

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
Mark Knudson

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

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

October 13, 2017
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, July 14, 2017.

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

A. None scheduled.

3. **UNFINISHED BUSINESS**

A. None scheduled.

4. **NEW BUSINESS**

A. Consider approval of the Guaranteed Maximum Price for Package 2.
Staff Report – Erika Murphy



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

- A. PGE/ENERNOC update. *Staff Report – Chris Wilson*
- B. Stored water status. *Staff Report – Niki Iverson*
- C. Financial Report Update. *Staff Report – Mellisa Franklin*
- D. General Manager’s Report. *Staff Report – Kevin Hanway*

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.

7. **ADVICE/INFORMATION ITEMS**

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

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

MINUTES

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

July 14, 2017
12:30 p.m.
Regular Meeting

Commissioners Present:

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

Staff Present:

Hillsboro: Kevin Hanway, Niki Iverson, Tyler Wubbena, Sophia Hobet,
Tacy Steele, Erika Murphy, Mellisa Franklin, Kristel Fesler,
Chris Wilson, Jessica Dorsey, Carrie Dale and Tonya Bilderbeck
Beaverton: David Winship
Forest Grove: Rob Foster and Derek Robbins
Tualatin Valley Water District: Pete Boone and Carrie Pak
Clean Water Services: Mac Martin and Tom VanderPlaat

Others:

Clark Balfour – TVWD Attorney
Tommy Brooks – Attorney
Laura Maffei – Attorney
Kerry Larsen - Slater Construction
Adam Sussman - GSI
Kim Grigsby - GSI
Owen McMurtrey - GSI

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, April 14, 2017.

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

2. COMMUNICATIONS AND NON-AGENDA ITEMS

A. None scheduled.

3. UNFINISHED BUSINESS

A. None scheduled.

4. NEW BUSINESS

A. Consider approval of the Guaranteed Maximum Price for the Early Work Grading Package. *Staff Report – Tyler Wubbena*

Wubbena introduced Brad Phelps with CH2M as the project manager on the WTP Expansion project.

Phelps reviewed the Project objectives for Package 2 Early Work Amendment as follows:

- Take advantage of dry weather for deep excavations
- Anticipated cost savings for excavation and dewatering of surge basin and filter structures
- Expedite work that would have been included as part of Package 2 construction

Phelps reviewed the scope of work as follows:

- Deep excavations for filter and surge basin structures
- Installation of dewatering wells and pumps
- Relocate utilities
- Erosion control
- Haul road construction
- Stockpile excavated material for Package 2

Phelps said guaranteed maximum that is proposed for award is \$872,451.00.

Motion by Doane and seconded by Fuiten, to approve the Guaranteed Maximum Price for early work grading package in the amount of \$872,451, as presented. Motion carried unanimously with Commissioners Godsey, Judah, Raber, Fuiten, Heisler, Truax, San Soucie, Doyle, Doane, Schmidt and Knudson all voting in favor.

Phelps provided an update on package 1, highlighting the project objectives of Seismic life safety; achieve sustainable 75mgd capacity and CIMP maintenance projects. With an overall

construction package 1 cost of \$4.87 million. \He reviewed the Package 1 work to be completed and Package 2 project design elements.

- B. Consider approval of contract renewal with Univar USA, Inc. for Caustic Soda. *Staff Report – Sophia Hobet*

Hobet reviewed the proposed contract renewal with Univar. She said the original contract allowed for a three year renewal. Hobet contacted Univar in early April, for a renewal quote. The quote received reflected a 272% increase. She said the JWC Operations Committee suggested staff go out to bid for a new contract. Prior to publishing the RFP, staff was able to negotiate with Univar for a price of \$687/ton. Staff presented this to the Operations Committee, and based on the history with Univar as a good supplier that has consistently delivered a quality product on a satisfactory delivery schedule, the committee unanimously agreed for a one-year renewal.

San Soucie asked if the intent was to go out for bid next year. Hobet confirmed that staff planned to publish an RFP next year.

Godsey asked if the substantial increase was due to a blip in the market or if it was an ongoing increase. Hobet said staff could not find long term intent for the increase. She reported that staff checked historical pricing and said in 2009 the price was over \$600/ton.

Fuiten asked if staff could use a futures contract to stabilize costs. Hanway said staff will explore that option in the next RFP.

Motion by San Soucie and seconded by Godsey, to approve the contract renewal with Univar USA, Inc. for caustic soda, as presented. Motion carried unanimously with Commissioners Godsey, Judah, Raber, Fuiten, Heisler, Truax, San Soucie, Doyle, Doane, Schmidt and Knudson all voting in favor.

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

- A. Water Quality Program update. *Staff Report – Jessica Dorsey*

Dorsey provided an overview of the JWC Water Quality program. She said staff from each agency form the JWC Water Quality Committee. The committee meets quarterly to discuss and review recommendations on regulatory monitoring requirements, discuss source water quality monitoring topics and make recommendations to the JWC Operations Committee as needed, as well as share information on individual systems.

Dorsey reviewed the three main JWC Source Water Quality Monitoring programs:

1. Barney Reservoir routine monitoring
 - Main pool
 - Three main streams
 - Water heading out to Tualatin

2. Hagg Lake routine monitoring
 - Main pool
 - Three main tributaries
3. Mid-Tualatin streams routine monitoring
 - Wapato lake

Dorsey covered the parameters that are monitored. She said Edge Analytical holds the main testing contract; however, algae is tested by a separate specialist lab.

Dorsey reviewed examples of data analysis for Total Organic Carbon.

B. Water Quality LT2 test results. *Staff Report – Jessica Dorsey*

Dorsey reported the Long Term 2 update has been completed.

Knudson noted staff-indicated results from 2006-2014, and asked if the timing of tests suggests that Crypto levels increase over time? Dorsey responded that staff must notify the State six months in advance the sample dates schedule, once the schedule is submitted the dates cannot be changed.

Dorsey reviewed the development of the Harmful Algal Bloom Monitoring and Response Plan, and noted that the JWC had received an AWWA award for the Plan. Awards for each agency were on the table and available for pick-up after the meeting's conclusion.

Judah asked if staff communicates water quality information to customers, or if it is provided on the website? Iverson responded that staff distributes results to JWC partners, and is included in the Customer Confidence Reports. She said that staff will make field calls and provide information if an event happens or there is important information they need to be aware of. She indicated there are specific actions required by the EPA and specific language to use. There is also a water quality page with most test results available on the JWC website.

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

Fesler reported Scoggins storage is 89.9% full. She said releases started on June 22, 2017.

San Soucie asked how decisions are made on how to draw from Barney or Scoggins. Fesler said considerations are balanced between each agencies storage and reservoirs.

D. Scoggins Project Presentation. *Staff Report – Tom VanderPlaat, CWS*

VanderPlaat reviewed a presentation on the current status of the Scoggins Project. Commissioner Doane asked how much water Clean Water Services actually needs. VanderPlaat responded that the exact quantity is unknown at this time.

E. General Manager’s Report. *Staff Report – Kevin Hanway*

Hanway advised the Commissioners and staff that tours of Barney Reservoir and Hagg Lake have been scheduled for August 31 and September 7, 2017. He reported that staff hosted a tour for Susan Bonamici and Catherine Herrington at Springhill Pump Plant, Wapato Refuge Area and the Fern Hill Wetlands.

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 staff to continue the Feasibility Study as discussed in Executive Session. Motion carried unanimously with Commissioners Godsey, Judah, Raber, Fuiten, Heisler, Truax, San Soucie, Doyle, Doane, Schmidt and Knudson all voting in favor.

7. ADVICE/INFORMATION ITEMS

- A. The next JWC and BRJOC meetings are scheduled on Friday, October 13, 2017 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 3:49 p.m.

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

ATTEST: _____
Secretary



STAFF REPORT

To: Joint Water Commission

From: Erika Murphy, Project Manager

Date: October 13, 2017

Subject: Agenda Item 4A – Consider award of Guaranteed Maximum Price for Package 2 Improvements for Joint Water Commission Water Treatment Plant Expansion to 85 Million Gallons per Day Project

Staff Recommendation:

Award Guaranteed Maximum Price (GMP) for Package 2 Improvements, for Joint Water Commission (JWC) Water Treatment Plant (WTP) Expansion to 85 Million Gallons per Day (MGD) Project, in the amount of \$21,239,255.

Budget:

JWC's capital projects budget includes a project to complete capacity upgrades, expansion, and seismic improvements at the water treatment plant, along with a facility plan for future replacement of most of the existing WTP facilities to address seismic resilience needs. The current approved budget is \$35M total project cost with substantial completion in June 2019.

The top priority for the JWC partners on this project is to prevent extended interruptions of treatment plant operations throughout the construction phase, while maintaining the planned construction completion schedule. Utilizing a Construction Manager/General Contractor (CM/GC) delivery approach will greatly improve JWC's ability to achieve this priority. The Commission has approved a CM/GC delivery approach, and has awarded the contract to Slayden Constructors.

Background on Package 2 Design and Price Development:

During the pre-construction phases of both Package 1 and Package 2, which occurred over the last fifteen months, Slayden Constructors provided services that included, but were not limited to: weekly meetings with the JWC staff and CH2M, design and constructability reviews at 30%, 60% and 90% design, value engineering, cost estimating, project scheduling, and assistance in development of procurement strategies and sub-contractor selection.

Slayden's initial construction estimates for the Package 2 improvements – based on 30% design – were received in December 2016, and came in at \$28.98M. Slayden estimated this cost based on preliminary design and included contingencies for design elements that were unknown. At the time of this cost estimate, the overall project price was estimated at \$41.7M including all construction, engineering and staff time.

Further design work was placed on hold from early January until mid-February 2017, until significant cost savings could be found to bring the project back within budget. During this time period, JWC staff met with CH2M and Slayden for a series of Value Engineering (VE) workshops and discussions. As a result of the VE sessions, the Operations Committee identified options to reduce project cost while still achieving the project objectives of life safety improvements, sustainable 75 MGD capacity, and an expansion to 85 MGD. Specific changes that were made to the project scope include:

- Replacement of finished water pumps 1, 2 and 6 was deferred*
- Chemical containment upgrades were deferred*
- Air compressor upgrades were removed from the scope. (JWC WTP staff to perform work)
- Procurement of replacement plate settler in Basin G was removed from scope. (The existing plate settler is functioning normally, despite spot corrosion at connection points.)
- Replacing auger cast pile supported steel pipes to earthquake resistant ductile iron pipe
- Replacing the septic system was deferred*
- Eliminating additional alum storage
- Eliminating a redundant pipe from the existing settled water flume to the old filters

*Maintenance projects that were deferred will need to be completed in 2019 or later, upon completion of the WTP Expansion project.

On April 3, 2017, upon completion of the Value Engineering sessions and subsequent project scope reduction, Slayden provided a 60% design estimate for Package 2 of \$23.5M, resulting in an estimated total project cost of \$35.55M.

Once 90% design progressed, Slayden was able to adjust their estimate as design details became known. Other areas of savings that Slayden found, between 60% and 90% cost estimates, included:

- Design contingency was reduced from 5% to 4%
- Electrical sub-contractors quotes came in lower than expected
- Pipe material price quotes came in lower than expected
- Slayden identified additional VE items, including disposing of auger cast spoils on site, eliminating the Engineer's trailer and leaving staging areas and access roads in place upon completion of construction.

Based on the proposed changes, the 90% cost estimate, received on June 20, 2017, came in at \$22.9M, resulting in an estimated total project cost of \$34.99M.

Upon completion of the 100% design in July, Slayden competitively advertised over 30 sub-contractor and materials procurement packages, including but not limited to:

- Electrical sub-contractor
- Earthquake Resistant Ductile Iron Pipe
- Filter Underdrains and Troughs
- Auger Cast Pile sub-contractor
- Concrete, Rebar and Rock Suppliers
- Submersible Pumps

Even though the construction market was booming and fewer bids were received than expected, the majority of the bids came in lower than Slayden estimated. All bid results are included in the GMP submittal (Attachment 2).

JWC operators and Slayden had extensive discussions about the option of buying equipment by sole source. Similar to Package 1, the need to sole source specific manufacturers of equipment was minimized. The only equipment that was purchased by sole source and; therefore, not competitively bid, was chemical monitoring and electrical equipment. The total cost of these items is less than \$150,000, making the total percentage of sole-sourced equipment approximately 0.7% of the total contract price. Items that qualify under sole-sourcing include: chlorinators, chlorine analyzers, turbidimeters, flow meters, programmable logic controllers, Ethernet switches and power supplies. All equipment was chosen to match existing systems already in place at the WTP to ensure compatibility with the newly-constructed facilities.

Included in the Guaranteed Maximum Price (GMP) is a 5% construction contingency to cover unexpected costs resulting from unforeseen conditions. The use of contingency funds must be agreed upon by both the JWC and Slayden. Any contingency that is unused upon project completion will be credited back to the JWC. In addition to the contingency, there are several allowances listed in the GMP. Allowances are included for work that is probable, but the quantity or level of effort cannot be predicted. Instead of instructing Slayden to include the allowances within their lump sum price, the allowances have been separated into an Allowance Register (Section Five of the GMP), which allows the JWC to track the allowance costs on a Time & Materials basis. Any allowance money that is not expended will be credited back to the JWC.

After receiving the draft GMP, JWC staff and CH2M spent two weeks extensively reviewing the GMP documents. While reviewing the GMP's Detailed Estimate Cost Report, staff were able to reduce the GMP by approximately \$60,000, by reducing total labor hours and equipment required on certain tasks, and by optimizing on-site contractor facilities.

The GMP for Package 2 that is proposed for award is \$21,239,255. Cost share allocations by partner and a cost summary detail of the GMP are provided in Attachments 1 and 2.

Below are the partner shares for the Package 2 GMP:

Partner Shares for Package 2 GMP	
Hillsboro	\$ 13,626,440
TVWD	\$ 3,927,378
Beaverton	\$ 2,403,546
Forest Grove	\$ 1,281,891
Total Package 2 GMP	\$ 21,239,255

With the pending approval of the Package 2 GMP, this will be the fifth contract awarded to Slayden as part of the CM/GC contracting mechanism. Preconstruction Services were approved for assistance in the design effort of this project in July 2016. Early Work Package 1 accelerated the submittals and ordering of the rapid mix pumps to expedite the rapid mix work within GMP Package 1. GMP Package

1 represents the majority of capital improvements and maintenance projects (CIMP), as well as procurement of long lead items such as raw water pumps and plate settlers. Early Work Package 2 was the mass grading that took place this summer in preparation for the new surge basin and filter structures. Package 2 is the final work package being proposed, and once completed will mark the end of planned construction activities. The total Slayden contract amount is shown below:

Partner Shares for Slayden Contract	
Hillsboro	\$ 17,484,578
TVWD	\$ 5,045,991
Beaverton	\$ 3,114,236
Forest Grove	\$ 1,660,832
Proposed Total Slayden Contract	\$ 27,305,637

In addition to the Slayden contract, other project costs include the CH2M Engineering contract (\$5,322,871) and an allowance for JWC staff time, permitting fees and miscellaneous expenses (estimated \$700,000). With these costs added to the construction costs, the total estimated partner shares for the project are listed below:

Total Partner Shares for Project*	
Hillsboro	\$ 21,273,804
TVWD	\$ 6,152,646
Beaverton	\$ 3,849,287
Forest Grove	\$ 2,052,771
Total Estimated Project Cost	\$ 33,328,508

*includes CH2M engineering contract (\$5.32M) and JWC staff time/permitting/misc. (\$700,000)

Potential Future Action:

During the design phase, operator concerns about chlorine gas availability spurred the idea to include additional chlorine gas storage on site as part of the project. Though not necessary for the 85MGD expansion, it would increase reliability of supply in case of service or supply interruption. Initial engineering estimates (30% design) were \$120,000 to enclose the carport and allow room for the storage of two additional one-ton chlorine gas cylinders. As design progressed to 90%, it was discovered that significant code upgrades would need to be done in order to achieve the work, including a new HVAC system with an independent heating source, fire suppression system, fire alarms, and building insulation. The cost for this work is \$437,252 and is currently included in the Package 2 GMP.

Slayden competitively advertised for three sub-contractors to perform the work, including fire suppression systems, HVAC and electrical. At the pre-bid meeting, all contractors expressed concern about working above chlorine gas tanks in a cramped space. The construction risks and high capital outlay outweigh the benefit of two additional days' supply of chlorine gas. JWC staff is currently evaluating options – including revisiting maintenance tasks that were eliminated during value engineering – to decide if there is an opportunity to get better value for the money and reallocate the \$437,252 currently included in the GMP to a different construction activity.

Attachments:

1. GMP Amendment Contract
2. GMP Submittal dated September 27, 2017 (Available online at <http://jwcwater.org/what-we-do/current-projects/>)
3. JWC partner cost share allocations

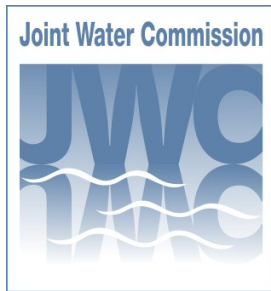


EXHIBIT D – GMP AMENDMENT

CONSTRUCTION MANAGER/GENERAL CONTRACTOR CONTRACT

Contract No. 80054200-7040-10571

Between JOINT WATER COMMISSION

and

SLAYDEN CONSTRUCTORS, INC.

AMENDMENT No. 4

for the following PROJECT:

JWC WTP Expansion to 85 MGD

Joint Water Commission Water Treatment Plant

4475 SW Fern Hill Road

Forest Grove, OR 97116

Joint Water Commission

c/o City of Hillsboro

150 E. Main Street

Hillsboro, OR 97123

THE CM/GC:

Slayden Constructors, Inc.

PO Box 247

Stayton, OR 97383

EXHIBIT D.1

D.1.1 Guaranteed Maximum Price

Pursuant to Article 6. of the Contract, the Joint Water Commission and CM/GC hereby amend the Contract to establish a Guaranteed Maximum Price. As agreed by the Joint Water Commission and CM/GC, the Guaranteed Maximum Price is an amount that the Contract Sum shall not exceed.

D.1.1.1 The Contract Sum is guaranteed by the CM/GC not to exceed twenty-one million, two hundred thirty-nine thousand, two hundred fifty-five dollars (\$21,239,255), subject to additions and deductions as provided in the Contract Documents.

D.1.1.2 Itemized Statement of the Guaranteed Maximum Price. Provided below is an itemized statement of the Guaranteed Maximum Price organized by trade categories, allowances, contingencies, alternates, the CM/GC's Fee, and other items that comprise the Guaranteed Maximum Price.

Attachment 1: JWC Package 2 – 100% GMP Submittal dated September 27, 2017

D.1.1.3 The Guaranteed Maximum Price is based on the following alternates, if any, which are described in the Contract Documents and are hereby accepted by the Joint Water Commission:

No alternatives

D.1.1.4 Allowances included in the Guaranteed Maximum Price, if any:

Allowances listed on page 945 of Attachment 1: JWC Package 2 – 100% GMP Submittal dated September 27, 2017

Item	Price (\$0.00)
1. Structural Import Material	(\$300,000.00)
2. Fire Alarm System	(\$19,000.00)
3. HVAC Controls	(\$50,000.00)
4. Filters Dewatering	(\$112,867.00)
5. Yard Piping Dewatering	(\$75,488.00)
6. Filters Concrete Crack Injection Repair	(\$50,000.00)
7. Surge Basin Concrete Crack Injection Repair	(\$10,000.00)
8. Civil Testing and Inspections	(\$120,000.00)
Total	(\$737,355.00)

D.1.1.5 Assumptions, if any, on which the Guaranteed Maximum Price is based:

Assumptions listed on pages 942 and 943 of Attachment 1: JWC Package 2 – 100% GMP Submittal dated 09/27/17

D.1.1.6 The Guaranteed Maximum Price is based upon the following Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages
N/A	N/A	N/A	N/A

D.1.1.7 The Guaranteed Maximum Price is based upon the following Specifications:

Section	Title	Date	Pages
Complete Document	Package 2 – Specs – 100 percent_Signed	July 2017	1 - 1446

§ D.1.1.8 The Guaranteed Maximum Price is based upon the following Drawings:

Number	Title	Date
Complete Document, Pages 1 - 249	Package 2 - Drawings - 100 percent_Signed	July 2017

D.1.1.9 The Guaranteed Maximum Price is based upon the following other documents and information:

N/A

ARTICLE D.2

D.2.1 In accordance with paragraph 5.b of the Contract, the anticipated date of Substantial Completion established by this Amendment is:

June 30, 2019

If this date is different than the date established in paragraph 5.b of the Contract, the date in this GMP Amendment will control.

For the JWC

For the CM/GC

Joint Water Commission *(Signature)* *(Date)*

Slayden Constructors *(Signature)* *(Date)*

Kevin Hanway, JWC General Manager
(Printed name and title)

(Printed name and title)

GMP Package 2 Proposed 10/13/17		JWC Partner Shares 75MGD/CIMP/Life Safety				COH/TVWD Shares 85MGD	
		Hillsboro 45%	TVWD 16.67%	Beaverton 25%	Forest Grove 13.33%	Hillsboro 80%	TVWD 20%
Cost of Work - Package 2	\$ 19,219,236	\$ 3,914,911	\$ 1,449,967	\$ 2,174,951	\$ 1,159,974	\$ 8,415,547	\$ 2,103,887
Construction Contingency (5.0%)	\$ 960,962	\$ 195,746	\$ 72,498	\$ 108,748	\$ 57,999	\$ 420,777	\$ 105,194
Overhead & Profit (4.0%)	\$ 807,208	\$ 164,426	\$ 60,899	\$ 91,348	\$ 48,719	\$ 353,453	\$ 88,363
Bonds (0.6%)	\$ 125,924	\$ 25,650	\$ 9,500	\$ 14,250	\$ 7,600	\$ 55,139	\$ 13,785
Insurance (0.6%)	\$ 125,924	\$ 25,650	\$ 9,500	\$ 14,250	\$ 7,600	\$ 55,139	\$ 13,785
Total GMP 2 Value	\$ 21,239,255	\$ 4,326,383.70	\$ 1,602,364.33	\$ 2,403,546.50	\$ 1,281,891.47	\$ 9,300,054.87	\$ 2,325,013.72

Total Partner Shares for Package 2 GMP	
Hillsboro	\$ 13,626,439
TVWD	\$ 3,927,378
Beaverton	\$ 2,403,546
Forest Grove	\$ 1,281,891
Total Package 2 GMP	\$ 21,239,255

GMP Package 2 - 100% Cost of Work Breakdown

Biditem	Description	Direct Total
9000	INDIRECTS	\$ 3,900,279
90000	Direct GCs	\$ 234,764
92000	MANAGMENT	\$ 1,639,553
93000	GENERAL SERVICES	\$ 227,132
94000	SCI FACILITIES	\$ 48,460
96000	GENERAL EQUIPMENT	\$ 1,745,571
97000	STAGING AREA & STORAGE	\$ 4,798
100000	75 MGD	\$ 5,898,134
120000	Floc-Sed Basins	\$ 85,288
120100	Basin Drain Improvements	\$ 85,288
130000	Settled Water Flume	\$ 474,414
130100	SW Yard Pipe to New Filters	\$ 275,145
130200	Polymer System	\$ 185,311
130210	Polymer Mechanical	\$ 54,235
130220	Polymer Pumps	\$ 35,340
130226	Ops Bldg Electrical	\$ 90,331
130230	Existing Polymer System	\$ 5,406
130300	Stop Logs	\$ 13,959
140000	New Filters (23%)	\$ 1,606,592
240101	General	\$ 29,152
240110	Concrete	\$ 583,028
240120	Auger Cast Piles	\$ 186,935
240126	Filters 15-16 Electrical	\$ 152,299
240130	Metals	\$ 60,960
240140	Building Trades	\$ 82,183
240141	Thermal and Moisture Protections	\$ 13,182
240142	Doors and Windows	\$ 7,034
240143	Coatings	\$ 30,974
240144	Specialties	\$ 1,959
240145	Masonry	\$ 9,615
240146	HVAC	\$ 19,419
240150	Earthwork	\$ 143,791
240160	Mechanical	\$ 239,168
240170	Equipment	\$ 129,076
240171	Filter Underdrains & Media	\$ 120,570
240174	Troughs in seal box	\$ 8,506
140200	Filter Yard Piping	\$ 1,702,644
140210	Yard Pipe	\$ 1,498,605
140220	Yard Pipe Dewatering	\$ 113,776
140240	Clearwell Connection	\$ 90,262
140241	Clearwell Connection	\$ 41,713
140242	Clearwell Concrete Collar	\$ 13,946
140243	Clearwell Chlorine Analyzer - Addendum 4	\$ 34,603
165000	Backwash Surge and Recycling	\$ 232,674
165100	New Recycle PS - Attached to New Surge Basin	\$ 167,723

165102	Recycle PS Civil	\$	15,830
165111	Recycle PS Pumps	\$	60,788
165115	Recycle PS Mechanical	\$	90,100
165116	Recycle PS Equipment	\$	1,005
165200	Existing Surge Basin	\$	64,950
170000	Solids Dewatering	\$	1,796,522
170100	New Solids Drying Bed 4	\$	264,641
170300	Existing Solids Drying Bed Flow Modifications	\$	694,947
170400	Drying Bed 4 Decant Box	\$	105,155
170402	Earthwork	\$	3,463
170403	Concrete and Rebar	\$	36,814
170405	Metals	\$	22,592
170409	Painting and Coating	\$	1,575
170435	Gates	\$	11,364
170440	Mechanical	\$	29,347
170500	New Decant Pump Station	\$	731,779
170510	Decant PS Earthwork	\$	80,665
170520	Decant PS Concrete	\$	5,575
170526	Decant PS Electrical	\$	276,878
170530	Decant PS Metals	\$	29,398
170540	Decant PS Pumps	\$	72,961
170550	Decant PS Mechanical	\$	97,963
170560	Decant PS Davit Crane	\$	1,005
170570	Decant PS Discharge YP	\$	155,321
170590	Decant PS Painting and Coating	\$	12,013
200000	85 MGD	\$	8,384,660
210000	Raw Water Pump Station	\$	194,483
210050	Existing Pump Removal	\$	24,523
210100	New Pump Installation	\$	46,576
210300	Pump Header upsize	\$	44,693
210900	Painting and Coating	\$	7,792
212600	RW Electrical	\$	70,898
215000	Rapid Mix Facility	\$	96,504
215100	Install 48" MOV Valve on Rapid Mix Outlier	\$	40,308
215200	Remove Basin D-G Weirs	\$	9,493
215260	Rapid Mix Electrical	\$	9,717
215300	Chemical Systems	\$	27,616
215400	Pipe Demo	\$	7,167
215900	Painting and Coating	\$	2,204
220000	Floc-Sed Basins	\$	425,062
220100	Install Plate Settler Basin D	\$	90,043
220102	Basin D Demo	\$	14,597
220103	Basin D Concrete	\$	21,227
220111	Basin D Plates	\$	54,218
220200	Install Plate Settler Basin E	\$	90,043
220202	Basin E Demo	\$	14,597
220203	Basin E Concrete	\$	21,227
220211	Basin E Plates	\$	54,218

220300	Install Plate Settler Basin F	\$	90,043
220302	Basin F Demo	\$	14,597
220303	Basin F Concrete	\$	21,227
220311	Basin F Plates	\$	54,218
220400	Basin G - Weir Replacement	\$	33,350
220500	SW Distribution Box	\$	121,585
220503	Concrete	\$	43,171
220505	Metals	\$	6,884
220531	Earthwork	\$	26,201
220540	Mechanical	\$	33,614
220541	Equipment	\$	11,715
220626	Floc Basin Electrical	\$	-
240000	New Filters (77%)	\$	5,378,590
240101	General	\$	97,597
240110	Concrete	\$	1,951,876
240120	Auger Cast Piles	\$	625,828
240126	Filters 15-16 Electrical	\$	509,870
240130	Metals	\$	204,082
240140	Building Trades	\$	275,135
240141	Thermal and Moisture Protections	\$	44,131
240142	Doors and Windows	\$	23,548
240143	Coatings	\$	103,697
240144	Specialties	\$	6,559
240145	Masonry	\$	32,191
240146	HVAC	\$	65,010
240150	Earthwork	\$	481,386
240160	Mechanical	\$	800,693
240170	Equipment	\$	432,123
240171	Filter Underdrains & Media	\$	403,646
240174	Troughs in seal box	\$	28,477
265000	Backwash Surge and Recycling	\$	1,712,848
265100	New Surge Basin	\$	1,712,848
265101	General	\$	46,476
265103	Concrete	\$	721,647
265105	Metals	\$	38,568
265109	Painting and Coating	\$	10,336
265110	Auger Cast Piles	\$	256,372
265126	Surge Basin Electrical	\$	67,518
265132	Earthwork	\$	336,323
265133	Overflow Pipe	\$	214,070
265140	Mechanical	\$	19,528
265141	Equipment	\$	2,009
270000	Solids Dewatering	\$	346,977
270100	New Solids Drying Bed 5	\$	245,640
270400	New Decant Box	\$	101,336
270402	Earthwork	\$	3,463
270403	Concrete	\$	36,785
270405	Metals	\$	22,592

270409	Painting and Coating	\$	1,575
270415	Mechanical	\$	29,347
270435	Gate	\$	7,574
290000	Electrical & I&C	\$	230,196
300000	CIMP	\$	1,036,163
362000	Finished Water Pump Station 1	\$	52,321
362050	Existing Pump Removals	\$	5,552
362090	Painting and Coating	\$	3,811
362200	Install New BW Pumps	\$	39,029
362600	FWPS1 Electrical	\$	3,929
380000	Chemical Facilities	\$	437,252
382100	CL Room Addition	\$	437,252
382102	CL Room Demo/Earthwork	\$	80,089
382103	CL Room Concrete	\$	32,138
382108	CL Room Building Trades	\$	254,459
382111	CL Room Equipment	\$	4,847
382126	CL Room Electrical	\$	65,719
382200	Chlorination Equipment	\$	89,229
382210	Chlorination Equipment	\$	56,274
382220	Chlorination Piping	\$	32,955
382300	Chem Site Piping	\$	56,737
390000	General Site and Yard Piping	\$	208,498
390800	New Fence	\$	66,862
390900	General Site Grading	\$	141,636
390910	Misc Site	\$	49,764
390990	Restorations	\$	91,872
399000	General Electrical & Controls	\$	192,127
400000	Life Safety	\$	-
Total Direct Cost		\$	19,219,236



JWC Water Treatment Plant Quarterly Report

To: Joint Water Commission
From: Chris Wilson, Assistant Water Manager
Date: October 13, 2017
Period: July 1, 2017 – September 30, 2017 (Third Quarter)

PRODUCTION:

During the third quarter, the Water Treatment Plant (WTP) averaged a production rate of 47 million gallons per day (MGD). Highest production day was September 2nd at 62.01 MGD. This was the only day the treatment plant reached the 60 MGD mark. The lowest production date was September 21st at 27.76 MGD.

WQ PARAMETERS:

Our Finished Water met all water quality parameters, and we experienced no unusual treatment difficulties during the third quarter.

COSTS:

Average chemical cost was \$1,933.00 per day during the third quarter, an average of \$41.18 per MG. August 10th (58 MGD) was our most expensive chemical day at \$2,381.08, with September 2nd \$81.00 less. (62.01 MGD) Slight difference in raw water chemistry between the two days is the difference in chemical costs. September 22nd (28 MGD) was our least expensive chemical cost day at \$1,216.52.

EXPANSION to 85 MGD:

Package 1 work and the Early Work Amendment were nearly completed during this quarter. Package 2 work is set to begin, pending the Guaranteed Maximum Price (GMP) approval by JWC Commission at the October meeting.

OTHER:

- Our “capture rate” for stored water released from Barney and Scoggins averaged 97%.
- No finished water production records were set this year. The WTP wasn’t ever “stressed” to meet demands.
- We participated in four ENERNOC events throughout the summer averaging 823 kW reduction per event.

JWC QUARTERLY REPORT

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	114,715	-	114,715	4,127,438	3%
FOREST GROVE - WATER PURCH	367,662	(39,188)	-	(39,188)	406,850	-11%
BEAVERTON - WATER PURCH	1,808,186	(181,517)	-	(181,517)	1,989,703	-10%
TVWD - WATER PURCH	1,793,690	-	-	-	1,793,690	0%
TIGARD - WATER PURCH	-	-	-	-	-	0%
NORTH PLAINS - WATER PURCH	115,000	26,140	-	26,140	88,860	17%
NORTH PLAINS SDC	150,000	-	-	-	150,000	0%
TOTAL WATER SALES:	8,476,691	(79,850)	-	(79,850)	8,556,541	-1%
CONTRIBUTIONS IN AID						
HILLSBORO - CAPITAL OUTLAY	10,439,900	37,579	-	37,579	10,402,321	0%
FOREST GROVE - CAPITAL OUTLAY	1,111,722	(103,174)	-	(103,174)	1,214,896	-9%
BEAVERTON - CAPITAL OUTLAY	2,140,350	(193,218)	-	(193,218)	2,333,568	-9%
TVWD - CAPITAL OUTLAY	3,058,028	394	-	394	3,057,634	0%
CWS - CAPITAL OUTLAY	-	(1,158)	-	(1,158)	1,158	0%
TOTAL CONTRIBUTIONS IN AID:	16,750,000	(259,578)	-	(259,578)	17,009,578	-2%
OTHER						
GRANTS AND DONATIONS	-	-	-	-	-	0%
WESTERN LUTHERAN SCHOOL	-	205	-	205	(205)	0%
INTEREST EARNED	-	(2,515)	-	(2,515)	2,515	0%
MISCELLANEOUS INCOME	-	10,130	-	10,130	(10,130)	0%
LEASE REVENUE	102,050	-	-	-	102,050	0%
TOTAL OTHER:	102,050	7,820	-	7,820	94,230	8%
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	(331,608)	-	(331,608)	26,160,349	-1%
JWC REQUIREMENTS	REVISED BUDGET 17/18	YTD 17/18	ENCUMBRANCE	YTD TOTAL	AVAIL REMAIN 17/18	% USED
PERSONAL SERVICES	2,973,796	450,093	-	450,093	2,523,703	15%
MATERIALS AND SERVICES	4,529,050	478,524	1,090,531	1,569,055	2,959,995	35%
CAPITAL OUTLAY	17,070,250	337,429	5,074,193	5,411,622	11,658,628	32%
SPECIAL PAYMENTS	755,645	244,599	-	244,599	511,046	32%
CONTINGENCY	500,000	-	-	-	500,000	0%
TOTAL REQUIREMENTS:	25,828,741	1,510,645	6,164,724	7,675,369	18,153,372	30%
TOTAL RESOURCES AND REQUIREMENTS						
	REVISED BUDGET 17/18	YTD 17/18	ENCUMBRANCE	YTD TOTAL	AVAIL REMAIN 17/18	% USED
TOTAL RESOURCES	25,828,741	(331,608)	-	(331,608)	26,160,349	-1%
TOTAL REQUIREMENTS	25,828,741	1,510,645	6,164,724	7,675,369	18,153,372	30%
NET INCOME (LOSS)	-	(1,842,253)	(6,164,724)	(8,006,977)	8,006,977	
BEGINNING WORKING CAPITAL	-	-	-	-	-	
ENDING WORKING CAPITAL	-	(1,842,253)	(6,164,724)	(8,006,977)	-	
Note:	Please note that Resources account balances are negative due to FY 17 year end adjustments in which partner payments had not yet been received for as of August 31.					

JWC CAPITAL PROJECT QUARTERLY REPORT

PROJECT	PROJECT DESCRIPTION	Approved FY 17-18 Budget	YTD ACTUAL FY 17-18 as of 8.31.17
10829	PUMP RECONDITIONING	\$ -	
	Personnel Services Expenditures		\$ 501
	Contractor Expenditures		\$ -
11011	PRELIMINARY DESIGN FACILITY PLAN TOTAL COSTS	\$ 6,490,000	
	Personnel Services Expenditures		\$ 8,786
	Contractor Expenditures		\$ 149,192
10571	WATER TREATMENT PLANT EXPANSION 75 TO 85 TOTAL COSTS	\$ 8,260,000	
	Personnel Services Expenditures		\$ 10,434
	Contractor Expenditures		\$ 177,411
11135	FAIRWAY FUND LAND	\$ 150,000	
	Personnel Services Expenditures		\$ -
	Contractor Expenditures		\$ -
	JWC EMERGENCY EQUIP REPLACEMENT TOTAL COSTS	<u>\$ 2,000,000</u>	<u>\$ -</u>
	TOTAL PROJECT COSTS	<u><u>\$ 16,900,000</u></u>	<u><u>\$ 346,324</u></u>