comment on various District activities.

**5. PUBLIC COMMENTS**

Members of the public may address the Board on any items of interest within the subject matter and jurisdiction of the Board but not on the agenda today (Government Code - 54954.3). Speakers are limited to 3 minutes. Due to the requirements of the Ralph M. Brown Act, the District cannot take action today on any matter not on the agenda, but a matter raised during Public Comments can be referred to District staff for discussion and possible action at a future meeting.

**6. SANTA BARBARA COUNTY ENVIRONMENTAL HEALTH SERVICES (EHS) DISCUSSION REGARDING ONSITE WASTEWATER TREATMENT SYSTEM (OWTS) REQUIREMENTS**

EHS staff will discuss the local and state process to consider interim requirements for Onsite Wastewater Treatment Systems (OWTS) until the community wastewater system is available.

**7. ADMINISTRATIVE AGENDA**

All matters listed hereunder constitute a consent agenda and will be acted upon by a single roll call vote of the Board. Matters listed on the Administrative Agenda will be read only on the request of a member of the Board or the public, in which event the matter shall be removed from the Administrative Agenda and considered as a separate item.

**a. MEETING MINUTES**

- i. Approve Minutes of September 15, 2021
- ii. Approve Minutes of October 4, 2021

**b. INVOICE PAYMENT**

- i. September 15, 2021 Robert Perrault General Management Services (9-15-2021) \$3,510.
- ii. August 5, 2021, GSI Water Solutions Invoice # 876-001-07 Groundwater Management Services (July) \$1,926.25.

- iii. March 3, 2021, Urban Planning Concepts Invoice #9844 February Services Siting Study  
\$2,663.75

**8. BUSINESS ITEMS DISCUSSION AND ACTION ON THE FOLLOWING**

- a. **Review and Approve the GSI Technical Memorandum Providing a Preliminary Cost Estimate for Injection and Provide Direction Regarding Remaining Tasks in the Treated Wastewater Injection Program Statement of Work.** In August the Board received a Proposed Statement of Work to complete a Treated Wastewater Injection Assessment for the Wastewater Project. The Board authorized GSI to proceed with Task 1 within the Statement of Work to develop a planning estimate for wastewater injection. **Staff is recommending the Board review and approve the planning estimate contained in the Technical Memorandum and provide direction regarding the remaining tasks contained in the Statement of Work.**
- b. **Project Development - Project Management Committee Report. Committee members and General Manager will report on recent District activities.**

**9. GENERAL MANAGER'S REPORT**

General Manager Report on current assignments, action items, and general District business.

**10. INFORMATIONAL ITEMS**

**11. CALL FOR AGENDA ITEMS**

**12. NEXT REGULAR MEETING: November 10, 2021, St Mark's Episcopal Church, Stacy Hall. The meeting will also be a Zoom Meeting.**

**13. ADJOURNMENT**

The Los Olivos Community Services District is committed to ensuring equal access to meetings. In compliance with the American Disabilities Act, if you need special assistance to participate in the meeting or need this agenda provided in a disability-related alternative format, please call 805.946.0431 or email to [losolivoscscsd@gmail.com](mailto:losolivoscscsd@gmail.com). Any public records, which are distributed less than 72 hours prior to this meeting to all, or a majority of all, of the District's Board members in connection with any agenda item (other than closed sessions) will be available for public inspection at the time of such distribution at a location to be determined in Los Olivos. California 93441.

**MINUTES TO APPROVE**

**MINUTES TO APPROVE**

Lisa Palmer, President  
Tom Fayram, Vice President  
Mike Arme, Director  
Brian O'Neill, Director  
Brad Ross, Director



**LOS OLIVOS COMMUNITY SERVICES DISTRICT**  
**Board of Directors Regular Meeting September 15, 2021 6: 00 PM**

This meeting was held electronically via Zoom Meetings. The public was able to hear and participate.

1. Join Zoom Meeting from PC, Mac, or Android: <https://us02web.zoom.us/j/89000408577?pwd=TjkzM28wM01YRXNkejZnRzYzUUVVIZz09>
2. Via telephone: +1 (408) 638-0968 **Meeting ID: 890 0040 8577** **Passcode: 26366**

**REGULAR MEETING Minutes**

1. **CALL TO ORDER:** President Palmer called the meeting to order at 6:00 PM
2. **ROLL CALL:** Present were President Palmer, Vice President Fayram, Director Arme, Director O'Neill, and Director Ross
3. **PLEDGE OF ALLEGIANCE:** The Pledge of Allegiance was led by President Palmer.
4. **DIRECTOR COMMENTS:** President Palmer noted that shed and General Manager Perrault had a discussion with EHS staff member Lars Seifert about future funding opportunities and a presentation EHS will be making at the next meeting.
5. **PUBLIC COMMENTS:** There were no public comments.
6. **Public Discussion of the Methodology used in Selection of a Preferred Site and a Preferred Alternative Site to Study as a Possible Location of a Wastewater Treatment Package Plant.**  
President Palmer provided introductory remarks and General Manager Perrault provided a PowerPoint regarding the process used by the District to select potential sites for further study. District Counsel discussed the District's ability to acquire facilities outside of the District. Board members provided additional comments.

The following members of the Public addressed the Board: Kevin Yacoub, Bill Reynolds, Paul Rohrer, Caller #1 Cardiologist, and property owner, Lettie Wetto, Spencer Baily Laura Lippencott and Kathryn Lohmeyer made comments in the chat. Comments consisted of questions about the size of the plant, potential impact on neighbors, process, and notice.

President Palmer thanked those community members who participated in the discussion.

**7. ADMINISTRATIVE AGENDA**

Vice President Fayram requested that Item 7a be taken separately due to his absence. Director O'Neill moved that the minutes of August 18, 2021, be approved. The motion was seconded by Director Ross. **Roll Call:** President Palmer yes, Vice President Fayram abstain, Director O'Neill yes, Director Ross yes, Director Arme yes. The motion was approved 4-0-1.

A motion was then offered by Vice President Fayram to approve the invoice payment contained in 7b. Director Ross seconded the motion. **Roll call:** President Palmer yes, Vice President Fayram yes, Director O'Neill yes, Director Ross yes, Director Arme yes, the motion was approved 5-0.

**a. MEETING MINUTES**

- i. Approve Minutes of August 18, 2021

**b. INVOICE PAYMENT**

- i. July 14, 2021, UPC Invoice 10021, (through June ) \$155.00

- ii. August 15, 2021 Robert Perrault General Management Services ( 7-17- 8-15, 2021) \$3,645.00 .
- iii. August 24, 2021, MNS Invoice #78559 District Support Service (July) \$ 7,799.50
- iv. September 9, 2021, Aleshire and Wynder1245 Legal Services (August) \$1,160.
- v. September 9, 2021, GSI Groundwater Solutions Invoice # 0876.001-8, Groundwater Management Services, \$7,300.00

**8. Business Items: Discussion and Action on the following:**

- a. **Consideration of Stantec Design Proposal from Stantec for the entire, District-wide Wastewater Collection and Treatment Plant Project.** At the request of the Board, Stantec Design Services Inc. submitted a revised proposal for Project Design Services Task Order No.2. The revised proposal includes a scope of work to complete the preliminary design for the entire, District-wide Wastewater Collection and Treatment Plant Project. The preliminary design proposal has been divided into three components: 1)Basis of Design, 2) 30% Completion and 3) 60% of Completion, **Recommendation: Authorize the Extension of the Design Services Contract and the completion of Task Order No. 2.** General Manager Perrault introduced the item and introduce Autumn Glaeser representing Stantec. Board members asked questions of Stantec and General Manager Perrault regarding the proposal and the Status of Funding from State Grant. Ms. Glaeser responded to questions regarding the proposal. Mr. Perrault provided a status update on the pending State Grant. Vice President Fayram indicated his concern with moving forward until the district receives notification from State.

Vice President Fayram made a motion to direct and authorize staff to make necessary revisions to the Design Services Contract with Stantec but withhold Authorization of Notice to Proceed until funding is made available from the State Grant. Director O’Neill seconded the motion. **Roll Call:** President Palmer yes, Vice President Fayram yes, Director O’Neill yes, Director Ross yes, Director Arme yes. Motion passes 5-0.

- b. **Consideration of An Update and Revision to the Los Olivos Community Wastewater Program Project Description.** The Project Description has been updated and revised to clearly articulate a system design for the entire District. The Board is being asked to review the revised Project Description and adopt by motion or provide staff with direction.

President Palmer noted the proposed Program Project Description needed additional work. Vice President Fayram made a motion to table the item until the draft description can be further reviewed by the Project Management Committee. Director Arme seconded the motion. **Roll Call:** President Palmer yes, Vice President Palmer yes, Director O’Neill yes, Director Ross yes, Director Arme yes. The motion was approved 5-0

- c. **Project Development - Project Management Committee Report. Committee members and General Manager will report on the following:** A brief update was provided by Committee members and the General Manager.

**9. GENERAL MANAGER’S REPORT**

General Manager Report on current assignments, action items, and general District business. A brief update was provided by the General Manager.

**10. Informational Items:** District Counsel Trindle provided an update on Brown Act and meeting in-person legislation.

**11. CALL FOR AGENDA ITEMS:** None

**12. NEXT REGULAR MEETING:** The next regular meeting will take place on October 13, 2021, at St. Mark’s

**13. ADJOURNMENT:** The meeting was adjourned at 8:14 PM.

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Lisa Palmer, President  
Tom Fayram, Vice President  
Mike Arme, Director  
Brian O'Neill, Director  
Brad Ross, Director



POSTED 10-01-21

**LOS OLIVOS COMMUNITY SERVICES DISTRICT  
Board of Directors Special Meeting October 4, 2021, 6:00 PM**

**Location: St Mark's in the Valley Episcopal Church, Stacy Hall  
2091 Nojoqui Ave, Los Olivos, CA**

**SPECIAL MEETING Minutes**

- 1. CALL TO ORDER:** President Palmer called the meeting to order at 6:00 PM.
- 2. ROLL CALL:** Present were President Palmer, Vice President Fayram, Director O'Neill, Director Ross. Director Arme was Absent.
- 3. PLEDGE OF ALLEGIANCE:** President Palmer led the Pledge of Allegiance.
- 4. DIRECTOR COMMENTS:** No Director Comments were made.
- 5. PUBLIC COMMENTS:** No public comments were made regarding items on the agenda.
- 6. Review of Notification from State on Grant Funding and Discussion on Preliminary Design Notice to Proceed.**  
The notification was received on September 30 from the State Water Board that the district can begin incurring costs for the design of the project with State Water Recycling Fund Matching Grant coverage /reimbursement. The Board will discuss authorizing the issuance of the Notice to Proceed to district design contractor Stantec to provide preliminary designs using sites identified by Urban Planning Concepts, focussing on technical feasibility and estimated project costs, to create a shortlist of possible site selections for consideration and advancement in the design process.  
**Recommendation: Staff recommends the Board authorize the issuance of the Notice to Proceed to Stantec for the Preliminary Design of the Project incorporating a site review.**

General Manager Perrault gave a brief staff report regarding the matter. He indicated that the State had provided notification to the district that the district could begin incurring costs with the preliminary design of the Project. He also noted he had asked Stantec to amend the proposed Task Order to include a site review for the potential location of the plant. He introduced Autumn Glaeser representing Stantec. Board Members asked clarifying questions of Ms. Glaeser and Mr. Perrault.

General Manager referenced communications having been received from the Rohr Family and Ann Marie Gott. These communications were distributed to the Board when they were received.

The following members of the public addressed the Board: Ann Marie Gott, Carey Kendall, Cody Seiller, Mark Herthel, Julie Kennedy, and Kelly Gray. Ms. Gott noted she is requesting her family properties be removed from consideration as a potential site. Other members of the public had positive comments about the project moving forward but did express concerns regarding the sizing of the plant, its location, and the need to keep the public participating.

Board members made additional comments regarding the need to move the project forward and that the district was at the very beginning of a process. Design work will be completed one component at a time and the end of each component, the resulting information will be brought back to the Board.

Vice President Fayram made a motion that the Board authorizes the issuance of the Notice to Proceed to Stantec for the Preliminary Design of the Project incorporating a site review. In making his motion Vice President Fayram indicated he remains concerned about the State's funding but his concern has been mitigated with the recent notification from the State. Director Ross seconded the motion.

Before the vote President Palmer that the site review added to the scope of work is to be broad with recommendations coming back to the Board as a part of the Preliminary Design.

**Roll call:** President Palmer yes, Vice President Fayram yes, Director O'Neill yes, Director Ross yes, Director Arme absent. The Motion was approved 4-0-1 with Director Arme absent.

7. **CALL FOR AGENDA ITEMS:** The Board requested the General Manager/ District Counsel provide a report on recent housing legislation and its potential impact on the project.
8. **NEXT REGULAR MEETING:** October 13, 2021, In-person at St. Mark's Stacy Hall at 6:00 PM.
9. **ADJOURNMENT:** The Meeting was adjourned at 6: 54 PM.

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**INVOICE PAYMENT**

**INVOICE PAYMENT**





# ROBERT PERRAULT

1311 Crystal Cove Circle □ Grover Beach, CA 93433  
(805) 668-7131 □ [robertjperrault51@gmail.com](mailto:robertjperrault51@gmail.com)

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Date: 9/15/211  
To: Lisa Palmer  
President, Los Olivos, Community Service District  
PO Box 345,  
Los Olivos CA, 93441

No. 618

Date	Description	Unit Hours	Total
9/15/21	General Management		
	Services provided to Los		
	Olivos Community Service Dist. For 8-15 to 9-15 2021	26	\$3,510.00
	Per attached detail		
		Total	\$3,510

**Total Due By:  
Due Upon  
Receipt**

Thank you for your business!

## Robert J Perrault

**Memo To:** Lisa Palmer, President Los Olivos CSD, Board of Ddirectors  
**From:** Bob Perrault, General Manager  
**Subject:** Invoice Detail August 16- September 15, 2021

<b>Date</b>	<b>Description</b>	<b>Hrs</b>	<b>Amount</b>
8-18-21	Discuss Legal Counsel	.5	\$67.50
8-24-21	Prep Follow up memo Meeting w/ Stantec	2	\$270.00
8-29-21	Contact w/ St. Mark's Use of Facility	1	\$135.00
8-30-21	Project Management Agenda Progress Status report, Discussion w/ Counsel Public Hearing Notice	3	\$405.00
8-31-21	Public Meeting notices development Coordination with MNS	2.5	\$337.50
9-2-21	Project Management Committee	2.5	\$337.50
9-3-21	Coordination of Public Notice Distribution	1.5	\$202.50
9-6-21	District email review, work on Minutes Stantec Proposal review	2	\$270.00
9-7-21	Discussion with Stantec Development of Staff report	2	\$270.00
9-10-21	Technical Committee Meeting Phone meeting with Cloacina Regarding various plant locations	2	\$270.00
9-14-21	Development of Groundwater Management Request from EHS	2.5	\$ 337.50
9-15-21	Meeting w/ EHS re Lamp	1	\$135.00

9- 15-21

Meeting Prep and Board meeting  
Attendance

3.5

\$472.50



55 SW Yamhill Street, Suite 300  
 Portland, OR 97204  
 P: 503.239.8799  
 accounting@gsiws.com  
 www.gsiws.com

Doug Pike  
 Los Olivos Community Services District  
 PO Box 345  
 Los Olivos, CA 93441

August 5, 2021  
 Invoice No: 0876.001 - 7

Project 0876.001 Groundwater Quality Management Services

**Professional Services from July 1, 2021 to July 31, 2021**

Task .004 Technical Memorandum and Submittals

**Labor**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Principal Consultant				
Thompson, Timothy	2.75	265.00	728.75	
Managing Hydrogeologist				
Franz, Brian	4.25	160.00	680.00	
Project Geologist				
Lapostol, Andres	3.50	135.00	472.50	
Totals	10.50		1,881.25	
<b>Total Labor</b>				<b>1,881.25</b>
				<b>Total this Task</b>
				<b>\$1,881.25</b>

Task .005 Project Management

**Labor**

	<b>Hours</b>	<b>Rate</b>	<b>Amount</b>	
Administrative Assistant				
Deck, Anneliese	.50	90.00	45.00	
Totals	.50		45.00	
<b>Total Labor</b>				<b>45.00</b>
				<b>Total this Task</b>
				<b>\$45.00</b>

<b>Project Summary</b>	<b>Current Period</b>	<b>Prior Periods</b>	<b>Invoiced to Date</b>
Total Billings	1,926.25	37,387.50	39,313.75
Authorized Budget			85,000.00
Budget Remaining			45,686.25
			<b>Total this Invoice</b>
			<b><u><u>\$1,926.25</u></u></b>

**Outstanding Invoices**

<b>Number</b>	<b>Date</b>	<b>Balance</b>
5	6/7/2021	8,696.25
6	7/3/2021	300.00
<b>Total</b>		<b>8,996.25</b>



2624 Airpark Drive  
 Santa Maria, CA 93455  
 (805) 934-5760

Los Olivos Community Services District  
 dpike@mnsengineers.com

Invoice number 9844  
 Date 03/07/2021

Project **U2108 -- LOS OLIVOS WASTEWATER RECLAMATION PROGRAM**

Professional Services Through 2/28/2021

**A Siting Study**

	Date	Hours	Rate	Billed Amount
<b>General Services</b>				
Senior Planner				
<i>Email from engineer: transmittal of siting study docs. Review docs.</i>	02/03/2021	0.50	155.00	77.50
<i>Text msg. to engineer &amp; David S.: schedule conf. call.</i>	02/04/2021	0.50	155.00	77.50
<i>Review property info. Email to Conservation Blueprint: ask about parcel radius functionality.</i>	02/09/2021	0.75	155.00	116.25
<i>Email to Jason T.: describe parcel screening project.</i>	02/12/2021	0.25	155.00	38.75
<i>Email to client: provide update on parcel review project. Emails w/ client: discuss parcels to include in parcel review project.</i>	02/19/2021	0.50	155.00	77.50
<i>Email from Jason T.: transmittal of interim parcel list for review.</i>	02/22/2021	0.75	155.00	116.25
<i>Review draft parcel spreadsheet. Email to Jason T.: schedule discussion of status and next steps for project.</i>	02/24/2021	0.75	155.00	116.25
<i>Emails w/ Jason T.: review and comment on parcel spreadsheet. Forward interim spreadsheet to engineer for review and comment. Email and call from client: questions about parcel research spreadsheet.</i>	02/26/2021	0.50	155.00	77.50
<b>Coordination</b>				
Associate Planner				
<i>APN property research</i>	02/17/2021	1.00	135.00	135.00
<i>APN property research</i>	02/18/2021	1.00	135.00	135.00

Professional Services Through 2/28/2021

**A Siting Study**

**Coordination**

Associate Planner

	Date	Hours	Rate	Billed Amount
<i>APN property research</i>	02/19/2021	1.00	135.00	135.00
<i>Parcel history and zoning research</i>	02/22/2021	1.00	135.00	135.00
<i>APN parcel history research</i>	02/24/2021	1.00	135.00	135.00
<i>APN parcel history research</i>	02/26/2021	1.00	135.00	135.00
Principal Planner				
<i>Preparations for study</i>	02/05/2021	1.50	170.00	255.00
<i>Researched radius properties, overview Los Olivos</i>	02/11/2021	1.50	170.00	255.00
<i>Processed desktop survey</i>	02/12/2021	1.25	170.00	212.50
<i>Staus meeting on study</i>	02/19/2021	0.50	170.00	85.00

**Meeting**

Senior Planner

<i>Call w/ David S.: discuss siting study &amp; direction to schedule conf. call w/ engineer.</i>	02/04/2021	0.25	155.00	38.75
<i>Mtg. w/ Jason T.: discuss parcel reasearch project.</i>	02/10/2021	0.25	155.00	38.75
<i>Call w/ Jason T.: discuss parcel research project.</i>	02/15/2021	0.25	155.00	38.75
<i>Call w/ Jason T.: discuss status of parcel review.</i>	02/19/2021	0.75	155.00	116.25
<i>Mtg. w/ Jason T.: discuss progress on parcel research and next steps.</i>	02/25/2021	0.50	155.00	77.50
<i>Mtg. w/ Jason T. discuss status of parcel research.</i>	02/26/2021	0.25	155.00	38.75

***Siting Study Subtotal***

17.50 2,663.75

Invoice Total **2,663.75**

**Agenda Item 8a. Attachment**

Lisa Palmer, President  
Tom Fayram, Vice President  
Mike Arme, Director  
Brian O'Neill, Director  
Brad Ross, Director



**Memo To:** President Palmer and Board of Directors

**From:** Bob Perrault, General Manager

**Subject:** GSI Preliminary Cost Estimate for Injection Program and Request for Direction

**Date:** October 13, 2021

In August, GSI Water Solutions Incorporated (GSI), provided the District with a proposed Statement of Work (please see the attachment). The Statement of Work outlined several tasks that once completed would provide the District with the feasibility of implementing an injection program as a part of the Wastewater Treatment and Reclamation Project. The estimated cost for completing the feasibility assessment is \$217,000. During the August 18<sup>th</sup> meeting the Board authorized GSI to proceed with the first task, a Preliminary injection Program Cost Analysis. The value of completing this analysis is that it will provide the District with a high-level planning cost estimate for the implementation of the injection program proceeding with a full feasibility assessment.

GSI has prepared the attached Injection Program Preliminary Cost Estimate for the Board's review. the Memorandum provides an estimated range of costs of between \$5.3 million – \$6.5 million for the permitted and installed injection program for the entire district area. The annual cost of operations and maintenance is estimated at between \$200,000- \$350,000. In developing the cost estimate for the entire project GSI also provided a permitting and construction cost of the project distributed by zones or phases. The cost for providing this estimate is \$12,250.

Staff is recommending the Board approve the Preliminary Cost Estimate and provide direction regarding completing the remaining 8 tasks contained in the original Statement of Work. Each of these tasks has been identified in the proposal with a separate cost estimate. The total cost of the remaining work is \$205,000. The work will also be coordinated with the preliminary design of the overall project being completed by Stantec. While the remaining tasks are focused on the feasibility of injection the information gained would be useful in determining an acceptable alternative to injection should it become necessary.

GSI is currently working completing a series of tasks for the District under an original authorization of \$85,000. The tasks completed thus far include the completion of a Hydrogeologic Study and a Groundwater Management Plan. There remains approximately \$35,000 in this authorization that could Be shifted to reduce the \$205,000 associated with the Injection Feasibility Statement of Work. shifted to assist in covering the 8 remaining tasks.



Lisa Palmer, President  
Tom Fayram, Vice President  
Mike Arme, Director  
Brian O'Neill, Director  
Brad Ross, Director



**Staff Recommendation: The Board Approve the GSI Technical Memorandum Providing a Preliminary Cost Estimate for Injection and Provide Direction Regarding the Remaining Tasks In the Wastewater Injection Program Statement of Work.**



**DRAFT**

## Scope of Work

**To:** Bob Perrault; Los Olivos Community Services District

**From:** Brian Franz, Andy Lapostol, Tim Thompson; GSI Water Solutions

**Date:** August 10, 2021

**RE:** Scope of Work for Treated Wastewater Injection Feasibility Assessment – Los Olivos Wastewater Reclamation Program Project

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GSI Water Solutions (GSI) is pleased to present this scope of work for a treated wastewater injection feasibility assessment to support the Los Olivos Wastewater Reclamation Program. This work builds upon the previous work conducted during development of the District's Groundwater Monitoring Program and will provide a feasibility assessment of an injection project which would include installation of a series of wells to inject highly treated recycled water from the District's planned wastewater treatment facility into the underlying aquifer.

During the course of GSI's current work effort, in which both a Hydrogeological Conceptual Model (HCM) and a Groundwater Monitoring Plan (GWMP) were prepared, it became evident that there are many fundamental types of groundwater data that are not available, but which are needed for an assessment of feasibility for an injection project. The key types of data that have not been collected nor are not publicly available include:

- a. Water level data documenting the depth to the groundwater table within the aquifer sediments that are contemplated for use during the proposed injection of treated wastewater.
- b. Groundwater gradient data which would assist in assessing the direction and migration rate of the injected water.
- c. Hydrogeologic characteristics of the alluvial aquifer sediments, including the hydraulic conductivity and storage capacity values.
- d. Water quality data of groundwater present in the alluvial aquifer.
- e. Location, depth, and type of use (domestic or agricultural) for wells in and near Los Olivos.

Without the availability of even limited data for most of these types of groundwater information (identified as "data gaps"), the determination of whether an injection program could be constructed, operated, and permitted is not currently possible. The evaluation of data gaps pertaining to water level, quality, and gradient are addressed within the GWMP, and these data are important to the assessment of injection feasibility. The work conducted as part of this injection feasibility assessment will consider the data collected in the GWMP effort. The following scope of work presents a series of recommended steps to address data gaps and perform a stepwise assessment of feasibility for the injection of treated wastewater into one or more of the aquifers underlying Los Olivos.

The recommended tasks in this scope of work are as follows:

- **Preliminary Cost Analysis** – Prepare a high-level cost estimate for the construction and implementation of the injection well infrastructure. Provide the District with range of assumed project costs in order to compare with other wastewater disposal options.
- **Design, Permit, and Install Test Well** – Drill and install a test well in the vicinity of proposed injection well field. The test well will be used to conduct a pumping test which will provide important aquifer characteristics, including hydraulic conductivity and storage parameters. Drill and install dedicated observation monitoring well adjacent to test well if no other monitoring well (such as one of the proposed initial 6 monitoring wells of the GWMP) exists within approximately 150 feet.
- **Conduct Pumping Test** – Perform 8-hour step test and 24-hour constant rate test using the test well. Monitor water levels in both test well and observation well using manual measurements and dedicated pressure transducers
- **Perform Geochemical Analysis** – Collect aquifer matrix samples for geochemical analysis during installation of the test well. Samples will be analyzed to assess the potential for adverse chemical reactions in the aquifer soil matrix that could occur during injection operations.
- **Develop Groundwater Model** – Use existing data to create local-scale numerical groundwater flow model using MODFLOW-MT3D and Groundwater Vistas. Perform screening level analysis of groundwater transport times to help select a potentially feasible location for an injection wellfield. The groundwater model will be refined following the collection of aquifer parameter data during the pumping test at the proposed test well.
- **Identify Active Production Wells** – Conduct a detailed assessment identifying all active production wells in the vicinity of Los Olivos to determine which wells that may be impacted by an injection project.
- **Permitting Feasibility** – Assess feasibility of obtaining the necessary permits for the injection project. Evaluate the likelihood that an injection project could be successfully permitted and provide a regulatory pathway for the permitting process, including coordination with other local agencies such as ID#1.
- **Technical Memorandum** – Prepare a technical memorandum detailing the findings from these efforts and provide recommendations for next steps.
- **Project Management** – GSI will perform regular check-ins with the District to provide project status updates. GSI will also attend District Board meetings when requested to respond to any questions from Board members.

## Scope of Work

### Task 1 – Preliminary Injection Program Cost Analysis

This initial task will include the development of a planning-level cost estimate for the permitting and construction of an injection program which will allow the District to compare the estimated cost of the injection program with other alternatives, such as the option of obtaining an NPDES permit to discharge the treated wastewater into Alamo Pintado Creek. This work will be conducted prior to the subsequent tasks described in this Scope of Work that constitute the feasibility assessment.

For this effort, GSI will collect and utilize regional hydrogeologic data to estimate the number of wells necessary to accommodate the anticipated flow rates of treated wastewater. The size, depth, and performance of a typical injection well will be assumed based on data from production wells either within or close to the LOCSD area. Water level records from other wells in the area will also be evaluated to determine the typical range of water levels in the target aquifer which in turn is used to estimate anticipated injection rates in each injection well.

GSI will draw from experience with other injection projects to estimate the costs of construction and materials, in addition to costs associated with operations and monitoring, based on the assumed number of wells necessary for the project. This information will be summarized in a memorandum to the District, after which the District may decide whether or not to proceed with the other elements of the injection feasibility assessment (Tasks 2 through 9). The cost estimates and assumptions used will be at a planning level of detail and as such, will not reflect the technical feasibility of the project.

### Task 2 – Design, Permit, and Install Test Well

To better understand aquifer characteristics of both the shallow alluvium and the Paso Robles Formation, and to help inform the groundwater model (see Task 5), installation of a test well capable of performing a full-scale pumping test is recommended. Given the variability of aquifer sediments in the Los Olivos area, it will be important to install the test well in the vicinity of the potential injection wellfield site in order to collect representative data.

If the proposed test well location is not within 150 feet of an existing monitoring well with the same screen interval (i.e., one of the 6 new monitoring wells planned for the GWMP), then a new, dedicated monitoring well will also need to be constructed to serve as an observation well during aquifer testing (as well as subsequent injection testing which would be conducted following a favorable assessment of project feasibility). It is important to have a nearby observation well of similar depth and perforated interval for data collection during aquifer testing.

Work conducted in this task will include preparing well designs, specifications and bid documents for the test well and for the adjacent monitoring well. This task will include the development of well construction criteria, such as total depth, casing diameter, and perforation intervals, as well as navigating the permitting process. GSI will work with LOCSD to decide on the casing material (stainless-steel or PVC) to be used for the test well, as this represents the most significant factor in determining the cost of installation. Should an injection project be determined to be feasible, LOCSD could potentially save on future drilling costs by designing the test well with higher-grade materials so that it may also serve as a pilot injection testing well.

The test well will be drilled by a licensed contractor using mud-rotary methods. GSI will be on-site to oversee construction of the well in accordance with the specifications and permitting requirements. Drill cuttings will be collected and detailed logs of drilling time and borehole lithology will be kept. It is anticipated that the adjacent monitoring well will also be drilled with a mud rotary methods.

### Task 3 – Conduct Pumping Test

GSI will design and oversee the pumping test at the test well. Testing will include an 8-hour step test and a 24-hour constant rate pumping test. The data collected during the step test will be used to determine the preferred flow rate for the subsequent constant rate test. Water levels during the tests will be monitored in both the pumping well and the nearby observation well using both manual measurements and pressure transducers. A pressure transducer will be installed in both wells for the duration of the testing. Transducers will be programmed to measure water level and temperature at designated intervals.

Data on aquifer characteristics (i.e., transmissivity and storativity) are of critical importance for determining the feasibility of an injection project. Conducting pumping tests can provide these valuable parameters which are essential for developing a representative groundwater model which can be used to determine feasible locations of the wellfield, groundwater travel times, and associated injection rate estimates. Before the end of the 24-hour constant rate pumping test, GSI will collect a water quality sample for laboratory analysis.

### Task 4 – Geochemical Analysis

The purpose of this task is to characterize potential for subsurface geochemical reactions that may impact the feasibility of an injection project. This characterization includes an assessment of (a) the potential for the injection well screens and filter pack to become clogged due to chemical reactions between injected water, native groundwater, and the aquifer matrix in the vicinity of the wells, and (b) the potential to adversely impact groundwater quality due to chemical reactions of the injected water with the native sediments comprising the aquifer, which could lead to the mobilization of hexavalent chromium or other undesirable constituents.

During construction of the test well and/or observation well, GSI will collect undisturbed physical samples of the aquifer sediments from the primary pumping/injection zone. These samples will be properly preserved and submitted to a specialized analytical laboratory for geochemical analysis.

A separate workplan will be developed prior to the initiation of this task which will provide greater detail for the steps and procedures necessary to conduct this analysis.

### Task 5 – Develop Groundwater Model

Development of a groundwater model, which can be used to conduct simulations of groundwater hydraulics and flow dynamics is an essential component in determining the feasibility of using injection wells to inject the recycled water into the aquifers underlying Los Olivos. This task will include creating a local-scale numerical groundwater flow model (using USGS MODFLOW and Groundwater Vistas) to perform a screening-level analysis of groundwater migration rates and directions both before and during the proposed injection project. The extents (domain) of the model will be based on existing data, including previously compiled well logs in the Los Olivos area and data obtained during the construction and subsequent monitoring of the groundwater monitoring network as described in the GWMP.

The model development will begin with a meeting with GSI and LOCSO staff to identify preferred locations for an injection wellfield. Potential wellfield sites should have the ability to accommodate several wells, as it is currently unknown how many wells will be required to achieve planned injection volumes. The placement of injection wells, in addition to the number of wells and spacing requirements necessary to meet project goals, will be refined during the modeling process based on the need to satisfy regulatory residence time requirements for the injected water.

Based on the results of the pumping test, the model will be revised with updated aquifer properties and predicted well performance. The newly installed test well and monitoring well will provide valuable new data on the physical and hydrogeologic characteristics of the aquifer in the proposed injection wellfield area. These data will be used to refine the model, providing field-verified parameters to calculate groundwater travel times and identify preferred locations for the injection wellfield.

## Task 6 – Identify Active Production Wells

Identifying active production wells that may be impacted by nearby injection operations is a critical step in determining the feasibility of an injection project. This task will include working with LOCSO to locate and determine the type of groundwater usage (i.e., domestic/potable or agricultural/non-potable) of all potentially active wells within the vicinity of Los Olivos. GSI will request groundwater well records from Santa Barbara County Environmental Health Services (EHS), which will include a list of known wells by assessor parcel number<sup>1</sup>. A review of recent aerial imagery, and potentially a site visit to Los Olivos, is recommended to confirm the location wells and assess the completeness of the EHS dataset.

## Task 7 – Permitting Feasibility

The objective of this task is to provide a regulatory pathway towards permitting the proposed injection project. This work will include identifying the required permits, process for obtaining the permits, and the anticipated timeline. GSI will review similar injection projects in the Central Coast area and, in coordination with LOCSO, conduct communications with representatives at the appropriate regulatory agencies. A necessary part of this task will be a robust water quality dataset; therefore, work will need to be completed in coordination with the implementation of the GWMP. Additionally, LOCSO will need to provide anticipated water quality characteristics of the treated wastewater that will be used for injection.

## Task 8 – Technical Memorandum

GSI will prepare a technical memorandum that documents the efforts described in the various tasks outlined above, along with conclusions and recommendations regarding project feasibility. A draft technical memorandum will be submitted to LOCSO for review. GSI will be available for a conference call to discuss draft comments and provide a final draft to LOCSO.

## Task 9 – Project Management

GSI will communicate regularly with the District to discuss project progress and provide status updates. District Board meetings will be attended by GSI staff as necessary to address questions.

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<sup>1</sup> The EHS Well Database may or may not include any new well logs that have not already been evaluated as part of the HCM development, however, the Database may provide more up-to-date information on the status and usage category of wells within the LOCSO.

## Fee Estimate

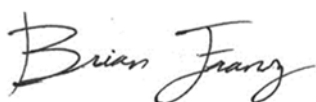
Our team’s proposed fee to complete the tasks on a time-and-materials basis is \$217,075. This fee estimate includes a 10 percent markup on laboratory water quality samples, and a 6% labor contingency. Well contractor costs are not included in this budget. The below table shows the budget breakdown for each task.

GSI understands that the District would like to complete the above tasks no later than February 2022. Following the completion of Task 1, the remaining tasks will be conducted as concurrently as possible in order to meet the project schedule. GSI will act as expeditiously as is reasonable to meet the proposed timeline. The project schedule is subject to change based on contractor availability, regulatory agency response times, laboratory analysis, permitting, and property access restrictions.

Description	Labor Hours	Labor Cost	Outside Services	Direct Expenses	Total
Task 1 – Preliminary Cost Analysis	71	\$12,254	\$0	\$0	\$12,254
Task 2 – Design, Permit, and Install Test and Monitoring Well	256	\$41,510	\$0	\$866	\$42,375
Task 3 – Conduct Pumping Test	117	\$18,137	\$1,320	\$1,069	\$20,525
Task 4 – Perform Geochemical Analysis	62	\$10,833	\$38,500	\$353	\$49,686
Task 5 – Develop Groundwater Model	204	\$41,488	\$0	\$114	\$41,602
Task 6 – Identify Active Production Wells	61	\$9,307	\$0	\$102	\$9,409
Task 7 – Permitting Feasibility	64	\$11,660	\$0	\$0	\$11,660
Task 8 – Technical Memorandum	126	\$21,253	\$0	\$0	\$21,253
Task 9 – Project Management	42	\$8,310	\$0	\$0	\$8,310
<b>Project Totals</b>	<b>1003</b>	<b>\$174,752</b>	<b>\$39,820</b>	<b>\$2,503</b>	<b>\$217,075</b>

We thank you for your consideration of this proposal and look forward to continuing to work with you on this exciting project.

Sincerely,  
GSI Water Solutions, Inc.



Brian Franz, PG  
Consulting Hydrogeologist



Tim Thompson, PG, CHG  
Principal Water Resources Consultant



**DRAFT**

## Technical Memorandum

**To:** Bob Perrault; Los Olivos Community Services District

**From:** Andy Lapostol, Tim Thompson and Brian Franz; GSI Water Solutions, Inc.

**Date:** September 17, 2021

**RE:** Preliminary Injection Program Cost Analysis – Los Olivos Wastewater Reclamation Program Project

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This technical memorandum presents a summary of a preliminary injection program cost analysis performed by GSI Water Solutions, Inc. (GSI), for Los Olivos Community Services District (District) Wastewater Reclamation Program Project (LOWRPP). This document constitutes the deliverable for Task 1 of GSI's Treated Wastewater Injection Feasibility Assessment.

The purpose of Task 1 is to provide the District with a planning-level cost estimate for the permitting, construction, and maintenance of an injection well system, which will allow the District to compare the potential cost of such an injection program with other wastewater disposal alternatives. A description of the methodology used to estimate the cost of an injection program, as well as a cost summary table, are presented below.

### Data Analysis

Groundwater data from various sources were compiled and analyzed to estimate the size, depth, and number of wells necessary to accommodate the anticipated flow rates of treated wastewater from the LOWRPP. GSI collected all data available from wells in the area, and this consisted exclusively of wells completed in the Paso Robles Formation; very little data were available from any of the relatively smaller wells completed in the Shallow Alluvial aquifer. The Paso Robles Formation is the primary water supply aquifer in this groundwater basin and is also the aquifer from which the nearby municipal production wells are designed and constructed to pump groundwater.

The groundwater information as collected from nearby municipal production wells include the following types of data:

- Driller's logs and well construction details
- Well production rates
- Static and pumping water levels
- Historical water levels
- Hydrogeologic reports

Based on our experience developing a Hydrogeologic Conceptual Model and the Groundwater Monitoring Plan for the District, we understand that the Paso Robles Formation is the preferred target aquifer for the injection of



treated wastewater. The cost estimate presented in this memorandum assumes that injection will occur into the Paso Robles Formation aquifer.

Injection into the overlying Shallow Alluvial aquifer was previously considered, but further study would be required to assess costs and feasibility due to the significant lack of hydrogeologic data in that aquifer. Very little data are available for wells completed in the overlying Shallow Alluvial aquifer, as discussed in the Los Olivos Groundwater Monitoring Plan, prepared earlier this year by GSI. Further details concerning data gaps are available in the Groundwater Monitoring Plan.

## Injection Estimate

As described in Stantec's 2021 Los Olivos Wastewater Loading Study, this project will be broken out into three phases. Based upon the information discussed below, GSI has estimated the total number of injection wells needed for both Phase 1 as well as the complete project (which includes Phase 2 and 3). To accomplish this, several fundamental criteria for each phase were needed, including anticipated flow rate of the treated wastewater to be injected, anticipated sustainable injection rate at each well, and expected water level response in the receiving aquifer during injection operations.

Most municipal production wells within the vicinity of Los Olivos are roughly 800 to 1,200 feet deep, with reported pumping rates between 500 and 1,500 gallons per minute (gpm). For wells with available drawdown data, GSI calculated the specific capacity<sup>1</sup> of pumping. Specific capacities calculated for nearby wells generally ranges from 5–10 gallons per minute per foot (gpm/ft).

Based on anecdotal data and other well injection projects conducted by GSI and others, the specific capacity of injection can be estimated as roughly 50–70 percent of the specific capacity of pumping. For example, a well that can pump 100 gpm with 10 feet of drawdown (specific capacity of pumping equal to 10 gpm/ft) could theoretically inject approximately 50–70 gpm with 10 feet of drawup (specific capacity of injection equal to 5–7 gpm/ft), provided there is adequate available headspace<sup>2</sup> to have 10 feet of drawup within the well casing. Drawup is the opposite of drawdown since the water is being injected rather than pumped.

Historical water level data from nearby wells screened in the Paso Robles Formation were assessed to estimate the anticipated static water levels in a typical injection well. As an additional resource, GSI used the groundwater model that was created as part of the Groundwater Sustainability Plan for the Eastern Management Area of the Santa Ynez River Valley Groundwater Basin, which includes Los Olivos. Based on both nearby well data and the groundwater model, the average depth to water (corresponding to available headspace for injection considerations) assumed for a new injection well is approximately 100 feet. It should be noted that this amount of headspace is a planning-level estimate, and some wells within the vicinity of Los Olivos have static water levels deeper or shallower than 100 feet. Though the Paso Robles Formation is considered a single hydrogeologic unit, it is a non-uniform mixture with localized, confining layers of clay and therefore water levels are likely to vary depending on the depth and screened intervals in a given well.

Based on the assumptions presented above, estimated injection rates for a single well range from approximately 150 to 300 gpm.

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<sup>1</sup> Specific capacity (which is an indicator of the transmissivity of an aquifer) is defined as the pumping rate a well can sustainably produce (gallons per minute) per foot of drawdown.

<sup>2</sup> Available headspace, which is the depth to the groundwater surface within the well, is an important factor that will constrain potential injection rates. Greater available headspace allows for better injection rates similar to how greater drawdown (caused by pumping at higher rates) corresponds with better pumping rates.

## Treated Wastewater Effluent

GSI collaborated with Stantec to determine a range of wastewater effluent volumes that could be expected during both Phase 1 (downtown commercial area only) and Phases 2 and 3 (the entirety of the Los Olivos community within the District service area). Injection system design is based upon being capable of accepting treated wastewater volumes equal to the predicted peak wet-weather flow rates.

For Phase 1, the estimated peak wet-weather flow rate reported by Stantec in the Wastewater Loading Study dated February 2, 2021, is approximately 175,000 gallons per day (gpd), which is equivalent to 125 gpm.<sup>3</sup>

Stantec has not yet provided an estimate for the Phase 2 or 3 effluent volumes. However, AECOM prepared a study in 2013 (and an update to the study in 2016) that estimates the average daily flow rates for Phase 3 to range from 107,000 to 143,000 gpd. These average daily flow rates, multiplied by a peak flow factor of 4.5 to estimate peak wet-weather flow rates, range from approximately 480,000 gpd to 640,000 gpd, or roughly 350 to 450 gpm.

## Well Design

GSI prepared a conceptual well design (Figure 1) for the injection wells in order to estimate the costs of construction and materials. The design is similar to that of nearby municipal water supply wells that draw from the Paso Robles Formation. Stainless steel, although more expensive upfront, is recommended for construction purposes due to its durability and longevity compared to cheaper alternatives such as low-carbon steel or PVC.

For each injection well, a nearby monitoring well of similar depth must be installed in order to measure water levels and collect groundwater samples, both of which are essential to the operation and maintenance management associated with an injection program. Monitoring wells are much smaller in diameter and typically constructed using PVC casing.

## Cost Estimate

Table 1 shows a summary of the preliminary cost estimate for an injection program. For Phase 1, it is assumed that two injection wells will be sufficient for the anticipated volume of effluent. Although a single well may be able to accept all the treated effluent, it is important for redundancy and reliability purposes to have at least one extra well that is operational to accommodate injection during regular well maintenance activities and also in case a well goes offline for any reason. For Phases 2 and 3, it is anticipated that four to five wells will be necessary.

Table 1 also shows estimated costs for pilot injection testing, permitting, and well equipping, in addition to annual costs for operations and maintenance.

- Pilot injection testing will occur in a test well after the completion of the injection feasibility study.
- Permitting the injection project with the Regional Water Quality Control Board (RWQCB) includes several steps, such as the preparation of a Report of Waste Discharge and a Title 22 Engineering Report, the latter of which includes extensive reporting on the wastewater treatment facility and which would largely be prepared by the contracted wastewater facility engineering firm.
- Although the wells will be primarily used for injection, it is necessary to equip each injection well with a pump that will be used to regularly backflush the well. Backflushing is essential to removing loose particulates and/or biological growth that commonly form and that reduce well performance.

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<sup>3</sup> The actual recycled water conveyed to the injection wells will be somewhat less than this amount as a result of the losses that occur as part of the treatment processes. Those losses could be on the order of 20–30 percent depending on the final treatment processes deployed in the facility.

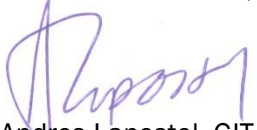
**Table 1. Injection Program Cost Estimate**

Description	Cost Per Well	Phase 1 (2 wells)	Phases 2 and 3 (2–3 Additional Wells)	Project Total
Pilot Testing (Using Test Well)	-	-	-	\$200,000
RWQCB Permitting (Injection Aspects)	-	\$200,000	\$100,000	\$300,000
Drilling and Construction of Injection Well	\$800,000	\$1,600,000	\$1.6M–\$2.4M	\$3.2M–\$4M
Drilling and Construction of Monitoring Well	\$240,000	\$480,000	\$480K–\$720K	\$1M–\$1.2M
Injection Well Equipping	\$150,000	\$300,000	\$300K–\$450K	\$600K–\$750K
<b>Total</b>	<b>\$1,190,000</b>	<b>\$2,580,000</b>	<b>\$2.5M–\$3.7M</b>	<b>\$5.3M–\$6.5M</b>
Operations and Monitoring (Annual Cost)	-	-	-	<b>\$200K–\$350K per year</b>

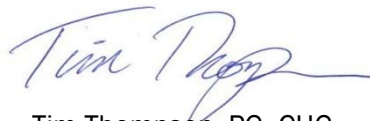
The total cost of an injection program serving the entire District is anticipated to be on the order of \$5,300,000–\$6,500,000, with an annual operations and maintenance cost of \$200,000–\$350,000. As stated previously, these are planning level estimates and there may be opportunities for the District to save on costs as the project progresses. For example, it may be possible for the District to use the test well as a backup well, depending on its size, location, and performance. Furthermore, there may be existing wells in the project area that could be converted to serve as injection wells.

We thank you for your consideration of this memorandum and look forward to continuing to work with you on this exciting project.

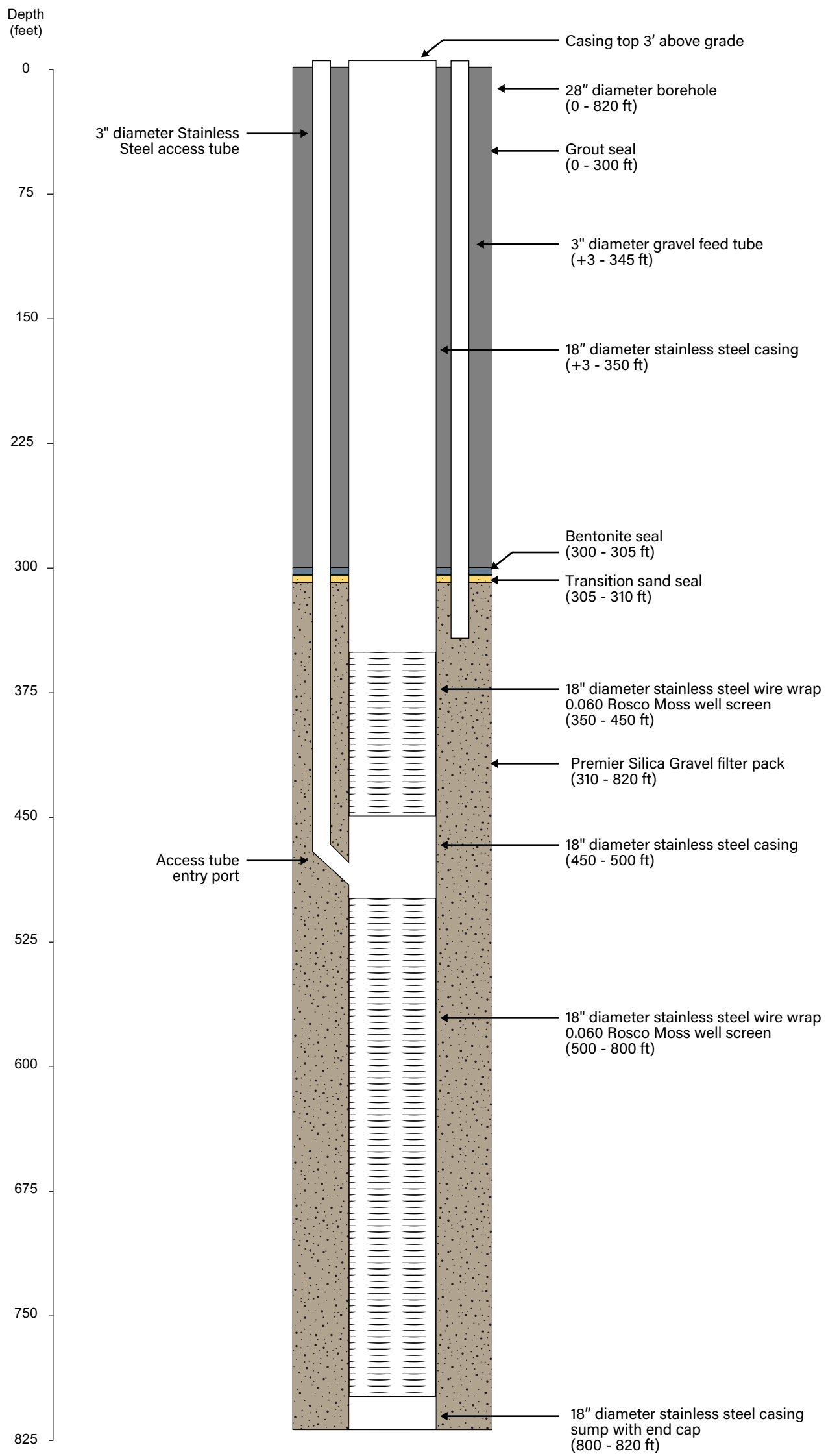
Sincerely,  
GSI Water Solutions, Inc.



Andres Lapostol, GIT  
Project Geologist



Tim Thompson, PG, CHG  
Principal Water Resources Consultant



**NOTE:**  
Horizontal not to scale

**FIGURE 1**  
**Conceptual Injection Well Diagram**  
Los Olivos Community Services District  
Treated Wastewater Injection Feasibility Assessment