

Council Business Meeting

September 18, 2018

Agenda Item	Award of a Professional Services Contract for Preliminary Design to Rehabilitate the East and West Forks Raw Water Transmission Line	
From	Scott Fleury, PE	Deputy Public Works Director
Contact	scott.fleury@ashland.or.us	541-552-2411

SUMMARY

Before the Council is an award of a professional services contract to RH2 for an amount not to exceed \$103,055, to complete the preliminary engineering design phase to rehabilitate the East and West Forks Raw Water Transmission Line. This project is currently identified in the 2018/19 Capital Improvement Program and has an approved budget appropriation. Only preliminary engineering, is before the Council for approval at tonight's meeting. Follow on phases will be brought to the Council for separate actions.

POLICIES, PLANS & GOALS SUPPORTED

City Council:

- 1.1 Engage community in a conversation about core services, desired service levels and funding mechanisms.*
- 4. Evaluate real property and facility assets to strategically support city mission and goals.*
- 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

PREVIOUS COUNCIL ACTION

This project was included in council's budget approval process for BN 2017-19.

BACKGROUND AND ADDITIONAL INFORMATION

In 1909, dams and small reservoirs were constructed on the East and West Forks of Ashland Creek. Water from these reservoirs was then piped for the City's power production and domestic water use. Original pipe construction consisted of wire-wound wooden stave piping. The connections to the original power house were constructed of riveted steel pipe.

The connection from the water plant to the East and West Forks reservoirs are currently 24-inch ductile iron pipe with sections of 24-inch steel pipe. These transmission lines are important infrastructure components related to the City's water supply. They allow water to be diverted above Reeder Reservoir to the treatment plant, allowing the City to dewater the main reservoir for sediment removal, dam repairs, intake structure repairs and potentially manage a reservoir algal bloom. Public Works is forecasting significant maintenance

related repairs and improvements to Hosler Dam over the next two biennium, thus requiring the Forks' transmission lines to provide a reliable bypass option for raw water moving forward.

In order to evaluate and rehabilitate the transmission lines staff recommended funding a portion of the overall project in the current biennium. Staff developed a Qualifications Based Selection (QBS) document for engineering services and formally advertised through the Oregon Procurement Information Network (ORPIN) on June 7, 2018.

On July 26, 2018, the City of Ashland completed the review process for selection of a consultant for the preliminary/final designs and construction administration for the East and West Forks Transmission Line Rehabilitation Project, #2018-10. Proposals were submitted by Adkins, Keller Associates, Legacy Field Services, Murraysmith and RH2. The proposals were graded by Steve Walker, Distribution System Supervisor, Kevin Caldwell, Senior Project Manager and Scott Fleury, P.E., Deputy Public Works Director.

The results of the scoring are as follows:

CONSULTANT	TOTAL SCORE	RANK
RH2	278	1
Keller Associates	268	2
Murraysmith	255	3
Adkins	226	4
Legacy Field Services	105	5

After scoring was completed, all consultants were informed of the City's intent to begin scope and fee negotiations with RH2. Through several formal discussions a final scope and fee was agreed upon in concept by the City and RH2. This scope and fee are part of attachment 1, Professional Services Contract. The work is partitioned into four distinct phases; preliminary engineering, final engineering and bidding services, easements and permitting, and construction management services.

The current contract with RH2 is for the preliminary engineering phase. Subsequent phases will be scoped and awarded separately. Critical tasks for the preliminary engineering phase include visual and physical inspection and analysis of the pipeline, pipeline sizing, generating alternatives for rehabilitation and replacement, calculating the cost/benefit of alternatives and making a formal selection of preferred alternative to begin development of final plans, specifications and engineering documents (PSE).

FISCAL IMPACTS

The appropriated FY18/19 budget includes \$300,000 itemized as a Capital Improvement Project (CIP) for water supply to complete preliminary engineering to rehabilitate the East and West Forks Raw Water Transmission Line. Full costs of the rehabilitation are not known at this time as the preliminary engineering phase will help detail current condition, true needs of the rehabilitation and provide a total construction budget. The East and West Forks Raw Water Transmission Line project also includes the analysis and engineering associated with developing a bridge crossing across the west fork to access the transmission line. The bridge project is budgeted for \$129,000 in the current biennium as a water supply capital improvement project. The total budget for both projects should allow for preliminary and final engineering phases to be completed. Construction will be incorporated into the next biennium's budget (BN 2019-21).

STAFF RECOMMENDATION

Staff recommends that the Council authorize the City Administrator to enter into a professional services contract with RH2 for an amount not to exceed \$103,055, to complete the preliminary engineering design phase to rehabilitate the East and West Forks Raw Water Transmission Line. At the conclusion of the preliminary engineering phase, staff will bring the preferred treatment alternative and associated construction cost estimate back before the Council for review, prior to negotiating any additional phases.

ACTIONS, OPTIONS & POTENTIAL MOTIONS

- ◆ I move to authorize the City Administrator to enter into the professional services contract with RH2 for an amount not to exceed \$103,055, to complete the preliminary engineering design phase to rehabilitate the East and West Forks Raw Water Transmission Line.
- ◆ I move to direct staff to change the parameters of the contract with RH2 for preliminary engineering to rehabilitate the East and West Forks Raw Water Transmission Line.
- ◆ I move to direct staff to perform a new solicitation for preliminary engineering to rehabilitate the East and West Forks Raw Water Transmission Line.

ATTACHMENTS

1. Professional Services Contract with RH2

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: RH2 Engineering, Inc.</p> <p>CONSULTANT'S CONTACT: Rachel Lanigan</p> <p>ADDRESS: 22722 29th Drive SE, Suite 210 Bothell, WA 98021</p> <p>TELEPHONE: 425.951.5338</p> <p>EMAIL: rlanigan@rh2.com</p>
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This Personal Services Agreement (hereinafter "Agreement") is entered into by and between the City of Ashland, an Oregon municipal corporation (hereinafter "City") and RH2 Engineering, Inc., a foreign business corporation ("hereinafter "Consultant"), for East and West Fork Transmission Line rehabilitation.

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 06/30/2018.
- 2. Scope of Work:** Consultant will provide East and West Fork Transmission Line rehabilitation as more fully set forth in the Consultant's Proposal dated 09/05/2018, 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 complimentary 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 and expense, 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 **\$103,055 (not to exceed)** 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 **\$103,055 (not to exceed)** 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 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 product or 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 \$20,688.86 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 arising out of or incident to 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 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 services 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 professional services 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 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. If requested, complete copies of insurance policies; trust agreements, etc. shall be provided to the City. 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.

CITY OF ASHLAND:

RH2 Engineering, 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

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 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 highest professional 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

Date

City of Ashland

LIVING

WAGE

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



\$14.81 per hour, effective June 30, 2017.

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 **\$20,688.86** 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 **\$20,688.86**.

- 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.

EXHIBIT A
Scope of Work
City of Ashland
Phase 1 – East and West Forks Raw Water Transmission Line
Rehabilitation Preliminary Engineering

September 5, 2018

Background

Recently updated Federal Energy Regulatory Commission (FERC) licensing evaluations for Hosler Dam and associated structures has identified issues that require improvements. To allow work on the dam and associated structures while continuing to supply water to its customers, the City of Ashland (City) needs a reliable system to bypass the East and West Fork Ashland Creek flows. The existing bypass piping, originally built in the 1880s as the City's original raw water supply piping, has had some improvements over the decades and was functional 2 years ago. However, the City needs this system to be reliable as a critical supply source during the Hosler Dam inspection and repairs.

Through a Request for Proposals process, the City selected RH2 Engineering, Inc., (RH2), teamed with Alpine Environmental, LLC, and Terrasurvey Inc., for professional engineering services for the Phase 1 – East and West Forks Raw Water Transmission Line Rehabilitation project (Project). This Scope of Work includes Phase 1 – Preliminary Engineering services to assess pipe conditions, including structural supports and connections at the East and West Fork dams, identify rehabilitation or replacement options, and provide recommendations in a Preliminary Engineering Report. This phase also includes developing recommendations for improving access across the Ashland Creek West Fork with a culvert or bridge. Future phases of work include Phase 2 – Final Engineering and Bidding Services, Phase 3 – Easements and Permitting, and Phase 4 – Construction Administration Services; these phases will be negotiated separately

Project Goals

Critical goals for this project are as follows:

- Complete the raw water bypass system repairs as soon as possible to allow work on Hosler Dam. An assumed schedule for the dam work is as follows:
 - Dam Inspection/Reservoir Drawdown – Fall 2020
 - Dam Maintenance – Fall 2021
- Improve the raw water bypass system so that it is reliable as an interim supply source during dam maintenance and repair, but also during potential algal blooms in Reeder Reservoir.
- Maximize capacity of the system to extend the work window for dam improvements, which is assumed to occur late summer/early fall when reservoir water levels are low (but demands are fairly high).
- Manage and minimize permitting requirements to reduce delays from agency reviews and shorten the schedule as much as possible.

Assumptions

The following summarizes the general assumptions used in the preparation of this Scope of Work, as well as expectations regarding the City's responsibilities.

- *RH2 will rely on the accuracy and completeness of any data, information, or materials generated or produced by the City or others in relation to this Scope of Work. RH2 to specify areas of concern associated with any data provided by the City and request additional data if necessary.*
- *Meetings will be held at City offices. City staff will assist with coordinating meeting rooms.*
- *Unless otherwise specified, RH2 will provide deliverables in electronic format (PDF or similar) with reports in 8½-inch by 11-inch format. The City will be responsible for the production of documents or deliverables (if necessary). Deliverables will also include AutoCAD and survey information in native format.*

The City will be responsible for the following:

- Provide a project manager who is responsible for overall project management and will provide coordination between the consultants and the City.
- Provide RH2 with copies of all available, relevant City utility as-built plans, reports, and studies pertinent to the project.
- Provide timely review and comment on all reports, drawings, and specifications submitted by RH2 to the City for review and approval.
- Maintain records and process consultant invoices.
- Provide legal review of all construction contracts, bid forms, and real property.
- Direct the consultant on the long- and short-term goals for the system and set criteria for improvement alternatives.

Scope of Work

RH2 will perform the following tasks per the Scope of Work and attached Fee Estimate. *If needed, additional effort shall be mutually negotiated between the City and RH2.* The following tasks will be accomplished for this project.

Task 1 – Project Administration

Objective: Coordinate with City staff and the RH2 project team to manage key activities, schedule, and costs to provide timely completion of the required work tasks and final deliverables, including managing the quality of the work and work products. Develop and maintain a project schedule and conduct regular progress and coordination meetings with the project team and City Project Manager to coordinate project resources and activities. This role will occur throughout all tasks within this Scope of Work and will be a key component in project completion.

Approach:

- 1.1 Progress Reporting: Monitor RH2's scope, budget, and schedule of the project. Provide updates and monthly invoices to the City.

- 1.2 Project Coordination: Develop a project schedule with key activities and milestones and distribute to the project team. Coordinate with the project team on individual tasks and provide regular communication and coordination meetings with City staff. *For budgeting purposes, this task assumes one (1) coordination meeting per month and a total project schedule of five (5) months for Phase 1.*

Assumptions:

- *It is assumed Tasks 1.1 and 1.2 will be necessary for the duration of the project.*

Provided by City:

- Review invoices and process payments monthly.
- Attend monthly coordination meetings.

RH2 Deliverables:

- Monthly invoices.
- Project schedule.
- Meeting agenda, presentation materials, and meeting notes.

Meetings:

- Monthly progress updates at other project meetings.

Task 2 – Design Criteria and Permitting Requirements

Objective: Determine the performance goals for the bypass system to set criteria for improvement alternatives and identify permitting requirements.

Approach:

- 2.1 Data Collection and Review: Collect and review available data on the existing pipes, East and West Fork dams, and Hosler Dam improvements. Prepare preliminary maps of the piping system. Review historical seasonal flows of the East and West Forks for informing goals on pipe capacity and amount of water to be delivered.
- 2.2 Design Criteria: Develop design criteria for capacity, operation, reliability, maintenance, and design life.
- 2.3 Meeting 1 – Meet to Review Data and Design Criteria: Coordinate one (1) meeting with City staff to discuss the overall project scope and schedule, present findings from the data review, and interview staff on knowledge of the bypass pipe system’s history of condition, maintenance, and capacity. Discuss design criteria and goals of the bypass piping system and potential permitting issues.
- 2.4 Permitting Requirements: *This task will be performed by Alpine Environmental as a subconsultant to RH2.* Identify and contact relevant permitting agencies to assess permit requirements and review schedules. Conduct a site walkthrough of the bypass system with permitting agencies’ representatives to confirm requirements. Summarize permitting requirements in a short report and provide to the City for review.

Assumptions:

- *The following agencies will be contacted to assess permitting assumptions: Oregon Department of State Lands (DSL), the U.S. Army Corps of Engineers (USACE), the Oregon Department of Fish and Wildlife (ODFW), and the U.S. Forest Service (USFS), Jackson County Planning Department, and City internal reviews.*
- *FERC will not actively participate in the permitting meeting.*

Provided by City:

- Available data relating to the bypass pipes and East and West Fork dams.
- Geographical Information System (GIS) data on the approximate location of the pipes, if available.
- Confirmation of design criteria.
- City staff member to attend the permitting site walkthrough.

RH2 Deliverables:

- Meeting agenda, presentation materials, and meeting notes for meeting discussing design criteria.
- Attendance at permitting site walkthrough.
- Summary report of potential permitting requirements.

Meetings:

- Meeting 1 – Data review and design criteria.
- Site visit with permitting agencies.

Task 3 – Facility Assessments

Objective: Conduct assessments of the existing pipes, structural supports, and connections at the East and West Fork dams utilizing available data provided by the City, video inspections, site observations, and corrosion testing.

Approach:

- 3.1 Pipe Video Inspection Coordination: *Pipe video inspections will be performed by Rogue Valley Sewer Services (RVSS) under a separate contract with the City.* Coordinate pipe video inspections with RVSS to identify locations for inserting equipment. Review results to identify general condition, observed corrosion, and locations for further evaluation. Use results to confirm location of pipes and update the City's pipe information in GIS.
- 3.2 Meeting 2 – Video Inspection Results: Review results of video inspections and internal pipe conditions with City staff to determine the extent of additional potholing, cutting pipe coupons, exposing valves and tees, and external corrosion testing.
- 3.3 Pothole and Couponing Coordination: Assist the City to retain a contractor to excavate sections of pipe and/or valves requiring further evaluation for visual observation and/or cutting pipe coupons. Develop a scope to include the number and locations of additional excavation and pipe cutting and pipe repairs. Specify that pipe will be repaired to be water tight and welding will be limited to occur when fire conditions are low. Confirm depth of backfill material over the pipe at exposed locations.

- 3.4 External Corrosion Testing: Assess external corrosion of the pipe at locations identified from video inspections following the External Corrosion Direct Assessment (ECDA) methodology developed by the National Association of Corrosion Engineers (NACE). *For budgeting purposes, it is assumed up to ten (10) locations will be assessed.*
- 3.5 Pipe Intakes: Observe the integrity of the pipe connections at the East and West Fork dams during low creek flows (*assumed to be in September 2018*).
- 3.6 Valve Assessments: As identified in Task 3.2, observe valves, tees, and blowoffs along the bypass piping. *Exposure of the valves will be performed in Task 3.3.* Observe test operation of the valves and blowoffs while the pipe is full. *It is assumed no more than ten (10) tees or valves are present.*
- 3.7 Structural Supports Assessments: Assess the structural integrity of the trestles supporting the bypass piping where it crosses the East and West Fork streams and locations spanning sections of Reeder Reservoir (if needed). Identify deficiencies in meeting the design goals. *Evaluation will be limited to visual observation if as-built information is not available.*
- 3.8 Pipe Assessments: Determine the overall condition of the bypass piping system from the impoundment intakes to its termination at the penstock pipe using the results from the above tasks. Estimate pipe performance deficiencies in meeting the design goals. Develop maps of the pipe summarizing conditions at locations along the pipe. Include assessment of site constraints and overall construction considerations for the project. Summarize the results of the assessments in a technical memorandum (TM).
- 3.9 Meeting 3 – Facility Assessments: Present the results of the facility assessments to City staff.

Assumptions:

- *The pipe intake slide gates on the diversion dams will close sufficiently to allow inspection of the pipelines. If not, the City will need to provide for pumping out the diversion dams to allow for inspection of the pipelines.*
- *Video inspections will be performed by a Rogue Valley Sewer Services and will provide resulting video footage in electronic format.*
- *Potholing, couponing, and other assessments will be performed at locations determined by RH2 staff and subcontractor(s) and approved by City staff.*
- *Inspecting the East and West Fork dams is not included in this Scope of Work.*
- *The City will allow and coordinate access to the pipe and facilities for RH2 staff and subcontractors. It is assumed it will take approximately two (2) weeks for the assessments.*

Provided by City:

- Excavate and cut pipe in locations required for pipe video inspections.
- Contract separately, as needed, for pipe excavation, cutting, and repair. City to provide available staff to attend additional potholing and couponing.
- Provide onsite access for pipe inspections.
- Attend meetings to discuss facility assessments.
- Operate valves, gates, and blowoffs.

RH2 Deliverables:

- Meeting agenda, presentation materials, and meeting notes summarizing facility assessments.
- One (1) copy of the video inspection of the pipe.
- Draft and final TM.

Meetings:

- Two (2) weeks of onsite access for pipe assessment.
- Meeting 2 – Video Inspection Results
- Meeting 3 – Facility Assessments.

Task 4 – Topographic Alignment Survey

Objective: Subcontract with Terrasurvey Inc., a professional land survey firm, to develop a topographic alignment survey of the full bypass pipe system for use in design of the improvements (Phase 2).

Approach:

- 4.1 Topographic Survey: Perform a topographic survey of the pipe from the East and West Fork impoundments to the connection to the penstock pipe below Hosler Dam. The pipe will be located from the video inspection to include in the survey. Survey will include identification of trees with a DBH of 6 inches or greater. *The survey will also include a 50-foot area fully around the crossing of the West Fork where a potential bridge or culvert will be located. The survey shall include significant surface features, underground utilities, topography, roadway and utility alignments, rights-of-way, property lines, and easements within the project area. It is assumed that all utilities will be located utilizing One-Call prior to surveying. Survey shall follow RH2's standard topographic survey requirements.*
- 4.2 Survey Review: Review completed survey and perform site visit to confirm survey information and locations where utility potholing may be needed, and coordinate with the City to pothole locations. Obtain information on exposed utilities as required.

Assumptions:

- *Additional surveying may be required for design of selected improvements.*

Provided by City:

- Access to site for RH2 staff and subconsultants.

RH2 Deliverables:

- Survey base map in AutoCAD and one (1) hard copy.

Meetings:

- None.

Task 5 – Improvement Alternatives and Cost Benefit Analysis

Objective: Evaluate improvement alternatives weighing in feasibility, cost, permitting requirements, and scheduling. Recommend a final combination of rehabilitation and/or repair for meeting the design criteria.

Approach:

- 5.1 West Fork Bridge: Evaluate up to three (3) alternatives for improving the crossing of the West Fork, including a bridge or culvert, and considering construction limitations. Prepare preliminary planning-level cost estimates, and positives and negatives for each alternative.
- 5.2 Improvement Alternatives: Given the facility assessment results in Task 3, identify appropriate pipe replacement and rehabilitation alternatives for varying sections of the pipe to meet the design goals.
 - Recommend improvements for structural supports where needed.
 - Using a simple hydraulic model, estimate the maximum supply capacity able to be delivered to the penstock for the improvement alternatives.
 - Develop up to three (3) combinations of repair or replacement alternatives. *It is assumed the alternatives will include a low-cost alternative to meet a lower level of service, and a higher cost alternative to meet a higher level of service such as seismic resilience.*
 - Recommend general system improvements, such as removing brush for fire protection and access improvements and identify issues that may impact the site during construction and long-term.
 - Develop preliminary planning-level cost estimates for the three (3) alternatives considering known construction constraints.
- 5.3 Cost-Benefit Analysis: Perform a cost-benefit analysis of the improvement alternatives considering a balance of design goals and affordability. Rank the alternatives for reliability, longevity, maintenance requirements, and other established design criteria.
- 5.4 Meeting 4 – Improvement Alternatives: Present the improvement alternatives and recommendations to the City for discussion. Identify and resolve additional information required to select an alternative. *The City will review alternatives and make a recommendation in a timely manner.*

Assumptions:

- *Additional site investigation and preliminary engineering may be required beyond this Scope of Work if the City selects a higher level of service for the pipe (such as seismic resilience for a M9.0 earthquake).*

Provided by City:

- City staff to attend improvement alternatives meeting.
- Provide feedback and comments regarding the options and a clear direction on the chosen option.

RH2 Deliverables:

- Meeting agenda, presentation materials, and meeting notes.

Meetings:

- Meeting 4 – Improvement Alternatives.

Task 6 – Preliminary Engineering Report

Objective: Prepare a preliminary engineering report summarizing the assessment results and outlining the selected direction for design and construction of the recommended improvements.

Approach:

- 6.1 Draft Preliminary Engineering Report: Prepare a draft report summarizing the assessments, existing conditions of the pipe system, potential improvement alternatives considered, permitting requirements, and recommended improvements for design and construction. Develop AACE International Level 3 to 4 total project cost estimates considering known construction constraints. Include maps of pipe alignment, cost estimate, and supplemental reports as appendices. Submit to City for review.
- 6.2 Meeting 5 – Review Preliminary Engineering Report: Meet with City staff to review City comments on the draft report. Incorporate edits prior to City Council Meeting.
- 6.3 City Council Meeting 1: Attend and present a summary of the draft preliminary engineering design report to City Council. Prepare a draft presentation for City staff to review prior to the meeting.
- 6.4 Final Preliminary Engineering Report: Prepare a final report incorporating comments from the City and City Council of the selected option for preliminary engineering design. Finalize the probable construction cost estimate based on edits incorporated from the review process.

Assumptions:

- *City will arrange presentation to the City Council and other stakeholders to discuss the selected option.*
- *City will provide comments and edits to the draft report in a timely manner.*

Provided by City:

- Review comments on draft report.
- Attendance at meeting to review draft report.

RH2 Deliverables:

- Meeting agendas, presentation materials, and meeting notes.
- Draft and final presentation materials for City Council meeting.
- Draft and final preliminary engineering report. The draft preliminary engineering report will be submitted as one (1) electronic PDF and two (2) hardcopies (8½-inch by 11-inch format with 11-inch by 17-inch maps included). The final preliminary engineering report will be submitted as one (1) electronic PDF and two (2) hardcopies (8½-inch by 11-inch format with 11-inch by 17-inch maps included).

Meetings:

- Meeting 5 – Preliminary Engineering Report review.
- City Council Meeting 1 – Recommended improvements.

Task 7 – 10-Percent Pipeline Engineering Design

Objective: Prepare preliminary plans and a probable construction cost estimate for the selected pipe repairs or improvements.

Approach:

7.1 Prepare 10-Percent Design: Prepare pipeline preliminary design plans to the 10-percent design level with horizontal and vertical alignment detail of the proposed improvements for City review and comment. A preliminary opinion of probable construction costs will be developed for the preliminary design review submittal.

Assumptions:

- *Design alternatives have not been identified at this point. This task is intended to be a place holder for future work dependent on the selected design alternative. This task will allow design to begin while negotiations are conducted for the remainder of the scope of services for the project. This task item will assist in maintaining the existing schedule for project completion.*
- *This task does not include preliminary design of the West Fork bridge crossing.*

Provided by City:

- Comments on 10-percent design documents.

RH2 Deliverables:

- 10-percent design plans and construction cost estimate.

Project Schedule

RH2 will commence with the preliminary engineering upon written authorization from the City and will continue through completion of Phase 1. A detailed schedule for Phase 1 will be provided for City review in Task 1. *It is anticipated that Phase 1 project closeout will be completed by February of 2019.* Anticipated Key Project Milestones for this Phase and future phases of work are as follows:

- September 2018: Observe impoundment intakes while East and West Fork water levels are low.
- October 2018: Observe pipe support trestles before Reeder Reservoir is filled.
- February 2019: Complete Phase 1 – Preliminary Engineering.
- July 2019: Complete Phase 2 – Final Engineering and Bidding Services.
- August 2019: Submit permit applications.
- December 2019: Complete Phase 3 – Easements and Permitting (timing depends on permitting agencies and could take many months longer)
- July 2020 (If permitting is completed in 2019): Complete Phase 4 – Construction Administration Services for bypass pipe system improvements.
- August 2020: Hosler Dam inspection/reservoir drawdown.
- Summer 2021: Begin Hosler Dam repairs (timing to be determined and dependent on approval of project by FERC).

EXHIBIT A

City of Ashland

Phase 1 - East and West Forks Raw Water Transmission Line

Rehabilitation Preliminary Engineering

Fee Estimate

Description	Total Hours	Total Labor	Total Subconsultant	Total Expense	Total Cost
Task 1 Project Administration	50	\$ 8,304	\$ -	\$ 208	\$ 8,512
Task 2 Design Criteria and Permitting Requirements	35	\$ 6,233	\$ 3,335	\$ 293	\$ 9,861
Task 3 Facility Assessments	136	\$ 23,590	\$ -	\$ 1,412	\$ 25,002
Task 4 Topographic Alignment Survey	12	\$ 1,732	\$ 18,285	\$ 181	\$ 20,198
Task 5 Improvement Alternatives and Cost Benefit Analysis	106	\$ 17,518	\$ -	\$ 988	\$ 18,506
Task 6 Preliminary Engineering Report	77	\$ 11,147	\$ -	\$ 941	\$ 12,088
Task 7 10-Percent Pipeline Engineering Design	58	\$ 8,126	\$ -	\$ 764	\$ 8,890
PROJECT TOTAL	474	\$ 76,650	\$ 21,620	\$ 4,785	\$ 103,055

**EXHIBIT A
RH2 ENGINEERING, INC.
2018 SCHEDULE OF RATES AND CHARGES**

RATE LIST	RATE	UNIT
Professional I	\$130	\$/hr
Professional II	\$139	\$/hr
Professional III	\$150	\$/hr
Professional IV	\$160	\$/hr
Professional V	\$173	\$/hr
Professional VI	\$189	\$/hr
Professional VII	\$205	\$/hr
Professional VIII	\$215	\$/hr
Professional IX	\$215	\$/hr
Technician I	\$82	\$/hr
Technician II	\$90	\$/hr
Technician III	\$89	\$/hr
Technician IV	\$95	\$/hr
Administrative I	\$67	\$/hr
Administrative II	\$78	\$/hr
Administrative III	\$94	\$/hr
Administrative IV	\$113	\$/hr
Administrative V	\$131	\$/hr
CAD/GIS System	\$27.50	\$/hr
CAD Plots - Half Size	\$2.50	price per plot
CAD Plots - Full Size	\$10.00	price per plot
CAD Plots - Large	\$25.00	price per plot
Copies (bw) 8.5" X 11"	\$0.09	price per copy
Copies (bw) 8.5" X 14"	\$0.14	price per copy
Copies (bw) 11" X 17"	\$0.20	price per copy
Copies (color) 8.5" X 11"	\$0.90	price per copy
Copies (color) 8.5" X 14"	\$1.20	price per copy
Copies (color) 11" X 17"	\$2.00	price per copy
Technology Charge	2.50%	% of Direct Labor
Mileage	\$0.545	price per mile (or Current IRS Rate)
Subconsultants	15%	Cost +
Outside Services	at cost	

Rates listed are adjusted annually.