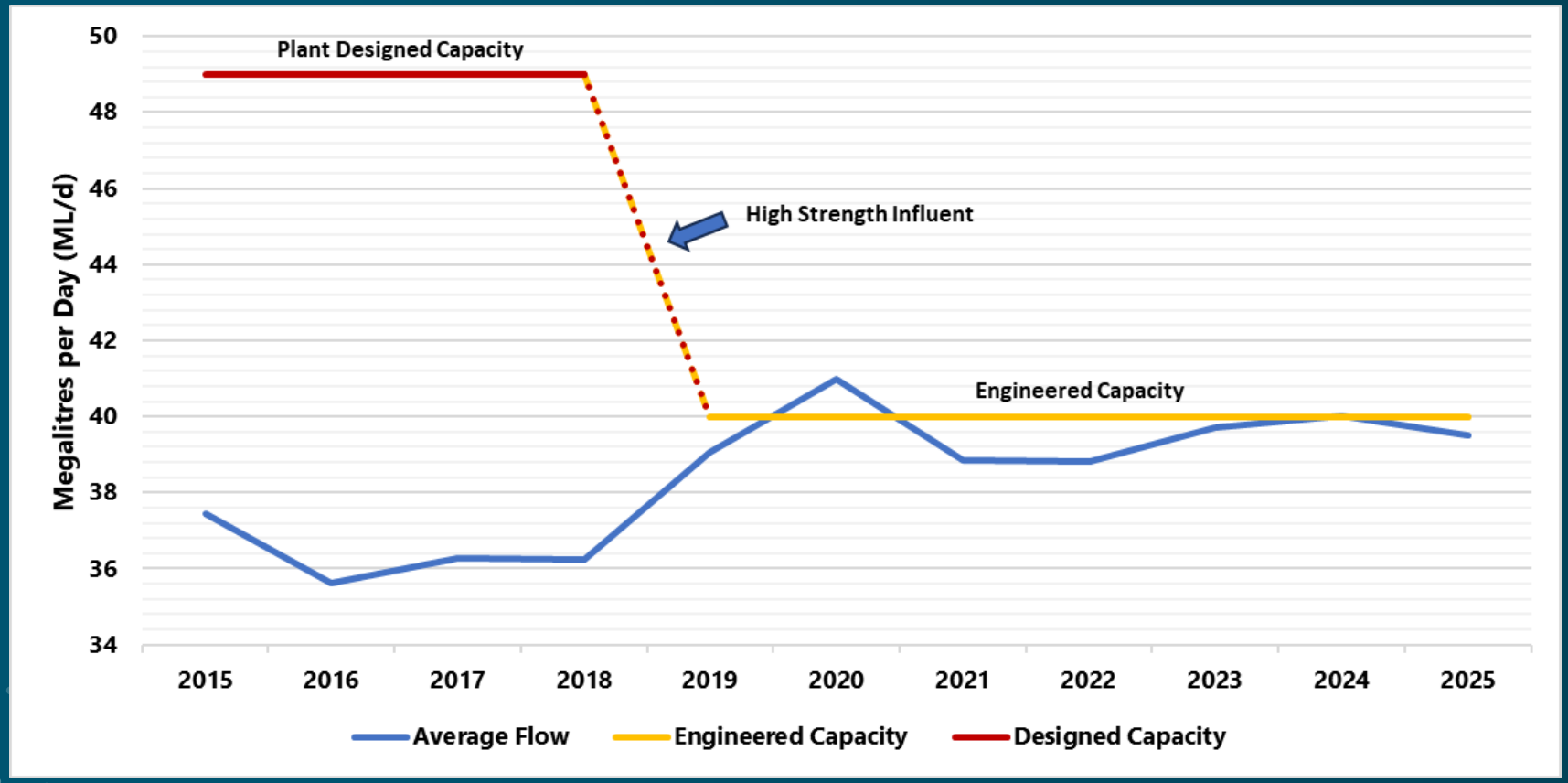
Wastewater Treatment Plant Asset Management Plan

Lethbridge City Council Meeting

4/16/2026

Capacity Constraints and Growth Limits

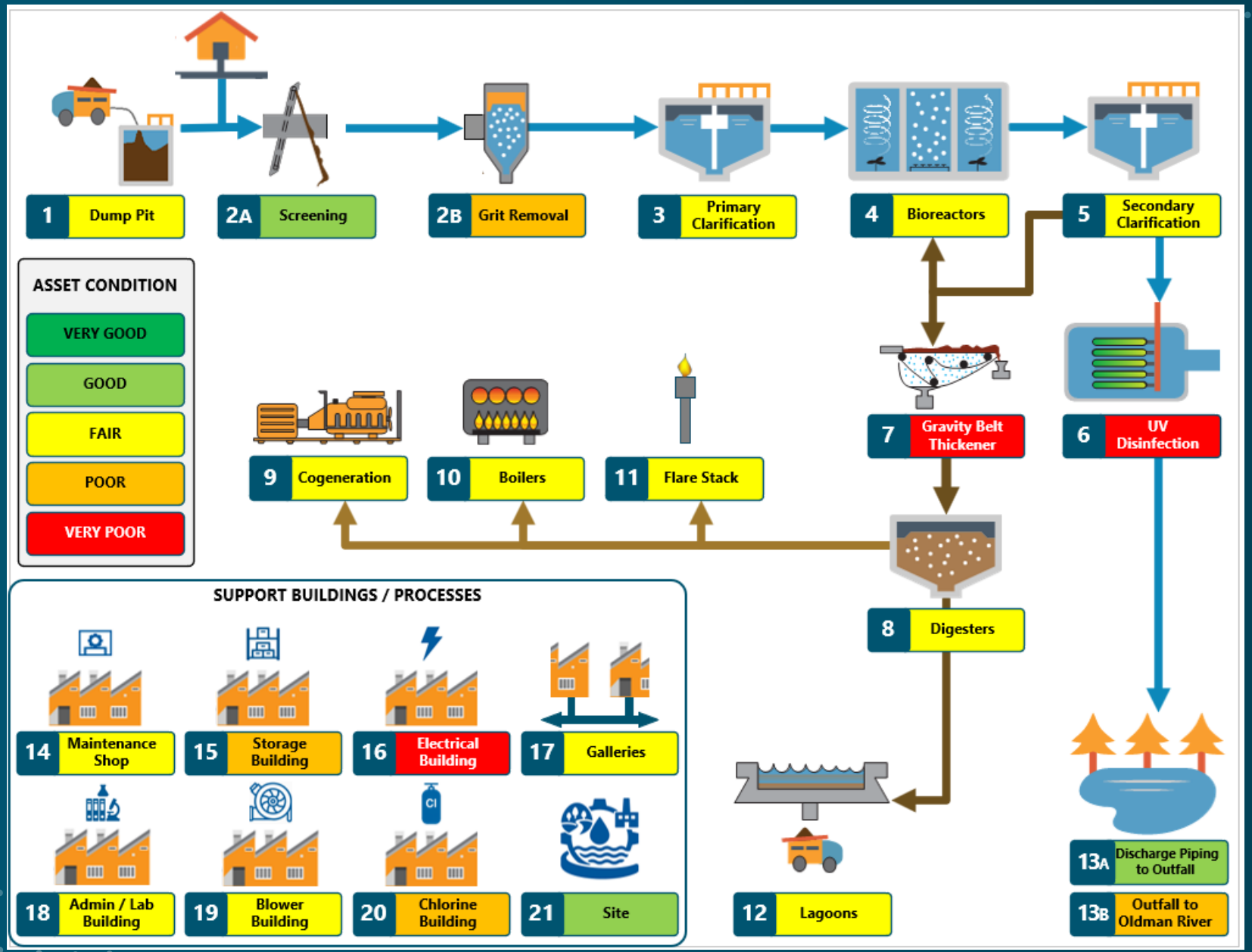
10 Year Average Flow Data of WWTP



Significant Findings Highlights

Plan Section	Significant Finding
3.0 – State of the Infrastructure	Critical Treatment Processes in Very Poor Condition
5.0 – Risk Assessment Summary	Aging Infrastructure with Limited to No Redundancy
4.0 – Level of Service & Capacity Constraints	Capacity Constraints and Growth Limits
4.0 – Level of Service & Capacity Constraints	Forecasted Demand and Need for Expansion
6.0 – Financial Summary	Preliminary capital cost for expansion is $250-350M. Rate increases will be required. To be communicated on May 13 CIC - CIP Budget Workshop Meeting

Wastewater Treatment Plant Process



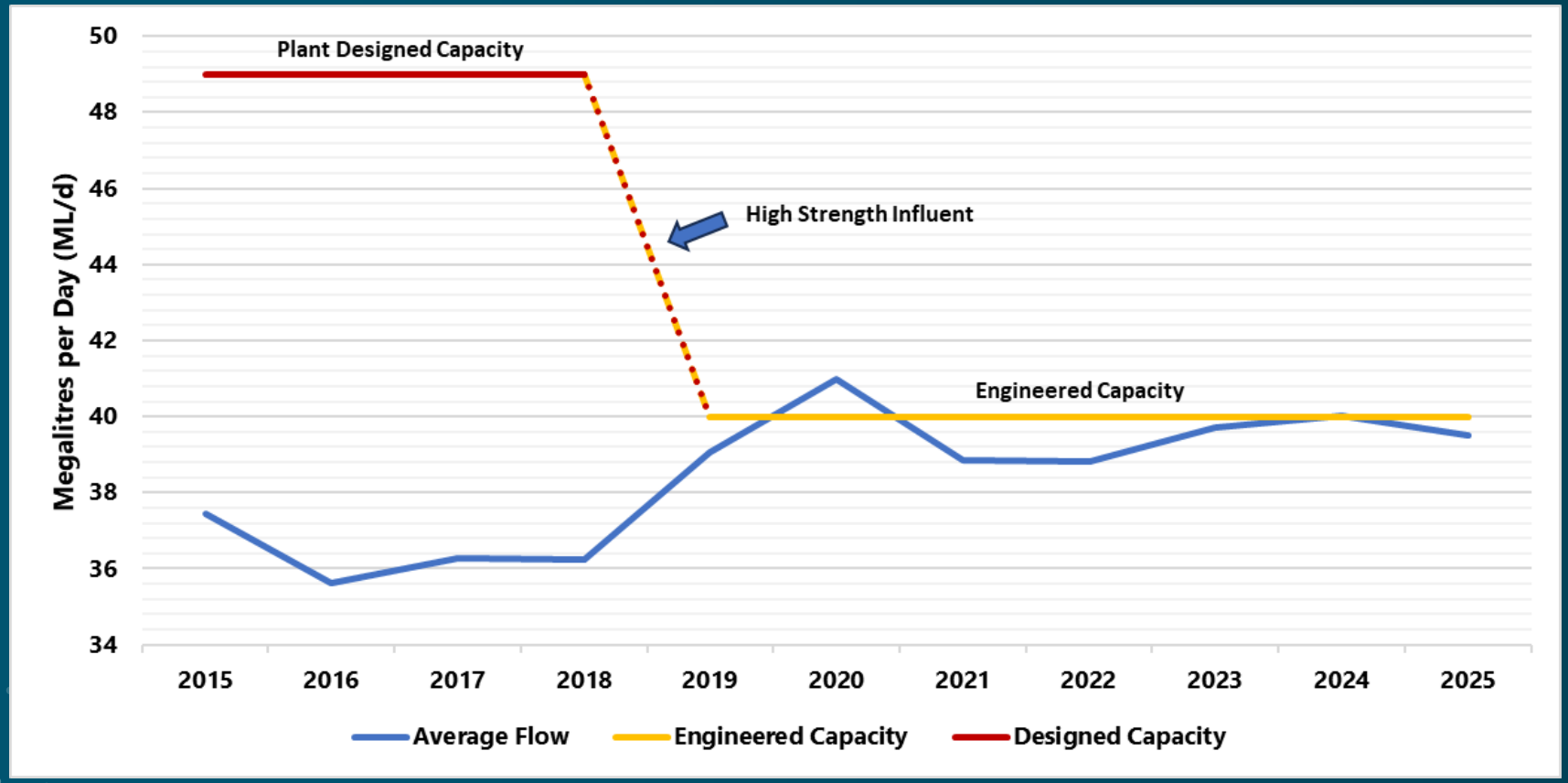
Asset Category	Condition	Replacement Cost	Avg. Install Year
1 - Dump Pit (2F)	3 - Fair	$ 346,381	1999
2A - Screening (2A)	2 - Good	$ 8,229,629	2018
2B - Grit Removal (2A)	4 - Poor	$ 1,717,000	2019
3 - Primary Clarification (2C)	3 - Fair	$ 18,699,089	2019
4 - Bioreactors (4A)	3 - Fair	$ 73,397,000	1971
5 - Secondary Clarification (6A / 6B)	3 - Fair	$ 52,945,312	1979
6 - UV Disinfection (11A)	5 - Very Poor	$ 13,110,000	1998
7 - Gravity Belt Thickener	5 - Very Poor	$ 3,030,744	1984
8 - Digesters (8B)	3 - Fair	$ 40,509,719	1990
9 - Cogeneration (3C)	3 - Fair	$ 9,735,097	2000
10 - Boilers / Compressors (3B)	3 - Fair	$ 4,476,891	1995
11 - Flare Stack (8C)	3 - Fair	$ 427,040	1988
12 - Lagoons	3 - Fair	$ 9,800,439	1973
13A - Discharge Piping to Outfall	2 - Good	$ 3,663,472	1985
13B - Outfall to Oldman River	4 - Poor	$ 8,200,000	1960
14 - Maintenance Shop (2C)	3 - Fair	$ 1,221,432	1988
15 - Storage Building (8A)	4 - Poor	$ 1,457,941	1976
16 - Electrical Building (5A)	5 - Very Poor	$ 8,369,195	1983
17 - Galleries	3 - Fair	$ 6,604,447	1991
18 - Admin / Lab Building (3A)	3 - Fair	$ 9,071,925	1992
19 - Blower Building (5B)	3 - Fair	$ 14,325,693	1996
20 - Chlorine Building (10A)	4 - Poor	$ 475,831	1992
21 - Site / General (1A)	2 - Good	$ 13,816,605	1989
Grand Total	3 - Fair	**$ 303,630,883**	**1986**

Aging Infrastructure with Limited to No Redundancy

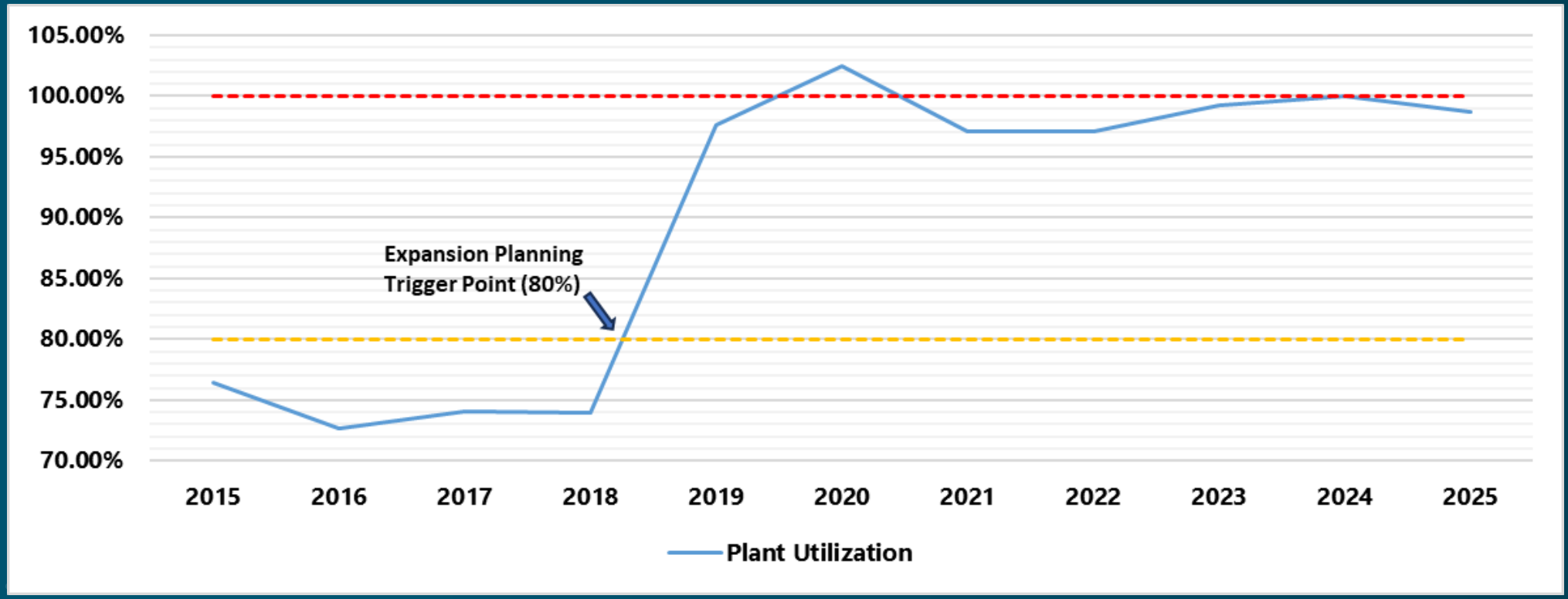
Process Name	Asset
19 – Blower Building	Process Equipment
7 – Gravity Belt Thickener	Gravity Belt Thickener (GBT)
6 – UV Disinfection	Process Equipment
9 – Cogeneration Building	Process Equipment
5 – Secondary Clarification	Process Equipment
4 – Bioreactors	Process Equipment
16 – Electrical Building	Process Equipment
13 – Outfall to Oldman River	Process Vessels

Capacity Constraints and Growth Limits

10 Year Average Flow Data of WWTP



Capacity Constraints and Growth Limits



Capacity Constraints and Growth Limits

Process Area	Target Flow (60 ML/d)
2A - Headworks	**Monitoring**
2C – Primary Pumphouse	**Additional capacity required**
2F – Wastewater Receiving Station	**Monitoring**
3B – Boilers	**Monitoring**
3B – Compressors	**Monitoring**
3C – Cogeneration	**Additional capacity required**
4A – Bioreactors	**Additional capacity required**
5A – Electrical Building	**Additional capacity required**
5B – Blower Building	**Additional capacity required**
6A/6B – Secondary Clarification	**Additional capacity required**
8B – Digester Building	**Additional capacity required**
8C – Flare Stack	**Additional capacity required**
9A – Lagoons	**Monitoring**
10A – Chlorine Building	**Monitoring**
11A – UV Building	**Additional capacity required**
12A – Outfall	**Additional capacity required**

Financial Impacts and Rate Considerations

The AM Plan includes a preliminary financial overview of the anticipated capital investment required to support expansion of the WWTP, currently estimated at approximately $250-350M.

Detailed financial impact and rate considerations will be included through ongoing evaluation of multiple scenarios, with findings to be presented as part of the May 13 Community Issues Committee – CIP Budget Workshop

Scenarios being analyzed be our finance team include:

1. **Fully borrowing costs 100% through utility rates**
2. **Using grant dollars (LGFF, CCBF) to offset borrowing costs required for expansion**

QUESTIONS