



WATER AND SEWER BOARD REGULAR MEETING

February 10, 2021 – 6:30 a.m.

<https://windsorgov.zoom.us/j/97397251420>

The Town of Windsor will make reasonable accommodations for access to Town services, programs, and activities and will make special communication arrangements for persons with disabilities. Please call (970) 674-2400 by noon on the 2nd day prior to the meeting to make arrangements.

AGENDA

A. CALL TO ORDER

1. Roll Call
2. Review of Agenda by the Board and Addition of Items of New Business to the Agenda for Consideration by the Board
3. Public Invited to be Heard

B. CONSENT CALENDAR

C. BOARD ACTION

1. Approve minutes from the January 13, 2021 meeting

D. PRESENTATIONS AND DISCUSSION

1. Wastewater Treatment Plant Phasing Analysis, Steve Tamburini, Jacobs Engineering

E. COMMUNICATIONS

1. January Snowpack
2. Greeley Water and Sewer Book: *Confluence: The Story of Greeley Water*. Thank you

F. ADJOURN



WATER AND SEWER BOARD REGULAR MEETING

January 13, 2020 – 6:30 a.m.

Meeting via Zoom

Windsor, CO 80550

MINUTES

A. CALL TO ORDER

Board Chairperson Bielawski called the meeting to order at 6:30 a.m.

1. Roll Call

Chairperson	Greg Bielawski
Vice-Chairperson	Carlos Medina
Secretary	Janene Willey
Youth Advisory Board Member	Hunter Rivera (absent)
	Darell Zimbelman
	Milt Tokunaga
	Milton Geiger
	Gale McGaha Miller
Town Board Liaison	Ken Bennett

Also present:

Dir. Of Community Development	John Thornhill
Water Resources Administrator	Leif Lesoing
Customer Service Manager	Mike Lucero
Utility Billing Admin Specialist	Erin Porter
Citizen	Alan MacGregor
Citizen	Mary Beard
Citizen	Janet Stoneberg
Citizen	Carol Hoagland
Citizen	Rob
Citizen	Kathleen Jones

2. Review of Agenda by the Board and Addition of items of New Business to the Agenda for Consideration by the Board

There were no new agenda items considered.

3. Public Invited to be Heard

Citizen Mary Beard stated that she and a group of other citizens have taken classes on caring for the earth, including presentations and documentary viewings. They are interested in continuing further with their education and are interested in seeing how the Town of Windsor is managing this topic and seeing if they could help.

B. CONSENT CALENDAR

There were no items on the consent calendar.

C. BOARD ACTION

1. Minutes of December 16, 2020 Regular Meeting

Board Vice-Chairperson Medina moved to accept the minutes for the December 16, 2020 meeting with discussed corrections; Board Member McGaha Miller seconded the motion. Motion carried unanimously.

2. Election of Officers

Board Member Tokunaga moved to retain the same officers; Board Member Geiger seconded the motion. All existing officers agreed to this nomination. Motion carried unanimously.

3. Appointment of Ad Hoc Committee Members

Board Secretary Willey and Board Chairperson Bielawski volunteered, Board Members Tokunaga, McGaha Miller, and Geiger volunteered for participation when scheduling allows

Board Member McGaha Miller moved to renew the Ad-Hoc Committee for 2021; Board Member Zimbelman seconded the motion. Motion carried unanimously.

D. PRESENTATIONS AND DISCUSSION

There were no presentations or discussions.

E. COMMUNICATIONS

1. December Snowpack

Mr. Lesoing presented the current numbers on the current water year. The South Platte Basin snowpack is well below average and we are in a similar position as we were in 2018, which is around 77% of snowpack. The one good thing is that the percent of normal needed to reach the average peak is 117%, so maybe with more snow we can get to average. The Cache la Poudre Basin is at 70% for the entire basin.

Mr. Lesoing presented the drought outlook, which reflects the majority of the southwestern United States, including the entire State of Colorado reflect a persistent drought through March 2021.

2. NISP Update

There is no new information, but hopefully by February or March there will be a record of decision (ROD)

3. Dates of upcoming events

January 27, 2021 – Colorado Water Conservation Board (CWCB) Virtual Events: “A Riverside Chat” CWCB Director, Becky Mitchell, and CWCB staff will share thoughts about the Colorado Water Plan update’s direction and vision.

Greeley will be doing a webinar on 1/13/21 with the topic “Life after Lawn”.

4. Future Water and Sewer Board agenda topics

Board Chairperson Bielawski asked Board Members which topics should be considered for future agenda topics. The following topics were brought up for consideration:

- An update on the backflow regulation program
- A presentation in regards to climate impact, possibly by Peter Goble the Service Climatologist Drought Specialist for CSU at the Colorado Climate Center, and presented at the Durango Climate Conference

- A discussion of the Strategic Plan for a Drinking Water Treatment Plant
- An update on where the Town is at in regards to the upgrade of the Waste Water Treatment Plant
- A discussion on how the Town wants to finance for individual conservation efficiency
- Joint discussion with the Planning Commission on future planning for subdivision and landscaping standards
- Presentation of information to better prepare Members for questions regarding the financial reasoning behind rate increases including debt ratio coverages

F. ADJOURN

Board Secretary Willey moved to adjourn the meeting at 7:18 am; Board Member McGaha Miller seconded the motion. Motion carried unanimously.

Submitted by:

A handwritten signature in blue ink, appearing to read "Erin Porter", is written over a light blue horizontal line.

Erin Porter, Utility Billing Administrative Specialist



Town of Windsor Biosolids Management Project

Treatment Plant Phasing Analysis

Agenda

- Current and Future Flows
 - Regulatory Overview
 - Existing Capacity Analysis
 - Plant Phasing Options Analysis
 - Estimated Project Timing
-

Project Wastewater Flows

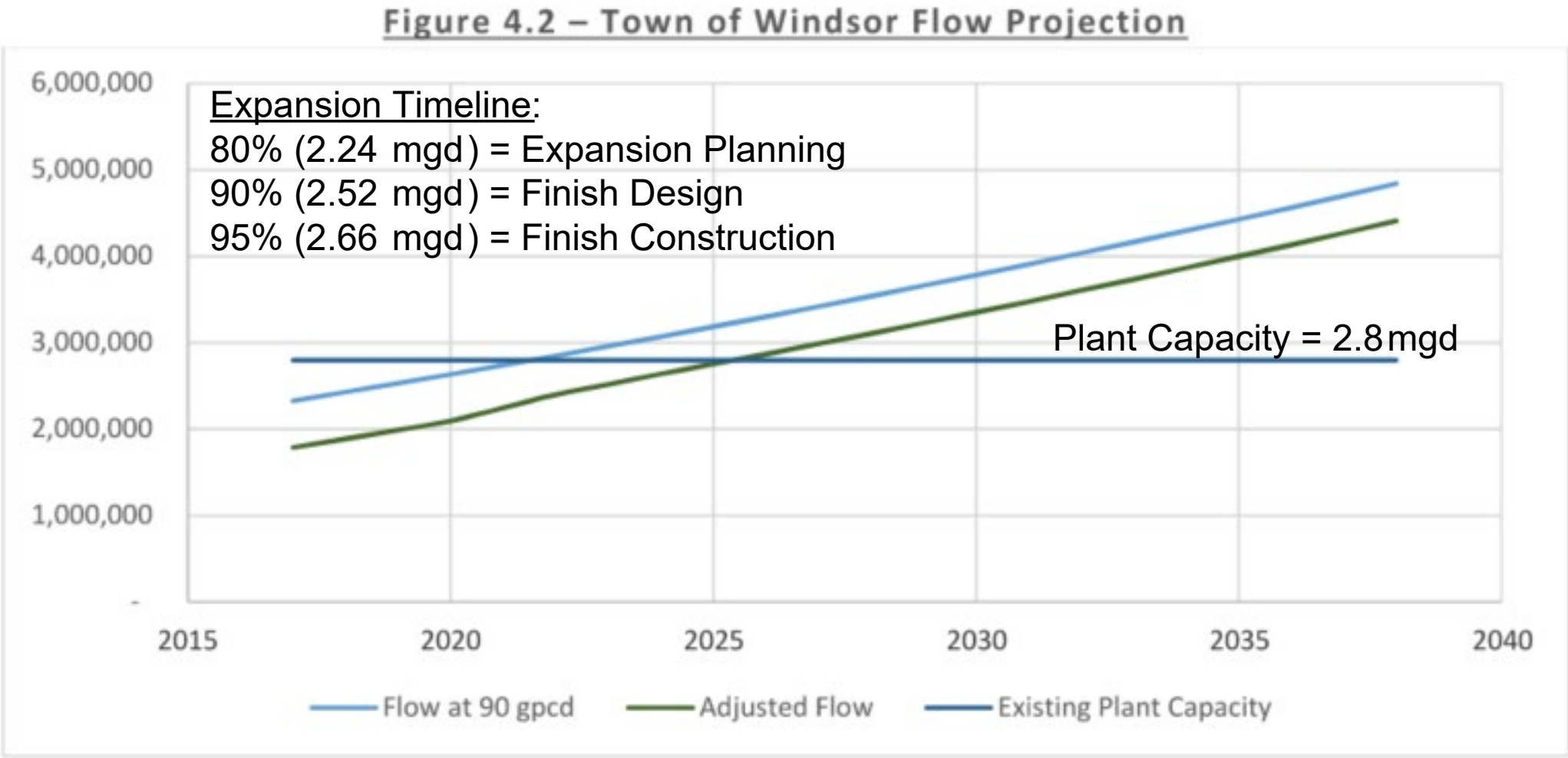


Figure from Windsor Utility Plan – JUB Engineers 2019

Flows and Loadings

Permitted
Capacity

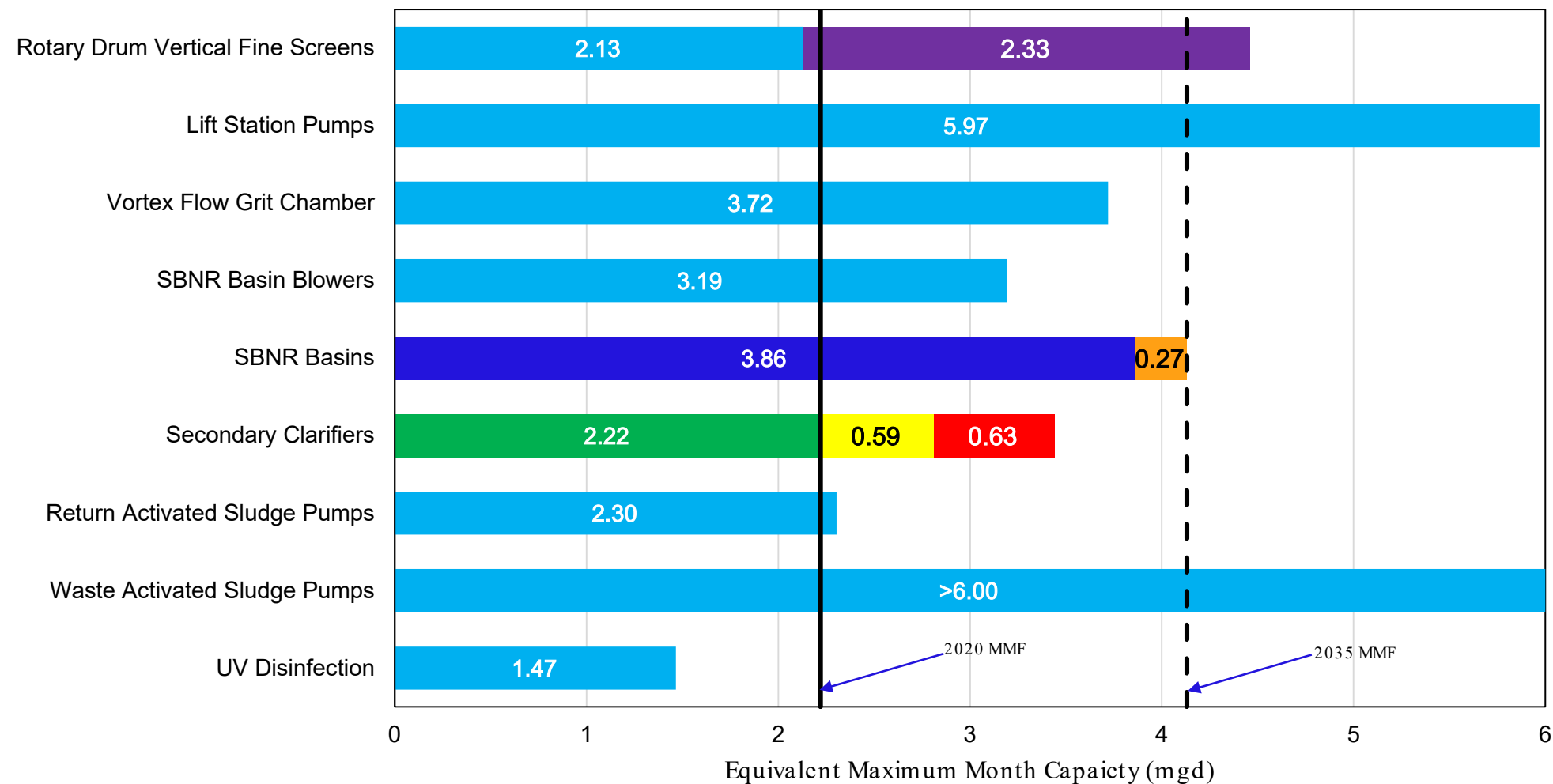
Projections	Peaking Factor	Year	
		2020	2040
Projected Population		23,000	51,000
Flow (mgd)			
Average Annual	1.00	1.75	3.82
Maximum Month	1.27	2.22	4.87
Maximum week	1.39	2.43	5.32
Peak Day	1.74	3.04	6.66
Peak Hour	2.39	4.17	9.13
BOD ₅ Loading (lb/d)			
Average Annual	1.00	3,100	6,900
Maximum Month	1.30	4,000	9,000
Maximum Week	1.54	4,800	10,600
Ammonia Loading (lb/d)			
Average Annual	1.00	600	1,310
Maximum Month	1.38	830	1,810
Maximum Week	1.57	940	2,060

Regulatory Overview

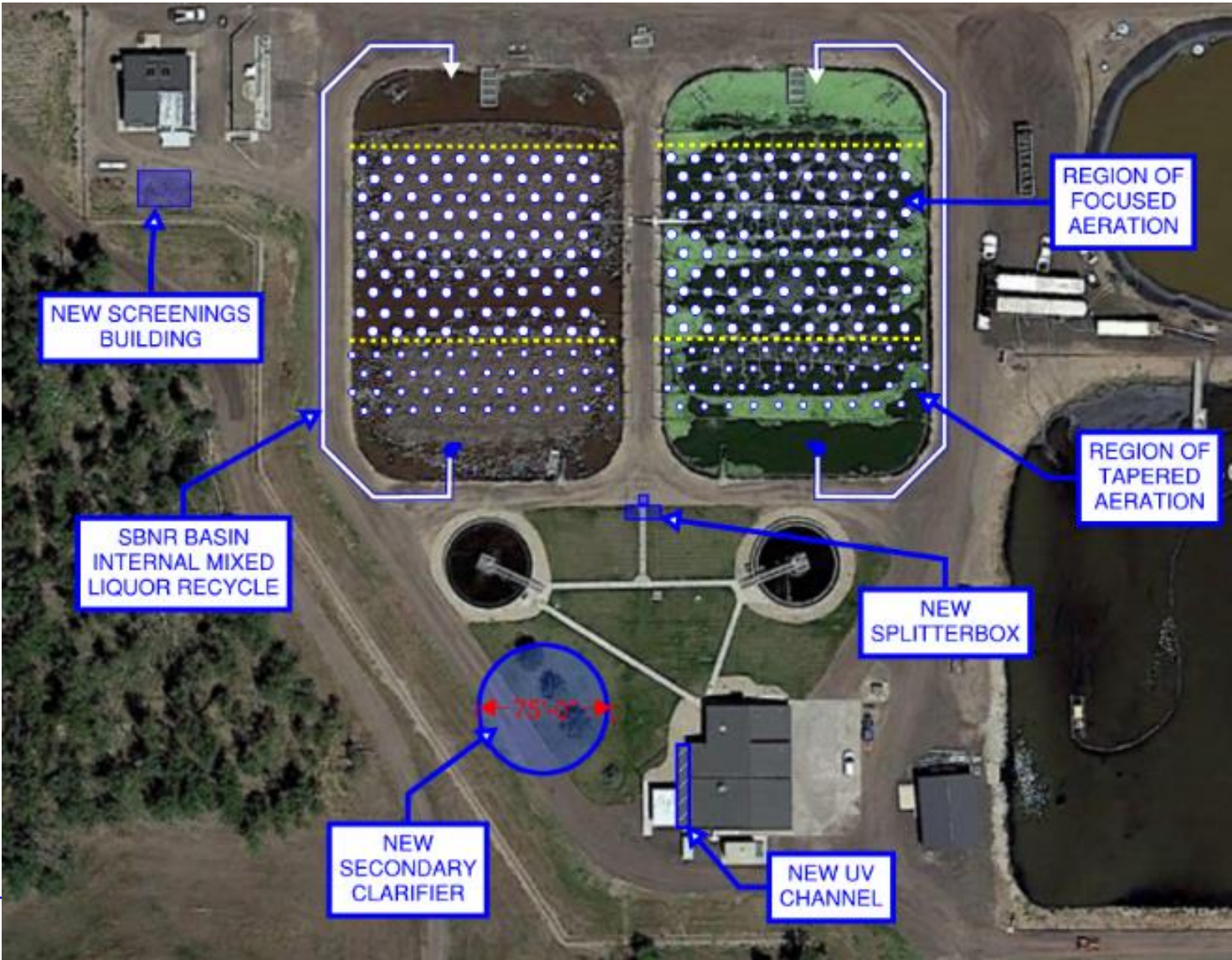
Regulation	Discharge Parameter	Discharge Parameter	Units	Discharge Limit
Regulation 31	TN	Running annual median	mg N/L	2.01
	TP	Running annual median	mg P/L	0.17
Regulation 85 (interim regulation for Regulation 31)	TIN	Running annual median	mg N/L	15
	TIN	95 th percentile of running annual average	mg N/L	20
	TP	Running annual median	mg P/L	1.0
	TP	95 th percentile of running annual average	mg P/L	2.5
VIP (Incentive to remove N and P to lower levels beyond permit limits)	TIN	Monthly average	mg N/L	7.0
	TP	Monthly average	mg P/L	0.70

Existing Plant cannot meet these limits with improvements. New treatment process required

Capacity Analysis



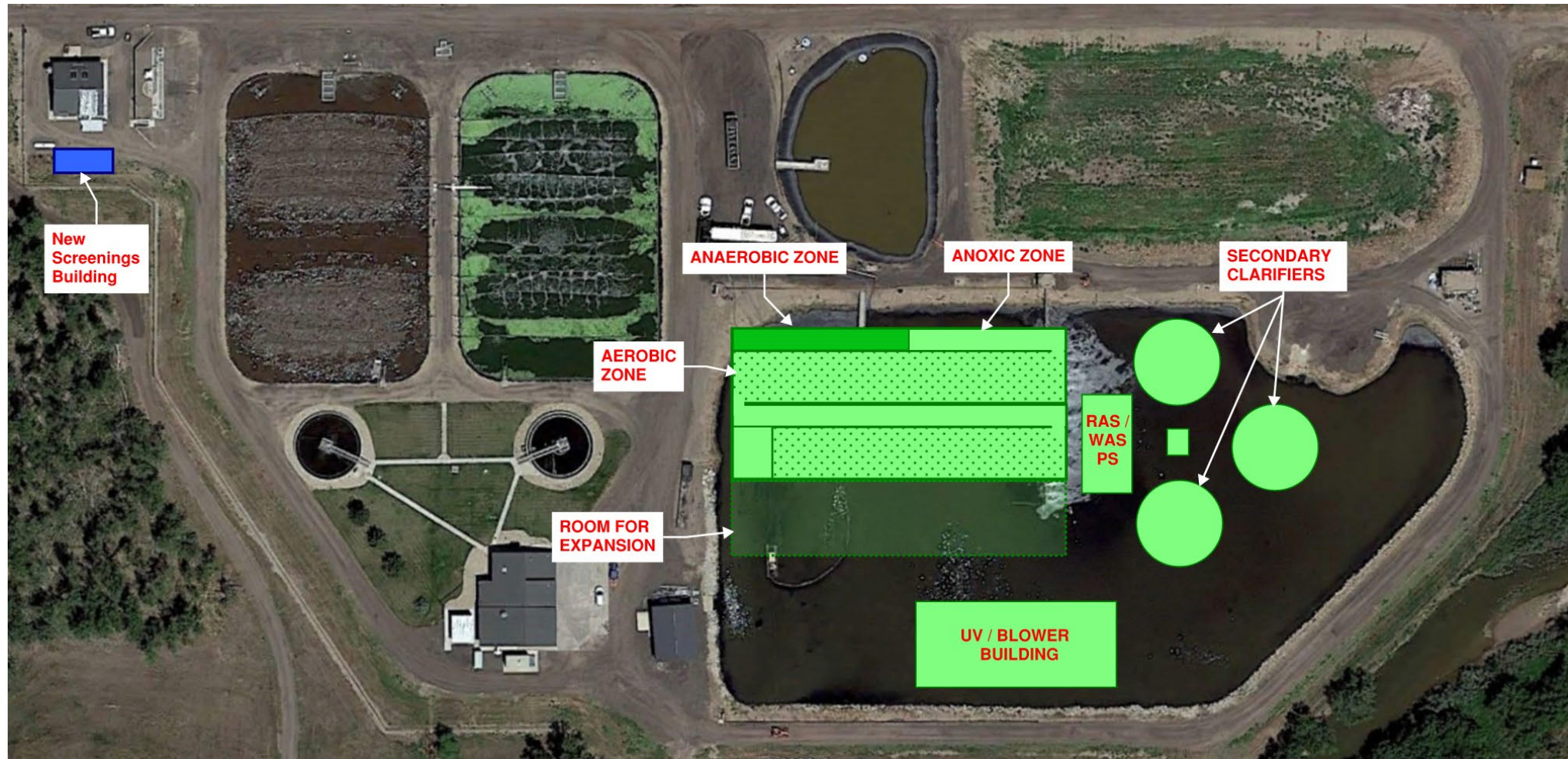
Existing Facility Capacity Improvements Recommendations



Liquids Improvements Opinion of Probable Cost

SCOPE OF PROJECT	Opinion of Probable Construction Cost ⁽¹⁾
Headworks Screens	\$2,350,000
One New 3,500 SCFMBlower	\$230,000
<u>SBNRBasin internal mixed liquor pumps and piping</u>	\$176,000
Secondary Clarifier Influent Splitter box	\$186,000
<u>One new 75' Secondary Clarifier</u>	\$1,365,000
Sodium Hypochlorite Dosing System	\$162,000
UV system Upgrade	\$1,188,000
SUBTOTAL- PROJECT COST	\$5,657,000
ADDITIONAL CONSTRUCTION PROJECT COSTS:	
Overall Sitework:	\$88,000
Plant Computer System:	\$167,000
Yard Electrical:	\$113,000
Yard Piping:	\$197,000
CONSTRUCTION Subtotal	\$6,222,000
ADDITIONAL MARKUP COSTS:	
Contractor Overhead and Profit (17%)	\$1,058,000
Mobilization, Demobilization, Bonds, Insurance (4%)	\$219,000
Contingency (30%)	\$2,250,000
Engineering Design Services (18%)	\$1,755,000
TOTAL CONSTRUCTION COST + MARKUP	\$11,504,000

Greenfield Plant Option – MMF = 4.9 mgd

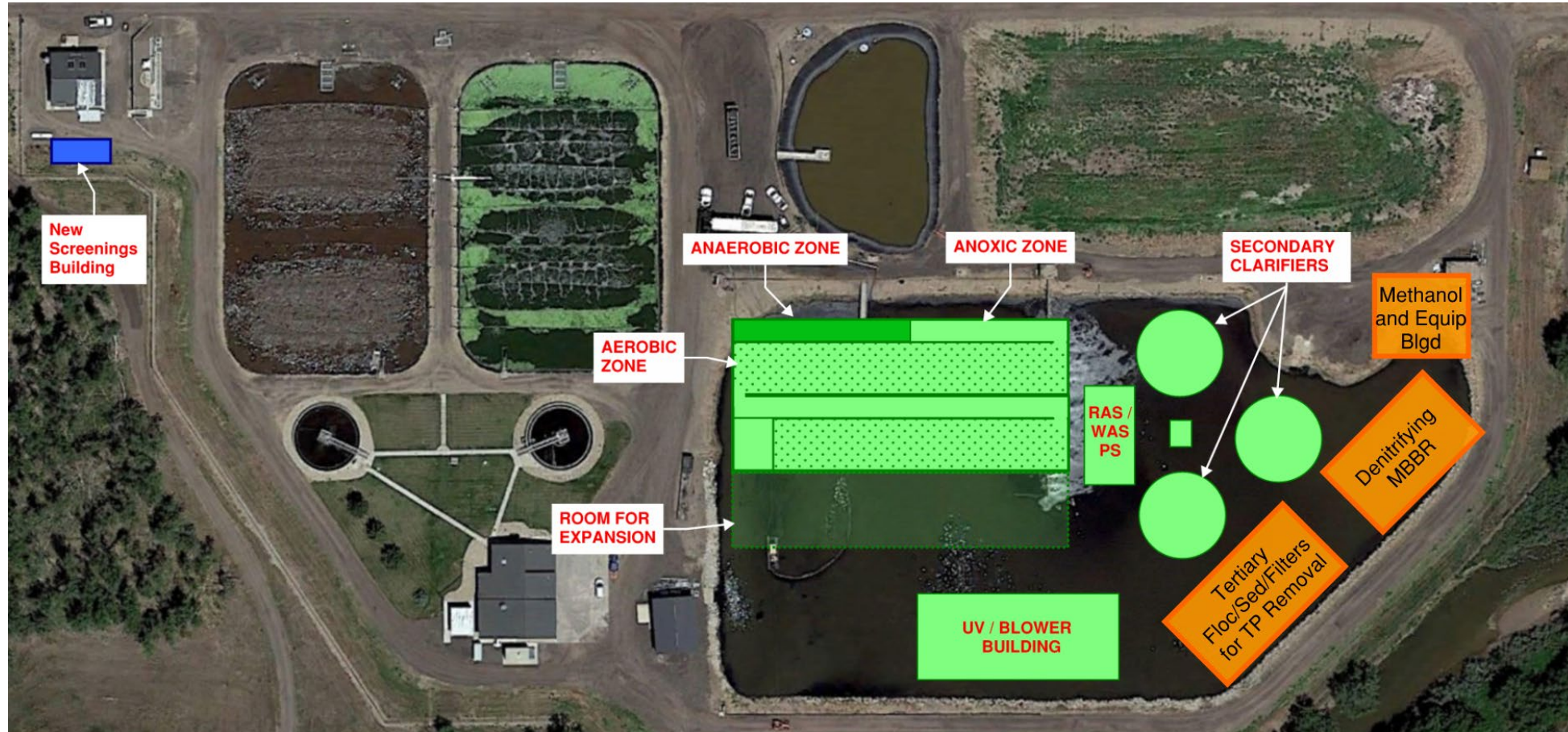


Note: This option does not include improvements for Reg 31. This targets TIN < 5 mg/L and TP < 1.0 mg/L

Greenfield Site Opinion of Probable Cost

Project Item	Lump Sum Cost
Headworks Improvements	\$2,350,000
Aeration Basins	\$5,387,000
Blowers	\$3,405,000
Secondary Clarifiers	\$2,971,000
RAS/WAS Pumping	\$2,520,000
Split Structure	\$186,000
Administration Rehab	\$180,000
UV System	\$2,463,000
Overall Site Work	\$1,104,900
Site Electrical/Computer System	\$2,872,000
Yard Piping	\$1,949,000
Construction Subtotal	\$25,332,000
Contractor OH&P (17%)	\$4,307,000
Contractor Mobilization/Demob/Insurance (4%)	\$890,000
Construction Subtotal	\$30,529,000
Project Contingency (30%)	\$9,159,000
Engineering (18%)	\$7,144,000
Total Project Cost	\$46,832,000

Greenfield Plant Option with Reg 31 Improvements – MMF = 4.9 mgd



Note: This option does include improvements for Reg 31. This targets TN ~2 mg/L and TP < 0.17 mg/L

Project Phasing Analysis Net Present Value

Recommended
Option

Alternative	Capital Project	Capital Project Cost	Annual Operations Cost	20-Year NPV
Improve Existing Facility and Delay Greenfield Option	Existing Facility Expansion	\$11,504,000	\$2,080,000	\$186,947,000
	Regulation 31 Facility and Expansion	\$69,112,000	\$2,294,000	
Construct Full Greenfield Option and Improve for Regulation 31	Full Greenfield Facility for Regulation 85/VIP	\$46,832,000	\$2,294,000	\$164,841,000
	Regulation 31 Facility Improvements	\$21,420,000	\$2,294,000	
Construct Phased Greenfield Option and Expand and Improve for Regulation 31	Phased Greenfield Facility for Regulation 85/VIP	\$35,604,000	\$2,366,000	\$168,447,000
	Regulation 31 Facility Expansion and Improvements	\$31,875,000	\$2,294,000	

Estimated Project Timing

- Expansion Design – 2022 to 2023
- Expansion Construction – 2023 to 2025
- Regulation 31 early implementation – 2036 (late implementation 2041)
– (5-year compliance schedule)
- Regulation 31 early project complete – 2041 (late project complete 2046)