

## CLACKAMAS COUNTY BOARD OF COUNTY COMMISSIONERS

### Study Session Worksheet

**Presentation Date:** 2/3/2015 **Approx Start Time:** 1:30 p.m. **Approx Length:** 30 Min

**Presentation Title:** CCSD#1 & TCSD Capital Improvement Plan - Potential Revisions and Public Process Timing

**Department:** Water Environment Services ("WES")

**Presenters:** Greg Geist, Interim Director; Doug Waugh, Finance Manager; Michael Trent, Interim Operations Manager

**Other Invitees:** Dale Richwine, Amanda Keller; Amy Kyle, PGA

#### **WHAT ACTION ARE YOU REQUESTING FROM THE BOARD?**

Direction on what timeline WES should conduct a public process regarding potential revisions to the Capital Improvement Plan ("CIP") for Clackamas County Service District No. 1 ("CCSD#1") and the Tri-City Service District ("TCSD").

#### **EXECUTIVE SUMMARY:**

After construction of the Phase I project in 2011, which added the MBR liquids treatment facility at the Tri-City Plant, both CCSD#1 and TCSD were faced with the challenge of being over-capacity from a solids processing standpoint. The industry standard approach to resolve this issue would be to construct new digesters to handle the existing loads. However, staff proposed, and the BCC approved, a budget and rate structure based on a higher-risk operational strategy, mainly to avoid additional rapid rate increases for both districts.

To allow time to implement a graduated rate increase program the digesters at the Tri-City Plant were shifted from series (*standard*) treatment to "parallel" treatment, where all operational reserve and safety margin was put into regular use for the handling of solids on a day-to-day basis. It was hoped that the parallel digestion operational strategy would delay the need for the construction of additional digesters by approximately 8 years. This approach was built into the adopted capital improvement plans of each of the districts.

This fall, WES staff reviewed the efficacy and sustainability of this approach. The 8 year estimate was based on several key assumptions, including the rate of growth as projected by Portland State University. This growth rate assumption has not proved out over the past two years, as both districts are experiencing higher rates of growth than estimated. *If current growth rates continue, the available capacity obtained by shifting to parallel digestion will be consumed in 4 years instead of 8 years.* In addition, operational challenges have arisen, which indicate that continued operation at this high level of utilization may not be sustainable for the intended 8 years.

A construction project of the magnitude of the digesters takes approximately 3 years to implement. Assuming as few as 4 years until all digester capacity is exhausted, we are at a time when a decision will need to be made about whether to expedite construction of the digesters from 2023 to some sooner date.

Staff has presented these initial findings to both the RiverHealth Advisory Board and the Tri-City Advisory Committee, and briefings to County Administration and Board members.

The ultimate question that needs to be addressed is whether the CIP should be revised to accelerate the construction of new digesters. However, the question currently before the BCC is which timeline staff should follow when conducting the public process necessary to get the meaningful input required to answer that ultimate question.

Historically, the BCC has directed staff to ensure a vigorous public process, including the constituent cities and unincorporated representatives, takes place when developing recommendations and making decisions on issues of this magnitude. WES staff is actively working with PGA to develop a robust public process that would allow feedback from all affected parties.

Of particular focus during this public process will be input from the Regional Wastewater Treatment Capacity Advisory Committee ("Regional Committee"), which consists of representatives designated by each of Gladstone, Oregon City and West Linn representing 4 votes (1.33 each) on behalf of TCSD, and the Cities of Damascus, Happy Valley, and Milwaukie and a representative of the unincorporated CCSD#1 area with one vote each on behalf of CCSD#1. (Note: the Regional Committee has not been convened in several years and individual representatives have certainly changed over that time). The Regional Committee would be a useful venue in which the question of whether to accelerate the CIP could be addressed, with the objective of providing a subsequent recommendation to the BCC, including any resulting rate impacts and profiles. The design work for the digesters is scheduled to be included in the upcoming 2015-2016 budget proposal, so as to preserve the option of early implementation if the Regional Committee should so recommend.

In sum, staff is seeking direction on the timing in which the BCC desires to receive feedback from the Regional Committee and other public outreach processes. Two potential options are described below.

**FINANCIAL IMPLICATIONS (current year and ongoing):**

There will be expenditure of staff time and potentially consultant contracts in support of the outreach and decision-making process, as well as preliminary design work associated with the digester expansion.

**LEGAL/POLICY REQUIREMENTS:**

The BCC has created the Regional Wastewater Treatment Capacity Advisory Committee that is tasked with advising on questions such as the CIP revision. To the extent that question is posed, it is within the scope of that Committee's charter to consider the issue.

**PUBLIC/GOVERNMENTAL PARTICIPATION:**

See options below.



# BCC Study Session:

## WES Public Process Timeline for Potentially Accelerated CIP

February 3<sup>rd</sup>, 2015



# Presentation Overview

1. Brief Review of Capacity Issue
2. Timing and Rate Impacts
3. Question for the Board
4. Options to Consider
5. Recommendation



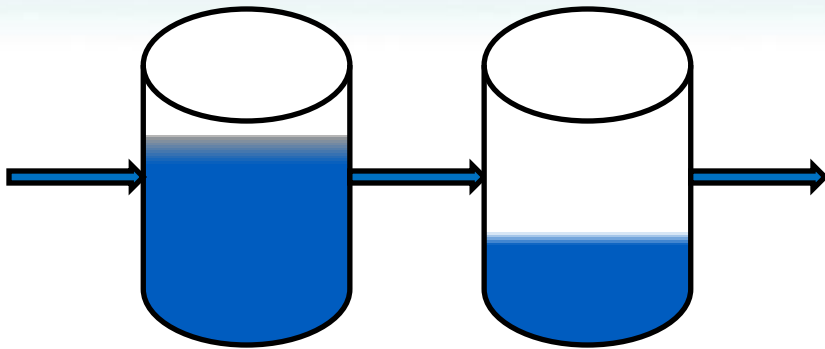
# Tri-City WPCP Digesters Constructed in 1986



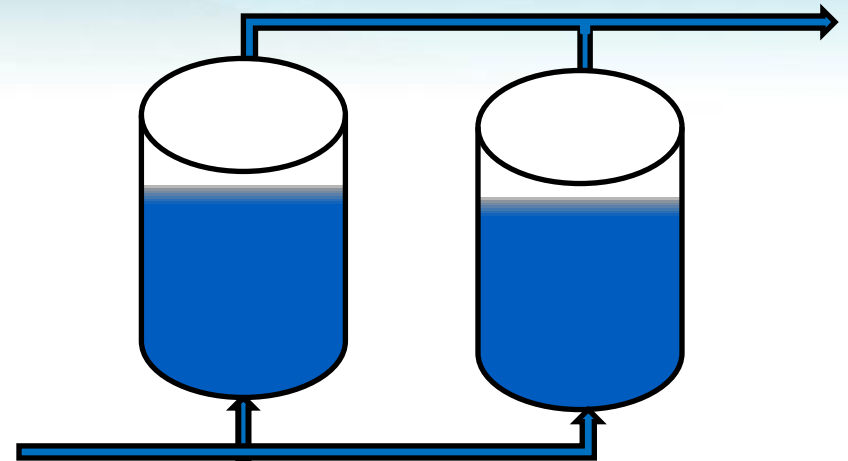
# Current Solids Loading ~ 38,000 EDU

60% overloaded  
Capacity = 28,000 EDU

Capacity = 42,000 EDU



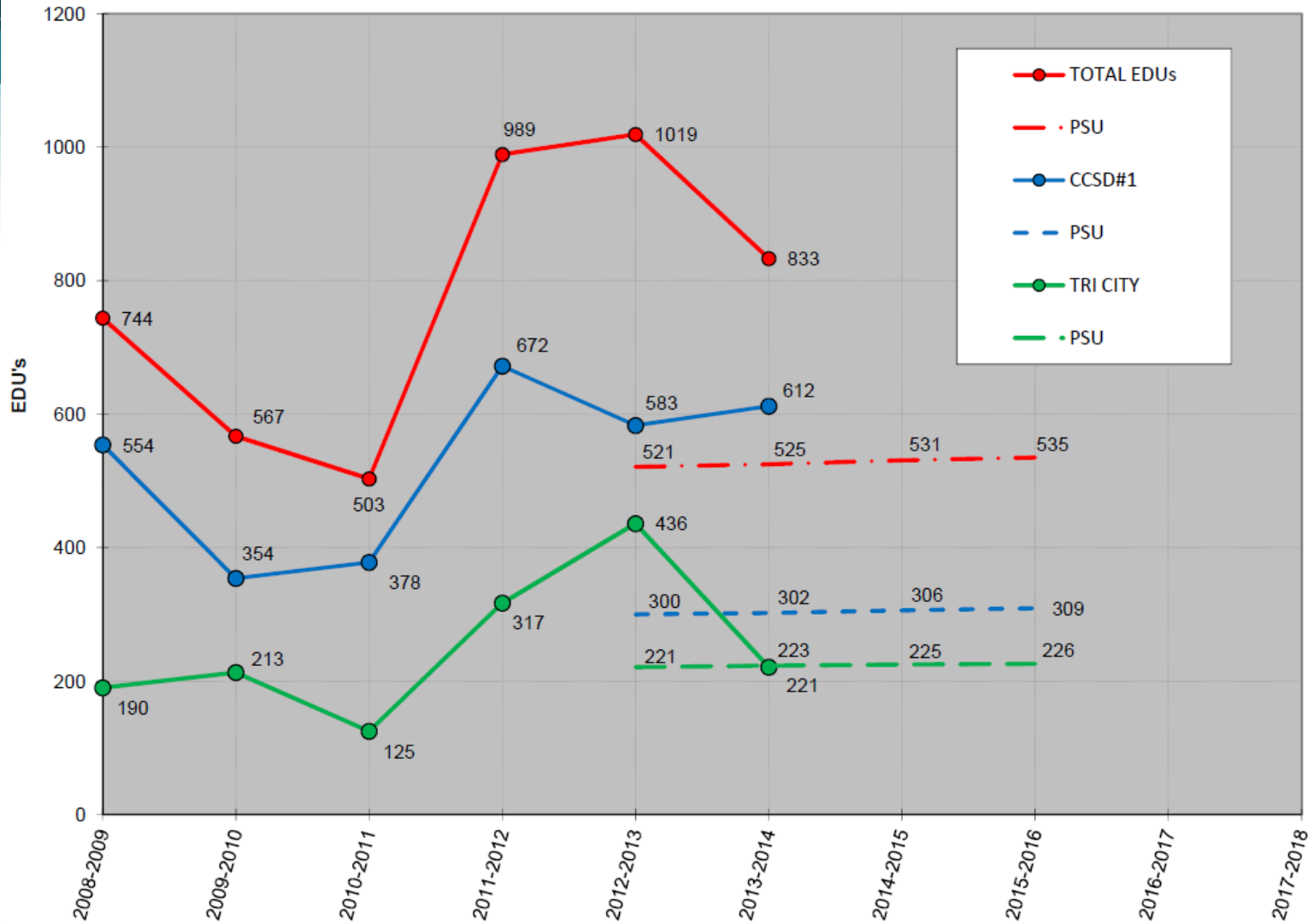
**Series**



**Parallel**



# Growth: Projected vs. Actual



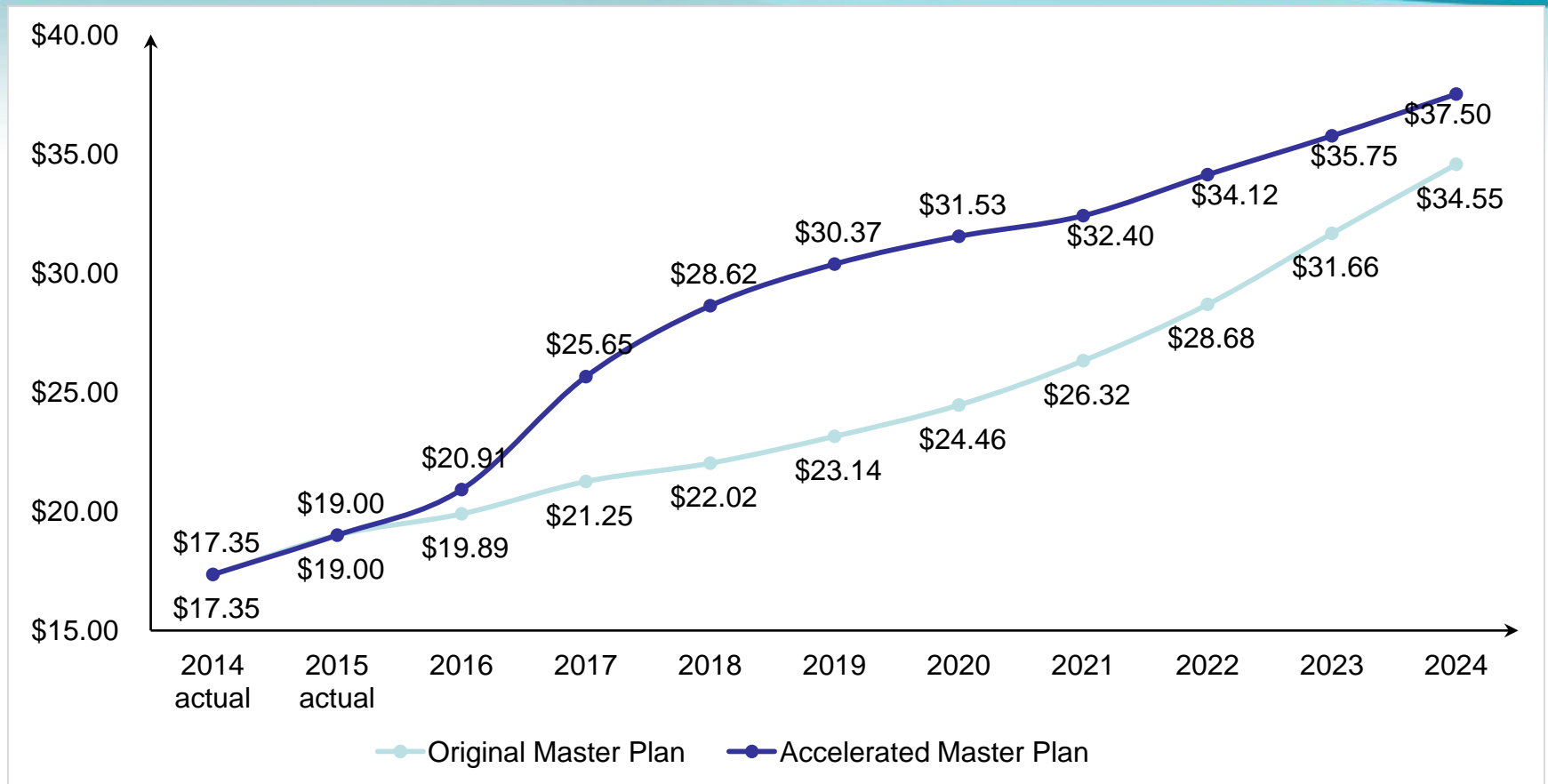




# Tri-City Projects, Timing and Costs

Project No.	Project Name	Project Driver	2013 Plan	Expedited Plan	Estimated Cost (Million)
IIB	Phase II Electrical Expansion	Add capacity for additional equipment	2019	2017	\$3
IIC	Anaerobic Digesters	Solids Processing Capacity Solids Building Seismic Protection	2023	2017	\$26
IID	Landfill Mitigation	Meet DEQ Cut and Fill Requirements	2024	2018	\$5
IIF	Dewatering/Centrates Equalization	Dewatering Redundancy Cake Storage	2025	2017	\$20
New	Blower Replacement	Problem Equipment	-	2016	\$3
<b>TOTAL</b>					<b>\$57</b>

# Forecast of Sanitary Sewer Rates in TCSD Dollars per EDU per Month



# Forecast of Sanitary Sewer Rates in CCSD #1

## Dollars per EDU per Month



# Question:

What public process timeline should WES follow regarding potential revisions to the CIP?

*Option A:* Public process completed by April 2015 to match budget cycle

*Option B:* Public process completed by November 2015 to allow for a more robust communication strategy

Assumption: The BCC agrees that there is a need to begin the public discussion regarding the acceleration of the CIP.



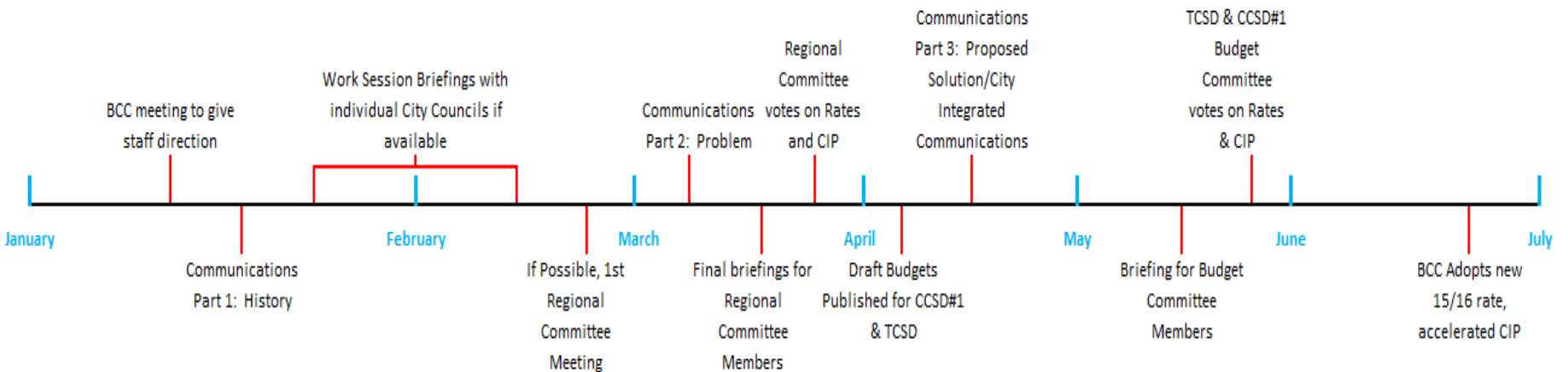


# Proposed Public Process

- Meetings with 6 city councils regarding wastewater infrastructure history (tours being scheduled)
- Two meetings each of the RiverHealth and Tri-City Service District Advisory Committees
- Two to three meetings of the Regional Advisory Committee
- Public outreach/involvement plan
- Internal communications with Board of County Commissioners, staff and other county departments to ensure consistent message

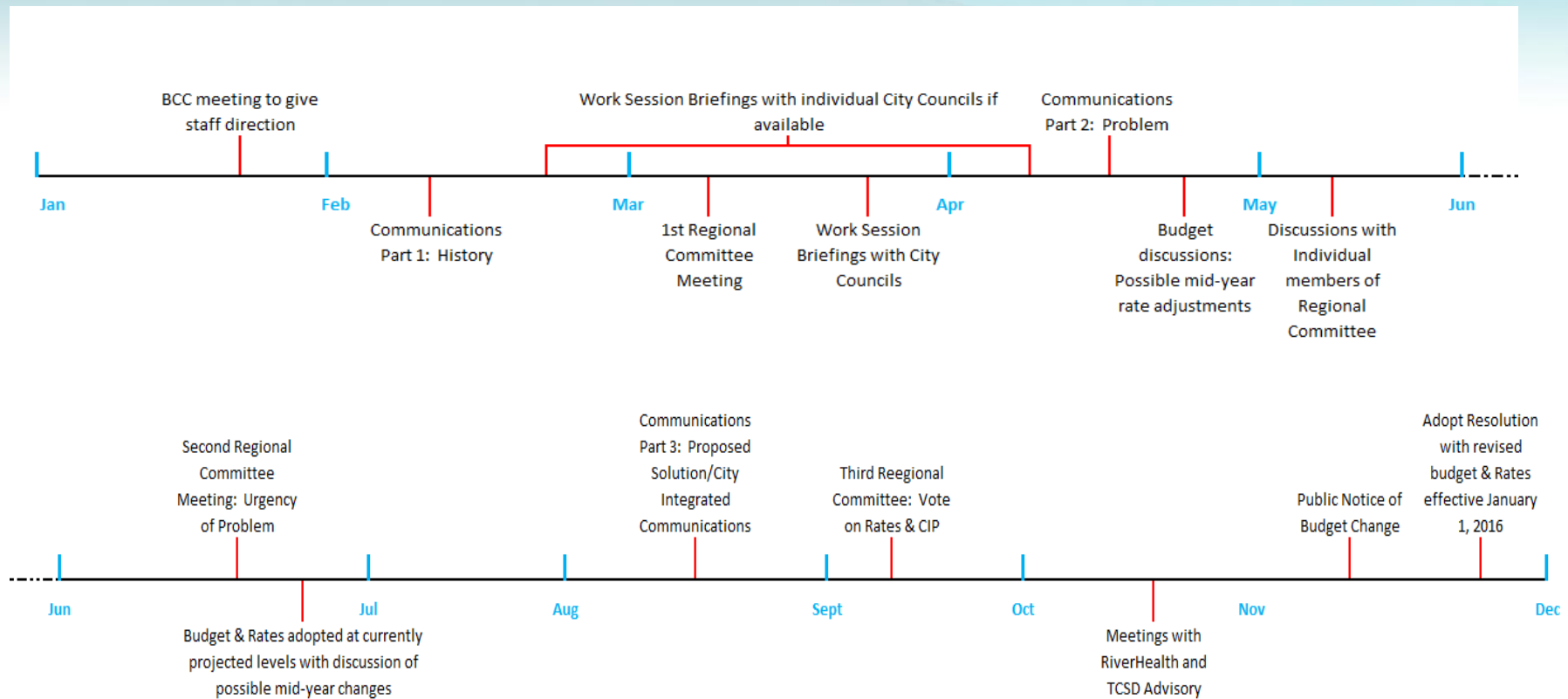


# Option A: Approximate Timeline of Activities



**\*Caveat: This timeline is dependent on a number of external factors subject to change.**

# Option B: Approximate Timeline of Activities



# Key Points

- Recall: Industry standard for adding capacity is when a facility reaches 80% of design capacity
- Now is the time to make a plan
- Planning and design needs to happen next fiscal year to preserve the option of accelerated delivery
- Accelerated delivery will have an impact on the rate profile
- Stakeholders need the opportunity to understand the issue and provide input

# Staff Recommendation

Question: What public process timeline should WES follow regarding potential revisions to the CIP?

Option B: Expanded timeline to increase public participation

- Affords meaningful input from stakeholders
- Preserves early delivery option
- Allows time to gather data requested by stakeholders

# Questions?