

Joint Water Commission



**General Manager**

Kevin Hanway  
150 E. Main Street  
Hillsboro, OR 97123  
503-615-6585

**Board of Commissioners**

*City of Hillsboro*

John Godsey  
David Judah  
Deborah Raber

*City of Forest Grove*

Rod Fuiten  
Carl Heisler  
Peter Truax

*City of Beaverton*

Denny Doyle  
Marc San Soucie  
Mark Fagin

*Tualatin Valley Water District*

Dick Schmidt  
Jim Doane  
Bernice Bagnall

HILLSBORO/FOREST GROVE/BEAVERTON/  
TUALATIN VALLEY WATER DISTRICT  
JOINT WATER COMMISSION (JWC)  
**PRELIMINARY AGENDA**

City of Hillsboro  
Civic Center  
150 East Main St., **Room 113B**

**April 12, 2019**  
**12:30 p.m.**  
Regular Meeting

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Assistive Listening Devices (ALD) and sign language interpreters are available, at no cost, and can be scheduled for this meeting. Please provide at least 72 hours notice prior to the meeting. To obtain these services, call (503) 681-6100 or TTY (503) 681-6284.

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**ALL TESTIMONY IS ELECTRONICALLY RECORDED.**

The Commission lunches at 12:00 p.m.

**CALL TO ORDER**

Introductions.

1. **CONSENT AGENDA** (The entire Consent Agenda is normally considered in a single motion. Any Commissioner may request that an item be removed for separate consideration.)

A. Approve regular meeting minutes from Friday, January 11, 2018.

B. Acknowledge receipt of Audit Arrangement Letter and required communication under SAS 114.

2. **COMMUNICATIONS AND NON-AGENDA ITEMS**

A. None scheduled.

3. **BUSINESS**

A. Consider approval of Fiscal Year 2018-19 Joint Water Commission proposed budget. *Staff Report – Lee Lindsey, Michelle Molgaard*

B. Consider approval of 2019-2020 stored water lease, and a 2019-2022 North Transmission Line capacity lease. *Staff Report – Michelle Molgaard*

C. Consider authorizing the Executive Committee to take final action on the following items: *Staff Report – Kevin Hanway*



1. A lease with City of Hillsboro to allow them use of Joint Water Commission-owned conduit for the City's fiber utility.
2. Resolution of claim (Slayden & Jacobs)
3. Approval of Memorandum of Understanding for NEPA process with Bureau of Reclamation
4. Approval of contract for the purchase of caustic soda

4. **DISCUSSION ITEMS** (These items may result in action by the Commission.)

A. Water Treatment Plant Expansion Update. *Staff Report – Kevin Meeuwsen*

B. Stored water status. *Staff Report – Kristel Griffith*

5. **EXECUTIVE SESSION**

A. Consider convening into Executive Session under:

1. ORS 192.660(2)(e) for deliberation with persons designated by the governing body to negotiate real property transactions, and ORS 192.660(2)(f) to consider information or records that are exempt by law from public inspection; and ORS 192.660(2)(h) to consult with counsel concerning the legal rights and duties of a public body with regard to current litigation or litigation likely to be filed.

B. Take action(s) related to Executive Session, if needed.

6. **ADVICE/INFORMATION ITEMS**

A. Kevin Hanway, JWC General Manager, is retiring on June 30, 2019. He has served as JWC General Manager for 11 years. We wish him well in his retirement adventures.

B. The next JWC and BRJOC meetings are scheduled on Friday, June 14, 2019, if needed for budget approvals. If both budgets are approved at the April meeting, June's meeting will be cancelled and the next JWC and BRJOC meetings will be held on July 12, 2019. Meetings are held at the Civic Center in Room 113B. The BRJOC meeting will be held at 12:30 p.m. with the JWC meeting following immediately after the BRJOC meeting adjourns.

HILLSBORO/FOREST GROVE/BEAVERTON  
TUALATIN VALLEY WATER DISTRICT  
JOINT WATER COMMISSION (JWC)

**MINUTES**

**City of Hillsboro**  
**Civic Center Room 113B**  
150 East Main St.

January 11, 2019  
12:52 p.m.  
Regular Meeting

\*\*\*\*\*

**Commissioners Present:**

Hillsboro: John Godsey, David Judah, and Deborah Raber  
Forest Grove: Rod Fuiten and Carl Heisler  
Beaverton: Marc San Soucie, and Denny Doyle  
Tualatin Valley Water District: Jim Doane, Dick Schmidt, and Bernice Bagnall

**Staff Present:**

Hillsboro: Kevin Hanway, Sarah Stalder, Jessica Dorsey, Chris Wilson,  
Sophia Hobet, Niki Iverson, Lee Lindsey, Erika Murphy,  
Michelle Molgaard, Tacy Steele, and Andi Eiesland  
Beaverton: David Winship  
Forest Grove: Rob Foster and Derek Robbins  
Tualatin Valley Water District: Carrie Pak and Mark Knudson

**Other:**

Tommy Brooks – Cable Huston  
Bruce Roll – Clean Water Services  
Carol Murdoc – Clean Water Services  
Mark Foley – Clean Water Services  
Bryce Baker – Forest Grove

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The Commission lunches at 12:00 p.m.

**CALL TO ORDER**

Introductions.

1. **CONSENT AGENDA** (The entire Consent Agenda is normally considered in a single motion. Any Commissioner may request that an item be removed for separate consideration.)
  - A. Approve regular meeting minutes from Friday, October 12, 2018.
  - B. Approve Executive Committee meeting minutes from Friday, November 9, 2018.

C. Receipt of FY 2018 Audit Report.

Motion made by Doane, seconded by Godsey to approve the Consent Agenda as presented. Motion passed with Commissioners Godsey, Judah, Raber, Fuiten, Heisler, San Soucie, Doyle, Doane, Schmidt, and Bagnall all voting in favor.

**2. COMMUNICATION AND NON-AGENDA ITEMS**

A. Clean Water Institute Presentation. *Bruce Roll, Clean Water Institute*

Representatives from the Clean Water Institute presented information on their organization. Commissioners asked questions regarding the relationship between Clean Water Institute and Clean Water Services, financial reporting, and funding information.

**3. NEW BUSINESS**

A. Election of Chair and appointment of Vice Chairs and Alternates.  
*Staff Report – Kevin Hanway*

The City of Hillsboro will provide the Chair for the Joint Water Commission. Hillsboro nominated Commissioner John Godsey as Chair and David Judah as Alternate. Beaverton nominated Marc San Soucie for Vice Chair with Denny Doyle as the Alternate. Forest Grove nominated Pete Truax as Vice Chair with Rod Fuiten as the Alternate. Tualatin Valley Water District nominated Bernice Bagnall as Vice Chair with Dick Schmitt as the Alternate.

Motion made by San Soucie, seconded by Doane to approve the nominations of Chair, Vice Chairs, and Alternates for the Joint Water Commission. Motion passed with Commissioners Godsey, Judah, Raber, Fuiten, Heisler, San Soucie, Doyle, Doane, Schmidt, and Bagnall all voting in favor.

B. Designation of Managing Agency. *Staff Report – Kevin Hanway*

Motion made by San Soucie, seconded by Doane to designate the City of Hillsboro Water Department as Managing Agency for the Joint Water Commission. Motion passed with Commissioners Godsey, Judah, Raber, Fuiten, Heisler, San Soucie, Doyle, Doane, Schmidt, and Bagnall all voting in favor.

**4. DISCUSSION ITEMS (These items may result in action by the Commission.)**

A. Water Treatment Plant Event. *Staff Report – Niki Iverson/Chris Wilson*

Iverson and Wilson discussed the emergency event that occurred in December. They discussed the emergency response, event timeline, treatment plant processes, after action items, and next steps.

B. Water Treatment Plant Expansion Project Update. *Staff Report – Erika Murphy*

Murphy gave the Commission updates regarding the water treatment plant expansion, which included photos of the progress. Updates included: replacement of the raw water pumps, installation of new plate settlers for the sedimentation basins, backwash pump replacements, new decant pump station, new surge basin, and concrete replacement for new filters.

C. JWC System Metals (Iron and Manganese) Update. *Staff Report – Jessica Dorsey*

Dorsey gave the Commission an update regarding Iron and Manganese found in JWC water. The update included a recap of the 2017 event, a review of the JWC monitoring and findings, and a preview of anticipated future monitoring.

D. Year-to-Date Financial status. *Staff Report – Michelle Molgaard*

Molgaard gave the Commission the year-to-date financial update through November 30<sup>th</sup>, 2018.

E. Stored water status. *Staff Report – Niki Iverson*

Iverson updated the Commission with the stored water status for Scoggins Reservoir. The reservoir is approximately 46 percent full and trending below the 25<sup>th</sup> percentile for the fill curve.

F. General Manager's Report. *Staff Report – Kevin Hanway*

- a. Cyanotoxin Rule update Information included in packet.
- b. Oregon Health Authority Fee Increase information included in packet.

Hanway informed the Commission of the information and reports included in the packets and allowed for an opportunity to ask questions. There were no questions.

## 5. EXECUTIVE SESSION

A. Consider convening into Executive Session under:

1. ORS 192.660(2)(e) for deliberation with persons designated by the governing body to negotiate real property transactions, and ORS 192.660(2)(f) to consider information or records that are exempt by law from public inspection; and ORS 192.660(2)(h) to consult with counsel concerning the legal rights and duties of a public body with regard to current litigation or litigation likely to be filed.

Motion made by Judah, seconded by Doane to convene into Executive Session. Motion passed with Commissioners Godsey, Judah, Raber, Fuiten, Heisler, San Soucie, Doyle, Doane, Schmidt, and Bagnall all voting in favor.

B. Take action(s) related to Executive Session, if needed.

No action taken.

**6. ADVICE/INFORMATION ITEMS**

A. The next JWC and BRJOC meetings are scheduled on January 11, 2019. Meetings are held at the Civic Center in Room 113B. The BRJOC meeting will be held at 12:30 p.m. with the JWC meeting following immediately after the BRJOC meeting adjourns.

There being no further business to come before the Commission, the meeting adjourned at 3:18 p.m.

Chairman \_\_\_\_\_  
Hillsboro/Forest Grove/ Beaverton/  
TVWD Joint Water Commission

ATTEST: \_\_\_\_\_  
Secretary



## STAFF REPORT

To: Joint Water Commission

From: Jon Grover, Finance Manager

Date: April 12, 2019

Re: Agenda Item 1B – Audit Arrangement Letter and Required Communications under SAS 114

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### **Staff Recommendation**

Staff recommends that the Joint Water Commission acknowledge the required communication under SAS 114, and approve the audit arrangement letter with Talbot, Korvola and Warwick LLP.

Attached for your consideration is the arrangement letter and required communication under Statement on Auditing Standards 114 with Talbot, Korvola and Warwick, LLP, for the 2018-19 audit of the Hillsboro – Forest Grove – Beaverton – Tualatin Valley Water District Joint Water Commission.

The arrangement letter includes proposed fees for each engagement not to exceed \$10,800. As a comparison, the previous audit fee was \$10,400, for an increase of 3.8%. This is the fifth and final year of a five-year contract with TKW and this increase is as described in the contract. The fees for services are paid by the City of Hillsboro's Finance department.

Please feel free to contact me at 503-681-5361, or [jon.grover@hillsboro-oregon.gov](mailto:jon.grover@hillsboro-oregon.gov), should you have any questions in reviewing the attachments.



**Talbot, Korvola  
& Warwick, LLP**

4800 Meadows Road, Suite 200  
Lake Oswego, OR 97035

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[www.tkw.com](http://www.tkw.com)

April 2, 2019

Board of Commissioners  
Hillsboro-Forest Grove- Beaverton-  
Tualatin Valley Water District  
Joint Water Commission  
Hillsboro, Oregon

Attention: John Godsey, Chair

### **The Objective and Scope of the Audit of the Financial Statements**

You have requested that we audit the financial statements of the Hillsboro-Forest Grove-Beaverton-Tualatin Valley Water District Joint Water Commission (the Commission), as of and for the year ending June 30, 2019 which collectively comprise the basic financial statements. We are pleased to confirm our acceptance and our understanding of this audit engagement by means of this letter.

Our audit will be conducted with the objective of our expressing an opinion on the financial statements.

### **The Responsibilities of the Auditor**

We will conduct our audit in accordance with auditing standards generally accepted in the United States of America (GAAS). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

Because of the inherent limitations of an audit, together with the inherent limitations of internal control, an unavoidable risk that some material misstatements may not be detected exists, even though the audit is properly planned and performed in accordance with GAAS. Also, an audit is not designed to detect errors or fraud that are immaterial to the financial statements.

In making our risk assessments, we consider internal control relevant to the Commission's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the Commission's internal control. However, we will communicate to you in writing concerning any significant deficiencies or material weaknesses in internal control relevant to the audit of the financial statements that we have identified during the audit.



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**The Responsibilities of the Auditor (Continued)**

We will also communicate to the Board of Commissioners (a) any fraud involving senior management and fraud (whether caused by senior management or other employees) that causes a material misstatement of the financial statements that becomes known to us during the audit, and (b) any instances of noncompliance with laws and regulations that we become aware of during the audit (unless they are clearly inconsequential).

The funds that you have told us are maintained by the Commission and that are to be included as part of our audit are consistent with those reported in the prior year.

**The Responsibilities of Management and Identification of the Applicable Financial Reporting Framework**

Our audit will be conducted on the basis that management and, when appropriate, those charged with governance acknowledges and understands that they have responsibility:

1. For the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP);
2. To evaluate subsequent events through the date the financial statements are issued or available to be issued, and to disclose the date through which subsequent events were evaluated in the financial statements. Management also agrees that it will not evaluate subsequent events earlier than the date of the management representation letter referred to below;
3. For the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error; and
4. To provide us with:
  - a. Access to all information of which management is aware that is relevant to the preparation and fair presentation of the financial statements such as records, documentation and other matters;
  - b. Additional information that we may request from management for the purpose of the audit; and
  - c. Unrestricted access to persons within the entity from whom we determine it necessary to obtain audit evidence.

As part of our audit process, we will request from management and, when appropriate, those charged with governance written confirmation concerning representations made to us in connection with the audit, including among other items:

1. That management has fulfilled its responsibilities as set out in the terms of this letter; and

**The Responsibilities of Management and Identification of the Applicable Financial Reporting Framework (Continued)**

2. That it believes the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

Management is responsible for identifying and ensuring that the Commission complies with the laws and regulations applicable to its activities, and for informing us about all known material violations of such laws or regulations. In addition, management is responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the entity involving management, employees who have significant roles in internal control, and others where the fraud could have a material effect on the financial statements. Management is also responsible for informing us of its knowledge of any allegations of fraud or suspected fraud affecting the entity received in communications from employees, former employees, analysts, regulators, or others.

Management is responsible for the preparation of the supplementary information presented in relation to the financial statements as a whole in accordance with U.S. GAAP. Management agrees to include the auditor's report on the supplementary information in any document that contains the supplementary information and indicates that the auditor has reported on such supplementary information. Management also agrees to present the supplementary information with the audited financial statements or, if the supplementary information will not be presented with audited financial statements, to make the audited financial statements readily available to the intended users of the supplementary information no later than the date of issuance of the supplementary information and the auditor's report thereon.

The Board of Commissioners is responsible for informing us of its views about the risks of fraud within the entity, and its knowledge of any fraud or suspected fraud affecting the entity.

The Commission agrees that it will not associate us with any public or private securities offering without first obtaining our consent. Therefore, the Commission agrees to contact us before it includes our reports, or otherwise makes reference to us, in any public or private securities offering.

Our association with an official statement is a matter for which separate arrangements will be necessary. The Commission agrees to provide us with printer's proofs or masters of such offering documents for our review and approval before printing, and with a copy of the final reproduced material for our approval before it is distributed. In the event our auditor/client relationship has been terminated when the Commission seeks such consent, we will be under no obligation to grant such consent or approval.

We agree that our association with any proposed offering is not necessary, providing the Commission agrees to clearly indicate that we are not associated with the contents of any such official statement or memorandum. The Commission agrees that the following disclosure will be prominently displayed in any such official statement or memorandum:

**The Responsibilities of Management and Identification of the Applicable Financial Reporting Framework (Continued)**

*Talbot, Korvola & Warwick, LLP, our independent auditor, has not been engaged to perform, and has not performed, since the date of its report included herein, any procedures on the financial statements addressed in that report. Talbot, Korvola & Warwick, LLP also has not performed any procedures relating to this official statement or memorandum.*

Because Talbot, Korvola & Warwick, LLP (the Firm) will rely on the Commission and its management and Board of Commissioners to discharge the foregoing responsibilities, the Commission holds harmless and releases the Firm and its partners and employees from all claims, liabilities, losses and costs arising in circumstances where there has been a knowing misrepresentation by a member of the Commission's management that has caused, in any respect, the Firm's breach of contract or negligence. This provision shall survive the termination of this arrangement for services.

**Records and Assistance**

If circumstances arise relating to the condition of the Commission's records, the availability of appropriate audit evidence or indications of a significant risk of material misstatement of the financial statements because of error, fraudulent financial reporting or misappropriation of assets which, in our professional judgment, prevent us from completing the audit or forming an opinion, we retain the unilateral right to take any course of action permitted by professional standards, including declining to express an opinion or issue a report, or withdrawing from the engagement.

During the course of our engagement, we may accumulate records containing data that should be reflected in the Commission's books and records. The Commission will determine that all such data, if necessary, will be so reflected. Accordingly, the Commission will not expect us to maintain copies of such records in our possession.

The assistance to be supplied by the Commission personnel, including the preparation of schedules and analyses of accounts, has been discussed and coordinated with Jon Grover, Accounting Manager. The timely and accurate completion of this work is an essential condition to our completion of the audit and issuance of our audit report.

If, in connection with our audit, you request us to perform accounting services necessary for the preparation of the financial statements (such as maintaining depreciation schedules, drafting the financial statements, etc.), you agree to designate an appropriate individual to oversee the services, make all management decisions involved in those services, evaluate the adequacy and results of the services, and accept responsibility for the results of the services.

**Other Relevant Information**

The Firm may mention the Commission's name and provide a general description of the engagement in the Firm's client lists and marketing materials.

**Other Relevant Information (Continued)**

From time to time and depending upon the circumstances, we may use third-party service providers to assist us in providing professional services to you. In such circumstances, it may be necessary for us to disclose confidential client information to them. We enter into confidentiality agreements with all third-party service providers and we are satisfied that they have appropriate procedures in place to prevent the unauthorized release of your confidential information to others. In addition, we may utilize financial information you have provided to us in connection with this engagement for purposes of creating benchmarking data to be used by the Firm professionals and other clients. This benchmarking data is aggregated with data from a minimum of five other entities so that users of the data are unable to associate the data with any single entity in the database.

You may choose to publish your financial statements electronically on the Commission's internet website. You agree we are not required under professional standards or this arrangement letter to read or monitor the information contained on your website or to consider the consistency of other information in the electronic site with the original document. However, we reserve the right to review the information as presented on your internet website, and to withdraw our report should we disagree with the form, context or manner of presentation of the financial statements upon which we reported. You agree upon written notification of our objections, to immediately remove our report and any reference thereto or to the Firm from your internet website.

In the interest of facilitating our services to you, we may communicate by electronic mail over the internet. Such communications may include information that is confidential to the Commission. While we will use our best efforts to keep such communications secure in accordance with our obligations under applicable laws and professional standards, you recognize and accept that we have no control over the unauthorized interception of these communications once they have been sent. Unless you issue specific instructions to do otherwise, we will assume that you consent to our use of electronic communication during this engagement as we deem appropriate.

**Fees, Costs, and Access to Workpapers**

Our fees for the audit and accounting services described above are based upon the value of the services performed and the time required by the individuals assigned to the engagement, plus direct expenses. Our fee estimate and completion of our work are based upon the following criteria:

1. Anticipated cooperation from the Commission personnel
2. Timely responses to our inquiries
3. Timely completion and delivery of client assistance requests
4. Timely communication of all significant accounting and financial reporting matters
5. The assumption that unexpected circumstances will not be encountered during the engagement

Board of Commissioners  
Hillsboro-Forest Grove- Beaverton-  
Tualatin Valley Water District  
Joint Water Commission  
April 2, 2019  
Page 6

### **Fees, Costs, and Access to Workpapers (Continued)**

If any of the aforementioned criteria are not met, then fees may increase. Our fee for the services described in this letter is not expected to exceed \$10,800 unless the scope of the engagement is changed, the assistance which the Commission has agreed to furnish is not provided, or unexpected conditions are encountered, in which case we will discuss the situation with you before proceeding. Interim billings will be submitted as work progresses and as expenses are incurred. Billings are due upon submission.

Our professional standards require that we perform certain additional procedures, on current and previous years' engagements, whenever a partner or professional employee leaves the firm and is subsequently employed by or associated with a client in a key position. Accordingly, the Commission agrees it will compensate the Firm for any additional costs incurred as a result of the Commission's employment of a partner or professional employee of the Firm.

In the event we are requested or authorized by the Commission or are required by government regulation, subpoena or other legal process to produce our documents or our personnel as witnesses with respect to our engagement for the Commission, the Commission will, so long as we are not a party to the proceeding in which the information is sought, reimburse us for our professional time and expenses, as well as the fees and expenses of our counsel, incurred in responding to such requests.

### **Claim Resolution**

The Commission and the Firm agree that no claim arising out of services rendered pursuant to this arrangement letter shall be filed more than the earlier of two years after the date of the audit report issued by the Firm or the date of this arrangement letter if no report has been issued. In no event shall either party be liable to the other for claims of punitive, consequential, special, or indirect damages. The Firm's liability for all claims, damages and costs of the Commission arising from this engagement is limited to the amount of fees paid by the Commission to the Firm for the services rendered under this arrangement letter.

### **Information Security - Miscellaneous Terms**

The Firm is committed to the safe and confidential treatment of the Commission's proprietary information. The Firm is required to maintain the confidential treatment of client information in accordance with relevant industry professional standards which govern the provision of services described herein. The Commission agrees that it will not provide the Firm with any unencrypted electronic confidential or proprietary information, and the parties agree to utilize commercially reasonable measures to maintain the confidentiality of the Commission information, including the use of collaborate sites to ensure the safe transfer of data between the parties.

The Firm may terminate this relationship immediately in its sole discretion if the Firm determines that continued performance would result in a violation of law, regulatory requirements, applicable professional standards or the Firm's client acceptance or retention standards, or if the Commission is placed on a verified sanctioned entity list or if any director or executive of, or other person closely associated with, the Commission or its affiliates is placed on a verified sanctioned person list, in each case, including but not limited to lists promulgated by the Office of Foreign Assets Control of the U.S. Department of the Treasury, the U.S. State Department, the United Nations Security Council, the European Union or any other relevant sanctioning authority.

Board of Commissioners  
Hillsboro-Forest Grove- Beaverton-  
Tualatin Valley Water District  
Joint Water Commission  
April 2, 2019  
Page 7

If any term or provision of this agreement is determined to be invalid or unenforceable, such term or provision will be deemed stricken and all other terms and provisions will remain in full force and effect.

### **Reporting**

We will issue a written report upon completion of our audit of the Commission's financial statements. Our report will be addressed to the Board of Commissioners of the Commission. We cannot provide assurance that an unmodified opinion will be expressed. Circumstances may arise in which it is necessary for us to modify our opinion, add an emphasis-of-matter or other-matter paragraph(s), or withdraw from the engagement.

In addition to our report on the Commission's financial statements, we will also issue the following types of reports:

- Independent Auditor's Report Required by Oregon State Regulations.
- A report on the Summary of Revenues and Expenditures as required by the Minimum Standards for Audits of Oregon Municipal Corporations. The responsibility we are to take for the material included in this report will be the same as that we assume for other supplementary information accompanying the financial statements.

This letter constitutes the complete and exclusive statement of agreement between the Firm and the Commission, superseding all proposals, oral or written, and all other communications with respect to the terms of the engagement between the parties.

### **Electronic Signatures and Counterparts**

Each party hereto agrees that any electronic signature of a party to this agreement or any electronic signature to a document contemplated hereby (including any representation letter) is intended to authenticate such writing and shall be as valid, and have the same force and effect, as a manual signature. Any such electronically signed document shall be deemed (i) to be "written" or "in writing," (ii) to have been signed and (iii) to constitute a record established and maintained in the ordinary course of business and an original written record when printed from electronic files. Each party hereto also agrees that electronic delivery of a signature to any such document (via email or otherwise) shall be as effective as manual delivery of a manual signature. For purposes hereof, "electronic signature" includes, but is not limited to, (i) a scanned copy (as a "pdf" (portable document format) or other replicating image) of a manual ink signature, (ii) an electronic copy of a traditional signature affixed to a document, (iii) a signature incorporated into a document utilizing touchscreen capabilities or (iv) a digital signature. This agreement may be executed in one or more counterparts, each of which shall be considered an original instrument, but all of which shall be considered one and the same agreement. Paper copies or "printouts," of such documents if introduced as evidence in any judicial, arbitral, mediation or administrative proceeding, will be admissible as between the parties to the same extent and under the same conditions as other original business records created and maintained in documentary form. Neither party shall contest the admissibility of true and accurate copies of electronically signed documents on the basis of the best evidence rule or as not satisfying the business records exception to the hearsay rule.

Board of Commissioners  
Hillsboro-Forest Grove- Beaverton-  
Tualatin Valley Water District  
Joint Water Commission  
April 2, 2019  
Page 8

Please sign and return a copy of this letter to indicate your acknowledgment of, and agreement with, the arrangements for our audit of the financial statements, including our respective responsibilities.

**TALBOT, KORVOLA & WARWICK, LLP**

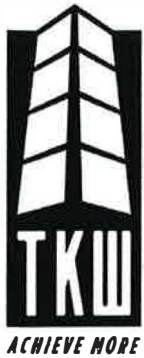
By   
\_\_\_\_\_  
Timothy R. Gillette, Partner

Confirmed on behalf of the addressee:  
**Hillsboro-Forest Grove-Beaverton-  
Tualatin Valley Water District  
Joint Water Commission**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date



**Talbot, Korvola  
& Warwick, LLP**

4800 Meadows Road, Suite 200  
Lake Oswego, OR 97035

P 503.274.2849  
F 503.274.2853

[www.tkw.com](http://www.tkw.com)

Board of Commissioners  
Hillsboro - Forest Grove-Beaverton -  
Tualatin Valley Water District  
Joint Water Commission  
Hillsboro, Oregon

Attention: John Godsey, Chair

This letter is intended to communicate certain matters related to the planned scope and timing of our audit of Hillsboro-Forest Grove-Beaverton-Tualatin Valley Water District Joint Water Commission's (the Commission) financial statements as of and for the year ending June 30, 2019.

### **Communication**

Effective two-way communication between Talbot, Korvola & Warwick, LLP (the Firm) and the Board of Commissioners is important to understanding matters related to the audit and in developing a constructive working relationship.

Your insights may assist us in understanding the Commission and its environment, identifying appropriate sources of audit evidence and providing information about specific transactions or events. We will discuss with you your oversight of the effectiveness of internal control and any areas where you request additional procedures to be undertaken. We expect that you will timely communicate to us any matters you consider relevant to the audit. Such matters might include strategic decisions that may significantly affect the nature, timing and extent of audit procedures, your suspicion or detection of fraud, or any concerns you may have about the integrity or competence of senior management.

We will timely communicate to you any fraud involving senior management and other fraud that causes a material misstatement of the financial statements, instances of noncompliance with laws and regulations that come to our attention (unless they are clearly inconsequential), and disagreements with management and other serious difficulties encountered in performing the audit. We also will communicate to you and to management any significant deficiencies or material weaknesses in internal control that become known to us during the course of the audit. Other matters arising from the audit that are, in our professional judgement, significant and relevant to you in your oversight of the financial reporting process will be communicated to you in writing after the audit.

### **Independence**

Our independence policies and procedures are designed to provide reasonable assurance that our firm and its personnel comply with applicable professional independence standards. Our policies address financial interests, business and family relationships, and non-audit services that may be thought to bear on independence. For example, partners and professional employees of the Firm are restricted in their ability to own a direct financial interest or a material indirect financial interest in a client or any affiliate of a client. Also, if an immediate family member or close relative of a partner or professional employee is employed by a client in a key position, the incident must be reported and resolved in accordance with firm policy. In addition, our policies restrict certain non-audit services that may be provided by the Firm and require audit clients to accept certain responsibilities in connection with the provision of permitted non-attest services.

An independently owned member:  
RSM US Alliance

**RSM**

RSM US Alliance provides its members with access to resources of RSM US LLP. RSM US Alliance member firms are separate and independent businesses and legal entities that are responsible for their own acts and omissions, and each are separate and independent from RSM US LLP. RSM US LLP is the U.S. member firm of RSM International, a global network of independent audit, tax, and consulting firms. Members of RSM US Alliance have access to RSM International resources through RSM US LLP but are not member firms of RSM International. Visit [rsmus.com/about-us](http://rsmus.com/about-us) for more information regarding RSM US LLP and RSM International. The RSM™ logo is used under license by RSM US LLP. RSM US Alliance products and services are proprietary to RSM US LLP.



### **The Audit Planning Process**

Our audit approach places a strong emphasis on obtaining an understanding of how your business functions. This enables us to identify key audit components and tailor our procedures to the unique aspects of your business. The development of a specific audit plan will begin by meeting with you and with management to obtain an understanding of your business objectives, strategies, risks and performance.

As part of obtaining an understanding of your business and its environment, we will obtain an understanding of internal control. We will use this understanding to identify risks of material misstatement, which will provide us with a basis for designing and implementing responses to the assessed risks of material misstatement. We will also obtain an understanding of the users of the financial statements in order to establish an overall materiality level for audit purposes. We will conduct formal discussions among engagement team members to consider how and where your financial statements might be susceptible to material misstatement due to fraud or error.

### **The Concept of Materiality in Planning and Executing the Audit**

We apply the concept of materiality in both planning and performing the audit; evaluating the effect of identified misstatements on the audit and the effect of uncorrected misstatements, if any, on the financial statements; and forming the opinion in our report. Our determination of materiality is a matter of professional judgment and is affected by our perception of the financial information needs of users of the financial statements. We establish performance materiality at an amount less than materiality for the financial statements as a whole to allow for the risk of misstatements that may not be detected by the audit. We use performance materiality for purposes of assessing the risks of material misstatement and determining the nature, timing and extent of further audit procedures. Our assessment of materiality throughout the audit will be based on both quantitative and qualitative considerations. Because of the interaction of quantitative and qualitative considerations, misstatements of a relatively small amount could have a material effect on the current financial statements as well as financial statements of future periods. We will accumulate misstatements identified during the audit, other than those that are clearly trivial. At the end of the audit, we will inform you of all individual uncorrected misstatements aggregated by us in connection with our evaluation of our audit test results.

### **Our Approach to Internal Control Relevant to the Audit**

Our audit of the financial statements will include obtaining an understanding of internal control sufficient to plan the audit and determine the nature, timing and extent of audit procedures to be performed. An audit is not designed to provide assurance on internal control or identify significant deficiencies or material weaknesses. Our review and understanding of the Commission's internal control is not undertaken for the purpose of expressing an opinion on the effectiveness of internal control.

### **Timing of the Audit**

We have scheduled preliminary audit field work for the weeks of July 29 and August 12, 2019, with final field work commencing the week of October 7, 2019. Management's adherence to its closing schedule and timely completion of information used by us in performance of the audit is essential to timely completion of the audit.

Board of Commissioners  
Hillsboro - Forest Grove-Beaverton -  
Tualatin Valley Water District  
Joint Water Commission  
Page 3

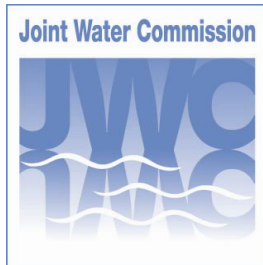
**Closing**

We will be pleased to respond to any questions you have about the foregoing. We appreciate the opportunity to be of service to the Commission.

This communication is intended solely for the information and use of the Board of Commissioners and is not intended to be, and should not be, used by anyone other than this specified party.

*Talbot, Kowala & Warwick LLP*

Lake Oswego, Oregon  
April 2, 2019



## STAFF REPORT

To: Joint Water Commission

From: Kevin Hanway, General Manager  
Lee Lindsey, Administration Manager  
Michelle Molgaard, Management Analyst

Date: April 12, 2019

Subject: Agenda Item 3A – Fiscal Year 2019-20 Joint Water Commission Proposed Budget

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### **Staff Recommendation:**

Approve proposed Fiscal Year (FY) 2019-20 budget with capital improvement projects, as presented, subject to final modifications not to exceed 5% of Personnel Service and Special Payments costs as determined by the City of Hillsboro.

### **Cost:**

Proposed costs are included in the budget document.

### **Background:**

The Proposed Budget FY 2019-20 has been reviewed with all partners' managerial, financial and operational staff. All reviewers recommend approval of the proposed budget.

JWC partners are charged only for actual expenditures. Water production costs are shared by all partners, with allocations based on their 12-month rolling average share of total water production. Capital outlay costs are allocated to partners based on their percentage ownership shares in the asset.

The proposed budget includes the following:

**Total Expenditures:** The overall proposed budget total expenditures are \$17,830,467. The total budget figure includes water production costs of \$9,231,403 (4.7% increase from prior year budget), and capital outlay of \$8,234,064.

- **Plant Production Volume:** Water production unit costs are projected to increase by 1.5% to \$0.529/ccf as compared to the \$0.521/ccf budget of FY 2018-19. Actual plant costs for year-to-date, 2018-19, are slightly lower at \$0.517/ccf. Actual production costs are updated on each partner billing invoice.

Budget estimates for many expenditures correlate to projected plant production volume. Total Projected Plant Production (average day) for FY 2019-20 is 34.6 MGD, an overall production increase of 3.1% from the current year’s budget estimates. Table 1 provides the water budgets for each partner, adjusted for allocations for West Lutheran and North Plains:

**Table 1**

Agency	Water Budgets (MGD)	
	FY 2018-19	FY 2019-20
Hillsboro	18.5	19.2
Forest Grove	1.3	1.3
Beaverton	7.3	9.8
TVWD	6.5	4.3
<b>Total</b>	<b>33.5</b>	<b>34.6</b>

- Personnel Services:** The balance of Personnel Services has been increased by an assumed 5% pending final increases for salaries, medical, PERS, and other payroll expenditures from Hillsboro’s Finance department. Since the State of Oregon operates with a biennial budget, PERS rates are adjusted every other year. FY 2019-20 will include a PERS rate increase that will result in about a 2.24% overall personnel services budget increase. Table 2 shows the estimated percent impact on the budget of various inflation adjustments to date.

**Table 2**

FY 2019-20 Estimated Budget Impact	Personnel Services
Budget Increase Estimate	<b>5.00%</b>
Step increases	0.51%
PERS	2.24%
Medical/Dental	0.85%
Miscellaneous	-0.69%
<b>Personnel Svcs Increases</b>	<b>2.91%</b>
<b>Budget remaining for possible COLA or other increases</b>	<b>2.09%</b>

- Materials and Services:** The proposed Materials and Services budget includes an 8.7% increase to \$5,076,975. Increases are centered in contractual services, including \$125,000 for a SCADA Master Plan, \$120,000 electrical breaker and arc flash safety tests, and \$350,000 to comply with a new federal mandate for a risk and resilience plan and to update the emergency response plan.
- Operating Capital Outlay:** Operating capital outlay has been reduced to zero for the FY 2019-20 budget. Going forward, all capital outlay is being consolidated to Project Capital Outlay to align better with budgeting practices in other areas of the City of Hillsboro.

- Special Payments: The proposed budget includes a 6.3% increase to \$908,468 in Special Payments. Special payments includes items such as insurance, support services charges, and facilities charges. The increase is primarily driven by a 10% increase in support service charges and smaller increases in other items. Actual costs will be determined once cost allocations for City of Hillsboro have been completed at year-end.
- Capital Projects: The proposed capital budget includes total expenditures of \$8,234,064, including a \$2,000,000 budget for Emergency Replacement and Acquisitions. The primary capital project is the continuation of the WTP Expansion Project, which began in FY 2016-17. The expansion project is expected to close out in FY 2019-20. Other projects include repairs to the Fern Hill reservoir, replacing some circa 1970's pumps and motors, water line cathodic protection, upgrading the powder activated carbon injection system, a Spring Hill pumping plant mitigation project, and an intake facility expansion site.

**Attachments:**

1. Budget to Actual Summary
2. Summary Budget Proposal
3. Budget Summary Comparison FY 2019-20 to FY 2018-19
4. Water Treatment Plant Production Estimates
5. Five Year JWC CIP Budget and Estimates
6. Descriptions of Capital Improvements Plans and Minor Capital Projects
7. JWC/BRJOC Employee Allocation – FY 2019-20 Proposed Budget
8. JWC Capital Project Details and Descriptions

**Joint Water Commission (JWC) - FY 2019-20 PROPOSED BUDGET**

**Budget to Actual Summary**

JWC ADMINISTRATION	FY 2015-16		FY 2016-17		FY 2017-18		FY 2018-19 YTD	
	Revised Budget	Actual	Revised Budget	Actual	Revised Budget	Actual	Revised Budget	Actual
4 Revenue	14,598,093	11,974,807	14,304,856	12,419,191	25,828,741	17,960,812	27,328,653	8,287,320
5 Personal Services	584,650	719,087	556,272	754,902	605,343	640,089	514,455	397,411
6 Materials and Services	71,305	89,866	70,100	111,075	499,800	243,533	431,400	141,775
Operating Capital Outlay	32,000	33,548	-	-	-	10,827	-	-
7 Project Capital Outlay	6,957,500	5,114,296	6,335,000	6,032,108	16,900,000	10,832,527	18,250,000	6,786,144
8 Special Payments and Contingency	1,417,128	843,957	1,399,686	632,397	1,255,645	685,458	1,354,453	455,038
<b>Expenditure</b>	<b>9,062,583</b>	<b>6,800,754</b>	<b>8,361,058</b>	<b>7,530,482</b>	<b>19,260,788</b>	<b>12,412,435</b>	<b>20,550,308</b>	<b>7,780,367</b>
<b>Net Revenue (Expenditure)</b>	<b>5,535,510</b>	<b>5,174,053</b>	<b>5,943,798</b>	<b>4,888,709</b>	<b>6,567,953</b>	<b>5,548,377</b>	<b>6,778,345</b>	<b>506,953</b>

JWC Operations	FY 2015-16		FY 2016-17		FY 2017-18		FY 2018-19 YTD	
	Revised Budget	Actual	Revised Budget	Actual	Revised Budget	Actual	Revised Budget	Actual
4 Revenue	-	-	-	-	-	-	-	-
5 Personal Services	1,882,042	1,700,018	2,036,348	1,800,252	2,368,453	2,099,607	2,447,345	1,407,414
6 Materials and Services	3,563,468	3,406,094	3,781,450	3,041,341	4,029,250	3,326,355	4,237,500	1,936,666
Operating Capital Outlay	90,000	44,835	55,000	20,667	138,750	72,283	15,000	3,584
7 Project Capital Outlay	-	23,107	71,000	26,448	31,500	50,132	78,500	20,183
8 Special Payments and Contingency	-	-	-	-	-	-	-	-
<b>Expenditure</b>	<b>5,535,510</b>	<b>5,174,053</b>	<b>5,943,798</b>	<b>4,888,709</b>	<b>6,567,953</b>	<b>5,548,377</b>	<b>6,778,345</b>	<b>3,367,847</b>
<b>Net Revenue (Expenditure)</b>	<b>(5,535,510)</b>	<b>(5,174,053)</b>	<b>(5,943,798)</b>	<b>(4,888,709)</b>	<b>(6,567,953)</b>	<b>(5,548,377)</b>	<b>(6,778,345)</b>	<b>(3,367,847)</b>

JWC Grand Total	FY 2015-16		FY 2016-17		FY 2017-18		FY 2018-19 YTD	
	Revised Budget	Actual	Revised Budget	Actual	Revised Budget	Actual	Revised Budget	Actual
4 Revenue	14,598,093	11,974,807	14,304,856	12,419,191	25,828,741	17,960,812	27,328,653	8,287,320
5 Personal Services	2,466,692	2,419,104	2,592,620	2,555,154	2,973,796	2,739,697	2,961,800	1,804,825
6 Materials and Services	3,634,773	3,495,960	3,851,550	3,152,416	4,529,050	3,569,888	4,668,900	2,078,441
Operating Capital Outlay	122,000	78,383	55,000	20,667	138,750	83,110	15,000	3,584
7 Project Capital Outlay	6,957,500	5,137,403	6,406,000	6,058,557	16,931,500	10,882,659	18,328,500	6,806,327
8 Special Payments and Contingency	1,417,128	843,957	1,399,686	632,397	1,255,645	685,458	1,354,453	455,038
<b>Expenditure</b>	<b>14,598,093</b>	<b>11,974,807</b>	<b>14,304,856</b>	<b>12,419,191</b>	<b>25,828,741</b>	<b>17,960,812</b>	<b>27,328,653</b>	<b>11,148,214</b>
<b>Net Revenue (Expenditure)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(2,860,895)</b>

Joint Water Commission (JWC) - FY 2019-20 PROPOSED BUDGET  
Summary Budget Proposal

Description	14-15 Actual	15-16 Actual	16-17 Actual	17-18 Actual	18-19 Budget	18-19 YTD (01-2019)	18-19 Projected Year End (PYE)	FY 19-20 Proposed Budget	18-19 PYE to 19-20 Budget	18-19 Budget to 19-20 Budget	Percent Change
<b>Beginning Working Capital [1]</b>	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Hillsboro - Water Purchases [2]	3,082,442	3,071,344	3,092,383	3,493,965	4,532,631	1,708,575	4,136,151	4,854,717	(396,480)	322,086	7.1%
Forest Grove - Water Purchases [2]	347,634	339,663	284,691	267,997	372,146	130,610	118,654	372,640	(253,492)	494	0.1%
Beaverton - Water Purchases [2]	1,204,509	1,140,165	1,279,253	1,438,432	1,867,067	534,911	1,499,383	2,473,110	(367,684)	606,043	32.5%
TVWD - Water Purchases [2]	1,283,374	1,468,969	1,249,860	1,274,407	1,673,029	572,315	1,355,566	1,127,656	(317,463)	(545,373)	-32.6%
Tigard - Water Purchases	-	149,371	-	-	-	-	-	-	-	-	0.0%
North Plains - Water Purchases [3]	136,195	142,357	166,136	198,339	115,000	100,316	198,339	150,000	83,339	35,000	30.4%
North Plains SDC	55,545	374,144	470,404	101,129	150,000	95,377	150,000	150,000	-	-	0.0%
Lease Revenue [4]	-	321,426	94,193	102,050	103,280	-	206,560	103,280	103,280	-	0.0%
<b>Total Water Sales</b>	<b>6,109,700</b>	<b>7,007,439</b>	<b>6,636,920</b>	<b>6,876,319</b>	<b>8,813,153</b>	<b>3,142,104</b>	<b>7,664,652</b>	<b>9,231,403</b>	<b>(1,148,501)</b>	<b>418,250</b>	<b>4.7%</b>
Hillsboro - Capital Outlay	2,017,496	2,521,950	3,476,648	7,303,654	11,159,325	3,433,052	9,448,200	4,519,767	(1,711,125)	(6,639,558)	-59.5%
Forest Grove - Capital Outlay	124,038	211,991	388,759	574,191	1,238,957	276,465	911,239	741,775	(327,718)	(497,182)	-40.1%
Beaverton - Capital Outlay	974,833	568,908	828,224	1,083,301	2,323,625	451,867	1,709,000	1,391,153	(614,625)	(932,472)	-40.1%
TVWD - Capital Outlay	580,904	689,108	1,001,912	2,057,351	3,293,593	966,482	2,732,561	1,431,369	(561,032)	(1,862,224)	-56.5%
Tigard - Capital Outlay	-	-	-	-	-	-	-	-	-	-	0.0%
CWS - Capital Outlay	1,543	1,813	3,428	1,557	-	104	-	-	-	-	0.0%
<b>Total Contributions in Aid</b>	<b>3,698,814</b>	<b>3,993,770</b>	<b>5,698,970</b>	<b>11,020,054</b>	<b>18,015,500</b>	<b>5,127,970</b>	<b>14,801,000</b>	<b>8,084,064</b>	<b>(3,214,500)</b>	<b>(9,931,436)</b>	<b>-55.1%</b>
Grants [5]	523,421	906,429	20,000	13,000	-	-	-	-	-	-	0.0%
Miscellaneous Income	(531)	53,547	48,179	20,158	-	-	-	-	-	-	0.0%
Sale of Surplus Property	-	-	-	-	-	94	2,000	-	2,000	-	0.0%
Westside Lutheran School	1,323	1,242	1,146	1,677	-	654	1,200	-	1,200	-	0.0%
Interest Earned	10,032	12,380	13,975	29,603	-	16,498	20,000	15,000	20,000	15,000	0.0%
<b>Total Miscellaneous and Interest</b>	<b>534,244</b>	<b>973,598</b>	<b>83,300</b>	<b>64,438</b>	<b>-</b>	<b>17,246</b>	<b>23,200</b>	<b>15,000</b>	<b>23,200</b>	<b>15,000</b>	<b>0.0%</b>
Hillsboro Contingency	-	-	-	-	225,000	-	-	225,000	(225,000)	-	0.0%
Forest Grove Contingency	-	-	-	-	66,650	-	-	66,650	(66,650)	-	0.0%
Beaverton Contingency	-	-	-	-	125,000	-	-	125,000	(125,000)	-	0.0%
TVWD Contingency	-	-	-	-	83,350	-	-	83,350	(83,350)	-	0.0%
<b>Total Contingency</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>500,000</b>	<b>-</b>	<b>-</b>	<b>500,000</b>	<b>(500,000)</b>	<b>-</b>	<b>0.0%</b>
<b>Total Current Revenues</b>	<b>10,342,759</b>	<b>11,974,807</b>	<b>12,419,191</b>	<b>17,960,812</b>	<b>27,328,653</b>	<b>8,287,320</b>	<b>22,488,852</b>	<b>17,830,467</b>	<b>(4,839,801)</b>	<b>(9,498,186)</b>	<b>-34.8%</b>
<b>Total Resources</b>	<b>10,342,759</b>	<b>11,974,807</b>	<b>12,419,191</b>	<b>17,960,812</b>	<b>27,328,653</b>	<b>8,287,320</b>	<b>22,488,852</b>	<b>17,830,467</b>	<b>(4,839,801)</b>	<b>(9,498,186)</b>	<b>-34.8%</b>
<b>Expenditures</b>											
Personnel Services [6]	2,391,648	2,419,104	2,555,154	2,739,697	2,961,800	1,804,825	2,886,246	3,110,960	(75,554)	149,160	5.0%
Materials and Services [7]	3,298,716	3,495,960	3,152,416	3,569,888	4,668,900	2,078,441	3,873,615	5,180,475	(795,285)	511,575	11.0%
Operating Capital Outlay	121,629	78,562	13,100	83,110	-	-	-	-	-	-	0
Special Payments	438,511	843,957	632,397	685,458	854,453	455,038	777,991	804,968	(76,462)	(49,485)	-5.8%
<b>Total Water Production Costs</b>	<b>6,250,505</b>	<b>6,837,583</b>	<b>6,353,067</b>	<b>7,078,153</b>	<b>8,485,153</b>	<b>4,338,303</b>	<b>7,537,852</b>	<b>9,096,403</b>	<b>(947,301)</b>	<b>611,250</b>	<b>7.2%</b>
Projects Capital Outlay	4,092,253	5,137,224	6,066,124	10,882,659	18,343,500	6,809,911	14,951,000	8,234,064	(3,392,500)	(10,109,436)	-55.1%
Contingency	-	-	-	-	500,000	-	-	500,000	(500,000)	-	0.0%
<b>Total Other Expenditures</b>	<b>4,092,253</b>	<b>5,137,224</b>	<b>6,066,124</b>	<b>10,882,659</b>	<b>18,843,500</b>	<b>6,809,911</b>	<b>14,951,000</b>	<b>8,734,064</b>	<b>(3,892,500)</b>	<b>(10,109,436)</b>	<b>-53.6%</b>
<b>Total Current Expenditures</b>	<b>10,342,758</b>	<b>11,974,807</b>	<b>12,419,191</b>	<b>17,960,812</b>	<b>27,328,653</b>	<b>11,148,214</b>	<b>22,488,852</b>	<b>17,830,467</b>	<b>(4,839,801)</b>	<b>(9,498,186)</b>	<b>-34.8%</b>
<b>Ending Working Capital</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>(2,860,895)</b>	<b>-</b>	<b>(0)</b>	<b>-</b>	<b>(0)</b>	<b>0.0%</b>
<b>Total Requirements</b>	<b>10,342,758</b>	<b>11,974,807</b>	<b>12,419,191</b>	<b>17,960,812</b>	<b>27,328,653</b>	<b>8,287,320</b>	<b>22,488,852</b>	<b>17,830,467</b>	<b>(4,839,801)</b>	<b>(9,498,186)</b>	<b>-34.8%</b>
<b>Total Resources</b>	<b>10,342,759</b>	<b>11,974,807</b>	<b>12,419,191</b>	<b>17,960,812</b>	<b>27,328,653</b>	<b>8,287,320</b>	<b>22,488,852</b>	<b>17,830,467</b>	<b>(4,839,801)</b>	<b>(9,498,186)</b>	<b>-34.8%</b>
<b>Total Current Expenditures</b>	<b>10,342,758</b>	<b>11,974,807</b>	<b>12,419,191</b>	<b>17,960,812</b>	<b>27,328,653</b>	<b>11,148,214</b>	<b>22,488,852</b>	<b>17,830,467</b>	<b>(4,839,801)</b>	<b>(9,498,186)</b>	<b>-34.8%</b>
<b>Net Revenue</b>	<b>1</b>	<b>-</b>	<b>0</b>	<b>-</b>	<b>-</b>	<b>(2,860,895)</b>	<b>-</b>	<b>(0)</b>	<b>-</b>	<b>(0)</b>	<b>0.0%</b>

**Notes:**

1. Beginning Working Capital (Actual and Projected) will be \$0 as agreed by the JWC Partners

**2. Water Purchases**

18-19 Projected Year End (PYE)	18-19 Budget	18-19 Actual
Hillsboro	52.91%	56.64%
Forest Grove	3.95%	3.19%
Beaverton	21.57%	21.71%
TVWD	21.57%	18.46%
Total	100.0%	100.0%
<b>Average water cost per ccf</b>	<b>\$ 0.521</b>	<b>\$ 0.517</b>

Water purchases are projected to year end and allocated to each partner using each partner's usage % for the past 12-months of the water delivered report.

Average water cost based on year-to-date actuals are reported on each JWC monthly billing statement. This is from the December 2018 billing statement.

**FY 19-20 Proposed Budget Percent Allocation for Water Purchases**

Based on pro-rata share of plant production estimates

Water Purchases	18-19 Budget	FY 19-20 Proposed Budget	Percent Change
Hillsboro	52.9%	55.4%	
Forest Grove	4.0%	3.6%	
Beaverton	21.6%	28.3%	
TVWD	21.6%	12.6%	
<b>Average water cost per ccf</b>	<b>\$ 0.521</b>	<b>\$ 0.523</b>	<b>0.4%</b>

Purchases in MGD	18-19 Budget	18-19 Projected Year End (PYE)	Change	Percent Change
Hillsboro	18.4	19.2	0.8	4.2%
Forest Grove	1.3	1.3	0.0	0.9%
Beaverton	7.2	9.8	2.6	36.0%
TVWD	6.4	4.3	-2.1	-32.4%
<b>Total</b>	<b>33.3</b>	<b>34.6</b>	<b>1.3</b>	<b>3.9%</b>

Water production unit cost adjusted by .4% for this projection. Actual ccf unit cost will be calculated on actual usage and actual costs, so this estimate can change. Actual water cost is reported on each JWC monthly billing statement.

For FY 19-20 water production unit cost, \$250K STL Assessment and \$150K Cathodic Protection Study was moved from contract services to the CIP. Also, there have been savings from employee replacements at the beginning of the salary schedule. Also, electricity costs are reduced.

Plant Production is estimated to change by 3.9% or about 1.3 MGD based on estimates provided by each partner.

3. **North Plains - Water Purchases** account for monthly revenue for water sales to North Plains. JWC Partners water production volume and costs include North Plains. Monthly, each partners' water purchase costs are reduced by the amount of revenue received from the City of North Plains.

4. Lease information not available yet. Leases reviewed by JWC at 04-12-2019 meeting.

5. **Grants:** There are no grants budgeted for FY19-20.

**6 Personnel Services:**

18-19 Projected Year End (PYE) Personnel Services are projected to end this year with a -\$75,554 budget variance due to position vacancies and favorable variances on overtime and extra labor.

**The FY 19/20 budget for Personnel Services is preliminary and will change.** See the following assumptions:

- a) The proposed budget includes an assumed 5% payroll increase due to PERS rate increases and for a possible Cost of Living Adjustment (COLA) and medical and dental insurance increases. Actual numbers for the items above will be finalized in late April.
- b) There are no new full time employees for JWC, but allocations will change slightly due to staffing changes. Small 5.0% payroll cost increase benefitted from employee replacements at beginning of salary schedule.

**7. Materials and Services:**

**18-19 Projected Year End (PYE)**

The Projected to Year End estimates for M&S show that we will end the year with a -\$795,285 budget variance. The difference is primarily due to the following:

- \$255,675 utilities savings. Staff expected a PGE price increase, but PGE lowered rates by 2.5% on 01-01-2019. Also, this budget includes a cushion for extra costs if electricity must be used during peak pricing.
- \$128,800 favorable variance in Contractual Services due to activity on several contracts being deferred to FY2020.
- \$171,500 under spending in Program Materials and Supplies

Miscellaneous other favorable variances, partially offset by increased costs for lab supplies and caustic soda and due to an accounting change to move Payments to Others from Special Payments to Materials and Services. Please see note 9 for details on the accounting change.

**FY 19-20 Proposed Budget**

Materials and Services is projected to increase by \$511,575 over the 18-19 Budget. The difference is primarily due to the following:

- \$110,600 increase in program supplies and materials due to moving certain items from Payments to Others
- \$44,000 increase in water treatment chemicals
- \$71,000 increase in Analysis and Lab Supplies and miscellaneous smaller cost increases in various budgets
- \$134,500 reduction in the Utilities budget, based on actual water produced and actual electricity expense to produce that water.



**Joint Water Commission (JWC) - FY 19-20 PROPOSED BUDGET**  
**Budget Summary Comparison FY 2019-20 to FY 2018-19**

Object	Budget 2018-19	Proposed Bgt 2019-20	Change	Percent Change	
4800	4800 - BEGINNING WORKING CAPITAL	-	-	0.0%	
4480	4480 - HILLSBORO - WATER PURCH	4,532,631	4,890,385	357,754	7.9%
4481	4481 - FOREST GROVE - WATER PURCH	372,146	396,428	24,282	6.5%
4482	4482 - BEAVERTON - WATER PURCH	1,867,067	2,495,480	628,413	33.7%
4483	4483 - TVWD - WATER PURCH	1,673,029	1,149,109	(523,920)	-31.3%
4484	4484 - TIGARD - WATER PURCH	-	-	-	0.0%
4485	4485 - NORTH PLAINS - WATER PURCH	115,000	150,000	35,000	30.4%
4486	4486 - NORTH PLAINS SDC	150,000	150,000	-	0.0%
4487	4487 - WATER LEASE REVENUE	103,280	-	(103,280)	-100.0%
	<b>Total Water Sales</b>	<b>8,813,153</b>	<b>9,231,403</b>	<b>418,250</b>	<b>4.7%</b>
4500	4500 - HILLSBORO - CAPITAL OUTLAY	11,159,325	4,519,767	(6,639,558)	-59.5%
4501	4501 - FOREST GROVE - CAPITAL OUTLAY	1,238,957	741,775	(497,182)	-40.1%
4502	4502 - BEAVERTON - CAPITAL OUTLAY	2,323,625	1,391,153	(932,472)	-40.1%
4503	4503 - TVWD - CAPITAL OUTLAY	3,293,593	1,431,369	(1,862,224)	-56.5%
4504	4504 - TIGARD - CAPITAL OUTLAY	-	-	-	0.0%
4505	4505 - SPECIAL PROJECTS	-	-	-	0.0%
4506	4506 - CWS - CAPITAL OUTLAY	-	-	-	0.0%
	<b>Total Contributions in Aid (Capital Outlay)</b>	<b>18,015,500</b>	<b>8,084,064</b>	<b>(9,931,436)</b>	<b>-55.1%</b>
4276	4276 - GRANTS - STATE	-	-	-	0.0%
4277	4277 - GRANTS - OTHER	-	-	-	0.0%
4600	4600 - MISCELLANEOUS INCOME	-	-	-	0.0%
4622	4622 - WESTERN LUTHERAN SCHOOL	-	-	-	0.0%
4200	4200 - INTEREST EARNED	-	15,000	15,000	0.0%
	<b>Total Miscellaneous and Interest</b>	<b>-</b>	<b>15,000</b>	<b>15,000</b>	<b>0.0%</b>
4520	4520 - HILLSBORO - CONTINGENCY	225,000	225,000	-	0.0%
4521	4521 - FOREST GROVE - CONTINGENCY	66,650	66,650	-	0.0%
4522	4522 - BEAVERTON - CONTINGENCY	125,000	125,000	-	0.0%
4523	4523 - TVWD - CONTINGENCY	83,350	83,350	-	0.0%
	<b>Total Contingency</b>	<b>500,000</b>	<b>500,000</b>	<b>-</b>	<b>0.0%</b>
	<b>Total Revenues</b>	<b>27,328,653</b>	<b>17,830,467</b>	<b>(9,498,186)</b>	<b>-34.8%</b>
	Check to CHECK TOTALS	-	-	-	-
5	5000's Personnel Services - Administration	514,455	539,515	25,060	4.9%
5	5000's Personnel Services - Operations	2,447,345	2,571,445	124,100	5.1%
	<b>Total Personnel Services</b>	<b>2,961,800</b>	<b>3,110,960</b>	<b>149,160</b>	<b>5.0%</b>
			[c]		
6	6000's Materials and Services - Administration	431,400	605,175	173,775	40.3%
6	6000's Materials and Services - Operations	4,237,500	4,471,800	234,300	5.5%
	<b>Total Material and Services</b>	<b>4,668,900</b>	<b>5,076,975</b>	<b>408,075</b>	<b>8.7%</b>
			[c]		
	7000-7030 Operating Capital Outlay - Administration	-	-	-	0.0%
	7000-7030 Operating Capital Outlay - Operations	15,000	-	(15,000)	-100.0%
	<b>Total Operating Capital Outlay</b>	<b>15,000</b>	<b>-</b>	<b>(15,000)</b>	<b>-100.0%</b>
			[d]		
8	8000's Special Payments	854,453	908,468	54,015	6.3%
	<b>Total Special Payments</b>	<b>854,453</b>	<b>908,468</b>	<b>54,015</b>	<b>6.3%</b>
			[d]		
	<b>Subtotal - Operating Costs</b>	<b>8,500,153</b>	<b>9,096,403</b>	<b>596,250</b>	<b>7.0%</b>
	7040 Project Capital Outlay	16,228,500	6,234,064	(9,994,436)	-61.6%
	7040 Project Capital Outlay - Equipment Resen	2,100,000	2,000,000	(100,000)	-4.8%
	<b>Total Project Capital Outlay</b>	<b>18,328,500</b>	<b>8,234,064</b>	<b>(10,094,436)</b>	<b>-55.1%</b>
8300	8300 - CONTINGENCY	500,000	500,000	-	0.0%
	<b>Total Contingency</b>	<b>500,000</b>	<b>500,000</b>	<b>-</b>	<b>0.0%</b>
	<b>Total Expenditure</b>	<b>27,328,653</b>	<b>17,830,467</b>	<b>(9,498,186)</b>	<b>-34.8%</b>
	Check to CHECK TOTALS	-	(0)	-	-

Allocation of Operating (Water Production) Costs				
Subtotal-Operating Costs sum of [c]	7,630,700	8,187,935	557,235	7.3%
Subtotal-Operation Costs sum of [d]	766,173	908,468	142,295	18.6%
STL Condition Assessment Project [\$250]	250,000	-	(250,000)	-100.0%
North Plains Water Purchases [b]	(115,000)	(150,000)	(35,000)	30.4%
Grant and miscellaneous revenue	-	(15,000)	(15,000)	0.0%
<b>Total Operating Costs</b>	<b>8,531,873</b>	<b>8,931,403</b>	<b>399,530</b>	<b>4.7%</b>

Plant Production %'s [sum of c]:					
Hillsboro	55.4%	3,837,595	4,555,825	718,230	18.7%
Forest Grove	3.6%	286,777	297,324	10,547	3.7%
Beaverton	28.3%	1,564,237	2,309,613	745,376	47.7%
TVWD	12.6%	1,564,237	1,025,173	(539,064)	-34.5%
<b>Total</b>	<b>100.0%</b>	<b>7,252,846</b>	<b>8,187,935</b>	<b>935,089</b>	<b>12.9%</b>

[Plant Production % from "Plant Prod Estimate" tab; % allocation for each partner.]

Ownership %'s [sum of d]:					
Hillsboro	45.0%	273,058	334,561	61,503	22.5%
Forest Grove	13.3%	80,886	99,104	18,218	22.5%
Beaverton	25.0%	151,699	185,867	34,168	22.5%
TVWD	16.7%	203,203	123,936	(79,267)	-39.0%
<b>Total</b>	<b>100.0%</b>	<b>708,845</b>	<b>743,468</b>	<b>34,623</b>	<b>4.9%</b>

[Ownership % allocation for each partner on Operating Capital Outlay and Special Payments budget.]

STL OWNERSHIP-STL CONDITION ASSESSMENT %'s [s Moved to CIP					
Hillsboro	52.6%	131,500	-	(131,500)	-100.0%
Forest Grove	0.0%	-	-	-	0.0%
Beaverton	36.9%	92,250	-	(92,250)	-100.0%
TVWD	10.5%	26,250	-	(26,250)	-100.0%
<b>Totals</b>	<b>100.0%</b>	<b>250,000</b>	<b>-</b>	<b>(250,000)</b>	<b>-100.0%</b>

[Project specific to STL Allocation]

Cost per gallon	\$ 0.000697095	\$ 0.000707797	0.00001	1.5%
<b>Cost per CCF</b>	<b>\$ 0.521</b>	<b>\$ 0.529</b>	<b>0.00800</b>	<b>1.5%</b>

JOINT WATER COMMISSION										
2019-20 Proposed Budget										
WATER TREATMENT PLANT PRODUCTION ESTIMATES										
Agency	2018-19 Budget			2019-20 Budget			% Difference 2018-19 to 2019-20	Allocation of W. Lutheran & North Plains	2019-20 Total Projected	
	GPD Average Daily Demand	Annual Demand (Daily x 365)	Percent	GPD Average Daily Demand	Annual Demand (Daily x 365)	Percent			Gallons	MGD
Hillsboro	18,400,000	6,716,000,000	55.3%	19,000,000	6,935,000,000	55.4%	3.3%	61,013,000	6,996,013,000	19.2
Forest Grove	1,250,000	456,250,000	3.8%	1,250,000	456,250,000	3.6%	0.0%	4,014,000	460,264,000	1.3
Beaverton	7,200,000	2,628,000,000	21.6%	9,710,000	3,544,150,000	28.3%	34.9%	31,181,000	3,575,331,000	9.8
TVWD	6,430,000	2,346,950,000	19.3%	4,310,000	1,573,150,000	12.6%	-33.0%	13,840,000	1,586,990,000	4.3
Tigard	-	-		-	-					
Western Lutheran	2,000	730,000		1,500	547,500		-25.0%			
Interest Earnings, Grants										
North Plains SDC										
North Plains	250,000	91,250,000		300,000	109,500,000		20.0%			
<b>Total</b>	<b>33,532,000</b>	<b>12,239,180,000</b>	<b>100.0%</b>	<b>34,571,500</b>	<b>12,618,597,500</b>	<b>100.0%</b>	<b>3.1%</b>	<b>110,048,000</b>	<b>12,618,598,000</b>	<b>34.6</b>
				W. Lutheran	(547,500)					
				North Plains	(109,500,000)					
				Total W. Lutheran and N. Plains	(110,047,500)					
				Projected w/o W. Lutheran and North Plains	<b>12,508,550,000</b>					

Joint Water Commission (JWC) Capital Improvement Plan (CIP)

Joint Water Commission CIP	Budget FY2020	Estimate FY2021	Estimate FY2022	Estimate FY2023	Estimate FY2024
<b>Capital Repair/Replacement</b>		<i>Note: Project plans may change during the year.</i>			
JWC Emergency replacement and acquisitions	2,000,000	-	-	-	-
JWC Fern Hill Reservoir 1 Repair*	600,000	-	-	-	-
JWC Water Treatment Plant Repairs and upgrades*	1,821,123	-	-	-	-
JWC Master Plan	-	250,000	100,000	-	-
<i>JWC Replace finished water 2 &amp; 6 pumps &amp; motors</i>	200,000	800,000	-	-	-
<i>JWC Replace finished water (FW) 1 pump and motor and FW4 motor</i>	100,000	250,000	-	-	-
<i>JWC New FW 10 pump with variable frequency drive</i>	-	-	-	-	-
<i>JWC Replace backwash 3 &amp; 4 pumps &amp; motors</i>	-	-	-	-	300,000
<i>JWC Electrical assessment</i>	-	100,000	-	-	-
<i>JWC Electrical improvements identified in study (Incl. FWPS2 transformer)</i>	-	-	600,000	600,000	600,000
<i>JWC Sedimentation basins A, B, C concrete</i>	-	-	-	300,000	300,000
<i>JWC South Transmission Line Condition Assessment</i>	-	-	250,000	-	-
<i>JWC Capital Repair/replacement</i>	-	300,000	700,000	-	-
JWC Capital Repair/Replacement	4,721,123	1,700,000	1,650,000	900,000	1,200,000
<b>New/Expansion Projects</b>					
JWC Water Line Cathodic Protection	120,000	250,000	250,000	250,000	250,000
JWC Powder Activated Carbon Injection System Expansion	150,000	700,000	-	-	-
JWC Water Treatment Plant Expansion*	2,137,841	-	-	-	-
JWC Spring Hill Pumping Plant Mitigation Project	225,000	550,000	-	-	-
JWC Disinfection Facility (chlorine replacement)	-	100,000	2,266,667	1,133,333	-
JWC Intake Facility Expansion Site	600,000	-	-	-	-
JWC Capital New/Expansion Projects	3,232,841	1,600,000	2,516,667	1,383,333	250,000
JWC Total Capital Repair/Replacement & New/Expansion	7,953,964	3,300,000	4,166,667	2,283,333	1,450,000
3.50% annual escalation factor	118,825	235,042	452,991	336,844	272,145
<b>JWC TOTAL CIP BUDGET</b>	<b>8,072,789</b>	<b>3,535,043</b>	<b>4,619,658</b>	<b>2,620,178</b>	<b>1,722,145</b>
* Already includes an escalation factor					

Joint Water Commission (JWC) Capital Improvement Plan (CIP)

<b>Hillsboro Share: Joint Water Commission CIP</b>	<b>Budget FY2020</b>	<b>Estimate FY2021</b>	<b>Estimate FY2022</b>	<b>Estimate FY2023</b>	<b>Estimate FY2024</b>
<b>Capital Repair/Replacement</b>		<b>Note: Project plans may change during the year.</b>			
JWC Emergency replacement and acquisitions	982,400	-	-	-	-
JWC Fern Hill Reservoir 1 Repair*	270,000	-	-	-	-
JWC Water Treatment Plant Repairs*	819,506	-	-	-	-
JWC Master Plan	-	122,800	49,120	-	-
<i>JWC Replace finished water 2 &amp; 6 pumps &amp; motors</i>	98,240	392,960	-	-	-
<i>JWC Replace finished water (FW) 1 pump and motor and FW4 motor</i>	49,120	122,800	-	-	-
<i>JWC New FW 10 pump with variable frequency drive</i>	-	-	-	-	-
<i>JWC Replace backwash 3 &amp; 4 pumps &amp; motors</i>	-	-	-	-	147,360
<i>JWC Electrical assessment</i>	-	49,120	-	-	-
<i>JWC Electrical improvements identified in study (Incl. FWPS2 transforme</i>	-	-	294,720	294,720	294,720
<i>JWC Sedimentation basins A, B, C concrete</i>	-	-	-	147,360	147,360
<i>JWC South Transmission Line Condition Assessment</i>	-	-	131,500	-	-
<i>JWC Capital Repairs</i>	-	147,360	343,840	-	-
JWC Capital Repair/Replacement	2,219,266	835,040	819,180	442,080	589,440
<b>New/Expansion Projects</b>		<b>Note: Project plans may change during the year, for example due to u</b>			
JWC Water Line Cathodic Protection	58,944	122,800	122,800	122,800	122,800
JWC Powder Activated Carbon Injection System Expansion	73,680	343,840	-	-	-
JWC Water Treatment Plant Expansion*	1,710,273	-	-	-	-
JWC Spring Hill Pumping Plant Mitigation Project	110,520	270,160	-	-	-
JWC Disinfection Facility (chlorine replacement)	-	49,120	1,113,387	556,693	-
JWC Intake Facility Expansion Site	294,720	-	-	-	-
JWC Capital New/Expansion Projects	2,248,137	785,920	1,236,187	679,493	122,800
JWC Total Capital Repair/Replacement & New/Expansion	4,467,402	1,620,960	2,055,367	1,121,573	712,240
3.50% annual escalation factor	(0)	115,453	223,455	165,458	133,678
<b>Hillsboro Share: JWC TOTAL CIP BUDGET</b>	<b>4,467,402</b>	<b>1,736,413</b>	<b>2,278,822</b>	<b>1,287,031</b>	<b>845,918</b>
* Already includes an escalation factor					

Joint Water Commission (JWC) Capital Improvement Plan (CIP)

<b>Forest Grove Share: Joint Water Commission CIP</b>	<b>Budget FY2020</b>	<b>Estimate FY2021</b>	<b>Estimate FY2022</b>	<b>Estimate FY2023</b>	<b>Estimate FY2024</b>
<b>Capital Repair/Replacement</b>					
<i>Note: Project plans may change during the year.</i>					
JWC Emergency replacement and acquisitions	235,200	-	-	-	-
JWC Fern Hill Reservoir 1 Repair*	80,000	-	-	-	-
JWC Water Treatment Plant Repairs*	242,816	-	-	-	-
JWC Master Plan	-	29,400	11,760	-	-
<i>JWC Replace finished water 2 &amp; 6 pumps &amp; motors</i>	23,520	94,080	-	-	-
<i>JWC Replace finished water (FW) 1 pump and motor and FW4 motor</i>	11,760	29,400	-	-	-
<i>JWC New FW 10 pump with variable frequency drive</i>	-	-	-	-	-
<i>JWC Replace backwash 3 &amp; 4 pumps &amp; motors</i>	-	-	-	-	35,280
<i>JWC Electrical assessment</i>	-	11,760	-	-	-
<i>JWC Electrical improvements identified in study (Incl. FWPS2 transformer)</i>	-	-	70,560	70,560	70,560
<i>JWC Sedimentation basins A, B, C concrete</i>	-	-	-	35,280	35,280
<i>JWC South Transmission Line Condition Assessment</i>	-	-	-	-	-
<i>JWC Capital Repairs</i>	-	35,280	82,320	-	-
JWC Capital Repair/Replacement	593,296	199,920	164,640	105,840	141,120
<b>New/Expansion Projects</b>					
<i>Note: Project plans may change during the year, for example due to un</i>					
JWC Water Line Cathodic Protection	14,112	29,400	29,400	29,400	29,400
JWC Powder Activated Carbon Injection System Expansion	17,640	82,320	-	-	-
JWC Water Treatment Plant Expansion*	-	-	-	-	-
JWC Spring Hill Pumping Plant Mitigation Project	26,460	64,680	-	-	-
JWC Disinfection Facility (chlorine replacement)	-	11,760	266,560	133,280	-
JWC Intake Facility Expansion Site	70,560	-	-	-	-
JWC Capital New/Expansion Projects	128,772	188,160	295,960	162,680	29,400
JWC Total Capital Repair/Replacement & New/Expansion	722,068	388,080	460,600	268,520	170,520
3.50% annual escalation factor	(0)	27,641	50,075	39,613	32,004
<b>Forest Grove Share: JWC TOTAL CIP BUDGET</b>	<b>722,068</b>	<b>415,721</b>	<b>510,675</b>	<b>308,133</b>	<b>202,524</b>
* Already includes an escalation factor					

Joint Water Commission (JWC) Capital Improvement Plan (CIP)

<b>Beaverton Share: Joint Water Commission CIP</b>	<b>Budget FY2020</b>	<b>Estimate FY2021</b>	<b>Estimate FY2022</b>	<b>Estimate FY2023</b>	<b>Estimate FY2024</b>
<b>Capital Repair/Replacement</b>		<i>Note: Project plans may change during the year.</i>			
JWC Emergency replacement and acquisitions	441,200	-	-	-	-
JWC Fern Hill Reservoir 1 Repair*	150,000	-	-	-	-
JWC Water Treatment Plant Repairs*	455,281	-	-	-	-
JWC Master Plan	-	55,150	22,060	-	-
<i>JWC Replace finished water 2 &amp; 6 pumps &amp; motors</i>	44,120	176,480	-	-	-
<i>JWC Replace finished water (FW) 1 pump and motor and FW4 motor</i>	22,060	55,150	-	-	-
<i>JWC New FW 10 pump with variable frequency drive</i>	-	-	-	-	-
<i>JWC Replace backwash 3 &amp; 4 pumps &amp; motors</i>	-	-	-	-	66,180
<i>JWC Electrical assessment</i>	-	22,060	-	-	-
<i>JWC Electrical improvements identified in study (Incl. FWPS2 transformer)</i>	-	-	132,360	132,360	132,360
<i>JWC Sedimentation basins A, B, C concrete</i>	-	-	-	66,180	66,180
<i>JWC South Transmission Line Condition Assessment</i>	-	-	92,250	-	-
<i>JWC Capital Repairs</i>	-	66,180	154,420	-	-
JWC Capital Repair/Replacement	1,112,661	375,020	401,090	198,540	264,720
<b>New/Expansion Projects</b>		<i>Note: Project plans may change during the year, for example due to un</i>			
JWC Water Line Cathodic Protection	26,472	55,150	55,150	55,150	55,150
JWC Powder Activated Carbon Injection System Expansion	33,090	154,420	-	-	-
JWC Water Treatment Plant Expansion*	-	-	-	-	-
JWC Spring Hill Pumping Plant Mitigation Project	49,635	121,330	-	-	-
JWC Disinfection Facility (chlorine replacement)	-	22,060	500,027	250,013	-
JWC Intake Facility Expansion Site	132,360	-	-	-	-
JWC Capital New/Expansion Projects	241,557	352,960	555,177	305,163	55,150
JWC Total Capital Repair/Replacement & New/Expansion	1,354,218	727,980	956,267	503,703	319,870
3.50% annual escalation factor	(0)	51,850	103,963	74,308	60,035
<b>Beaverton Share: JWC TOTAL CIP BUDGET</b>	<b>1,354,218</b>	<b>779,830</b>	<b>1,060,230</b>	<b>578,011</b>	<b>379,905</b>
* Already includes an escalation factor					

Joint Water Commission (JWC) Capital Improvement Plan (CIP)

<b>TVWD Share: Joint Water Commission CIP</b>	<b>Budget FY2020</b>	<b>Estimate FY2021</b>	<b>Estimate FY2022</b>	<b>Estimate FY2023</b>	<b>Estimate FY2024</b>
<b>Capital Repair/Replacement</b>		<b>Note: Project plans may change during the year.</b>			
JWC Emergency replacement and acquisitions	341,200	-	-	-	-
JWC Fern Hill Reservoir 1 Repair*	100,000	-	-	-	-
JWC Water Treatment Plant Repairs*	303,521	-	-	-	-
JWC Master Plan	-	42,650	17,060	-	-
JWC Replace finished water 2 & 6 pumps & motors	34,120	136,480	-	-	-
JWC Replace finished water (FW) 1 pump and motor and FW4 motor	17,060	42,650	-	-	-
JWC New FW 10 pump with variable frequency drive	-	-	-	-	-
JWC Replace backwash 3 & 4 pumps & motors	-	-	-	-	51,180
JWC Electrical assessment	-	17,060	-	-	-
JWC Electrical improvements identified in study (Incl. FWPS2 transformer)	-	-	102,360	102,360	102,360
JWC Sedimentation basins A, B, C concrete	-	-	-	51,180	51,180
JWC South Transmission Line Condition Assessment	-	-	26,250	-	-
JWC Capital Repairs	-	51,180	119,420	-	-
JWC Capital Repair/Replacement	795,901	290,020	265,090	153,540	204,720
<b>New/Expansion Projects</b>		<b>Note: Project plans may change during the year, for example due to un</b>			
JWC Water Line Cathodic Protection	20,472	42,650	42,650	42,650	42,650
JWC Powder Activated Carbon Injection System Expansion	25,590	119,420	-	-	-
JWC Water Treatment Plant Expansion*	427,568	-	-	-	-
JWC Spring Hill Pumping Plant Mitigation Project	38,385	93,830	-	-	-
JWC Disinfection Facility (chlorine replacement)	-	17,060	386,693	193,347	-
JWC Intake Facility Expansion Site	102,360	-	-	-	-
JWC Capital New/Expansion Projects	614,375	272,960	429,343	235,997	42,650
JWC Total Capital Repair/Replacement & New/Expansion	1,410,276	562,980	694,433	389,537	247,370
3.50% annual escalation factor	(0)	40,098	75,497	57,466	46,428
<b>TVWD Share: JWC TOTAL CIP BUDGET</b>	<b>1,410,275</b>	<b>603,078</b>	<b>769,931</b>	<b>447,002</b>	<b>293,798</b>
* Already includes an escalation factor					

<b>Joint Water Commission (JWC) - FY 2019-20 PROPOSED BUDGET</b>						
<b>Descriptions of Capital Improvements Plans and Minor Capital Projects</b>						
No.	Description	FY 2019-20 Budget	Hillsboro	Forest Grove	Beaverton	Tualatin Valley Water District
1	Facility Plan, CIMP, & 75 MGD Projects 11011	1,821,123	819,506	242,816	455,281	303,521
	Ownership %'s:	100%	45.00%	13.33%	25.00%	16.67%
2	JWC WTP Expansion to 85 MGD 10571	2,137,841	1,710,272	-	-	427,568
		100%	80.00%	0.00%	0.00%	20.00%
3	JWC-02-Fern Hill Repairs	600,000	270,000	80,000	150,000	100,000
		100%	45.00%	13.33%	25.00%	16.67%
4	JWC Water Line Cathodic Protection	120,000	58,944	14,112	26,472	20,472
		100%	49.12%	11.76%	22.06%	17.06%
5	JWC Powder Activated Carbon Injection System Expansion	150,000	73,680	17,640	33,090	25,590
		100%	49.12%	11.76%	22.06%	17.06%
6	JWC Capital Repair/replacement	-	-	-	-	-
		0%	0.00%	0.00%	0.00%	0.00%
7	JWC Spring Hill Pumping Plant Mitigation Project	225,000	110,520	26,460	49,635	38,385
		100%	49.12%	11.76%	22.06%	17.06%
8	JWC Intake Facility Expansion Site	600,000	294,720	70,560	132,360	102,360
		100%	49.12%	11.76%	22.06%	17.06%
9	New Tualatin River Permit Application - 11184	15,000	6,750	2,000	3,750	2,500
		100%	45.00%	13.33%	25.00%	16.67%
10	New WQ Database Software (To Replace Access)	30,000	13,500	4,000	7,500	5,000
11	BW Flowmeter	31,600	14,220	4,213	7,900	5,267
		100%	45.00%	13.33%	25.00%	16.67%
12	Fernhill Security Camera Upgrades	11,500	5,175	1,533	2,875	1,917
		100%	45.00%	13.33%	25.00%	16.67%
13	Main Programmable Logic Controller Upgrade	15,000	6,750	2,000	3,750	2,500
		100%	45.00%	13.33%	25.00%	16.67%
14	Replacement WQ instrument	35,000	15,750	4,667	8,750	5,833
		100%	45.00%	13.33%	25.00%	16.67%
15	Septic Tank & Drain field	18,000	8,100	2,400	4,500	3,000
		100%	45.00%	13.33%	25.00%	16.67%
16	Cloud Migration of SCADA Data for JWC WTP	40,000	18,000	5,333	10,000	6,667
		100%	45.00%	13.33%	25.00%	16.67%
17	JWC Supplemental Permit Application	-	-	-	-	-
		100%	45.00%	13.33%	25.00%	16.67%
18	Vehicles	84,000	37,800	11,200	21,000	14,000
		100%	45.00%	13.33%	25.00%	16.67%
19	JWC Replace finished water 2 & 6 pumps & motors	200,000	98,240	23,520	44,120	34,120
		100%	49.12%	11.76%	22.06%	17.06%
20	JWC Replace finished water (FW) 1 pump and motor and FW4	100,000	49,120	11,760	22,060	17,060
		100%	49.12%	11.76%	22.06%	17.06%
	<b>Project Capital Outlay</b>	<b>6,234,064</b>	<b>3,611,047</b>	<b>524,215</b>	<b>983,043</b>	<b>1,115,759</b>
	JWC Emergency Replacement & Acquisitions	2,000,000	982,400	235,200	441,200	341,200
	Ownership %'s:	100%	49.12%	11.76%	22.06%	17.06%
	<b>Total</b>	<b>8,234,064</b>	<b>4,593,447</b>	<b>759,415</b>	<b>1,424,243</b>	<b>1,456,959</b>
	Total from Administration Worksheet (CIP Total)	7,953,964	-			
	Total from Operations Worksheet (Minor Capital Total)	280,100	-			
	<b>Worksheets Total</b>	<b>8,234,064</b>				
	Difference	-				
	Less: North Plains SDC	(150,000)	(73,680)	(17,640)	(33,090)	(25,590)
		100%	49.12%	11.76%	22.06%	17.06%



<b>Joint Water Commission (JWC) - FY 2019-20 PROPOSED BUDGET</b>						
<b>Descriptions of Capital Improvements Plans and Minor Capital Projects</b>						
No.	Description	FY 2019-20 Budget	Hillsboro	Forest Grove	Beaverton	Tualatin Valley Water District
	<b>Total Projects &amp; Equipment Less North Plains SDC</b>	<b>8,084,064</b>	<b>4,519,767</b>	<b>741,775</b>	<b>1,391,153</b>	<b>1,431,369</b>
	Contingency	\$ 500,000	245,600	58,800	110,300	85,300
		100%	49.12%	11.76%	22.06%	17.06%
	<b>Total Project Capital Outlay with Contingency</b>	<b>\$ 8,734,064</b>	<b>\$ 4,839,047</b>	<b>\$ 818,215</b>	<b>\$ 1,534,543</b>	<b>\$ 1,542,259</b>

**No. Description:**

**See individual project description sheets for estimated total project costs.**

- 1,2 JWC WTP Upgrade & Expansion** - This is a continuation from current fiscal year. There are several key components of this project. 1) Return the WTP to its rated capacity of 75 MGD. Each partner will have a capacity share responsibility for this. 2) Expand the capacity from 75 to 85 MGD. Hillsboro will take 8 MGD of this expansion and TVWD will take 2 MGD of this expansion. 3) Design life safety improvements as recommended in the 2008 seismic study and further prioritized by Carollo in the Seismic CIP program; and 4) Perform a facility plan for the proposed build-out of the WTP based on the Willamette Supply decision. The facility plan and treatment plant expansion design was awarded to CH2M and started in the second half FY 15-16. Slayden Construction was selected as the CM/GC contractor for the project. Package I WTP improvement started in February 2017. Package II construction started in November 2017. Expansion is expected to be complete in summer 2019. The estimate for the total design and construction cost of these improvements is approximately \$35,000,000 including staff time, consulting services, the GMP for Package I and II, and a contingency budget of approximately \$1.5 million. For budget purposes the allocated budget is based on current ownership and ownership in the expansion capacity. The project budget allocates 46% of the project to the Facility Plan, CIMP and 75 MGD projects; and 54% of the project to the 85 MGD Expansion. Assumes \$1.4M will be rolled from FY18-19 to FY 19-20 due to concrete demolition and construction.
  
- 3 JWC-02-Fern Hill Repairs** - In June 2017, routine diving inspection of Fern Hill Reservoir #1 revealed concrete spalling around the interior perimeter of the tank. JWC contracted with OBEC Consulting Engineers to perform a full-reservoir internal inspection ("boat float") and external inspection. Their report dated December 15, 2017 indicated that cosmetic repairs were required on the interior of the tank to address the spalling. In addition, OBEC identified that the exterior roof needs repairs to seal and prevent further existing concrete cracking, protect exposed rebar, and fix poor drainage. Estimates for the repairs (including engineering services and contingency) were provided by OBEC in a total of \$525,000. Design work will be performed in FY 18/19. Construction work will be performed in FY 19/20.
  
- 4 JWC Water Line Cathodic Protection** - Multiyear project to install cathodic protection devices to water transmission lines. FY 19-20 budget is for a study to identify optimal placement. Inspection will assess soil conditions and other factors to identify specific locations to install anodes. Thereafter, the budget is for installation of cathodic protection devices on identified sections of pipelines until project completion. Will increase the useful life of assets by reducing corrosion
  
- 5 JWC Powder Activated Carbon Injection System Expansion** - This project will expand the limited capacity to inject powder activated carbon (PAC) into the water treatment system. Current system is a single injector, but two injectors are needed. The project includes a second PAC injector system telemetry systems and controls, and a new PAC climate controlled storage building. PAC will be integrated in the WTP as a "WTP process". Two year project with \$150,000 for an engineering report, then \$700,000 for upgraded system Equipment and climate controlled building to store carbon.

<b>Joint Water Commission (JWC) - FY 2019-20 PROPOSED BUDGET</b>						
<b>Descriptions of Capital Improvements Plans and Minor Capital Projects</b>						
<b>No.</b>	<b>Description</b>	<b>FY 2019-20 Budget</b>	<b>Hillsboro</b>	<b>Forest Grove</b>	<b>Beaverton</b>	<b>Tualatin Valley Water District</b>
7	<p><b>JWC Spring Hill Pumping Plant Mitigation Project - JWC SHPP Fish Screen Mitigation Plan and Project</b> - The fish screen at the Spring Hill Pump Plant (SHPP) does not meet criteria set by National Marine Fisheries Service (NMFS) and the Oregon Department of Fish and Wildlife (ODFW). When JWC submitted a new supplemental water right application on the Tualatin River for non-peak season flows, ODFW let us know that they will not approve the water right without a fish screen that meets their criteria (including approach velocities, sweeping velocities, and slot size). NMFS has signed off on the fish screen due to the small number of endangered and threatened fish that are present, so the Bureau of Reclamation and Tualatin Valley Irrigation District do not have any motivation or requirement to update the fish screen of the facility. In order to avoid paying costs associated with the entire SHPP, JWC proposed mitigation in lieu of fish screen or intake replacement. JWC completed a fish passage and impingement study over the last year that indicates that a mitigation project will be required for the JWC portion of the intake. JWC is investigating a small culvert replacement for the mitigation project. JWC staff will investigate developing a partnership agreement with Washington County, Stimson Lumber Company, Weyerhaeuser Company to develop a project agreement where they would construct the project and JWC would reimburse them for the project expense.</p> <p>Budget Cost Estimates</p> <p>FY18/19 \$75,000 – Development and finalizing approval of a Mitigation Plan (still waiting on final scope of work from GSI) – Do we have the capital budget for this in the current fiscal year.  FY19/20 \$225,000 – Planning, design and permitting cost allocation of the mitigation project  FY20/21 \$500,000 – Construction (likely proposing a culvert replacement)</p>					
8	<p><b>JWC Land Purchase - New intake Facility</b> - Purchase land to site a new intake facility in the future. This will replace the existing intake facility with a larger intake.</p>					
9	<p><b>New Tualatin River Permit Application - 11184</b> - A new budgeted item continues a project started in FY17-18. This project will create an application for a new water right on the Tualatin River for use at the JWC WTP and submit to OWRD for approval.</p>					
10	<p><b>New WQ Database Software (To Replace Access)</b> - This Water Information Management Solution (WIMS) was originally budgeted in FY16-17 for \$80,000 to cover costs for both software license and IS required hardware. The budget in FY17-18 was erroneously decreased to only cover the software costs. This additional amount restores the project to its full budget when included with the FY 17-18 funds. The total cost for HachWIMS is to be split 25% split between Hillsboro Resources, Hillsboro Ops, JWC Ops, and BRJOC Ops.</p>					
11	<p><b>BW Flowmeter</b> - Replace BW flow meters for filters 1-8 and 9-14. The meters have exceeded their life expectancy and are starting to have issues. Quote from vendor for dual transducer ultrasonic.</p>					
12	<p><b>Fernhill Security Camera Upgrades</b> - Existing cameras are failing and need to be replaced with cameras that meet Hillsboro's system spec's. Also to include updating the networking and auxiliary support system.</p>					
13	<p><b>Main Programmable Logic Controller Upgrade</b> - This is to replace the main PLC controller and Main PLC redundant controller. The existing controllers are no longer supported by the manufacturer, can no longer be upgraded and do not support current products.</p>					
14	<p><b>Replacement WQ Instrument</b> - This would replace the ZAPS unit with a new unit (YSI EXO sonde or other) with similar parameters. ZAPS went bankrupt this past year and service and parts are unavailable. This will be for the purchase, installation and programming of a new water quality instrument.</p>					
15	<p><b>Septic Tank &amp; Drain field Replacement</b> - The current septic tank and drain field are undersized for the WTP load. This is to replace the septic tank and pump station to an appropriately sized tank and pumps. This will also update the pump electrical and control panel. Modifications or replacement of the drain field may be required for system functionality.</p>					
16	<p><b>Cloud Migration</b> - The budget estimate is a placeholder to convert the data for JWC SCADA system onto a cloud based server. This will resolve the issue associated with the JWC data firewall, which is preventing the implementation and use of SEEQ for a JWC application. There is a cost to JWC since a specific server was purchased for Hillsboro/Barney data in last fiscal year.</p>					
17	<p><b>Supplemental Permit Application - New Tualatin River Permit Application - 11184</b> - A new budgeted item continues a project started in FY17-18. This project will create an application for a new water right on the Tualatin River for use at the JWC WTP and submit to OWRD for approval.</p>					

<b>Joint Water Commission (JWC) - FY 2019-20 PROPOSED BUDGET</b>						
<b>Descriptions of Capital Improvements Plans and Minor Capital Projects</b>						
<b>No.</b>	<b>Description</b>	<b>FY 2019-20 Budget</b>	<b>Hillsboro</b>	<b>Forest Grove</b>	<b>Beaverton</b>	<b>Tualatin Valley Water District</b>
<b>18</b>	<p><b>Vehicles</b>  Replacement of a 2000 Chevrolet Silverado 2500 (#907) and a boat truck. The truck is past its useful life and is not equipped with current safety features. The boat truck is needed because the current tow vehicle is not equipped with a proper tow package which creates challenges using the boat ramp.</p> <p>Sampling Truck - The WQ group needs a larger, more powerful truck for watershed and reservoir sampling. The current vehicle does not safely hold all the equipment required for these sampling events and does not have adequate power to launch the boat during some conditions at Barney Reservoir and Hagg Lake.</p> <p>Purchase of used Colorado from COH (Systems Analyst) - The JWC is purchasing a share of this vehicle (291- Chevy Colorado) as a replacement vehicle for Paul Meade. He works for the JWC 50% of the time and the City of Hillsboro Water Operations the other half.</p> <p>Truck for Systems Analyst - This vehicle is for the new systems analyst hired last year. He works 50% for the JWC and 50% for the City of Hillsboro Water Operations.</p>					
<b>19</b>	<p><b>Replace finished water #2 &amp; #6 pumps &amp; motors</b> - Routine replacement of pumps and motors nearing end of life. Existing pumps from the 1970's, so no spare parts, energy inefficient, and unreliable. Two year project with \$1 million total project budget. Pumps #3 &amp; #5 were previously replaced.</p>					
<b>20</b>	<p><b>Replace finished water #1 pump and motor and #4 motor</b> - This also a routine replacement of equipment at or near end of life. To reduce costs, this project is being timed to coincide with the replacement of the finished water two and six pumps and motors. From the placement of the equipment order, it can take nine months for delivery. FY 2019-20 budget is for design and specifications and for a downpayment on the new equipment order.</p>					

**JWC/BRJOC EMPLOYEE ALLOCATION - FY 2019-20 PROPOSED BUDGET**

Job Title	JWC		BRJOC	
	Administration	Operations	Administration	Operations
ADMIN SUPPORT SPECIALIST	65.0%		3.0%	
ADMIN SUPPORT SPECIALIST	10.0%			
ADMIN SUPPORT SPECIALIST		1.0%		1.0%
ADMIN SUPPORT SUPERVISOR	10.0%		2.0%	
DIRECTOR WATER	15.0%		5.0%	
ELECTRICIAN		98.0%		1.0%
ENGINEERING COORDINATOR		5.0%		
ENGINEERING COORDINATOR		5.0%		
INFORMATION SYSTEMS ANALYST		50.0%		
INFORMATION SYSTEMS ANALYST		50.0%		
LEAD WATER PLANT OPERATOR		98.0%		1.0%
LEAD WATER PLANT OPERATOR		98.0%		1.0%
LEAD WATER PLANT OPERATOR		98.0%		1.0%
LEAD WATER PLANT OPERATOR		94.0%		2.0%
LEAD WATER PLANT OPERATOR		94.0%		2.0%
LEAD WATER PLANT OPERATOR		10.0%		
LEAD WATER PLANT OPERATOR		5.0%		5.0%
LEAD WATER PLANT OPERATOR		1.0%		1.0%
LEAD WATER PLANT OPERATOR		98.0%		1.0%
MAINTENANCE COORDINATOR		98.0%		1.0%
MANAGEMENT ANALYST	30.0%		10.0%	
PRINCIPAL ENGR		8.0%		2.0%
PROGRAM & SUPPORT MANAGER		20.0%		5.0%
PROGRAM & SUPPORT MANAGER		2.0%		
PROJECT ENGINEER		5.0%		5.0%
PROJECT MANAGER	95.0%			
PROJECT MANAGER		20.0%		2.0%
PROJECT SPECIALIST		100.0%		
PROJECT SPECIALIST		55.0%		20.0%
PROJECT SPECIALIST		40.0%		10.0%
PROJECT SPECIALIST		40.0%		10.0%
SENIOR ENGINEERING TECHNICIAN		10.0%		
SENIOR ENGINEERING TECHNICIAN		5.0%		
SENIOR ENGINEERING TECHNICIAN		5.0%		
SENIOR FACILITIES & MAINT TECH		98.0%		1.0%
SENIOR PROGRAM MANAGER	90.0%			
SENIOR PROGRAM MANAGER	40.0%		1.0%	
SENIOR PROGRAM MANAGER	8.0%			2.0%
SENIOR PROGRAM MANAGER		45.0%		10.0%
SENIOR WATER PLANT OPERATOR		98.0%		1.0%
SENIOR WATER TECHNICIAN		1.0%		1.0%
SUPERVISING ELECTRICIAN		10.0%		10.0%
WATER DISTRIBUTION COORDINATOR		2.0%		
WATER DISTRIBUTION COORDINATOR		2.0%		
WATER DISTRIBUTION COORDINATOR		1.0%		
WATER DISTRIBUTION OPERATOR		2.0%		1.0%
WATER DISTRIBUTION OPERATOR		2.0%		
WATER DISTRIBUTION OPERATOR		2.0%		
WATER DISTRIBUTION OPERATOR		2.0%		
WATER DISTRIBUTION OPERATOR		1.0%		2.0%
WATER DISTRIBUTION OPERATOR		1.0%		
WATER DISTRIBUTION OPERATOR		1.0%		
WATER DISTRIBUTION OPERATOR		1.0%		1.0%
WATER LAB COORDINATOR		85.0%		5.0%
WATER PLANT COORDINATOR	90.0%	5.0%		5.0%
WATER PROGRAM COORDINATOR		45.0%		5.0%
WATER PROGRAM COORDINATOR		45.0%		10.0%
WATER RESOURCE SPECIALIST		60.0%		20.0%
WATER RESOURCE SPECIALIST		40.0%		10.0%
<b>Personnel Services (Allocation) Totals - Proposed FY 2019-20</b>	<b>4.5</b>	<b>18.1</b>	<b>0.2</b>	<b>2.2</b>
<b>Total Count</b>		<b>22.6</b>		<b>2.4</b>
<b>Total Employee Count</b>		<b>JWC</b>		<b>BRJOC</b>
FY 19-20		22.6		2.4
FY 18-19		23.4		2.5
FY 17-18		24.0		2.2
FY 16-17		21.7		1.7
FY 15-16		20.7		2.4
FY 14-15		21.4		2.2

<b>JWC WTP Upgrade</b>				
<b>Item Description</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Cost</b>	
Preconstruction Services	\$ 85,100	1	\$	85,100
Construction & WTP Expansion	\$ 12,475,493	1	\$	12,475,500
Engineering Services	\$ 2,448,520	1	\$	2,448,500
Project Manager Hours	\$ 33	4,200	\$	136,700
Engineering Associate Hours	\$ 27	1,100	\$	29,300
Inspector Hours	\$ 24	4,000	\$	96,100
Misc. (Permitting, SCADA, etc.)	\$ 115,000	1	\$	115,000
3rd Party Inspection and Contingency	\$ 676,994	1	\$	676,994
<b>Total Budget</b>			<b>\$</b>	<b>16,100,000</b>
FY 15-16 Actual			\$	118,403
FY 16-17 Actual			\$	1,103,745
FY 17-18 Actual			\$	4,837,032
FY 18-19 Budget			\$	6,785,000
FY 19-20 Budget			\$	1,821,123
<b>JWC WTP Upgrade</b>				
<p>This is a continuation from current fiscal year. There are several key components of this project. 1) Return the WTP to its rated capacity of 75 MGD. Each partner will have a capacity share responsibility for this. 2) Design life safety improvements as recommended in the 2008 seismic study and further prioritized by Carollo in the Seismic CIP program; and 3) Perform a facility plan for the proposed build-out of the WTP based on the Willamette Supply decision. The facility plan CH2M and started in the second half FY 15-16. Slayden Construction was selected as the CM/GC contractor for the project. Package I WTP improvement started in February 2017. The improvements are scheduled to be complete in fall 2019. Package II construction started in November 2017. The estimates for the total design and construction cost of these improvements is approximately \$16,100,000 including staff time, consulting services, the GMP for Package I and II, and a contingency budget of approximately \$1.5 million. For budget purposes the allocated budget is based on current ownership. Assumes \$644,000 will be rolled from FY18-19 to FY 19-20 due to concrete demolition and construction.</p>				
<p><b>For budget purposes the allocated budget is based on current ownership and ownership in the expansion. Preliminary budget estimates allocated 46% of the project to the Facility Plan, CIMP and 75 MGD projects; and 54% of the project to the 85 MGD Expansion. These allocations were refined as pricing was received from the CM/GC contractor.</b></p>				
<b>Facility Plan, CIMP and 75 MGD Projects</b>				
	<b>Percentage of Total Project Budget</b>			
<b>Partner</b>	<b>FY 19-20 Budget</b>	<b>% Ownership</b>	<b>Partner Budget</b>	
Hillsboro	\$ 1,821,123	45.00%	\$	819,506
Forest Grove	\$ 1,821,123	13.33%	\$	242,816
Beaverton	\$ 1,821,123	25.00%	\$	455,281
TVWD	\$ 1,821,123	16.67%	\$	303,521
		<b>Total</b>	\$	<b>1,821,123</b>

<b>JWC WTP Expansion</b>			
<b>Item Description</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Cost</b>
Preconstruction Services	\$ 99,900	1	\$ 99,900
Construction & WTP Expansion	\$ 14,645,144	1	\$ 14,645,100
Engineering Services	\$ 2,874,350	1	\$ 2,874,300
Project Manager Hours	\$ 38	4,200	\$ 160,500
Engineering Associate Hours	\$ 31	1,100	\$ 34,400
Inspector Hours	\$ 28	4,000	\$ 112,900
Misc. (Permitting, SCADA, etc.)	\$ 135,000	1	\$ 135,000
3rd Party Inspection and Contingency	\$ 794,732	1	\$ 794,732
<b>Total Budget</b>			<b>\$ 18,900,000</b>
FY 15-16 Actual			\$ 302,164
FY 16-17 Actual			\$ 2,816,740
FY 17-18 Actual			\$ 5,678,256
FY 18-19 Budget			\$ 7,965,000
FY 19-20 Budget			\$ 2,137,841
This project is in conjunction with the expansion for a total project cost of \$35 million dollars			
<b>JWC Water Treatment Plant Expansion*</b>			
<p>This is a continuation from current fiscal year. The key component of this project is to expand the capacity from 75 to 85 MGD. Hillsboro will take 8 MGD of this expansion and TVWD will take 2 MGD. The treatment plant expansion design was awarded to CH2M and started in the second half of FY 15-16. Slayden Construction was selected as the CM/GC contractor for the project. Package I WTP improvement started in February 2017. Package II construction started in November of 2017. The Expansion is expected to be complete in fall 2019. The estimate for the total design and construction cost of these improvements is approximately \$18,900,000 including staff time, consulting services, the GMP for Package I and II, and a contingency budget of approximately \$1.5M. Assumes \$756,000 will be rolled from FY 18-19 to FY 19-20 due to concrete demolition and construction.</p>			
<p><b>For budget purposes the allocated budget is based on current ownership and ownership in the expansion. Preliminary budget estimates allocated 46% of the project to the Facility Plan, CIMP and 75 MGD projects; and 54% of the project to the 85 MGD Expansion. These allocations were refined as pricing was received from the CM/GC contractor.</b></p>			
<b>Up to 85 MGD Expansion</b>			
	<b>Percentage of Total Project Budget</b>		
<b>Partner</b>	<b>FY 19-20 Budget</b>	<b>% Ownership</b>	<b>Partner Budget</b>
Hillsboro	\$ 2,137,841	80.00%	\$ 1,710,272
Forest Grove	\$ 2,137,841	0.00%	\$ -
Beaverton	\$ 2,137,841	0.00%	\$ -
TVWD	\$ 2,137,841	20.00%	\$ 427,568
		Total	\$ 2,137,841

<b>Fern Hill Reservoir #1 Repairs</b>			
<b>Item Description</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Cost</b>
Engineering Services	\$ 100,000	1	\$ 100,000
Construction	\$ 500,000	1	\$ 500,000
Project Manager Hours	\$ 70.75	40	\$ 2,830
Engineering Associate Hours	\$ 57.88	60	\$ 3,473
Inspector Hours	\$ 52.25	60	\$ 3,135
Misc. (Permitting, SCADA, etc.)	\$ 50,000	1	\$ 50,000
<b>Total Budget</b>			<b>\$ 700,000</b>
FY 18-19 Budget			\$ 100,000
FY 19-20 Budget			\$ 600,000
<b><u>JWC Fern Hill Reservoir 1 Repair*</u></b>			
<p>In June 2017, routine diving inspection of Fern Hill Reservoir #1 revealed concrete spalling around the interior perimeter of the tank. JWC contracted with OBEC Consulting Engineers to perform a full-reservoir internal inspection ("boat float") and external inspection. Their report dated December 15, 2017 indicated that cosmetic repairs were required on the interior of the tank to address the spalling. In addition, OBEC identified that the exterior roof needs repairs to seal and prevent further existing concrete cracking, protect exposed rebar, and fix poor drainage. Estimates for the repairs (including engineering services and contingency) were provided by OBEC in a total of \$525,000. Design work will be performed in FY 18/19. Construction work will be performed in FY 19/20.</p>			
<b>Fern Hill Reservoir #1 Repairs</b>			
<b>Partner</b>	<b>FY 19-20 Budget</b>	<b>% Ownership</b>	<b>Partner Budget</b>
Hillsboro	\$ 600,000	45.00%	\$ 270,000
Forest Grove	\$ 600,000	13.33%	\$ 80,000
Beaverton	\$ 600,000	25.00%	\$ 150,000
TVWD	\$ 600,000	16.67%	\$ 100,000
		<b>Total</b>	<b>\$ 600,000</b>

<b>JWC Replace Finished Water 2 &amp; 6 Pumps and Motors</b>				
<b>Item Description</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Cost</b>	
Engineering Services	\$ 100,000	1	\$ 100,000	
Construction	\$ 870,000	1	\$ 870,000	
Project Manager Hours	\$ 70.75	40	\$ 2,800	
Engineering Associate Hours	\$ 57.88	40	\$ 2,300	
Inspector Hours	\$ 52.25	40	\$ 2,100	
Misc. (Permitting, SCADA, etc.)	\$ 20,000	1	\$ 20,000	
<b>Total Budget</b>			<b>\$ 1,000,000</b>	
FY 18-19 Budget			\$ -	
FY 19-20 Budget			\$ 200,000	
FY 20-21 Budget			\$ 800,000	
<b>JWC Replace finished water 2 &amp; 6 pumps &amp; motors</b>				
Routine replacement of pumps and motors nearing end of life. Pumps two and six. Replace finished water 2 & 6 pumps and motors. Existing pumps 2 & 6 are from the 1970's, so no spare parts, energy inefficient, and unreliable. Two year project with \$1,030,000 total project budget				
Pumps 3 & 5 were previously replaced. 1 & 4 will be a concurrent project.				
<b>JWC Replace Finished Water 2 &amp; 6 Pumps and Motors</b>				
<b>Partner</b>	<b>FY 19-20 Budget</b>	<b>% Ownership</b>	<b>Partner Budget</b>	
Hillsboro	\$ 200,000	49.12%	\$ 98,240	
Forest Grove	\$ 200,000	11.76%	\$ 23,520	
Beaverton	\$ 200,000	22.06%	\$ 44,120	
TVWD	\$ 200,000	17.06%	\$ 34,120	
		<b>Total</b>	<b>\$ 200,000</b>	



<b>FW Pumps and Motors 1 &amp; 4</b>				
<b>Item Description</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Cost</b>	
Engineering Services	\$ 50,000	1	\$	50,000
Construction	\$ 265,000	1	\$	265,000
Project Manager Hours	\$ 80.00	40	\$	3,200
Engineering Associate Hours	\$ 57.88	40	\$	2,315
Inspector Hours	\$ 52.25	40	\$	2,090
Misc. (Permitting, SCADA, etc.)	\$ 20,000	1	\$	20,000
<b>Total Budget</b>			<b>\$</b>	<b>350,000</b>
FY 18-19 Budget			\$	-
FY 19-20 Budget			\$	100,000
FY 20-21 Budget			\$	250,000
<b>JWC Replace finished water (FW) 1 pump and motor and FW4 motor</b>				
Routine replacement of pumps and motors nearing end of life. Replacement of FW1 pump & motor, and FW4 motor. Two year project with \$350,000 total project budget Pumps 3 & 5 were previously replaced. This was moved up in the CIP to FY 2019-20 to maximize savings by engineering and installing the them at the same time at FW 2&6.				
<b>JWC Replace finished water (FW) 1 pump and motor and FW4 motor</b>				
<b>Partner</b>	<b>FY 19-20 Budget</b>	<b>% Ownership</b>	<b>Partner Budget</b>	
Hillsboro	\$ 100,000	49.12%	\$	49,120
Forest Grove	\$ 100,000	11.76%	\$	11,760
Beaverton	\$ 100,000	22.06%	\$	22,060
TVWD	\$ 100,000	17.06%	\$	17,060
		<b>Total</b>	<b>\$</b>	<b>100,000</b>

<b>JWC Water Line Cathodic Protection</b>			
<b>Item Description</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Cost</b>
Engineering Services	\$ 110,000	1	\$ 110,000
Construction	\$ -	-	\$ -
Project Manager Hours	\$ 70.75	40	\$ 2,830
Engineering Associate Hours	\$ 57.88	50	\$ 2,894
Inspector Hours	\$ 52.25	-	\$ -
Misc. (Permitting, SCADA, etc.)	\$ 20,000	-	\$ -
<b>Total Budget</b>			<b>\$ 120,000</b>
FY 18-19 Budget			\$ -
FY 19-20 Budget			\$ 120,000

**JWC Water Line Cathodic Protection**  
 Multiyear project to install cathodic protection devices to water transmission lines. FY 19-20 budget is for a study to identify optimal placement. Inspection will assess soil conditions and other factors to identify specific locations to install anodes. Thereafter, the budget is for installation of cathodic protection devices on identified sections of pipelines until project completion. Will increase the useful life of assets by reducing corrosion.

<b>JWC Water Line Cathodic Protection</b>			
<b>Partner</b>	<b>FY 19-20 Budget</b>	<b>% Ownership</b>	<b>Partner Budget</b>
Hillsboro	\$ 120,000	49.12%	\$ 58,944
Forest Grove	\$ 120,000	11.76%	\$ 14,112
Beaverton	\$ 120,000	22.06%	\$ 26,472
TVWD	\$ 120,000	17.06%	\$ 20,472
		Total	\$ 120,000

<b>JWC Powder Activated Carbon Injection System Expansion</b>				
<b>Item Description</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Cost</b>	
Engineering Services	\$ 160,000	1	\$ 160,000	
Construction	\$ 620,000	1	\$ 620,000	
Project Manager Hours	\$ 70.75	200	\$ 14,150	
Engineering Associate Hours	\$ 57.88	40	\$ 2,315	
Inspector Hours	\$ 52.25	40	\$ 2,090	
Misc. (Permitting, SCADA, etc.)	\$ 50,000	1	\$ 50,000	
<b>Total Budget</b>			<b>\$ 850,000</b>	
FY 18-19 Budget			\$ -	
FY 19-20 Budget			\$ 150,000	
FY 20-21 Budget			\$ 700,000	

**JWC Powder Activated Carbon Injection System Expansion**

This project will expand the limited capacity to inject powder activated carbon (PAC) into the water treatment system. Current system is a single injector, but two injectors would be needed to treat the water in the event of a cyanotoxin event.

The project includes a second PAC injector system, telemetry systems and controls, and a new PAC climate controlled storage building. PAC will be integrated in the WTP as a "WTP process".

Two year project with \$150,000 for an engineering report, then \$700,000 for upgraded system Equipment and climate controlled building to store carbon.

<b>JWC Powder Activated Carbon Injection System Expansion</b>				
<b>Partner</b>	<b>FY 19-20 Budget</b>	<b>% Ownership</b>	<b>Partner Budget</b>	
Hillsboro	\$ 150,000	49.12%	\$ 73,680	
Forest Grove	\$ 150,000	11.76%	\$ 17,640	
Beaverton	\$ 150,000	22.06%	\$ 33,090	
TVWD	\$ 150,000	17.06%	\$ 25,590	
		<b>Total</b>	<b>\$ 150,000</b>	

### JWC Spring Hill Pumping Plant Mitigation Project

Item Description	Unit Cost	Quantity	Cost
Engineering Services	\$ 225,000	1	\$ 225,000
Construction	\$ 550,000	1	\$ 550,000
Project Manager Hours	\$ 70.75	40	\$ 2,830
Engineering Associate Hours	\$ 57.88	0	\$ -
Inspector Hours	\$ 52.25	20	\$ 1,045
Misc. (Permitting, SCADA, etc.)	\$ -	0	\$ -
<b>Total Budget</b>			<b>\$ 800,000</b>
FY 18-19 Budget			\$ 75,000
FY 19-20 Budget			\$ 225,000
FY 20-21 Budget			

### JWC Spring Hill Pumping Plant Mitigation Project

JWC SHPP Fish Screen Mitigation Plan and Project - The fish screen at the Spring Hill Pump Plant (SHPP) does not meet criteria set by National Marine Fisheries Service (NMFS) and the Oregon Department of Fish and Wildlife (ODFW). When JWC submitted a new supplemental water right application on the Tualatin River for non-peak season flows, ODFW let us know that they will not approve the water right without a fish screen that meets their criteria (including approach velocities, sweeping velocities, and slot size). NMFS has signed off on the fish screen due to the small number of endangered and threatened fish that are present, so the Bureau of Reclamation and Tualatin Valley Irrigation District do not have any motivation or requirement to update the fish screen of the facility. In order to avoid paying costs associated with the entire SHPP, JWC proposed mitigation in lieu of fish screen or intake replacement. JWC completed a fish passage and impingement study over the last year that indicates that a mitigation project will be required for the JWC portion of the intake. JWC is investigating a small culvert replacement for the mitigation project. JWC staff will investigate developing a partnership agreement with Washington County, Stimson Lumber Company, Weyerhaeuser Company to develop a project agreement where they would construct the project and JWC would reimburse them for the project expense.

#### Budget Cost Estimates

FY18/19 \$75,000 – Development and finalizing approval of a Mitigation Plan

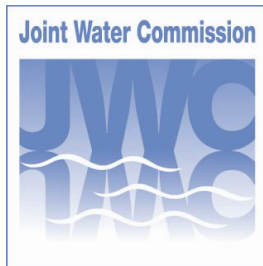
FY19/20 \$225,000 – Planning, design and permitting cost allocation of the mitigation project

FY20/21 \$500,000 – Construction (likely proposing a culvert replacement)

### JWC Spring Hill Pumping Plant Mitigation Project

Partner	FY 19-20 Budget	% Ownership	Partner Budget
Hillsboro	\$ 225,000	49.12%	\$ 110,520
Forest Grove	\$ 225,000	11.76%	\$ 26,460
Beaverton	\$ 225,000	22.06%	\$ 49,635
TVWD	\$ 225,000	17.06%	\$ 38,385
		Total	\$ 225,000

<b>JWC Intake Facility Expansion Site</b>			
<b>Item Description</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Cost</b>
Engineering Services	\$ -	-	\$ -
Construction	\$ -	-	\$ -
Project Manager Hours	\$ 70.75	14	\$ 991
Engineering Associate Hours	\$ 57.88	-	\$ -
Inspector Hours	\$ 52.25	-	\$ -
Misc. (Permitting, SCADA, etc.) - Land purchase	\$ 599,000	1	\$ 599,000
<b>Total Budget</b>			<b>\$ 600,000</b>
FY 18-19 Budget			\$ -
FY 19-20 Budget			\$ 600,000
<b>JWC Intake Facility Expansion Site</b>			
Purchase land to site a new intake facility in the future. This will replace the existing intake facility with a larger intake.			
<b>JWC Intake Facility Expansion Site</b>			
<b>Partner</b>	<b>FY 19-20 Budget</b>	<b>% Ownership</b>	<b>Partner Budget</b>
Hillsboro	\$ 600,000	49.12%	\$ 294,720
Forest Grove	\$ 600,000	11.76%	\$ 70,560
Beaverton	\$ 600,000	22.06%	\$ 132,360
TVWD	\$ 600,000	17.06%	\$ 102,360
		Total	\$ 600,000



## STAFF REPORT

To: Joint Water Commission

From: Michelle Molgaard, Management Analyst

Date: April 12, 2019

Re: Agenda Item 4B – Consider approval of two separate leases: one for stored raw water and the other for north transmission facilities capacity.

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### **Staff Recommendation:**

Approve the lease of 580 acre feet (AF) of stored water to Tualatin Valley Water District (TVWD) for the lease year ending February 29, 2020, and a lease of 2.1 million gallons per day capacity (MGD) in the North Transmission Line to City of Beaverton (Beaverton) for three lease years, ending February 28, 2022.

### **Background:**

Pursuant to Article VII of the JWC Intergovernmental Agreement, TVWD has requested a standard one-year lease of 580 AF of stored raw water from the other partners. Forest Grove made available a total of 580 AF to be leased. The stored water lease will make stored raw water available to TVWD from both Barney Reservoir and Hagg Lake, beginning April 12, 2019, through February 29, 2020. The stored raw water available to Forest Grove will be decreased by their shares of the lease amount through the same period.

Pursuant to Article VII of the JWC Intergovernmental Agreement, Beaverton has requested a three-year lease of 2.1 MGD transmission capacity in the North Transmission Line from the other partners. City of Hillsboro (Hillsboro) and TVWD made available 2.1 MGD of North Transmission Line capacity (1.05 MGD each) to be leased. The transmission facilities capacity lease will make 2.1 MGD capacity available to Beaverton, which will increase their total North Transmission Line capacity from 2.1 MGD to 2.2 MGD, beginning April 12, 2019, through February 28, 2022.

If the lease request is approved by the Commission, the Lease Agreement will be distributed for signature by the parties. The full lease value amount will be invoiced immediately. The lease valuation of stored raw water was updated recently to \$96.97 per AF, resulting in a total lease cost of \$56,243 for 580 AF. The lease valuation of North Transmission Line capacity was updated recently to \$37,795 per MGD, resulting in a total lease cost of \$79,370, or \$39,685 for each of the lessor partners.

### **Attachments:**

1. Lease Agreements (B1 and B2)
2. FY 2019-20 Lease payments worksheets (B1a and B2a)

## LEASE OF STORED RAW WATER

This Lease of Stored Water (“Agreement”), dated April 12, 2019, is between the City of Forest Grove and (“Lessor”) and Tualatin Valley Water District (“Lessee”).

### RECITALS

WHEREAS, the parties to this Agreement are members of the Joint Water Commission – Hillsboro, Forest Grove, Beaverton, and Tualatin Valley Water District (“JWC”), an intergovernmental entity formed pursuant to ORS Ch. 190 by agreement (“Water Service Agreement”); and

WHEREAS, the Water Service Agreement, among other things, requires each JWC member to have sufficient capacity in stored raw water to serve its demands for the period of May 1 through October 31, as adjusted based on the availability of surface water rights; and

WHEREAS, the Water Service Agreement, among other things, provides for a party to satisfy that capacity requirement by leasing all or a portion of its interest in a component(s) of the System as defined therein, including stored raw water, from another party, upon such terms and conditions as approved by the Commission; and

WHEREAS, the parties agree that, notwithstanding the plans provided for in the Water Service Agreement, the stored raw water subject to this Agreement is available for lease; and

WHEREAS, the parties hereto agree that Lessor will lease stored raw water to Lessee upon the terms and conditions set forth herein, and that the Commission has approved the terms and conditions as evidenced by signature below, and being fully advised

### NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. **Term.** This Agreement shall be effective from April 12, 2019, through February 29, 2020.
2. **Supply of Water. (a)** Lessor agree to provide, and Lessee agrees to lease from Lessors, 580 acre feet of stored raw water during the lease term, unless modified by other provisions of this Agreement. This leased quantity of stored raw water is measured at the point of release from Hagg Lake or Barney Reservoir, as applicable, and includes that portion of the released water that is lost due to “flow-by” past the JWC water treatment plant intake.

**(b) Stored Raw Water Ownership Accounts.** Each JWC member’s stored water ownership account consists of the amount of stored raw water it owns (as described in the Water Service Agreement) in Hagg Lake and Barney Reservoir. For the lease term, Lessor’s stored raw water accounts shall be reduced, and Lessee’s account increased, by the volume of water described in Section 2(a) of this Agreement, as calculated below. This transfer is for accounting purposes only between the parties

during the term of this Agreement, and does not affect the quantity of water owned by either party under the Scoggins Agreements or the Barney Agreement, as those agreements are defined in the Water Service Agreement.

LESSOR's Adjusted Stored Water Ownership Accounts = Total stored water owned (in acre feet) – stored water leased to Lessee

LESSEE's Adjusted Stored Water Ownership Account = Total stored water owned (in acre feet) + stored water leased from Lessors

**(c) Water Shortage.** If a general emergency or water shortage requires restrictions on the delivery to JWC members of stored raw water, each party's adjusted ownership account shall be reduced in the same proportion as JWC reduces the stored raw water ownership accounts of all JWC members.

3. **Connections, Measurement and Meters.** JWC or Lessors, as appropriate and necessary, will provide and maintain meters, valves and controls, and measurement devices in proper order for measurement of JWC-provided finished water to Lessee's local distribution system connection to the JWC transmission system.
4. **JWC Management of Stored Raw Water Releases.** JWC will manage the release of stored water in its sole discretion to satisfy the raw water supply requirements of all JWC members and to maintain adequate reserves of stored raw water to satisfy these requirements for the remainder of the lease term. Without limitation, the scope of JWC's release management decisions include determining the source (Barney Reservoir and/or Hagg Lake) from which the stored raw water is released, the discharge rates at which water is released from each source, and the volumes of stored water released from each reservoir. JWC may also manage stored water releases to achieve other operational or legal objectives, including maintaining reserves for carryover of stored raw water to the 2020 stored water release season. JWC will not use its discretion in management of stored water releases to restrict the supply of water to Lessee or any other JWC member disproportionately in relation to the water available in its adjusted stored water account for that reservoir. Neither JWC nor Lessor will be liable to Lessee, beyond the remedies described in Section 9 of this Agreement, for failure to satisfy Lessee's system demands if such failure occurs despite JWC's reasonable coordination efforts.
5. **Lease Fee. (a)** Lessee shall pay a stored raw water lease fee of \$56,243 as calculated under Section 7.4 of the Water Service Agreement. Lessee is responsible for payment of the entire lease fee amount regardless of whether it calls for release of the entire leased amount during the lease term. Payment of the entire amount is due within 30 days of action by the Joint Water Commission to approve the lease. A late fee of 1.5 percent per month shall be assessed for any unpaid balance. The JWC Managing Agency, as appointed pursuant to the Water Service Agreement, will handle billing to and collection from Lessee, and release of funds received to Lessors.



6. **Notices.** Notices shall be deemed sufficient if deposited in the United States mail, postage prepaid, to the following addresses:

**Lessor:**

City Manager  
City of Forest Grove  
P.O. Box 326  
Forest Grove, OR 97116

**Lessee:**

Tualatin Valley Water District  
Attn: Chief Executive Officer  
1850 SW 170<sup>th</sup> Avenue  
Beaverton OR 97003

7. **Severability.** In the event any provisions of this Agreement shall be held to be impossible, invalid, or unenforceable, the remaining provisions shall be valid and binding upon the parties hereto. One or more waivers by either party of any provision, term, condition or covenant, shall not be construed by one party as a waiver of a subsequent breach of the other party. Both parties have fully participated in negotiating and writing this Agreement; therefore, it shall not be construed against the party preparing it, but shall be construed as if both parties have prepared it.
8. **Acts of God, Emergencies, etc.** Performance or delay in performance of the obligations stated in this Agreement shall be reasonably excused when performance or timely performance is impossible or impracticable because of the occurrence of unforeseeable events such as emergency, catastrophe, disaster, labor disputes, or acts of God.
9. **Disputes.** If a dispute arises between the parties regarding breach of this agreement, it shall be addressed using the dispute resolution process in Article XII of the Water Service Agreement. However, notwithstanding anything to the contrary in the Water Service Agreement as to exclusive remedies, nothing in this lease agreement shall prevent a party from seeking equitable relief from a decision made by the Joint Water Commission that threatens irreparable harm to that party.
10. **Full Agreement.** This document is the entire, final and complete agreement of the parties pertaining to Lessor's lease of stored raw water to Lessee during the term of this agreement, and supersedes and replaces all prior or existing written and oral agreements between the parties or their representatives.

11.

**LESSOR:**

**City of Forest Grove**

By: \_\_\_\_\_  
*City Manager*

**LESSEE:**

**Tualatin Valley Water District**

By: \_\_\_\_\_  
*Chief Executive Officer*

APPROVED AS TO FORM AND CONTENT:

**JOINT WATER COMMISSION**

By: \_\_\_\_\_  
*General Manager*

**2019  
LEASE PAYMENTS**

TVWD						
Asset Leased	Own	Qty requested	Quantity leased	Unit of measure	Price per unit	Extended
Raw Water Storage Capacity	7,000	580.00	580.00	Acre Feet	96.97	56,243
<b>Total</b>					TVWD Expense	<b>56,243</b>

**Total Payments** 56,243

FOREST GROVE						
Asset Leased	Own	Avail Lease	Qty Leased	Unit of measure	Price per unit	Extended
Raw Water Storage Capacity		2,266.23	580.00	Acre Feet	96.97	56,243
<b>Total</b>						<b>56,243</b>

## LEASE OF NORTH TRANSMISSION FACILITIES CAPACITY

This Lease of North Transmission Line (NTL) capacity (“Agreement”), dated April 12, 2019, is between the City of Hillsboro and Tualatin Valley Water District (“Lessors”) and the City of Beaverton (“Lessee”).

### RECITALS

WHEREAS, the parties to this Agreement are members of the Joint Water Commission – Hillsboro, Forest Grove, Beaverton, and Tualatin Valley Water District (“JWC”), an intergovernmental entity formed pursuant to ORS Ch. 190 by agreement (“Water Service Agreement”); and

WHEREAS, the Water Service Agreement, among other things, requires each JWC member to have sufficient transmission line capacity to serve its demands; and

WHEREAS, the Water Service Agreement, among other things, provides for a party to satisfy that capacity requirement by leasing all or a portion of its interest in a component(s) of the System as defined therein, including transmission line capacity, from another party, upon such terms and conditions as approved by the Commission; and

WHEREAS, the parties agree that, notwithstanding the plans provided for in the Water Service Agreement, the transmission line capacity subject to this Agreement is available for lease during the three-year period requested, as that term is defined herein; and

WHEREAS, the parties hereto agree that Lessors will lease transmission system facilities capacity to Lessee upon the terms and conditions set forth herein, and that the Commission has approved the terms and conditions as evidenced by signature below, and being fully advised,

### NOW, THEREFORE, THE PARTIES AGREE AS FOLLOWS:

1. **Term.** This Agreement shall be effective from April 12, 2019, through February 28, 2022.
2. **Supply of Water. (a)** Lessors agree to provide, and Lessee agrees to lease from each Lessor, 1.05 million gallons per day (MGD) of North Transmission Line (NTL) capacity during the lease term, for a total leased NTL capacity of 2.1 MGD - unless modified by other provisions of this Agreement. This leased capacity of NTL transmission is measured at the Cornelius Pass master meter, as a percentage of TVWD daily meter demand through that point of entry.  
  
**(b) NTL Capacity Ownership Accounts.** Each JWC member’s NTL capacity ownership account consists of the amount of capacity it owns (as described in the Water Service Agreement) in the pipeline. For the lease term, Lessors’ NTL capacity shall be reduced, and Lessee’s NTL capacity increased, by the volume of water described in Section 2(a) of this Agreement, as calculated below. This transfer is for accounting

purposes only between the parties during the term of this Agreement, and does not affect the NTL capacity owned by either party, as defined in the Water Service Agreement.

LESSORS' Adjusted NTL capacity= Total NTL capacity owned (in million gallons per day) – NTL capacity leased to Lessee

LESSEE's Adjusted NTL = Total NTL capacity owned (in million gallons per day) + NTL capacity leased from Lessors

3. **Connections, Measurement and Meters.** JWC or Lessors, as appropriate and necessary, will provide and maintain meters, valves and controls, and measurement devices in proper order for measurement of transmission system facilities capacity used, at the following location:

**TVWD's NTL Cornelius Pass connection/master meter**

The meters or measurement devices shall be tested and calibrated, by JWC or by an independent tester qualified to do such work, on the schedule set in the Water Services Agreement. Measurement of Lessee's use of NTL capacity will be calculated as agreed to in the *Intergovernmental Agreement between City of Beaverton and Tualatin Valley Water District relating to the Provision of Domestic Water*, using the rate method established in Exhibit F: "*Wheeling Service Rate and Methodology*."

4. **JWC Management of System Facilities.** JWC will manage the operation of the JWC water system facilities in its sole discretion to satisfy the water supply requirements of all JWC members. It will use reasonable efforts to coordinate its operation of the water treatment plant facilities with the operation by JWC members of the transmission system facilities, in order to maximize the ability of the water system to satisfy the demands of all JWC members. Neither JWC nor Lessors will be liable to Lessee, beyond the remedies described in Section 9 or this Agreement, for failure to satisfy Lessee's system demands if such failure occurs despite JWC's reasonable coordination efforts. The JWC Operations Committee has developed standards, as part of the Operations Manual, relating to management by members of variations in demands on transmission facilities capacity.
5. **Lease Fee.** (a) Lessee shall pay a North Transmission Line lease fee of \$39,685 to each Lessor, for two separate payments totaling \$79,370, as calculated under Section 7.4 of the Water Service Agreement. Lessee is responsible for payment of the entire lease fee amount regardless of whether the entire leased capacity is utilized during the lease term. Payment of the entire amount is due within 30 days of action by the Joint Water Commission to approve the lease. A late fee of 1.5 percent per month shall be assessed for any unpaid balance. The JWC Managing Agency, as appointed pursuant to the Water Service Agreement, will handle billing to and collection from Lessee, and release of funds received to Lessors.

(b) If during the term of this Agreement either party uses more transmission system facilities capacity than remains in its adjusted ownership account [as defined above in Section 2(b)] after adjusting for the leased amounts, that party shall be charged for the

use of excess transmission system facilities capacity at the rate of 1/365 of the annual rate for leased transmission capacity (\$103.55 per mgd) for each day that capacity is used in excess of the amount available in its adjusted ownership account. However, for any such amount that is used by a party for a total of more than 120 days during the term of this Agreement, that party shall be charged the total annual lease rate for that amount. [Example: Partner A's adjusted transmission system facilities ownership account consists of 4 mgd of owned and/or leased transmission capacity. During the course of the lease year, Partner A uses a maximum daily rate of 6 mgd, including 130 days of at least 8 mgd. Partner A must pay the full annual lease rate for 2 mgd (6 mgd used for more than 120 days, less 4 mgd in A's adjusted ownership account), plus \$103.55 per mgd for each day that Partner A used transmission capacity at a daily rate in excess of 6 mgd.].

6. **Notices.** Notices shall be deemed sufficient if deposited in the United States mail, postage prepaid, to the following addresses:

**Lessors:**

City of Hillsboro  
City Manager  
150 E. Main Street  
Hillsboro, OR 97123

Tualatin Valley Water District  
Attn: Chief Executive Officer  
1850 SW 170<sup>th</sup> Avenue  
Beaverton, OR 97003

**Lessee:**

City of Beaverton  
Attn: Mayor  
12725 SW Millikan Way  
Beaverton, OR 97076

7. **Severability.** In the event any provisions of this Agreement shall be held to be impossible, invalid, or unenforceable, the remaining provisions shall be valid and binding upon the parties hereto. One or more waivers by either party of any provision, term, condition or covenant, shall not be construed by one party as a waiver of a subsequent breach of the other party. Both parties have fully participated in negotiating and writing this Agreement; therefore, it shall not be construed against the party preparing it, but shall be construed as if both parties have prepared it.
8. **Acts of God, Emergencies, etc.** Performance or delay in performance of the obligations stated in this Agreement shall be reasonably excused when performance or timely performance is impossible or impracticable because of the occurrence of unforeseeable events such as emergency, catastrophe, disaster, labor disputes, or acts of God.
9. **Disputes.** If a dispute arises between the parties regarding breach of this agreement, it shall be addressed using the dispute resolution process in Article XII of the Water Service Agreement. However, notwithstanding anything to the contrary in the Water Service Agreement as to exclusive remedies, nothing in this lease agreement shall

prevent a party from seeking equitable relief from a decision made by the Joint Water Commission that threatens irreparable harm to that party.

10. **Full Agreement.** This document is the entire, final and complete agreement of the parties pertaining to Lessors' lease of NTL capacity to Lessee during the term of this agreement, and supersedes and replaces all prior or existing written and oral agreements between the parties or their representatives.

**LESSOR:**

**City of Hillsboro**

By: \_\_\_\_\_  
*City Manager*

**LESSOR:**

**Tualatin Valley Water District**

By: \_\_\_\_\_  
*Chief Executive Officer*

**LESSEE**

**City of Beaverton**

By: \_\_\_\_\_  
*Mayor*

APPROVED AS TO FORM AND CONTENT:

**JOINT WATER COMMISSION**

By: \_\_\_\_\_  
*General Manager*

**2019-2022  
LEASE PAYMENTS**

BEAVERTON						
Asset Leased	Own	Qty requested	Quantity leased	Unit of measure	Price per unit	Extended
North Transmission Line Capacity	2.10	2.10	2.10	MGD	37,795	79,370
<b>Total</b>					TVWD Expense	<b>79,370</b>

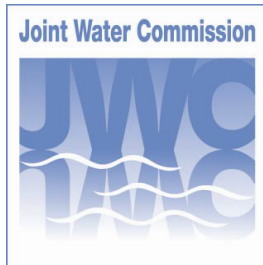
**Total Payments** 79,370

HILLSBORO						
Asset Leased	Own	Avail Lease	Qty Leased	Unit of measure	Price per unit	Extended
North Transmission Line Capacity	38.95	18.75	1.05	MGD	37,795	39,685
<b>Total</b>						<b>39,685</b>

TVWD						
Asset Leased	Own	Avail Lease	Qty Leased	Unit of measure	Price per unit	Extended
North Transmission Line Capacity	38.95	23.00	1.05	MGD	37,795	39,685
<b>Total</b>						<b>39,685</b>

**Total Receipts** 79,370





## STAFF REPORT

To: Joint Water Commission

From: Kevin Hanway, General Manager

Date: April 12, 2019

Re: Agenda Item 3C: Request to authorize Joint Water Commission Executive Committee to meet and act on certain business items

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### **Staff Recommendation:**

Authorize the Joint Water Commission (JWC) Executive Committee (Executive Committee) to meet in executive session if necessary and if permitted under ORS 192.660.

Authorize the JWC Executive Committee to meet as needed to consider and to take final action on matters discussed in executive session, and to act on sale or lease of JWC-owned conduit to City of Hillsboro, and to approve a Memorandum of Understanding as NEPA cooperating agency with US Bureau of Reclamation, and to approve a contract for the purchase of caustic soda.

### **Background**

The JWC Water Service Agreement (IGA) provides that the Commission will meet on a quarterly basis. For actions that need to be taken during the interim between quarterly meetings, the IGA provides two alternatives:

- Special meetings of the full Commission can be called by the Chair or any Vice Chair (Section 3.4)
- An Executive Committee is also created as a subcommittee of the full Commission, which consists of the Chairperson plus the Vice Chairperson for each of the other partners (Section 3.6). The Executive Committee is authorized to meet as needed between quarterly Commission meetings.
  - Actions: The Executive Committee has three options as to business items that are presented for action: approve, reject, or refer to the full Commission. An

affirmative vote from all four Executive Committee members is required for any action to be approved

- The IGA expressly authorizes the Executive Committee to approve contracts subject to purchasing rules and to approve contract change orders greater than 10% of the original contract amount.
- The IGA also provides that the Executive Committee has authority under “other powers and duties as granted by the [full] Commission.” The preferred timeline is for the full Commission to approve such grants of authority prior to the Executive Committee meeting.

The Managing Agency has advised the JWC Management Committee of three business items that may require action before the Commission’s next meeting on July 12. The Managing Agency requests that the Commission authorize the Executive Committee to meet and consider action on each of these items. Separate Executive Committee meetings may be required for each business item, including the potential need to meet in executive session.

1. Construction contract dispute resolution: In October 2018, the Commission authorized the Executive Committee to meet and consider action on a contract amendment request from Slayden Construction. After meeting in executive session in November, the Executive Committee approved a contract amendment for additional work for concrete demolition and reconstruction, and denied a request for additional compensation for that work. The parties are engaged in dispute resolution regarding the request for additional compensation. Enabling progress or conclusion of the dispute resolution process prior to the next Commission meeting may require meeting and action by the Executive Committee.
2. Bureau of Reclamation (BOR) NEPA Memorandum of Understanding (MOU): BOR is preparing to commence its process for review under the National Environmental Policy Act (NEPA) of alternatives for rebuilding or replacing Scoggins Dam. The interests of JWC partners will be impacted by any of the alternatives being considered by BOR. As part of its process for formal coordination with key stakeholders, BOR is preparing a Memorandum of Understanding that will allow JWC to identify its key interests, and will define how JWC (acting on behalf of the individual partners) will participate in the NEPA review process. BOR and JWC are just preparing to begin discussions on the MOU. The NEPA process is scheduled to kick off before July, so to obtain a timely JWC approval of the MOU will require action by the Executive Committee.
3. Lease or sale of North Transmission Line (NTL) conduit: When the NTL was constructed in 2000 – 2003, a four-inch PVC communications conduit was installed in the trench. The intended purpose of the conduit was to allow fiber optic cable to be extended from the

Managing Agency to the JWC Water Treatment Plant. After NTL construction was completed, the decision was made not to install the fiber, and no use has ever been made of the conduit. Initial construction cost was approximately \$125,000. Recent inspection of the conduit has reconfirmed that multiple segments of the conduit are unusable due to breaks or blockages that will prevent fiber from being run through those conduit segments. The City of Hillsboro has approached JWC to discuss utilizing the NTL conduit for cable to expand or upgrade services it already provides to many municipalities through the Broadband User Group (BUG), and to utilize the conduit as part of the program that the City has already launched to develop a city-owned high speed internet service. The City's goal is to have the system in place and to begin service to customers by this fall. Informal discussions to date between JWC and City of Hillsboro have considered either a sale or lease to Hillsboro by JWC of the conduit, and general discussions on terms for price and for other benefits. The Managing Agency will consult with the JWC Management Committee on the terms that are developed from negotiations with Hillsboro. If an agreement can be reached with Management Committee support, prior to July, the Executive Committee could meet to consider action on the proposed terms.

4. Approve Contract for Purchase of Caustic Soda: JWC staff will be going out to bid on a contract to provide caustic soda to the Water Treatment Plant, for use in the treatment process. This will be the third call for bids, as the first two rounds received bids with incomparable pricing measurements. A contract must be in place before the current contract with Univar expires on June 30, 2019, so approval of a new contract will be necessary prior to the next regular JWC Board meeting. Staff requests the Board authorize the Executive Committee to approve a new contract, subject to purchasing rules.



## JWC Water Treatment Plant Quarterly Report

To: Joint Water Commission  
From: Chris Wilson, Water Treatment Manager  
Date: April 12, 2019  
Period: January 1, 2019 – March 25, 2019

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### **PRODUCTION:**

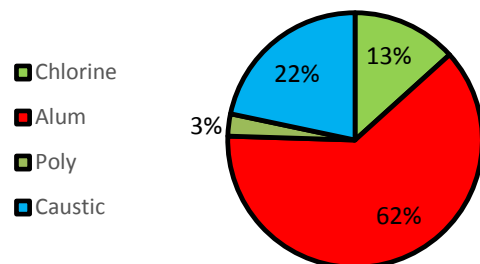
During the third quarter, the Water Treatment Plant (WTP) averaged a production rate of 27.0 million gallons per day (MGD). Highest production day was March 10, with 36.7 MGD produced. The lowest production date was February 5, with 15.3 MGD, this was impacted by a scheduled shutdown for expansion related work.

### **WQ PARAMETERS:**

Finished Water met all water quality parameters; however, the WTP did experience treatment difficulty on February 12-14, due to heavy rainfall.

### **COSTS:**

Average chemical cost was \$1210.76 per day during the first quarter, an average of \$44.97 per MG. March 19 (36.51 MGD) was the most expensive chemical day at \$3,474.58. February 5 (15.3 MGD) was the least expensive chemical cost day at \$597.97.



### **EXPANSION to 85 MGD Update:**

- 16" surge basin recycle piping installation is ongoing. Recycle piping distributes filter backwash water collected in the surge basin to solids drying beds and is a component of the solids handling process.
- Installation of flocculation basin D inclined plate settlers was completed. The new plate settlers will increase the effective surface area of the existing basin and accommodate an increased flow rate. Installation of Plate Settler is complete in all Basins D-G.

- Filter effluent pipeline connection to the finished water clearwell was completed. A 36" diameter concrete coring saw was required for the clearwell connection.
- Filter backwash pumps and motors 1 and 2 replacement was completed. Pump columns are so long they are lifted by crane and lowered through an access hatch in the roof of the pump station.
- Installation and performance testing of four new raw water pumps and motors at the Tualatin River intake facility (Spring Hill Pump Station) is ongoing. Installation activities will continue through March and performance testing into April.
- Filter structure concrete wall pours are ongoing.

**OTHER:**

- Functional testing on standby generators performed by PGE on 1/23, 2/20, and 3/20.
- On 3/6 at approximately 10 AM, PGE's System Control Center dispatched the DSG generator network to provide needed assistance to PGE's electrical system. The generator ran for approximately 5 minutes.
- Plant production was impacted February 12-14<sup>th</sup> due to a storm, but continued to produce water throughout the event.