



**AGENDA AND MEETING NOTICE
OF THE NORTH TAHOE PUBLIC UTILITY DISTRICT
DEVELOPMENT AND PLANNING COMMITTEE**

Monday, June 10, 2024 at 1:00 p.m.

**North Tahoe Public Utility District
Administrative Offices
875 National Avenue
Tahoe Vista, CA 96148**

Welcome to a meeting of the North Tahoe Public Utility District
Development & Planning Committee

A meeting of the North Tahoe Public Utility District Development & Planning Committee will be held on Monday, June 10, 2024, at 1:00 p.m. at the North Tahoe Public Utility District Administrative Offices, 875 National Ave. Tahoe Vista, CA 96148

The District welcomes you to its meetings. Your opinions and suggestions are encouraged. The meeting is accessible to people with disabilities. In compliance with Section 202 of the Americans with Disabilities Act of 1990 and in compliance with the Ralph M. Brown Act, anyone requiring reasonable accommodation to participate in the meeting should contact the North Tahoe Public Utility District office at (530) 546-4212, at least two days prior to the meeting.

All written public comments received by 12:00 p.m. on Monday, June 10, 2024 will be distributed to the District Board Committee Members for their consideration at the meeting. Written comments may be emailed to mmoga@ntpud.org, mailed or dropped-off at NTPUD's Administrative Offices located at 875 National Ave., Tahoe Vista, CA. 96148.

1. **CALL TO ORDER**
2. **PUBLIC COMMENT** – *Any person wishing to address the Development & Planning on Items on the agenda or matters of interest to the District not listed elsewhere on the agenda may do so at this time. Please limit comments and questions to three (3) minutes since no action can be taken on items presented under Public Comment.*
3. **TOPICS OF DISCUSSION**
 - a. [Review and Discuss Authorizing the General Manager to Execute a Professional Services Agreement for the National Avenue Water Treatment Plant Equipment Assessment and Recommendations Study – Recommendation to Full Board \(Pages 2-17\)](#)
4. **ADJOURNMENT**



**NORTH TAHOE
PUBLIC UTILITY DISTRICT**

Committee Agenda Item 3.a.

DATE: June 11, 2024

ITEM: F-4

FROM: Planning and Engineering Department

SUBJECT: Authorize the General Manager to Execute a Professional Services Agreement for the National Ave Water Treatment Plant Equipment Assessment and Recommendations Study

RECOMMENDATION:

Authorize the General Manager to execute a Professional Services Agreement in the amount of \$230,077 with Jacobs for the National Ave Water Treatment Plant Equipment Assessment and Recommendations Study (Project #2464).

DISCUSSION:

The National Avenue Water Treatment Plant (NAWTP) provides the primary source of potable water to the District's Tahoe Main water system. The NAWTP meets Federal and California drinking water regulations and operates under the Surface Water Treatment Rule Filtration Avoidance Criteria and operates under Water Supply Permit No. 01-09-05-PER-014. Filtration avoidance permits are only provided to water systems where the source water is of exceptional quality and traditional filtration would not improve the water quality. There are 54,000 public water systems in the United States and there are only 60 filtration avoidance permits that have been issued and six of those are at Lake Tahoe.

The NAWTP meets the filtration avoidance criteria by inactivating pathogens that may be present in the water but are not physically filtered from the raw water but are inactivated by multiple disinfectant barriers. At the NAWTP, the primary disinfection barrier is chlorine, and the second disinfection barrier is Ultraviolet (UV) disinfection. Combined, these two processes ensure inactivation of viruses, Giardia, and Cryptosporidium in conformance with Federal and California drinking water regulations.

The NAWTP, in its current configuration, was constructed and placed into service in November 2002. District Staff met Jacobs on-site to walk the NAWTP and requested them to develop a scope of work to complete an assessment and provide recommendations to modernize and extend the life of this critical asset. Specific tasks include data collection and background review, regulatory review and permitting support, treatment performance evaluation, operability and safety review, I&C and SCADA assessment, electrical assessment, security assessment, seismic assessment, and improvement recommendations. The proposed scope of work follows this memorandum.

The District has selected Jacobs, a leading firm in the United States for water and wastewater system engineering, to provide engineering consulting services for the planning and assessment of the NAWTP. Jacobs has extensive experience in the Tahoe Basin and has completed two successful Filtration Avoidance Surface Water Treatment Plant planning, design, and construction projects at Lake Tahoe.

FISCAL ANALYSIS:

This project is included in the Fiscal Year 2023/24 Capital Budget for the Water Fund as National Ave Water Treatment Plant Equipment Assessment and Recommendations Study, Project # 2464 with an available budget of \$150,000. Fiscal Year 2024/25 contains an additional \$100,000 for a total project budget of \$250,000. There is a sufficient budget to allow the completion of the proposed Professional Services Agreement with Jacobs.

STRATEGIC PLAN ALIGNMENT:

Goal 1: Provide safe, efficient, sustainable water and wastewater services focusing on industry best practices and continuous improvement – Objective B: Optimize preventative maintenance of District utility system assets – Tactic 1: Continue corrective maintenance to improve system reliability – Activity a: Inspect and repair water systems asset deficiencies.

ATTACHMENTS:

Jacobs, National Ave Water Treatment Plant Equipment Assessment and Recommendations Study – Proposed Scope of Services and Fee Estimate

MOTION:

Approve Staff Recommendation

REVIEW TRACKING:

Submitted By:		Approved By:	
	Joseph J. Pomroy, P.E.		Bradley A. Johnson, P.E.
	Engineering & Operations Manager		General Manager/CEO

Reviewed By:	
	Vanetta Van Cleave
	Chief Financial Officer

May 24, 2024

Mr. Nathan Chorey
Engineering Manager
North Tahoe Public Utility District
875 National Ave., PO Box 138,
Tahoe Vista, CA 96148

Subject: National Ave Water Treatment Plant Equipment Assessment and Recommendations Study

Dear Nathan,

Jacobs Engineering Group Inc. (Jacobs) is pleased to provide the North Tahoe Public Utility District (NTPUD) with this proposal for engineering consulting services related to the National Ave Water Treatment Plant Equipment Assessment and Recommendations Study.

Our proposed Project Manager, Monica Morales, and our deep bench of drinking water treatment, security, structural, instrumentation and controls and other subject matter experts (SMEs) provide the following benefits:

- **Global experts in drinking water treatment.** Jacobs is a leader in the water industry including consulting, alternative delivery and operation and maintenance and the #2 consulting firm for Water supply including water treatment.
- **Global leaders in permitting and regulations.** Jacobs has extensive experience in review, interpretation, planning, assessment, and application of State and Federal regulations.

If you have any questions, please do not hesitate to contact me.

Best Regards,

Jacobs Engineering Group Inc.



Kyle Foss, PE
Manager of Projects
kyle.foss@jacobs.com
970-368-0553 (m)



Monica Morales, PE, ENV SP
Project Manager
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ATTACHMENT A – SCOPE OF SERVICES

Project Background

The North Tahoe Public Utility District (NTPUD) is assessing needed improvements for its National Ave Water Treatment Plant including its treatment equipment, such as filters and UV treatment equipment, and looking for recommendations based on this assessment. Along with treatment equipment improvements, NTPUD would like to also understand other potential improvements that could be incorporated alongside treatment improvements such as security, seismic, conveyance and site improvements.

Project Objectives

The NTPUD's primary project objectives are to have Jacobs assess the current treatment equipment at the National Ave Water Treatment Plant (WTP) with respect to:

1. 25-Micon Strainer Equipment
2. Trojan UV Disinfection Equipment
3. Chlorination System Equipment

Task Assumptions

1. The schedule to complete the scope of work is 12 months from the start of Notice-To-Proceed (NTP) provided by NTPUD.
2. The deliverables will be a technical memorandum with recommendations based on the assessment conducted.
3. A monthly 30-minute call conducted via MS Teams held to review project progress, schedule, and review any necessary questions to aid the assessment study.
4. A site visit for three SMEs to assess the National Ave WTP after initial investigation has been conducted based on drawings and site photos.
5. A monthly progress report will be included with the monthly invoice.
6. All in-person meetings and site visits will include 2-hours of travel time from Reno, NV, unless staff are driving from Sacramento or Redding offices.
7. The National Ave WTP source water will continue to meet the filtration avoidance criteria outlined in the California Code of Regulations, Title 22, § 64652.5.

8. The National Ave WTP current unit processes adequately addresses any treatment and water quality challenges presented by the source water and no additional treatment is needed to address taste & odor, iron, manganese, disinfection byproduct precursors, corrosivity, and PFAS/PFOA to meet the District's treatment and finished water quality goals.
9. Consultant assumes that the WTPs current treatment process will meet current and future applicable regulations for the next 25-years.
10. No formal cost opinions or estimates will be provided for Task 2 of the scope.

Task 1 – Project Management and Administration

This task includes project management throughout the project including compiling monthly invoicing and progress reporting.

Meetings:

- 2-hour Project Kick-off Meeting with the PM and two local staff in-person and two SMEs attending virtually
- Monthly 30-minute virtual progress meeting
- 2-hour Project Close Out Meeting describing recommendations from assessment completed

Deliverables:

- Monthly progress report included with the monthly invoice

Task 2 – Disinfection Plant Evaluation and Recommendations

Jacobs will complete an evaluation of the National Ave WTP that will include reviewing current source and finished water quality data, current treatment performance, and operability and safety concerns. Jacobs will develop potential solutions to address identified challenges and provide defensible recommendations for improving the plant. The following subtasks will be included in this task:

- Subtask 2.1 – Data Collection and Review
- Subtask 2.2 – Regulatory Review and Permitting Support
- Subtask 2.3 – Treatment Performance Evaluation
- Subtask 2.4 – Operability and Safety Review
- Subtask 2.5 – I&C and SCADA Assessment
- Subtask 2.6 - Electrical Assessment

- Subtask 2.7 – WTP Improvements Recommendations

Subtask 2.1 - Data Collection and Review

The data collection subtask will assist Jacobs in completing subsequent analyses and evaluations included in the scope of this task. Jacobs will make a formal data request for information that will assist in performing the WTP evaluation and developing alternatives for the project. The formal data request will be compiled into an electronic format and transmitted via email to the NTPUD. The data request may include but is not limited to the information listed below. It should be noted that the NTPUD has already supplied some of this data as part of the project scoping process. Information that has already been provided is noted below with an asterisk.

- Source Water Quality Sampling Data and Lab Reports
- Finished Water Quality Sampling Data and Lab Reports
- Plant Performance and Water Quality SCADA Data
- Plant Record Drawings* and Design Documents
- Permitting Documents (operating permit*, and recent correspondence with regulator)
- Plant O&M Manuals*

Once the data request has been fulfilled by the NTPUD, Jacobs will summarize the data provided in a data collection matrix that will be shared with the NTPUD. Jacobs assumes up to 40 hours to request, collect, review, and summarize relevant data. Jacobs will identify data gaps and make recommendations to the NTPUD for additional data gathering and studies necessary to conduct more detailed evaluations as needed.

Deliverables:

- Data collection matrix summary (electronic PDF format)

Subtask 2.2 - Regulatory Review and Permitting Support

Jacobs will support the NTPUD in preparing for and engaging in discussions with California's Division of Drinking Water (Regulator) regarding the proposed improvements project at the National Ave WTP. Jacobs will help prepare for and attend up to two (2) meetings with the regulator for this project. Jacobs assumes that up to three (3) staff will attend the virtual coordination meetings with the Regulator. Potential topics of discussion with the Regulator may include, but are not limited to the following:

- Introducing the improvements project scope and tentative timeline
- Proposing the removal of the 25-micron strainers
- Reclassifying the plant as a Water Disinfection Plant instead of a Water Treatment Plant

Support provided by Jacobs in preparation for and during meetings with the regulator will include the following:

- Developing meeting agendas
- Preparing presentation materials to support discussion
- Preparing draft and final meeting minutes

Meetings:

- Two virtual coordination meetings with Regulator up to 1 hour each

Deliverables:

- Meeting agendas and summary (electronic copy in PDF format)

Subtask 2.3 - Treatment Performance Evaluation

Jacobs will review collected process performance data to understand the current baseline plant performance and identify any areas of concern. Specific objectives of this task will include:

1. Document the treatment and operational benefits or non-benefits of the 25-micron strainers to support justification for their removal.
2. Establish the remaining useful life of critical process equipment to support justification for replacement and/or upgrade.
 - UV equipment is assumed to be nearing the end of its useful life.

The evaluation performed in this subtask will help inform treatment improvements and upgrade recommendations for the facility which will be presented at the *Recommendations Workshop*.

Subtask 2.4 - Operability and Safety Review

Jacobs will conduct a plant walkthrough after the kickoff meeting with NTPUD O&M staff to identify safety and operability concerns at the plant. Jacobs assumes that three (3) staff will be present for the site visit. The site visit will entail two (2) hours of touring the plant with O&M staff to identify their concerns and one (1) hour of onsite discussion following the tour. During the tour, Jacobs will digitally log each of the safety and operability concerns and take pictures. Directly following the plant walkthrough, Jacobs will review the identified safety and operability items and assign the priority as high, medium, and low for each item.

After the site visit, Jacobs will provide the NTPUD with a summary of the identified operability and safety items and their assigned priority for the NTPUD to review and comment on internally.

Meetings:

- Three-hour in-person site visit as part of the project kickoff

Deliverables:

- Prioritized list of operability and safety improvements (electronic copy in PDF format)

Subtask 2.5 – I&C and SCADA Assessment

Jacobs will evaluate existing equipment, available spare capacity, and alternatives considering replacement of or upgrades to the existing equipment with the NTPUD. Jacobs, in coordination with the NTPUD, will evaluate the existing instrumentation and will try to use the same type of instrumentation being used now for the process, to keep consistency and reduce spares required. This may vary based upon which process alternative is selected. Jacobs will evaluate available control systems (instrumentation, PLC/SCADA system, and devices like valves, motors, MCCs, and VFDs etc.) for the availability of spares of the existing devices, against the requirement of the upgraded systems design.

Meetings:

- Jacobs will conduct one additional in-person site visit where the meeting is to be attended by an I&C engineer, junior staff engineer, and additional persons as required for project management.

Deliverables:

- List of types of instrumentation to be used for different processes for upgrades.
- Evaluation recommendations for the need of additional IO, PLC, SCADA, control panels, and space evaluation within Task 2 Summary TM.

Subtask 2.6 – Electrical Assessment

Jacobs will evaluate existing equipment, available spare capacity, and alternatives considering replacement or upgrades with the NTPUD via the in-person site visit. Jacobs will use the information gathered during the site visit and workshops to make recommendations for electrical improvements at the plant.

Meetings:

- Jacobs will conduct one in-person site visit attended by an electrical engineer, and additional persons as required for project management.

Deliverables:

- Evaluation recommendations for electrical requirements included in Task 2 Summary TM.

Subtask 2.7 – Improvements Recommendations

Jacobs will present the recommended WTP improvements to the NTPUD at a 3-hour in person *Recommendations Workshop*. The recommendations presented at the workshop will include the following:

- Process equipment and/or infrastructure to be decommissioned/demolished
- Process equipment and/or infrastructure to be replaced or upgraded
- Non-process safety and operability improvements

Jacobs will evaluate available UV disinfection equipment replacement options and assess their fit into the current space allotted at the WTP. No cost estimates will be provided as part of this evaluation.

Jacobs assumes up to five (3) staff will be attend the workshop in person with additional staff attending remotely as needed. The objective of the meeting will be to obtain feedback from the NTPUD on the recommended improvements and reach concurrence on the WTP improvements project scope of work for the next project phase.

Meetings:

- 3-hour Recommendations Workshop

Deliverables:

- Workshop agendas and minutes (electronic copy in PDF format)
- Annotated PowerPoint slides from workshop

Task 3 – Security Assessment

Jacobs will review and collect information on existing security systems in place and any other Inspection Reports provided by NTPUD, as well as architectural background drawings (electronic) to create security layouts. Jacobs will review the existing site conditions to include:

- Review existing security measures
 - Review existing doors for access control systems currently in use
 - Identify fencing needs
 - Camera locations
 - Local video storage and off-site storage
 - Remote access
- Identify location for primary monitoring of all security functions
 - Identify area for local network hardware to communicate with headquarters building on National Avenue.

Meetings:

- 3 hour in-person site visit

Deliverables:

- Jacobs will prepare a technical memorandum with recommendations based on the assessment conducted. The technical memorandum will include:
 - Recommend doors for access control, including general door hardware
 - Recommend cameras to be used and show their approximate locations on drawings provided by client or photos taken during the site visit, using Bluebeam for document creation
 - Recommend fencing, using anti climb technology and constant with the winter condition of the area

Task 4 – Seismic Condition Assessment

Subtask 4.1 – Seismic Condition Assessment and Recommendations

The North Tahoe Public Utility District (NTPUD) operates and maintains the National Avenue Water Treatment Plant Pump Station and Ultraviolet Process Building (NTPUD Pump Station Building). This reinforced masonry structure was originally built in approximately 1969 and is referred to as the Pump Station Building in the 2001 EcoLogic improvement plans which added additional floor space, new stairwell access, and crane rails to the structure.

This task will be to complete a visible inspection and seismic assessment of the building and visible major non-structural equipment attachments to the building, as well as a detailed review of the original building plans or as-builts. The seismic assessment will follow American Society of Civil Engineers (ASCE) Guideline 41-23 Seismic Evaluation and Retrofit of Existing Buildings guidelines and will identify areas of potential risk due to the building's structure and major structural components from site-specific seismic forces. Additionally, this task will involve discussions with NTPUD on determining the appropriate performance objectives for the building in the event of an earthquake within the framework of ASCE 41-23.

The goal of this task is to identify and provide to NTPUD a summary of any potential voluntary structural modifications that may enhance the seismic resiliency of the building, and to provide NTPUD enough information to make an informed decision on proceeding with preliminary design to address any such findings. Jacobs will develop a draft seismic assessment and voluntary recommendations technical memorandum for NTPUD to review. These recommendations will be based in part on the Performance Objectives determined by NTPUD. Following NTPUD review and input, Jacobs will incorporate NTPUD's comments and provide a final technical memorandum.

Deliverables:

- Draft and final seismic building assessment and recommendations technical memorandum, delivered electronically in PDF format.

Assumptions:

- Additional structural drawings or as-builts of the original building construction to are necessary for Jacobs to complete Task 4.1
- The technical memorandum will not include preliminary or final designs for any seismic retrofits or other modifications
- The seismic assessment will be limited to the visually accessible portions of the structure and building plans provided.
- No testing of materials, components, coatings, etc. will be included in the seismic assessment.
- Foundations, embedments, and all other non-visible and non-accessible components will be excluded from the condition assessment
- State and local building code criteria verification for new construction will be excluded from the condition assessment
- This scope will only evaluate major electro-mechanical equipment connections and supports to the existing building and not an evaluation of any aspect of the mechanical or electrical equipment itself
- Any analysis of existing electro-mechanical supports to the building shall be based on equipment specifications provided by NTPUD or, if unavailable, similar equipment specifications
- The UV equipment support systems will not be analyzed as it is assumed they will be replaced in the near future
- Assessment of the electrical and SCADA system conditions is excluded from the condition assessment
- Geotechnical evaluation is excluded from the condition assessment
- The seismic assessment will not include recommendations on estimates on remaining useful life, or any other predictions of future performance

Subtask 4.2 – Opinion of Probable Cost

This subtask will provide a Class 5 level Opinion of Probable Cost construction estimate on up to two potential suggested retrofits and repair construction work that would be identified from Task 4.1. The purpose of this subtask is to provide NTPUD a rough order-of-magnitude cost for budgeting and decision-making purposes on any potential recommended seismic upgrades. The level of effort for this task is dependent on the results of Task 4.1.

Deliverables:

- Class 5 Opinion of Probable Cost for recommendations of seismic retrofit findings from Task 4.1 of up to two major repairs to the structure.

Assumptions:

- Fee assumes one round of minor comments from NTPUD will need to be addressed for the final technical memorandum
- Task 4.2 will be time and materials based on the results of Task 4.1
- Up to two major repairs will be estimated, if identified

Task 5 – Intake Pumping Relocation Assessment

Jacobs will complete an evaluation of the exiting Intake Pumping System (IPS) which is

[REDACTED]

Jacobs will review current source material, near shore bathymetry and discuss the system and maintenance activities with the operators. Jacobs understands that the four screens are in good shape and that most of the maintenance issues concern the submersible pumps in the offshore manifold. Jacobs will develop one alternative for different hydraulic conditions that would allow for a near shore diversion. The following subtasks will be included in this task:

- Subtask 5.1 – Data Collection, Review and Operations Discussions
- Subtask 5.2 – Develop Alternative

Subtask 5.1 – Data Collection, Review and Operations Discussions

In addition to the As-built drawings, Operations & Maintenance Manual and Regional Water Quality Control Board (RWQCB) Permit that the NTPUD has provided, Jacobs would review the pump O&M manual, maintenance records and near shore bathymetry. Once Jacobs has assessed the information, Jacobs would like to discuss the system operations and maintenance requirements of the system with the Operators. In collaboration with the NTPUD, Jacobs would develop a list of maintenance objectives for the near shore alternatives. This effort includes a site visit for intake and pump leads.

Subtask 5.2 – Develop Alternative

Jacobs will develop an alternative that was provided by NTPUD [REDACTED]

[REDACTED]
[REDACTED]
[REDACTED] The alternative would consist of a description, a plan sketch, a profile sketch and hydraulic calculations. This information will be documented in technical memorandum with recommendations and next steps.

Meetings:

- 2 hour in-person site visit for intake and pump leads

Deliverables:

- Jacobs will prepare a technical memorandum with recommendations based on the assessment conducted

Compensation

The total fee associated with the outlined scope for Task 1 through Task 5 sums to \$230,077.00.

Individual hourly rates will be charged on a time-and-materials basis per Attachment B based on the individual employee classification. These rates are subject to calendar year adjustments commencing in 2025. Rates include all allowances for salary, overheads and fees. Direct expenses for travel will be charged at cost plus 10 percent. Labor and direct costs will be billed as stated plus applicable sales, use, value added, business transfer, gross receipts, or other similar taxes. Attachment C displays the detailed fee estimate.

Jacobs will notify the NTPUD in writing when incurred costs equal 85 percent of the budgeted amount. Jacobs is not obligated to incur costs beyond the indicated budget, as may be adjusted, and the NTPUD is not obligated to pay Jacobs beyond these limits.

When any budget has been increased, Jacobs's excess costs expended prior to such increase will be allowable to the same extent as if such costs had been incurred after the approved increase.

General Assumptions

The following general assumptions apply to proposed activities:

- i. Budgets will be managed at the Project Level; Jacobs will inform the NTPUD of any changes that may require additional funds via a change order before proceeding with the work.
- ii. To facilitate rapid distribution of information, deliverables will be furnished electronically. Unless otherwise indicated, final deliverables will be provided as native

electronic files (Microsoft Word®, Microsoft Excel®, and pdf format as appropriate). Reproduction of hard copies shall be performed by NTPUD.

- iii. In providing opinions of cost, financial analyses, economic feasibility projections, and schedules for the Project, Jacobs has no control over the cost or price of labor and materials; unknown or latent conditions of existing equipment or structures that may affect operation or maintenance costs; competitive bidding procedures and market conditions; time or quality of performance by operating personnel or third parties; and other economic and operational factors that may materially affect the ultimate Project cost or schedule. Therefore, Jacobs makes no warranty that actual Project costs, financial aspects, economic feasibility, or schedules will not vary from the opinions, analyses, projections, or estimates.

Attachment B
NTPUD Assessment Study
2024 Per Diem Rate Schedule
Professionals and Technicians*
Jacobs Hourly Billing Rates

<u>Classification</u>	<u>Rate</u>
Fellow Technologist	\$295
Sr. Principal Technologist	\$285
Principal Technologist/Principal Project Manager	\$271
Sr. Technologist/Sr. Project Manager	\$251
Engineer Specialist*/Project Manager	\$241
Project Engineer*	\$215
Associate Engineer*	\$190
Staff Engineer 2*	\$170
Staff Engineer 1/Global Design Center Engineer*	\$150
Design Tech 5	\$165
Design Tech 4	\$155
Design Tech 3	\$140
Design Tech 2	\$123
Design Tech 1/Global Design Center CAD Technician	\$105
Office/Clerical/Accounting	\$100

Notes:

1. A markup of 10% will be applied to all Other Direct Costs and Expenses.
2. These rates are effective through December 31, 2024.
3. Rate Schedule subject to annual revision to reflect current rates.

* includes engineering, architect, consulting, planner, and scientist disciplines

Attachment C																						
Detailed Fee Estimate																						
North Tahoe Public Utility District																						
National Avenue Water Treatment Plant Improvements Assessment Study																						
Task Nos.	Task/Activity Description	Labor Classification	Paul Swaim	Brett Isbell	Monica Morales	Joseph Zalla	Will Porter	Blaga Delic	John DeWolf	Madan Patel	Tyler Verdi	Steve Parker	Dylan Menes	Sean Troyan	Pete Rude	Mike Riess	Michael Henderson					
		Billing Class	\$295	\$295	\$241	\$295	\$170	\$150	\$251	\$295	\$150	\$271	\$271	\$241	\$295	\$271	Associate Engineer	Office /Clerical /Accounting	Total Labor Hours	Total Labor Costs (\$)	Travel and Other Expenses (\$)	TOTAL Estimated Cost (\$)
		Rate																	Total Labor	Total Labor	Travel and Other	TOTAL Estimated
Task 1	Project Management and Meetings	Task Total	0	0	102	4	4	12	0	0	0	0	18	0	0	0	0	0	140	\$33,731	\$3,500	\$37,231
Task 2	Water Treatment Evaluation and Recommendations	Task Total	4	2	16	77	144	68	0	16	16	16	10	0	0	0	0	24	393	\$81,057	\$7,350	\$88,407
Subtask 2.1	Data Collection and Review	Subtask Total			2	10	20	10					1						43	\$8,762		
Subtask 2.2	Regulatory and Permitting Support	Subtask Total			2	10	12	4					1						29	\$6,460		
Subtask 2.3	Treatment Performance Evaluation	Subtask Total	2		2	20	40	20					1						85	\$17,358		
Subtask 2.4	Operability and Safety Reivew	Subtask Total			4	12	12	4					4						36	\$8,380	\$3,500	
Subtask 2.5	I&C and SCADA Assessment	Subtask Total			2					16	16		1						35	\$8,018	\$3,500	
Subtask 2.6	Electrical Assessment	Subtask Total			2							16	1						19	\$5,183	\$350	
Subtask 2.7	Improvements Recommendations	Subtask Total	2	2	2	25	60	30					1					24	146	\$26,896		
Task 3	Security Assessment	Task Total	0	0	8	0	0	8	0	0	0	0	8	0	0	0	120	8	152	\$29,429	\$1,400	\$30,829
Task 4	Seismic Retrofit Assessment	Task Total	0	0	8	0	0	8	40	0	0	0	84	32	0	0	0	12	184	\$45,671	\$0	\$45,671
Subtask 4.1	Seismic Condition Assessment and Recommendation	Subtask Total			4			8					78	30				8	128	\$31,910		
Subtask 4.2	Opinion of Probable Cost	Subtask Total			4				40				6	2				4	56	\$13,761		
Task 5	Intake Pumping Relocation Assessment	Task Total	0	0	8	0	0	16	0	0	0	0	8	0	20	50	0	8	110	\$27,239	\$700	\$27,939
Subtask 5.1	Data Collection, Review and Operations Discussion	Subtask Total			4			8					4		10	10			36	\$9,072	\$700	
Subtask 5.2	Develop Alternative	Subtask Total			4			8					4		10	40		8	74	\$18,167		
		TOTAL	4	2	142	81	148	112	40	16	16	16	128	32	20	50	120	52	979	\$217,127	\$ 12,950	\$230,077