

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 DRAFT AGENDA

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

April 13, 2018
12:30 p.m.
Regular Meeting

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.

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 12, 2018.
- B. Acknowledge receipt of Audit Arrangement Letter and required communication under SAS 114.

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

- A. None scheduled.

3. **UNFINISHED BUSINESS**

- A. None scheduled.

4. **NEW BUSINESS**

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



- B. Consider approval of 2018-2019 lease for water treatment plant capacity. *Staff Report – Kevin Hanway*
- C. Consider approval of contract renewal with Univar USA, Inc. for the purchase of caustic soda. *Staff Report – Sophia Hobet*
- D. Consider amendment to CH2M Hill design services contract for the Joint Water Commission Water Treatment Plant Expansion to 85 Million Gallons per Day project. (Item will also include a Water Treatment Plant Expansion Project update). *Staff Report – Erika Murphy*

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

- A. Consider approval of Resolution 131-J, adopting the Joint Water Commission Water Treatment Plant Facility Plan. (Item will also include a Facility Plan update.) *Staff Report – Erika Murphy*
- B. Year-to-Date Financial status. *Staff Report – John Campbell*
- C. Stored water status. *Staff Report – Kristel Fesler*
- D. General Manager’s Report. *Staff Report – Kevin Hanway*

7. ADVICE/INFORMATION ITEMS

- A. The next JWC and BRJOC meetings are scheduled on Friday, June 8, 2018, if needed for budget approval. 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 13, 2018. 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 12, 2017
12:30 p.m.
Regular Meeting

Commissioners Present:

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

Staff Present:

Hillsboro: Kevin Hanway, Rob Dixon, Sophia Hobet, Niki Iverson, Tacy Steele, Erika Murphy, Tyler Wubbena, John Campbell, Lee Lindsey, John Grover, and Andi Eiesland
Beaverton: David Winship
Forest Grove: Rob Foster, and Derek Robbins
Tualatin Valley Water District: Carrie Pak, and Mark Knudson

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 13, 2017.
 - B. Receipt of FY 2017 Audit Report.

San Soucie asked for clarification regarding missed statements within the 2017 Audit Report. Grover explained that historically the auditors have been comfortable with the City of Hillsboro reporting 24 pay periods of expenditures for payroll. Recently, the auditors have taken issue with the last few days of the fiscal year, approximately June 24 through June 30th, of accrued wages earned and attributed to the correct fiscal year. This was not done in the preceding year, and is the first time Hillsboro has made these changes. The primary reason for fixing these statements was to account for the six or seven days that had been allocated to the incorrect year. There was

also a disputed invoice which was not paid until October of 2017, which should have been allocated to the fiscal year 2016 report. This increased the 2017 expense, but shows the 2016 expense report short by that same amount.

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

2. COMMUNICATIONS AND NON-AGENDA ITEMS

A. Regional Water Consortium and Metro.

Truax stated he is a member of the Metro Policy Advisory Council and was asked by staff of the Regional Water Consortium to facilitate a discussion with Metro about reconsidering their withdrawal from the RWC. Truax asked the commission for guidance regarding this issue. He stated that though Metro is not a water provider, they are an important part of water delivery, sustainability and planning for the region. Truax voiced concerns about the possibility of a significant water event to happen in the area and how Metro would be involved. Truax felt if Metro was going to have involvement after the event, they should continue to be part of the RWC in order to help with decisions and budgeting.

3. UNFINISHED BUSINESS

A. None scheduled.

4. NEW BUSINESS

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

Truax read the list of Chair and Vice Chairs as well as alternates. Chair would be Dick Schmidt from Tualatin Valley Water District. Vice Chairs will be Mark Fagin from City of Beaverton, Carl Heisler from City of Forest Grove, and John Godsey from City of Hillsboro. Alternates would be Marc San Soucie from City of Beaverton, Peter Truax from City of Forest Grove, David Judah from City of Hillsboro, and Bernice Bagnall from Tualatin Valley Water District. Other Commissioners: Mayor Doyle from City of Beaverton, Rod Fuiten from City of Forest Grove, Deborah Raber from City of Hillsboro, and Jim Doane from Tualatin Valley Water District.

Motion by San Soucie and seconded by Godsey, to approve the appointment of Chair and Vice Chairs as read. Motion carried unanimously with Commissioners Godsey, Judah, Raber, Heisler, Truax, Fuiten, San Soucie, Doane, Schmidt all voting in favor.

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

Hanway stated the IGA for the commission requires a designation of managing agency to be made on an annual basis. Hillsboro has filled the role of managing agency since the commission was formed.

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

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

A. Water Treatment Plant Expansion Project Update. *Staff Report - Erika Murphy*

Murphy reminded the Commission the major construction was split into two packages. She stated that package one was mostly complete. One of the things yet to do is the commissioning of the startup and the rapid mix. It was anticipated to be completed in the fall, but there have been a few setbacks. Once the new rapid mix system is online, the baffle wall will be removed, allowing for additional capacity. In addition, there are a list of items which have still yet to be received, including: backwash pumps, raw water pumps, and the plate settlers. This portion will hopefully be complete in the next few months, but definitely will be complete by the end of this fiscal year. The budget for package one was approved last January for approximately 4.87 million dollars, including a 5% contingency. To date, the project has spent approximately \$3 million. This total includes all of the seismic and life safety upgrades, as well as the maintenance projects, which had been included into package one. \$64,000 of the contingency has been used to receive and move fill material from the WWSP project. This leaves \$156,000 left in the contingency fund. Since the only work left to be done is removing the baffle wall and finish start up and commissioning of the rapid mix system, it is anticipated that there will be contingency funds remaining. Murphy then presented charts documenting current expenditures for both packages.

Bagnall asked if the contract with CH2M has been affected by the sale of the company to Jacobs Engineering. Murphy stated that the transition has gone smoothly thus far, with no noted changes.

Murphy presented images of the auger cast piles and the surge basin slab to update the Commission on the status of the project. Murphy informed the Commission that due to issues with the availability of grout, the project is approximately 3-4 weeks behind schedule for getting the auger cast piles in the ground. The early excavation work which was performed in the summer has provided a two month buffer. As of this time, the project is still on schedule to be completed by June of 2019.

B. Financial Report Update. *Staff Report – John Campbell*

Campbell presented the financial information as of November 30th, 2017, with a focus on expenditures. Personnel services spending is 39% of budget, materials and services is 33% of budget. Operating capital outlay is 13% of budget, but there are several invoices which will be

coming in for the Water Treatment Plant upgrade. Once these invoices are processed, expenditures will reflect a more typical number for this time of year. In total, JWC is at 27% of budget for expenditures.

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

Griffith summarized the stored water report, and showed graphs of the Hagg Lake fill curve. She stated Hagg Lake Reservoir is at 62% capacity for storage. She also informed the commission it is more important to have rain accumulation from February through April than in December, as this is when water can be stored in Scoggins Reservoir, instead of released to maintain flood capacity.

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

Hanway discussed the Water Treatment Plant construction activity. He reminded the commission of the PGE program that pays larger consumers to cut back on power usage. PGE is now working with Clear Result for this program rather than ENERNOC. Due to the construction activity for the filters and surge basin expansion, there will be an increasing number of shut downs required to complete the work. PGE and Clear Result have been put on notice that the Treatment Plant will not be participating in the program during 2018.

6. 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.

Motion by Doane, seconded by San Soucie to authorize the Executive Committee to meet in the interim before the January 2018 Commission meeting, if needed, to act on a potential real property purchase offer as discussed in Executive Session. Motion carried unanimously with Commissioners Godsey, Judah, Raber, Heisler, Truax, Fuiten, San Soucie, Doane, Schmidt and Bagnall all voting in favor.

7. ADVICE/INFORMATION ITEMS

- A. The next JWC and BRJOC meetings are scheduled on Friday, April 13, 2018 at the Civic Center in Room 113B. The BRJOC meeting will be held at 12:30 p.m. with the JWC meeting following.

There being no further business to come before the Commission, the meeting adjourned at 1:36 p.m.

Chairman _____
Hillsboro/Forest Grove/ Beaverton/
TVWD Joint Water Commission

ATTEST: _____
Secretary



STAFF REPORT

To: Joint Water Commission

From: Jon Grover, Accounting Manager

Date: April 13, 2018

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

Staff Recommendation

Staff recommends that the 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 2017-18 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 \$10,400. As a comparison, the previous audit fee was \$10,000, for an increase of 4%. This is the fourth 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 should you have any questions in reviewing the attachments.



Talbot, Korvola &
Warwick, LLP

4800 Meadows Road, Suite 200
Lake Oswego, OR 97035

P503.274.2849
F503.274.2853

www.tkw.com

March 19, 2018

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

Attention: Dick Schmidt, 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, 2018 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.



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 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.

Board of Commissioners
Hillsboro-Forest Grove- Beaverton-
Tualatin Valley Water District
Joint Water Commission
March 19, 2018
Page 2

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. Our Firm employs measures in the use of computer technology designed to provide reasonable assurance that data security is maintained. 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
March 19, 2018
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 \$10,400 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
March 19, 2018
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

March 19, 2018

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

P503.274.2849
F503.274.2853

www.tkw.com

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

Attention: Dick Schmidt, 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, 2018.

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.



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 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 30 and August 13, 2018, with final field work commencing the week of October 8, 2018. 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, Kowola & Warwick LLP

Lake Oswego, Oregon
March 19, 2018



STAFF REPORT

To: Joint Water Commission

From: Kevin Hanway, General Manager
Lee Lindsey, Senior Program Manager
John Campbell, Financial Analyst

Date: April 13, 2018

Subject: Agenda Item 4A – Fiscal Year 2018-2019 Joint Water Commission Proposed Budget

Staff Recommendation:

Approve proposed Fiscal Year (FY) 18-19 budget 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 18-19 has been reviewed with all partners' managerial, financial and operational staff. All of the partners recommend approval of the proposed budget.

JWC partners are charged only for actual expenditures. Most 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 \$27,282,319. The total budget figure includes water production costs of \$8,616,819 (3.8% increase from prior year budget) and capital outlay of \$18,165,500.

- **Plant Production Volume:** Water production unit costs are projected to increase by 6.9% to \$0.51/unit as compared to the \$0.48/unit budget of FY 17-18. Budget estimates for many expenditures correlate to projected plant production volume. Total Projected Plant Production (average day) for FY 18-19 is 33.5 MGD, an overall production decrease of 4.3% from the current year's budget estimates. With the exception of Hillsboro, all of the JWC partners decreased their

demand estimates (Hillsboro - 0 MGD, Forest Grove - 0.13 MGD, Beaverton - 0.3 MGD, and TVWD - 1.07 MGD) for an overall estimated decrease of 1.5 MGD in average daily demand. (Note: Water production costs in FY 17-18 budget estimated costs of \$0.48/unit. Actual costs for year-to-date FY 17-18 are \$0.39/unit.)

- Personnel Services: The proposed budget includes a decrease of \$11,996 (.4%) in personnel costs. The proposed budget includes:
 - A 5% overall increase in total personnel services to include: (1) estimated increases in Medical and Dental costs for half the year; (2) Hillsboro's estimated Cost of Living Adjustments (COLA) (final figures are not yet determined)
 - Employee cost allocations decrease from a total of 24.0 to 23.4 FTE. Employee count at the water treatment plant is unchanged, remaining at 17 FTE. Updated employee allocations for other Hillsboro Water Department employees accounts for the balance of the effective FTE total.
- Materials and Services: The proposed Materials and Services budget includes an increase of \$139,850 (3.1%) from FY 17/18 budget amounts. The majority of the increase variance is due to Caustic Soda increasing \$161,000 due to market price increases.
- Operating Capital Outlay: The proposed Operating Capital Outlay budget increased by \$138,000 to \$178,000. Budgeted items include: repairs to Fern Hill reservoir; replacement of soft starts for raw water pumps 3 and 4, and equipment purchases. Additional information on each of the purchases is provided on page 6 of the proposed budget packet.
- Special Payments: The proposed budget includes an increase of \$52,474 (6.9%) in Special Payments from the current budget of \$755,645. Increases are estimated at 7% from FY 17-18 for Budgeted Support Services, property, plant, and equipment insurance. Payments to other Governments was left as no increase from previous budget. ("Special payments" includes items such as insurance, facilities depreciation, support services charges, equipment depreciation, facilities charges, insurance, and payments to other governments. 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 \$16,165,000, plus an additional \$2,000,000 budgeted for Emergency Replacement and Acquisitions.

The primary capital project is the continuation of the WTP Expansion Project, which began in FY 16-17. The expansion project continues into FY 18-19, with a small rollover to FY 19-20. The current estimate for the total construction cost of these improvements is approximately \$35 million.

The proposed budget also includes carryover costs associated with the Tualatin River permit application for new water rights as well as carryover costs associated with the purchase of the Water Information Management System.

Notes describing each of these projects can be found on page 6 of the proposed budget.

Joint Water Commission (JWC) - FY 18-19 PROPOSED BUDGET

JWC Fund	14-15 Actual	15-16 Actual	16-17 Actual	17-18 Budget	17-18 YTD	17-18 PYE	FY 18-19 Proposed Budget	Projected To Budget (\$)	Change in FY 17-18 Budget to Proposed \$	Change in FY 17-18 Budget to Proposed %
Revenues										
Beginning Working Capital [1]	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	0.0%
Water Sales										
Hillsboro - Water Purchases [2]	3,082,442	3,071,344	3,092,383	4,242,153	1,749,505	3,780,626	4,511,780	(461,527)	269,627	6.4%
Forest Grove - Water Purchases [2]	347,634	339,663	284,691	367,662	160,308	194,967	365,969	(172,695)	(1,693)	-0.5%
Beaverton - Water Purchases [2]	1,204,509	1,140,165	1,279,253	1,808,186	713,103	1,463,908	1,855,483	(344,278)	47,297	2.6%
TVWD - Water Purchases [2]	1,283,374	1,468,969	1,249,860	1,793,690	782,835	1,481,302	1,665,306	(312,388)	(128,384)	-7.2%
Tigard - Water Purchases	-	149,371	-	-	-	-	-	-	-	0.0%
North Plains - Water Purchases [3]	136,195	142,357	166,136	115,000	126,449	115,000	115,000	-	-	0.0%
North Plains SDC	55,545	374,144	470,404	150,000	23,872	150,000	150,000	-	-	0.0%
Lease Revenue [4]	-	321,426	94,193	102,050	-	102,050	103,280	-	1,230	0.0%
Total Water Sales	6,109,700	7,007,439	6,636,920	8,578,741	3,556,071	7,287,854	8,766,819	(1,290,887)	188,078	2.2%
Contributions in Aid (Capital Outlay)										
Hillsboro - Capital Outlay	2,017,496	2,521,950	3,476,648	10,439,900	2,067,390	7,741,788	11,159,325	(2,698,113)	719,425	6.9%
Forest Grove - Capital Outlay	124,038	211,991	388,759	1,111,722	132,114	513,225	1,238,957	(598,497)	127,235	11.4%
Beaverton - Capital Outlay	974,833	568,908	828,224	2,140,350	200,254	1,017,888	2,323,625	(1,122,463)	183,275	8.6%
TVWD - Capital Outlay	580,904	689,108	1,001,912	3,058,028	664,201	2,140,150	3,293,593	(917,878)	235,565	7.7%
CWS - Capital Outlay	1,543	1,813	3,428	-	15	15	-	15	-	0.0%
Total Contributions in Aid	3,698,814	3,993,770	5,698,970	16,750,000	3,063,973	11,413,065	18,015,500	(5,336,935)	1,265,500	7.6%
Miscellaneous and Interest										
Grants [5]	523,421	906,429	20,000	-	-	-	-	-	-	0.0%
Miscellaneous Income	(531)	53,547	48,179	-	28,002	28,002	-	28,002	-	0.0%
Westside Lutheran School	1,323	1,242	1,146	-	1,197	2,037	-	2,037	-	0.0%
Interest Earned	10,032	12,380	13,975	-	13,923	16,000	-	16,000	-	0.0%
Total Miscellaneous and Interest	534,244	973,598	83,300	-	43,122	46,039	-	46,039	-	0.0%
Contingency										
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%
Total Contingency	-	-	-	500,000	-	-	500,000	(500,000)	-	0.0%
Total Current Revenues	10,342,759	11,974,807	12,419,191	25,828,741	6,663,166	18,746,958	27,282,319	(7,081,783)	1,453,578	5.6%
Total Resources	10,342,759	11,974,807	12,419,191	25,828,741	6,663,166	18,746,958	27,282,319	(7,081,783)	1,453,578	5.6%
Expenditures										
Water Production Costs										
Personnel Services [6]	2,391,648	2,419,104	2,555,154	2,973,796	2,088,627	2,850,168	2,961,800	(123,628)	(11,996)	-0.4%
Materials and Services [7]	3,298,716	3,495,960	3,152,416	4,529,050	2,348,258	3,586,970	4,668,900	(942,081)	139,850	3.1%
Operating Capital Outlay [8]	121,629	78,562	32,217	40,000	30,641	40,000	178,000	-	138,000	345.0%
Special Payments [9]	438,511	843,957	632,397	755,645	428,541	706,770	808,119	(48,875)	52,474	6.9%
Total Water Production Costs	6,250,505	6,837,583	6,372,184	8,298,491	4,896,067	7,183,908	8,616,819	(1,114,583)	318,328	3.8%
Other Expenditures										
Projects Capital Outlay [10]	4,092,253	5,137,224	6,047,007	17,030,250	6,166,279	11,563,050	18,165,500	(5,467,200)	1,135,250	6.7%
Contingency	-	-	-	500,000	-	-	500,000	(500,000)	-	0.0%
Total Other Expenditures	4,092,253	5,137,224	6,047,007	17,530,250	6,166,279	11,563,050	18,665,500	(5,967,200)	1,135,250	6.5%
Total Current Expenditures	10,342,758	11,974,807	12,419,191	25,828,741	11,062,346	18,746,958	27,282,319	(7,081,783)	1,453,578	5.6%
Ending Working Capital	1	-	-	-	(4,399,180)	-	-	-	0	0.0%
Total Requirements	10,342,758	11,974,807	12,419,191	25,828,741	6,663,166	18,746,958	27,282,319	(7,081,783)	1,453,578	5.6%
Total JWC Fund	14-15 Actual	15-16 Actual	16-17 Actual	17-18 Budget	17-18 YTD	17-18 PYE	FY 18-19 Proposed Budget	Projected To Budget (\$)	Change in FY 17-18 Budget to Proposed \$	Change in FY 17-18 Budget to Proposed %
Total Resources	10,342,759	11,974,807	12,419,191	25,828,741	6,663,166	18,746,958	27,282,319	(7,081,783)	1,453,578	5.6%
Total Current Expenditures	10,342,758	11,974,807	12,419,191	25,828,741	11,062,346	18,746,958	27,282,319	(7,081,783)	1,453,578	5.6%
Totals	1	-	0	-	(4,399,180)	-	-	-	0	0.0%

Joint Water Commission (JWC) - FY 18-19 PROPOSED BUDGET

Notes:

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

2. Water Purchases

FY 17/18 PYE:

	FY 17-18		
	Approved Budget	FY 17-18 Actual	*Water Purchases a/o January 2018 Billing.
Hillsboro	52.91%	55.26%	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.
Forest Grove	3.95%	3.39%	
Beaverton	21.57%	21.28%	
TVWD	21.57%	20.06%	
	100.0%	100.0%	
Per ccf cost	\$ 0.48	\$ 0.39	

FY 18/19 Proposed:

% Allocation for Water Purchases
Based on pro-rata share of plant production estimates

	FY 17-18	FY 18-19	FY 17-18 Budget	FY 18-19 Plant Est	
	Approved Budget	Proposed	Plant MGD	MGD	
Hillsboro	52.91%	55.29%	18.5	18.5	
Forest Grove	3.95%	3.76%	1.4	1.3	
Beaverton	21.57%	21.63%	7.6	7.3	
TVWD	21.57%	19.32%	7.6	6.5	
	100%	100%	35.0	33.5	-4.3%
Per ccf cost	\$ 0.48	\$ 0.51			6.9%

Water production unit cost increased by 6.9% for this projection. Please note, these are not final numbers and are subject to change. FY17-18 Actual ccf unit cost is calculated on actual usage. Plant Production is estimated to decrease by 4.3% (approximately a 1.5 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 purchases is reduced by the amount of revenue received from the City of North Plains.

4. There is a Water Treatment Plant Capacity Lease scheduled for FY18-19, requested by TVWD. The contract lease is for 2 MGD, in the total revenue of \$103,280 that will be allocated 100% to Forest Grove.

5. **Grants:** There are no grants budgeted for FY18-19.

6. Personnel Services:

FY 17-18 PYE:

Personnel Services are projected to be \$123k lower than budgeted amounts due to the following:

- a) \$52k of the under spending is due to Extra Labor and Overtime, and we are not projecting to use the full amounts budgeted for FY17-18.
- b) \$41k of the under is for overtime that is not anticipated to be spent but available for unanticipated events.
- c) A portion of the underspending is also due to a couple of positions that were vacant during part of the fiscal year.

The 2018-19 budget for Personnel Services is preliminary and will change. See the following assumptions:

- a) Budgeted a 5% increase of total compensation for the possible Cost of Living Adjustment (COLA) and medical and dental insurance increases. The total Personal Services decreases .3% and can be partly attributed to staffing changes and newer employees at lower steps. Actual numbers for the items above will not be finalized until late April.
- b) There are no new full FTE's for JWC but allocations will change slightly due to staffing changes. The numbers are not final and are subject to change.

Joint Water Commission (JWC) - FY 18-19 PROPOSED BUDGET

7. Materials and Services:

FY 17-18 PYE:

The projected to year end estimates that we will end the year \$943k lower than the approved FY17-18 budget. The difference is primarily due to the following:

- a) \$400k lower for utilities due to water demands being lower than projected.
- b) \$300k of the under spending Contractual Services due to STL Condition Assessment not being performed in FY17-18 and pushed to FY 18-19 and some of the expenses related to the Cathodic Protection Study being pushed into 18-19 as
- c) \$133k of the under spending in Program Materials and Supplies.
- c) \$110k of the under spending due costs associated with Water Rights, budgeted for in Materials and Services under Contractual Services, was moved to Capital Outlay.

FY 18-19 Proposed:

Materials and Services is projected to increase by \$140k over the adopted FY17-18 budget.

- a) The majority of the variance is due to Caustic Soda increasing \$161k due to price increases.

8. Operating Capital Outlay:

FY 17-18 PYE:

Operating Capital Outlay are projected to be in-line with the budgeted amounts.

FY 18-19 Proposed:

See worksheet named 'Capital Outlay (Operating and Projects) and Contingency' for the listing of FY 18-19 Operating Capital Outlay.

9. Special Payments:

FY 17-18 PYE:

Special Payments is projected to be \$49k under the FY 17-18 budget due to lower insurance premiums and lower than projected support services charges.

FY 18-19 Proposed:

The Special Payment budget is preliminary and will change. The Special Payments line item includes the following: facilities depreciation, support services, equipment depreciation, facility charges, insurance, fleet service charges, and payments to other governments. We estimate a 5% increase from FY 17-18 budgeted in support services, equipment depreciation, facility charges, insurance, fleet service charges. Payments to other government was left as no increase from previous budget. Once the cost allocation plan is completed for FY 18-19 these numbers will be updated.

10. Projects Capital Outlay:

FY 17-18 PYE:

Operating Capital Outlay are projected to be \$5.5 million under budget through FY17-18:

- a) \$3.5 million lower due to WTP Upgrade and Expansion project expenses deferred to next FY.
- b) \$2 million is for JWC Emergency Replacement & Acquisitions that is not anticipated to be spent.

FY 18-19 Proposed:

See worksheet named 'Capital Outlay (Operating and Projects) and Contingency' for the listing of FY 17-18 Project Capital Outlay.

**JOINT WATER COMMISSION
2017-18 Projected to Year End Capital Outlay Project Listing**

			Budget FY 17-18	PYE				
Projects Capital Outlay - Administration:	Project #	Total Budgeted	PYE	Hillsboro	Forest Grove	Beaverton	Tualatin Valley Water District	
JWC - 01	Facility Plan, CIMP, & 75 MGD Projects	11011	6,490,000	3,754,900	1,689,705	500,528	938,725	625,942
			100%	100%	45.00%	13.33%	25.00%	16.67%
	JWC WTP Expansion to 85 MGD	10571	8,260,000	7,412,900	5,930,320	-	-	1,482,580
			100%	100%	80.00%	0.00%	0.00%	20.00%
JWC - 02	Fairway Fund Litigation (Land)	11135	150,000	150,000	78,900	-	55,350	15,750
			100%	100%	52.60%	0.00%	36.90%	10.50%
[1]	New Tualatin River Permit Application	11184	-	110,000	49,500	14,663	27,500	18,337
			100%	100%	45.00%	13.33%	25.00%	16.67%
[2]	Replacement Vehicle & Accessories		50,000	50,000	22,500	6,665	12,500	8,335
			100%	100%	45.00%	13.33%	25.00%	16.67%
[3]	Water Quality Boat & Accessories		25,000	25,000	11,250	3,333	6,250	4,168
			100%	100%	45.00%	13.33%	25.00%	16.67%
[4]	Intake Gate		24,000	24,000	10,800	3,199	6,000	4,001
			100%	100%	45.00%	13.33%	25.00%	16.67%
[5]	YSI EXO2 Datasonde		18,750	18,750	8,438	2,499	4,688	3,126
			100%	100%	45.00%	13.33%	25.00%	16.67%
[6]	Water Management Solution Software		12,500	12,500	5,625	1,666	3,125	2,084
			100%	100%	45.00%	13.33%	25.00%	16.67%
[7]	Pump Replacement	10829	-	5,000	2,250	667	1,250	834
			100%	100%	45.00%	13.33%	25.00%	16.67%
	Projects Capital Outlay		15,030,250	11,563,050	7,809,288	533,220	1,055,388	2,165,155
Equipment Replacement:	JWC Emergency Replacement & Acquisitions		2,000,000	-	-	-	-	-
	Equipment Replacement		2,000,000	-	-	-	-	-
	Ownership %'s:		100%	100%	45.00%	13.33%	25.00%	16.67%
	Less: North Plains SDC		(150,000)	(150,000)	(67,500)	(19,995)	(37,500)	(25,005)
	North Plains SDC		(150,000)	(150,000)	(67,500)	(19,995)	(37,500)	(25,005)
	Total Projects		16,880,250	11,413,050	7,741,788	513,225	1,017,888	2,140,150

Joint Water Commission - FY 18-19 Proposed Budget

Revenues		Budget 2017-2018	Budget 2018-2019	Change from prior year	
				\$	%
Beginning Working Capital		-	-	-	0.0%
Water Sales					
4480	Hillsboro Water Purchases	4,242,153	4,511,780	269,627	6.4%
4481	Forest Grove Water Purchases	367,662	365,969	(1,693)	-0.5%
4482	Beaverton Water Purchases	1,808,186	1,855,483	47,297	2.6%
4483	TVWD Water Purchases	1,793,690	1,665,306	(128,384)	-7.2%
4484	Tigard Water Purchases	-	-	-	0.0%
[b] 4485	North Plains Water Purchases	115,000	115,000	-	0.0%
4486	North Plains SDC	150,000	150,000	-	0.0%
4487	Lease Revenue	102,050	103,280	1,230	1.2%
Total Water Sales		8,578,741	8,766,819	188,078	2.2%
Contributions in Aid (Capital Outlay)					
4500	Hillsboro Capital Outlay	10,439,900	11,159,325	719,425	6.9%
4501	Forest Grove Capital Outlay	1,111,722	1,238,957	127,235	11.4%
4502	Beaverton Capital Outlay	2,140,350	2,323,625	183,275	8.6%
4503	TVWD Capital Outlay	3,058,028	3,293,593	235,565	7.7%
4504	Tigard Capital Outlay	-	-	-	0.0%
4505	Special Projects	-	-	-	0.0%
4506	CWS Capital Outlay	-	-	-	0.0%
Total Contributions in Aid (Capital Outlay)		16,750,000	18,015,500	1,265,500	7.6%
Miscellaneous and Interest					
4276	Grants - State	-	-	-	0.0%
4600	Miscellaneous Income	-	-	-	0.0%
4622	Western Lutheran School	-	-	-	0.0%
4200	Interest Earned	-	-	-	0.0%
Total Miscellaneous and Interest		-	-	-	0.0%
Contingency					
4520	Hillsboro Contingency	225,000	225,000	-	0.0%
4521	Forest Grove Contingency	66,650	66,650	-	0.0%
4522	Beaverton Contingency	125,000	125,000	-	0.0%
4523	TVWD Contingency	83,350	83,350	-	0.0%
Total Contingency		500,000	500,000	-	0.0%
Total Revenues		25,828,741	27,282,319	1,453,578	5.6%

Expenses		Budget 2017-2018	Budget 2018-2019	Change from prior year	
				\$	%
Personnel Services					
5000's	Personnel Services - Administration	605,343	514,452	(90,891)	-15.0%
5000's	Personnel Services - Operations	2,368,453	2,447,348	78,895	3.3%
Total Personnel Services		2,973,796	2,961,800	(11,996)	-0.4%
Materials and Services					
6000's	Materials and Services - Administration	499,800	431,400	(68,400)	-13.7%
6000's	Materials and Services - Operations	4,029,250	4,237,500	208,250	5.2%
Total Material and Services		4,529,050	4,668,900	139,850	3.1%
Numbers compiled from the following workbooks:					
Operating Capital Outlay					
7000-7030	Operating Capital Outlay - Administration	-	100,000	100,000	0.0%
7000-7030	Operating Capital Outlay - Operations	170,250	78,000	(92,250)	-54.2%
Total Operating Capital Outlay		170,250	178,000	7,750	4.6%
Special Payments					
8000's	Special Payments	755,645	808,119	52,474	6.9%
Total Special Payments		755,645	808,119	52,474	6.9%
Subtotal - Operating Costs		8,428,741	8,616,819	188,078	2.2%
Projects - Capital Outlay					
7040	Project Capital Outlay	16,900,000	16,165,500	(734,500)	-4.3%
7040	Project Capital Outlay - Equipment Reserve	-	2,000,000	2,000,000	0.0%
Total Project Capital Outlay		16,900,000	18,165,500	1,265,500	7.5%
Contingency					
8300	Contingency	500,000	500,000	-	0.0%
Total Contingency		500,000	500,000	-	0.0%
Total Expenses		25,828,741	27,282,319	1,453,578	5.6%

Allocation of Operating (Water Production) Costs:					
Subtotal-Operating Costs sum of [c]:		7,252,846	7,380,700	127,854	1.8%
Subtotal-Operation Costs sum of [d]:		823,845	882,839	58,994	7.2%
STL Condition Assessment Project [\$250k]		250,000	250,000	-	0.0%
Less North Plains Water Purchases [b]:		(115,000)	(115,000)	-	0.0%
Less Grant Monies		-	-	-	0.0%
Total Operating Costs:		8,211,691	8,398,539	186,848	2.3%
Plant Production %'s [sum of c]:					
Hillsboro	55.29%	3,837,595	4,080,675	243,080	6.3%
Forest Grove	3.76%	286,777	277,220	(9,557)	-3.3%
Beaverton	21.63%	1,564,237	1,596,786	32,549	2.1%
TVWD	19.32%	1,564,237	1,426,019	(138,218)	-8.8%
Totals	100%	7,252,847	7,380,700	127,854	1.8%
[Plant Production % from "Plant Prod Estimate" tab; % allocation for each partner.]					
Ownership %'s [sum of d]:					
Hillsboro	45.00%	273,058	299,605	26,547	9.7%
Forest Grove	13.33%	80,886	88,750	7,864	9.7%
Beaverton	25.00%	151,699	166,447	14,748	9.7%
TVWD	16.67%	203,203	213,037	9,834	4.8%
Totals	100%	708,845	767,839	58,994	8.3%
[Ownership % allocation for each partner on Operating Capital Outlay and Special Payments budget.]					
STL OWNERSHIP-STL CONDITION ASSESSMENT %'s [sum of e]:					
Hillsboro	52.60%	131,500	131,500	-	0%
Forest Grove	0.00%	-	-	-	0%
Beaverton	36.90%	92,250	92,250	-	0%
TVWD	10.50%	26,250	26,250	-	0%
Totals	100%	250,000	250,000	-	0%
[Project specific to STL Allocation]					
Cost per gallon:		\$ 0.000642298	\$ 0.000686201	0.00004	6.8%
Cost per CCF [see note below]:		\$ 0.48	\$ 0.51	0.03284	6.8%

JOINT WATER COMMISSION
Capital Outlay (Operating and Projects) and Contingency
2018-19 Proposed Budget

			FY 18-19 Budgeted	Hillsboro	Forest Grove	Beaverton	Tualatin Valley Water District
Projects Capital Outlay - Administration:							
Exhibit	Carryover Project #						
JWC - 01	11011	JWC-01-WTP Expansion Facility Plan, CIMP, & 75 MGD Projects	7,429,000	3,343,050	990,286	1,857,250	1,238,414
			100%	45.00%	13.33%	25.00%	16.67%
	10571	JWC WTP Expansion to 85 MGD	8,721,000	6,976,800	-	-	1,744,200
			100%	80.00%	0.00%	0.00%	20.00%
[1]	11184	New Tualatin River Permit Application	8,000	3,600	1,066	2,000	1,334
			100%	45.00%	13.33%	25.00%	16.67%
[2]		Water Management Solution Software	7,500	3,375	1,000	1,875	1,250
			100%	45.00%	13.33%	25.00%	16.67%
Projects Capital Outlay			16,165,500	10,326,825	992,352	1,861,125	2,985,198
Replacement & Acquisitions:							
		JWC Emergency Replacement & Acquisitions	2,000,000	900,000	266,600	500,000	333,400
		Emergency Replacement & Acquisitions	2,000,000	900,000	266,600	500,000	333,400
		Ownership %'s:	100%	45.00%	13.33%	25.00%	16.67%
		Sub-total - projects & equip replace	18,165,500	11,226,825	1,258,952	2,361,125	3,318,598
		Less: North Plains SDC	(150,000)	(67,500)	(19,995)	(37,500)	(25,005)
		Total Projects & Equipment Less North Plains SDC	18,015,500	11,159,325	1,238,957	2,323,625	3,293,593
		Contingency	\$ 500,000	225,000	66,650	125,000	83,350
			100%	45.00%	13.33%	25.00%	16.67%
		Total Equipment Reserve/Contingency	\$ 18,665,500	\$ 11,451,825	\$ 1,325,602	\$ 2,486,125	\$ 3,401,948
Operating Capital Outlay (Ownership %):				45.00%	13.33%	25.00%	16.67%
JWC - 02		JWC-02-Fern Hill Repairs	100,000	45,000	13,330	25,000	16,670
		Subtotal - Facilities and Improvement	100,000	45,000	13,330	25,000	16,670
	[3]	Raw Water 3 & 4 Soft Starts	16,000	7,200	2,133	4,000	2,667
	[4]	Chlorine Analyzer Equipment Upgrades	48,000	21,600	6,398	12,000	8,002
	[5]	Online Alkalinity Monitoring Equipment	14,000	6,300	1,866	3,500	2,334
		Subtotal - Equipment	78,000	35,100	10,397	19,500	13,003
		Total Operating Capital Outlay	178,000	80,100	23,727	44,500	29,673
Totals			18,843,500	11,531,925	1,349,329	2,530,625	3,431,621

Notes:

See individual project description sheets for estimated total project costs.

Percentages use for allocation of costs.

[1] Tualatin River Permit - 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.

[2] Hach WIMS- 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.

[3] Raw Water 3 & 4 Soft Starts- The Water Treatment Plant (WTP) is requesting for new soft starts for RW pumps 3 and 4. This equipment has been troublesome in the past. The age of equipment is no longer supported by the manufacturer and replacement parts are not available for purchase. In addition, when the current soft starts malfunction, these pumps/motors are not able to operate manually as the supplied power is fed thru the softstarts. The new equipment will reduce the amount of staff time required for troubleshooting and maintenance as the proposed equipment utilizes newer more advanced technology.

[4] Chlorine analyzer equipment upgrades- Replace existing reagent base chlorine analyzers with reagentless analyzers. Reagentless analyzers improve safety because they do not have a toxic chemical waste stream that needs to be disposed of, unlike the current reagent base chlorine analyzer. Transitioning to reagentless analyzers will also save approximately \$5,500/fiscal year in the cost of reagents. Some of the analyzers to be replaced have exceeded life expectancy. The WTP expansion project includes addition of new chlorine analyzers, which will be reagentless. Replacing the existing reagent base chlorine analyzers with reagentless analyzers to match those added by the construction project will improve quality control by establishing uniform process control and consistent residual measurements throughout the Water Plant.

[5] Online Alkalinity Monitoring Equipment- Install an online analyzer to constantly monitor alkalinity and give operators real time information. The current testing process is performed manually and during events, such as a storm, it is difficult to measure the alkalinity accurately. During recent winter storms, changes in alkalinity have interfered with Water Treatment Plant production.

JOINT WATER COMMISSION
2018-19 Proposed Budget
WATER TREATMENT PLANT PRODUCTION ESTIMATES

Agency	17-18 Budget		18-19 Budget		% Difference from 17-18	% alloc	Alloc of W. Lutheran and North Plains	Total Projected	
	DAILY AVG DEMAND (GPD)	ANNUAL PROJECTED TOTAL (GPD * 365 days)	DAILY AVG DEMAND (GPD)	ANNUAL PROJECTED TOTAL (GPD * 365 days)				in gallons	in MGD
Hillsboro:	18,400,000	6,716,000,000	18,400,000	6,716,000,000	0%	55.29%	50,854,000	6,766,854,000	18.5
Forest Grove:	1,375,000	501,875,000	1,250,000	456,250,000	-9%	3.76%	3,455,000	459,705,000	1.3
Beaverton:	7,500,000	2,737,500,000	7,200,000	2,628,000,000	-4%	21.63%	19,900,000	2,647,900,000	7.3
TVWD:	7,500,000	2,737,500,000	6,430,000	2,346,950,000	-14%	19.32%	17,771,000	2,364,721,000	6.5
Western Lutheran:	2,000	730,000	2,000	730,000	0%				
North Plains:	250,000	91,250,000	250,000	91,250,000	0%				
Total Plant Production:	35,027,000	12,784,855,000	33,532,000	12,239,180,000	-4%	100%	91,980,000	12,239,180,000	33.5

(730,000)	W. Lutheran
(91,250,000)	North Plains
(91,980,000)	Total W. Lutheran and N. Plains
<u><u>12,147,200,000</u></u>	Projected w/o W. Lutheran and North Plains

JWC/BRJOC EMPLOYEE ALLOCATION - FY 18-19 PROPOSED BUDGET

Job Title	JWC ADMIN %	JWC OPS %	BRJOC ADMIN %	BRJOC OPS %
ADMIN SUPPORT SPECIALIST		1%		1%
ADMIN SUPPORT SPECIALIST	65%		3%	
ADMIN SUPPORT SPECIALIST	10%			
ADMIN SUPPORT SUPERVISOR	10%		2%	
DIRECTOR WATER	15%		5%	
ELECTRICIAN		98%		1%
ENGINEERING COORDINATOR		5%		
ENGINEERING COORDINATOR		5%		
ENGINEERING TECHNICIAN		5%		5%
ENGINEERING TECHNICIAN		5%		5%
GOVT RELATIONS MGR	18%			2%
INFORMATION SYSTEMS ANALYST		5%		1%
INFORMATION SYSTEMS ANALYST		50%		
LEAD WATER PLANT OPERATOR		98%		1%
LEAD WATER PLANT OPERATOR		94%		2%
LEAD WATER PLANT OPERATOR		94%		2%
LEAD WATER PLANT OPERATOR		94%		2%
LEAD WATER PLANT OPERATOR		98%		1%
LEAD WATER PLANT OPERATOR		98%		1%
LEAD WATER PLANT OPERATOR		94%		2%
LEAD WATER PLANT OPERATOR		98%		1%
MAINTENANCE COORDINATOR		98%		1%
MANAGEMENT ANALYST	30%		10%	
PRINCIPAL ENGR		8%		2%
PROGRAM & SUPPORT MANAGER		20%		5%
PROGRAM & SUPPORT MANAGER		2%		
PROJECT ENGINEER		5%		5%
PROJECT ENGINEER		10%		
PROJECT MANAGER		10%		2%
PROJECT MANAGER		20%		2%
PROJECT SPECIALIST		40%		10%
PROJECT SPECIALIST		55%		20%
PROJECT SPECIALIST		1%		1%
PROJECT SPECIALIST		5%		
PROJECT SPECIALIST		40%		10%
SENIOR ENGINEERING TECHNICIAN		5%		
SENIOR ENGINEERING TECHNICIAN		10%		
SENIOR FACILITIES & MAINT TECH		98%		1%
SENIOR PROGRAM MANAGER		40%		5%
SENIOR PROGRAM MANAGER	90%			
SENIOR PROGRAM MANAGER		45%		10%
SENIOR PROGRAM MANAGER	8%			2%
SENIOR PROGRAM MANAGER	40%		1%	
SENIOR WATER DISTR OPERATOR				50%
SENIOR WATER PLANT OPERATOR		98%		1%
SENIOR WATER TECHNICIAN		98%		1%
SUPERVISING ELECTRICIAN		10%		10%
WATER DISTRIBUTION COORDINATOR		1%		
WATER DISTRIBUTION COORDINATOR		1%		
WATER DISTRIBUTION COORDINATOR				2%
WATER DISTRIBUTION COORDINATOR		2%		
WATER DISTRIBUTION COORDINATOR		2%		
WATER DISTRIBUTION OPERATOR		2%		
WATER DISTRIBUTION OPERATOR		2%		3%
WATER DISTRIBUTION OPERATOR		1%		
WATER DISTRIBUTION OPERATOR		2%		
WATER DISTRIBUTION OPERATOR		1%		2%
WATER DISTRIBUTION OPERATOR		1%		1%
WATER DISTRIBUTION OPERATOR		2%		1%
WATER DISTRIBUTION OPERATOR		1%		
WATER DISTRIBUTION OPERATOR		1%		1%
WATER DISTRIBUTION OPERATOR		2%		
WATER LAB COORDINATOR		85%		5%
WATER PROGRAM COORDINATOR		45%		5%
WATER PROGRAM COORDINATOR		45%		10%
WATER RESOURCE SPECIALIST		40%		10%
WATER RESOURCE SPECIALIST		65%		25%
WATER TREATMENT PLANT COORDINATOR	95%			

Personnel Services (Allocation) Totals - Proposed FY 18/19	3.81	19.61	0.21	2.30
Total Count		23.42		2.51

Total Count	JWC	BRJOC
FY 18-19 (Proposed)	23.42	2.51
FY 17-18	24.04	2.21
FY 16-17	21.69	1.68
FY 15-16	20.67	2.37
FY 14-15	21.35	2.16

Exhibit # JWC - 01
Facility Plan and WTP Expansion

FY '18-'19 Budget (Carry Over)

Item Description	Unit Cost	Quantity	Cost
Preconstruction Services	\$ 185,000	1	\$ 185,000
Construction & WTP Expansion	\$ 27,120,637	1	\$ 27,120,637
Engineering Services	\$ 5,322,870	1	\$ 5,322,870
Project Manager Hours	\$ 70.75	4200	\$ 297,150
Engineering Associate Hours	\$ 57.88	1100	\$ 63,668
Inspector Hours	\$ 52.25	4000	\$ 209,000
Misc. (Permitting, SCADA, etc.)	\$ 250,000	1	\$ 250,000
3rd Party Inspection and Contingency	\$ 33,448,325	4.4%	\$ 1,471,726
(Round up "Total" value to nearest \$10,000)			Total Budget \$ 35,000,000
			FY 15-16 Actual \$ 559,562
			FY 16-17 Actual \$ 5,216,185
			FY 17-18 Budget \$ 11,167,800
			FY 18-19 Budget \$ 16,150,000
			FY 19-20 Budget \$ 1,906,452

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.

For budget purposes the allocated budget is based on current ownership and ownership in the expansion. Preliminary budget estimates allocate 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 will be refined as pricing is received from the CM/GC contractor.

Facility Plan, CIMP and 75 MGD Projects

Partner	Percentage of Total Project Budget		Partner Budget
	FY 18-19 Budget	% Ownership	
Hillsboro	\$ 7,429,000	45.00%	\$ 3,343,050
Forest Grove	\$ 7,429,000	13.33%	\$ 990,286
Beaverton	\$ 7,429,000	25.00%	\$ 1,857,250
TVWD	\$ 7,429,000	16.67%	\$ 1,238,414
Total			\$ 7,429,000

Up to 85 MGD Expansion

Partner	Percentage of Total Project Budget		Partner Budget
	FY 18-19 Budget	% Ownership	
Hillsboro	\$ 8,721,000	80.00%	\$ 6,976,800
Forest Grove	\$ 8,721,000	0.00%	\$ -
Beaverton	\$ 8,721,000	0.00%	\$ -
TVWD	\$ 8,721,000	20.00%	\$ 1,744,200
Total			\$ 8,721,000

FY '18-'19 Budget (New)

Item Description	Unit Cost	Quantity	Cost
Engineering Services	\$ 100,000	1	\$ 100,000
Construction & WTP Expansion	\$ 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
(Round up "Total" value to nearest \$10,000)			Total Budget \$ 700,000
			FY 18-19 Budget \$ 100,000
			FY 19-20 Budget \$ 600,000

Fern Hill Reservoir #1 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

Fern Hill Reservoir #1 Repairs

Partner	FY 18-19 Budget	% Ownership	Partner Budget
Hillsboro	\$ 100,000	45.00%	\$ 45,000
Forest Grove	\$ 100,000	13.33%	\$ 13,330
Beaverton	\$ 100,000	25.00%	\$ 25,000
TVWD	\$ 100,000	16.67%	\$ 16,670
Total			\$ 100,000



STAFF REPORT

To: Joint Water Commission

From: Kevin Hanway, Water Department Director

Date: April 13, 2018

Re: Agenda Item 4B – Consider approval of 2018-19 lease for water treatment plant capacity.

Staff Recommendation:

Approve the lease of 2 million gallons per day (mgd) of water treatment plant capacity to TVWD for the lease year ending February 28, 2019.

Background:

Pursuant to Article VII of the JWC Intergovernmental Agreement, Tualatin Valley Water District (TVWD) has requested a standard one-year lease of 2 mgd of excess Water Treatment Plant (WTP) capacity from the other partners. Forest Grove made available a total of 2.5 mgd of capacity to be leased.

The lease will increase the WTP capacity available to TVWD from 12.5 mgd to 14.5 mgd beginning March 1, 2018, through February 28, 2019. The WTP capacity available to Forest Grove will be decreased by their shares of the leased amount through the same period.

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 WTP capacity was updated recently to \$51,640 per mgd, resulting in a total lease cost of \$103,280 for 2 mgd.

Attachments:

1. Lease Agreement
2. FY 2018-19 Lease payments worksheet
3. JWC Water Treatment Plant Lease Value History

LEASE OF WATER TREATMENT PLANT FACILITIES CAPACITY

This Lease of Water Treatment Facilities Capacity (“Agreement”), dated April ___, 2018, is between the City of Forest Grove (“Lessors”) and Tualatin Valley Water District (“Lessee”).

RECITALS

WHEREAS, the parties to this Agreement are members of the Joint Water Commission – Hillsboro, Forest Grove, Beaverton, Tualatin Valley Water District, and Tigard (“JWC”), an intergovernmental entity formed pursuant to ORS Ch. 190 by agreement (“Water Service Agreement”) dated October 27, 2003, and amended on April 9, 2004; and

WHEREAS, the Water Service Agreement, among other things, requires each JWC member to have capacity in the water treatment plant facilities to serve its demands for the average of its five consecutive highest peak day demands (mgd) imposed on the system by the party during both the Summer Period and the Winter Period; 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 water treatment facilities capacity, from another party, upon such terms and conditions as approved by the Commission; and

WHEREAS, the parties agree, notwithstanding the Planning Document developed pursuant to the Water Service Agreement, that the water treatment plant facilities subject to this Agreement is available for lease during the term of this Agreement; and

WHEREAS, the parties hereto agree that Lessors will lease water treatment 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 beginning March 1, 2018, or upon execution by both parties and JWC, through February 28, 2019.
2. **Supply of Water. (a)** Lessors agree to provide, and Lessee agrees to lease from Lessors, a total of **2.0** mgd of water treatment facilities capacity during the term of this Agreement, unless modified by other provisions of this Agreement. This leased quantity of water treatment plant facilities capacity is measured at the 219th Street metered connection to the JWC transmission facilities system. The individual Lessors are making available the following water treatment facilities capacity: Forest Grove – 2.0 mgd; Total 2.0 mgd.

(b) Water Treatment Plant Facilities Ownership Accounts. Each JWC member's water treatment plant facilities ownership account consists of the amount of water treatment plant facilities it owns, as described in Exhibit F to the Water Service Agreement. For the term of this Agreement, Lessors' water treatment plant facilities accounts shall be reduced, and Lessee's account increased, by the capacity 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 treatment plant facilities capacity owned by either party under the Water Service Agreement.

LESSORS' Water Treatment Plant Facilities Ownership Accounts = Total water treatment plant facilities capacity owned (in mgd) – water treatment plant facilities capacity leased to Lessee

LESSEE'S Water Treatment Plant Facilities Ownership Account = Total water treatment plant facilities capacity owned (in mgd) + water treatment plant facilities capacity leased from Lessors

(c) Water Shortage. If a general emergency or water shortage requires restrictions on finished water delivery to JWC members, each party's adjusted ownership account shall be reduced in the same proportion as JWC reduces the water treatment plant facilities capacity 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 Water Treatment Plant Facilities.** JWC will manage the operation of the JWC water treatment plant facilities in its sole discretion to satisfy the water supply requirements of all JWC members. Without limitation, the scope of JWC's water treatment plant facilities management decisions includes the water treatment plant production level and the operating level of the Fern Hill Reservoir. Neither JWC nor Lessors 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. The JWC Operations Committee will develop standards, as part of the Operations Manual, relating to management by members of variations in demands on water treatment plant facilities capacity. JWC will not use its discretion in management of water treatment plant facilities to restrict the supply of water to Lessee or any other JWC member disproportionately in relation to the water available in its adjusted water treatment plant facilities ownership account.

5. **Lease Fee. (a)** Lessee shall pay a water treatment plant facilities lease fee of \$103,280 as determined 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 the entire leased amount throughout the term of this Agreement. 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 excess water treatment facilities capacity is available and either party uses more water treatment plant 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 water treatment plant facilities capacity at the rate of 1/365 of the annual rate for leased water treatment plant capacity (\$141.48 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 capacity. [Example: Partner A's adjusted water treatment plant facilities ownership account consists of 7 mgd of owned and/or leased capacity. During the course of the lease year, Partner A uses a maximum daily rate of 11 mgd of capacity, including 130 days of at least 9 mgd. Partner A must pay the full annual lease rate for 2 mgd (9 mgd used for more than 120 days, less 7 mgd in A's adjusted ownership account), plus \$141.48 per mgd for each day that Partner A used capacity in excess of 9 mgd.] Payment shall be made within 30 days of billing by JWC. A late fee of 1.5 percent per month shall be assessed for any unpaid balance.

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

Lessors:

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

Lessee:

Chief Executive Officer
Tualatin Valley Water District
1850 SW 170th Avenue
P.O. Box 745
Beaverton, OR 97075

Managing Agency:

General Manager
JWC
150 East Main Street
Hillsboro, OR 97123

Notice to Lessors must be provided to all of the Lessors.

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, Emergency, 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.

(Continued on next page)

10. **Full Agreement.** This document is the entire, final and complete agreement of the parties pertaining to Lessee's lease of water treatment plant facilities 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.

LESSORS:

LESSEE:

City of Forest Grove

Tualatin Valley Water District

By: _____

By: _____

APPROVED AS TO FORM AND CONTENT:

JOINT WATER COMMISSION

By: _____

**FY 2018-2019
LEASE PAYMENTS**

TVWD						
Asset Leased	Own	Qty requested	Quantity leased	Unit of measure	Price per unit	Extended
WTP Capacity	12.50	2.00	2.00	MGD	51,640	103,280
Total					TVWD Expense	103,280

Total Payments 103,280

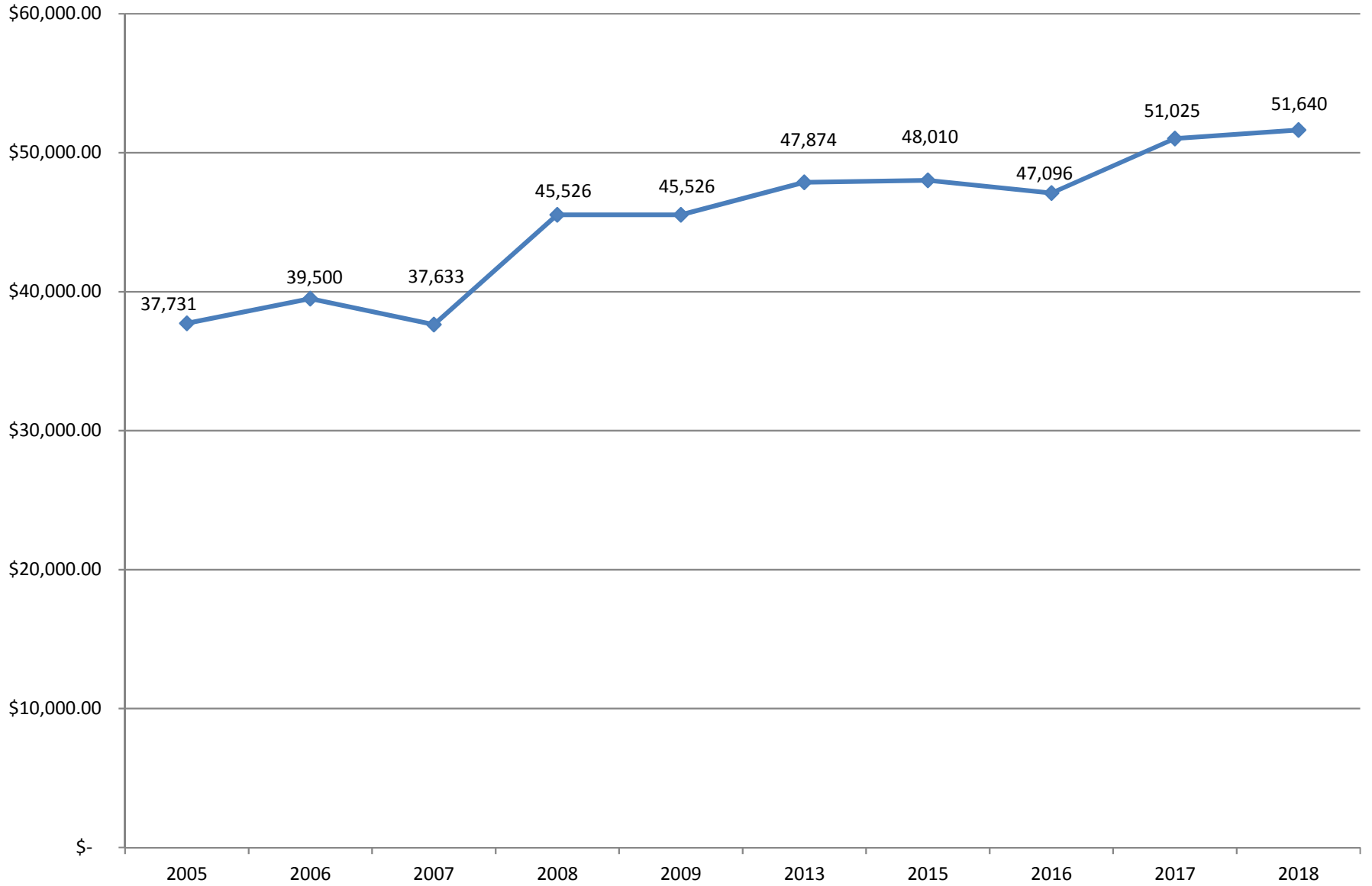
FOREST GROVE						
Asset Leased	Own	Avail Lease	Qty Leased	Unit of measure	Price per unit	Extended
WTP Capacity	10.00	2.50	2.00	MGD	51,640	103,280
Total						103,280

Treatment

ASSUMPTIONS:	1976 Expansion	Fern Hill Reservoir	1985 Expansion	1999 Expansion	2006 WTP Improvements Asset #10280	Fern Hill Reservoir II Asset #10284	Lab/Lunchroom Improvements #10695 & 10278	JWC Stairwell Enclosure Asset #10751	Lighting Equip Asset #10843	Lighting Upgrade to JWTP #10910	Quonset Hut Recond & Security #10914	Electrical Assessment #10523	WTP Electrical Panel Upgrade #10684	Filter 9-14 Valve Replacement #10709	Pump Station #1 Ball Valve #10707	Pump 4 & 5 Replacement #10714	VFD Repair/Replace #10715	Re-Roof of WTP Ops Building #10828	WTP CIP Seismic Planning Vulnerability Study #10913	Construction Portion of On-Site Power Generation #10414	Totals
Year of appraisal/construction	1993	1993	1993	1999	2008	2008	2010	2011	2012	2014	2014	2014	2014	2014	2014	2014	2014	2016	2016	2017	
Year of Construction	1976	1982	1985	1999	2006	2008	2010	2011	2012	2014	2014	2014	2014	2014	2014	2014	2014	2016	2016	2017	
Cost of Construction	\$ 13,774,254	\$ 3,508,000	\$ 2,406,812	\$ 19,673,706	\$ 6,145,985	\$ 18,934,093	\$ 302,004	\$ 30,135	\$ 18,537	\$ 32,576	\$ 75,348	\$ 54,635	\$ 1,197,827	\$ 108,550	\$ 298,149	\$ 221,765	\$ 45,710	\$ 236,712	\$ 161,496	\$ 5,443,671	\$ 72,669,965
Storage Capacity (mgd)	n/a	20	n/a	n/a	n/a	20	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	40
Capacity (mgd)	20	n/a	20	20	10	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	70
Useful Life	50	50	50	50	40	50	30	30	30	30	30	50	50	50	50	50	50	30	30	30	30
Month and Year Lease Entered Into	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018	2018
Municipal Bond Index - Year of lease	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18	Mar-18
Year of lease	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%	3.14%
Engineering News Record Index - Month/Year Construction Complete	5,336.00	5,336.00	5,336.00	6,931.66	8,625.08	8,625.08	8,660.08	8,938.00	9,059.77	10,140.15	10,140.15	10,140.15	10,140.15	10,140.15	10,140.15	10,140.15	10,140.15	10,571.41	10,571.41	10,717.83	
Engineering News Record Index - Dec prior to Mo/Year of Lease	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73	10,622.73
LEASE CALCULATION:	1976 Expansion	Fern Hill Reservoir	1985 Expansion	1999 Expansion	2006 WTP Improvements	Fern Hill Reservoir II	Lab/Lunchroom Improvements	JWC Stairwell Enclosure	Lighting Equip	Lighting Upgrade	Quonset Hut	Electrical Assessment	Electrical Panel Upgrade	Filter 9-14 Valve Replacement	Pump Station #1 Ball Valve	Pump 4 & 5 Replacement	VFD Repair/Replace	Re-Roof of WTP Ops Building	WTP CIP Seismic Planning Vulnerability Study	Construction Portion of On-Site Power Generation	Totals
Replacement Cost	\$ 27,421,323	\$ 6,983,609	4,791,401	30,149,844	7,569,453	23,319,408	370,447	35,815	21,735	34,127	78,934	57,235	1,254,833	113,716	312,338	232,319	47,886	237,861	162,280	5,395,369	108,589,932
Accumulated Depreciation	(13,710,662)	(3,491,804)	(2,395,700)	(11,456,941)	(1,892,363)	(4,663,882)	(98,786)	(8,357)	(4,347)	(4,550)	(10,524)	(4,579)	(100,387)	(9,097)	(24,987)	(18,586)	(3,831)	(15,857)	(10,819)	(179,846)	(38,105,904)
Depreciated Replacement Cost	13,710,662	3,491,804	2,395,700	18,692,903	5,677,090	18,655,526	271,661	27,458	17,388	29,576	68,409	52,656	1,154,446	104,619	287,351	213,733	44,055	222,004	151,462	5,215,523	70,484,028
Lease Payment	799,707	203,668	139,735	952,071	294,907	825,449	17,286	1,694	1,042	1,681	3,889	2,179	47,771	4,329	11,891	8,844	1,823	12,035	8,211	276,614	3,614,826
ANNUAL COST																					51,640

Previous lease charged in 2017 \$ 51,025

JWC Water Treatment Lease Value (per 1 mgd WTP capacity)





STAFF REPORT

To: Joint Water Commission

From: Sophia Hobet, Water Treatment and Distribution Manager

Date: April 13, 2018

Subject: Agenda Item 4C – Consider approval of contract renewal with Univar USA, Inc. for the purchase of caustic soda.

Staff Recommendation:

Approve the chemical contract renewal for Caustic Soda with Univar USA, Inc., for a period of one year, in the amount of \$530,625.

Cost:

Contract Pricing Escalation due to turbulence in the global marketplace:

July 2015 – June 2017: \$275,262 annually (\$440/ton)

July 2017 – June 2018: \$429,687 annually (\$687/ton)

Proposed Contract for July 2018 – June 2019: \$530,625 annually (\$849/ton)

Background:

The Joint Water Commission (JWC) Water Treatment Plant (WTP) utilizes Caustic Soda (Caustic), in the treatment process for corrosion control. Injecting Caustic into the finished water, just prior to delivery into the distribution system, raises the pH of the finished water above the State's minimum requirement of 7.2. (The WTP treats to optimum pH of 7.6-7.8.)

In July of 2015, the JWC contracted with Univar USA, Inc. to supply and deliver Caustic for a period of two years, with an option to renew the contract for up to five years. Last year the JWC renewed the contract for one year only, since during the renewal process the JWC was notified by Univar of an annual price increase of 157%. This steep price escalation was due to worldwide market conditions.

The JWC started market research early this calendar year and kept in contact with Univar to follow the market fluctuations. Currently, the Caustic market is still not stabilized and continues to rise. Caustic Soda is a global commodity, and the West Coast market is primarily supplied by import caustic.

With consideration of these global factors, Univar is proposing to renew the Caustic contract with the JWC for another year starting July 2018, with a renewal price of \$849.00/ton, or \$530,625.

After conducting comparative research on the vendor market, and researching the reasons for caustic market instability, the JWC Operations Committee recommended that JWC accept this offer and renew the contract for one year, instead of posting an Invitation to Bid.

Additional Information:

An informal price verification was also conducted with one neighboring water utility, which corroborated the Caustic Soda current pricing.

Univar USA, Inc. has been supplying Caustic Soda to the JWC WTP for the last five years and have an excellent track record for maintaining the chemical's quality and keeping the product deliveries on time.



STAFF REPORT

To: Joint Water Commission

From: Erika Murphy, Project Manager

Date: April 13, 2018

Subject: Agenda Item 4D – Consider amendment to CH2M Hill design services contract for the Joint Water Commission Water Treatment Plant Expansion to 85 Million Gallons per Day Project

Staff Recommendation:

Approve contract amendment with CH2M on the Joint Water Commission (JWC) Expansion to 85 Million Gallons per Day (MGD) Project.

Cost:

Amendment budget is not to exceed \$436,000.00.

Background:

JWC contracted with CH2M for professional services for the JWC Water Treatment Plant (WTP) Expansion to 85 MGD project. The contract includes the Facility Plan, bidding phase services, detailed design, permitting assistance, and construction phase services. The total contract amount is \$5,322,870. This contract amount includes \$330,000 in Management Reserves, which must be authorized for release by the JWC General Manager. To date, \$53,000 has been released from the Management Reserves to cover a filter pilot study required by Oregon Health Authority, and for Facility Plan revisions. \$277,000 of the Management Reserve funds are remaining. A summary of the CH2M scope is below:

CH2M Consultant Services Contract	
Total CH2M Contract (signed 01/25/16)	\$ 5,322,870
CH2M Defined Scope	\$ 4,992,870
Management Reserves:	
Facility Plan	\$ 70,000
Detailed Design	\$ 170,000
Services During Construction	\$ 90,000
Proposed Contract Amendment #1	\$ 436,000
Proposed Total CH2M Contract Amount	\$ 5,758,870

Contract Amendment #1:

SCADA integration work for Package 2 improvements is extensive. Portland Engineering (PEI) completed the work for Package 1, and it was assumed that they would also perform the Package 2 work. However, a number of concerns during the Package 1 improvements caused staff to seek an alternative firm for this work. CH2M provided a scope and fee. The JWC Operations Committee discussed the qualifications of the team and determined that CH2M would be a suitable firm. In addition, efficiencies in having the design team and integration team at the same firm should result in cost savings.

In August 2017, the JWC Operations Committee forwarded a recommendation to the Management Committee to consider CH2M for completion of the SCADA integration services for Package 2. The scope of work was reviewed and the fee is not to exceed \$436,000. Since the proposed work is outside of the original CH2M scope, staff proposed that the work be captured in a Contract Amendment (Change Order). Staff has prepared a contract amendment to the CH2M contract, which will increase the total contract price to \$5,758,870.

Attachments:

Contract Amendment

Contract Amendment Exhibit A-1 SOW and Fee



**AMENDMENT 1 TO PROFESSIONAL SERVICES CONTRACT #1934
ENGINEERING SERVICES FOR THE JWC WTP EXPANSION TO 85MGD PROJECT**

This Amendment 1 between the Joint Water Commission (“JWC”), a collective water supply agency formed under ORS 190 agreement between the Cities of Hillsboro, Forest Grove, Beaverton, and the Tualatin Valley Water District, and CH2M, changes certain contract provision of the above named contract, during the contract term.

1. JWC and Contractor previously entered into a Contract for professional services for the WTP Expansion to 85MGD, which includes professional engineering services to complete design and construction services dated March 24, 2016.
2. Now the parties propose Amendment 1 to add Integration and Programming Services to assist the JWC in integrating new systems into the existing plant control system.

The parties agree as follows:

I. Amended Fee for Professional Services Agreement.

This contract amendment increases the total contract value. The contract total is increased by \$436,000, resulting in a new total contract value of \$5,758,870.00.

II. Amended Termination Date.

This contract amendment does not change the contract termination date.

III. Amended Tasks, Terms and/or Conditions.

The contract tasks, terms and/or conditions are amended as per Exhibit A-1, attached; Scope of Work and Fee for Integration and Programming Services for Package 2.

I certify that I have the authority to sign and enter into this contract amendment on behalf of the party I represent and agree to be bound by its terms.

CH2M

Joint Water Commission

Signature

Signature

Contractor Printed Name and Title

Printed Name and Title

Date

Date

Exhibit A-1

Joint Water Commission

Expansion to 85 MGD

Design Change Notice 8:

Integration and Programming Services Package 2 Work Element
Scope of Work and Fee

Hillsboro, OR

August 23, 2017



Scope of Work

Integration and Programming Services

Background

Currently upgrades are underway at the Joint Water Commission's Fernhill Water Treatment Plant in Forest Grove, Oregon to increase its operational capacity to 85 Million Gallons per Day (MGD). As part of this upgrade, additional treatment facilities will be constructed and there is a need to integrate the new systems into the existing plant wide control system.

The existing plant control system consists of a Wonderware ArchestrA application, Allen Bradley Control Logix PLCs, and standalone touch panels that reside on the control network. In addition, as part of the planned upgrade, a fiber based ring control network will be established in which will serve as a communication foundation for the new PLC systems. Systems in scope of this effort are those covered in the Design Package 2 Contract Documents. CH2M will provide integration, HMI development, PLC Programming, and control commissioning services described forthwith in coordination with the facility upgrade efforts and submitted Control Narrative.

PLC Programming

Programming for all upgraded systems will be developed and added to existing control schemes where needed to incorporate the new systems. In existing systems for which programming will be added to, programming will adhere to the existing standards within the code. For new standalone systems, PLC function programming standards outlined in the Control Narrative Appendix A will be employed. Copies of all PLC programs for the site will be required as a basis to build the new control systems. Updates to the in-service programming during the development period shall be communicated to CH2M so those updates may be incorporated in the expanded control programming.

A simulation model of the process systems will be developed and used to test certain control modules. Programming will occur in a lab environment at CH2M offices to allow for testing and verification of operations. When systems are ready to be commissioned at the site, the tested program(s) will be loaded into the site PLCs and equipment commissioning, in adherence to Contract Documents for the project provided under Specification Section 40 90 00 and coordination with system installation contractor will be completed.

Systems requiring PLC Programming are as follows:

- Flash Mix Control Valve (existing PLC)
- Filters 15 and 16 Systems (new Filter PLC)
- All Filter Flow Control and Balancing (new Filter PLC and existing filter flow control)
- Surge Basin flow control (new filter PLC and existing flow programming)
- Polymer Filter Aid (new Polymer PLC)
- Polymer Blend Units (existing PLC)
- Decant Pump Station 2 (new Decant PLC and existing Decant PS1 PLC)
- Chlorinators 6 and 7 (existing PLC)
- Analyzer programming (existing and new PLCs)

Wonderware HMI Programming

Wonderware HMI programming will be developed and added to existing ArchestrA application for the additional systems being installed as part of the facility upgrade. The programming will be developed in a lab environment at CH2M offices and established visual and graphic standards will be maintained.

New HMI objects and screens will be imported and tested in coordination with installation contractor and PLC commissioning activities. Details of HMI additions for each respective system are outlined in the Control Narrative.

Any changes to the in-service HMI application during development shall be communicated to CH2M so that those updates are incorporated in the final version.

Systems requiring new HMI screens or graphics are as follows:

- Flash Mix Control Valve (existing HMI Screen)
- Filter 15 and 16 Systems (new Filter HMI Screen)
- All Filter Flow Control and Balancing (new Filter HMI Screen)
- Surge Basin flow control (new filter HMI Screen)
- Polymer Filter Aid (new Polymer HMI Screen)
- Polymer Blend Units (existing HMI Screen)
- Decant Pump Station 2 (new and existing Decant HMI Screen)
- Chlorinators 6 and 7 (existing HMI Screen)
- Analyzer programming (new and existing HMI Screen)

Touch Panel Programming

A development Touch Panel and associated software will be required for CH2M to develop the touch panel HMI applications for the new systems. The touch panel programming will be developed in a lab environment at CH2M offices and tested in coordination with PLC development. The touch panel application will be loaded into the respective site installed equipment in coordination with installation contractor and PLC commissioning activities. Touch Panel will be programmed with established visual and graphic standards. CH2M will require copies of existing touch panel programs on which to base design of functions and graphics.

Systems requiring Touch Panel development:

- Filters 15 and 16 Control Panel
- Polymer Control Panel
- Decant Pump Station 2

Additional Systems

Water Quality Analyzers

Analyzer data will be programmed to be acquired via serial or Ethernet communication and displayed on applicable system HMI screens for value display and alarming purposes. The graphics will be built to adhere to existing standards. Analyzers include Particle Counter, Turbidity, Total Suspended Solids, and Residual Chlorine.

Chlorinators

Chlorinators 6 and 7 will be integrated into the system in kind to the existing 5 chlorinators. PLC and HMI control programming will meet established standards. Programming will function as described in Control Narrative.

Fiber Switch Setup

Configuration and set up Fiber Ring switches by CH2M will be coordinated with the installation contractor. Security and programming efforts beyond basic configuration to enable ring functionality may be evaluated as a separate work task at time of installation.

Security Cameras

Configuration and support of security cameras for the new filter building will be accomplished in coordination with the installation contractor. Transfer over site wide cameras to dedicated Fiber Ring will occur at owner's schedule availability. IP addresses of all site cameras will be coordinated and documented.

Site Commissioning

Site commissioning will be done in coordination with the installation contractor and owner. There will be several commissioning efforts, separated by the major systems and their installation schedule. Once the system(s) have been completely installed, engineers will travel to site for 3 days to commission the systems scheduled. There will be a maximum of 5 commissioning sessions, each with up to three engineers for support and for a duration of 3

days, plus travel. Commissioning shall follow guidelines described in specification 40 90 00. Planned commissioning efforts are as follows (subject to change dependent on construction schedule):

1. Polymer Systems and Chlorinator
2. Fiber Ring setup
3. Decant Pump Stations
4. Filters 15-16 and Surge Basin
5. Filters 15-16 (cont'd), Camera System, and Site Analyzers



Design Adjustment

Client: Joint Water Commission No.: 8
 Project Name: Expansion to 85 MGD Date: 23-Aug-17
 Project No.: 672638 Attn: Erika Murphy, PE
 Project Element Integration and Programming Services

Description of Change: CH2M to perform software programming and Integration Services for

Package 2 of the 85 MGD Expansion

Reason for Change: Request of JWC

Change Requested By: JWC Date of Request: Jul-17

This is to notify you that the change described will increase design costs by an estimated **\$ 436,000**
 The breakdown of this increase is as follows:

Activity	Hours	Cost
Flash Mix Control Valve	48	\$ 8,600
Filters 15 & 16	420	\$ 75,200
All Filter Flow Control and Balancing	320	\$ 63,400
Surge Basin Outlet Flow Control and Optimization (all 3)	170	\$ 30,750
Polymer Filter Aid Units (all 4)	220	\$ 37,900
Polymer Filter Blend Units (all 4)	220	\$ 37,900
Decant PS1 & PS2	176	\$ 30,800
Chlorinators 6 & 7	84	\$ 14,500
Analyzer Programming	80	\$ 14,000
Fiber Switch Setup	100	\$ 15,500
Camera Systems	80	\$ 13,500
Site Commissioning 1 - Polymer and Chlorinators	96	\$ 17,000
Site Commissioning 2 - Fiber Ring Setup	64	\$ 10,750
Site Commissioning 3 - Decant Pump Stations	96	\$ 17,000
Site Commissioning 4 - Filters 15/16 and Surge Basin	96	\$ 17,000
Site Commissioning 5 - Filters 15/16/Cameras/Analyzers	96	\$ 17,000
Expenses		\$ 15,200
TOTAL		\$ 436,000

New Funding
 Request Use of Management Reserve Funds

Estimated Effect on Construction: Construction Cost Change Estimate:

Design Schedule Increase No Change Decrease
 Construction Costs Increase No Change Decrease
 Construction Schedule Increase No Change Decrease

Please check appropriate box, sign below, and return one copy to project team.

CH2M: Approved (Proceed) _____
 _____ Lead _____ Design Manager
 Hold until _____
 Disapproved
 By: Brad Phelps

 Project Manager

Please check appropriate box, sign below, and return one copy to CH2M Hill.

Client: Approved _____
 _____ Client Project Manager
 Disapproved
 By: _____
 _____ Client _____ Date



STAFF REPORT

To: Joint Water Commission

From: Erika Murphy, Project Manager
Niki Iverson, Water Resources Manager

Date: April 13, 2018

Subject: Agenda Item 6A – Consider approval of Resolution 131-J, adopting the JWC Water Treatment Plant Facility Plan

Staff Recommendation:

Approve Resolution 131-J, adopting the revised JWC WTP Facility Plan.

Background:

Attached is the draft final version of the revised Facility Plan. The JWC Water Treatment Plant (WTP) Facility Plan was adopted by the Commission in January 2017. This plan has been updated and revised as part of ongoing planning efforts currently being done by the Water Resources Division. All revisions have been made and are displayed in “track changes” format to allow quicker review of modifications.

The Facility Plan developed preliminary assumptions about WTP processes, an interim WTP expansion to 105 MGD, and WTP layout for a potential future WTP replacement program. The Facility Plan assumptions guided the design and location of the structures and facilities for the current near-term Upgrade and Expansion project.

The revised Facility Plan adds considerations for a potential future expansion project to 130 MGD. In the future, the Joint Water Commission will be responsible for making decisions on an updated Capital Improvements Plan (CIP) that identifies what water treatment plant facilities should be built and when they should be built, including decisions on phasing and partner priorities. The current understanding is that the updated CIP will be developed by JWC member agencies through the next JWC master plan update, which is tentatively planned to begin sometime after completion of the current WTP expansion project. That updated master plan and CIP will then require review and approval by the full Commission.

Attached is proposed Resolution 131-J to adopt the Facility Plan. If the Commission approves the proposed resolution, all of the “track changes” revisions displayed in the attached Facility Plan will be accepted and included in the final “clean” version of the document.

Attachments:

1. *Revised WTP Facility Plan* (Available online at <http://jwcwater.org/what-we-do/current-projects/>)
2. *Proposed Resolution 131-J*

RESOLUTION # 131-J

A RESOLUTION OF THE JOINT WATER COMMISSION ADOPTING THE RECOMMENDATIONS AND FINDINGS OF THE WATER TREATMENT PLANT FACILITY PLAN

RECITALS:

WHEREAS, the Joint Water Commission (JWC) is authorized as an intergovernmental entity to manage JWC water sources and provide treatment, storage and transmission of potable drinking water for distribution to water users served by the JWC Members; and

WHEREAS, one ongoing task of the JWC is to plan for improvements necessary to supply the projected water demands of the Members through coordinated expansion, and

WHEREAS, the objective of the Water Treatment Plant (WTP) Facility Plan is to prepare a site layout for future expansions, so that current capital improvements can be constructed with future expansion in mind, with the knowledge that any future WTP buildout must first be planned and scheduled in the next JWC Master Plan, and that Master Plan and future buildout must be approved separately by a future JWC Board; and

WHEREAS, the Commission had approved the findings on the original Water Treatment Plant Facility Plan by Resolution 130-J at the Board meeting on January 13, 2017; and

WHEREAS, the Joint Water Commission has reviewed the revised Water Treatment Plant Facility Plan, and provided opportunity for Board questions and feedback to be incorporated into the Plan; and

WHEREAS, staff presented an overview of the revised WTP Facility Plan to Commissioners at the Board meeting on April 13, 2018;

NOW THEREFORE, THE JOINT WATER COMMISSION RESOLVES AS FOLLOWS:

SECTION 1: The revised JWC WTP Facility Plan attached hereto as Exhibit 1 and incorporated by reference is hereby approved and adopted, subject to future modification as needed, and this revised WTP Facility Plan replaces the WTP Facility Plan previously approved on January 13, 2017.

SECTION 2: The Resolution takes effect immediately upon adoption by the Joint Water Commission based on the Recitals above incorporated herein.

THIS RESOLUTION WAS DULY ADOPTED BY the Joint Water Commission at its regular meeting on April 13, 2018.

By: _____
Chair

ATTEST:

By: _____
Secretary

JWC QUARTERLY REPORT

YTD Through 2/28/2018

JWC RESOURCES	REVISED BUDGET 17/18	YTD 17/18	ENCUMBRANCE	YTD TOTAL	AVAIL REMAIN 17/18	% USED
BEGINNING WORKING CAPITAL	-	-	-	-	-	
WATER SALES						
HILLSBORO - WATER PURCH	4,242,153	1,475,301	-	1,475,301	2,766,852	35%
FOREST GROVE - WATER PURCH	367,662	140,463	-	140,463	227,199	38%
BEAVERTON - WATER PURCH	1,808,186	602,007	-	602,007	1,206,179	33%
TVWD - WATER PURCH	1,793,690	683,183	-	683,183	1,110,507	38%
NORTH PLAINS - WATER PURCH	115,000	114,206	-	114,206	794	76%
NORTH PLAINS SDC	150,000	23,872	-	23,872	126,128	0%
TOTAL WATER SALES:	8,476,691	3,039,031	-	3,039,031	5,437,660	36%
CONTRIBUTIONS IN AID						
HILLSBORO - CAPITAL OUTLAY	10,439,900	1,515,899	-	1,515,899	8,924,001	15%
FOREST GROVE - CAPITAL OUTLAY	1,111,722	106,023	-	106,023	1,005,699	10%
BEAVERTON - CAPITAL OUTLAY	2,140,350	134,972	-	134,972	2,005,378	6%
TVWD - CAPITAL OUTLAY	3,058,028	515,842	-	515,842	2,542,186	17%
CWS - CAPITAL OUTLAY	-	15	-	15	(15)	0%
TOTAL CONTRIBUTIONS IN AID:	16,750,000	2,272,751	-	2,272,751	14,477,249	14%
OTHER						
GRANTS AND DONATIONS	-	-	-	-	-	0%
WESTERN LUTHERAN SCHOOL	-	1,096	-	1,096	(1,096)	0%
INTEREST EARNED	-	9,986	-	9,986	(9,986)	0%
MISCELLANEOUS INCOME	-	28,002	-	28,002	(28,002)	0%
LEASE REVENUE	102,050	-	-	-	102,050	0%
TOTAL OTHER:	102,050	39,084	-	39,084	62,966	38%
CONTINGENCY						
HILLSBORO-CONTINGENCY	225,000	-	-	-	225,000	0%
FOREST GROVE - CONTINGENCY	66,650	-	-	-	66,650	0%
BEAVERTON - CONTINGENCY	125,000	-	-	-	125,000	0%
TVWD - CONTINGENCY	83,350	-	-	-	83,350	0%
TOTAL CONTINGENCY:	500,000	-	-	-	500,000	0%
TOTAL RESOURCES:	25,828,741	5,350,865	-	5,350,865	20,477,876	21%

JWC REQUIREMENTS	REVISED BUDGET 17/18	YTD 17/18	ENCUMBRANCE	YTD TOTAL	AVAIL REMAIN 17/18	% USED
PERSONAL SERVICES	2,973,796	1,863,732	-	1,863,732	1,110,064	63%
MATERIALS AND SERVICES	4,529,050	2,014,699	1,269,328	3,284,027	1,245,023	73%
CAPITAL OUTLAY*	17,070,250	5,277,720	18,886,347	24,164,067	(7,093,817)	142%
SPECIAL PAYMENTS	755,645	428,541	-	428,541	327,104	57%
CONTINGENCY	500,000	-	-	-	500,000	0%
TOTAL REQUIREMENTS:	25,828,741	9,584,692	20,155,676	29,740,368	(3,911,627)	115%

TOTAL RESOURCES AND REQUIREMENTS

	REVISED BUDGET 17/18	YTD 17/18	ENCUMBRANCE	YTD TOTAL	AVAIL REMAIN 17/18	% USED
TOTAL RESOURCES	25,828,741	5,350,865	-	5,350,865	20,477,876	21%
TOTAL REQUIREMENTS	25,828,741	9,584,692	20,155,676	29,740,368	(3,911,627)	115%
NET INCOME (LOSS)	-	(4,233,827)	(20,155,676)	(24,389,503)	24,389,503	
BEGINNING WORKING CAPITAL	-	-	-	-	-	
ENDING WORKING CAPITAL	-	(4,233,827)	(20,155,676)	(24,389,503)	-	

Note:

* Capital Outlay encumbrances include contracts that extends into FY 19-20 for work related to WTP expansion project.