WORK SESSION – 6:00 PM

CALL TO ORDER

Commissioners Present: Bernice Bagnall; Jim Doane, PE; Jim Duggan, PE; Todd Sanders; Dick Schmidt

Staff Present: Tom Hickmann, PE, Chief Executive Officer; Dave Kraska, PE, Water Supply Program Director; Carrie Pak, PE, Chief Engineer; Paul Matthews, Chief Financial Officer; Clark Balfour, General Counsel; Andrea Watson, Communications and Public Affairs Supervisor; Debbie Carper, District Recorder

ANNOUNCEMENTS

Mr. Hickmann discussed proposed legislation requiring open bidding for plastic pipe (see attached memo) and asked for Commissioner feedback. Commissioners were comfortable with staff working with the Special District Association of Oregon and Oregon Water Utility Council to determine the best approach to responding to the legislation.

Next, he briefly highlighted the Willamette Water Supply System (WWSS) cost allocation before asking for Board feedback on water-related opportunities and travel for staff. Commissioners were supportive of staff travel and involvement at national and international events and engagements and requested management use its best judgment on which staff is best to send. In response to a question, Mr. Hickmann said he would like to see the District’s presence move beyond the presenter role, at future Pacific Northwest Section conferences of the American Water Works Association, to involvement in competitions like meter madness and pipe tapping.

Mr. Hickmann concluded his announcements by updating the Board on recent and upcoming staff workshops, providing his schedule for the week and introducing a combined safety/policy minute on the District’s policy and recent training on creating a respectful workplace.

1. DISCUSSION ITEMS

   A. Willamette Water Supply System Commission Update. Staff Report – Dave Kraska

Mr. Kraska outlined the February 6 WWSS Commission Board meeting agenda, focusing on the Willamette Water Supply Program (WWSP) Baseline 5.0 budget update and the catalysts for changes (see attached presentation).
In response to questions, staff said:

- The Management Reserve can be increased by increasing the overall baseline cost of the WWSP.
- Mr. Kraska will send the Board a graph showing the changes to the baseline budget over time.
- Staff is working with City of Hillsboro staff to address their concerns. In addition, Mr. Kraska will make a presentation at the next Hillsboro Utilities Commission meeting.

Commissioner feedback included:

- A desire not to change any of the major infrastructural elements of the WWSS.
- A desire not to change the planned physical infrastructure of the water treatment plant.
- Deferring projects is an acceptable strategy.

B. Paperless Meeting Packets. Staff Report – Tom Hickmann

Mr. Hickmann requested guidance from the Board on whether or not there is a desire to eliminate hard copy meeting materials at regular meetings and work sessions.

In response to questions about using a personal device to view Board meeting materials, staff said:

- As long as Commissioners are viewing a link to an agenda and meeting packet posted online, personal devices should not be discoverable.
- Personal devices may become discoverable if a Commissioner uses a tool to annotate the agenda and meeting packet.

Commissioner feedback included:

- Reducing the paper provided at Board meetings solely to the agenda.
- If issued a District device, preference would be to have the ability to use Outlook and to have a version of Adobe Acrobat that allows annotation of PDF files.

ADJOURNMENT

There being no further business, President Bagnall adjourned the meeting at 8:01 p.m.

______________________________  ________________________________
Bernice Bagnall, President       Todd Sanders, Secretary
MEMO

Date: February 4, 2020
To: TVWD Board of Commissioners
From: Tom Hickmann, CEO
Re: CEO Announcements

I will cover the following items during the CEO’s Announcements at the work session:

1. **Be Sure to Use Microphones** – Just a reminder to please be sure to use your microphone whenever you are speaking during the work session this evening. Also, please be sure to turn off your microphone when you are not speaking.

2. **LC 199 Plastic Pipe Legislation** – We have been working closely with OWUC, SDAO, and the LOC regarding the proposed legislation requiring open bidding for plastic pipe. The backers of this bill have reached out to some Commissioners and to me requesting that we back this bill. In the subsequent time, a great deal of information has come to light regarding this legislation.
   - This has been a state by state effort going back to 2014. To date, this legislation has failed in thirteen states.
   - The study the backers have used in Oregon uses both Bend and Portland as examples of closed bidding, showing that in both cases, both entities paid significantly more for ductile iron rather than plastic pipe. These studies are significantly flawed and compare to a single entity, in Washington, that allowed for plastic pipe. There is simply not enough data in the study to make their case.
   - The study does not recognize any of the other factors that go into why any entity would want to use a different type of material other than plastic.
   - This legislation has been opposed from major water institutions like AWWA and ASCE.
   - TVWD and all other entities prefer to allow the engineers and operations staff to make decisions related to materials and not be forced into a material with cost being the only factor.

3. **WWSS Cost Allocation** – Staff has spent a significant amount of time going over the cost allocation methodology with our WWSS partners. We believe significant progress in understanding has been achieved in recent weeks and has eased concerns of partner agencies. The Board will hear more on the WWSS project status later this evening and where discussions are headed.
4. **Water-Related Opportunities and Travel** – At times, TVWD staff are asked to present or participate in conferences or water-related organizations which are hosted out-of-state and sometimes outside of the country. It is my belief that these events provide valuable learning, not just for TVWD, but also for other organizations. These opportunities also provide TVWD with recognition and can enhance recruitment efforts. Since my arrival to TVWD, I have been asked to participate in the following:

- **Isle Utilities’ Technology Approval Group (TAG)** - “TAG brings regional water and wastewater utilities together three times a year to evaluate emerging technologies, identify project opportunities and engage in collaborative testing or deployments.”
- **Rogue Water Lab** is a non-profit organization revolutionizing how the water industry communicates with the public. The “Lab” is a “hub for inspiration, tools & resources, and opportunities for engagement through a variety of mediums and platforms, including events, workshops, podcasts and videos.” They have a national following in the water sector, several of whom are in academia, and have asked leaders in the industry to help guide them to bring communication and leadership change to the industry by increasing the diversity of voices.
- Most recently, I was asked to serve on a panel with my equivalents from London and Paris at the **Smart Water Networks Forum (SWAN) 2020 Conference**, in Glasgow, Scotland. “SWAN is a leading global hub for advancing the use of smart, data-driven solutions in water and wastewater networks worldwide.”

I am requesting the Board’s guidance on these, and other opportunities which may arise, not only for myself, but TVWD staff in general. Does the Board support and encourage TVWD’s out-of-state participation in water-related opportunities and conferences?

5. **Staff Communications Workshops** – In November, management and select supervisory staff participated in workshops which utilized DiSC profiling tools to enhance communication and collaboration and commence the strategic planning process. The training was valuable, and I felt it would be beneficial to share these important communication tools with all employees. Today, TVWD’s management consultant led a half-day, interactive communications workshop for approximately 29 employees. A half-day session will also be held tomorrow for another group of staff. The final workshop will be offered mid-March. I anticipate these workshops will enhance District communications and allow for more employee participation in our strategic planning process.

6. **CEO’s Schedule** – I will be out of the office Thursday, February 6 and Friday, February 7, attending the Special District Association of Oregon, pre-conference and annual conference. Customer Service Manager, Andrew Carlstrom, will serve as acting in capacity (AIC) February 6 and 7.

7. **Board Communications Log** – There were no updates to the Board communications log this month.
8. **Safety Minute** – I will present tonight’s safety minute.
Willamette Water Supply Commission Update
TVWD Board Work Session

February 4, 2020

Outline

Review February WWSS Commission Board Meeting Agenda
Review Approvals and Procurements Forecast
Update on WWSP Activities
Willamette Water Supply System
February 6, 2020 Board Meeting Agenda

1. General Manager’s Report
2. Public Comment
3. Consent Agenda
   A. January 9, 2020 meeting minutes
4. Business Agenda
   A. Approve RES_1.0 Design, Bidding and Services During Construction Contract
   B. Adopt PLW_1.3 Resolution of Necessity
5. Information Items
   A. WWSP Baseline 5.0 Status Update
   B. Planned March Business Agenda items
WWSP Baseline 5.0 Status Update

- Overview of Baseline status and major cost drivers
- WWSS Baseline 5.0 budget request for FY 2020-21
- Outline approach for Program-level cost management

OVERVIEW OF BASELINE STATUS AND MAJOR COST DRIVERS
### Program Delivery Progress to Date

<table>
<thead>
<tr>
<th>Work Package</th>
<th>Design</th>
<th>Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Conceptual/ Preliminary</td>
<td>30%/50%</td>
</tr>
<tr>
<td>RWF_1.0</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLM_1.1</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLM_1.2</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLM_1.3</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLM_2.0</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>WTP_1.0</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLM_4.1</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLM_4.2</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLM_4.3</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLM_4.4</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLM_5.1</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLM_5.2</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLM_5.3</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>NIS_1.0</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLW_1.1</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLW_1.1 ext</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLW_1.2</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLW 1.3</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>PLW 2.0</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
<tr>
<td>MPE_1.0</td>
<td>![Diamond]</td>
<td>![Diamond]</td>
</tr>
</tbody>
</table>

- Complete
- Active Work
- Complete @ Beginning of 2019

### Re-baseline Milestones Schedule

- **February 7th**
  - Distribute Baseline 5.1

- **February 20th**
  - Management Committee Approval

- **March 5th**
  - WWSS Board Adoption as part of the FY 2020-21 Proposed Budget

- Major federal/state permits
- Multiple land use approvals
- Real estate
- IGAs/other agreements
### Baseline Summary

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Baseline 5.0</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>WWSS Projects</td>
<td>$910,565,495</td>
<td>$941,551,612</td>
<td>$30,986,117</td>
</tr>
<tr>
<td>Ancillary Projects</td>
<td>106,026,157</td>
<td>128,003,776</td>
<td>21,977,620</td>
</tr>
<tr>
<td>System Wide</td>
<td>156,316,106</td>
<td>151,275,899</td>
<td>(5,040,206)</td>
</tr>
<tr>
<td>WWSS Real Estate</td>
<td>50,441,611</td>
<td>52,689,691</td>
<td>2,248,080</td>
</tr>
<tr>
<td>WWSS Management Reserve</td>
<td>41,629,045</td>
<td>13,452,861</td>
<td>(28,176,184)</td>
</tr>
<tr>
<td>Total</td>
<td>$1,264,978,414</td>
<td>$1,286,973,840</td>
<td>$21,995,426</td>
</tr>
</tbody>
</table>

### WWSS Projects Summary

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Baseline 5.0</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>WWSS Projects</td>
<td>$910,565,495</td>
<td>$941,551,612</td>
<td>$30,986,117</td>
</tr>
<tr>
<td>Ancillary Projects</td>
<td>106,026,157</td>
<td>128,003,776</td>
<td>21,977,620</td>
</tr>
<tr>
<td>System Wide</td>
<td>156,316,106</td>
<td>151,275,899</td>
<td>(5,040,206)</td>
</tr>
<tr>
<td>WWSS Real Estate</td>
<td>50,441,611</td>
<td>52,689,691</td>
<td>2,248,080</td>
</tr>
<tr>
<td>WWSS Management Reserve</td>
<td>41,629,045</td>
<td>13,452,861</td>
<td>(28,176,184)</td>
</tr>
<tr>
<td>Total</td>
<td>$1,264,978,414</td>
<td>$1,286,973,840</td>
<td>$21,995,426</td>
</tr>
</tbody>
</table>
**WTP_1.0**

$32,562,668 increase

Budget changes due to:
- Project definition represents the 30% OPCC (with subsequent modifications to refine the 30% design concept)
  - Increase from treatment plant concept represented in the predesign

Value-Based Decisions Related to Cost:
- 72 mgd re-rate capability
- Disinfection strategy
- Seismic design approach
- Standby power

**PLM_4.0**

$2,408,688 increase:

Budget changes due to:
- PLM 4.1 change from open cut construction to trenchless construction driven by Washington Co.
- Delays to project due to Washington Co. lead (escalation cost to WWSP)
PLM_5.0

$7,755,506 decrease:

Budget changes due to:
- Alignment change (avoids extensive seismic mitigation along Farmington Rd)
- Reduces pipeline length

PLW_1.0

$4,921,868 decrease:

Budget changes due to:
- Alignment change in PLM_5.0
- Reduction in pipe size for TVWD turnout at 209th and Farmington (~4,000 ft)
- TVWD 209th and Farmington Chemical Feed Facility removed from budget
## PLW_2.0

$7,216,797 increase:

Beaverton Creek – Open Cut Resource Crossing

- Geotechnical and seismic concerns for depth
- Open cut constructability concerns, high groundwater, stability cells, wetted rivers
- Creek banks, lined, short in water work
- Traffic control for construction and water equipment delivery
- Internal construction access
- Protection of existing facilities and utilities
- Mitigation and noise abatement
- New elevated development

Rock Creek – Open Cut Resource Crossing

- Geotechnical and seismic concerns
- Open cut constructability concerns
- Methods for controlling pipe alignment
- New negligible 10’ seaward
- Creek banks, lined, short in water work
- Limited construction access
- Protection of existing facilities and utilities
- Territorial utility coordination for public parks
- Tree buffer crossing under Tolman light rail tracts

### Ancillary Projects Summary

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Baseline 5.0</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>WWWSS Projects</td>
<td>$910,565,495</td>
<td>$941,551,612</td>
<td>$30,986,117</td>
</tr>
<tr>
<td>Ancillary Projects</td>
<td>$106,026,157</td>
<td>$128,003,776</td>
<td>$21,977,620</td>
</tr>
<tr>
<td>System Wide</td>
<td>156,316,106</td>
<td>151,275,899</td>
<td>(5,040,206)</td>
</tr>
<tr>
<td>WWWSS Real Estate</td>
<td>50,441,611</td>
<td>52,689,691</td>
<td>2,248,080</td>
</tr>
<tr>
<td>WWWSS Management Reserve</td>
<td>41,629,045</td>
<td>13,452,861</td>
<td>(28,176,184)</td>
</tr>
<tr>
<td>Total</td>
<td>$1,264,978,414</td>
<td>$1,286,973,840</td>
<td>$21,995,426</td>
</tr>
</tbody>
</table>
**MPE_1.0**

$6,064,686 increase:

**MPE_1.0 - OR217 Trenchless Crossings**

- Baseline Alignment
  - 270 LF of Trenchless
  - 3 Trenchless drives
  - 1,000 LF of Open Cut

- Re-Baseline Alignment
  - 780 LF of Trenchless
  - 3 Trenchless drives
  - 1,350 LF of Open Cut
  - Avoids remediation site
  - Avoids constructability and traffic complexities on Cascade

Budget changes due to:

- Complexity associated with Hwy 217 crossings
- Addition of the Metzger Turnout for TVWD
- Complexity associated with the Beaverton-Hillsdale tie-in

---

**COB_1.0**

$15,804,280 increase:

- Nimbus to Beaverton-Hillsdale Hwy

**City of Beaverton 16” Pipeline Project**

- **COB_1.0 Project Scope**
  - 16,780 LF of 16” DIP
  - 29 Existing Main connections
  - 18 Service connections
  - 4 Trenchless crossings

Budget changes due to:

- The budget was added to the Baseline with an OPCC cost estimate
# System Wide Summary

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Baseline 5.0</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>WWSS Projects</td>
<td>$910,565,495</td>
<td>$941,551,612</td>
<td>$30,986,117</td>
</tr>
<tr>
<td>Ancillary Projects</td>
<td>106,026,157</td>
<td>128,003,776</td>
<td>21,977,620</td>
</tr>
<tr>
<td><strong>System Wide</strong></td>
<td><strong>156,316,106</strong></td>
<td><strong>151,275,899</strong></td>
<td><strong>(5,040,206)</strong></td>
</tr>
<tr>
<td>WWSS Real Estate</td>
<td>50,441,611</td>
<td>52,689,691</td>
<td>2,248,080</td>
</tr>
<tr>
<td>WWSS Management Reserve</td>
<td>41,629,045</td>
<td>13,452,861</td>
<td>(28,176,184)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,264,978,414</strong></td>
<td><strong>$1,286,973,840</strong></td>
<td><strong>$21,995,426</strong></td>
</tr>
</tbody>
</table>

# Real Estate Summary

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Baseline 5.0</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>WWSS Projects</td>
<td>$910,565,495</td>
<td>$941,551,612</td>
<td>$30,986,117</td>
</tr>
<tr>
<td>Ancillary Projects</td>
<td>106,026,157</td>
<td>128,003,776</td>
<td>21,977,620</td>
</tr>
<tr>
<td><strong>System Wide</strong></td>
<td><strong>156,316,106</strong></td>
<td><strong>151,275,899</strong></td>
<td><strong>(5,040,206)</strong></td>
</tr>
<tr>
<td>WWSS Real Estate</td>
<td>50,441,611</td>
<td>52,689,691</td>
<td>2,248,080</td>
</tr>
<tr>
<td>WWSS Management Reserve</td>
<td>41,629,045</td>
<td>13,452,861</td>
<td>(28,176,184)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$1,264,978,414</strong></td>
<td><strong>$1,286,973,840</strong></td>
<td><strong>$21,995,426</strong></td>
</tr>
</tbody>
</table>
# Management Reserve Summary

<table>
<thead>
<tr>
<th></th>
<th>Current</th>
<th>Baseline 5.0</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>WWSS Projects</td>
<td>$ 910,565,495</td>
<td>$ 941,551,612</td>
<td>$ 30,986,117</td>
</tr>
<tr>
<td>Ancillary Projects</td>
<td>106,026,157</td>
<td>128,003,776</td>
<td>21,977,620</td>
</tr>
<tr>
<td>System Wide</td>
<td>156,316,106</td>
<td>151,275,899</td>
<td>(5,040,206)</td>
</tr>
<tr>
<td>WWSS Real Estate</td>
<td>50,441,611</td>
<td>52,689,691</td>
<td>2,248,080</td>
</tr>
<tr>
<td><strong>WWSS Management Reserve</strong></td>
<td><em>41,629,045</em></td>
<td><em>13,452,861</em></td>
<td><em>(28,176,184)</em></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$ 1,264,978,414</td>
<td>$ 1,286,973,840</td>
<td>$ 21,995,426</td>
</tr>
</tbody>
</table>

*Does not include the WTP property sale @ $4.25 million resulting in a revised MR balance of $17.7 million*

---

# Management Reserve

![Management Reserve Graph]

- **Baseline 5.0 Draft Recommendation**
- **Baseline MR Balance**
BASELINE 5.0 FY 2020-21 BUDGET REQUEST

Program Work Planned for FY 2020-21

- Implement
  - WWSS IGA
  - WIFIA compliance program
  - Safety program
  - Communications and outreach program
- Continue acquisitions
  - Real estate
  - Permits and land use approvals
- Progress design on 11 projects
- Advance 13 construction projects
- Plan
  - Water supply integration
  - Commissioning and start-up
  - Operations
## FY 2020-21 Requested Budget

<table>
<thead>
<tr>
<th>Party</th>
<th>FY 2020-21 Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaverton</td>
<td>$ 7,661,764</td>
</tr>
<tr>
<td>Hillsboro</td>
<td>51,133,745</td>
</tr>
<tr>
<td>TVWD</td>
<td>62,987,588</td>
</tr>
<tr>
<td>WIF</td>
<td>3,894,698</td>
</tr>
<tr>
<td>Total</td>
<td>$ 125,677,794</td>
</tr>
</tbody>
</table>

### OUTLINE APPROACH FOR PROGRAM-LEVEL COST MANAGEMENT
Current Status and Path Forward

- Hillsboro has indicated they cannot approve Baseline 5.0
  - Focus on WWSS WTP as primary cause
- WWSS Management Committee (Tom, Niki, COB)
  - Define desired outcome
- WWSP Team
  - Investigate cost management at Program level
  - Adjust timing of construction projects
    - Defer PLW_2.0
    - Defer second RES_1.0 tank
  - Identify potential WTP_1.0 cost reductions
  - Evaluate financing strategies
  - Others

Evaluate risks and consequences
Define implementation requirements
Enable informed decision-making

WWSS WTP Opinion of Probable Construction Cost (OPCC) Progression

<table>
<thead>
<tr>
<th>Date</th>
<th>OPCC</th>
</tr>
</thead>
<tbody>
<tr>
<td>30% OPCC</td>
<td>March 2019 $266 M</td>
</tr>
<tr>
<td>30% OPCC (after Value Eng.)</td>
<td>May 2019 $228 M</td>
</tr>
<tr>
<td>30% OPCC (Baseline 5.0)</td>
<td>December 2019 $235 M</td>
</tr>
<tr>
<td>Mid-60% OPCC Draft</td>
<td>11/4/2019 $307 M</td>
</tr>
<tr>
<td>Mid-60% OPCC Draft Update 1</td>
<td>11/22/2019 $288 M</td>
</tr>
<tr>
<td>Mid-60% OPCC Draft Update 2</td>
<td>12/11/2019 $275 M</td>
</tr>
<tr>
<td>Mid-60% OPCC Final</td>
<td>1/14/2020 $268 M</td>
</tr>
</tbody>
</table>

Δ = +$33 M

OPCC values in current dollars on the submittal date
Current Status of WWSS WTP OPCC

- Validation of the OPCC Completed (WWSP and CDM Smith)
  - Scope and quantities (focus on concrete, piping, electrical)
  - Unit costs and labor rates
  - Buildup of general conditions and project contingency
  - Estimate of permitting costs
- Reviewing Sundt risk analysis
- Mid-60% OPCC progression has been logged

Potential Opportunities for Cost Changes

Maintain Flexibility to Reduce and Defer WWSS Costs
- Identify WTP_1.0 elements that can be bid as “add alternates” (constructed or deleted based on bids)
- Preserve option to defer construction of one of the RES_1.0 terminal storage reservoirs
- Preserve option to delay construction of PLW_2.0

Reduce WWSS Estimated Cost
- Redesign the WTP_1.0 to a new budget target

Enables continuing Program-level cost management

Not reversible by 2026
### WWSP Evaluating Opportunities to Enable Informed Decision-Making by the WWSS Board

<table>
<thead>
<tr>
<th>Cost, Cashflow and Finance</th>
<th>Level of Service (LOS)</th>
<th>Communications and Commitments</th>
<th>Permitting</th>
<th>Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>• How does the opportunity impact the Program cost and financing?</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
  - Capital costs (annual and total Program) |
  - Operational costs (types, increases or decreases) |
  - Funding (WIFIA funding impacts) |
  - Cost distribution (impacts characterized by partner) |
| • How does the opportunity impact the Program LOS goals? |
  - Public health protection (finished water quality) |
  - Reliability (emergency response, raw water quality) |
  - Capacity (allowance or 72-mgd re-rate, 60-mgd base capacity) |
| • How does the opportunity change public narrative? |
| • Does the opportunity require modifications to existing permits or new permits? |
| • Does the opportunity modify the schedule or completion of the Program by June 30, 2026? |

### All WWSS Partners Need to Agree on Cost Control Opportunities Recommended to the Board

- **Cost impacts**
  - Design/other contract amendments
  - Annual spend
  - Projected operational cost impacts
  - Capital project escalation
  - Distribution among partners
- **Accept any impacts partner funding plans**
- **Program changes**
  - Capacity, level of service, in-service date
- **Communications plan to the public and any affected entities is supported and consistent**
- **Permitting impacts do not affect Program in any unacceptable ways**
Recommended Strategy

- WWSP to identify and evaluate potential opportunities
- WWSS Management Committee to agree on recommended opportunities
- Finish in time to respond to Partner budget schedules
  - WWSS MC to select opportunities at its February 20, 2020 meeting
- Anticipate WWSS Board make contingent approval of Baseline 5.1
  - Contingency: Board to require preservation and implementation of recommended opportunities in the future if necessary to meet defined financial constraints
  - Enables timely approval of budget for next fiscal year (which is below the budget in the approved Baseline 4.1)
## Approvals and Procurement Forecast for December 2019 – February 2020

### Program Baseline or Related Plans

<table>
<thead>
<tr>
<th>Description</th>
<th>Program Director</th>
<th>WWSS Management Committee</th>
<th>WWSS Commission Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>WWSP Annual Rebaseline Schedule and Budget</td>
<td>NA</td>
<td>2/22/2020</td>
<td>3/5/2020</td>
</tr>
</tbody>
</table>

## Approvals and Procurement Forecast for December 2019 – February 2020

### Real Estate

<table>
<thead>
<tr>
<th>Description</th>
<th>Program Director</th>
<th>WWSS Management Committee</th>
<th>WWSS Commission Board</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLW_1.3 Resolution of Need</td>
<td>NA</td>
<td>1/23/2020</td>
<td>2/6/2020</td>
</tr>
<tr>
<td>PLM_4.3 Resolution of Need</td>
<td>NA</td>
<td>2/20/2020</td>
<td>3/5/2020</td>
</tr>
</tbody>
</table>
Approvals and Procurement Forecast for January 2020 – March 2020

IGAs, MOUs, Permit Commitments

Metzger Pipeline East Pipeline (MPE_1.0)
- Project agreement for COB_1.0 – under additional discussion with COB

South Hillsboro Area Pipeline (PLW_1.3)
- Hagg Lane (Butternut Creek) Agreement Amendment (Dec)

Washington County Land Use & Trans.
- Various IGA amendments (Dec)
  - PLM_4.1 Design
  - PLM_4.2 Design
  - PLW_1.2 Design

Scholls Ferry Area Pipeline (PLM_5.2)
- Metropolitan Land Group Developer Agreement

Approvals and Procurement Forecast for December 2019 – February 2020

Contracts

<table>
<thead>
<tr>
<th>Title</th>
<th>Goal</th>
<th>Value</th>
<th>Key Dates</th>
</tr>
</thead>
</table>
| RES_1.0 Design, Bidding, and Services During Construction            | Procure the design consultant for the WWSS reservoirs project       | $6.2 M | WWSS Board Approval: 2/6/2020
|                                                                      |                                                                      |        | Notice to Proceed: 2/7/2020                    |
### Approvals and Procurement Forecast for December 2019 – February 2020
#### Contract Amendments and Change Orders*

<table>
<thead>
<tr>
<th>Title</th>
<th>Goal</th>
<th>Value</th>
<th>Key Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>MPE_1.0 Design Amendment</td>
<td>Add final design and services during construction for the COB_1.0 project</td>
<td>$1.56M</td>
<td>8/21/2019 approval by WWSS MC (delegated by the WWSS Board)</td>
</tr>
<tr>
<td>PLM_5.3 Design Amendment</td>
<td>Amend contract for final design and services during construction to reflect realignment north of Farmington</td>
<td>TBD</td>
<td>2/20/2020 approval by WWSS MC</td>
</tr>
<tr>
<td>Program Regulatory Permitting and Related Consulting Services</td>
<td>Amend contract to provide professional services through February 2021</td>
<td>$2.1M</td>
<td>1/9/2020 approval by WWSS Board</td>
</tr>
<tr>
<td>PLM_1.2 Construction Contract Change Order</td>
<td>Amend contract to add Day Road crossing</td>
<td>TBD</td>
<td>2/20/2020 approval by WWSS MC</td>
</tr>
<tr>
<td>WTP_1.0 Design Amendment</td>
<td>Amend contract for design services related to added engineering services</td>
<td>TBD</td>
<td>2/20/2020 approval by WWSS MC</td>
</tr>
</tbody>
</table>

*having values higher than the Program Director’s authority*
Notable Topics

• Commissioning and Start-up Planning
  – Initial planning workshop with Sundt on 2/12/20
    • Review of CDM and Sundt comments on Commissioning Approach TM
    • Define Sundt’s work plan for draft Plan (due 5/1/20)
  – Priorities:
    • Agree on details of commissioning plan
    • Confirm plans with project managers and project teams
    • Identify all project components necessary for commissioning
    • Implement any newly-identified components

Project Delivery Progress
Construction Update
Projects currently in construction

- PLM_5.2 (Scholls Ferry/Tile Flat)
- PLM_5.1 (Roy Rogers Rd)
- PLM_1.2 (Garden Acres Rd)
- PLM_1.1 (S. of Wilsonville Rd)

Current and Planned Activities:
- Began Pipeline installation
- 100 LF of pipe installed
- Coordinating driveway access with Wilsonville Concrete
- Staging area and erosion control completed
- Utility crossings and protection
Construction Photos – PLM_1.1

First Pipe Installation

Construction Photos – PLM_1.1

Protection of Sewer Line Crossing the Trench
PLM_1.1 Notable Topics

• External Coordination
  – Continued coordination with Wilsonville Concrete

• Potential Claims
  – None

• Delivery Challenges
  – None

PLM_1.2

Partner: City of Wilsonville  
Contractor: Moore Excavation Inc.  
Designer: HDR

Current and Planned Activities:
• Continued installation of sanitary and storm sewers  
• Continued waterline submittals  
• First waterline activity now scheduled for May 2020
Construction Photos – PLM_1.2

- Excavation and Installation of 18" Sanitary Sewer Upgrades

Construction Photos – PLM_1.2

- Excavation and Installation of 42-inch Storm Drain Along SW Ridder Rd.
PLM_1.2 Notable Topics

• Partner Coordination
  – No issues

• Potential Claims
  – None

• Delivery Challenges
  – None

PLM_5.1

Partner: Washington Co.
Contractor: Tapani, Inc.
(Moore Excavation Inc. – Waterline Sub)
Designer: Jacobs

Current and Planned Activities:
• Shoring installation (Secant Piles) completed for trenchless pipe installation
• Excavation for jacking and receiving shafts underway
• Tunneling subcontractor mobilized
Construction Photos – PLM_5.1

Secant Pile Shoring System Installed and Northern Shaft Excavation Underway

Construction Photos – PLM_5.1

Excavation of the Northern Jacking Shaft
PLM_5.1 Notable Topics

- Partner Coordination
  - Tigard turnout change order in progress
- Potential Claims
  - Request for additional compensation for Frontier fiber cable relocation
- Claims
  - None
- Delivery Challenges
  - None

PLM_5.2

Contractor: Emery & Sons
Designer: Jacobs

Current and Planned Activities:
- Real estate acquisition – one property remaining
- 3,600 LF of pipe installed, welded and backfilled
- Mobilized second crew installing pipe toward the east on Scholls Ferry Rd.
- Tile Flat Road closure implemented
- Tree removal, road widening and utility relocation
Construction Photos – PLM_5.2

Pipe Installation Along Scholls Ferry Rd.

Construction Photos – PLM_5.2

Tile Flat Rd. Tree Removal
Construction Photos – PLM_5.2

Road Widening for Safety Barrier Installation

PLM_5.2 Notable Topics

- External Coordination
  - PGE and Frontier utilities relocation along Tile Flat Road

- Potential Claims
  - None

- Delivery Challenges
  - Final easement acquisition
  - Utility relocation has delayed work