

Council Business Meeting

February 5, 2019

Agenda Item	Approval of Personal Services Contract for Wastewater Treatment Plant Facilities Assessment and Major Process Component Improvements	
From	Paula Brown, P.E. Chance Metcalf	Public Works Director Engineering Project Manager
Contact	paula.brown@ashland.or.us chance.metcalf@ashland.or.us	541-552-2411 541-552-2448

SUMMARY

Before Council is a personal services contract for professional engineering and design services for the Wastewater Treatment Plant Facilities Assessment and Major Process Component Improvements Project with Jacobs Engineering Group. This project was publicly advertised with a formal Qualifications Based Proposal (RFQ). Jacobs was selected as the most qualified among five proposers. The goal of this project is to formalize recommendations for wastewater treatment plant system improvements that will optimize the wastewater treatment process, validate system capacity, ensure system simplicity, reduce energy consumption, reduce solids production and improve process reliability.

POLICIES, PLANS & GOALS SUPPORTED

City Council:

- 1.1 *Engage community in a conversation about core services, desired service levels and funding mechanisms*
21. *Be proactive in using best practices in infrastructure management and modernization*
22. *Prepare for the impact of climate change on the community.*

Department Goals:

- Maintain existing infrastructure to meet regulatory requirements and minimize life-cycle costs
- Deliver timely life cycle capital improvement projects
- Maintain and improve infrastructure that enhances the economic vitality of the community
- Evaluate all city infrastructure regarding planning management and financial resources
- Staff desires confirmation of treatment plant capacity, overall component condition assessments and comprehensive prioritization prior to initiating additional capital expenses.

BACKGROUND AND ADDITIONAL INFORMATION

As such, Staff advertised the Wastewater Treatment Plant Facilities Assessment and Major Process Component RFQ on September 19, 2018, on the ORPIN site, in the Medford Mail Tribune/Daily Journal of Commerce, and on the City's website. Five proposals were received on October 18, 2018. Six city staff members independently graded each proposal with the criteria developed for the RFQ. Jacobs Engineering Group, Inc. was the highest ranked proposer. Staff subsequently sent a letter of intent to negotiate with Jacobs on October 31, 2018. Jacobs and staff have worked together over numerous meetings to finalize a formal scope of work and cost proposal for the project. A final scope and fee proposal was submitted by Jacobs on January 16, 2019, which was subsequently reviewed and approved by staff. Staff provided an email notice of intent to award to Jacobs on January 16, 2019, conditioned on Council approval at the February 5, 2019 business meeting. If approved, staff expects the project to begin in February of 2019 and be complete within nine months after notice to proceed.

The solicitation document defined the goals for the project as follows:

The goal of this project is to recommend prioritized system improvements to optimize the wastewater treatment process, ensure simplicity, potentially reduce energy consumption, potentially reduce solids production and improve reliability.

This project will include an assessment of the wastewater treatment process and major process component elements. The initial assessment shall be based upon current and future flows, capacity and redundancy requirements, and waste characteristics. Project deliverables will include prioritized recommendations for the wastewater treatment plant process improvements. Although this assessment will not make specific recommendations to the wastewater collection system as such, flows and loading will be analyzed for impacts to the process.

FISCAL IMPACTS

The 2017-19 SDC Fund Biennium Budget includes funds for contracted services (Capital Improvement Program) in the amount of \$175,000 for facility planning. This project cost is \$120,460. Revenues for this project come directly from system development charges of new construction to match capacity needs with the growth of the city.

This project was not specifically itemized in the budget.

STAFF RECOMMENDATION

Staff recommends Council move approval of the personal services contract for professional engineering and design services for the Wastewater Treatment Plant Facilities Assessment and Major Process Component Improvements Project for \$120,460.

ACTIONS, OPTIONS & POTENTIAL MOTIONS

Council has the option to approve this contract or refer staff back for a new request for proposals. Potential motions include:

1. I move approval of a contract for professional engineering and design services with Jacobs Engineering Group, Inc. in the amount of \$120,460 for the Wastewater Treatment Plant Facilities Assessment and Major Process Component Improvements.
2. Direct staff to reconsider a new solicitation for the Wastewater Treatment Plant Facilities Assessment and Major Process Component Improvements Project.
3. Direct staff to forgo the Wastewater Treatment Plant Facilities Assessment.

REFERENCES & ATTACHMENTS

Attachment 1: Personal Services Contract between the City and Jacobs Engineering Group

PERSONAL SERVICES AGREEMENT (greater than \$25,000.00)

<p style="text-align: center;">CITY OF ASHLAND</p> <p style="text-align: center;">20 East Main Street Ashland, Oregon 97520 Telephone: 541/488-5587 Fax: 541/488-6006</p>	<p>CONSULTANT: CH2M Hill Engineers, Inc.</p> <p>CONSULTANT'S CONTACT: Craig Massie</p> <p>ADDRESS: 1100 NE Circle Blvd Suite 300 Corvallis, OR 97330</p> <p>TELEPHONE: 541-768-3478</p> <p>EMAIL: craig.massie@jacobs.com</p>
--	---

This Personal Services Agreement (hereinafter "Agreement") is entered into by and between the City of Ashland, an Oregon municipal corporation (hereinafter "City") and Jacobs, a foreign business corporation ("hereinafter "Consultant"), for wastewater treatment plant facilities assessment and major process component improvements.

NOW THEREFORE, in consideration of the mutual covenants contained herein, the City and Consultant hereby agree as follows:

- 1. Effective Date and Duration:** This Agreement shall become effective on the date of execution on behalf of the City, as set forth below (the "Effective Date"), and unless sooner terminated as specifically provided herein, shall terminate upon the City's affirmative acceptance of Consultant's Work as complete and Consultant's acceptance of the City's final payment therefore, but not later than August 30, 2019.
- 2. Scope of Work:** Consultant will provide wastewater treatment plant facilities assessment and major process component improvements as more fully set forth in the Consultant's Scope of Work and Budget for Engineering Services dated January 11, 2019, which is attached hereto as "Exhibit A" and incorporated herein by this reference. Consultant's services are collectively referred to herein as the "Work."
- 3. Supporting Documents/Conflicting Provisions:** This Agreement and any exhibits or other supporting documents shall be construed to be mutually complementary and supplementary wherever possible. In the event of a conflict which cannot be so resolved, the provisions of this Agreement itself shall control over any conflicting provisions in any of the exhibits or supporting documents.
- 4. All Costs Borne by Consultant:** Consultant shall, at its own risk, perform the Work described above and, unless otherwise specified in this Agreement, furnish all labor, equipment, and materials required for the proper performance of such Work.
- 5. Qualified Work:** Consultant has represented, and by entering into this Agreement now represents, that all personnel assigned to the Work to be performed under this Agreement are fully qualified to perform the service to which they will be assigned in a skilled and worker-like manner and, if required to be registered, licensed or bonded by the State of Oregon, are so registered, licensed and bonded.

6. **Compensation:** City shall pay Consultant the sum of **\$120,460.00 (one hundred twenty thousand four hundred and sixty dollars)** as full compensation for Consultant's performance of all Work under this Agreement. In no event shall Consultant's total of all compensation and reimbursement under this Agreement exceed the sum of **\$120,460.00 (one hundred twenty thousand four hundred and sixty dollars)** without the express, written approval from the City official whose signature appears below, or such official's successor in office. Payments shall be made within thirty (30) days of the date of receipt by the City of Consultant's invoice. Should this Agreement be terminated prior to completion of all Work, payments will be made for any phase of the Work completed and accepted as of the date of termination.
7. **Ownership of Work/Documents:** All Work, work product, or other documents produced in furtherance of this Agreement belong to the City, and any copyright, patent, trademark proprietary or any other protected intellectual property right shall vest in and is hereby assigned to the City.
8. **Statutory Requirements:** The following laws of the State of Oregon are hereby incorporated by reference into this Agreement: ORS 279B.220, 279B.230 and 279B.235.
9. **Living Wage Requirements:** If the amount of this Agreement is \$21,127.46 or more, Consultant is required to comply with Chapter 3.12 of the Ashland Municipal Code by paying a living wage, as defined in that chapter, to all employees performing Work under this Agreement and to any Subcontractor who performs 50% or more of the Work under this Agreement. Consultant is also required to post the notice attached hereto as "Exhibit B" predominantly in areas where it will be seen by all employees.
10. **Indemnification:** Consultant hereby agrees to defend, indemnify, save, and hold City, its officers, employees, and agents harmless from any and all losses, claims, actions, costs, expenses, judgments, subrogations, or other damages resulting from injury to any person (including injury resulting in death), or damage (including loss or destruction) to property, of whatsoever nature to the extent arising out of or incident to the negligent acts, or errors or omissions in the performance of this Agreement by Consultant (including but not limited to, Consultant's employees, agents, and others designated by Consultant to perform Work or services attendant to this Agreement). However, Consultant shall not be held responsible for any losses, expenses, claims, subrogations, actions, costs, judgments, or other damages, caused solely by the negligence of City.
11. **Termination:**
 - a. Mutual Consent. This Agreement may be terminated at any time by the mutual consent of both parties.
 - b. City's Convenience. This Agreement may be terminated by City at any time upon not less than thirty (30) days' prior written notice delivered by certified mail or in person.
 - c. For Cause. City may terminate or modify this Agreement, in whole or in part, effective upon delivery of written notice to Consultant, or at such later date as may be established by City under any of the following conditions:
 - i. If City funding from federal, state, county or other sources is not obtained and continued at levels sufficient to allow for the purchase of the indicated quantity of services;
 - ii. If federal or state regulations or guidelines are modified, changed, or interpreted in such a way that the services are no longer allowable or appropriate for purchase under this Agreement or are no longer eligible for the funding proposed for payments authorized by this Agreement; or

- iii. If any license or certificate required by law or regulation to be held by Consultant to provide the services required by this Agreement is for any reason denied, revoked, suspended, or not renewed.
- d. For Default or Breach.
 - i. Either City or Consultant may terminate this Agreement in the event of a breach of the Agreement by the other. Prior to such termination the party seeking termination shall give to the other party written notice of the breach and its intent to terminate. If the party committing the breach has not entirely cured the breach within fifteen (15) days of the date of the notice, or within such other period as the party giving the notice may authorize in writing, then the Agreement may be terminated at any time thereafter by a written notice of termination by the party giving notice.
 - ii. Time is of the essence for Consultant's performance of each and every obligation and duty under this Agreement. City, by written notice to Consultant of default or breach, may at any time terminate the whole or any part of this Agreement if Consultant fails to provide the Work called for by this Agreement within the time specified herein or within any extension thereof.
 - iii. The rights and remedies of City provided in this subsection (d) are not exclusive and are in addition to any other rights and remedies provided by law or under this Agreement.
- e. Obligation/Liability of Parties. Termination or modification of this Agreement pursuant to subsections a, b, or c above shall be without prejudice to any obligations or liabilities of either party already accrued prior to such termination or modification. However, upon receiving a notice of termination (regardless whether such notice is given pursuant to Subsection a, b, c, or d of this section, Consultant shall immediately cease all activities under this Agreement, unless expressly directed otherwise by City in the notice of termination. Further, upon termination, Consultant shall deliver to City all Agreement documents, information, works-in-progress and other property that are or would be deliverables had the Agreement been completed. City shall pay Consultant for Work performed prior to the termination date if such Work was performed in accordance with this Agreement.

12. Independent Contractor Status: Consultant is an independent contractor and not an employee of the City for any purpose. Consultant shall have the complete responsibility for the performance of this Agreement. Consultant shall provide workers' compensation coverage as required in ORS Chapter 656 for all persons employed to perform Work pursuant to this Agreement. Consultant is a subject employer that will comply with ORS 656.017.

13. Assignment: Consultant shall not assign this Agreement or subcontract any portion of the Work without the written consent of City. Any attempted assignment or subcontract without written consent of City shall be void. Consultant shall be fully responsible for the acts or omissions of any assigns or subcontractors and of all persons employed by them, and the approval by City of any assignment or subcontract of the Work shall not create any contractual relation between the assignee or subcontractor and City.

14. Default. The Consultant shall be in default of this Agreement if Consultant: commits any material breach or default of any covenant, warranty, certification, or obligation under the Agreement; institutes an action for relief in bankruptcy or has instituted against it an action for insolvency; makes a general assignment for the benefit of creditors; or ceases doing business on a regular basis of the type identified

in its obligations under the Agreement; or attempts to assign rights in, or delegate duties under, this Agreement.

15. Insurance. Consultant shall, at its own expense, maintain the following insurance:

- a. Worker's Compensation insurance in compliance with ORS 656.017, which requires subject employers to provide Oregon workers' compensation coverage for all their subject workers
- b. Professional Liability insurance with a combined single limit, or the equivalent, of not less than \$2,000,000 (two million dollars) per occurrence. This is to cover any damages caused by error, omission or negligent acts related to the Work to be provided under this Agreement.
- c. General Liability insurance with a combined single limit, or the equivalent, of not less than \$2,000,000 (two million dollars) per occurrence for Bodily Injury, Death, and Property Damage.
- d. Automobile Liability insurance with a combined single limit, or the equivalent, of not less than \$1,000,000 (one million dollars) for each accident for Bodily Injury and Property Damage, including coverage for owned, hired or non-owned vehicles, as applicable.
- e. Notice of cancellation or change. There shall be no cancellation, material change, reduction of limits or intent not to renew the insurance coverage(s) without thirty (30) days' prior written notice from the Consultant or its insurer(s) to the City.
- f. Additional Insured/Certificates of Insurance. Consultant shall name the City of Ashland, Oregon, and its elected officials, officers and employees as Additional Insureds on any insurance policies, excluding Professional Liability and Workers' Compensation, required herein, but only with respect to Consultant's services to be provided under this Agreement. The consultant's insurance is primary and non-contributory. As evidence of the insurance coverages required by this Agreement, the Consultant shall furnish acceptable insurance certificates prior to commencing the Work under this Agreement. The certificate will specify all of the parties who are Additional Insureds. Insuring companies or entities are subject to the City's acceptance. The Consultant shall be financially responsible for all pertinent deductibles, self-insured retentions, and/or self-insurance.

16. Nondiscrimination: Consultant agrees that no person shall, on the grounds of race, color, religion, creed, sex, marital status, familial status or domestic partnership, national origin, age, mental or physical disability, sexual orientation, gender identity or source of income, suffer discrimination in the performance of any Work under this Agreement when employed by Consultant. Consultant agrees to comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations. Further, Consultant agrees not to discriminate against a disadvantaged business enterprise, minority-owned business, woman-owned business, a business that a service-disabled veteran owns or an emerging small business enterprise certified under ORS 200.055, in awarding subcontracts as required by ORS 279A.110.

17. Consultant's Compliance With Tax Laws:

17.1 Consultant represents and warrants to the City that:

17.1.1 Consultant shall, throughout the term of this Agreement, including any extensions hereof, comply with:

- (i) All tax laws of the State of Oregon, including but not limited to ORS 305.620 and ORS Chapters 316, 317, and 318;
- (ii) Any tax provisions imposed by a political subdivision of the State of Oregon applicable to Consultant; and

(iii) Any rules, regulations, charter provisions, or ordinances that implement or enforce any of the foregoing tax laws or provisions.

17.1.2 Consultant, for a period of no fewer than six (6) calendar years preceding the Effective Date of this Agreement, has faithfully complied with:

- (i) All tax laws of the State of Oregon, including but not limited to ORS 305.620 and ORS Chapters 316, 317, and 318;
- (ii) Any tax provisions imposed by a political subdivision of the State of Oregon applicable to Consultant; and
- (iii) Any rules, regulations, charter provisions, or ordinances that implement or enforce any of the foregoing tax laws or provisions.

- 18. Governing Law; Jurisdiction; Venue:** This Agreement shall be governed and construed in accordance with the laws of the State of Oregon without resort to any jurisdiction's conflict of laws, rules or doctrines. Any claim, action, suit or proceeding (collectively, "the claim") between the City and the Consultant that arises from or relates to this Agreement shall be brought and conducted solely and exclusively within the Circuit Court of Jackson County for the State of Oregon. If, however, the claim must be brought in a federal forum, then it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon filed in Jackson County, Oregon. Consultant, by its signature hereon of its authorized representative, hereby consents to the *in personam* jurisdiction of said courts.
- 19. THIS AGREEMENT AND THE ATTACHED EXHIBITS CONSTITUTE THE ENTIRE UNDERSTANDING AND AGREEMENT BETWEEN THE PARTIES. NO WAIVER, CONSENT, MODIFICATION OR CHANGE OF TERMS OF THIS AGREEMENT SHALL BIND EITHER PARTY UNLESS IN WRITING AND SIGNED BY BOTH PARTIES. SUCH WAIVER, CONSENT, MODIFICATION OR CHANGE, IF MADE, SHALL BE EFFECTIVE ONLY IN THE SPECIFIC INSTANCE AND FOR THE SPECIFIC PURPOSE GIVEN. THERE ARE NO UNDERSTANDINGS, AGREEMENTS, OR REPRESENTATIONS, ORAL OR WRITTEN, NOT SPECIFIED HEREIN REGARDING THIS AGREEMENT. CONSULTANT, BY SIGNATURE OF ITS AUTHORIZED REPRESENTATIVE, HEREBY ACKNOWLEDGES THAT HE/SHE HAS READ THIS AGREEMENT, UNDERSTANDS IT, AND AGREES TO BE BOUND BY ITS TERMS AND CONDITIONS.**
- 20. Amendments.** This Agreement may be amended only by written instrument executed by both parties with the same formalities as this Agreement.
- 21. Nonappropriations Clause.** Funds Available and Authorized: City has sufficient funds currently available and authorized for expenditure to finance the costs of this Agreement within the City's fiscal year budget. Consultant understands and agrees that City's payment of amounts under this Agreement attributable to Work performed after the last day of the current fiscal year is contingent on City appropriations, or other expenditure authority sufficient to allow City in the exercise of its reasonable administrative discretion, to continue to make payments under this Agreement. In the event City has insufficient appropriations, limitations or other expenditure authority, City may terminate this Agreement without penalty or liability to City, effective upon the delivery of written notice to Consultant, with no further liability to Consultant.

- 22. **Certification.** Consultant shall sign the certification attached hereto as “Exhibit C” and incorporated herein by this reference.
- 23. **Standard of Care.** The standard of care applicable to CONSULTANT's Services will be the degree of skill and diligence normally employed by professional engineers or consultants performing the same or similar services during the time said services are performed. CONSULTANT will reperform any services not meeting this standard without additional compensation.

CITY OF ASHLAND:

CH2M Hill Engineers, Inc. (CONSULTANT):

By: _____
City Administrator

By: _____
Signature

Printed Name

Printed Name

Date

Title

Date

Purchase Order No. _____

(W-9 is to be submitted with this signed Agreement)

APPROVED AS TO FORM:

Assistant City Attorney

Date

Scope of Work and Budget for Engineering Services for the

WASTEWATER TREATMENT PLANT FACILITIES ASSESSMENT AND MAJOR PROCESS COMPONENT IMPROVEMENTS

Introduction

This scope of work describes the work that the Consultant, Jacobs (contracting as CH2M HILL Engineers Inc) will provide to the City of Ashland (City) for the subject project.

Background

This project will include an assessment of the wastewater treatment process and major process component elements. The assessment shall be based upon current and projected future flows and loads, capacity and redundancy requirements, and waste characteristics. Project deliverables will include a summary report with prioritized recommendations for the wastewater treatment plant process improvements. Although this assessment will not make specific recommendations about the wastewater collection system as such, flows and loading will be analyzed for impacts to the treatment plant process. The goal of this project is to recommend prioritized system improvements to optimize the wastewater treatment process and ensure simplicity of operation.

Project Assumptions

A whole plant analysis approach will provide the City with the information needed to make the best investment in plant infrastructure to meet treatment needs. Plant flows and loads have been stable in the last few years, and some previously recommended expansions may not be required. In addition, plant staff have identified several areas within the plant where higher priority improvements could improve operability and reliability, specifically:

- effectiveness of the headworks
- oxidation ditch splitter box hydraulic loading
- clarifier #2 sludge removal
- ultraviolet disinfection system and associated energy utilization
- return activated sludge (RAS) pump configuration and replacement needs,
- better space utilization/optimization and/or systems integration for the unused lime stabilization system.
- electrical system harmonics and feedback potentially related to variable frequency driven equipment, plus other power loads/timing, and energy efficiency

An initial task will include confirmation of 2014 Facility Plan load projections for the plant based on the recent five years influent and plant performance data and likely regulatory conditions. Other tasks include the condition assessment of the plant infrastructure, evaluation of the specific areas for improvement listed above, and an assessment of the plant electrical system for harmonic disruption and options for energy efficiency improvement. Based on the outcome of the modeling, regulatory, condition analysis a single Final Summary Report will be developed to summarize the technical memoranda (TM) associated with the tasks described below.

Task 1 Load Analysis, Regulatory Analysis and Whole Plant Process Modeling and Hydraulic Model

This task will update the plant flow and load analysis using plant data from the past 5 years, evaluate the potential and anticipated regulatory changes affecting effluent quality and treatment requirements, development of a whole plant process model, and development of a hydraulic model of the current plant to confirm the existing hydraulic grade line through the unit processes. Specifically, the task shall include:

1. Update load analysis: Using the last 5 years plant load data, confirm the wastewater influent 2014 Facility Plan projections for loads and project for the next 20 years based on existing wastewater characteristics, and population projections. Historical flow and load data will be obtained from plant staff. Projections will utilize the DEQ Facility Planning guidelines and utilize population projections from Portland State University. Future potential regulatory changes will be based on work done by Jacobs related to the effluent discharge relocation project.
2. Regulatory Analysis: Under this task, Jacobs will document the changes to regulations that have occurred since the 2014 Facility Plan which may become drivers for future projects over the next permit cycle.
3. Flows and loads will be used to create and calibrate a whole plant process model using Jacobs' Pro2D™ process model for the specific unit processes at the Ashland WWTP. The model will then be used to identify which unit process(es) become limiting as projected flows and loads increase over time compared to the water quality requirements identified in item 2 above.
4. The plant process model will also specifically evaluate the potential for and specific operating parameters associated with single oxidation operation to accommodate removing one oxidation ditch from service to facilitate cleaning and maintenance.
5. Jacobs will confirm the original plant hydraulic profile by collecting water surface elevations during field visits and compare those to the elevations identified in the original hydraulic profile.

Assumptions

The City will assist by providing plant operating data and participating in coordination and review meetings. The City will provide plant influent and operating data and participate in the review of the validity of that data.

The flows identified in the 2014 Facility Plan can be used for hydraulic planning. Jacobs will develop new load projections based on the last 5 years' data and forecast population growth.

Deliverables

Draft and Final Technical Memorandum (TM) outlining the theoretical treatment plant capacity and timing of unit process limitations that limit the plant's ability to meet effluent quality requirements. The TM will include a summary of the forecast regulatory criteria used in the model.

This TM will be used to identify which treatment plant unit process improvements best help the plant meet the future treatment objectives.

We envision two workshops associated with this task. The first will be to review the results of the plant modeling and the identified treatment limiting factors. The second will be to review and endorse the elements and alternatives to be evaluated to address the treatment limitations.

The TM will be included in the Final Summary Report.

Task 2 Condition Assessment

A WWTP Condition Assessment will be conducted by Jacobs including our subconsultant Mark Walter of Waterdude Solutions. Assessment will include an asset condition and system performance evaluation of the City of Ashland's WWTP. Services include document review and development of a WWTP system/asset inventory. System/ asset inventory information will be obtained from the following sources as needed; WWTP Operations and Maintenance Manual, Computerized Maintenance Management System and 2012 Sanitary Sewer Master Plan. The final system/asset inventory will be available for review by the City prior to the assessment.

An onsite visit will be conducted to perform visual inspection of assets, photographic documentation, review of maintenance records and interviews with staff regarding operations and maintenance history.

Information obtained during the onsite visit will be developed into a City of Ashland WWTP Condition Assessment Report. This report will include an asset condition summary and asset condition ranking from 1 (very good) to 5 (very poor). In addition to the asset ranking, an overall system ranking will be derived from the asset ranking and operational deficiency information. This approach is intended to consider both asset reliability and system performance.

Work performed within this scope of work will include onsite and offsite tasks.

The scope of the condition assessment will include systems and assets identified in a systems table. The system table is intended to capture all WWTP systems. An Ashland WWTP system/asset table will be submitted to the City for review prior to the onsite visit.

Table 1 below provides an example of system asset tables for the City of Ashland's WWTP. The final table will include asset tag numbers found in the field and in design documents. Systems identified in this table form the basis of the scope of work in this proposal.

Table 1. Example - Ashland WWTP System/Asset Tables

Ashland Creek Pump Station
Pumps
Controls
Sensors, Meters
Gates, Valves, Piping
Headworks
Bar Screens
Compactor
Grit Chambers
Pumps
Controls
Sensors, Meters
Gates, Valves, Piping
Aeration Basins
Tanks/Structure
Anoxic Zones
Aerators, Drives
Controls
Sensors
Gates, Valves, Piping
Secondary Clarifiers
Walkway/Structure
Mechanism/Drive
RAS/WAS Pumps
Gates, Valves, Piping

Disinfection
UV System
Controls
Sensors, Meters
Gates, Valves, Piping
Reaeration
Reuse Pumping
Solids
Lime Stabilization
Mixers
Dewatering Centrifuge
Pumps
Controls
Sensors, Meters
Gates, Valves, Piping
Membrane System
Membrane Filtration PS
Membrane Filters
Plant Water System
Pumps
Controls
Sensors, Meters
Gates, Valves, Piping

Assumption:

- Subconsultant Waterdude Solutions will meet onsite with operations staff for two days to perform the condition assessment.
- Systems and equipment for this assessment are limited to the equipment and systems at the Ashland WWTP.
- Electrical and Control system evaluation will be limited to interviews with staff and review of maintenance records. (See Task 4 for specific electrical evaluations)
- Operations staff will be available to provide access to systems and related O&M information.

Deliverables:

- A Condition Assessment Report with condition assessment, photographs and recommendations. The Condition Assessment Report will be included in the Final Summary Report.

Task 3 Specific Treatment Component Assessments

In addition to the WWTP Condition Assessment, we will evaluate areas specifically highlighted by the plant staff and recommend improvements for process optimization and/or needed improvements. This evaluation will follow Tasks 1 and 2 above so that potential improvements can be informed by the potential for treatment capacity limitations and/or condition assessments that identify limitations that would need to be considered (e.g. if the process model suggests that secondary clarification becomes treatment limiting, what improvements might be needed beyond currently identified secondary clarifier deficiencies?). Each area listed below will be evaluated for current operations deficiencies and recommendations for improvements will be generated. Conceptual level (Class 5 as defined by the Association for the Advancement of Cost Engineering (AACE)) cost estimates will be included for each recommendation.

Specific areas of evaluation include:

- Headworks. Evaluation shall include the effectiveness of the current headworks screening and grit removal, and recommend improvements to address deficiencies and accommodate future plant expansion
- Oxidation ditch splitter box hydraulics. Evaluation to be coordinated with the headworks evaluation since the potential for headworks improvements can include the flow splitting function to the two present and future oxidation ditches. Hydraulic analysis shall evaluate the apparent uneven flow split at high flows and determine if baffling or flow vanes could potentially improve flow split at high flows. At this time, (CFD) modelling is not included in the scope.
- Secondary Clarifier 2 shall be evaluated for improvements to the sludge removal mechanism. This clarifier has a different and less effective sludge removal mechanism than clarifiers 1 and 3.
- The ultraviolet disinfection system alternatives evaluation will include the evaluation of both open and closed conduit systems, up to three potential locations for alternative UV disinfection technologies, and potential energy savings associated with upgrading this nearly 20-year-old UV technology.
- Return Activated Sludge (RAS) Pump Station evaluation shall include the evaluation of the hydraulics of sludge conveyance from the clarifiers to the pump station wet well, the operation of the RAS pumps to achieve effective performance, and RAS pump redundancy optimization, with the goal to achieve consistent and proportional RAS removal from the three secondary clarifiers.
- Biosolids dewatering and utilization/optimization of the unused lime stabilization system. The existing lime stabilization system and centrifuge dewatering system will be evaluated for potential operations and energy consumption improvements.

Assumptions:

- The onsite portion of these assessments shall be done during Task 2 above.
- A workshop will be held with the City following the delivery of the draft TM.

Deliverables:

- Draft and final Technical Memorandum summarizing the recommendations for improvements to the specific areas listed above. The TM will be included in the Final Summary Report.

Task 4 Electric System Harmonic Analysis

This task will analyze harmonics within the plant electrical system using record drawings. It is assumed there is an issue with plant harmonics based on the site having two existing harmonic filters that are currently not operational.

Mitigation solutions may include operational adjustments, replacement of existing active harmonic filters, additional active harmonic filters, replacement of existing adjustable frequency drives with drives offering better harmonic performance, or addition of passive filters at individual pieces of equipment.

Deliverables

Draft and Final Technical Memorandum outlining the proposed solutions to any conformity issues with IEEE 519.

Preliminary plans and schematic diagrams for recommended electric system improvements.

Assumptions

It is assumed that because two harmonic filters were previously installed at the site that there is a harmonic issue. No field testing will be performed to validate this assumption.

The City will assist by providing plant operating data and participating in coordination and review meetings. The City will provide plant record drawings and participate in the review of the validity of the information. The City will provide all make and model information for major electrical components included in, or that may impact, the analysis.

Task 5 Prepare Summary Report

A draft and final Summary Report will be developed that incorporates all the elements outlined in Tasks 1 through 4, with recommendations for improvements based on anticipated capacity/treatment deficiencies and needed improvements identified. The recommended improvements shall be prioritized to meet the most serious treatment/operational deficiencies first. Construction cost estimates shall be included.

Assumptions:

- Recommendations for treatment expansion shall be generally consistent with current plant treatment unit processes and the DEQ approved 2014 Facility Plan, but consider the anticipated regulatory requirements and the current plants treatment potential and limitations identified by the tasks above
- Construction cost estimates will be prepared for the recommended alternatives to a Class 5 level defined by the American Association of Cost Engineers.

Deliverable

Hardcopy and electronic draft and final Summary Report

Task 6 Project Management

Perform project management activities including monitoring and administration duties, participation in regularly scheduled progress meetings with the City, and project quality assurance and quality control (QA/QC) activities, as needed.

Deliverables

Monthly progress reports and progress billings will be prepared in a format approved by the City; Project schedule with monthly updates if required.

Subsequent Tasks

The City's RFP identified predesign tasks related to the prioritized improvements that will be identified by the tasks above. At this time, it is not possible to scope those predesign activities until the recommended improvements have been identified. Future anticipated tasks, not included in this current scope of work, would include predesign of the identified priority improvements that would include:

- Preparation of preliminary design criteria for proposed unit processes improvements.
- Development of a hydraulic grade line for the wastewater treatment plant with proposed improvements.
- Preparation preliminary plans and schematics, for all unit process improvements.
- Preparation of a preliminary electrical schematics for all unit process improvements and major equipment changes.

Budget

The work shall be completed on an hourly basis for an amount not to exceed the amount show in the attached budget summary table without prior approval by the City.

The budget is based on the estimated tasks and personnel assignments shown in the attached budget summary table. The actual hours per task and sub-task and the actual hours per individual and specific team make-up are approximations, only, and will vary from the details shown in this table attached.

Schedule

It is assumed that the Notice to Proceed will be given to Jacobs by the City by February 6, 2019, and the project will be completed by August 31, 2019.

Ashland WWTP Facility Assessment
Jacobs

Task No.	Task/Subtask	Jacobs											Subsconsultants								
		Craig Massie	Matt Noesen	Li Lei	Bryan Youker	Eng Staff	Tiana Tom	Lori Hurt	Daniel Morse	QC	Jason Clifford	Dave Wilson/SEA	Labor			Labor			Total Sub Labor and Expenses	TOTAL PROJECT COST	
		Project Manager	UV	Process Modeling	Senior Process	Process Mechanical	Electrical	Project Controls	Hydraulics Engineer	Senior Engineer	EE	Outfall & Regulatory	Hours	\$	Expense	Total CH Labor and Expenses	\$	Expense			
1.0	Load Analysis, Regulatory Analysis and Whole Plant Modeling	32	0	112	4	4	0	0	0	0	0	12	164	\$38,100	\$0	\$38,100		0	0	0	\$38,100
	Update loads/projections	4		28									32	\$7,280							
	Regulatory analysis	4										12	16	\$4,000							
	Modeling			60									60	\$13,200							
	Operating Scenarios	8											8	\$2,240							
	Hydraulic profile				4	4							8	\$1,620							
	Develop Technical Memorandum	16		24									40	\$9,760							
2.0	Condition Assessment	2	0	0	0	0	0	0	0	0	0	0	2	\$560	\$0	\$560	85	\$ 13,100	\$ 900	\$ 14,000	\$14,560
	Assessment and report	2			0		0						2	\$560		\$560				0	
3.0	Specific Treatment Component Assessments	20	8	0	68	60	0	0	0	0	0	0	156	\$33,900	\$600	\$34,500	0	0	0	0	\$34,500
	Headworks	2			12	12							26	\$5,420		\$5,420					
	Ox Ditch Hydraulics	2			8								10	\$2,320		\$2,320					
	Secondary Clarifier 2	2			8								10	\$2,320		\$2,320					
	UV Disinfection	2	8		16	16							42	\$9,280		\$9,280					
	RAS Pump Station	2			8	8							18	\$3,800		\$3,800				0	
	Dewatering/Lime System	2			16								18	\$3,520		\$3,520					
	Developep Technical Memorandum	8			16	8							32	\$7,240	\$600	\$7,840				0	
4.0	Electrical System Evaluation	0	0	0	0	0	32	0	0	0	6	0	38	\$5,820	\$0	\$5,820	0	\$ -	\$ -	\$ -	\$5,820
	Assessment and TM						16				4		20	\$3,080		\$3,080				\$ -	
	Deliverable Drawings						16				2		18	\$2,740		\$2,740				0	
5.0	Prepare Summary Report	12	0	18	18	0	0	0	0	0	0	0	48	\$11,280	\$0	\$11,280	0	0	0	0	\$11,280
	develop recommendations			6	6								12	\$2,640	\$0	\$2,640				0	
	Draft report	6		6	6											\$0					
	Final report	6		6	6											\$0					
6.0	Project Management	46	0	0	0	0	0	8	0	8	0	0	62	\$16,000	\$200	\$16,200	0	0	0	0	\$16,200
	Project Management	40						8					48	\$12,080	\$200	\$12,280				0	
	Q/QC Reviews	6								8			14	\$3,920	\$0	\$3,920				0	
	TOTAL HOURS	112	8	130	90	64	32	8	0	8	6	12	470			\$106,460	85				
	TOTAL COST	\$ 31,360	\$ 2,240	\$ 28,600	\$ 19,800	\$ 11,840	\$ 4,800	\$ 880	\$ -	\$ 2,240	\$ 1,020	\$ 2,880		\$105,660	\$800	\$106,460		\$ 13,100	\$ 900	\$ 14,000	\$120,460

EXHIBIT B

CITY OF ASHLAND, OREGON

City of Ashland LIVING WAGE

ALL employers described below must comply with City of Ashland laws regulating payment of a living wage.



\$15.12 per hour, effective June 30, 2018.

The Living Wage is adjusted annually every June 30 by the Consumer Price Index.

Employees must be paid a living wage:

- For all hours worked under a service contract between their employer and the City of Ashland if the contract exceeds **\$21,127.46** or more.
- For all hours worked in a month if the employee spends 50% or more of the employee's time in that month working on a project or

portion of business of their employer, if the employer has ten or more employees, and has received financial assistance for the project or business from the City of Ashland in excess of **\$21,127.46**.

- If their employer is the City of Ashland, including the Parks and Recreation Department.
- In calculating the living wage, employers may add the value of health care, retirement,

401K and IRS eligible cafeteria plans (including childcare) benefits to the amount of wages received by the employee.

- **Note:** For temporary and part-time employees, the Living Wage does **not** apply to the first 1040 hours worked in any calendar year. For more details, please see Ashland Municipal Code Section 3.12.020.

For additional information:

Call the Ashland City Administrator's office at 541-488-6002 or write to the City Administrator, City Hall, 20 East Main Street, Ashland, OR 97520, or visit the City's website at www.ashland.or.us.

Notice to Employers: This notice must be posted predominantly in areas where it can be seen by all employees.

**CITY OF
ASHLAND**

EXHIBIT C

CERTIFICATIONS/REPRESENTATIONS: Consultant, by and through its authorized representative, under penalty of perjury, certifies that (a) the number shown on the attached W-9 form is its correct taxpayer ID (or is waiting for the number to be issued to it and (b) Consultant is not subject to backup withholding because: (i) it is exempt from backup withholding, or (ii) it has not been notified by the Internal Revenue Service (IRS) that it is subject to backup withholding as a result of a failure to report all interest or dividends, or (iii) the IRS has notified it that it is no longer subject to backup withholding. Consultant further represents and warrants to City that: (a) it has the power and authority to enter into this Agreement and perform the Work, (b) the Agreement, when executed and delivered, shall be a valid and binding obligation of Consultant enforceable in accordance with its terms, (c) the work under the Agreement shall be performed in accordance with the degree of skill and diligence normally employed by professional engineer standards, and (d) Consultant is qualified, professionally competent, and duly licensed (if applicable) to perform the Work. Consultant also certifies under penalty of perjury that its business is not in violation of any Oregon tax laws, it is an independent contractor as defined in the Agreement, it is authorized to do business in the State of Oregon, and Consultant has checked four or more of the following criteria that apply to its business.

- _____ (1) Consultant carries out the work or services at a location separate from a private residence or is in a specific portion of a private residence, set aside as the location of the business.
- _____ (2) Commercial advertising or business cards or a trade association membership are purchased for the business.
- _____ (3) Telephone listing is used for the business separate from the personal residence listing.
- _____ (4) Labor or services are performed only pursuant to written contracts.
- _____ (5) Labor or services are performed for two or more different persons within a period of one year.
- _____ (6) Consultant assumes financial responsibility for defective workmanship or for service not provided as evidenced by the ownership of performance bonds, warranties, errors and omission (professional liability) insurance or liability insurance relating to the Work or services to be provided.

Consultant's signature

Date