AGREEMENT FOR PROFESSIONAL SERVICES
WITH WATER RESOURCES ENGINEERING, INC.
FOR THE RECYCLED WATER AND TREATED WASTEWATER DISCHARGE REDUCTION PROJECT

CITY PROJECT NO. 87050

THIS AGREEMENT is entered into this _____ day of _____, 2024, by and between the City of Burlingame, State of California, herein called the "City", and **WATER RESOURCES ENGINEERING, INC.** engaged in providing **PROFESSIONAL CONSULTANT ENGINEERING** services herein called the "Consultant".

RECITALS

A. The City is considering activities for consultant engineering services for to perform feasibility and implementation studies for the Recycled Water and Treated Wastewater Discharge Reduction Project, City Project No. 87050.

B. The City desires to engage a professional engineering services because of the Consultant's experience and qualifications to perform the desired work, described in Exhibit A.

C. The Consultant represents and affirms that it is qualified and willing to perform the desired work pursuant to this Agreement.

AGREEMENTS

NOW, THEREFORE, THE PARTIES HERETO AGREE AS FOLLOWS:

1. Scope of Services. The Consultant shall provide professional engineering services to perform feasibility evaluation and implementation analysis of various alternatives. The Consultant shall collect data, identify partnership alternatives, identify cost-effective and feasible alternatives, perform outreach, perform preliminary environmental work, prepare planning level cost estimates, and as detailed in "Scope of Services" of the attached Exhibit A of this agreement.

2. Time of Performance. The services of the Consultant are to commence upon the execution of this Agreement with completion of all work by December 31, 2025.

3. Compliance with Laws. The Consultant shall comply with all applicable laws, codes, ordinances, and regulations of governing federal, state and local laws. Consultant represents and warrants to City that it has all licenses, permits, qualifications and approvals of whatsoever nature which are legally required for Consultant to practice its profession. Consultant represents and warrants to City that Consultant shall, at its sole cost and expense, keep in effect or obtain at all times during the term of this Agreement any licenses, permits, and approvals which are legally required for Consultant to practice its profession. Consultant shall maintain a City of Burlingame business license.

4. Sole Responsibility. Consultant shall be responsible for employing or engaging all persons necessary to perform the services under this Agreement.

5. Information/Report Handling. All documents furnished to Consultant by the City and all reports and supportive data prepared by the Consultant under this Agreement are the City's property and shall be delivered to the City upon the completion of Consultant's services or at the City's written request. All reports, information, data, and exhibits prepared or assembled by Consultant in connection with the performance of its services pursuant to this Agreement are confidential until released by the City to the public, and the Consultant shall not make any of these documents or information available to any individual or organization not employed by the Consultant or the City without the written consent of the City before such release. The City acknowledges that the reports to be prepared by the Consultant pursuant to this Agreement are for the purpose of evaluating a defined project, and City's use of the information contained in the reports prepared by the Consultant in connection with other projects shall be solely at City's risk, unless Consultant expressly consents to such use in writing. City further agrees that it will not appropriate any methodology or technique of Consultant which is and has been confirmed in writing by Consultant to be a trade secret of Consultant.

6. Compensation. Compensation for Consultant's professional services shall not exceed $860,910; and payment shall be based upon City approval of each task.

   Billing shall include current period and cumulative expenditures to date and shall be accompanied by a detailed explanation of the work performed by whom at what rate and on what date. Also, plans, specifications, documents or other pertinent materials shall be submitted for City review, even if only in partial or draft form.

7. Availability of Records. Consultant shall maintain the records supporting this billing for not less than three (3) years following completion of the work under this Agreement. Consultant shall make these records available to authorized personnel of the City at the Consultant's offices during business hours upon written request of the City.

8. Project Manager. The Project Manager for the Consultant for the work under this Agreement shall be Gustavo Arboleda, PE, President and CEO.

9. Assignability and Subcontracting. The services to be performed under this Agreement are unique and personal to the Consultant. No portion of these services shall be assigned or subcontracted without the written consent of the City.

10. Notices. Any notice required to be given shall be deemed to be duly and properly given if mailed postage prepaid, and addressed to:

To City:
Mahesh Yedluri, PE
Senior Civil Engineer
City of Burlingame
501 Primrose Road
Burlingame, CA 94010

To Consultant:
Gustavo Arboleda, PE
President and CEO
Water Resources Engineering, Inc.
400 Evelyn Avenue, Suite 105
Albany, CA 94404

or personally delivered to Consultant to such address or such other address as Consultant designates in writing to City.

11. Independent Contractor. It is understood that the Consultant, in the performance of the work and services agreed to be performed, shall act as and be an independent contractor and not an agent or employee of the City. As an independent contractor he/she shall not obtain any rights to retirement benefits or other benefits which accrue to City employee(s). With prior written consent, the Consultant may perform some obligations under this Agreement by subcontracting, but may not delegate ultimate responsibility for performance or assign or transfer interests under this Agreement.

Consultant agrees to testify in any litigation brought regarding the subject of the work to be performed under this Agreement. Consultant shall be compensated for its costs and expenses in preparing for, traveling to, and testifying in such matters at its then current hourly rates of compensation, unless such litigation is brought by Consultant or is based on allegations of Consultant's negligent performance or wrongdoing.

12. Conflict of Interest. Consultant understands that its professional responsibilities is solely to the City. The Consultant has and shall not obtain any holding or interest within the City of Burlingame. Consultant has no business holdings or agreements with any individual member of the Staff or management of the City or its representatives nor shall it enter into any such holdings or agreements. In addition, Consultant warrants that it does not presently and shall not acquire any direct or indirect interest adverse to those of the City in the subject of this Agreement, and it shall immediately disassociate itself from such an interest should it discover it has done so and shall, at the City's sole discretion, divest itself of such interest. Consultant shall not knowingly and shall take reasonable steps to ensure that it does not employ a person having such an interest in this performance of this Agreement. If after employment of a person, Consultant discovers it has employed a person with a direct or indirect interest that would conflict with its performance of this Agreement, Consultant shall promptly notify City of this employment relationship, and shall, at the City's sole discretion, sever any such employment relationship.

13. Equal Employment Opportunity. Consultant warrants that it is an equal opportunity employer and shall comply with applicable regulations governing equal employment opportunity. Neither Consultant nor its subcontractors do and neither shall discriminate against persons employed or seeking employment with them on the basis of age, sex, color, race, marital status, sexual orientation, ancestry, physical or mental disability, national origin, religion, or medical condition, unless based upon a bona fide occupational qualification pursuant to the California Fair Employment & Housing Act.

14. Insurance.

A. Minimum Scope of Insurance:

i. Consultant agrees to have and maintain, for the duration of the contract, General Liability insurance policies insuring him/her and his/her firm to an amount not less than: One million dollars

($1,000,000) combined single limit per occurrence and two million dollars ($2,000,000) aggregate for bodily injury, personal injury and property damage in a form at least as broad as ISO Occurrence Form CG 0001.

ii. Consultant agrees to have and maintain for the duration of the contract, an Automobile Liability insurance policy ensuring him/her and his/her staff to an amount not less than one million dollars ($1,000,000) combined single limit per accident for bodily injury and property damage.

iii. Consultant agrees to have and maintain, for the duration of the contract, professional liability insurance in amounts not less than two million dollars ($2,000,000) each claim/aggregate sufficient to insure Consultant for professional errors or omissions in the performance of the particular scope of work under this agreement.

iv. Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration, and defense expenses.

B. General and Automobile Liability Policies:

i. The City, its officers, officials, employees and volunteers are to be covered as insured as respects: liability arising out of activities performed by or on behalf of the Consultant; products and completed operations of Consultant, premises owned or used by the Consultant. The endorsement providing this additional insured coverage shall be equal to or broader than ISO Form CG 20 10 11 85 and must cover joint negligence, completed operations, and the acts of subcontractors. This requirement does not apply to the professional liability insurance required for professional errors and omissions.

ii. The Consultant's insurance coverage shall be endorsed to be primary insurance as respects the City, its officers, officials, employees and volunteers. Any insurance or self-insurances

maintained by the City, its officers, officials, employees or volunteers shall be excess of the Consultant's insurance and shall not contribute with it.

iii. Any failure to comply with reporting provisions of the policies shall not affect coverage provided to the City, its officers, officials, employees or volunteers.

iv. The Consultant's insurance shall apply separately to each insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

C. Workers' Compensation and Employers Liability Coverage:

i. In addition to these policies, Consultant shall have and maintain Workers' Compensation insurance as required by California law. Further, Consultant shall ensure that all subcontractors employed by Consultant provide the required Workers' Compensation insurance for their respective employees.

ii. The insurer shall agree to waive all rights of subrogation against the City of Burlingame, its officers, officials, employees, or volunteers for losses arising from work performed by the Company for the City of Burlingame.

D. All Coverages: Each insurance policy required in this item shall be endorsed to state that coverage shall not be canceled except after thirty (30) days' prior written notice by mail, has been given to the City (10 days for non-payment of premium). Current certification of such insurance shall be kept on file at all times during the term of this agreement with the City Clerk.

E. Acceptability of Insurers: Insurance is to be placed with insurers with a Best's rating of no less than A-:VII and authorized to do business in the State of California.

F. Verification of Coverage: Upon execution of this Agreement, Contractor shall furnish the City with certificates of insurance and with original endorsements effecting coverage required by this clause. The certificates and endorsements for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf. The certificates and endorsements are to be on forms approved by the City. All

certificates and endorsements are to be received and approved by the City before any work commences. The City reserves the right to require complete, certified copies of all required insurance policies, at any time.

15. Indemnification. To the fullest extent permitted by law, Consultant shall save, keep and hold harmless indemnify and defend the City, its officers, employees, authorized agents and volunteers from all damages, liabilities, penalties, costs, or expenses in law or equity, including but not limited to attorneys' fees, that may at any time arise, result from, relate to, or be set up because of damages to property or personal injury received by reason of, or in the course of performing work which arise out of, pertain to, or relate to, directly or indirectly, in whole or in part, the negligence, recklessness, or willful misconduct of Consultant, or any of the Consultant's officers, employees, or agents or any subconsultant. This provision shall not apply if the damage or injury is caused by the sole negligence, active negligence, or willful misconduct of the City, its officers, agents, employees, or volunteers.

16. Waiver. No failure on the part of either party to exercise any right or remedy hereunder shall operate as a waiver of any other right or remedy that party may have hereunder, nor does waiver of a breach or default under this Agreement constitute a continuing waiver of a subsequent breach of the same or any other provision of this Agreement.

17. Governing Law. This Agreement, regardless of where executed, shall be governed by and construed under the laws of the State of California. Venue for any action regarding this Agreement shall be in the Superior Court of the County of San Mateo.

18. Termination of Agreement. The City and the Consultant shall have the right to terminate this agreement with or without cause by giving not less than fifteen (15) days written notice of termination. In the event of termination, the Consultant shall deliver to the City all plans, files, documents, reports, performed to date by the Consultant. In the event of such termination, City shall pay Consultant an amount that bears the same ratio to the maximum contract price as the work delivered to the City bears to completed services contemplated under this Agreement, unless such termination is made for cause, in which event, compensation, if any, shall be adjusted in light of the particular facts and circumstances involved in such termination.

19. Amendment. No modification, waiver, mutual termination, or amendment of this Agreement is effective unless made in writing and signed by the City and the Consultant.

20. Entire Agreement. This Agreement constitutes the complete and exclusive statement of the Agreement between the City and Consultant. No terms, conditions, understandings or agreements purporting to modify or vary this Agreement, unless hereafter made in writing and signed by the party to be bound, shall be binding on either party.

IN WITNESS WHEREOF, the City and Consultant have executed this Agreement as of the date indicated on page one (1).

City of Burlingame

By _____
Lisa K. Goldman
City Manager

"Consultant"

_____
Water Resources Engineering, Inc.
Print Name:
Title:

Approved as to form:

_____
City Attorney – Michael Guina

ATTEST:

_____
City Clerk - Meaghan Hassel-Shearer

WRE | WATER RESOURCES ENGINEERING, INC.

Exhibit A

October 2, 2024

City of Burlingame
Mahesh Yedluri, PE
Senior Civil Engineer
501 Primrose Road
Burlingame, CA 94010

RE: Proposed Scope of Work for Professional Engineering Services for the ***Recycled Water and Treated Wastewater Discharge Reduction Project***

Dear Mr. Yedluri:

Water Resources Engineering, Inc. is pleased to submit the attached scope of work for Professional Engineering Services for the Recycled Water and Treated Wastewater Discharge Reduction Project.

WRE has teamed up with Carollo Engineers (Carollo) to complement our expertise in several areas relevant to the project, including water quality analysis and treatment system design. We have also partnered with Data Instincts for public outreach and LSA Associates, Inc. for environmental services.

If you have any questions, please contact me at (415) 538-7838.

Sincerely,

Gustavo Arboleda, PE
President and CEO

400 Evelyn Avenue, Suite 105
Albany, California 94706
415.538.7838 www.wrewater.com

Professional Engineering Services for the
Recycled Water and Treated Wastewater Discharge Reduction Project

Scope of Work, Staffing, Schedule, Budget

October 2, 2024

Introduction

This scope of work describes how Water Resources Engineering, Inc. (WRE) and subconsultants Carollo Engineers (Carollo), Data Instincts, and LSA Associates (LSA) will assist the City of Burlingame (City) in identifying alternative water supplies through water reuse, with the goal of reducing the impact of droughts on potable water supplies and improving the environment by reducing discharge of treated wastewater to San Francisco Bay. In addition, a goal of this study is to identify opportunities to reduce nutrient discharges to the Bay. The project team will develop alternatives and prepare a feasibility study for water reuse, work with the City to identify a preferred alternative for water reuse, nutrient reduction and wastewater discharge reduction, and design the selected alternative.

The scope of work is divided into three phases. One project management task will encompass phases A and B. Should the City decide to proceed to Phase C, a separate project management scope will be prepared. The project phases and their associated tasks are listed below:

- Phase A–Alternatives Development and Screening
  - Task 1: Collect and Review Data/Information
  - Task 2: Identify Potential Recycled Water Users
  - Task 3: Develop and Screen Alternatives
- Phase B–Alternatives Evaluation
  - Task 4: Evaluate Treatment Needs and Alternatives
  - Task 5: Evaluate Infrastructure Needs and Alternatives
  - Task 6: Identify the Most Cost-Effective and Feasible Option
  - Task 7: Develop a Cost-Benefit Analysis
- Phase C–Project Implementation (to be refined later if this phase goes forward)
  - Task 8: Conduct Environmental Work
  - Task 9: Conduct Public Outreach
  - Task 10: Prepare Design and Acquire Permits
- Task 11: Project Management (Phases A and B)

The work to be completed under each task is described below.

Scope of Work

Phase A. Alternatives Development and Screening

Task 1–Collect and Review Data/Information

The project team will prepare a data request for reference materials including:

- Previous studies completed by the City and neighboring agencies
- City of Burlingame Wastewater Treatment Plant (WWTP) process flows and water quality data
- Meter data for potential customers
- Utilities maps or GIS files
- Any other information/data needs identified

The City shall furnish Consultant available studies, reports and other data pertinent to Consultant's services; obtain or authorize Consultant to obtain or provide additional existing reports and data as required; furnish to Consultant services of others required for the performance of Consultant 's services hereunder, and Consultant shall be entitled to use and reasonably rely upon all such information and services provided by the City or others in performing Consultant's services hereunder. The project team will review the provided materials to inform the subsequent tasks described in this scope of work.

Project team member Data Instincts will coordinate with staff and project team members to facilitate one Internal Education Workshop to inform City staff about water reuse methods and technologies that might be considered for the study. Data Instincts will also facilitate a similar workshop with members of the City Council Recycled Water Subcommittee and the City Manager. The goal of both workshops is to ascertain existing perceptions and perspectives on potential reuse options. Information obtained from the workshops will inform future briefings to the full Council.

Task 1 Assumptions

City will provide requested data and coordinate with neighboring agencies for data and report collection as necessary.

Task 1 Deliverables

- Data Request List (Excel Spreadsheet via email).
- Internal Education Workshop PowerPoint slides and meeting minutes (PDF via email).

Task 2–Identify Potential Recycled Water Users

The project team will identify potential customers for recycled water including for irrigation, industrial, and non-potable use in dual-plumbed buildings. Potential opportunities for direct

potable reuse and indirect potable reuse, such as groundwater recharge and reservoir augmentation, will also be identified. The project team will facilitate up to four coordination meetings with agencies in neighboring cities/jurisdictions to identify potential opportunities for City participation in greater regional water reuse efforts.

Task 2 Assumptions

- City and project team will coordinate to schedule meetings with neighboring agencies and potential customers to discuss future common interests and potential alliances.
- Opportunities for potable reuse will largely rely on past studies and existing information available about the water systems that would be supplemented with recycled water. No hydrogeological studies will be conducted. Discussions with SFPUC's hydrogeologist will be used to determine viability of groundwater recharge.

Task 2 Deliverables

- PowerPoint slides and meeting minutes (PDF via email).
- Summary table of potential customers (PDF via email).

Task 3–Develop and Screen Alternatives

The project team will develop up to 15 potential project alternatives for both reuse and nutrient reduction opportunities, accounting for the following variables:

Reuse Type	Potential Regional Partners	Other Variables

• Non-potable Reuse
• Indirect Potable Reuse:
  ▪ Groundwater Recharge
  ▪ Surface Water Augmentation
• Direct Potable Reuse:
  ▪ Treated Water Augmentation
	• SFPUC
	• California Water Service
	• Silicon Valley Clean Water/PureWater Peninsula
	• San Francisco International Airport
	• Others TBD
		• Cost-sharing/regional opportunities
		• Customer groupings
		• Volume of reuse
		• Treatment required
		• Phased development
		• Wastewater nutrient management (membrane bioreactor (MBR), side stream reverse osmosis concentrate (ROC) treatment)
		• Waste stream/ROC management
		• Outfall needs (new, repair existing NBSU, or regional options)

Project team member Data Instincts will facilitate in-depth interviews (IDIs) with 15-20 key stakeholders and community members to gain an initial sense of the community's attitudes towards and understanding of water reuse and potential options, which will inform the project's outreach strategy. Interviews may be conducted virtually or in-person. A draft of the IDI Discussion Guide and a prepared interview list will be provided to City staff and the project team manager for review and input before interviews are conducted. A draft and final report summarizing the general findings from the interviews will be prepared. From the information collected in this preliminary outreach, Data Instincts will provide high-level statements of the expected public outreach needs associated with each project alternative.

The various components of alternatives including reuse type, end users, partners, treatment needs, outfall needs, and nutrient reduction achieved will be considered for developing complete alternatives. For example, a potable reuse project option would consider end use, treatment required, partner participation and RO concentrate disposal via an outfall along with potential additional nutrient removal required. The project team will facilitate an Alternatives Screening Workshop with City staff, members of the City Council Recycled Water Subcommittee, and the City Manager, where we will present each of the complete alternatives, high-level qualitative evaluations of their qualitative benefits/drawbacks, and key takeaways from the preliminary public outreach. The goal of the workshop is to provide the City with the information it needs to choose three alternatives for further development. Criteria for qualitative screening will include amount of wastewater and nutrients diverted from the Bay, complexity of permitting and environmental constraints, likely public acceptance, ability to provide meaningful new supply volumes, and willingness of partners and end users.

Task 3 Assumptions

- Project team will develop a comprehensive array of reuse scenarios.
- Qualitative criteria will be used to screen alternatives. No costs will be developed for alternatives at this stage of the project.
- Data Instincts will coordinate with City staff and project team members to identify community influencers and key stakeholders for scheduling and contacting individuals for in-depth interviews.
- Alternatives will include type of reuse (i.e., Non-Potable Reuse, Indirect Potable Reuse, Direct Potable Reuse), end users/partners, type of treatment, and volume of use.
- City will select three preferred alternatives for further development following the workshop.

Task 3 Deliverables

- Alternatives Screening Workshop PowerPoint slides and meeting minutes (PDF via email).
- In-depth interview summary report and recommendations for future outreach (PDF via email).

Phase B. Alternatives Evaluation

Upon the City's selection of three alternatives for further consideration, the City will decide whether to proceed with Alternatives Evaluation. The project team will not proceed to Phase B without the City's written authorization. Because the extent of work in Phase B may vary depending on the alternatives selected, the scope of work for tasks 4-7 will be refined after the City authorizes the project team to proceed. The project team will develop conceptual plans and cost estimates for each alternative.

Task 4–Evaluate Treatment Needs and Alternatives

Project team member Carollo will prepare a conceptual plan of treatment systems for the three preferred alternatives, including a process flow diagram of treatment unit processes, high level facility layouts, operation and maintenance (O&M) needs, and potential operational impacts on the WWTP. Carollo will also note challenges or obstacles to implementation. Options to be considered include new reuse treatment facilities (not modifying existing secondary processes) and nutrient removal facilities that are part of recycled water treatment (either upgrading to a MBR or ROC side stream treatment and/or horizontal levee natural treatment system). These options will be evaluated at a high level and **will not** include vendor quotes, 3D layouts, or biological process modeling. If the City wishes to develop the alternatives in greater detail or develop conceptual plans for new discharge outfalls, the scope and budget for this task will need to be amended.

After developing conceptual plans, Carollo will prepare American Association of Cost Engineering (AACE) Class 5 capital cost estimates for each alternative based on costs of similar systems installed at other utilities and cities. Treatment system capital cost estimates are expected to include treatment process equipment and construction costs, with allowances for equipment installation, sitework, electrical and instrumentation controls (I/C), mechanical work, site piping and valves, and treatment building costs (where applicable).

Carollo will also prepare AACE Class 5 O&M cost estimates accounting for overall treatment process energy costs, treatment process maintenance, consumables (e.g., chemicals, filter media, UV bulbs, and membranes), and operator staffing costs. Annualized capital costs and O&M costs will be combined to develop treatment system cost estimates in terms of $/acre-foot of finished water produced.

The information developed in this task will be presented to City staff, members of the City Council Recycled Water Subcommittee, and the City Manager at an Alternatives Comparison Workshop, described in Task 6.

Task 4 Assumptions

- Treatment system layouts will be based on City and Operations staff feedback on locations where new facilities can be located, including the possibility of stacking them on existing facilities.
- Potential impacts to WWTP operations will be largely based on input by operations staff.

Task 4 Deliverables

- Planning-level treatment system layout and cost estimate for three alternatives.
- PowerPoint slides for Alternatives Comparison Workshop.

Task 5–Evaluate Infrastructure Needs and Alternatives

WRE will prepare conceptual plans of finished water delivery infrastructure systems for the three preferred alternatives, including:

- Pipeline alignments and sizing
- Pump station siting/layouts and sizing
- Water storage reservoir siting and sizing

WRE will consider issues related to project implementation and note key challenges or obstacles to implementation.

WRE will prepare AACE Class 5 capital cost estimates for finished water distribution infrastructure for each of the three alternatives. Pipeline capital cost estimates will include material and construction costs, with allowances for valves and appurtenances, mobilization and demobilization, shoring and dewatering, traffic control, electrical, and instrumentation. Pump station capital cost estimates will include allowances for equipment installation, sitework, electrical and I/C, mechanical work, site piping and valves, and pump station building costs (where applicable). Storage reservoir capital cost estimates will include allowances for sitework, electrical and instrumentation, and tank valves and appurtenances.

WRE will also prepare AACE Class 5 O&M cost estimates accounting for pumping energy costs, storage reservoir recoating and cleaning, and general equipment maintenance. Annualized capital costs and O&M costs will be combined to develop infrastructure cost estimates in terms of $/acre-foot of finished water delivered.

The information developed in this task will be presented to City staff, members of the City Council Recycled Water Subcommittee, and the City Manager at an Alternatives Comparison Workshop, described in Task 6.

Task 5 Assumptions

- Location of any pump stations or reservoirs at the WWTP will be based on City and Operations staff feedback on locations where new facilities can be located, which could include where facilities could be stacked on other facilities.
- Pipe alignments will assume use of public rights of way in City streets where possible.

Task 5 Deliverables

- Planning-level distribution infrastructure concepts, layout, and cost estimates for three alternatives.
- PowerPoint slides for Alternatives Comparison Workshop

Task 6–Identify the Most Cost-Effective and Feasible Option

After completing the planning level concepts, the project team will evaluate implementation considerations associated with each alternative, including phased development needs and obstacles to implementation.

Project team member Data Instincts will prepare high-level statements of anticipated outreach activities needed for implementation of each project alternative. The statements will be based on the in-depth interviews of key stakeholders and community influencers, as well as Data Instincts' experience and observations of similar reuse options being considered in the Bay Area.

Project team member LSA will conduct a preliminary analysis to identify environmental or permitting "red flags" and/or issues of concern associated with the three identified alternatives. The analysis will consider information pertaining to biological resources, wetlands and other aquatic resource areas, cultural resources, required local jurisdictional approvals/permitting, zoning ordinances, and relevant local, state and federal resource policies. LSA will utilize readily available public databases and documentation and available aerial imagery to provide a high-level assessment of proposed alternatives, a summary of the key attributes of existing conditions, and identify potential issues for further consideration by the project design team during the project alternatives study. The analysis will be a desktop review and will not include field work. LSA will also identify potential measures that might be available to reduce/minimize impacts and subsequent environmental analyses that may be needed, including the anticipated level of California Environmental Quality Act (CEQA) review, technical studies to be conducted, and regulatory permitting requirements.

The project team will facilitate an Alternatives Comparison Workshop with City staff, members of the City Council Recycled Water Subcommittee, and the City Manager, presenting the initial treatment system and infrastructure concepts, cost estimates, implementation considerations, outreach needs, and environmental considerations associated with the developed alternatives. The objective of the workshop will be to provide the City with the information necessary to make an informed selection of a preferred alternative.

With the preferred alternative chosen by the City, the project team will prepare a Feasibility Study Report, summarizing and documenting the work completed in Tasks 1-6. While other funding options may be considered for implementation, to be eligible for US Bureau of Reclamation Title XVI Grant funding (which is a primary source of federal funds for reuse projects), the Feasibility Study Report will need to address, at a minimum, each of the following elements, as specified in section 3.B of Reclamation Manual WTR 11-01:

1. Introductory Information
2. Statement of Problems and Needs
3. Water Reclamation, Recycling or Desalination Opportunities
4. Description of Alternatives
5. Economic Analysis
6. Selection of the Proposed Water Reclamation, Recycling or Desalination Project

7. Environmental Consideration and Potential Effects
8. Legal and Institutional Requirements
9. Financial Capability of Sponsor
10. Research Needs

Should the City choose to deviate from the above report outline due to organizational preferences or to satisfy requirements of another funding mechanism, the project team will prepare a document that crosswalks the two outlines, clearly identifying the report sections and page numbers corresponding to each of the required Title XVI Feasibility Study elements. The project team will prepare a Draft Feasibility Study Report for the City's review and will then incorporate City comments into a Final Draft Feasibility Study Report. The City's final round of review comments will be incorporated into the Final Feasibility Study Report.

Task 6 Assumptions

- City will select one preferred alternative for development in Phase C, Project Implementation.
- One 1-hour meeting to review City comments on Draft Feasibility Study Report.

Task 6 Deliverables

- Alternatives Comparison Workshop PowerPoint slides and meeting minutes (PDF via email).
- Draft Feasibility Study Report (Word document via email).
- Final Draft Feasibility Study Report (Word document via email).
- Final Feasibility Study Report (PDF via email).

Task 7–Develop a Cost-Benefit Analysis

Carollo will lead the cost-benefit analysis for the preferred alternative. The analysis will include a high-level rates analysis, comparing the expected project costs—including capital expense, operation and maintenance, staffing, administration, and general overhead—to the City's current potable water rate structure to establish a consistent basis of cost. The cost-benefit analysis will also include an allocation of costs between the City's potable, wastewater, and proposed recycled water customers.

Task 7 Assumptions

Up to two coordination meetings with City staff to discuss current and future rate structures.

Task 7 Deliverables

- PowerPoint slides and meeting minutes (PDF via email).
- Draft and Final Cost Benefit Analysis Technical Memorandum (Word document and PDF via email).

Phase C. Project Implementation

After reviewing the cost-benefit analysis for the preferred alternative, the City will decide whether to proceed with implementation of the project. The project team will not proceed to Phase C without the City's written authorization. Because the extent of work in Phase C will vary greatly depending on the project selected (and the City may choose not to proceed with any project), the scope of work for tasks 8-10 will be refined after the City authorizes the project team to proceed. The budgets provided for Tasks 8 – 10 are placeholders only and will be revised once a preferred project is identified.

Brief descriptions of the work likely needed in the implementation phase are provided below. The task descriptions are for informational purposes only and do not constitute a contractual obligation to complete the work as described.

Task 8–Conduct Environmental Work

LSA would evaluate the project according to the requirements of the CEQA checklist. LSA proposes to prepare an Initial Study that addresses the following environmental topics (from the CEQA checklist).

- Aesthetics
- Agricultural/Forestry Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Hazards and Hazardous Materials
- Hydrology and Storm Drainage
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Upon completion of the Initial Study, LSA would confirm whether further CEQA evaluation is required.

Task 9–Conduct Public Outreach

Data Instincts would identify the outreach activities necessary to successfully implement the selected recycled water project. Activities would likely include organizing community workshops and coordinating and meeting with users, agencies, and other stakeholders to ensure effective communication and engagement in support of the project. The end goal of this task is to build and maintain community support from city leadership, key stakeholders, and potential customers.

Data Instincts would develop an outreach plan in support of the selected alternative with a schedule/timeline for when and how to implement effective public outreach activities.

Task 10–Prepare Design and Acquire Permits

The project team would complete a full design for construction of the preferred alternative. Design documents are anticipated to include:

- Basis of Design Report
- 30% Design Drawings
- 60% Design Drawings
- 90% Design Drawings, Specifications, and Cost Estimate
- 100% Design Drawings, Specifications, and Cost Estimate
- Bid Design Drawings, Specifications, and Cost Estimate

The project team would also provide support for permitting as necessary.

Task 11–Project Management (Phases A and B)

For budgetary estimation purposes, Task 11 is assumed to extend through project Phases A and B. Should the City proceed to Phase C, a revised scope will be prepared.

WRE will prepare monthly status reports included with invoices. The monthly status reports will track the project's budget and document scope changes or additions.

The project team will attend a kickoff meeting to review the project scope and schedule. The meeting can be held in person or via Teams, depending on the City's preference. Following project kickoff, the project team will hold monthly 1-hour project meetings to present the work underway and provide opportunities for the City to provide input. Planned project workshops (e.g., Alternatives Screening, Alternatives Comparison) will occur during the monthly project meeting time if feasible.

The WRE project manager and project engineer will host weekly ½-hour check-in calls with the City's project manager and other staff as necessary. During each meeting, the project team will present and discuss a three-week rolling coordination schedule of items to be submitted by the project team and/or the City, log of decisions to be made, and other action items that might arise. The three-week rolling coordination schedule will be updated and provided to the City on a weekly basis.

Task 11 Assumptions

- 12 monthly project meetings.
- Weekly ½-hour check-in meetings may be reduced to biweekly meetings, depending on project needs.

Task 11 Deliverables

- Monthly status reports included with invoices.
- Kickoff meeting PowerPoint slides and minutes (PDF via email).

- Monthly project meetings/workshops PowerPoint slides and minutes (PDF via email).
- Weekly three-week rolling coordination schedule updates (PDF via email).

Staffing

Anticipated staff supporting this project are listed below.

- Gustavo Arboleda, PE, Principal Engineer (WRE)
- Stephanie Knott, PG, CHG, Quality Control Officer (WRE)
- Cynthia Cano, Project Manager (WRE)
- Amir Javaheri, Hydraulic Engineer (WRE)
- Patrick Hassett, Project Engineer (WRE)
- Myla Khan, Staff Engineer (WRE)
- Lydia Holmes, PE, Project Manager (Carollo)
- Andy Salveson, PE, Treatment Lead (Carollo)
- Cora LeMar, PE, Project Engineer (Carollo)
- Mark Millan, Outreach Principal (Data Instincts)
- Ryan Long, Outreach Manager (Data Instincts)
- Anita Jain, Communication Specialist (Data Instincts)
- Pam Reading, Principal Environmental Planner (LSA)
- Shanna Guiler, Senior Environmental Planner (LSA)

WRE and its subconsultants reserve the right to use other staff members as needed.

Schedule

Work will be initiated upon receipt of a Notice to Proceed (NTP). Work for project phases A and B is expected to proceed as estimated below. A separate schedule for Phase C will be prepared, should the City choose to proceed with project implementation.

Task	Task Duration (Weeks)	Completion (Weeks after NTP)
Project Management for Phases A and B	52	1-52
Phase A – Alternatives Development and Screening		
1. Collect and Review Data/Info	6	1-6
2. Identify Potential Recycled Water Users	8	7-14
3. Develop and Screen Alternatives	10	15-24
Phase B – Alternatives Evaluation		
4. Evaluate Treatment Needs and Alternatives	12	25-36
5. Evaluate Infrastructure Needs and Alternatives	12	25-36
6. Identify the Most Cost-Effective and Feasible Option	12	37-48
7. Develop a Cost-Benefit Analysis	4	49-52

The task durations listed above assume that workshops and other presentations will be scheduled promptly and that City review of the draft feasibility study report and cost/benefit analysis technical memorandum will be completed within two weeks.

Estimated Budget

The proposed budget for project Phases A and B is $870,808. Total costs by task, including WRE and subconsultant labor costs, and other direct costs, are presented in the table below. A cost breakdown is included on the following page.

Task	Total Cost
11. Project Management for Phases A and B	$111,680
Phase A – Alternatives Development and Screening	
1. Collect and Review Data/Information	$47,355
2. Identify Potential Recycled Water Users	$57,795
3. Develop and Screen Alternatives	$194,225
Phase A – Alternatives Development Subtotal	**$299,375**
Phase B – Alternatives Evaluation	
4. Evaluate Treatment Needs and Alternatives	$90,450
5. Evaluate Discharge Alternatives for the Distribution of Recycled Water	$110,900
6. Identify the Most Cost-Effective and Feasible Option	$171,825
7. Develop a Cost-Benefit Analysis	$76,680
Phase B – Alternatives Evaluation Subtotal	**$449,855**
Phases A and B Subtotal	**$860,910**
Phase C – Project Implementation	
8. Conduct Environmental Work	$116,365
9. Conduct Public Outreach	$46,280
10. Prepare Design and Acquire Permits	$2,500,000
Phase C – Project Implementation Subtotal	**$2,662,645**
Project Total	**$3,523,555**

Cost Breakdown – Burlingame Recycled Water and Treated Wastewater Discharge Reduction Project

Summary of Total Costs

Task Description	Labor Costs				Total Labor	ODCs	Total Costs
	WRE	Carollo	Data Instincts	LSA			
11. Project Management for Phases A and B	$ 75,260	$ 22,750	$ 12,870	$ -	$ 110,880	$ 800	$ 111,680
Phase A - Alternatives Development and Screening							
1. Collect and Review Data/Information	$ 28,700	$ 12,250	$ 6,405	$ -	$ 47,355	$ -	$ 47,355
2. Identify Potential Recycled Water Users	$ 23,800	$ 23,020	$ 10,975	$ -	$ 57,795	$ -	$ 57,795
3. Develop and Screen Alternatives	$ 76,000	$ 79,380	$ 33,935	$ 4,910	$ 194,225	$ -	$ 194,225
Phase A Subtotals	**$ 128,500**	**$ 114,650**	**$ 51,315**	**$ 4,910**	**$ 299,375**	**$ -**	**$ 299,375**
Phase B - Alternatives Evaluation							
4. Evaluate Treatment Needs and Alternatives	$ 1,680	$ 88,770	$ -	$ -	$ 90,450	$ -	$ 90,450
5. Evaluate Infrastructure Needs and Alternatives	$ 97,400	$ 13,500	$ -	$ -	$ 110,900	$ -	$ 110,900
6. Identify the Most Cost-Effective and Feasible Option	$ 68,760	$ 56,000	$ 12,165	$ 34,400	$ 171,325	$ 500	$ 171,825
7. Develop a Cost-Benefit Analysis	$ 5,660	$ 71,020	$ -	$ -	$ 76,680	$ -	$ 76,680
Phase B Subtotals	**$ 173,500**	**$ 229,290**	**$ 12,165**	**$ 34,400**	**$ 449,355**	**$ 500**	**$ 449,855**
Phases A and B Totals	**$ 377,260**	**$ 366,690**	**$ 76,350**	**$ 39,310**	**$ 859,610**	**$ 1,300**	**$ 860,910**
8. Conduct any Required Environmental Work	$ 3,920	$ 6,560	$ -	$ 103,055	$ 113,535	$ 2,830	$ 116,365
9. Conduct Public Outreach	$ 3,360	$ 7,920	$ 35,000	$ -	$ 46,280	$ -	$ 46,280
10. Design and Permitting	$ 1,000,000	$ 1,500,000	$ -	$ -	$ 2,500,000	$ -	$ 2,500,000
Phase C Subtotals	**$ 1,007,280**	**$ 1,514,480**	**$ 35,000**	**$ 103,055**	**$ 2,659,815**	**$ 2,830**	**$ 2,662,645**
Total Cost	**$ 1,384,540**	**$ 1,881,170**	**$ 111,350**	**$ 142,365**	**$ 3,519,425**	**$ 4,130**	**$ 3,523,555**

Task Description		WRE Labor Hours per Individual / Billing Rate							Carollo Labor Hours per Individual / Billing Rate							Data Instincts Labor Hours per Individual / Billing Rate					LSA Labor Hours per Individual / Billing Rate					Total Hours	Total WRE Labor	Total Sub Labor	Total Labor	Other Direct Costs	Total Costs
	Firm Lead	G. Arboleda Principal Engineer	S. Knott Quality Control Officer	G. Fleitas Contract Administrator	C. Cano Project Manager	A. Javaheri Hydraulic Modeler	P. Hassett Project Engineer	M. Kahn Staff Engineer	Senior Professional	Lead Project Professional	Project Professional	Professional	Assistant Professional	Techinicians	Document Processing	M. Millan Outreach Principal	R. Long Outreach Manager	M. Smith Communication Specialist	A. Jain Communicati on Specialist	A. Deguzih Graphics Specialist	S. Guiler Senior Env. Planner	P.Reading Principal Env. Planner	D. Giacomini Associate	R. Goodwin Associate	GIS/Graphics						
Rates:		$300	$200	$120	$210	$160	$140	$130	$330	$310	$290	$245	$220	$180	$140	$265	$215	$225	$235	$135	$215	$295	$235	$165	$175						
11. Project Management for Phases A and B	**WRE**																													
Billing and Contract Administration		12		32	48				12						18		12									134	$ 17,520	$ 9,060	$ 26,580	$ -	$ 26,580
Scope of Work Finalization		8			8		16		4							4	2									42	$ 6,320	$ 2,810	$ 9,130	$ -	$ 9,130
Project Kickoff Meeting		8			8		8	4	2			2				2	2									36	$ 5,720	$ 2,110	$ 7,830	$ 200	$ 8,030
Monthly Progress Meetings (12 total)		14			24		24	24	12			24				2	12									136	$ 15,720	$ 12,950	$ 28,670	$ 600	$ 29,270
Weekly Check-in Calls (52 total)		16			26		26	26									22									116	$ 17,280	$ 4,730	$ 22,010	$ -	$ 22,010
3-Week Rolling Coordination Schedule		12			26		26		12																	76	$ 12,700	$ 3,960	$ 16,660	$ -	$ 16,660
Task 11 Subtotals		**70**	**0**	**32**	**140**	**0**	**100**	**54**	**42**	**0**	**0**	**26**	**0**	**0**	**18**	**8**	**50**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**540**	**$ 75,260**	**$ 35,620**	**$ 110,880**	**$ 800**	**$ 111,680**
Phase A - Alternatives Development and Screening																														
1. Collect and Review Data/Information	**WRE**																													
Data Request Preparation		2			4		16	8	2		2	6														40	$ 4,720	$ 2,710	$ 7,430	$ -	$ 7,430
Data and Past Report Review		8			16		40	20	2		4	12														102	$ 13,960	$ 4,760	$ 18,720	$ -	$ 18,720
Partner Agency Outreach for Data and Studies		6			6		16	8	4		4															44	$ 6,340	$ 2,480	$ 8,820	$ -	$ 8,820
Internal Education/Subcommittee Workshop and PowerPoint		4			4		8	4	4			4				12	15									55	$ 3,680	$ 8,705	$ 12,385	$ -	$ 12,385
Task 1 Subtotals		**20**	**0**	**0**	**30**	**0**	**80**	**40**	**12**	**0**	**10**	**22**	**0**	**0**	**0**	**12**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**241**	**$ 28,700**	**$ 18,655**	**$ 47,355**	**$ -**	**$ 47,355**
2. Identify Potential Recycled Water Users	**WRE/ Carollo**																													
Industrial/Irrigation Demands Assessment	WRE	8			16		40	40																		104	$ 16,560	$ -	$ 16,560	$ -	$ 16,560
Partner Agency Outreach for Collaboration Opportunities	WRE	2			16		16	8	4			8				20	10		15							99	$ 7,240	$ 14,255	$ 21,495	$ -	$ 21,495
Groundwater Recharge Opportunites Evaluation	Carollo								4		8	12														24	$ -	$ 6,580	$ 6,580	$ -	$ 6,580
Surface Water Augmentation Opportunities Evaluation	Carollo								4		8	12														24	$ -	$ 6,580	$ 6,580	$ -	$ 6,580
Treated Water Augmentation Opportunities Evaluation	Carollo								4		8	12														24	$ -	$ 6,580	$ 6,580	$ -	$ 6,580
Task 2 Subtotals		**10**	**0**	**0**	**32**	**0**	**56**	**48**	**16**	**0**	**24**	**44**	**0**	**0**	**0**	**20**	**10**	**0**	**15**	**0**	**0**	**0**	**0**	**0**	**0**	**275**	**$ 23,800**	**$ 33,995**	**$ 57,795**	**$ -**	**$ 57,795**
3. Develop and Screen Alternatives	**WRE**																													
Develop Customer Groupings		4			16		40	20	2		4	8														94	$ 12,760	$ 3,780	$ 16,540	$ -	$ 16,540
Alternatives Identification Workshop		2			8		16	8	8		8	16		8												74	$ 5,560	$ 10,320	$ 15,880	$ -	$ 15,880
Define Partnership Scenarios		4			32		40	20	4			4														104	$ 16,120	$ 2,300	$ 18,420	$ -	$ 18,420
Define Treatment Requirements and RW Production Capacities		2			16		32	24	2		4	8														88	$ 11,560	$ 3,780	$ 15,340	$ -	$ 15,340
Treated WW and Nutrient Reduction Estimation		2			8		32	16	6		4	20														88	$ 8,840	$ 8,040	$ 16,880	$ -	$ 16,880
RO Concentrate Management and Discharge Evaluation									8		12	24														44	$ -	$ 12,000	$ 12,000	$ -	$ 12,000
Nutrient Removal Options Paired with Reuse (MBR, side stream ROC treatment…)									8		16	20														44	$ -	$ 12,180	$ 12,180	$ -	$ 12,180
Discharge Outfall Options Evaluation							8	4	6		8	16														42	$ 1,640	$ 8,220	$ 9,860	$ -	$ 9,860
Identify Immediate Obstacles to Implementation		4			8		24	8	2		4	4														54	$ 7,280	$ 2,800	$ 10,080	$ -	$ 10,080
Community Stakeholders In-Depth Interviews	Data Instincts															40	35	10	45	15						145	$ -	$ 32,975	$ 32,975	$ -	$ 32,975
Funding Opportunities Evaluation	Carollo								2				24													26	$ -	$ 5,940	$ 5,940	$ -	$ 5,940
Alternatives Screening		6			8		16	16	4		4	8														62	$ 7,800	$ 4,440	$ 12,240	$ -	$ 12,240
Alternatives Screening Workshop		2			8		8	8	8			12				2	2				4	4	8	6		72	$ 4,440	$ 11,450	$ 15,890	$ -	$ 15,890
Task 3 Subtotals		**26**	**0**	**0**	**104**	**0**	**216**	**124**	**60**	**0**	**64**	**140**	**24**	**8**	**0**	**42**	**37**	**10**	**45**	**15**	**4**	**4**	**8**	**6**	**0**	**937**	**$ 76,000**	**$ 118,225**	**$ 194,225**	**$ -**	**$ 194,225**
Phase A Subtotals		**56**	**0**	**0**	**166**	**0**	**352**	**212**	**88**	**0**	**98**	**206**	**24**	**8**	**0**	**74**	**62**	**10**	**60**	**15**	**4**	**4**	**8**	**6**	**0**	**1453**	**$ 128,500**	**$ 170,875**	**$ 299,375**	**$ -**	**$ 299,375**
Phase B - Alternatives Evaluation																														
4. Evaluate Treatment Needs and Alternatives	**Carollo**																													
Treatment Alternatives Definition									4		8	8														20	$ -	$ 5,600	$ 5,600	$ -	$ 5,600
Reuse Treatment System Development									4	6	16	36		8												70	$ -	$ 18,080	$ 18,080	$ -	$ 18,080
MBR and/or Side Stream Nutrient Removal Development									6	9	24	36														75	$ -	$ 20,550	$ 20,550	$ -	$ 20,550
Capital Cost Estimation and Layout									6	9	24	40														79	$ -	$ 21,530	$ 21,530	$ -	$ 21,530
O&M Costs and Considerations									6	9	12	24														51	$ -	$ 14,130	$ 14,130	$ -	$ 14,130
WWTP Affects Assessment									4		8	12														24	$ -	$ 6,580	$ 6,580	$ -	$ 6,580
Infrastructure Coordination					4		6		4			4														18	$ 1,680	$ 2,300	$ 3,980	$ -	$ 3,980
Task 4 Subtotals		**0**	**0**	**0**	**4**	**0**	**6**	**0**	**34**	**33**	**92**	**160**	**0**	**8**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**337**	**$ 1,680**	**$ 88,770**	**$ 90,450**	**$ -**	**$ 90,450**
5. Evaluate Infrastructure Needs and Alternatives	**WRE**																													
Infrastructure Needs Definition		20			20	80	40	40																		200	$ 33,800	$ -	$ 33,800	$ -	$ 33,800
Infrastructure Layout Development		4			16		40	20																		80	$ 12,760	$ -	$ 12,760	$ -	$ 12,760
Capital Cost Estimation		6			16		80	40																		142	$ 21,560	$ -	$ 21,560	$ -	$ 21,560
Phasing Evaluation		6			24		20	20	4		8	12														94	$ 12,240	$ 6,580	$ 18,820	$ -	$ 18,820
O&M Costs and Considerations		6			16		16	40																		78	$ 12,600	$ -	$ 12,600	$ -	$ 12,600
Treatment and Distribution System Workshop		2			8		8	8	8		8	8														50	$ 4,440	$ 6,920	$ 11,360	$ -	$ 11,360
Task 5 Subtotals		**44**	**0**	**0**	**100**	**80**	**204**	**168**	**12**	**0**	**16**	**20**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**644**	**$ 97,400**	**$ 13,500**	**$ 110,900**	**$ -**	**$ 110,900**
6. Identify the Most Cost-Effective and Feasible Option	**WRE**																													
Preliminary Environmental Review	LSA	2			4		4	4	4												48	16	48	32	16	178	$ 2,520	$ 35,720	$ 38,240	$ -	$ 38,240
Outreach Needs Consideration	Data Instincts	2			4		4	4								15	10	10	10							59	$ 2,520	$ 10,725	$ 13,245	$ -	$ 13,245
Present Alternatives to City Council Subcommittee		4			8		24	24	8		8	8		8												92	$ 9,360	$ 8,360	$ 17,720	$ -	$ 17,720
Preferred Alternative Definition		4			4		8	8	4		8	8														44	$ 4,200	$ 5,600	$ 9,800	$ -	$ 9,800
Implementation Considerations Comparison (Phasing, Outreach, Infrastructure)		2			4		24	24	4		6	8				3	3									78	$ 7,920	$ 6,460	$ 14,380	$ -	$ 14,380
Feasibility Analysis Draft and Final Report		8	12		24		120	120	12		24	60	24	8	24											436	$ 42,240	$ 35,700	$ 77,940	$ 500	$ 78,440
Task 6 Subtotals		**22**	**12**	**0**	**48**	**0**	**184**	**184**	**32**	**0**	**46**	**84**	**24**	**16**	**24**	**18**	**13**	**10**	**10**	**0**	**48**	**16**	**48**	**32**	**16**	**887**	**$ 68,760**	**$ 102,565**	**$ 171,325**	**$ 500**	**$ 171,825**
7. Develop a Cost-Benefit Analysis	**Carollo**																													
Rate Analysis									14	46	6	144														210	$ -	$ 55,900	$ 55,900	$ -	$ 55,900
Cost Benefit Ratio Calculation		2			6		16	12	2		6	16	40													100	$ 5,660	$ 15,120	$ 20,780	$ -	$ 20,780
Task 7 Subtotals		**2**	**0**	**0**	**6**	**0**	**16**	**12**	**16**	**46**	**12**	**160**	**40**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**310**	**$ 5,660**	**$ 71,020**	**$ 76,680**	**$ -**	**$ 76,680**
Phase B Subtotals		**68**	**12**	**0**	**158**	**80**	**410**	**364**	**94**	**79**	**166**	**424**	**64**	**24**	**24**	**18**	**13**	**10**	**10**	**0**	**48**	**16**	**48**	**32**	**16**	**2178**	**$ 173,500**	**$ 275,855**	**$ 449,355**	**$ 500**	**$ 449,855**
Phase A and B Totals		**194**	**12**	**32**	**464**	**80**	**862**	**630**	**224**	**79**	**264**	**656**	**88**	**32**	**42**	**100**	**125**	**20**	**70**	**15**	**52**	**20**	**56**	**38**	**16**	**4171**	**$ 377,260**	**$ 482,350**	**$ 859,610**	**$ 1,300**	**$ 860,910**
Phase C - Project Implementation																														
8. Conduct Environmental Work	**LSA**																													
Lump Sum, see attached					8		16		8			16														48	$ 3,920	$ 109,615	$ 113,535	$ 2,830	$ 116,365
Task 8 Subtotals		**0**	**0**	**0**	**8**	**0**	**16**	**0**	**8**	**0**	**0**	**16**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**48**	**$ 3,920**	**$ 109,615**	**$ 113,535**	**$ 2,830**	**$ 116,365**
9. Conduct Public Outreach	**Data Instincts**																													
Develop Outreach Plan							4		4							10	5	20	5							48	$ 560	$ 10,720	$ 11,280	$ -	$ 11,280
City Coordination							4		4							10	15		5							38	$ 560	$ 8,370	$ 8,930	$ -	$ 8,930
Public Workshops							8		8							10	25	5								56	$ 1,120	$ 11,790	$ 12,910	$ -	$ 12,910
Partner Agency and Stakeholder Engegement							8		8							10	15		15							56	$ 1,120	$ 12,040	$ 13,160	$ -	$ 13,160
Task 9 Subtotals		**0**	**0**	**0**	**0**	**0**	**24**	**0**	**24**	**0**	**0**	**0**	**0**	**0**	**0**	**40**	**60**	**25**	**25**	**0**	**0**	**0**	**0**	**0**	**0**	**198**	**$ 3,360**	**$ 42,920**	**$ 46,280**	**$ -**	**$ 46,280**
10. Prepare Design and Acquire Permits	**WRE/ Carollo**																									0					
Lump Sum																											$ 1,000,000	$ 1,500,000	$ 2,500,000	$ -	$ 2,500,000
Task 10 Subtotals		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**$ 1,000,000**	**$ 1,500,000**	**$ 2,500,000**	**$ -**	**$ 2,500,000**
Phase C Subtotals		**0**	**0**	**0**	**8**	**0**	**40**	**0**	**32**	**0**	**0**	**16**	**0**	**0**	**0**	**40**	**60**	**25**	**25**	**0**	**0**	**0**	**0**	**0**	**0**	**246**	**$ 1,007,280**	**$ 1,652,535**	**$ 2,659,815**	**$ 2,830**	**$ 2,662,645**
Total Cost		**194**	**12**	**32**	**472**	**80**	**902**	**630**	**256**	**79**	**264**	**672**	**88**	**32**	**42**	**140**	**185**	**45**	**95**	**15**	**52**	**20**	**56**	**38**	**16**	**4417**	**$ 1,384,540**	**$ 2,134,885**	**$ 3,519,425**	**$ 4,130**	**$ 3,523,555**

20241150.P

Water Resources Engineering

Burlingame Recycled Water Project

LSA

6/11/2024

		LSA																		
		Principal in Charge P Reading)	Associate - Environmental Planner (S Guiler)	Environmental Planner	Associate Biologist (D Sidle)	Biologist	Principal - Cultural Resources (L Sample)	Associate - Cultural Resources Manager (R Goodwin)	Cultural Resources Analyst Archaeologist (K Kolar/ J Starr)	Associate -Architectural Historian (M Hibma)	Director - AQ/GHG (J Coria)	Associate - AQ/GHG (C Cunningham)	Principal - Noise (JT Stephens)	Noise Analyst (M Abushanab)	Associate - Transporation (A Black)	Senior Paleontologist (K Vreeland)	GIS/Graphics	Word Processing/ Administrative Assistant	Total LSA Hours	Total LSA Fees
Escalation	5%																			
% in Year																				
100%	Year 1	$295	$215	$135	$200	$125	$260	$165	$110	$160	$250	$200	$265	$145	$255	$160	$170	$145		
100%	Weighted Average	$295	$215	$135	$200	$125	$260	$165	$110	$160	$250	$200	$265	$145	$255	$160	$170	$145		
	Project Initiation																			
8.1	Project Start Up	2.00	6.00	8.00															16.00	$2,960.00
8.2	Project Description	2.00	6.00	8.00													4.00	6.00	26.00	$4,510.00
Project Initiation Subtotal		**4.00**	**12.00**	**16.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**4.00**	**6.00**	**42.00**	**$7,470.00**
Task 8.3	**Environmental Evaluation**																			
	Aesthetics		1.00	4.00															5.00	$755.00
	Agricultural Resources		1.00	4.00															5.00	$755.00
	Air Quality		1.00	1.00							3.00	16.00							21.00	$4,300.00
	Biological Resources		1.00	4.00	12.00	40.00													57.00	$8,155.00
	Cultural Resources		1.00	4.00			2.00	40.00	20.00	64.00							8.00	4.00	143.00	$22,255.00
	Energy			2.00							2.00	4.00							8.00	$1,570.00
	Geology and Soils (Paleontology)		1.00	4.00			1.00									24.00	4.00	4.00	38.00	$6,115.00
	Greenhouse Gas Emissions			2.00							3.00	12.00							17.00	$3,420.00
	Hazards and Hazardous Materials			4.00															4.00	$540.00
	Hydrology and Water Quality	4.00	1.00	10.00															15.00	$2,745.00
	Land Use		1.00	2.00															3.00	$485.00
	Mineral Resources			1.00															1.00	$135.00
	Noise		1.00	1.00									6.00	24.00					32.00	$5,420.00
	Population and Housing			1.00															1.00	$135.00
	Public Services			2.00															2.00	$270.00
	Recreation			1.00															1.00	$135.00
	Transportation		1.00	2.00											20.00				23.00	$5,585.00
	Tribal Cultural Resources			1.00					16.00										17.00	$1,895.00
	Utilities and Service Systems			2.00															2.00	$270.00
	Wildfire			2.00															2.00	$270.00
	Task 8.3 Environmental Evaluation Subtotal	**4.00**	**10.00**	**54.00**	**12.00**	**40.00**	**3.00**	**40.00**	**36.00**	**64.00**	**8.00**	**32.00**	**6.00**	**24.00**	**20.00**	**24.00**	**12.00**	**8.00**	**397.00**	**$65,210.00**
Task 8.4	**CEQA Documentation**																			
	Administrative Draft Initial Study	10.00	4.00	6.00													4.00	24.00	48.00	$8,780.00
	Screencheck Draft IS/MND	2.00	4.00	6.00													2.00	8.00	22.00	$3,760.00
	Public Review Draft IS/MND	2.00	4.00	6.00													2.00	8.00	22.00	$3,760.00
	Final IS/MND	4.00	6.00	8.00														8.00	26.00	$4,710.00
	MMRP	1.00	2.00	4.00														4.00	11.00	$1,845.00
Task 8.4 CEQA Documentation Subtotal		**19.00**	**20.00**	**30.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**8.00**	**52.00**	**129.00**	**$22,855.00**
Task 8.5	**Project Management/Meetings**																			
	Meetings	4.00	12.00																16.00	$3,760.00
	Project Management	4.00	12.00																16.00	$3,760.00
	Task 8.5 Project Management/Meetings Subtotal	**8.00**	**24.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**32.00**	**$7,520.00**
	Subtotal Labor	**35.00**	**66.00**	**100.00**	**12.00**	**40.00**	**3.00**	**40.00**	**36.00**	**64.00**	**8.00**	**32.00**	**6.00**	**24.00**	**20.00**	**24.00**	**24.00**	**66.00**	**600.00**	**$103,055.00**
Reimbursable Expenses																				
Lodging/Meals																				$605.00
Records Search																				$1,045.00
Reproduction																				$77.00
Mileage																				$920.00
GPS Units																				$165.00
Traffic Data																				$18.00
	Subtotal Reimbursable Expenses																			**$2,830.00**
																			Total	**$105,885.00**