January 5, 2026

This letter summarizes the proposed scope to complete the project using the project defined in the Preliminary Engineering Report (PER).

Known Project Changes Since Proposal

- Add culvert sizing.
- Modify reservoir locations FROM original scope assumed location adjacent to Summers Lane Reservoir TO City desired location in middle of City parcel, which results in:
    - Added survey, geotechnical work, and design of additional 10,500 length feet of pipe.
    - Design to assumes an additional 23 sheets consisting of additional plan and profile sheets, additional hydraulic profile sheet, and additional tie in detail sheets.
    - City confirmed that the existing dirt OHV access roads are sufficient for reservoir compound access. No improvements are included for the existing access roads.
- Add dedicated inlet and outlet pipeline that will each need to be tied into the existing piping at separate locations. This results in an additional tie in, and more detailed tie in parameters associated with working in the reservoir embankment.
- Add gravel road over proposed reservoir pipelines
- Add pipeline tie-in to be upstream of the Summers Lane Reservoir.
    - Add an encroachment permit for Summers Lane
- Add solar system including batteries and shed at the reservoirs to provide power.
- Add solar mixers for reservoirs instead of shade balls
- Add the capability to operate the reservoirs in series, parallel, and individually.
    - This requires in additional valves and piping to be able to manually control reservoir
- Add security cameras to the reservoir area and storage building.
- Grading permit through County of Mendocino for reservoirs to be done by City.
- C.3 stormwater permitting through County of Mendocino for improvements to be done by City.
- County of Mendocino exemption for permitting of the parking lot bathrooms to be done by City.
- Modify Caretaker building location FROM original scope assumed location within reservoir compound TO City desired location for Accessory Dwelling Unit (ADU) adjacent Summers Lane Reservoir.
- Remove design of Caretaker building and replace with City provide stamped and signed ADU drawings (this is a credit for the design of the Caretaker building). Although this is a credit, it still requires the following additional design efforts:
    - Submit City provided stamped and signed ADU drawings for County of Mendocino building permit.
        - Required edits/revisions resultant from County of Mendocino building permit review process shall be revised by City and provided to WWE for resubmittal / incorporation into final site plan.
    - Add Survey to support City indicated new ADU location
    - City will investigate and make all necessary site improvements to ADU site water source and septic tank systems. Existing and/or City improved ADU site water and septic tank will be incorporated into final site plan.
    - No driveway improvements to the fenced caretaker unit are included.

    - City will investigate and make all necessary site improvements for ADU and storage building electrical systems. Existing and/or City improved ADU and storage building electrical systems will be incorporated into final site plan.
    - Add chain link fence with non-motorized swing gate to ADU site improvements.
- Modify storage unit location from scope assumed location within reservoir compound TO within fenced area for ADU.
    - Increase storage unit size to accommodate storage of two motor vehicles.
    - Modify storage unit from assumed 40' self contained storage container to a pre-engineered steel building (two car garage)
    - Update structural design of concrete pad to accommodate new pre-engineered steel building.
    - Add performance specification for pre-engineered steel building
        - Design shall require Contractor to obtain building permit for selected steel building in conformance with the performance specification.
    - Steel building will not include climate control.
- Modify project schedule to allow for geotechnical work to occur in 2025 in lieu of 2024.
- Modify project schedule to allow for survey work to occur in 2026 in lieu of 2024.
- Add project management time consistent with updated project schedule.
- City separate environmental consultant shall investigate and provide to WWE size and type of all trees for incorporation into the final site plans. Tree size and types will be provided in CAD format.
- Add grading of entire existing disturbed area (old Caltrans stockpile area) and associated C.3 permitting
- No second caretaker unit is included.
- Add two additional drafts of PER.
- No changes to the Summers Lane Reservoir, existing piping, or to the pumps are included except for the pipeline tie-ins shown in the PER.
- Adds assistance with environmental permitting for geotechnical work.
- Remove survey from Noyo River crossing task and culvert task. (This is a credit)
- Rincon had additional coordination with CDFW beyond what was assumed in the original scope and the project timeline was extended requiring more coordination and project management time.

A summary of the cost changes for the additional scope items are shown in the table below.

Credits	**Amount**
Removed Survey from optional tasks including markup	-$24,200
City provided stamped ADU plans to be incorporated into plans	-$5,000
Subtotal	*-$29,200*
Additional Effort	**Amount**
Additional drawing sheets for pipeline , hydraulic profile, tie-in, and P&ID (23 sheets)	$135,056
Additional electrical and instrumentation design	$4,000
Hydraulic modeling for culvert	$30,500
Additional surveying	$33,000
Additional project management time due to lengthening of schedule	$2,500
Rate increase due to delay in schedule	$24,000

Additional culvert task effort for Rincon including markup	$4,400
Subtotal	$233,456
Total of Credits and Additional Effort	$204,256

The current contract is for $705,385. An additional $204,256 is being requested for the change in scope. The total amount of the current contract and the additional requested work is $909,641.

SCHEDULE

Assuming notice to proceed for this scope of work is issued by the City, the survey will be completed within 70 business days. The 30 percent design will be completed 60 business days after receiving the survey. ~~30% design will be delivered four months after the geotechnical field work has been approved to commence.~~

SCOPE

Task 1 Meetings and Project Management

ENGINEER will monitor and track the project budget and schedule to ensure that all deadlines are met and that the project budget is not exceeded. ENGINEER will coordinate with the project team to address items such as project schedule, project budget, and current issues of concern. ENGINEER will also monitor progress and coordinate the activities being performed by all sub-consultants associated with the project and submit monthly invoices to the CLIENT. The following will be performed under this subtask:

1) Project Communication and Control
   a) Coordination of all project team activities
   b) Communication of project progress and issues to CLIENT staff
   c) Project schedule maintenance and control of project tasks to keep project schedule on track
   d) Cost tracking of all engineering activities and active cost control of fees
2) Quality Assurance/Quality Control
   a) Implement Quality Assurance/ Quality Control Policy
3) Kickoff Meeting (virtual)

Meetings	• Kickoff Meeting (virtual) • Monthly progress meetings (virtual) • Design review meetings are included in other tasks • Jurisdictional Agency Coordination in other tasks
Deliverables	• Agenda, meeting notes (within 5 business days), and design log for each meeting • Monthly reports and invoices (by email)

Task 2 Preliminary Engineering Report (COMPLETE)

Develop and submit a preliminary engineering report (PER) with sufficient information to complete environmental documentation and initiate detailed design. At a minimum, the PER will include the following items. Our subconsultant, HLS, will provide the caretaker's unit layout.

1) Recommend a preferred site layout, with emphasis on biological and preliminary geotechnical evaluations. Designate proposed areas for development, conservation, and mitigation.
2) Provide reservoir site plan, and profile – complete with site access, parking, utilities, fencing, and drainage information.
3) Provide a project description sufficient to support the project environmental documentation for CEQA/

NEPA.

4) Summarize primary design elements.
5) Summarize permits required for the Project and include a workflow and schedule to obtain the permits. Permits will be coordinated with the City's environmental firm.
6) Prepare construction cost estimates for the proposed reservoirs and site layout and develop innovative solutions to minimize cost impacts.
7) Identify construction access and potential equipment and material lay-down areas.
8) Prepare an anticipated schedule for construction, including the number of working days, phasing, and potential mitigations related to environmental seasonality.

Meetings	• Preliminary Engineering Report Review meeting, (virtual)
Deliverables	• Preliminary Engineering Report, two drafts and final, PDF • Agenda, meeting notes, and design log

Task 3 Survey

Our subconsultant, SHN will provide surveying. A fixed wing LiDAR flight will collect high density data resulting in a Civil 3D drawing with a one foot contour interval in the forested area. This will include the following information.

1. Proposed Reservoir area - ~30 acres forested lands with the focus of the survey on the area of the disturbance of the proposed reservoirs and the 50 foot wide area of the pipeline route from the Summers Lane reservoir to the new reservoirs.

2. Conventional surveys will be conducted as allowed along the proposed pipeline route and the area of disturbance around the proposed reservoirs to increase accuracy.

3. Additional surveys will be done at the caretaker and storage building lot (conservative estimate 20,000 square feet) and the trailhead parking lot to the edge of the forested area focused on the proposed location of a toilet structure.

4. CAD files will be delivered in Civil 3D .DWG format in a 40 scale drawing with one foot contours as well as .PDF files. The data will be on NAD83 CCS zone II Epoch 2010 and NAVD 88 as determined by a static GPS survey. Existing horizontal and vertical survey control records provided by the client will be tied into.

5. Identify all affected easements, facilities, and record property boundaries based on public records and field observations. No boundary determination will be made as part of this contract, as such the location of the easements are entirely based on record data.

6. Locate and identify all visible above-grade features and obstructions to the proposed piping, as well as any marked, below-grade utilities.

7. We understand that some areas will be off limits to trimming of limbs and therefore some areas will not be able to be conventionally surveyed. Areas of dense vegetation will be identified on the drawing.

Meetings	• None
Deliverables	• ~~Survey data: Raw data points and processed data~~ • Topographic/existing conditions maps, PDF and digital format

Task 4 Geotechnical

Our subconsultant, BAJADA will assist with the geotechnical work for the following scope.

Pre-Exploration

Prior to subsurface exploration, BAJADA will mark proposed drill hole locations and will contact Underground Service Alert (USA) to assist in identifying potential buried utility conflicts.

BAJADA will obtain necessary drilling permits from Mendocino County Environmental Health. Because the reservoirs and improvements potentially cover multiple parcels and a permit is required for each parcel explored, we have assumed that exploration will occur on three parcels.

The project site is moderately to heavily wooded and vegetated. Few roads project through the study area. We have assumed that access to exploration locations will need to be established and have included two days of equipment time to establish that access.

Subsurface Exploration

We propose exploring the site using exploratory drill holes. Locations of those drill holes cannot be identified until the siting of the proposed reservoirs, caretaker's unit, and storage building have been identified.

Drilling will be performed using a track-mounted drill rig as follows:

PROPOSED DRILLING SCHEDULE			
Location	**Number of Drill Holes**	**Maximum Drill Hole Depths**	**Drilling Method**
Reservoir Sites	3 (per reservoir)	35 to 50	Rotary-wash
Associated Pipeline Alignment(s)[1]	4	10 to 15	Hollow- or solid-stem
Caretaker's Unit	2	25	Hollow- or solid-stem
Shop Building	2	25	Hollow- or solid-stem
Parking Lot	2	5	Hollow- or solid-stem

Sampling will be performed at about 5-foot depth increments using a California modified split spoon (CM) or Standard Penetration Test (SPT) sampler. Rock is not anticipated to be encountered during drilling. CM and SPT samplers will be driven using a 140-pound auto trip hammer in accordance with standard test method ASTM D1586-11. SPT samples will be collected in sample bags, labeled, and transported to our laboratory for testing. California modified split-spoon samples will be collected in 2.5-inch diameter by 6-inch-long brass or stainless-steel sleeves. Those sleeves will be capped, labeled, and transported to our office for assignment of laboratory testing.

BAJADA personnel will log the soils exposed in the explorations, and will obtain samples for visual examination, classification, and laboratory testing. Logging of soils will be performed using the Unified Soil Classification System (USCS). We will estimate exploration locations using a compass and tape measure from known geographic control points on the property and using a handheld Global Position System (GPS) receiver. All drill holes will be backfilled to the ground surface with cement grout. Cuttings from drilling operations will be dispersed on site.

Laboratory Testing

Soil samples will be delivered to a laboratory for testing. It is anticipated that the following laboratory tests will be performed during this study:

ANTICIPATED LABORATORY TESTING SCHEDULE		
Test	**Standard Test Method**	**Number of Tests**
In-Situ Moisture Density	ASTM D2937	60
Atterberg Limits	ASTM D4318	2
Grain-Size Distribution	ASTM D422	6
Direct Shear	ASTM D3080	4
Unconfined Compression	ASTM D7012	4
Consolidation	ASTM D2435	1
Max. Dry Density/Opt. Moisture Content	ASTM D1557	2
R-Value	Cal 301	1
Soil Chemistry (Corrosivity)	AASHTO T290/291	4

The actual types and numbers of tests that will be performed will be determined after the field exploration has been performed.

Geotechnical Analysis

Upon completion of the above-noted tasks, we will perform geotechnical evaluations for the project. Those evaluations will include the following:

- Geologic hazards that could impact the project.
- Subsurface soil profiles at the reservoir sites.
- Depth to groundwater, where encountered.
- Excavatability of the on-site soils.
- Estimate of shear wave velocity (Vs_{30}) based on encountered soil types and consistencies.
- Slope stability of proposed internal and external reservoir slopes under static and dynamic (earthquake) loading conditions.
- Liquefaction potential.
- Anticipated total and differential settlement values beneath the proposed caretaker's unit and storage building.
- Static and dynamic lateral earth pressures for buried structures.
- Modulus of soil reaction (E') values for earth materials composing the pipeline trench sidewalls and backfill materials.
- Evaluation of potential for expansive soil influence on foundations and improvements.
- Evaluation of potential for site soils to be corrosive to buried concrete and steel.
- Allowable bearing capacities, friction coefficients, passive pressures, etc.
- 2022 CBC seismic design parameters; and
- Structural pavement sections for the proposed parking lot.

Slope stability evaluations will be performed using the computer program SLIDE2 developed by Rocscience.

Geotechnical Reporting

Results of the field investigation, laboratory tests, and engineering analyses will be summarized and concluded in a geotechnical report specific. That report that will contain, at a minimum, the following:

- A description of the proposed project including a site plan showing the approximate location of the explorations advanced for this study.

- A description of selected, existing, available data collected, reviewed, and utilized during this study.
- A discussion regarding geologic hazards that could impact the project site, including liquefaction.
- A description of the site surface and subsurface conditions encountered at the time of our field investigation.
- A geologic map showing the distribution of earth materials across the project site.
- Geologic cross sections prepared across selected portions of the site depicting subsurface soil and groundwater conditions encountered during this study.
- Findings, conclusions and recommendations regarding slope stability at the site.
- Estimates of total and differential settlement that could impact the proposed structures, including mitigation measures to reduce those settlement values to tolerable thresholds, when necessary.
- 2022 CBC seismic design parameters.
- Recommendations related to geotechnical aspects of:
    - ✓ Site grading and drainage, including compaction criteria and potential reuse of on-site soils as select backfill materials.
    - ✓ Cut and fill slope inclinations.
    - ✓ Allowable bearing capacities for structure foundations.
    - ✓ Allowable passive pressures for foundations, thrust blocks, and piers.
    - ✓ Lateral earth pressures (active, at-rest, and passive) under static and dynamic conditions for buried structures.
    - ✓ Coefficients of friction for soil materials.
    - ✓ Recommendations for pipeline backfill and compaction; and
    - ✓ Recommendations for temporary excavations and shoring.
- An appendix presenting a summary of the field investigation including exploration logs denoting sampling intervals and laboratory test results.
- An appendix presenting the results of our laboratory testing.

~~**Optional Task - Groundwater Monitoring (not currently included)**~~

~~This optional task that could be added consists of the construction of a monitoring well within each proposed reservoir so that the depth of groundwater can be recorded over time. Shallow groundwater is known to be present in the project area at depths that could influence construction of the project. It is anticipated that this information is important to project design and that contractors could utilize those data in preparing their bids for the project. In addition, the monitoring and reporting of groundwater depths can help reduce the potential for changed conditions construction claims.~~

~~Permits will be obtained for constructing the monitoring wells. The proposed monitoring wells will be constructed using 2-inch-diameter slotted and solid PVC pipe for the entire depth of the three drill holes. The wells will be protected using a locking stovepipe type well protector. A HOBO groundwater datalogger will be inserted into each of the wells to monitor groundwater depths at regularly programmed time intervals. Those data will be downloaded after one year of logging and reported in a technical memorandum.~~

Task 5 Environmental/CEQA Compliance Coordination

The Water Works team will coordinate with the City and environmental consultant on the CEQA compliance work being completed as part of a separate City project.

Task 6 Design

The design includes the following items.

- Three 45 acre foot reservoirs for raw water storage

- Earthwork will not be balanced
- One solar mixer per each reservoir ~~Shade balls are assumed for the cover~~
- Non-motorized ~~gates or~~ valves
- Level transmitters in each reservoir
- SCADA monitoring only control system
- SCADA communications system including cellular modem or radio system. Radio assumed operable at project site with 30-foot antenna
- Outdoor electrical equipment stanchion with receptacle and light
- Security camera at each reservoir gate
- Solar systems with batteries
- Small sheds for housing electrical equipment at reservoir
- ~~Access for firefighting aircraft to siphon water from the reservoir~~

- Caretaker's unit with waste disposal and potable water service from City will the following assumptions
  - ADU design from City that will need to be permitted with the County.
  - No modifications to the existing well are included.
  - No modifications to the existing electrical service are included. No electrical design included.
  - No modifications to the existing septic tank and leach field are included.
- Storage unit
  - 24 x 24 pre-engineered steel building that is permitted by the contractor during construction
  - Concrete pad for building with structural calculations
- Fenced paved parking lot with manual gates and ~~pit~~ two vault toilets per City provided plans
- 12,000 length feet of ~~PVC~~C900 pressure pipe including an inlet pipe, outlet pipe, and reservoir piping
- Gravel road over pipelines

30% Design Submittal

Based on the preliminary engineering report, 30% drawings will be created for review by the City. ~~The filing items will be confirmed.~~

1. Avoidance of special status species
2. Earthwork ~~balance~~import/export estimates
3. ~~Intake~~ Inlet/Outlet design from new reservoirs to conveyance piping
4. Conveyance pipelines~~ing~~
5. Site access, security, and drainage
6. BMPs
7. Minimizing construction cost
8. Minimizing maintenance issues

The drawings will include the site layout, civil improvements, and pipeline alignments.

Meetings	• 30% Design Review Meeting (virtual)
Deliverables	• 30% Design Drawings (22x34), 4 copies, pdf • Cost Opinion, pdf • Meeting agenda and notes

60% Design Submittal

ENGINEER will prepare the necessary contract documents (construction plans, typical details, specifications, and cost estimates) for the project based on the design criteria and recommendations included in the 30% Design. The City's standard front end will be used. The preparation of contract documents will be completed in three submittals: 60%, 90% and 100% Documents. Prior to each submittal, the work product will be reviewed through ENGINEER's QA/QC process and, upon submittal to the CLIENT, will have been reviewed and revised in accordance with the QA/QC plan. Submittal of the 60% and 90% review documents will occur at Project Review Workshops with the entire project team. The contents of the submittal will be presented to CLIENT to familiarize the group with the information being submitted and the design thought process behind the work. Following the Project Review Workshop, the CLIENT will have a 2-week review period to provide any additional comments which were not brought forward in the Project Review Workshop.

The 60% design submittal will communicate to the CLIENT the project design so that meaningful discussion can take place and the core project decisions can be made as a group. ENGINEER will use a combination of design drawings, manufacturers' information and other communication tools to allow the CLIENT an opportunity for significant input into the design process. The following deliverables will be provided by ENGINEER with this submittal:

1) Drawings:
   a) Civil design including reservoir compound, secondary caretaker's unit, and access road
   b) Pipeline Plan and Profiles
   ~~b)~~c) Pipeline tie in details~~Pipes~~
   ~~c)~~
   d) Hydraulic Profiles
   e) Electrical and instrumentation design
   f) Fencing
   g) Demolition. Timber harvest plan is assumed to be part of the City's separate scope.
   h) Erosion Control BMPs
2) Technical Specifications Outline
3) Construction Cost Opinion

Meetings	• 60% Design Review Meeting (virtual)
Deliverables	• 60% Design Drawings (22x34), pdf, 3 copies • Technical Specifications outline, pdf, 3 copies • Cost Opinion, pdf, 3 copies • Meeting agenda and notes

90% Design Submittal

The 90% Design Submittal will be a complete project package, with all design drawings, details and specifications completed. The period between 90% and 100% should solely be dedicated to minor inter-disciplinary coordination and final QA/QC checking of all documents.

Meetings	• 90% Design Review Meeting (virtual)
Deliverables	• 90% Design Drawings (22x34), pdf, 3 copies • Specifications, pdf, 3 copies • Cost Opinion, pdf, 3 copies • Meeting agenda and notes

	• Final Geotechnical Report, pdf

100% Design Submittal

100% Documents will be prepared. Comments provided by the CLIENT at the 90% design stage or QA/QC comments generated by ENGINEER's QA/QC review team will be addressed and the project set will be completed.

A SWPPP will be created for the project site.

Meetings	• None
Deliverables	• 100% Design Drawings (22x34) pdf, 1 wet signed copy, pdf • 100% Specifications, 1 wet signed copy, pdf • Cost Opinion, pdf

Task 7 Project Schedule and Permitting

Schedule

The project schedule will be updated at key milestones. The construction schedule will include post-construction activities.

Permitting

The anticipated permits are listed below. The City is to pay all permit fees and service application fees.

~~*SWPPP*~~

~~A SWPPP will be created for the project site.~~

Mendocino County Permitting by Water Works Engineers

The following permits are expected from Mendocino County during design. Permitting assumes only one submission and one comment response is needed to obtain each permit.

- Structural calculations for storage building concrete pad
- Building permit for City provided ADU plans
    - Required edits/revisions resultant from County of Mendocino building permit review process shall be revised by City and provided to WWE for resubmittal / incorporation into final site plan.

Mendocino County Permitting by City

- Encroachment permit for pipeline
- Grading permit including low-impact design
- Permit exemption for parking lot toilets

~~- The onsite wastewater treatment system (OWTS) permit through the Local Agency Management Plan (LAMP) from the county will be obtained for the caretaker's unit and parking lot bathroom.~~
~~- Building permit for the caretaker's unit and storage building~~

~~Our subconsultant, HLS, will assist with the caretaker's unit permitting.~~

~~Timberland Harvest Permit~~

~~The timberland harvest permit as part of the City's separate environmental scope.~~

Division of Drinking Water

Coordination with Division of Drinking Water is not required because it is a raw water project.

Task 8 Bidding Assistance

1) Attend a pre-bid meeting hosted by the City for prospective bidders and/or contractors and be available to answer questions.
2) Review and prepare written responses addressing technical questions submitted by the prospective bidders during the bid phase for inclusion in the bid addenda. Assumes 8 hours of assistance.

Task 9 Quality Control/Quality Assurance

All submittals (plans, calculations, reports, and associated documents) will adhere to a City approved quality assurance/quality control (QA/QC) program. The deliverables will be reviewed internally before submission to the City.

~~Alternate 1~~ Task 10 **– Noyo River Crossing Lining or Replacement**

This is assumed to be a standalone task that would be added to the main project. To minimize cost, it is assumed that the existing Noyo River Crossing pipeline may be lined. There are several lining options including performing Pressure Cured-in-Place-Pipe (CIPP), slip lining with HDPE, or using a liner product like Primus Line. The options will be compared to determine the most feasible and cost-effective option. Items to be addressed are ensuring the lining can go through the existing 45° elbows, restraining the pipe, and ensuring the lined pipeline meets the City's desired pressure rating. ~~Our subconsultant, HLS, will provide survey for this task.~~

Task 11 ~~Alternate 2~~ **– Culvert Replacement for Segment 2**

Culvert Sizing

~~This is assumed to be a standalone task that would be added to the main project.~~ Drawings and specifications will be created for replacing five culverts.

The City will provide CAD files for the raw waterline to be able to locate the culvert locations. Publicly available USGS elevation data will be used to delineate catchment areas for each culvert.~~The size of the culverts will be based on information provided by the City. No hydraulic modeling of the watershed is included.~~ A rational method calculation, Q=CiA, will be used to calculate the peak flow for each culvert. This assumes that the catchment area does not exceed recommended rational method area limitations.

Impact Minimization

Our subconsultant, Rincon will assist with the design to ensure that the construction and development of culverts prevent or minimize impacts on hydraulic conditions and effects on aquatic habitats that can block fish from migrating to upstream habitats. Rincon will describe general culvert design and criteria for the identification of

conceptual-level passage components that would provide upstream and downstream volitional passage for California Coastal Chinook salmon, Northern California steelhead, and California Coast coho salmon. Rincon will briefly describe each species' migration timing and aquatic habitat requirements based on available literature. The description will be used to support the culvert replacements for Segment 2 of the Raw Water Line Replacement Project as part of the feasibility of fish passage assessment. ~~Our subconsultant, will provide survey for this task.~~

Assumptions

1) Once the ~~The~~ requirements to be met for the grant funding are known, additional ~~will~~ task orders may be needed to meet the new requirements. ~~be provided by the City at notice to proceed.~~
2) Project must be compliant with By America and America Iron and Steel.
3) The timberland harvest permitting is covered under the City's separate environmental project.
4) The reservoir security is assumed to be provided with manual gates ~~and no cameras~~.
5) The reservoir gate operators are assumed to be manual.
6) The scope does not include hydraulic or habitat simulation modeling, or technical studies to provide biological objectives.
7) Current fish barrier databases are not comprehensive and may not include all fish barriers in the project areas.
8) Fish passage analyses will be conducted by qualified fish biologists and will be based on regulatory fish passage criteria. These analyses should only be used as a planning tool.
9) The scope does not include monitoring plans and obtaining permits needed for culvert construction.
10) Assumes the pipelines ~~is~~are 12,000~~1,500~~ feet or less.
11) Assumes that we will be allowed access to the site during normal working hours.
12) City of Fort Bragg to provide written permission from the property owners for access and entry onto private property.
13) City of Fort Bragg to provide current title reports of the subject properties.
14) Filing/recording any Records of Survey or Corner Records is excluded from the Proposed Compensation portion of this proposal.
15) No property corners will be set as part of this survey.
16) A record, best-fit boundary will be used, the boundary will be calculated from record maps and adjusted to a minimal number of survey monuments located in the field.
17) Plotting of any existing easements within the project area is excluded from this proposal.

18) The City of Fort Bragg shall be responsible for notifying property owners in advance for any activity that is to take place near their properties that lie outside the public Right-of-Way.
19) No electrical or hazardous material permit will be required for the solar system.
20) No modifications to existing facilities including the Summers Lane reservoir, pipelines, and pumping systems are included except for the pipeline tie-ins showed in the PER.
21) Comments on deliverables will be received within 10 business days of deliverable in one combined package.
22) No water quality modeling is included.
23) No analysis of water rights is included.
24) No hydraulic modeling is included. Pipeline sizes are based on flowrates provided by the City.
~~18)~~25) No encroachment permit is included for the geotechnical work.
26) No easement will be obtained to cross the leased parcel within the City's property.
27) No boundary survey will be performed.
28) Where conventional survey area needs some trimming, then it will be kept to a minimum will be allowed.
29) Individual trees will not be located.
~~19)~~

Water Works Engineers Fee Estimate

Client City of Fort Bragg
Project Fort Bragg Reservoir Project for Water Storage Resilience
Date 12/1/2025

Hours and Fee

			Subtask 1		Subtask 2		Subtask 3		Subtask 4		Subtask 5		Subtask 6		Subtask 7		Subtask 8		Subtask 9		Subtask 10		Subtask 11	
		Year	2026		2024		2026		2025		2026		2026		2026		2027		2026		2025		2026	
			Meetings and Project Management		Preliminary Engineering Report		Survey		Geotechnical		Environmental/ CEQA Compliance Coordination		Design		Project Schedule and Permitting		Bidding Assistance		Quality Control/ Quality Assurance		Noyo River Crossing		Culvert Replacement	
Water Works Engineers		**2024**	hrs	fee	hrs	fee	hrs	fee	hrs	fee	hrs	fee	hrs	fee	hrs	fee	hrs	fee	hrs	fee	hrs	fee	hrs	fee
Classification	**Title**	**Hourly Rate**																						
E5	Todd Kotey, PE	$272	8	$2,309	8	$2,176							90	$25,971	6	$1,731			76	$21,931	8	$2,241	16	$4,617
E4	Cindy Bertsch, PE	$235	70	$17,452	43	$10,105	10	$2,493	8	$1,936	40	$9,972	180	$44,876	42	$10,471	20	$5,136			32	$7,746	60	$14,959
E3	Jon Roy, PE	$203			61	$12,383					30	$6,461	260	$55,994	16	$3,446	32	$7,098			32	$6,691	80	$17,229
E3	Himai Mehere, PE	$203													18	$3,877								
E3	Tim Lewis, PE	$203											80	$17,229							40	$8,364		
E2	Associate Engineer	$180			36	$6,480					20	$3,819	204	$38,956	50	$9,548					40	$7,416	116	$22,152
E1	Staff Engineer	$147			40	$5,880							160	$24,952										
T3	Senior Designer	$163			40	$6,520							350	$60,524							40	$6,716	40	$6,917
T2	Designer/Sr. Technician	$134											320	$45,491							60	$8,281	60	$8,530
AA	Administrative	$83	18	$1,585																				
Expenses																								
	Expenses													$3,000				$1,000						
	E&I-Frisch													$67,000				$3,100						
	Geotechnical-Bajada									$93,000														
	SWPPP													$7,800										
	SHN-Survey							$88,000																
	Fisheries-Rincon																							$28,900
Subconsultant/Expense Markup		10%		$0		$0		$8,800		$9,300		$0		$7,780		$0		$410		$0		$0		$2,890
		Subtask Totals	*96*	*$21,345*	*228*	*$43,544*	*10*	*$99,293*	*8*	*$104,236*	*90*	*$20,253*	*1644*	*$399,575*	*132*	*$29,073*	*52*	*$16,744*	*76*	*$21,931*	*252*	*$47,454*	*372*	*$106,193*

Project Total (Subtasks 1 - 11)	
Hours	**Fee**
2,960	**$909,641**