



CAMBRIA COMMUNITY SERVICES DISTRICT

MEETING	TIME & DATE	LOCATION
Resources & Infrastructure Committee	2:00 PM Monday, March 11, 2024	Cambria Veterans' Memorial Hall 1000 Main Street, Cambria, CA 93428

AGENDA

Regular Resources & Infrastructure Committee Meeting

Monday, March 11, 2024 2:00 PM

In person at:

**Cambria Veterans' Memorial Hall
1000 Main Street, Cambria, CA 93428**

AND via Zoom at:

Please click the link to join the webinar: [HERE](#)

Webinar ID: 833 8243 8369

Passcode: 090720

Copies of the staff reports or other documentation relating to each item of business referred to on the agenda are on file in the CCSD Administration Office, available for public inspection during District business hours. The agenda and agenda packets are also available on the CCSD website at <https://www.cambriacsd.org/>. In compliance with the Americans with Disabilities Act, if you need special assistance to participate in this meeting or if you need the agenda or other documents in the agenda packet provided in an alternative format, contact the Confidential Administrative Assistant at 805-927-6223 at least 48 hours before the meeting to ensure that reasonable arrangements can be made. The Confidential Administrative Assistant will answer any questions regarding the agenda.

1. OPENING

1.A Call to Order

1.B Establishment of Quorum

1.C Chair Report

1.D Ad Hoc Subcommittee Report(s)

1.E Committee Member Communications

1.F Utilities Department Manager Report

2. PUBLIC COMMENT

Members of the public may now address the Committee on any item of interest within the jurisdiction of the Committee but not on its agenda today. Future agenda items can be suggested at this time. In compliance with the Brown Act, the Committee cannot discuss or act on items not on the agenda. Each speaker has up to three minutes.

- 3. CONSENT AGENDA**
 - 3.A Consideration to Approve the February 12, 2024 Regular Meeting Minutes**
- 4. REGULAR BUSINESS**
 - 4.A Receive and Discuss SWRCB Direct Potable Reuse Regulations**
 - 4.B Receive and Discuss Wastewater SST Project Update**
 - 4.C Discussion and Consideration to Recommend the Board of Directors Approve a Contract with TruePani for a Service Line Material Inventory and Assistance with Lead Service Line Reporting Requirements**
 - 4.D Receive Updated Water Supply Options Report and Discuss and Consider Recommendation to Forward Report to the Board of Directors**
- 5. FUTURE AGENDA ITEM(S)**
- 6. ADJOURN**



CAMBRIA COMMUNITY SERVICES DISTRICT

MINUTES OF FEBRUARY 12, 2024 REGULAR RESOURCES & INFRASTRUCTURE COMMITTEE MEETING OF THE RESOURCES & INFRASTRUCTURE COMMITTEE CAMBRIA COMMUNITY SERVICES DISTRICT

A regular meeting of the Resources & Infrastructure Committee of the Cambria Community Services District was held Cambria Veterans' Memorial Hall 1000 Main Street, Cambria, CA 93428 on Monday, February 12, 2024, at 2:00 PM

1. OPENING

1.A Call to Order

Chairperson Dean called the meeting to order at 2:00 pm

1.B Establishment of Quorum

A quorum was established.

Committee members present: Karen Dean, Juli Amodei, James Webb, Steve Siebuhr, Mark Meeks, and Derrik Williams.

Staff present: General Manager Matthew McElhenie, Utilities Department Manager Jim Green, Program Manager Tristan Reaper, and Water Systems Superintendent Cody Meeks.

Others Present: Community members Chris Siebuhr, Allan Dean, Donn Howell, Dennis Dudzik, and Jeff Hellman.

1.C Chair Report

Chairperson Dean reported that she, General Manager McElhenie, Confidential Administrative Assistant Dodson, committee member Amodie, and committee member Meeks attended a workshop on the Climate Adaptation Planning Grant application guidelines. The District is currently focusing on grants for fire related projects and evacuation routes. Grant applications are due by May 13.

1.D Ad Hoc Subcommittee Report(s)

Committee member Williams reported that the CIP Ad-Hoc committee met twice since the last R&I committee meeting, once on January 3 and once on January 30. The committee reviewed the wastewater CIP on January 3, and part of the water CIP on January 30. The committee plans to have reviewed and commented on the entire CIP by late March.

1.E Committee Member Communications

None

1.F Utilities Department Manager Report

Utilities Department Manager Green reported the following:

- Skate Park. The District has contracted Kevin Merk Associate to develop a biological report for the site.
- East Ranch Restroom. The District have submitted a soil report and the final environmental monitoring plan. Some modifications to the monitoring plan are needed.
- The District completed paving Heath Lane

Water Systems Superintendent Meeks reported on the water meter replacement program. Ten pilot meters have been installed. The District is currently pursuing quotes for meter installation and is calculating the number of lids that have to be replaced. The District will try to install as many meters using in-house staff as possible.

Committee member Webb asked how Van Gorden creek performed during the recent storms, after the District removed debris. Water Systems Superintendent Meeks reports that the debris removal was successful and there was no flooding.

The District has submitted our State-required annual report for wastewater. The District is currently developing its State-required annual report for water. These reports will come to the R&I committee at a future meeting.

2. PUBLIC COMMENT

None

3. CONSENT AGENDA

3.A Consideration to Approve the December 11, 2023, Regular Meeting Minutes

Chair Dean points that the comma between General Manager McElhenie's first and last name should be removed.

Committee Member Meeks moved to accept the notes as modified.

Committee Member Amodei seconded the motion.

The motion was approved: 5-Ayes; 0-Nays; 0-Abstain; 0-Absent.

4. REGULAR BUSINESS

4.A Discussion Regarding Board-Approved Agreement for Consultant Services with MKN & Associates, Inc., for Engineering Design and Bid/Construction Phase Services for the Replacement of the Stuart Street Tanks, Review Proposals, and Site Visit Updates

Utilities Department Manager Green presents the status of the Stuart Street tank work and the recent site visit with the contractor.

The District is in the process of performing some required studies of the CEQA analysis including:

- An arborist has completed a site evaluation.
- Geotechnical studies have been performed.
- The District is reviewing previous archeological reports.

Utilities Department Manager Green notes that due to new seismic code requirements the tanks need to be 3 feet higher than the current tanks. He states that the tanks will be replaced one at a time. The project should be ready for construction in late September or October 2024. Each tank will take roughly 6 weeks to remove and rebuild.

In response to questions from utilities Department Manager Green, the committee members agree that:

- The new chain link fence around the tanks should include privacy slats.
- The new chain link fence around the tanks be topped with two-strand barbed wire.
- Torque Tan is the preferred color to paint the tanks.

4.B Discussion and Consideration of a Recommendation to the CCSD Board of Directors Regarding Approval of an Agreement for Contractor Services for Replacing San Simeon Well 3 Pump

Water Systems Superintendent Meeks states that this item is coming back to the committee because the original contractor could not get bonding. The District received three new quotes.

Committee Member Meeks moved to forward a recommendation to the Board of Directors for contracting with Precision Hydro to replace the San Simeon well #3 pump.

Committee Member Siebuhr seconded the motion.

The motion was approved: 5-Ayes; 0-Nays; 0-Abstain; 0-Absent.

4.C Discussion and Consideration of the Alignment Alternatives for the San Simeon Well Field Transmission Line and Secondary Effluent Line Replacement Project

Utilities Department Manager Green presented the potential benefits and drawbacks of each alternative alignment included in the Preliminary Design Report.

Committee member Meeks states that he received an email from Mr. Warren suggesting a different alignment. Mr. Meeks forwarded the email to District staff.

Public comment:

Mr. Pierson asks about how this project is funded. Mr. Green says that finances have not been discussed yet.

Committee Member Williams moved to forward a recommendation to the Board of Directors for proceeding with Alternative 3 – HDD as the preferred alternative.

Committee Member Siebuhr seconded the motion.

The motion was approved: 4-Ayes; 0-Nays; 1-Abstain (Meeks); 0-Absent.

4.D Discussion Regarding Supplemental Water Supply Options Memorandum

Committee member Webb presented the *Working with Upstream Riparian Water Users* section of the memorandum.

- Mr. Dudzik asks if the Ad-Hoc committee looked at projects that have stormwater/flood protection as a primary goal, with water storage as a secondary goal. He notes that

permitting might be easier if the primary goal is flood control. Mr. Webb acknowledges this was not looked at for this report.

- Mr. Howell asks if the riparian users would need to alter their diversion permits.
- Mr. Pierson asks if anybody has looked at Direct Potable Reuse (DPR), now that the State has approved the DPR regulations. Chairperson Dean states that this will be a future item at the R&I committee.

Committee member Meeks presents the atmospheric water generation section. Chairperson Dean provides additional information on her independent review of SourceGlobal's units. The cost would likely be too much for the limited amount of water they produce.

- Mr. Dudzik suggests that the cost could be more reasonable if the units are programmed to produce when energy costs are low.
- Mr. Dudzik suggests that if the water meter moratorium is lifted, the new water meters could provide revenue which could pay for one of these systems.
- Committee member Meeks will look further into panel size and cost.

Committee member Williams presents the geophysical aquifer mapping section. The committee members request that Committee member Williams develop high level costs for geophysical aquifer mapping.

Mr. Howell states that water developed from the WRF does not count towards allowing the District to pump more water than it's permit. He requests clarification on whether DPR counts against our permit.

5. FUTURE AGENDA ITEM(S)

Chairperson Dean asked for any future agenda items.

- Mr. Green proposed the March meeting prioritize wastewater project discussions. The District will have 90% drawings for the SST project by that time.
- We will have a presentation on the progress of the ZLD project if adequate progress has been made by March.
- Utility Manager Green and committee member Webb will report out on the option of combining flood control/stormwater capture projects with increased recharge options.

6. ADJOURN

Chairperson Dean adjourned the meeting at 3:59 p.m.

CAMBRIA COMMUNITY SERVICES DISTRICT

TO: Resources and Infrastructure Committee

AGENDA NO. 4.A.

FROM: Jim Green, Utilities Department Manager

Meeting Date: March 11, 2024

Subject: Receive and Discuss SWRCB Direct
Potable Reuse Regulations

FISCAL IMPACT:

There is no fiscal impact associated with this item.

DISCUSSION:

This report intends to update the committee on the Direct Potable Reuse Regulations.

On December 19, 2023, the State Water Resources Control Board approved regulations allowing water systems to develop treatment protocols to convert wastewater into high-quality drinking water.

Water Code Section 13561.2

The board's unanimous vote gives California the most advanced standards in the nation for treating wastewater to such an extent that the finished product meets or exceeds current drinking water standards. Known as direct potable reuse, the process will enable water systems throughout the state to generate a climate-resilient water source while reducing the amount of wastewater discharged to rivers and the ocean. In fact, recycling water allows water systems to add millions of gallons of additional drinking water to their supplies.

This provides a framework for reuse as a viable alternative for addressing water scarcity and uncertainty here in the State, and throughout the world. The regulation will eventually allow even greater flexibility in the water supply decision-making process.

DPR can be implemented in a wide range of configurations, including "flange-to-flange," blending advanced treated wastewater effluent (hereafter *purified water*) immediately upstream of a drinking water treatment plant (i.e., raw water augmentation), or blending purified water with finished drinking water (i.e., finished water augmentation) (SWRCB, [2018](#)).

The final version of the regulations came together over many years and after an expert panel of 12 scientists and engineers evaluated work by the board's Division of Drinking Water and determined the standards are protective of public health. Proposed regulations were released to the public in July; board staff gathered public comment and adjusted regulations based on that input. These revisions include added flexibility for alternative treatment techniques and clarifications about the collaboration among partner agencies on reuse projects.

Direct potable reuse relies entirely on immediate, multi-barrier treatment that can recycle wastewater to drinking water standards in a matter of hours. This contrasts with the method currently being deployed in major projects launched throughout the state called indirect potable reuse, which further improves treated wastewater over time through groundwater recharge or dilution with surface water. While no formal direct potable reuse projects could be initiated in California until the regulations were adopted, water agencies in Santa Clara, San Diego and the city of Los Angeles have launched pilot projects in recent years. The newly adopted regulations comply with California's Safe Drinking Water Act, which ensures that the

water delivered by public water systems in California shall at all times be pure, wholesome, and safe to drink.

To ensure California has the water needed for generations to come, the strategy developed by the State includes:

- **Create Storage Space for up to 4 Million Acre Feet.** Allowing us to capitalize on big storms when they do occur and store for dry periods.
- **Recycle and Reuse at least 8000,000 acre-feet of water per year by 2030,** enabling better and safer use of wastewater currently discharged to the ocean.
- **Free up 500,000 acre-feet of water** through more efficient water use and conservation, helping make up water lost to climate change.
- Make new water available for use by **capturing stormwater and desalinating ocean water and salty water in groundwater basins,** diversifying supplies and making the most of high flows during storm events.

Annual rainfall in California always has swung between drought and flood. Those swings are becoming more severe. Regardless of drought or flood, in this changed climate there will be less water available for people to use than there would have been in a cooler climate because of the way plants, soils, and the atmosphere use water as temperatures rise. The volume of water used by people in California for agriculture, urban, and environmental purposes ranges from 60 million acre-feet per year to 90 million acre-feet per year. A loss of 10 percent of that volume to hotter, drier conditions could mean the disappearance of about six million acre-feet to nine million acre-feet of water supply. For comparison's sake, California's largest reservoir – Shasta – holds 4.5 million acre-feet. Water underpins much of what we care about as Californians. To thrive and grow as a state, we will have to make up for a loss of supply. We must innovate, conserve, store, reuse, and repurpose water.

The State outlines four sets of actions that will be pursued to prepare California for its new climate reality. These targeted actions aim to secure supplies for people, so that homes, schools, and businesses do not suffer disruptions, and the state's agricultural economy continues to thrive. In concert with these actions, the State is working to protect fish and wildlife populations by removing stream barriers, restoring aquatic habitat, bolstering stream flows at ecologically important times, and expanding floodplains and wetlands. The State also continues to make progress extending clean, safe drinking water to all Californians; in the last three years, the number of people impacted by failing water systems has fallen from 1.6 million to 934,000, and the state has delivered emergency drinking water assistance to 9,456 households and 150 water systems in this drought. The actions in this strategy aim primarily to support the urban and suburban water systems that serve most Californians and to stabilize water supplies for agriculture. But benefits from these actions will extend to environmental protection and fulfillment of the right of every Californian to safe drinking water, and the State continues to advance those efforts apart from this strategy.

Executing this strategy will require coordination with local, tribal, and federal partners to: Develop new water through recycling and desalination. Capturing and saving more stormwater, above ground and below. Reduce water use in cities and in agriculture. Improve all water management actions with better data, forecasting, conveyance, and administration of water rights.

Links:

Title 22 DPR Updated Regulations

<https://www.cambriacsd.org/2024-03-11-resources-infrastructure-committee-meeting>

Public Notices SWRCB 2023

https://www.waterboards.ca.gov/public_notices/comments/docs/2023/notice_sbddw-23-001_dpr_101923.pdf

Direct Potable Water Reuse Regulations SWRCB 2023:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/direct_potable_reuse.html

California Water Supply Strategy Administration 2022:

<https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Water-Resilience/CA-Water-Supply-Strategy.pdf>

National Water Research Institute 2022:

https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/docs/2022/nwri-ep-finalmemoprelimfind.pdf

TO: Resources and Infrastructure Committee

FROM: James Green, Utilities Department Manager
Toni Artho, Wastewater Systems Superintendent

AGENDA NO. **4.B.**

Meeting Date: March 11, 2024

Subject: Receive and Discuss Wastewater
SST Project Update

DISCUSSION:

Recent meetings with Southland Engineering and MKN have proven productive. Each component was thoroughly reviewed. A timeline for each installation module was reviewed for appropriate seasonality and modified to account for weather that would delay the completion of a component or components. This schedule is based on equipment lead times and incorporates the installation schedule's delivery dates. Other topics covered at the meeting were the coordination of a staging area for equipment and work on the excavation safety plan, emergency evacuation plan, and storage and receiving location for materials.

According to the draft schedule adopted in August of 2023, we are behind schedule by two weeks. This is mainly due to modifying many individual components during the design phase. District staff wanted to ensure that alternative processing methods could be utilized in emergency storm events and conditions within the capacity of the upgraded equipment.

Energy Conservation Modules

ECM-1 Influent Flow Equalization

- The South digester tank has been put back into service for stormwater issues.
- Require two weeks notification to take out of service and clean for future investigation of subsurface testing.
- Some supports and spot repairs to the tank must be performed before exterior coating.
- Established a bypass route for flow during installation.
- A review with district consultants confirmed the equalization basin size is adequate regarding influent flow. This will allow flow into the aeration basin to be consistent, and much more beneficial for processing. The consultants have confirmed the equalization basin is adequate regarding influent flow.

ECM-2 Influent Lift Station Modifications

- Requested baffle be removed from ECM and remaining budget be applied to Lift Station B4.

ECM-3 Modified Ludzak-Ettinger Process Upgrade

- Solidify one-train operation procedures for design configuration.
- Baffle, fine-bubble diffusers, and MLE blower submitted and approved. Awaiting submission of recirculation, RAS, and WAS pumps.
- Submit DO and ORP probes.
- Received and reviewed MLE-blower process control description.
- Received and reviewed recirculation pump control description.

ECM 4 – Blower System Improvements

- Blower has been resubmitted based on appropriate coatings for coastal conditions.
- Reviewed process instrumentation (including air flow meters and dissolved oxygen probes).

- SSTP project can afford only one blower sized for aeration basin. Develop a procedure to run back-up blowers upon primary blower failure.

ECM-5 RAS and WAS Pumping Improvements

- Perform assessment of visible surfaces within the scum pit and RAS wet well. All surfaces were found to be adequate and will be reused.
- Develop a description of RAS pumps, WAS control valves, flow meters, process instrumentation, piping, valves, scum troughs, and scum pumps. This has been completed. All four pumps will be replaced.
- Develop procedure for single-train operation.

ECM-7 & ECM-8 Electrical Upgrades and Backup Power

- APCD has approved new plant generator.
- Meter section has been approved by PG&E.
- Lead time for new generators – 12 to 18 months
- Developing procedure for installing new distribution while providing alternate power sources for running plant.

CAMBRIA COMMUNITY SERVICES DISTRICT

TO: Resources and Infrastructure Committee

AGENDA NO. 4.C.

FROM: Jim Green, Utilities Department Manager

Meeting Date: March 11, 2024

Subject: Discussion and Consideration to
Recommend the Board of Directors
Approve a Contract with TruePani for a
Service Line Material Inventory and
Assistance with Lead Service Line
Reporting Requirements

FISCAL IMPACT:

The contract is for an amount not to exceed \$44,500.00 and will be spread over the fiscal years 2023-2024 and 2024-2025. \$20,000 is budgeted in FY 23/24 to cover the costs of this project. The remaining funds will be requested through the 24/25 CIP process.

DISCUSSION:

This report intends to present a contract for consultant services with TruePani, Inc. for a water service line material inventory and assistance with the Lead Service Line (LSL) reporting requirements.

Background:

On December 16, 2021, EPA announced the next steps to strengthen the regulatory framework on lead in drinking water. Following the agency's review of the Lead and Copper Rule Revisions (LCRR) under Executive Order 13990, all community water systems (CWSs), regardless of size, must develop and maintain an inventory of service lines that the public can access (40CFR 141.84(a)). The inventory must describe both the customer and utility-owned segments of the service line. A utility must submit the initial inventory to its primacy agency by October 16, 2024.

In the initial inventory, a utility must identify the materials of each service line in its service territory as 1) Lead, 2) Non-Lead, or 3) Galvanized Requiring Replacement (GRR). The LCRR requires water systems to provide households an initial notification of lead, GRR, or Lead Service Unknown (LSU) service lines within 30 days of completion of the service line inventory and annually after that. These notices should include educational materials detailing the health effects of lead and actions to reduce risk of exposure.

The proposal from TruePani, Inc. is for meeting the reporting requirements under the LCRR by providing project management and an inventory framework, develop a Service Line Material Inventory (SLM Inventory) from records review and identifications of the materials in those service lines where the material is unknown, and provide the CCSD with a template letter for notifying those customers who have lead, GRR, or unknown materials in their service lines.

Staff recommends the Resources and Infrastructure Committee approve and forward the agreement for consultant services with TruePani, Inc. to the Board of Directors.

Attachment: Agreement for Consultant Services

**AGREEMENT FOR CONSULTANT SERVICES
Service Line Materials Inventory & Reporting
TruePani Inc.**

This AGREEMENT FOR CONSULTANT SERVICES (“Agreement”) is made and effective as of March ____ between **TruePani Inc.** (“Consultant”), and the **CAMBRIA COMMUNITY SERVICES DISTRICT**, a political subdivision of the State of California (“District”). In consideration of the mutual covenants and conditions set forth herein, the parties agree as follows:

1. **TERM**

This Agreement shall commence on March ____ and shall remain and continue in effect until completion of the work described in Consultant’s Proposal, defined below, unless sooner terminated pursuant to the provisions of this Agreement.

2. **SERVICES**

Consultant shall perform the tasks described and comply with all terms and provisions set forth in Consultant’s proposal dated February 16, 2024 (the “Proposal”), attached hereto as Exhibit “A,” and incorporated herein by this reference.

3. **PERFORMANCE**

Consultant shall at all times faithfully, competently and to the best of his/her ability, experience and talent, perform all tasks described herein. Consultant shall employ, at a minimum generally accepted standards and practices utilized by persons engaged in providing similar services as are required of Consultant hereunder in meeting its obligations under this Agreement.

4. **AGREEMENT ADMINISTRATION**

District’s General Manager shall represent District in all matters pertaining to the administration of this Agreement. Sam Becker shall represent Consultant in all matters pertaining to the administration of this Agreement.

5. **PAYMENT**

The District agrees to pay the Consultant in accordance with the payment rates and terms set forth in Exhibit A, in monthly progress payments based on time spent on each task.

6. **SUSPENSION OR TERMINATION OF AGREEMENT WITHOUT CAUSE**

(a) The District may at any time, for any reason, with or without cause, suspend or terminate this Agreement, or any portion hereof, by serving upon the Consultant at least

ten (10) days prior written notice. Upon receipt of said notice, the Consultant shall immediately cease all work under this Agreement, unless the notice provides otherwise. If the District suspends or terminates a portion of this Agreement such suspension or termination shall not make void or invalidate the remainder of this Agreement.

(b) In the event this Agreement is terminated pursuant to this Section, the District shall pay to Consultant the actual value of the work performed up to the time of termination, provided that the work performed is of value to the District. Upon termination of the Agreement pursuant to this Section, the Consultant will submit an invoice to the District pursuant to Section 5.

7. **TERMINATION ON OCCURRENCE OF STATED EVENTS**

This Agreement shall terminate automatically on the occurrence of any of the following events:

- (a) The completion of the work specified in Exhibit A.
- (b) Bankruptcy or insolvency of any party
- (c) Sale of Consultant's business
- (d) Assignment of this Agreement by Consultant without the consent of District.

8. **DEFAULT OF CONSULTANT**

(a) The Consultant's failure to comply with the provisions of this Agreement shall constitute a default. In the event that Consultant is in default for cause under the terms of this Agreement, District shall have no obligation or duty to continue compensating Consultant for any work performed after the date of default and can terminate this Agreement immediately by written notice to the Consultant. If such failure by the Consultant to make progress in the performance of work hereunder arises out of causes beyond the Consultant's control, and without fault or negligence of the Consultant, it shall not be considered a default.

(b) If the District Manager or his/her designee determines that the Consultant is in default in the performance of any of the terms or conditions of this Agreement, he/she shall cause to be served upon the Consultant a written notice of the default. The Consultant shall have ten (10) days after service upon it of said notice in which to cure the default by rendering a satisfactory performance. In the event that the Consultant fails to cure its default within such period of time, the District shall have the right, notwithstanding any other provision of this Agreement to terminate this Agreement without further notice and without prejudice to any other remedy to which it may be entitled at law, in equity or under this Agreement.

9. **LAWS TO BE OBSERVED.** Consultant shall:

(a) Procure all permits and licenses, pay all charges and fees, and give all notices which may be necessary and incidental to the due and lawful prosecution of the services to be performed by Consultant under this Agreement;

(b) Keep itself fully informed of all existing and proposed federal, state and local laws, ordinances, regulations, orders, and decrees which may affect those engaged or employed under this Agreement, any materials used in Consultant's performance under this Agreement, or the conduct of the services under this Agreement;

(c) At all times observe and comply with, and cause all of its employees to observe and comply with all of said laws, ordinances, regulations, orders, and decrees mentioned above;

(d) Immediately report to the District's General Manager in writing any discrepancy or inconsistency it discovers in said laws, ordinances, regulations, orders, and decrees mentioned above in relation to any plans, drawings, specifications, or provisions of this Agreement; and

(e) The District, and its officers, agents and employees, shall not be liable at law or in equity occasioned by failure of the Consultant to comply with this Section.

10. **OWNERSHIP OF DOCUMENTS**

(a) Consultant shall maintain complete and accurate records with respect to sales, costs, expenses, receipts, and other such information required by District that relate to the performance of services under this Agreement. Consultant shall maintain adequate records of services provided in sufficient detail to permit an evaluation of services. All such records shall be maintained in accordance with generally accepted accounting principles and shall be clearly identified and readily accessible. Consultant shall provide free access to the representatives of District or its designees at reasonable times to such books and records; shall give District the right to examine and audit said books and records; shall permit District to make transcripts therefrom as necessary; and shall allow inspection of all work, data, documents, proceedings, and activities related to this Agreement. Such records, together with supporting documents, shall be maintained for a period of three (3) years after receipt of final payment.

(b) Upon completion of, or in the event of termination or suspension of this Agreement, all original documents, designs, drawings, maps, models, computer files, surveys, notes, and other documents prepared in the course of providing the services to be performed pursuant to this Agreement shall become the sole property of the District and may be used, reused, or otherwise disposed of by the District without the permission of the Consultant.

With respect to computer files, Consultant shall make available to the District, at the Consultant's office and upon reasonable written request by the District, the necessary computer software and hardware for purposes of accessing, compiling, transferring, and printing computer files.

11. INDEMNIFICATION

(a) Indemnification for Professional Liability. When the law establishes a professional standard of care for Consultant's Services, to the fullest extent permitted by law, Consultant shall indemnify, protect, defend and hold harmless District and any and all of its officials, employees and agents ("Indemnified Parties") from and against any and all losses, liabilities, damages, costs and expenses, including attorney's fees and costs to the extent same are caused in whole or in part by any negligent or wrongful act, error or omission of Consultant, its officers, agents, employees or subcontractors (or any entity or individual that Consultant shall bear the legal liability thereof) in the performance of professional services under this agreement.

(b) Indemnification for Other Than Professional Liability. Other than in the performance of professional services and to the full extent permitted by law, Consultant shall indemnify, defend and hold harmless District, and any and all of its employees, officials and agents from and against any liability (including liability for claims, suits, actions, arbitration proceedings, administrative proceedings, regulatory proceedings, losses, expenses or costs of any kind, whether actual, alleged or threatened, including attorneys fees and costs, court costs, interest, defense costs, and expert witness fees), where the same arise out of, are a consequence of, or are in any way attributable to, in whole or in part, the performance of this Agreement by Consultant or by any individual or entity for which Consultant is legally liable, including but not limited to officers, agents, employees or subcontractors of Consultant.

(c) General Indemnification Provisions. Consultant agrees to obtain executed indemnity agreements with provisions identical to those set forth here in this section from each and every subcontractor or any other person or entity involved by, for, with or on behalf of Consultant in the performance of this agreement. In the event Consultant fails to obtain such indemnity obligations from others as required here, Consultant agrees to be fully responsible according to the terms of this section. Failure of District to monitor compliance with these requirements imposes no additional obligations on District and will in no way act as a waiver of any rights hereunder. This obligation to indemnify and defend District as set forth here is binding on the successors, assigns or heirs of Consultant and shall survive the termination of this agreement or this section.

(d) Indemnification for Design Professional Services. Notwithstanding anything herein to the contrary, to the fullest extent permitted by law for all design professional services arising under this Agreement, Consultant shall indemnify, protect, defend and hold harmless District and any and all of its officials, employees and agents ("Indemnified Parties") from and against any and all losses, liabilities, damages, costs and expenses,

including attorney's fees and costs which arise out of, pertain to, or relate to the negligence, recklessness, or willful misconduct of the Consultant.

12. **INSURANCE**

Consultant shall maintain prior to the beginning of and for the duration of this Agreement insurance coverage as specified in Exhibit "B," attached hereto and incorporated herein as though set forth in full.

13. **INDEPENDENT CONSULTANT**

(a) Consultant is and shall at all times remain as to the District a wholly independent Consultant. The personnel performing the services under this Agreement on behalf of Consultant shall at all times be under Consultant's exclusive direction and control. Neither District nor any of its officers, employees, or agents shall have control over the conduct of Consultant or any of Consultant's officers, employees, or agents, except as set forth in this Agreement. Consultant shall not at any time or in any manner represent that it or any of its officers, employees, or agents are in any manner officers, employees, or agents of the District. Consultant shall not incur or have the power to incur any debt, obligation, or liability whatever against District, or bind District in any manner.

(b) No employee benefits shall be available to Consultant in connection with performance of this Agreement. Except for the fees paid to Consultant as provided in the Agreement, District shall not pay salaries, wages, or other compensation to Consultant for performing services hereunder for District. District shall not be liable for compensation or indemnification to Consultant for injury or sickness arising out of performing services hereunder.

14. **UNDUE INFLUENCE**

Consultant declares and warrants that no undue influence or pressure was or is used against or in concert with any officer or employee of the Cambria Community Services District in connection with the award, terms or implementation of this Agreement, including any method of coercion, confidential financial arrangement, or financial inducement. No officer or employee of the Cambria Community Services District will receive compensation, directly or indirectly, from Consultant, or from any officer, employee or agent of Consultant, in connection with the award of this Agreement or any work to be conducted as a result of this Agreement. Violation of this Section shall be a material breach of this Agreement entitling the District to any and all remedies at law or in equity.

15. **NO BENEFIT TO ARISE TO LOCAL EMPLOYEES**

No member, officer, or employee of District, or their designees or agents, and no public official who exercises authority over or responsibilities with respect to the project

during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any agreement or sub-agreement, or the proceeds thereof, for work to be performed in connection with the project performed under this Agreement.

16. **RELEASE OF INFORMATION/CONFLICTS OF INTEREST**

(a) All information gained by Consultant in performance of this Agreement shall be considered confidential and shall not be released by Consultant without District's prior written authorization. Consultant, its officers, employees, agents, or subcontractors, shall not without written authorization from the District Manager or unless requested by the District Counsel, voluntarily provide declarations, letters of support, testimony at depositions, response to interrogatories, or other information concerning the work performed under this Agreement or relating to any project or property located within the District. Response to a subpoena or court order shall not be considered "voluntary" provided Consultant gives District notice of such court order or subpoena.

(b) Consultant shall promptly notify District should Consultant, its officers, employees, agents, or subcontractors be served with any summons, complaint, subpoena, notice of deposition, request for documents, interrogatories, request for admissions, or other discovery request, court order, or subpoena from any person or party regarding this Agreement and the work performed thereunder or with respect to any project or property located within the District. District retains the right, but has no obligation, to represent Consultant and/or be present at any deposition, hearing, or similar proceeding. Consultant agrees to cooperate fully with District and to provide the opportunity to review any response to discovery requests provided by Consultant. However, District's right to review any such response does not imply or mean the right by District to control, direct, or rewrite said response.

17. **NOTICES**

Any notice which either party may desire to give to the other party under this Agreement must be in writing and may be given either by (i) personal service, (ii) delivery by a reputable document delivery service, such as but not limited to, Federal Express, which provides a receipt showing date and time of delivery, or (iii) mailing in the United States Mail, certified mail, postage prepaid, return receipt requested, addressed to the address of the party as set forth below or at any other address as that party may later designate by notice:

To District: General Manager
 Cambria Community Services District
 PO Box 65
 Cambria, CA 93428

Copy to: Timothy J. Carmel
Carmel & Naccasha, LLP
694 Santa Rosa Street
San Luis Obispo, CA 93401

To Consultant: TruePani Inc.
9041 Executive Park Drive, #125
Knoxville, TN 37892

18. **ASSIGNMENT**

The Consultant shall not assign the performance of this Agreement, nor any part thereof, without the prior written consent of the District.

19. **GOVERNING LAW**

The District and Consultant understand and agree that the laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Agreement and also govern the interpretation of this Agreement. Any litigation concerning this Agreement shall take place in the superior or federal district court with jurisdiction over the Cambria Community Services District.

20. **ENTIRE AGREEMENT**

This Agreement contains the entire understanding between the parties relating to the obligations of the parties described in this Agreement. All prior or contemporaneous agreements, understandings, representations, and statements, or written, are merged into this Agreement and shall be of no further force or effect. Each party is entering into this Agreement based solely upon the representations set forth herein and upon each party's own independent investigation of any and all facts such party deems material.

21. **TIME**

District and Consultant agree that time is of the essence in this Agreement.

22. **CONTENTS OF PROPOSAL**

Consultant is bound by the contents of the Proposal submitted by the Consultant, Exhibit A, attached hereto and previously incorporated herein. In the event of a conflict between Consultant's Proposal and this Agreement, the terms of the Agreement shall prevail.

23. **CONSTRUCTION**

The parties agree that each has had an opportunity to have their counsel review this Agreement and that any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in the interpretation of this Agreement or any amendments or exhibits thereto. The captions of the sections are for convenience and reference only and are not intended to be construed to define or limit the provisions to which they relate.

24. **AMENDMENTS**

Amendments to this Agreement shall be in writing and shall be made only with the mutual written consent of all the parties to this Agreement.

25. **AUTHORITY TO EXECUTE THIS AGREEMENT**

The person or persons executing this Agreement on behalf of Consultant warrants and represents that he/she has the authority to execute this Agreement on behalf of the Consultant and has the authority to bind Consultant to the performance of its obligations hereunder.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed the day and year first above written.

CAMBRIA COMMUNITY SERVICES DISTRICT

TruePani Inc.

By: _____
Matthew McElhenie
District General Manager

By: _____
Its: _____

ATTEST:

Haley Dodson, Confidential
Administrative Assistant

Approved As To Form:

Timothy J. Carmel, District Counsel

EXHIBIT A
CONSULTANT'S PROPOSAL



TRUEPANI

LCRR Lead Service Line Inventory

PREPARED FOR
City of Cambria, CA

DATE
February 16, 2024

FIRM
TruePani Inc.
www.truepani.com

ADDRESS
9041 Executive Park Dr #125
Knoxville, TN 37923

CONTACT
Sam Becker
Mobile: (404) 862-2652
sam@truepani.com





Cover Letter

February 16, 2024

Jim Green
Utilities Department Manager
Cambria Community Services District
PO Box 65
Cambria, CA 93428

Dear Mr. Green,

On behalf of TruePani Inc., I am pleased to submit this proposal for providing Cambria Community Services District with services to prepare supporting documentation, review information, and complete the service line materials inventory as part of compliance with the Revised Lead and Copper Rule.

TruePani, an engineering, consulting, data management, and communications firm has eight years of experience designing and executing lead in drinking water programs and will leverage experience from our past and ongoing LCRR projects for Cambria CSD. As a small firm, we provide both trained staff and hands-on support to get the work done, and access to customizable and intuitive data management tools.

Names of person authorized to make representations include:

Sam Becker, Co-Founder and CTO
9041 Executive Park Dr #125 Knoxville, TN 37902
(404) 862-2652, sam@truepani.com

Shannon Evanchec, Co-Founder and CEO
9041 Executive Park Dr #125 Knoxville, TN 37902
(724) 584-7192, shannon@truepani.com

Our core values revolve around client satisfaction, delivering the highest quality work, ensuring transparency, and adhering to prompt delivery schedules. Please feel free to contact us with any queries or for further information. We genuinely appreciate your consideration and look forward to the opportunity of becoming Cambria CSD's preferred partner for this scope of work.

Best Regards,

Sam Becker, CTO
(404) 862-2652
sam@truepani.com



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Company Introduction

TRUEPANI Inc. (“TruePani”), established in 2016, is an engineering, consulting, data management and communications firm **specialized in lead in drinking water**. TruePani has worked with utilities, water systems, state and local governments, and private sector clients in 18 states. TruePani has a nationwide network of experts with robust Lead and Copper Rule Revision (LCRR) experience to support the City of Cambria in developing its lead service line inventory.

TruePani is currently providing statewide LCRR technical assistance and inventory development services to over **800+ water systems achieving LCRR compliance** in California, Arizona, South Carolina, North Carolina, Tennessee, Virginia, Texas, Minnesota, West Virginia, Pennsylvania, and Vermont, making material classifications for **hundreds of thousands of service lines**. Lessons learned from TruePani’s extensive lead in drinking water experience will benefit the City of Cambria.

TruePani’s areas of expertise include:

- Lead and Copper Rule Revisions Compliance
- Water Utilities Services
- State Regulatory Compliance
- Data Management
- Drinking Water Sampling
- Sample Kit and Pitcher Filter Direct-to-Customer Fulfillment
- Project Management
- Communications and Marketing

TruePani is 100% female owned and is **Disadvantaged Business Enterprise (DBE) certified** (NAICS code 541620 Environmental Consulting Services / NIGP 91843) in Georgia by the Georgia Department of Transportation (GDOT). TruePani is an active member of many industry organizations (including the AWWA Lead in Drinking Water, Lead in Schools and Childcare Programs, and Distribution System Subcommittees) and has been invited to present on LCRR and inventory development nationwide, including the EPA National Stakeholder Roundtable for the LCRR.



TRUEPANI

7

Years of Experience

\$15
Million

Current Lead
in Drinking
Water
Portfolio

750+

Service Line
Inventories

\$2

Million

Funding
Assistance

105,000+

Lead Samples from School
and Child Care Programs

1–95,000

Service Connections Range



Past Projects

TruePani has eight years of practical experience and successful project outcomes related to lead in drinking water programs, including developing service line inventories. Five project references are listed below to substantiate TruePani's experience.

Project Name: City of Martinez, CA, Lead Service Line Inventory

Description: The City of Martinez, California selected TruePani through a competitive bid process to develop their lead service line inventory that is required under the EPA's Lead and Copper Rule Revisions. TruePani is responsible for completing the lead service line inventory for Martinez's 10,000+ connections, developing a compliance and replacement plan, and designing the school and childcare sampling program.

Project Status: Initial inventory complete for October 2024 deadline.

Client Name: City of Martinez

Contact Name: Ali Hatefi

Phone Number: (925) 372-3519

Email Address: ahatefi@cityofmartinez.org

Project Name: City of Crossville, TN, Lead Service Line Inventory

Description: The City of Crossville selected TruePani through a competitive RFP process to develop their service line material inventory that is required under the EPA's Lead and Copper Rule Revisions. TruePani is responsible for completing the service line inventory for Crossville's 14,000+ connections, developing a compliance and replacement plan, and designing the school and childcare sampling program.

Project Status: Initial inventory complete for October 2024 deadline.

Client Name: City of Crossville

Contact Name: Joe Kerley

Phone Number: (931) 267-1447

Email Address: joe.kerley@crossvilletn.gov

Project Name: SCDHEC Lead Service Line Inventories

Description: South Carolina Department of Health and Environmental Control (DHEC) selected TruePani as the sole contractor to provide technical assistance for LCRR compliance to over 200 small utilities across the State serving 10,000 customers and fewer. Services provided include the development of service line inventories, coordinating on-site visits to water systems for review of available records, methods to identify unknowns, required replacement plans, and any other compliance need to meet the October 2024 deadline.

Project Status: In Progress, Inventories complete for ~15% of participating systems

Client Name: South Carolina Department of Health and Environmental Control

Contact Name: Rich Welch

Phone Number: (803) 898-3546

Email Address: welchra@dhec.sc.gov

Project Name: Brownsville Public Utilities Board Lead Service Line Inventory

Description: Brownsville Public Utilities Board selected TruePani through a competitive RFP process as the sole contractor to complete their lead service line material inventory, conduct all required customer notifications under the LCRR, and prepare their lead service line replacement plan. TruePani will review the system's historical records and organize them into an online database that will ultimately be used to deliver the final lead service line inventory to the primacy agency.

Project Status: Initial inventory complete for October 2024 deadline.

Client Name: Brownsville Public Utilities Board

Contact Name: Jose Lechuga



Phone Number: (956) 983-6332

Email Address: jlechuga@brownsville-pub.com

Project Name: Saint Paul Regional Water Services Pitcher Filter / Sample Kit Lead Service Line Replacement Program

Description: The City of Saint Paul, Minnesota selected TruePani to supply and distribute pitcher filters and post-construction water sample kits to customers as part of the “Lead-Free St. Paul” lead service line replacement project. The “Lead-Free St. Paul” program is projected to be a 10-year program with the mission of replacing approximately 26,000 existing lead water service lines within the SPRWS distribution system. Services provided include pitcher filter and sample kit distribution, customer communication to encourage sample collection, and data management through a TruePani-designed program dashboard.

Project Status: Underway – Pitcher filters and sample kits have been delivered to 500+ customers that have received lead service line replacements.

Client Name: Saint Paul Regional Water Services

Contact Name: Matt Dalrymple

Phone Number: (651) 266-6887

Email Address: matthew.dalrymple@ci.stpaul.mn.us



Lead Service Line Inventory Approach

In December 2021, the Environmental Protection Agency (EPA) promulgated the Lead and Copper Rule Revisions (LCRR), the largest and most significant changes to the Rule since its 1991 establishment.

The LCRR requires water systems to identify service line materials of service line connections, both public and private, within the drinking water distribution network. The initial Service Line Material Inventory (SLM Inventory) is due to the state primacy agency by October 16, 2024 and requires a review of all historical documentation relating to service line materials (if such records exist) and the identification of service line materials when encountered during normal operations.

The EPA and, subsequently, state primacy agencies, have released guidance on the SLM Inventory and have developed an inventory template that must be used to submit the final inventory.

There are four items due by the initial October 16, 2024, compliance date, detailed below. TruePani will work with Cambria CSD to gather information and prepare all documents for initial compliance in the template required by the California Water Boards.

The project approach is organized in five tasks:

- Task 1: Project Management
- Task 2: Inventory Framework and Data Gathering
- Task 3: Records Review and Initial Inventory Build Out
- Task 4: Identification of Unknowns
- Task 5: Submission of Initial Inventory

1. Project Management

TruePani will provide project management services throughout the project to ensure successful execution of each task. TruePani's dedicated Project Manager (PM) will be responsible for all project coordination and communication with Cambria CSD. Methods to ensure prompt service and customer satisfaction include tracking project performance including budget and schedule, identifying any outstanding issues, and hold regular progress meetings/conference calls with Cambria CSD. TruePani will also perform typical project management activities including the following: preparation of invoices, work plan, coordination, staffing, schedule management, and project updates.

Task 1 Deliverables
Monthly Invoices
Bi-Weekly Project Update Meetings
Project Schedule



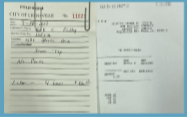
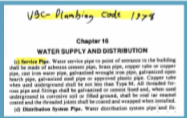


2. Inventory Framework and Data Gathering

The **Project Kickoff Meeting** will cover the requirements of the water system under the LCRR, including the elements of the service line inventory and California-specific assumptions such as the cut-offs for build year and pipe diameter. During the kickoff meeting, Cambria CSD and TruePani will



identify available data sources for building the SLM Inventory.

Potential data sources could include, but are not limited to historical records, tap/tie cards, as-builts, meter install records, parcel data, census data, water test results from compliance sampling, previous water main replacement projects, work orders, service orders, staff knowledge, water billing information, geospatial data, and verified SLM records. Since the records review is required under the LCRR, TruePani will work with Cambria CSD to develop a plan to assemble and review the identified data sources for building the SLM Inventory.

	<ul style="list-style-type: none"> • Water line replacement and extension/addition projects • Verified service line material records
	<ul style="list-style-type: none"> • Parcel information • Existing GIS databases/shapefiles
	<ul style="list-style-type: none"> • Work/service/field orders • Verified service line material records • Meter cards, tap/tie cards
	<ul style="list-style-type: none"> • Utility purchasing records and plumbing records • Local codes and ordinances
	<ul style="list-style-type: none"> • Compliance sampling data
	<ul style="list-style-type: none"> • Water billing information

After the Project Kickoff Meeting, TruePani will create a plan for gathering all information, a method for reviewing existing data sources, and privacy agency information.

Task 2 Deliverables
Project Kickoff Meeting Agenda and Notes

3. Records Review and Initial Inventory Build Out

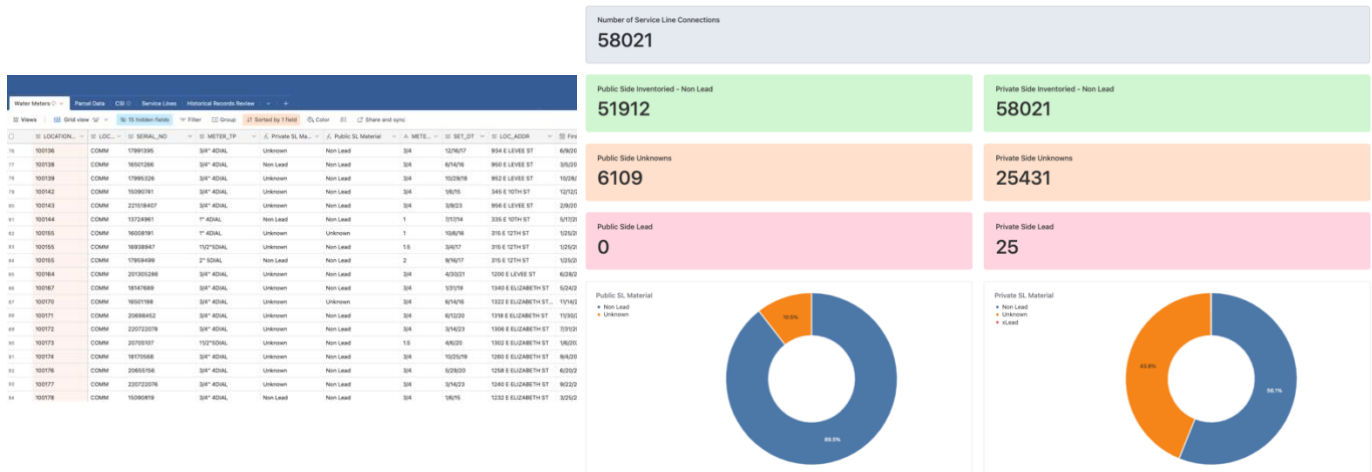
TruePani begins the records review process by evaluating the SLM Inventory data sources identified during the Project Kickoff Meeting. This includes compiling location data for each service line that can be used as a “primary key” for the inventory. The data is collected, classified, and maintained in a manner that is appropriate for Lead and Copper Rule compliance. TruePani staff can complete the records review onsite and digitize applicable documents, or if documents are already digitized, the work can be completely remotely.

TruePani will build the preliminary inventory within its centralized, cloud-based database, called the **Data Management System (DMS)**. The DMS organizes and houses the service line inventory, which is a catalog of all information on both private and public-side materials for all service line connections within a system. All data reviewed during the historical records review process will be recorded within DMS so that Cambria CSD will have a history of the records review activities that



were conducted. Good data management practices during the initial records review will ensure a solid basis of evidence for future inventory and water system work.

Data within DMS is sorted into individual tables, based on the source of information. For example, as-builts, work orders, customer verifications, field observations, tap cards, account and billing information, and resident contact information would be stored in separate tables, each with their own unique identifier. The final inventory will pull information from all the data sources to determine the service line material designation (e.g., Lead, Non-Lead, GRR, or Unknown). Data in DMS is also displayed through a **Dynamic Dashboard** that provides overall SLM Inventory progress.



Task 3 Deliverables

- Initial SLM Inventory
- Dynamic Dashboard

4. Identification of Unknowns

Water systems are incentivized to reduce the number of unknowns in the initial inventory developed from historical records. After completing the initial records review, TruePani will work with the City of Santa Barbara to develop and implement a strategy for identifying the material of unknown service lines following the **Stratified Random Sampling** approach recently outlined in guidance released by DDW.

DDW guidance suggests that Stratified Random Sampling is the best statistical approach for medium to large systems with more than 1,500 unknown service lines. In Stratified Random Sampling, the unknowns service connections are stratified into tiers based on the date of installation. The exact method of determining the number of physical verifications will depend on the number of unknowns after the historical records review has been exhausted. If fewer than 10,000 unknowns are present in the inventory, the number of physical verifications will be calculated from the total number of unknowns. The State of California is currently only accepting a statistical verification method based on the 95% confidence interval approach with a margin of error of +/- 5%. If the number of unknowns is greater than 10,000, a sample size calculation will be performed for each tier of unknowns, rather than the entire population.

TruePani will develop an **SRS Workplan** for submission to Water Boards that outlines proposed methods for identifying unknowns. Water Boards requires approval of the Workplan in writing before



SRS can be deployed. Upon approval from Water Boards, TruePani will provide Cambria CSD with a list of locations that will need to be physically verified by the system, both on the public and private side. Discussion with Cambria CSD has indicated that these physical verifications will be performed through meter box inspections.

Task 4 Deliverables

SRS Workplan for Submission to Water Boards

5. Submission of Initial Inventory and Annual Update

After completion of the SRS physical inspections, TruePani will provide the **SLM Inventory in the California-Approved Spreadsheet** format, with material classifications on both the public and private portions of the service line matching the requirements of the state-approved template. Cambria CSD will be responsible for submitting the final inventory through the State’s inventory portal.

The LCRR requires that customers served by lead, GRR, or unknown service lines send a notification to customers within 30 days of submitting the initial inventory to Water Boards. If the final inventory contains lead, GRR, or unknown service lines, TruePani will deliver **Template Letters** to Cambria CSD that can be used to meet this requirement.

Task 5 Deliverables

SLM Inventory in Water Boards Spreadsheet

Template Letter with Lead,
GRR, or Unknown Service Lines



Cost Quote

Task 1: Project Management	\$ 10,000.00
Task 2: Inventory Framework and Data Gathering	\$ 12,000.00
Task 3: Records Review and Initial Inventory Build Out	\$ 15,000.00
Task 4: Identification of Unknowns	\$ 5,000.00
Task 5: Submission of Initial Inventory and Annual Update	\$ 2,500.00
Total (Not to Exceed)	\$ 44,500.00

EXHIBIT B

INSURANCE REQUIREMENTS

Prior to the beginning of and throughout the duration of the Work, Consultant will maintain insurance in conformance with the requirements set forth below. Consultant will use existing coverage to comply with these requirements. If that existing coverage does not meet the requirements set forth here, Consultant agrees to amend, supplement or endorse the existing coverage to do so. Consultant acknowledges that the insurance coverage and policy limits set forth in this section constitute the minimum amount of coverage required. Any insurance proceeds available to District in excess of the limits and coverage required in this agreement and which is applicable to a given loss, will be available to District.

Consultant shall provide the following types and amounts of insurance:

Commercial General Liability Insurance using Insurance Services Office “Commercial General Liability” policy from CG 00 01 or the equivalent. Defense costs must be paid in addition to limits. There shall be no cross liability exclusion for claims or suits by one insured against another. Limits are subject to review but in no event less than \$1,000,000 per occurrence.

Business Auto Coverage on ISO Business Auto Coverage from CA 00 01 including symbol 1 (Any Auto) or the equivalent. Limits are subject to review, but in no event to be less than \$1,000,000 per accident. If Consultant owns no vehicles, this requirement may be satisfied by a non-owned auto endorsement to the general liability policy described above. If Consultant or Consultant’s employees will use personal autos in any way on this project, Consultant shall provide evidence of personal auto liability coverage for each such person.

Workers Compensation on a state-approved policy form providing statutory benefits as required by law with employer’s liability limits no less than \$1,000,000 per accident or disease.

Professional Liability or Errors and Omissions Insurance as appropriate shall be written on a policy form coverage specifically designated to protect against acts, errors or omissions of the Consultant and “Covered Professional Services” as designated in the policy must specifically include work performed under this agreement. The policy limit shall be no less than \$1,000,000 per claim and in the aggregate. The policy must “pay on behalf of” the insured and must include a provision establishing the insurer’s duty to defend the insured. The policy retroactive date shall be on or before the effective date of this agreement.

Insurance procured pursuant to these requirements shall be written by insurer that are admitted carriers in the state California and with an A.M. Bests rating of A- or better and a minimum financial size VII.

General conditions pertaining to provision of insurance coverage by Consultant. Consultant and District agree to the following with respect to insurance provided by Consultant:

1. Consultant agrees to have its insurer endorse the third party general liability coverage required herein to include as additional insureds District, its officials employees and agents, using standard ISO endorsement No. CG 2010 with an edition prior to 1992 or current equivalent. Consultant also agrees to require all consultants, and subcontractors to do likewise.

2. No liability insurance coverage provided to comply with this Agreement shall prohibit Consultant, or Consultant's employees, or agents, from waiving the right of subrogation prior to a loss. Consultant agrees to waive subrogation rights against District regardless of the applicability of any insurance proceeds, and to require all Consultants and subcontractors to do likewise.

3. All insurance coverage and limits provided by Consultant and available or applicable to this agreement are intended to apply to the full extent of the policies. Nothing contained in this Agreement or any other agreement relating to the District or its operations limits the application of such insurance coverage.

4. None of the coverages required herein will be in compliance with these requirements if they include any limiting endorsement of any kind that has not been first submitted to District and approved of in writing.

5. No liability policy shall contain any provision or definition that would serve to eliminate so-called "third party action over" claims, including any exclusion for bodily injury to an employee of the insured or of any Consultant or subcontractor.

6. All coverage types and limits required are subject to approval, modification and additional requirements by the District, as the need arises. Consultant shall not make any reductions in scope of coverage (e.g. elimination of contractual liability or reduction of discovery period) that may affect District's protection without District's prior written consent.

7. Proof of compliance with these insurance requirements, consisting of certificates of insurance evidencing all of the coverages required and an additional insured endorsement to Consultant's general liability policy, shall be delivered to District at or prior to the execution of this Agreement. In the event such proof of any insurance is not delivered as required, or in the event such insurance is canceled at any time and no replacement coverage is provided, District has the right, but not the duty, to obtain any insurance it deems necessary to protect its interests under this or any other agreement and to pay the premium. Any premium so paid by District shall be charged to and promptly paid by Consultant or deducted from sums due Consultant, at District option.

8. Certificate(s) are to reflect that the insurer will provide 30 days notice to District of any cancellation of coverage. Consultant agrees to require its insurer to modify such certificates to delete any exculpatory wording stating that failure of the insurer to mail written notice of cancellation imposes no obligation, or that any party will “endeavor” (as opposed to being required) to comply with the requirements of the certificate.

9. It is acknowledged by the parties of this agreement that all insurance coverage required to be provided by Consultant or any subcontractor, is intended to apply first and on a primary, noncontributing basis in relation to any other insurance or self insurance available to District.

10. Consultant agrees to ensure that subcontractors, and any other party involved with the project that is brought onto or involved in the project by Consultant, provide the same minimum insurance coverage required of Consultant. Consultant agrees to monitor and review all such coverage and assumes all responsibility for ensuring that such coverage is provided in conformity with the requirements of this section. Consultant agrees that upon request, all agreements with subcontractors and others engaged in the project will be submitted to District for review.

11. Consultant agrees not to self-insure or to use any self-insured retentions or deductibles on any portion of the insurance required herein and further agrees that it will not allow any Consultant, subcontractor, Architect, Engineer or other entity or person in any way involved in the performance of work on the project contemplated by this agreement to self-insure its obligations to District. If Consultant’s existing coverage includes a deductible or self-insured retention, the deductible or self-insured retention must be declared to the District. At the time the District shall review options with the Consultant, which may include reduction or elimination of the deductible or self-insured retention, substitution of other coverage, or other solutions.

12. The District reserves the right at any time during the term of the contract to change the amounts and types of insurance required by giving the Consultant ninety (90) days advance written notice of such change. If such change results in substantial additional cost to the Consultant, the District will negotiate additional compensation proportional to the increase benefit to District.

13. For purposes of applying insurance coverage only, this Agreement will be deemed to have been executed immediately upon any party hereto taking any steps that can be deemed to be in furtherance of or towards performance of this Agreement.

14. Consultant acknowledges and agrees that any actual or alleged failure on the part of District to inform Consultant of non-compliance with any insurance requirements in no way imposes any additional obligations on District nor does it waive any rights hereunder in this or any other regard.

15. Consultant will renew the required coverage annually as long as District, or its employees or agents face an exposure from operations of any type pursuant to this agreement. This obligation applies whether or not the agreement is canceled or terminated for any reason. Termination of this obligation is not effective until District executes a written statement to that effect.

16. Consultant shall provide proof that policies of insurance required herein expiring during the term of this Agreement have been renewed or replaced with other policies providing at least the same coverage. Proof that such coverage has been ordered shall be submitted prior to expiration. A coverage binder or letter from Consultant's insurance agent to this effect is acceptable. A certificate of insurance and/or additional insured endorsement as required in these specifications applicable to the renewing or new coverage must be provided to District within five days of the expiration of the coverages.

17. The provisions of any workers' compensation or similar act will not limit the obligations of Consultant under this agreement. Consultant expressly agrees not to use any statutory immunity defenses under such laws with respect to District, its employees, officials and agents.

18. Requirements of specific coverage features or limits contained in this section are not intended as limitations on coverage, limits or other requirements nor as a waiver of any coverage normally provided by any given policy. Specific reference to a given coverage feature is for purposes of clarification only as it pertains to a given issue, and is not intended by any party or insured to be limiting or all-inclusive.

19. These insurance requirements are intended to be separate and distinct from any other provision in this Agreement and are intended by the parties here to be interpreted as such.

20. The requirements in this Section supersede all other sections and provisions of this Agreement to the extent that any other section or provision conflicts with or impairs the provisions of this Section.

21. Consultant agrees to be responsible for ensuring that no contract used by any party involved in any way with the project reserves the right to charge District or Consultant for the cost of additional insurance coverage required by this agreement. Any such provisions are to be deleted with reference to District. It is not the intent of District to reimburse any third party for the cost of complying with these requirements. There shall be no recourse against District for payment of premiums or other amounts with respect thereto.

22. Consultant agrees to provide immediate notice to District of any claim or loss against Consultant arising out of the work performed under this agreement. District assumes

no obligation or liability by such notice, but has the right (but not the duty) to monitor the handling of any such claim or claims if they are likely to involve District.

LONG-TERM WATER SUPPLY AND STORAGE ALTERNATIVES

DATE: February 28, 2024

TO: Cambria Community Services District Resources and Infrastructure Committee

FROM: Jim Webb
Mark Meeks
Derrick Williams

SUBJECT: Cambria Community Services Supplemental Water Supply Options

INTRODUCTION

The Supplemental Water Supply Ad-Hoc Committee is tasked with summarizing options that could provide supplemental or enhanced water supplies to the Cambria Community Services District. Three potential approaches for developing supplemental supplies were discussed at the December 12, 2023 Resources and Infrastructure Committee meeting:

1. Working with upstream water rights holders on Santa Rosa Creek.
2. Installing solar hydro-panels that condense water from the air
3. Using electromagnetics to look for water bearing sediments that could be tapped with new wells.

This memorandum summarizes these three options.

WORKING WITH UPSTREAM WATER RIGHTS HOLDERS AND UPSTREAM WATER RETENTION

OVERVIEW

Understanding and coordinating upstream water storage and water use could provide various benefits to the CCSD. Understanding upstream use informs demands on the local water system which could be incorporated into planning and management activities. Temporarily storing water in upstream ponds could provide extended aquifer recharge opportunities.

COORDINATING WITH UPSTREAM WATER RIGHTS HOLDERS

Coordinating with upstream water rights holders could improve demand management and has many potential benefits, key to which would be understanding patterns of use and anticipated use of local water supplies. The watersheds that supply Cambria offer a climate suitable to a wide

range of agricultural activities. Cattle, wine grapes, citrus, avocados, pea pods, apples and more are currently produced. Providing livestock water and irrigating these crops impacts the water available to the District. Without understanding the local demands on resources, water resource management becomes difficult.

Upstream water rights holders use water in ways that impact other users. In times of drought, it may be useful to know of any anticipated increase in use by upstream farms or ranches. Coordinated efforts may lessen drought impacts on stressed aquifers.

UPSTREAM WATER RETENTION

Slowing and extending the length of time local watersheds drain facilitates aquifer recharge. The more slowly water drains from the surrounding hills, the more time it has to soak in. The current climate regime appears to favor large rain events followed by the absence of rain. Creeks flood quickly in winter and techniques to reduce flooding and slow runoff could benefit recharge. Temporary storage of winter runoff, however, is not without challenges. A coordinated watershed wide response would be very difficult to achieve.

Two techniques for slowing runoff are possible. One technique is to slow overland flow, and can be thought of as roughing up the watershed. This would entail ensuring runoff must navigate rough terrain and a tortuous path. Roughing up the watershed would slow winter floods and allow greater recharge of aquifers.

The opposite of roughing up the watershed is the channelization of the watershed. When creeks meander through agricultural properties, they are often channelized to control erosion and allow for efficient use of arable land. This activity can accelerate water flow and not allow time for water to soak into aquifers. Examples can be seen at Perry Creek and Green Valley Creek near the Highway 1/Highway 46 intersection. The environmental benefits of a creek turned drainage ditch are limited.

A second technique is temporary storage of runoff in holding ponds. Runoff could be stored in ponds and slowly released to lengthen the time of aquifer recharge. An example area might be a rock quarry near the intersection of Highway 1 and Highway 46. This site has been extensively used for years, resulting in a large hollowed out mountain/hill. The opportunity to place infrastructure close to the nexus of channelized creeks is attractive, however having such installations out of the scenic highway 1 corridor would be essential. This site was looked at as a potential storage area for water, but the faults and fissures did not inspire waterproofness. Bedrock is exposed at this site and this could support a tank or small tank farm.

ADVANTAGES AND DISADVANTAGES

Advantages of working with upstream areas include:

- Potentially low cost. Working with upstream water rights holders could have recharge benefits at low cost.
- Multiple benefits. Extending the period of streamflow for recharge would have both water supply and environmental benefits.

Disadvantages of working with upstream areas may include:

- Water rights may preclude water storage
- Land owners may not want to rough up land if it is not financially advantageous

SUGGESTED NEXT STEPS

The following activities could be undertaken if the District opts to further investigate working with upstream water rights holders.

- Legal analysis. The water rights issues associated with storing water, as well as liability issues, should be investigated.
- Approach upstream water rights holders regarding water storage. Additionally, estimate the cost of developing water retention facilities
- Approach upstream land owners regarding slowing runoff.

ATMOSPHERIC WATER GENERATION

OVERVIEW

Atmospheric water generation is a group of technologies that could directly provide CCSD a new source of water. These systems extract moisture from the air, and have been used in drought-stricken areas for many decades. Although atmospheric water generation is often associated with providing water to dry areas, many coastal areas throughout the world have water scarcity problems, and the high humidity conditions in these coastal areas makes atmospheric water generation plausible. Atmospheric water generation continues to advance, often using renewable energy to power their processes. Capacities range from home-based units that produce up to 20 liters a day to commercial systems that can generate up to 10,000 liters or more a day.

ATMOSPHERIC WATER GENERATION OPTIONS

Generally, these devices are categorized into two main groups. Active generation (AWG) and passive generation (PWG). PWG generation generally requires no external sources of energy. AWG generation requires other sources of energy.

Within these two groups 5 technologies are currently being used.

1. Fog nets (Passive)
2. Hydrophilic (Passive)
3. Thermo-Electric (Active)
4. Descendant (Active)
5. Vapor Compression (Active)

In both categories efficiency is the key component for optimal water generation and return on investment. Recent designs have enabled hybrid systems that use renewables as an energy source.

PASSIVE WATER GENERATION SYSTEMS

The most promising passive generation systems are newly developed desalination methods. Historically, desalination have been energy intensive and require vast supporting, making them relatively inefficient. In most applications this inefficiency increases the cost and makes them financially infeasible.

The most efficient PWG desalination system has been developed by students at MIT and uses Thermally Localized Multistage Solar Still (TMSS) to convert water vapor to water at an efficiency rate of 385%. TMSS systems use sunlight as a heat source to evaporate a brine solution or seawater to recover clean distilled water. Because these systems use a renewable energy source, they are technically hybrid systems. They are included with PWG systems for this memorandum because they require no outside energy.

Research has not led to an “off the shelf” TMSS system and most likely would need to be engineered to specific conditions and/or application. It is unclear if a brine effluent from a RO desalination plant could be used, but perhaps a system could be integrated with the existing Water Reclamation Facility.

ACTIVE WATER GENERATION SYSTEMS

AWG systems use external energy sources for heat and air circulation to produce water. The major drawback is the large amount of energy consumed by these systems and high operational costs.

There are four types of AWG's.

1. Refrigerant
2. Peltier
3. Desiccation
4. Hydrophilic

The first two require an outside electric source. They fundamentally cool the air below the dew point, producing water. Peltier systems are very low in efficiency but require little maintenance.

Recent technologies have improved efficiencies for refrigerant AWG systems. Examples of efficiency for these devices are 3.22 liters of water per Kilowatt-hour (KWh) at 60% humidity and 80.6 degrees F. Integration with solar panels can eliminate external energy sources.

Although many companies produce AWG's, only a few have reached the level of 300 – 350 watt-hours of energy per liter of water. One such manufacture, Source Global, produces an integrated panel that incorporates solar panels and condensation panel. Source Global claims they have powered up a “water farm” that can produce 400,000 gallons of water a year. One panel can produce 3-5 liters of drinking water a day or around 365 gallons a year. A single panel costs \$2,000. Economies of scale may be possible; however, a simple extrapolation means 1,095 panels to produce 400,000 gallons a year @ \$2,000 per panel = approx. \$2,191,000.

The third type of AWG is a thermo-desiccant system. The advantage of this type is they use a desiccant material to capture moisture air at night and then uses sunlight during the day to heat the desiccant material to produce water. Only a small amount of energy supplied by solar panels is used to circulate hot air. It is claimed that 80 degrees Celsius (176 Fahrenheit) of hot air can produce 395 gallons per day per cubic meter of surface area at about 5 cents a liter and less at larger scales.

A newer and novel approach is WEDEW (Wood-to-Energy Deployable Water) Developed by Skysource, a California enterprise. It uses organic waste such as wood and compostable material to generate up to 2,000 liters a day. Wood or plant waste is placed in a shipping container where it decomposes producing biogas which is trapped in the container and then extracted from the humid air. This device won the 1.75-million Water Abundance XPRIZE in 2018 as the most feasible solution for addressing global water crisis. Costs were not available on their website.

ADVANTAGES AND DISADVANTAGES

Advantages of Atmospheric water generation include:

- Directly provides additional water. The other two approaches in this memorandum are studies or policies that don't directly result in new water sources.
- Low-energy consumption options, such as solar units, exist.

Disadvantages of Atmospheric water generation include:

- Limited water volume. The largest system, producing 10,000 liters per day, would produce only 3 acre-feet per year if operated every day.

SUGGESTED NEXT STEPS

Today there exists many options for atmospheric water generation. Costs depend on scale and efficiency. The following activities could be undertaken if the District opts to further investigate atmospheric water generation

- Set a defined expectation and/or application for AWG
- Identify potential technologies that can
- Consult with an engineering firm familiar with these systems to provide preliminary costs and designs

GEOPHYSICAL AQUIFER MAPPING

OVERVIEW

Electromagnetic geophysical methods have recently gained popularity as tools for mapping underground aquifers in California and may help the District locate productive portions of local aquifers. This technology could identify areas where the District might expand its wellfields to provide additional supply.

Two related electromagnetic geophysical tools are Airborne Electromagnetics (AEM) and towed Time-Domain Electromagnetic (tTEM). Both systems work by towing an instrument that sends electrical impulses into the ground. The electromagnetic response to these electrical impulses allows the tools measure the resistivity of the subsurface materials. The resistivity can be used to infer the type of subsurface material: highly resistive sediments generally contain more sand (aquifers), and highly conductive material generally contain more clays (aquitards). The process has been compared to taking an MRI of the subsurface.

AIRBORNE ELECTROMAGNETICS

AEM is used to cover large areas – usually with coarser spatial coverage. AEM uses a wire loop suspended below a helicopter to transmit the electrical signals (Figure 1). The helicopter flies along closely spaced parallel lines to map the subsurface. Depending on the tool used and local conditions, AEM can map the resistivity of sediments to a depth of approximately 1,000 feet. Example results from an AEM survey in Paso Robles are shown on Figure 2.

TOWED TIME-DOMAIN ELECTROMAGNETICS

tTEM covers smaller areas – usually with finer spatial coverage. tTEM tows a sled across the ground to transmit the electrical signals (Figure 3). Depending on the tool used and local conditions, tTEM can map the resistivity of sediments to a depth of between 200 and 300 feet. Example results from a tTEM survey in a Tulare orchard are shown on Figure 4. Blue areas on this figure are clays, red areas on this figure are sands.

EXAMPLE COMPARISON OF AEM AND tTEM

A comparison of one example AEM survey and one example tTEM survey is shown in Table 1. This comparison is presented to clarify the different scales of the two techniques.

Table 1. Comparison of Example AEM and tTEM Surveys

Technology/Tool	AEM ¹	tTEM ²
Location	Paso Robles	Tulare Almond Orchard
Year	2019	2020
Horizontal measurement spacing	1,640 feet	22 feet
Area covered	290 square miles	14 acres
Depth of investigation	1,500 feet	200 feet

All numbers are approximate

¹Ramboll, 2020

²Goebel and Knight, 2021

GEOLOGIC DATA NEEDS

Both AEM and tTEM provide resistivity data of the subsurface. Additional geologic data are needed to convert the resistivity data into a geologic interpretation. This is done by comparing the resistivity data to data from either well logs or cone penetrometer (CPT) data. If the area covered by the AEM or tTEM surveys do not have existing geologic data, boreholes will need to be drilled or CPT data will need to be collected. If there is no need for a new well, CPT data will generally be less expensive to collect.

ESTIMATED COSTS

General costs for a small tTEM survey are shown in Table 2. Actual costs will depend on many factors such as the size of the tTEM area, whether multiple non-adjointing areas will be surveyed, the amount of existing geologic data for each site, etc. Costs on Table 2 only provide order of magnitude estimates.

The costs assume five CPT probes to a maximum of 150 feet below ground surface and one day of tTEM surveys. One day of tTEM surveys could likely cover many tens of acres. The costs include mobilizing equipment to the sites and reports summarizing the collected data.

Table 2. Estimated tTEM costs

Activity	Estimated Cost
CPT at 5 Locations	\$22,000
1 Day tTEM Survey	\$18,000
Total	\$40,000

SUGGESTED NEXT STEPS

The following activities could be undertaken if the District opts to further investigate electromagnetic aquifer mapping.

- Identify areas to be mapped.
- Assess whether AEM or tTEM are appropriate for the areas to be mapped. The relatively shallow aquifers around Cambria suggest that tTEM will likely be the appropriate technology
- Gather any existing geologic data about the areas to be mapped. This may include well logs or geotechnical investigations.
- Obtain cost estimates from contractors for operating and interpreting the electromagnetic data
- Obtain cost estimates from contractors for acquiring additional geologic data. This will likely be CPT data.

REFERENCES

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Ramboll, 2020. *Hydrogeologic conceptual model in paso robles, traditional HCM*, prepared for the Stanford Groundwater Architecture project (GAP).

RSC Publishing

Synergy Files.com

“Theengineer”.co.uk



Figure 1. AEM Equipment

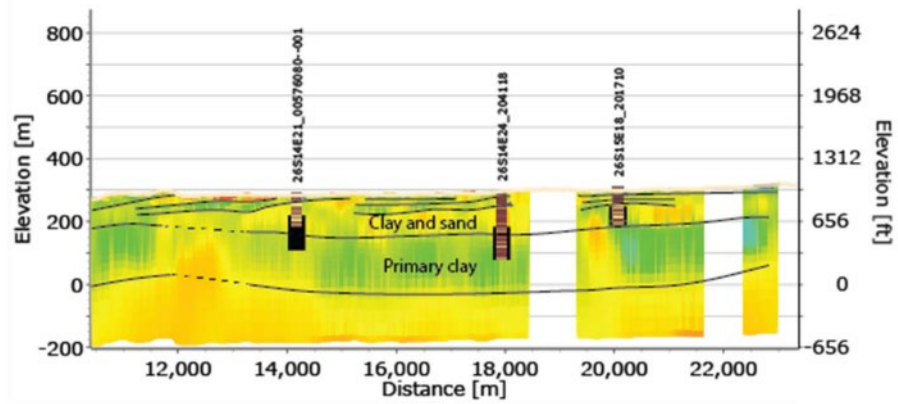


Figure 2. Example AEM Results from Paso Robles



Figure 3. Example tTEM Equipment in Tulare

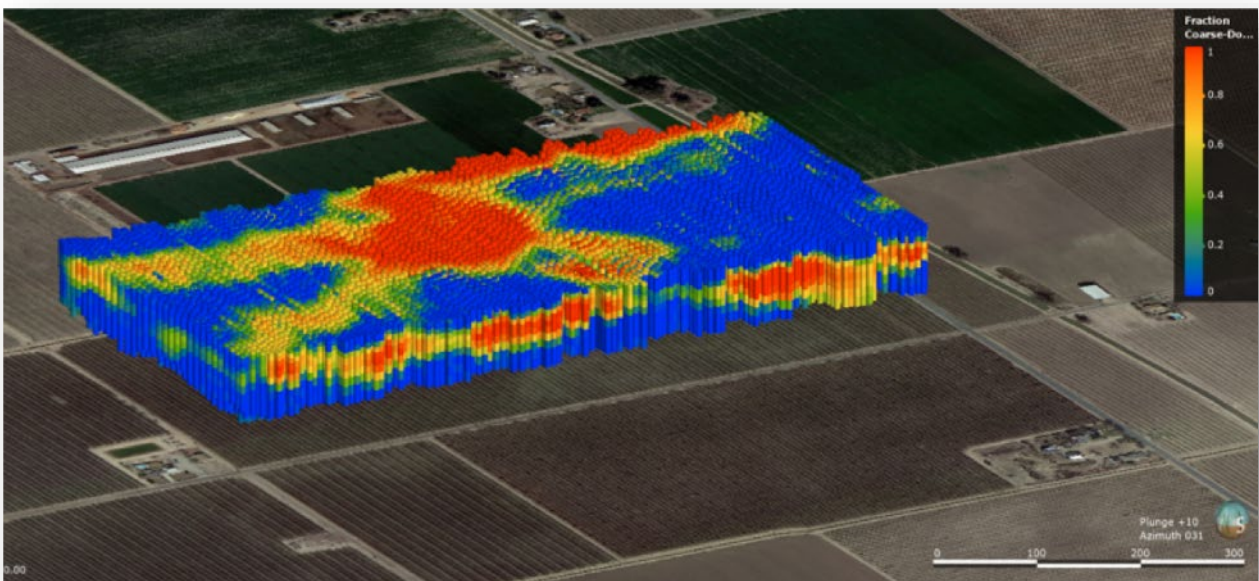


Figure 4. Example tTEM results in Tulare