

# Council Business Meeting

September 18, 2018

<b>Agenda Item</b>	Award of a Professional Services Contract; Phase 1, Preliminary Engineering for a New 7.5 Million Gallon per Day Water Treatment Plant	
<b>From</b>	Paula C. Brown, PE Scott Fleury, PE	Public Works Director Deputy Public Works Director
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## **SUMMARY**

Before the Council is an award of a professional services contract with HDR for \$1,003,576, to complete phase 1, preliminary engineering for a new 7.5 million gallon per day (mgd) water treatment plant (WTP). As previously accepted by the City Council at the April 2, 2018, study session, staff has moved forward with the solicitation of engineering services with a phased approach that includes preliminary engineering, final engineering, bidding services and construction administration of a new 7.5 mgd WTP. Only phase 1, preliminary engineering, is before the Council for approval at tonight's meeting.

Phase 1 includes the completion of two separate elements; 1A developing three treatment train alternatives and a recommendation for the best alternative for the City's site and treatment requirements, and 1B preliminary design of the identified treatment process to a 30% design stage, with geotechnical analysis and cost estimates. 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**

At the November 2, 2017, Study Session, Public Works staff recommended a revised plan for moving forward with development of the City's future water treatment plant works. Council supported staff's request to suspend the current decision to construct a supplemental 2.5 mgd WTP and a 2.6 mg reservoir with the intent to run both the new supplemental plant while also maintaining the existing plant. This new plan allowed staff to perform a cost comparison analysis for either maintaining and improving the existing plant for a 20-50 year window or building a new 7.5 mgd plant expandable to 10 mgd. The comparison was also

meant to analyze and mitigate risks, such as earthquake, flooding, landslides, and fire associated with maintaining and improvement the existing WTP in the current canyon location.

At the April 2, 2018, Study Session, Public Works staff presented the outcome of the comparative analysis done by RH2 and Black and Veatch. The study determined the existing plant could not fully overcome the risks associated with seismic stability, flooding and ensure capacity for potential future regulatory requirements without rebuilding the WTP. By rebuilding in the existing location, the overall risks remain – and the City would still be operating in a less than desirable location which is also prone to wildfire and localized landslides. At the April 2 Study Session, Council accepted staff’s recommendation to move forward with building a new 7.5 mgd plant with potential for future capacity and stay within the same BN 2017-19 budget appropriation. Staff subsequently prepared a qualifications based solicitation for a phased approach to the development of a new 7.5 mgd WTP with phase 1 focusing on the treatment train and cost estimate for construction of a preferred alternative.

### **BACKGROUND AND ADDITIONAL INFORMATION**

Staff advertised a request for qualifications based proposals on May 17, 2018, with a closing date of June 21, 2018. Phase 1 specified the following: Treatment Alternative Selection and Preliminary Engineering: Including development of treatment train alternatives, clear well/reservoir sizing for treatment alternatives, offsite and internal piping requirements and development of project costs estimates (AACE level 3-4), Consultant shall attend Council meetings as necessary, to provide project updates. Consultant shall also recommend process/plans for abandonment of existing plant structures. Consultant will recommend a preferred treatment option based upon the goals stated in the objectives. The solicitation document defined the goals for the project to include development of a reliable, simple, robust, energy efficient and expandable raw water treatment train and plant that will fully meet current and potential future regulatory requirements. This project will provide water for the Citizens of Ashland for the next 30-50+ years.

On July 10, 2018, the City of Ashland completed the formal review process for selection of a consultant for the preliminary/final designs and construction administration of a 7.5 mgd Water Treatment Plant. Proposals were submitted by HDR, Kennedy/Jenks, Murraysmith, and RH2. The proposals were graded by Michael Morrison, Public Works Superintendent, Greg Hunter, Water Treatment Plant Supervisor, Steve Walker, Distribution System Supervisor, Kevin Caldwell, Senior Project Manager and Scott Fleury, Deputy Public Works Director.

The results of the scoring are as follows:

CONSULTANT	TOTAL SCORE	RANK
HDR	456	1
Kennedy/Jenks	449	2
RH2	438	3
Murraysmith	413	4

After scoring was completed, all consultants were informed of the City’s intent to begin scope and fee negotiations with HDR. Through several formal discussions a final scope and fee was agreed upon in concept by the City and HDR. This scope and fee is part of attachment #1, Professional Services Contract.

Staff expects to complete the preliminary engineering phase 1 portion five months after notice to proceed. The notice to proceed will be generated upon Council approval.

## **2012 Water Master Plan:**

The [2012 Water Master Plan](#) (Carollo) developed the recommendation for a supplemental 2.5 mgd WTP and 2.6 million gallon (mg) Crowson II storage reservoir as part of the final capital improvement plan. The 2.5 mgd plant was initially identified and sized to assist the City in meeting peak projected water usage in the summer seasons. It was meant to operate year round with the existing plant operating “as required” to meet system capacity requirements past 2.5 mgd. It was expected the 2.5 mgd plant would be expanded to a full 10 mgd sometime in the future, and the existing WTP phased out of operation. Based upon the prior water master plan, the Crowson II reservoir was initially assumed to be sized for 2.6 mg of potable water storage. Further analysis by RH2 has shown that the “Crowson II” storage reservoir may be unnecessary as the new Park Estates Pump Station is designed to maximize utilization of water in the existing Crowson Reservoir at full capacity. The need for future reservoir capacity and operational improvements will be assessed with the current Water Master Plan evaluation.

Through a formal selection process the City awarded Keller Associates stage 1, preliminary engineering of the new 2.5 mgd treatment plant and 2.6 mg of potable water storage reservoir ([March 21, 2017](#), Business Meeting). Keller has completed their preliminary engineering work. Keller’s work included siting alternatives including the recommended site at the lower Granite Pit and a pilot testing of membranes.

Subsequently, and as identified in the original request for qualifications, RH2 Engineering was hired to perform peer review on the preliminary engineering work of Keller Associates. RH2 Engineering also competed and was selected through a separate request for proposals process to complete the City’s comprehensive Water Master Plan Update. RH2 Engineering finished peer review of the first phase of Keller Associates’ work and is in the process of completing the Water Master Plan. The Water Master Plan is currently on hold pending the outcomes of the proposed preliminary engineering phase for the WTP as future decisions made are critical with respect to any capital improvement recommendations and the future proposed rate structure to support the water fund.

## **AWAC:**

The Ashland Water Advisory Committee (AWAC) continues to be appraised of the status of the water program. On [September 26, 2017](#), AWAC unanimously supported staff’s request to suspend the current decision to construct a supplemental 2.5 mgd WTP and a 2.6 mg reservoir with the intent to run both the new supplemental plant while also maintaining the existing plant. The City has a reliable alternative water source with the connection of the Talent Ashland Phoenix (TAP) water line and should not be running two separate water plants. AWAC supported staff’s recommendation to develop a comprehensive cost comparison for *either* a single new 7.5 mgd WTP *or* improvements to the existing WTP for a 20-year life to include upgrades to the treatment process, and necessary facility improvements to sustain potential earthquake and flooding damage. At the March 27, 2018, meeting, AWAC was advised of staff’s recommendation to solicit for engineering services to build a new 7.5 mgd plant. The Committee voiced overall support for moving in this direction and provided a motion on the subject:

*The Committee was in agreement with Brown on recommending to Council to build a new Water Treatment Plant at the lower granite pit.*

## **FISCAL IMPACTS**

The current adopted biennium budget (BN 2017-19) appropriates a total of \$22,674,000 dollars for the engineering and construction of two projects: a new 2.5 mgd supplemental water treatment plant (Project # 2015-31) and proposed 2.6 million gallon (mg) Crowson II water storage reservoir. To date expenditures for the water treatment plant and reservoir siting study total \$525,140. The preliminary engineering associated

with these expenditures remain effective and will inform staff through the remainder of the 7.5 mgd plant design and construction as well as completion of the water master plan work.

The City obtained low interest financing from the Infrastructure Finance Authority (IFA) for Engineering and construction of the water treatment plant. The loan was in the amount of \$14,811,865 with a 1.79% interest rate and \$1,030,000 in principal forgiveness. The Council authorized the IFA loan at the June 7, 2016, Business Meeting. Staff has not yet secured financing for the storage reservoir and will revise project costs and evaluate the need with phase 1, preliminary engineering of the new WTP. The Council approved a financing resolution at the December 6, 2016, Business Meeting that allows for the reimbursement of funds towards the reservoir project to be “reimbursed” once financing is obtained. This financing resolution allowed the original project to proceed through preliminary engineering.

### **STAFF RECOMMENDATION**

Staff recommends that the Council authorize the City Administrator to enter into a professional services contract with HDR for \$1,003,576, to complete phase 1 preliminary engineering for a new 7.5 mgd WTP. 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 a professional services contract with HDR for \$1,003,576, to complete phase 1 preliminary engineering for a new 7.5 mgd WTP.
- I move to direct staff to change the parameters of the contract with HDR for phase 1 preliminary engineering for a new 7.5 mgd WTP.
- I move to direct staff to perform a new solicitation for phase 1 preliminary engineering for a new 7.5 mgd WTP.

### **REFERENCES**

Council Study Session, April 2, 2018; Water Treatment Plant Status Update [staff report](#) and [minutes](#) (recommendation for one 7.5 mgd WTP)

Council Study Session, November 6, 2017; Water Treatment Plant Siting and Status Update [staff report](#) (assess the need for 2 simultaneous plants)

Council Business Meeting, June 7, 2016; [staff report](#) (Council authorized the IFA loan)

Council Business Meeting, December 6, 2016; [staff report](#) (Council authorized reimbursements)

### **ATTACHMENTS**

Professional Services Contract with HDR

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

<p style="text-align: center;"><b>CITY OF ASHLAND</b></p> <p style="text-align: center;">20 East Main Street Ashland, Oregon 97520 Telephone: 541/488-5587 Fax: 541/488-6006</p>	<p>CONSULTANT: HDR</p> <p>CONSULTANT'S CONTACT: Jeremy Holland</p> <p>ADDRESS: 1050 SW Sixth Avenue, Suite 1800 Portland, OR 97204</p> <p>TELEPHONE: 503-896-2883</p> <p>EMAIL: <a href="mailto:jeremy.holland@hdrinc.com">jeremy.holland@hdrinc.com</a></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 HDR Inc., a foreign business corporation ("hereinafter "Consultant"), for design of a 7.5 Million Gallon a Day (MGD) water treatment plant – phase 1.

**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 June 30, 2019.
- 2. Scope of Work:** Consultant will provide design of a 7.5 Million Gallon a Day (MGD) water treatment plant – phase 1 as more fully set forth in the Consultant's Proposal dated 09/07/2018, 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 **\$1,003,576.00** 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 **\$1,003,576.00** 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 \$21,688.86 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 to the extent the losses, claims, costs, expenses, or other damages are caused by the negligent acts, or errors or omissions of Consultant (including but not limited to, Consultant's employees, agents, and others designated by Consultant to perform Work or services attendant to this Agreement) in the performance of this Agreement. However, Consultant shall not be held responsible for any losses, expenses, claims, subrogations, actions, costs, judgments, or other damages, directly or solely caused 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 claim. 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 claim 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:**

**HDR (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 customary 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

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.



**\$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](http://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, Oregon Design of a 7.5-MGD Water Treatment Plant**

**Scope of Services - DRAFT**

**September 7, 2018**



**1050 SW 6th Ave  
Suite 1800  
Portland, OR 97204**

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## Attachments

- Attachment A. Geotechnical Investigation
- Attachment B. Survey Extents

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# SCOPE OF SERVICES

## Background

The City of Ashland, Oregon (City) owns and operates an existing water treatment plant (WTP). The plant is aging and several issues have made continuing operation and renovation an expensive effort. The City has requested HDR to assist them in completing the design of the new WTP.

The City will execute the project in three phases:

1. Treatment Alternatives and Preliminary Design
2. Final Engineering, Permitting, and Bidding Support.
3. Construction Services

This scope authorizes HDR to conduct the Phase 1 (Treatment Alternatives and Preliminary Design) tasks, which is divided into two sub-phases: 1A (Treatment Alternatives) and 1B (Preliminary Design). The subsequent phases will be authorized by the City in subsequent contracts. Phase 1 tasks include:

### **Phase 1A (Treatment Alternatives)**

- Development of three treatment train alternatives.
- Conduct an initial geotechnical investigations at the proposed site.
- Conduct a topographic survey of the proposed site and vicinity affected by the project.
- Size the new WTP clearwell/reservoir for each alternative.
- Identify offsite and internal piping requirements for each alternative.
- Evaluate and develop a recommendation for the preferred combined treatment / clearwell / piping alternative.
- Prepare project cost estimates.
- Present project information at public meetings and participate in the question-and-answer session.

### **Phase 1B (Preliminary Design)**

- Conduct an additional geotechnical investigation at the proposed site.
- Evaluate the potential of a secondary intake.
- Prepare 30-percent design documents.
- Develop the plan and process for abandoning appropriate structures at the existing WTP.

## General Tasks and Activities

Unless noted otherwise, the following assumptions are used for all tasks:

- Review meetings will be in Ashland, Oregon at the City's offices

- City will be responsible for arranging meeting locations and attendance of required City staff.
- HDR will prepare meeting agenda, handouts, notes, and presentation materials.
- Deliverables will consist of one draft document and one final document. Multiple revisions will not be provided.
- Deliverables will be submitted as Adobe PDF files via email and two bound hard copies of each technical memorandum and report via mail or in person. Native files (MS Office, Project, AutoCAD) will be provided upon request.
- City review comments to draft deliverables will be provided to HDR in one collated file that addresses any conflicting comments.
- City review will take no longer than three weeks per document.
- Final deliverables include comment response logs that show how HDR addressed the City's review comments. These logs are provided separate of the deliverables (i.e. not attached as appendices to the documents).
- Design will be done with the standards and care of the profession and following Oregon construction codes (Building, Electrical, Fire, Mechanical, Energy, etc.) that are in force in September 2018.

Deliverables will follow HDR standards for memoranda, drawings, and cost estimating. The Construction Standards Institute (CSI) Master Format standard will be used for technical specifications.

- Contract specifications (i.e. front end Division 00 and 01 documents) will be provided by the City.
- City is responsible for communication with all other governmental agencies and community groups not otherwise noted below.
- The City is responsible to provide access to all properties that need to be accessed during the duration of this project.
- City to pay for all permitting and agency review fees.

## Abbreviations

Below are the abbreviations used in this scope.

CSI	Construction Standards Institute
FERC	Federal Energy Regulatory Commission
OHA	Oregon Health Authority
TAP	Talent-Ashland Pipeline
TID	Talent Irrigation District
WTP	Water treatment plant

---

# Authorized Scope of Services

## PROJECT MANAGEMENT

### Objective

The purpose of this task is to monitor, control and adjust scope, schedule, and budget as well as provide monthly status reporting, accounting, and invoicing.

### HDR Services

1. Prepare a Project Management Plan (Project Guide) outlining the project scope, team organization, schedule, and communications information.
2. Coordinate and manage the project team.
3. Conduct the project kick-off / alternatives review workshop to:
  - a. Review project logistics and management activities.
  - b. Discuss the pros and cons of the three treatment alternatives in the HDR proposal, discuss the need for any additional testing, and select two alternatives (which can be the ones identified by HDR hybrid alternatives developed during the workshop) for further evaluation.
4. Prepare monthly status reports describing the following:
  - a. Services completed during the month
  - b. Services planned for the next month
  - c. Needs for additional information
  - d. Scope/schedule/budget issues
  - e. Schedule update and financial status summary
5. Prepare monthly invoices formatted in HDR's invoicing format.
6. Project Manager will have monthly project management phone calls with the City Project Manager to review project scope, schedule, and budget issues.
7. Plan and organize a ProjectWise internet-based secure project filing system for document storage.

### City Responsibilities

1. Participate in project management phone calls.
2. Participate in kick-off / alternatives review workshop.
3. Timely processing and payment of invoices.
4. Review and process contract change requests and amendments, if needed.

### Assumptions

1. The project duration will be no longer than five months.

2. One project management phone call will be held per month for the duration of one hour of project manager's time. One additional hour will be required for preparation and follow-up (including notes) for each meeting.
3. Project kick-off meeting will be four hours in duration and will include the initial alternatives /activities for Task 1.4. Meeting will be attended by Pierre Kwan and Verena Winter, with Rich Stratton and a project engineer on the phone.
4. Invoice format will be per a City-approved template that is the same or close to HDR's standard invoice format.
5. Expense backup will be provided with each invoice per City loan requirements.

### **Deliverables**

1. Scope of services, schedule (Gantt chart or project milestones), and budget.
2. Subconsultant subcontracts.
3. Monthly reports and invoices (one copy with invoice will be e-mailed as a PDF file)
4. Monthly project schedule and budget updates.
5. Project management meeting agenda and notes.

## **PHASE 1A TREATMENT ALTERNATIVES**

The purpose of Phase 1A is to identify and develop three treatment train alternatives and work with the City to recommend and select the treatment train alternative. This sub-phase has multiple subtasks. These subtasks are listed below.

### **1.1 Gather Existing Planning and Site Data**

#### **Objective**

Obtain information on the existing utility systems that will be used to help develop and select the treatment alternatives.

#### **HDR Services**

1. Coordinate with RH2 Engineers to gather the City's water system plan (WSP) demands to establish water system demands by pressure zone and reservoir.
2. Coordinate with RH2 Engineers to use the City's existing finished water distribution system hydraulic model for determining the extent of gravity and pumped flow (per the WSP) from the different Granite Site elevations to the City's various pressure zones and reservoirs.
3. Review general location and capacity of pipelines and sanitary sewers near the Granite Site.
4. Review general location and capacity of power utilities near the Granite Site.
5. HDR will review the records available and provide a list of the documents missing and needed to complete the project.

---

## City Responsibilities

1. Provide contact information and authorizations to release information from RH2 for data gathering.
2. Provide sizes, capacities, and record drawings for water pipelines and sanitary sewers. Drawings in AutoCAD format if available.
3. Provide sizes, capacities, and record drawings for electrical infrastructure. Drawings in AutoCAD format if available.
4. Assist HDR in communicating with property owners if needed.

## Assumptions

1. The WSP demand projections are provided as an Excel file.
2. Finished water distribution system hydraulic model was updated and calibrated as part of the WSP. HDR will use the model as-is and will not verify the model accuracy as part of this project.
3. Plans and locations of existing utilities are available and will be provided by the City.

## Deliverables

1. None. Information will be part of Task 1.4 deliverables.

## 1.2 Initial Geotechnical Study

### Objective

Conduct an initial geotechnical and geologic study of the lower portion of the Granite Site for the purposes of supporting construction of structures and pipelines at the location and adjacent areas.

### HDR Services

1. Subcontract with geotech firm, Shannon and Wilson.
2. Coordinate geotech's onsite activities and schedule.
3. Review field exploration and testing plans..
4. Confirm that geotech has health and safety plan in place.
5. Have a meeting with geotech firm to review results.
6. Review the recommendations as part of the Task 1.4 alternatives review workshop.

### Subconsultant Services

1. Perform a site and geologic reconnaissance with Shannon & Wilson and our drilling subcontractors, to visit the site, mark boring locations, and call in utility locates.
2. Prepare and submit draft field exploration, testing, and health and safety plans.
3. Prepare and submit final field exploration, testing, and health and safety plans.
4. Conduct geotechnical exploration.
5. Perform laboratory analysis of boring samples.

6. Attend and prepare for a coordination meeting with HDR to review the findings.
7. Participate via phone to the Task 1.4 alternatives review workshop with City to review recommendations.

### **City Responsibilities**

1. Coordinate with HDR for geotech access.
2. City is providing an excavator and operator for test pit locations.
3. Review draft field exploration, testing, and health and safety plans.
4. Review draft geotech report and provide comments.
5. Attend review meeting.

### **Assumptions**

1. The number, type, and location of explorations are as follows:
  - a. Two explorations at the proposed bridge crossing of Ashland Creek to 50 feet, or 10 feet into coreable rock using mud-rotary drilling or HQ wireline coring techniques.
  - b. Up to four geotechnical borings and one day of test pits at the lower plant site. Borings to an estimated depth of 50 feet or 15 feet below the base of the undocumented fill using mud-rotary or HQ-wireline drilling techniques. Install two vibrating wire piezometers to measure depth to groundwater. Observe one day of test pit explorations advanced using a backhoe and operator provided by the City of Ashland.
  - c. Subconsultant will monitor and collect installed piezometer data until construction begins.
2. Laboratory testing of samples is assumed to consist of Atterberg limits and grain size analysis for soils, and unconfined compressive strength of rock and corrosion testing.
3. No permits are required for the geotechnical investigation.
4. The site has no contaminated soils or materials.

### **Deliverables**

1. Draft and final field exploration, testing, and health and safety plans.
2. Draft and final geotechnical report.

## **1.3 Site Survey**

### **Objective**

Conduct a topographic and boundary survey of the Granite Site and adjacent areas that could be potentially affected by the project construction.

### **HDR Services**

1. Subcontract with surveyor, TerraSurvey Inc.
2. Coordinate surveyor's onsite activities and schedule.

3. Review draft surveyor's files and provide comments.

### **Subconsultant Services**

1. Conduct a topographic survey of the site and areas affected by the project.
2. Conduct and locate aboveground and underground utilities and structures in the area.
3. Conduct a survey of the Granite Site and adjacent areas to establish property boundaries, water bodies and streams, trees 6-inches and larger in diameter at chest height, and other permanent surface features.
4. Locate geotechnical borings and test pits for geotechnical report.
5. Prepare and submit draft surveyor's files in AutoCAD 2018 and pdf format.
6. Prepare and submit final surveyor's files in AutoCAD 2018 and pdf format.

### **City Responsibilities**

1. Coordinate with HDR for surveyor access.
2. Review draft surveyor's files.

### **Assumptions**

1. Topographic survey will have a resolution of 1-foot contours and will be provided in a coordinate system and datum determined by the City.
2. No legal descriptions for properties or easements are prepared. No missing property corner monuments will be replaced.
3. City will provide access to all areas in need of survey.

### **Deliverables**

1. Draft and final surveyor's data files.

## **1.4 Alternatives Development, Evaluation, and Recommendation**

### **Objective**

Use the prior project data to develop three treatment alternatives, work with the City to evaluate the pros and cons of the alternatives, and provide a single treatment recommendation for City final review and selection.

### **HDR Services**

1. Evaluate and summarize three treatment alternatives based upon the following criteria:
  - a. Reliability
  - b. Simplicity
  - c. Robustness
  - d. Energy efficiency and potential generation
  - e. Expandability for capacity and treatment performance
  - f. Ability to meet current and future regulatory requirements.

- g. Lifecycle costs for the next 30 to 50 years. Lifecycle costs defined as:
          - i. Initial capital (from Task 1.5).
          - ii. Ongoing renewal and replacement materials.
          - iii. Annual power and energy
          - iv. Annual chemicals
          - v. Annual labor
          - vi. Values to be defined as annualized dollars per year as well as cost per units, such as \$/MG treated and kWh/MG treated
2. Coordinate with OHA to identify the need for any additional pilot testing.
3. Evaluate the pumping requirements for the two remaining treatment alternatives. Requirements include:
  - a. Discharging from the WTP to the Granite zone.
  - b. Discharging from the WTP to the Crowson zone.
  - c. Pumping of Talent-Ashland Pipeline (TAP) water to the Crowson zone via the WTP with or without the Granite Street Reservoir.
4. For each remaining alternative:
  - a. Identify capacities, performance, and areas for the major unit processes.
  - b. Identify future requirements for expansion and/or replacement.
  - c. Identify general impacts to the City wastewater system in terms of relative volumes and qualities compared to existing WTP.
  - d. Evaluate pipeline and vehicle crossings of Ashland Creek from Granite Street to the new WTP site.
  - e. Evaluate the minimum and optimum clearwell/reservoir volumes and configurations for the two remaining treatment alternatives. The volumes and configuration shall include two scenarios:
    - i. Granite Street Reservoir remains as-is.
    - ii. The Granite Street Reservoir is removed and its volume is incorporated into the WTP clearwell volume.
5. Prepare site arrangement layouts for the two treatment alternatives, clearwell / reservoir volumes, and future expansion based on the outcome of the geotechnical explorations.
  - a. Site arrangements will include general analysis of vehicle circulation and parking for employees, routine deliveries, and future major renewal and rehabilitation efforts.
6. Conduct an alternatives review workshop to review the refined treatment alternatives and layouts against the criteria listed in Item 1 herein and present recommendation for City to consider.
  - a. Workshop will also review the findings of the Task 1.2 initial geotechnical study.
7. Summarize treatment alternatives development, evaluation, recommendation, and City selection in a draft Technology Alternatives Report.

8. Prepare and submit final Technology Alternatives Report.

### **City Responsibilities**

1. Participate in alternatives review workshop.
2. Review and provide comments to the draft Treatment Alternatives Report.

### **Assumptions**

1. The three initial treatment alternatives are:
  - a. Ozonation, chemical addition, media filtration, chlorination
  - b. Chemical addition, clarification, media filtration, UV disinfection, chlorination
  - c. Chemical addition, membrane filtration, carbon adsorption, UV disinfection
2. Each alternative will have up to six sub-alternatives. Sub-alternatives will have variations of the major treatment process. Examples include:
  - a. Chemical addition – type of coagulants and oxidants prior to filtration and dosing locations (WTP or in pipelines leading to WTP).
  - b. Ozone – in-line pipeline contactor versus serpentine contact basin; liquid oxygen feed versus ambient air feed.
  - c. Membranes – pressurized only.
  - d. Clarification – conventional sedimentation, ballasted sedimentation, plate settlers, dissolved air flotation.
  - e. UV disinfection – low-pressure high-output or medium-pressure, each with or without peroxide advanced oxidation
3. Chlorination will be liquid sodium hypochlorite. There will be no evaluation...
4. Pilot testing, if required, will be covered by an amendment to this Phase 1 scope.
5. Alternatives review workshop is six hours in duration and will be attended in person by Pierre Kwan, Verena Winter, and Rich Stratton. Elliott Mecham will participate via phone.
6. Material for the workshop will include 3D visualizations of the site and facilities.
7. Treatment Alternatives Report will not exceed 60 pages in length, including drawings and appendices.

### **Deliverables**

1. Workshop agendas, presentation materials and meeting notes.
2. Draft and final Treatment Alternatives Report

## **1.5 Initial Cost Estimating**

### **Objective**

Prepare initial cost estimates to support the alternatives evaluation.

### **HDR Services**

1. Subcontract with cost estimator, Mortenson.

2. Coordinate cost estimators activities and schedule.
3. Compile list of costs for completed WTPs with similar features.
4. Review cost estimates.

### **Subconsultant Services**

1. Prepare an AACE Class 5 lifecycle cost estimate for the three initial alternatives in Task 1.4.
2. Prepare an AACE Class 4 lifecycle cost estimate for the selected top two treatment alternatives in Task 1.4.

### **City Responsibilities**

1. Review and provide comments to cost estimates.

### **Assumptions**

1. None

### **Deliverables**

1. AACE Class 5 lifecycle cost estimate for the three initial alternatives in Task 1.4.
2. AACE Class 4 lifecycle cost estimate for the top two treatment alternatives in Task 1.4.

## **1.6 Water Quality Evaluation**

### **Objective**

Review water quality data and establish the pH and alkalinity targets for the new WTP.

### **HDR Services**

1. Subcontract with water quality subconsultant.
2. Review water quality data and provide recommendations for treated water pH, alkalinity, and chlorine residual.
3. Prepare draft treated water quality memo.
4. Prepare final treated water quality memo.

### **Subcontract Services**

1. Review draft treated water quality memo and provide comments.

### **City Responsibilities**

1. Provide 2017-2018 water quality data from treatment plant (i.e. years of data that HDR does not already have).
2. Provide 2010-2018 water quality data for TAP water (i.e. years of data that HDR does not already have).
3. Review draft treated water quality memo.

---

## Assumptions

1. Full distribution system water quality study by subconsultant will be conducted in the subsequent Phase 2 effort.

## Deliverables

1. Draft and final treated water quality memorandum.

## 1.7 Energy Generation and Efficiency

### Objective

Identify potential opportunities to incorporate energy generation and efficiency features into the project.

### HDR Services

1. Assess feasibility potential to include solar energy as part of the facility design and estimate return on investment for inclusion.
  - a. Develop a general arrangement and one-line drawings (approximately 10% design level of effort) reflecting solar facility location, layout and size on site for analysis.
  - b. Complete modeling using the PV Syst software to estimate the facility production based upon the conceptual site layout and electrical design.
  - c. Prepare conceptual-level (10%) equipment, installation, and operation and maintenance costs.
  - d. Prepare draft energy generation/efficiency memo to document assumptions used to determine the layout including equipment selected, required codes, thermal modeling parameters and other site conditions.
  - e. Prepare final energy generation/efficiency memo.
2. Complete a micro-turbine hydropower energy recovery reconnaissance study to examine feasibility for energy generation from the raw water inlet.
  - a. Identify a single unit option for the energy generation with a single unit
  - b. Identify a multiple unit option to capture wider range of flowrates.
  - c. Prepare conceptual-level (10%) equipment, installation, and operation and maintenance costs.
  - d. Incorporate information into draft energy generation/efficiency memo to document assumptions used to determine the layout including equipment selected.
  - e. Provide additional information into final energy generation/efficiency memo.
3. Evaluate opportunities for using flowing raw or treated water for building cooling during the summer.
  - a. Identify flowrate requirements.
  - b. Prepare conceptual-level (10%) equipment, installation, and operation and maintenance costs.

- c. Incorporate information into draft energy generation/efficiency memo to document assumptions used to determine the layout including equipment selected.
  - d. Provide additional information into final energy generation/efficiency memo.
4. Review information as part of Task 1.4 Alternatives Review Workshop.

### **City Responsibilities**

1. Review draft and final memos.

### **Assumptions**

1. No site visits are required for this task.
2. Micro-turbine hydropower energy generation will not limit water supply to the WTP.
3. Building cooling water will be through one-pass, non-contact heat exchangers. The used water will be sent back to the head of the plant for re-treatment.
4. Each study is conceptual-level only, space and building integration requirements for the evaluated equipment will be noted but not considered with respect to evaluation of overall feasibility.

### **Deliverables**

1. Draft and final memo describing solar energy, micro-hydropower, and building cooling memo.

## **1.8 Public Meetings**

### **Objective**

Prepare materials and participate in public meetings with the City to discuss the project.

### **HDR Services**

1. Prepare materials and participate in the following meetings:
  - a. One City Council Study Session meeting
  - b. Two City Council public meetings
  - c. One combined meeting with Ashland Planning Commission and then Ashland Water Advisory Committee later in the day.
2. Prior to each meeting, participate in a one-hour phone call with City staff to review presentation materials and topics.

### **City Responsibilities**

1. Schedule meeting dates and locations.
2. Provide comments to the presentation materials.
3. Reproduction and distribution of materials.
4. Facilitate the meetings.
5. Meetings notes is the City's responsibility.

---

## Assumptions

1. Meetings will be no more than two hours in duration and attended by Pierre Kwan.
2. Phone calls will be no more than one hour in duration, attended by Pierre Kwan.
3. Meeting materials will be materials prepared in other tasks with some modifications.

## Deliverables

1. Meeting materials (electronic files only).

## PHASE 1B PRELIMINARY DESIGN

The purpose of Phase 1B is to further develop the identified treatment process in Phase 1A to a 30-percent level of design and prepare the Basis of Design Report. This sub-phase has multiple subtasks. These subtasks are listed below.

### 1.9 Additional Geotechnical Analysis

#### Objective

Conduct additional geotechnical and geologic study of the upper Granite Site based upon layout of treatment process identified in Phase 1A.

#### HDR Services

1. Coordinate geotech's additional onsite activities and schedule.
2. Review field exploration and testing plans..
3. Have a meeting with geotech firm to review results.
4. Review draft geotech report.

#### Subconsultant Services

1. Prepare and submit revised field exploration, testing, and health and safety plans.
2. Conduct an additional set of geotechnical explorations.
3. Perform laboratory analysis of boring samples.
4. Prepare and submit draft geotechnical report that includes:
  - a. Seismicity requirements for treatment structures.
  - b. Site preparation recommendations.
  - c. Design recommendations for pipelines.
  - d. Design recommendations for treatment structures.
  - e. Design recommendations for site pavement and roadways.
  - f. Design recommendations for new bridge to support interconnecting pipelines and traffic crossing Ashland Creek.
5. Prepare and submit final geotechnical report.

### City Responsibilities

1. Coordinate with HDR for geotech access.
2. Review revised field exploration, testing, and health and safety plans.
3. Review draft geotech report and provide comments.

### Assumptions

4. The number, type, and location of explorations are as follows:
  - a. One boring on the upper portion of mountainside at areas accessible with a track mounted drill rig after an access path has been cleared by others. The borings will be performed at the proposed reservoir site. The geotechnical boring will be to 100 feet, using HQ wireline and mud-rotary drilling techniques. Use a downhole (within the borehole) televiewer and imaging to view and record rock joints, for the purposes of rock cut design and slope stability assessments.
  - b. If required, have one geotechnical boring to 50 feet, using mud-rotary drilling or HQ wireline drilling techniques. Also use a downhole (within the borehole) televiewer and imaging to view and record rock joints, for the purposes of rock cut design and slope stability assessments.
5. Laboratory testing of samples will be the same parameters as the Task 1.2 initial geotechnical study.

### Deliverables

1. Revised field exploration, testing, and health and safety plans.
2. Draft and final geotechnical report.

## 1.10 Existing Infrastructure Planning

### Objective

Review the existing infrastructure and provide recommendations for abandonment, renovation, and/or keeping in place.

### HDR Services

1. Conduct a site visit to the existing WTP and pipelines for integration with the future WTP.
2. Review previously produced reports on TID pipeline and Granite Reservoir.
3. Prepare recommendations for which infrastructure should be abandoned in place, removed, renovated, or kept in place. Recommendations will include:
  - a. Sketches for extent of recommendation.
  - b. Phasing plan.
  - c. Cost estimate (from Task 1.7)
4. Based upon City review comments, prepare draft long-term facility plan for the existing infrastructure.
5. Prepare final long-term facility plan for the existing infrastructure.

---

### City Responsibilities

1. Provide access to the necessary properties and participate in site visit.
2. Determine the extent of recommendations for inclusion in this project.
3. Review draft long-term facility plan and provide comments.

### Assumptions

1. Site visit will be four hours in duration and by Verena Winter and a project engineer.
2. The infrastructure reviews will be:
  - a. Existing Ashland WTP
  - b. TID Transmission Pipeline – summary of prior review.
  - c. Treated Water Transmission Pipeline.
  - d. Granite Street Reservoir – summary of prior review

### Deliverables

1. Draft long-term facility plan.
1. Final long-term facility plan.

## 1.11 Potential Secondary Intake

### Objective

Review the existing infrastructure and provide recommendations for an emergency water intake into Ashland Creek

### HDR Services

1. Evaluate the technical feasibility and permitting requirements for an emergency water intake into Ashland Creek at either the existing or new WTP site for the following criteria:
  - a. Treatment requirements
  - b. Pumping requirements
  - c. Constructability
  - d. Initial capital cost.
  - e. Permitting requirements
  - f. Permitting schedule
2. Summarize information into a draft memo for City review.
3. Prepare final memo based on City's comments.

### Assumptions

1. All site visits are covered by other prior tasks.

### City Responsibilities

1. Review memo and provide comments and direction.

---

## Deliverables

2. Draft intake memo.
3. Final intake memo

## 1.12 Preliminary Design

### Objective

Prepare preliminary (30%) designs of the City-selected treatment alternative and existing infrastructure to be abandoned or renovated.

### HDR Services

1. Prepare the following draft preliminary (30%) design documents:
  - a. Major equipment list.
  - b. Chemical sizing calculations.
  - c. Process flow diagram
  - d. Design criteria table
  - e. Facility hydraulic profile.
  - f. Site layouts and grading, including cut, fill, and hauling volumes.
  - g. Building layouts
  - h. Process and instrumentation diagrams.
  - i. Onsite water and sewer piping alignments.
  - j. Offsite water and sewer piping alignments.
  - k. Electrical one-line diagrams.
  - l. Control block diagram.
  - m. Designs as required to address Granite Street Reservoir and the existing WTP and pipelines.
  - n. Specifications table of contents.
2. Identify and prepare list of required permits.
3. Participate in a pre-application review meeting with City of Ashland planning and building departments.
4. Coordinate and conduct a pre-application review meeting with Department of State Lands (DSL).
5. Prepare schedule for final design, permitting, and construction.
6. Conduct a review workshop with the City and receive comments from City.
7. Prepare final preliminary design documents.

### City Responsibilities

1. Review preliminary design documents and provide comments.
2. Coordinate and participate in meeting with Ashland planning and building departments.

3. Participate in meeting with DSL.
4. Participate in review workshop.

### **Assumptions**

1. A total of 60 sheets will be produced.
2. For the purposes of budgeting, assumed drawings will include demolition of Granite Street Reservoir, and ten sheets associated with changes to the existing WTP.
3. Meeting with Ashland planning and building departments will be two hours in duration by Verena Winter and Brian Bauman.
4. Meeting with DSL will be two hours in duration and will be held at Medford, OR by Verena Winter and Brian Bauman.
5. The SCADA integration will be deferred to Phase 2 when ORPAC is under contract.

### **Deliverables**

1. Draft preliminary drawings.
2. Final preliminary drawings.

## **1.13 Phase 1B Cost Estimating and Value Engineering/Constructability Review**

### **Objective**

Prepare cost estimates and conduct a value engineering/constructability workshop to identify risks and mitigation measures.

### **HDR Services**

1. Coordinate cost estimators activities and schedule.
2. Review cost estimates.
3. Organize and lead constructability/value engineering workshop to review the draft predesign drawings. Workshop will consist of the HDR team and the City reviewing the construction issues and associated costs.

### **Subconsultant Services**

1. Prepare an AACE Class 4 lifecycle cost estimate for the existing infrastructure abandonments and renovations in Task 1.10.
2. Prepare an AACE Class 3 lifecycle cost estimate at the conclusion of the Task 1.12 preliminary design.
3. Participate in constructability workshop.

### **City Responsibilities**

1. Review and provide comments to cost estimates.
2. Participate in constructability workshop.

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## Assumptions

1. Value engineering/constructability workshop will be lead by HDR Project Manager. There will be no outside facilitator.
2. Workshop will be four hours in duration and attended by Pierre Kwan, Verena Winter, and Rich Stratton. This meeting is in HDR's office in Portland, Oregon.

## Deliverables

1. AACE Class 4 lifecycle cost estimate for the existing infrastructure abandonments and renovations.
2. AACE Class 3 lifecycle cost estimate at the conclusion of the preliminary design.

## 1.14 Basis of Design Report

### Objective

Summarize the information in prior tasks into a Basis of Design Report (BODR).

### HDR Services

1. Prepare draft BODR for City review.
2. Prepare draft final BODR for OHA review.
3. Conduct a review phone call with City to discuss any OHA comments.
4. Prepare final BODR.

### City Responsibilities

1. Review draft Preliminary BODR and provide comments.
2. Review OHA comments to draft final Preliminary BODR and provide comments.

### Assumptions

1. Report will be 300 pages, including drawings and appendices
2. One iteration of review comments from the City and OHA.

### Deliverables

1. Draft, draft final, and final BODR.

## Phase 1 Fee

The fee associated with the Phase 1 scope are as follows:

No.	Task	Fee
<b>Phase 1A – Treatment Alternatives</b>		
	Project Management	61,385
1.1	Gather Existing Planning and Site Data	10,464
1.2	Initial Geotechnical Study	126,948
1.3	Site Survey	44,581
1.4	Alternatives Development, Evaluation, and Recommendation	129,526
1.5	Initial Cost Estimating	47,490
1.6	Water Quality Evaluation	14,124
1.7	Energy Generation and Efficiency	39,009
1.8	Public Meetings	15,302
	<b>Sum of Phase 1A</b>	<b>488,829</b>
<b>Phase 1B – Preliminary Design</b>		
1.9	Additional Geotechnical Analysis	125,509
1.10	Existing Infrastructure Planning	25,480
1.11	Potential Secondary Intake	10,129
1.12	Preliminary Design	188,850
1.13	Phase 1B Cost Estimating and Value Engineering/ Constructability Review	75,509
1.14	Basis of Design Report	89,270
	<b>Sum of Phase 1B</b>	<b>514,747</b>
	<b>Total of Phase 1</b>	<b>1,003,576</b>

