

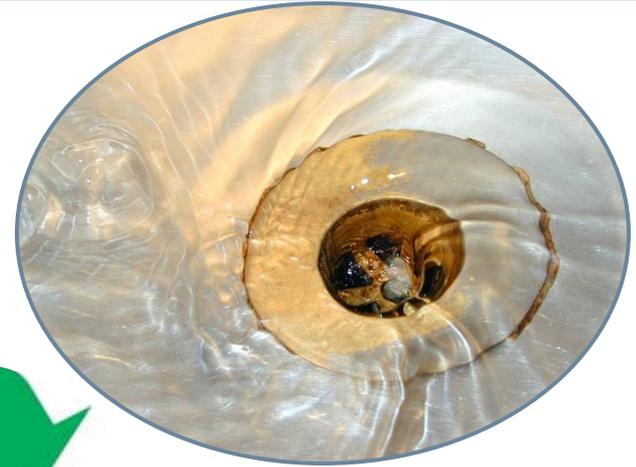


# CITY OF WHITEWATER WASTEWATER UTILITY

Looking to the future...

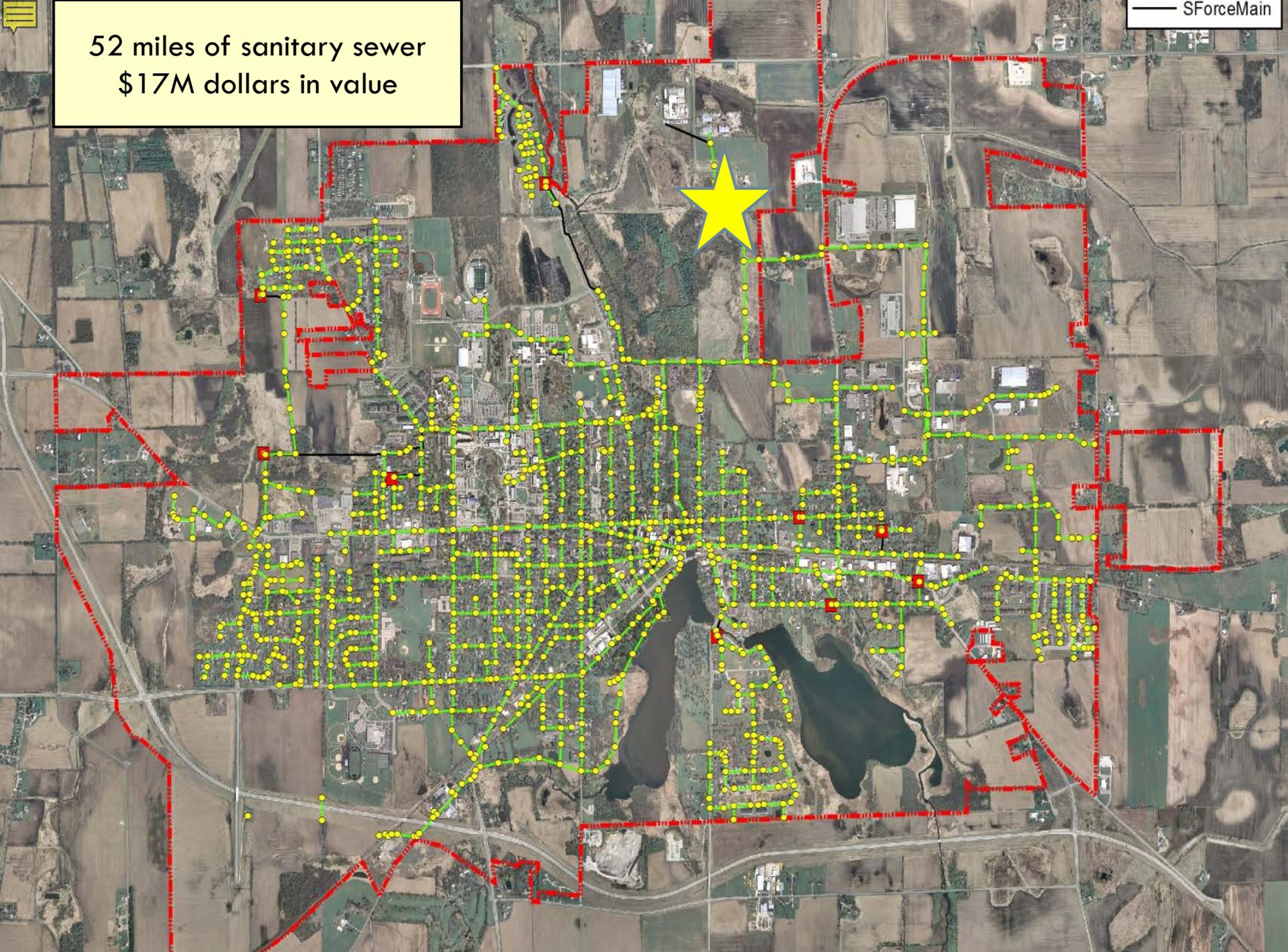
# What we do

- Collect Wastewater
- Treat inorganics & nutrients
- Return clean water to the watershed

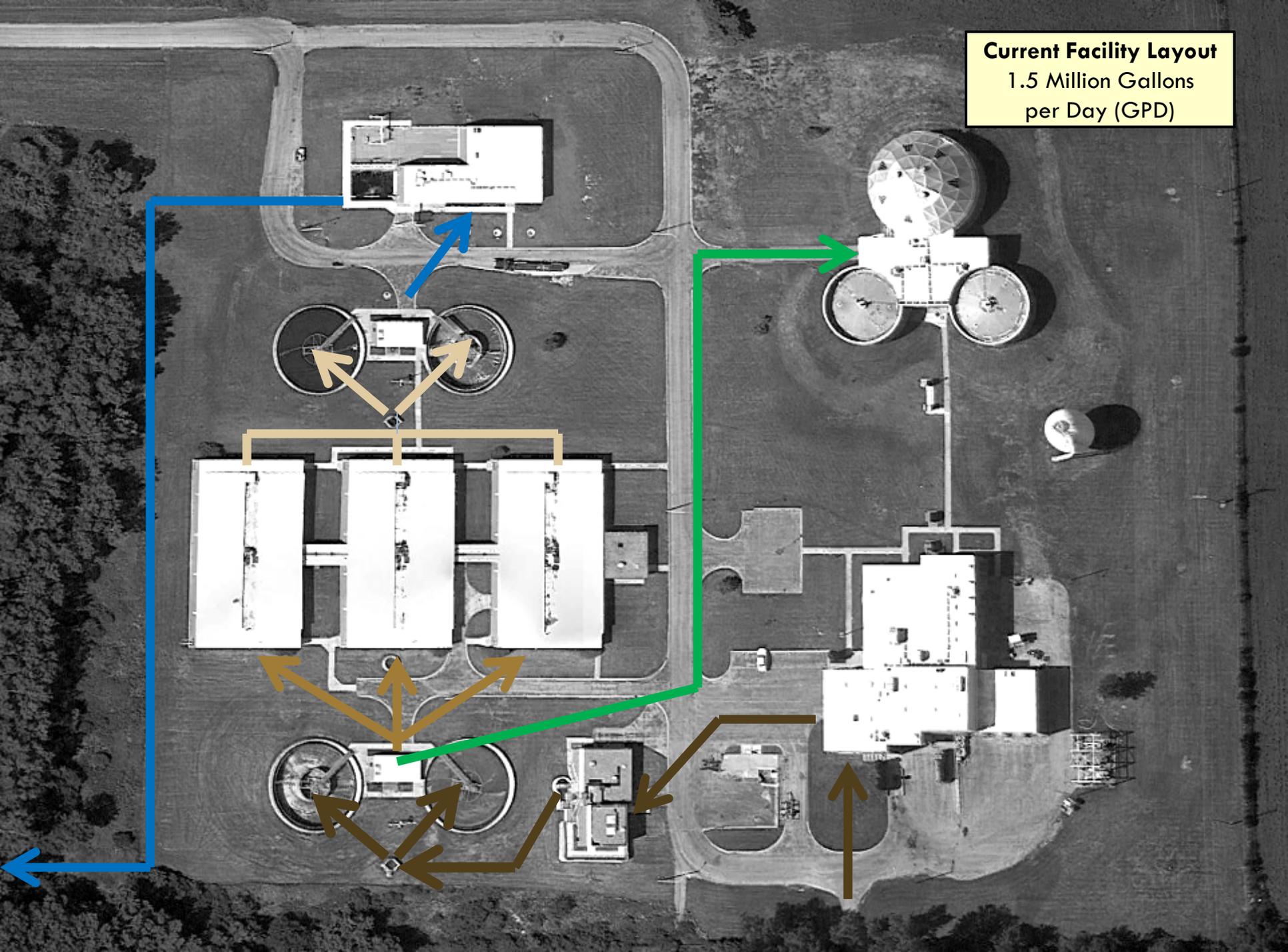


52 miles of sanitary sewer  
\$17M dollars in value

SForceMain



**Current Facility Layout**  
1.5 Million Gallons  
per Day (GPD)





# Background

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- Current facility built in 1982
- Preliminary Building - 1997
- Facility Planning - May 2008
- ARRA Project - 2009
- Facility Plan revisited - 2013

# Project Background

- Facility Planning – regulated by WDNR
  - ▣ Identify upgrades to maintain permit compliance for the next 20 years
    - Secondary treatment upgrade
    - Hydraulic improvements
    - Replacement of aged, unreliable systems
    - Building code compliance



# Project Background

- Design of upgrades – also regulated by WDNR
  - ▣ Engineering phase to implement WDNR approved facility plan
  - ▣ WDNR reviews drawings and specifications
    - Code conformance
    - Follows facility plan recommendations





# Main Objectives

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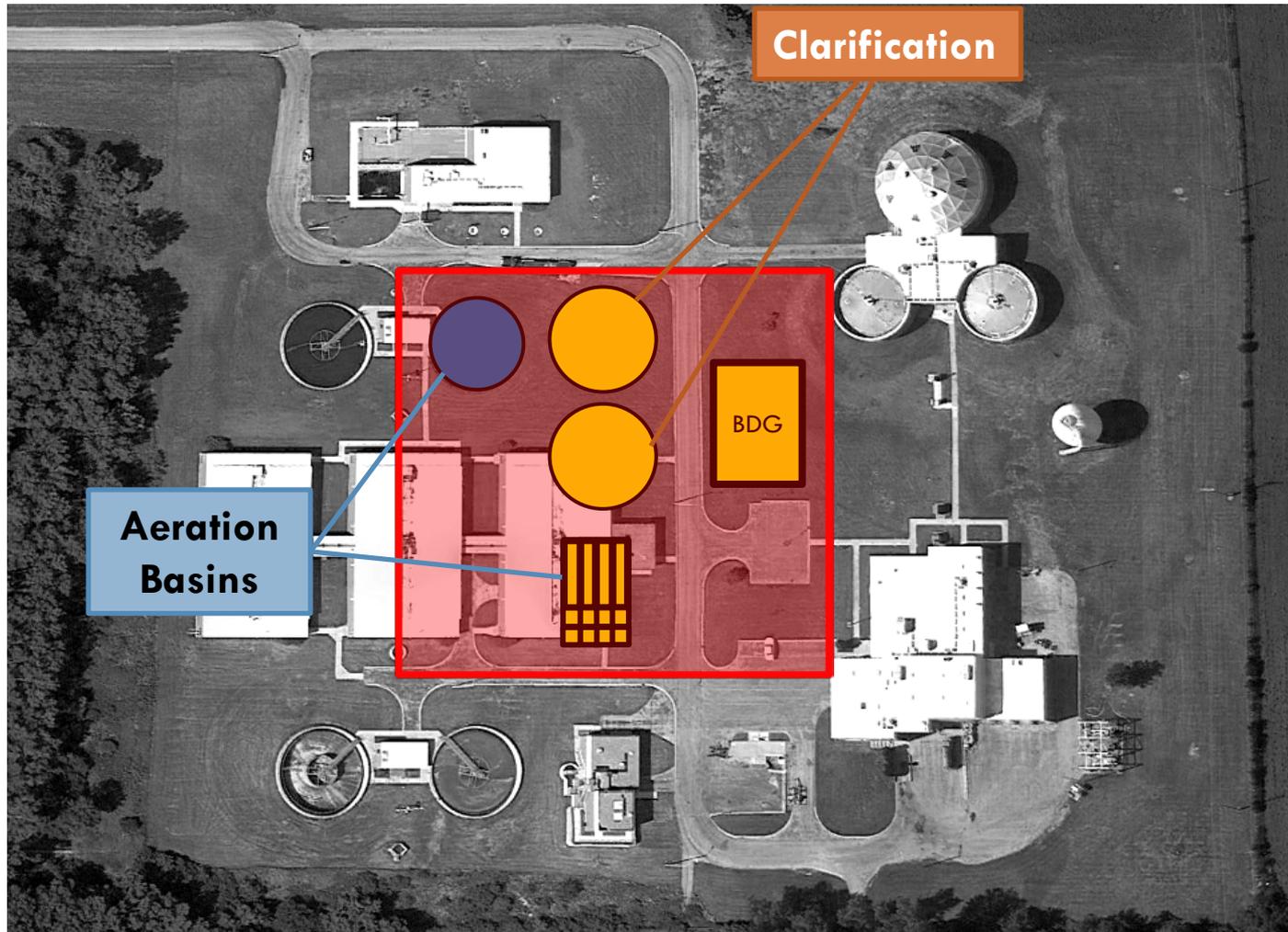
- Aging infrastructure
- ID Safety and code requirements
- Hydraulic bottlenecks
- Secondary Treatment
- Digester capacity



# Project Capital Cost Estimate

Project Element	Total Project Cost
Biological Treatment System: Activated Sludge	\$10.3M
Electrical Systems	\$3.5 M
Fire and Safety Guidelines	\$0.4 M
Buildings: HVAC and Lab QC	\$0.5M
Buildings: Lab Expansion and Space Use	\$0.6M
Site: Aging Site Infrastructure	\$0.9M
Site: Hydraulics, Controls, and Aging Equipment	\$2.5M
Digestion Complex Improvements	\$2.0M
<b>Total Project</b>	<b>\$20.7M</b>

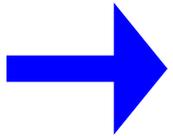
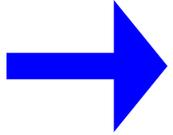
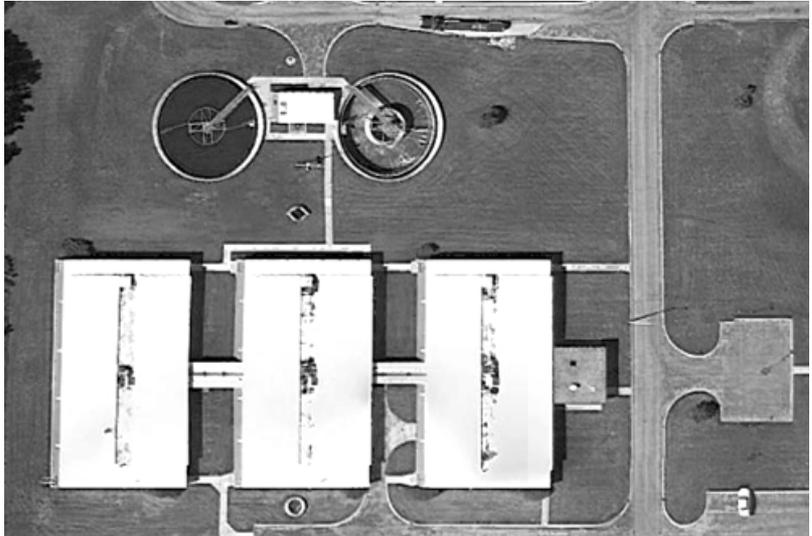
# Biological Improvements



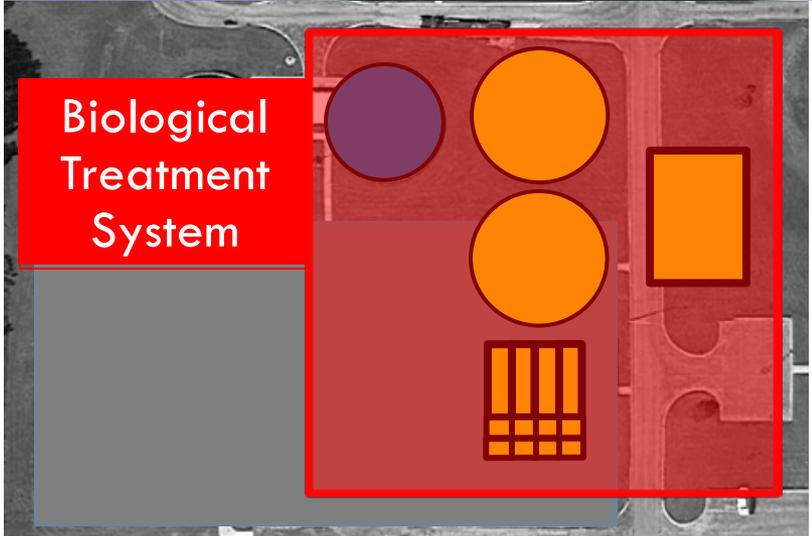
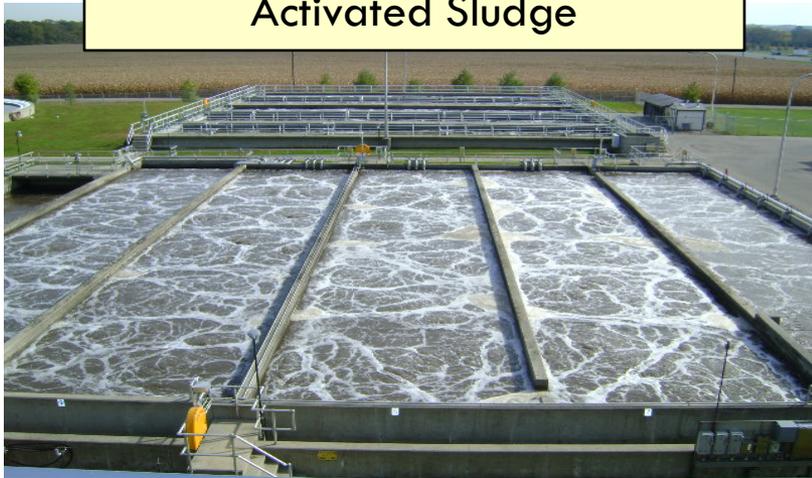


# Biological Improvements

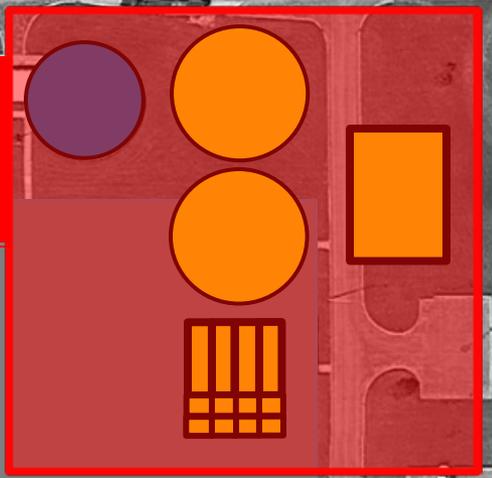
Rotating Biologic Contactors



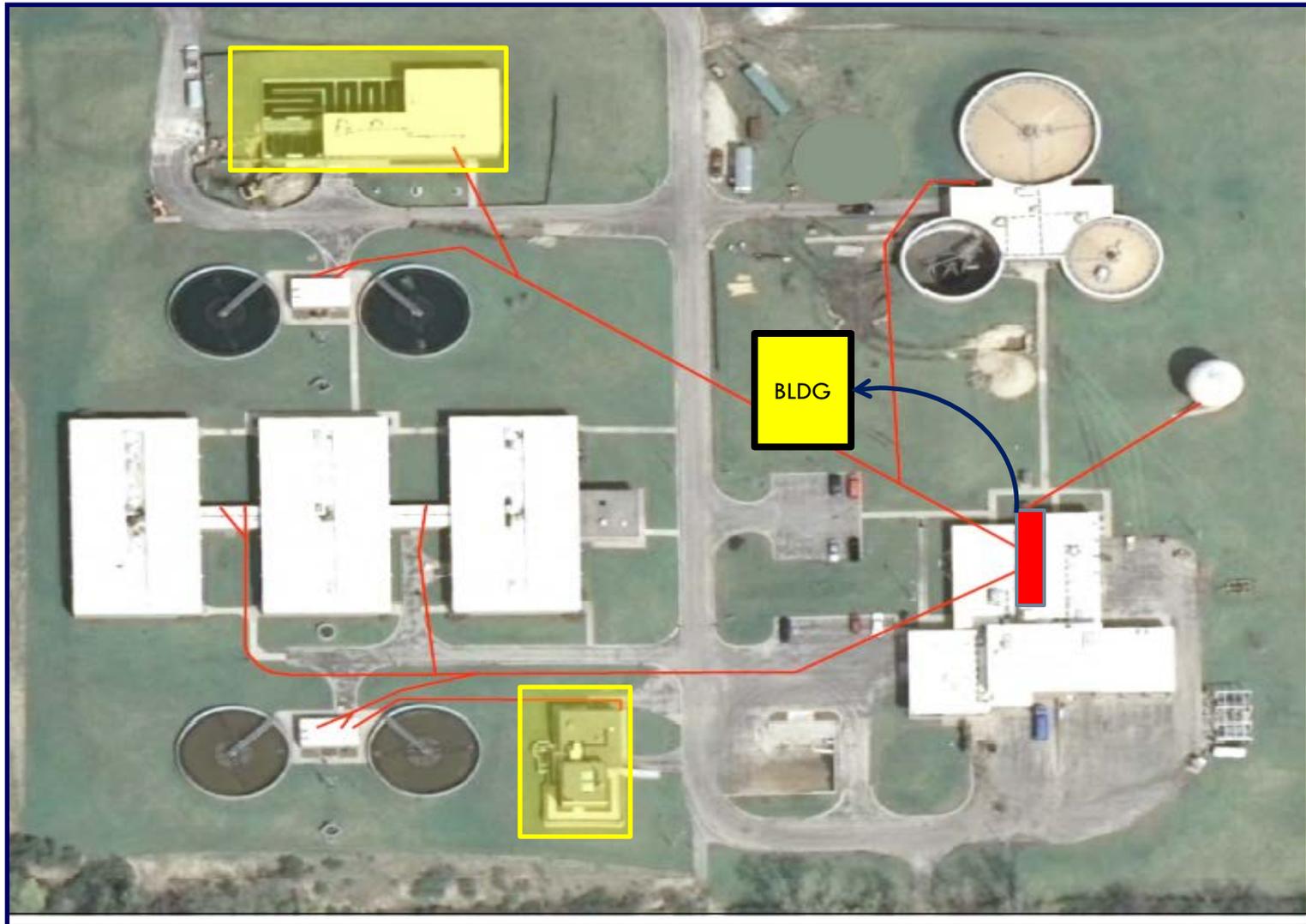
Activated Sludge



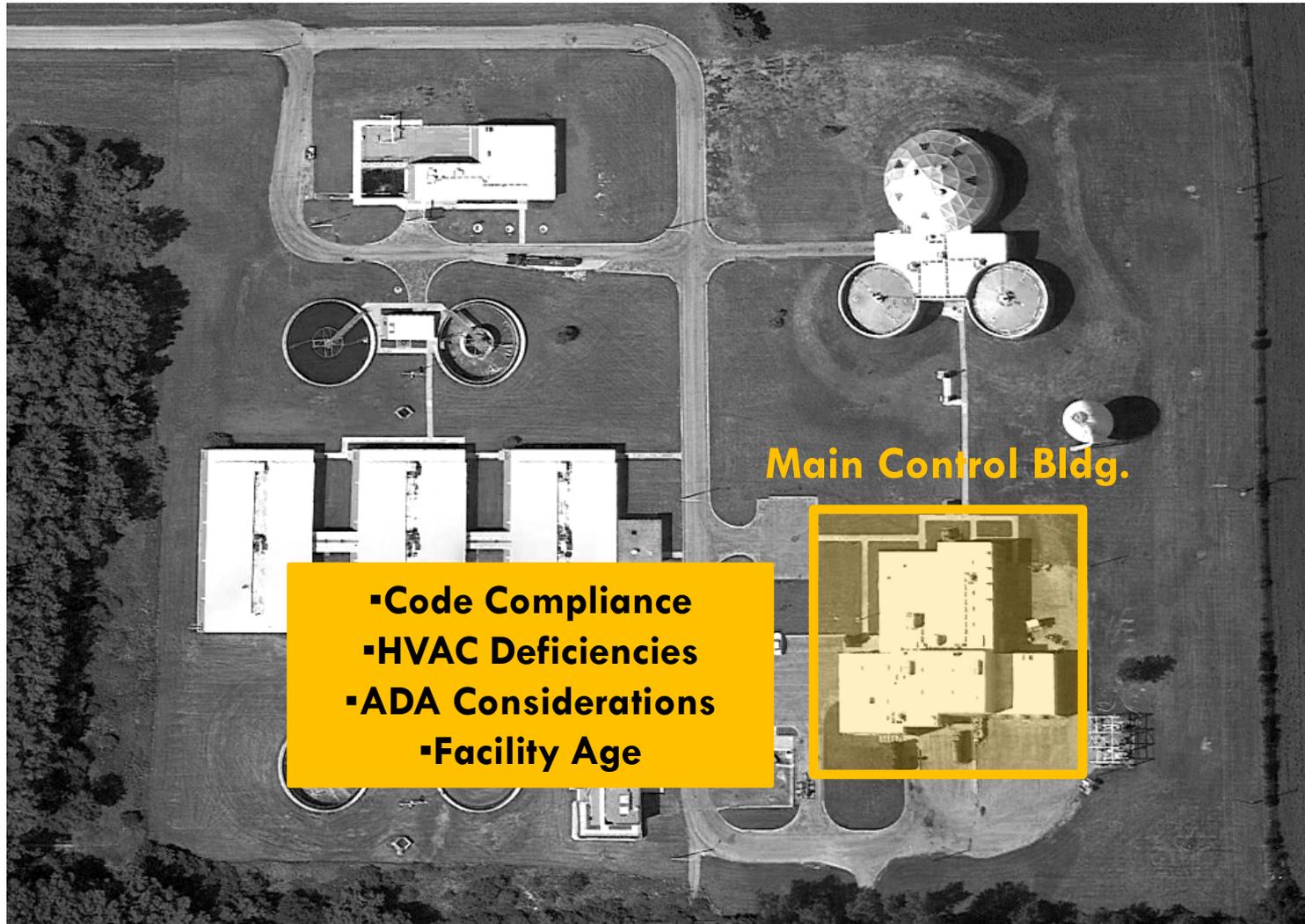
Biological Treatment System



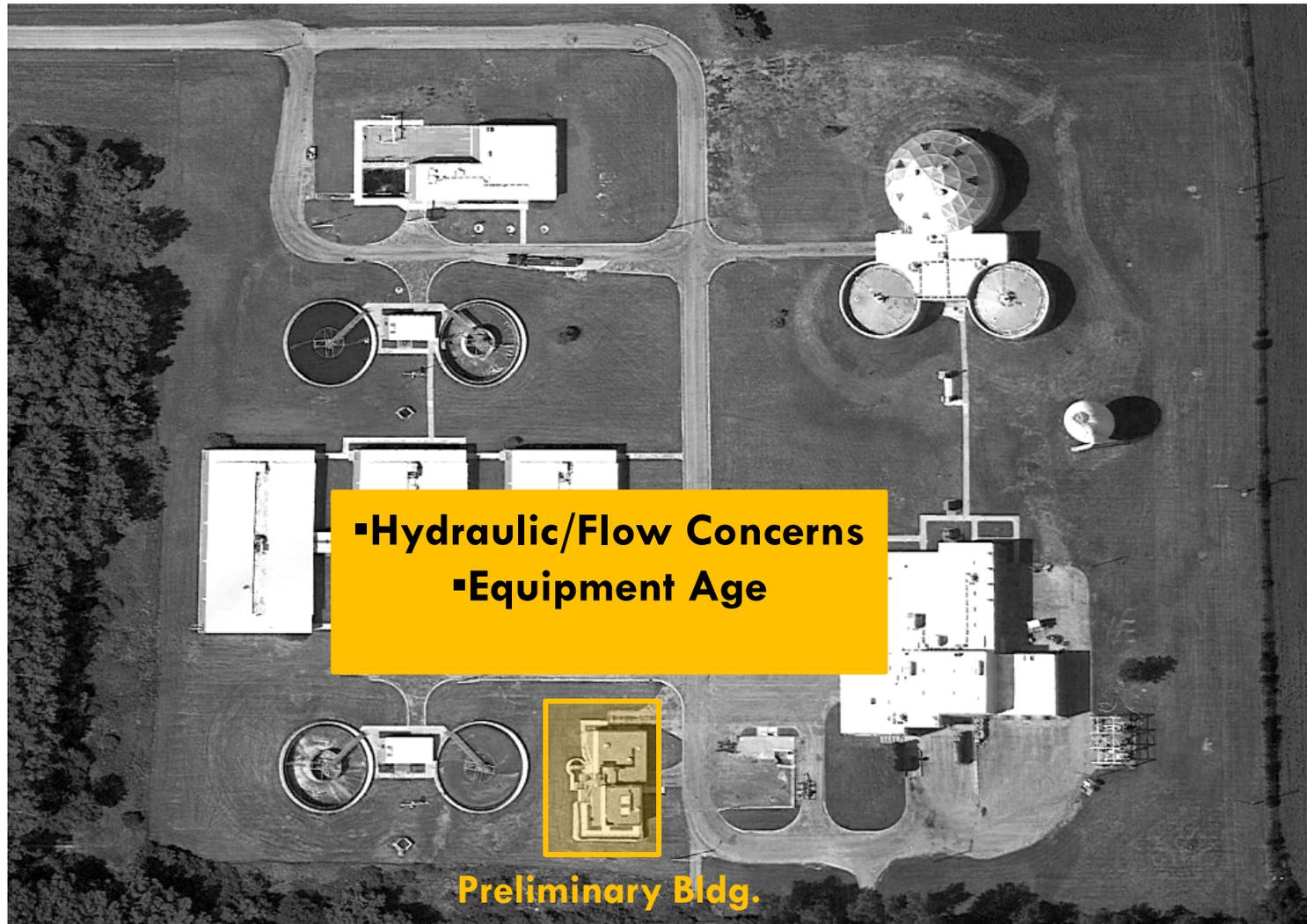
# Electrical Improvements



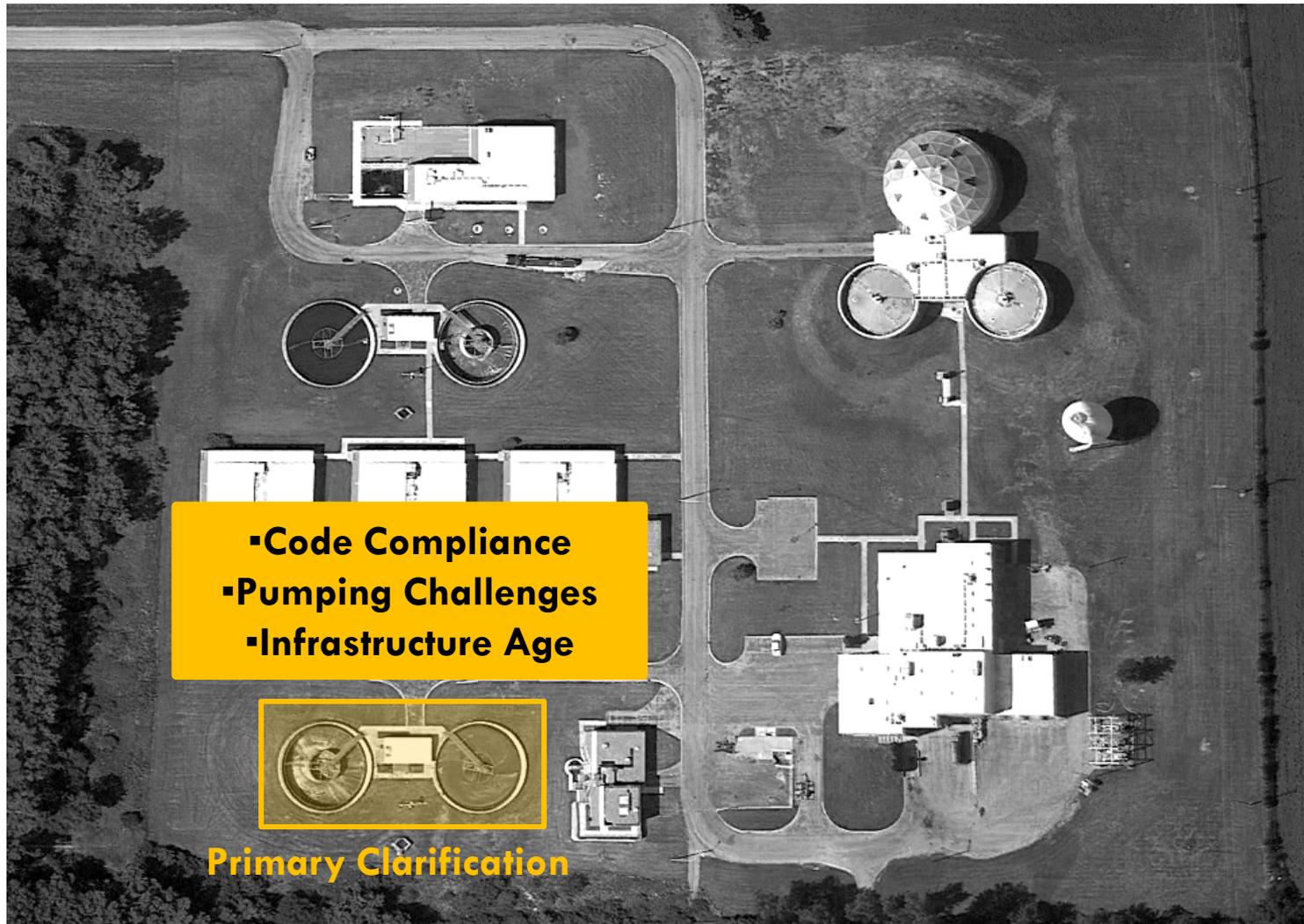
# Proposed Improvements



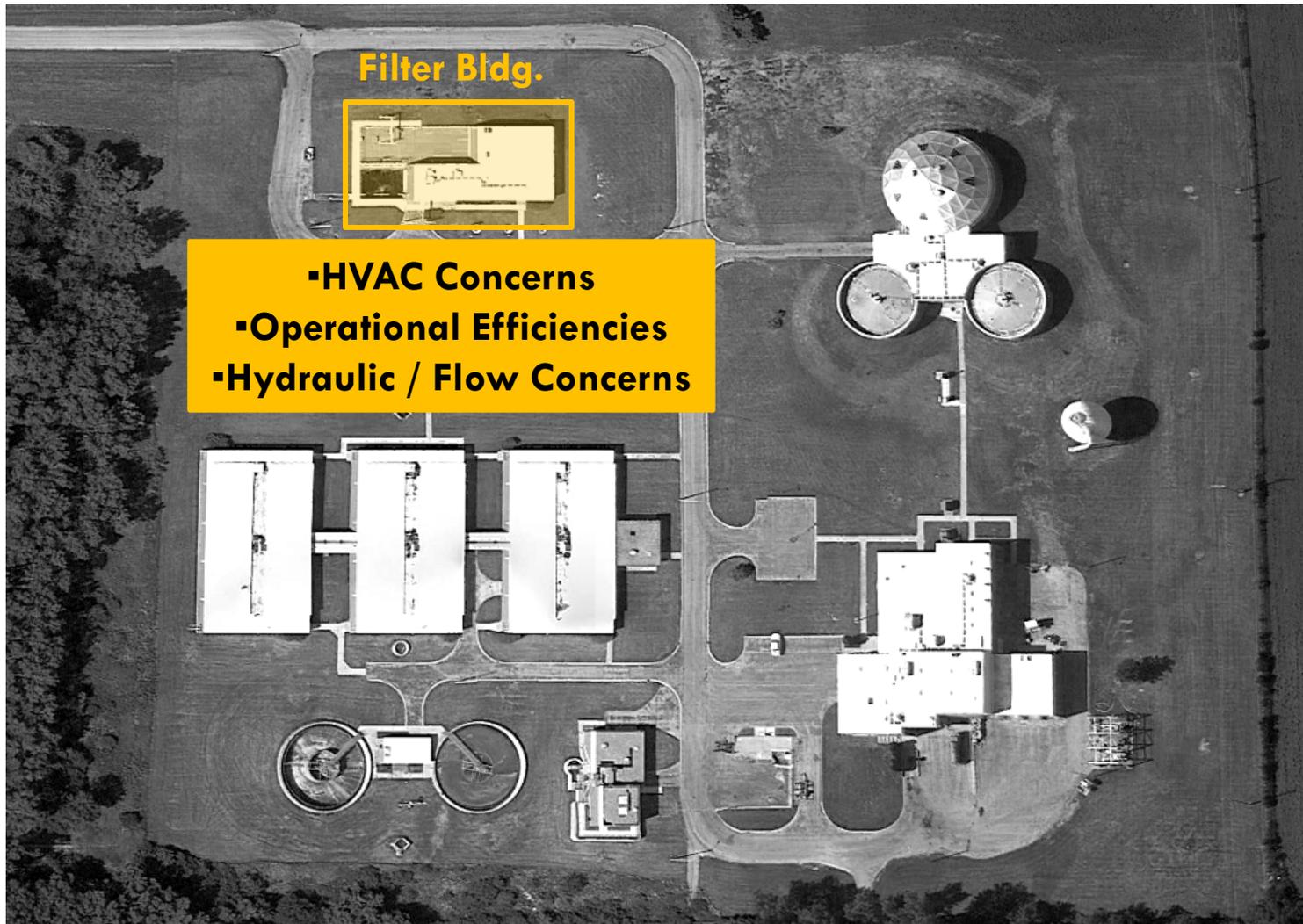
# Proposed Improvements



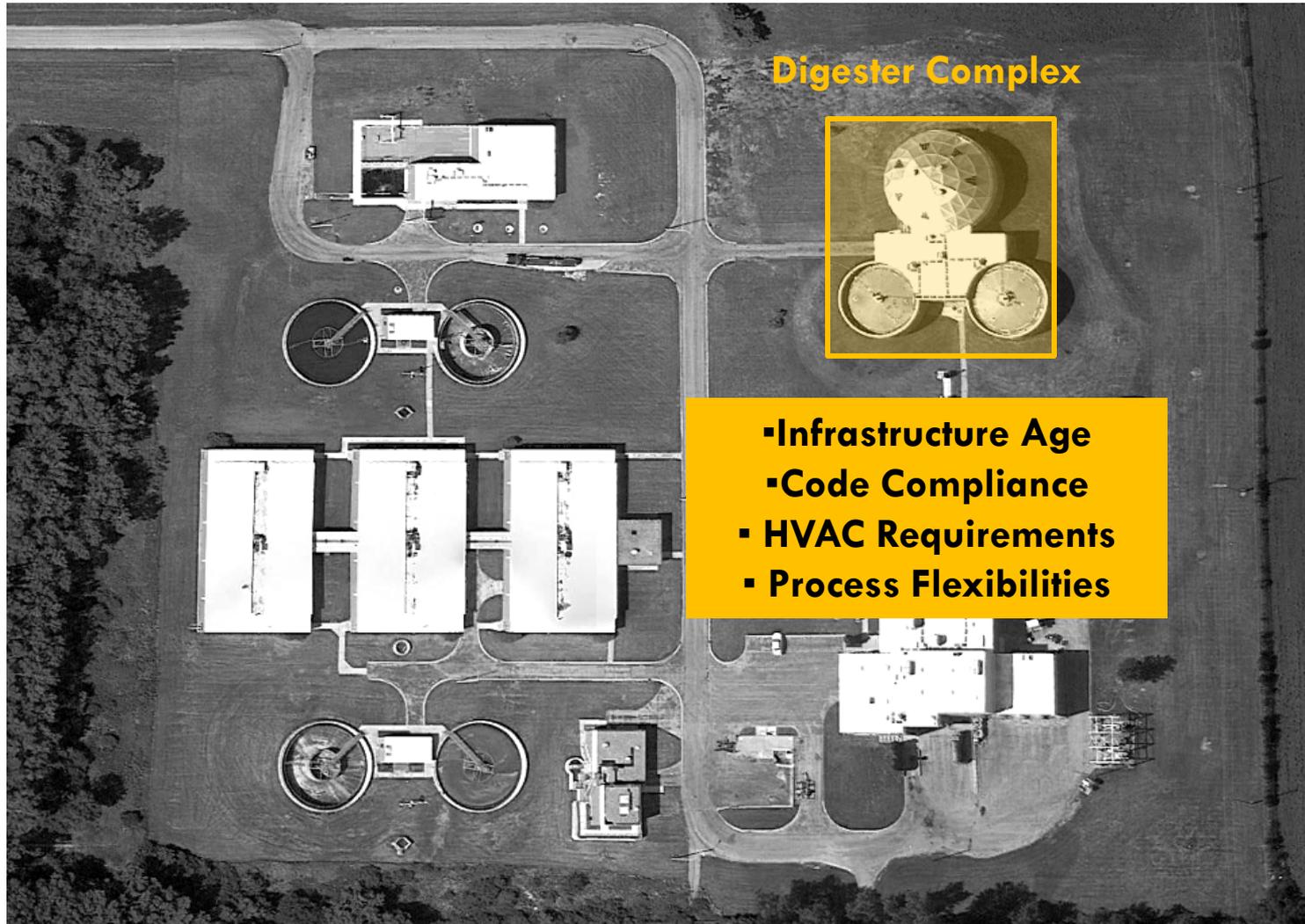
# Proposed Improvements



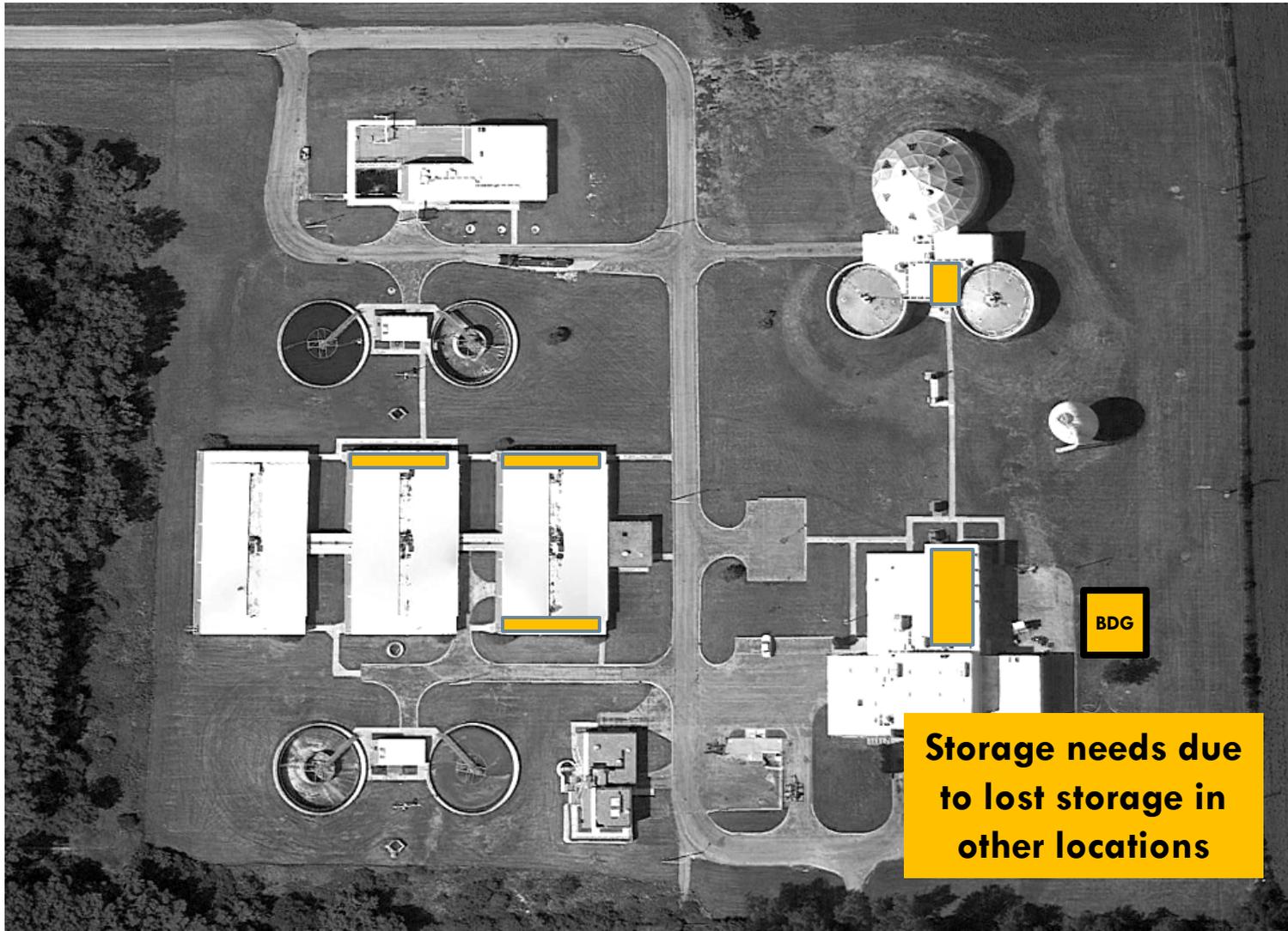
# Proposed Improvements



# Proposed Improvements

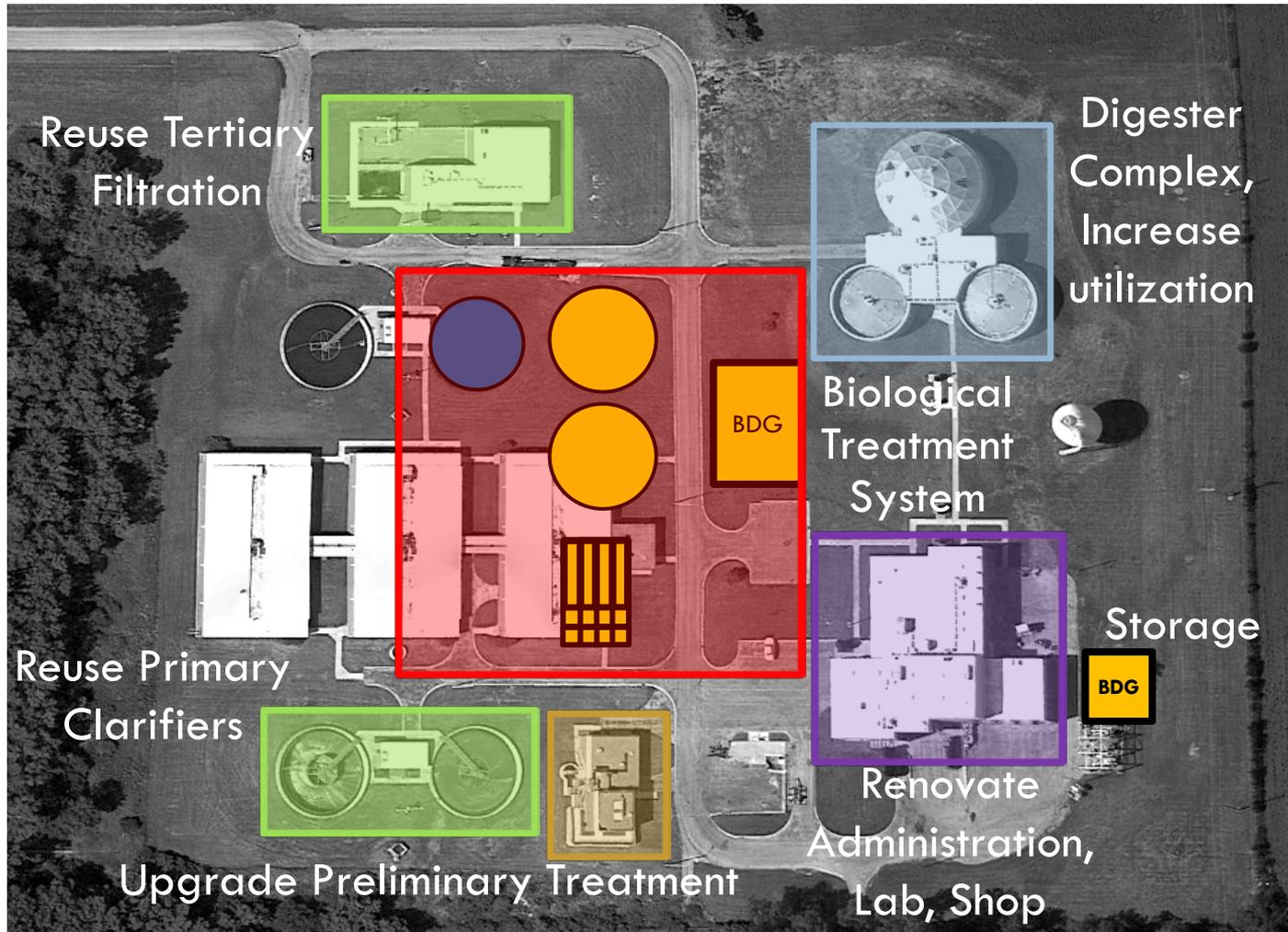


# Proposed Improvements



**Storage needs due  
to lost storage in  
other locations**

# Recommended Plan



# User Rates

- ❑ Wastewater facility improvements project will require an increase in user rates
- ❑ Design project includes comprehensive user rate study
- ❑ Current residential user rates

User Rate Element	Current Monthly User Rates
Fixed Monthly Service Charge	\$9.56
Volume Charge (\$/1000 gal)	\$6.57

# User Rates

- Rate increase must provide sufficient revenue for new Clean Water Fund loan

<b>Total Estimated Project Cost</b>	<b>\$20,700,000</b>
Hardship Grant	(\$500,000)
Equipment Replacement Fund	(\$1,000,000)
<b>Estimated Clean Water Fund Loan Amount</b>	<b>\$19,200,000</b>
Estimated Annual Loan Payment (18 payments)	\$1,305,000

# User Rates

- Rate increase must provide sufficient revenue for new Clean Water Fund loan

<b>Total Estimated Project Cost</b>	<b>\$20,700,000</b>
Hardship Grant	(\$500,000)
Subject to Change Based on Construction Bid Results Fund	(\$1,000,000)
Fund	\$19,200,000
<b>Loan Amount</b>	
Estimated Annual Loan Payment (18 payments)	<b>\$1,305,000</b>

# User Rates

## Rate Structure includes two categories of charges

### Fixed Monthly Service Charge

- Covers customer service expenses including administration, billing, and general expenses
- These charges are not related to wastewater flow and loadings

### Volume Charge

- Covers all costs related to treatment of wastewater including operation, maintenance, and debt service
- Cost of treatment, \$/1000 gallons basis

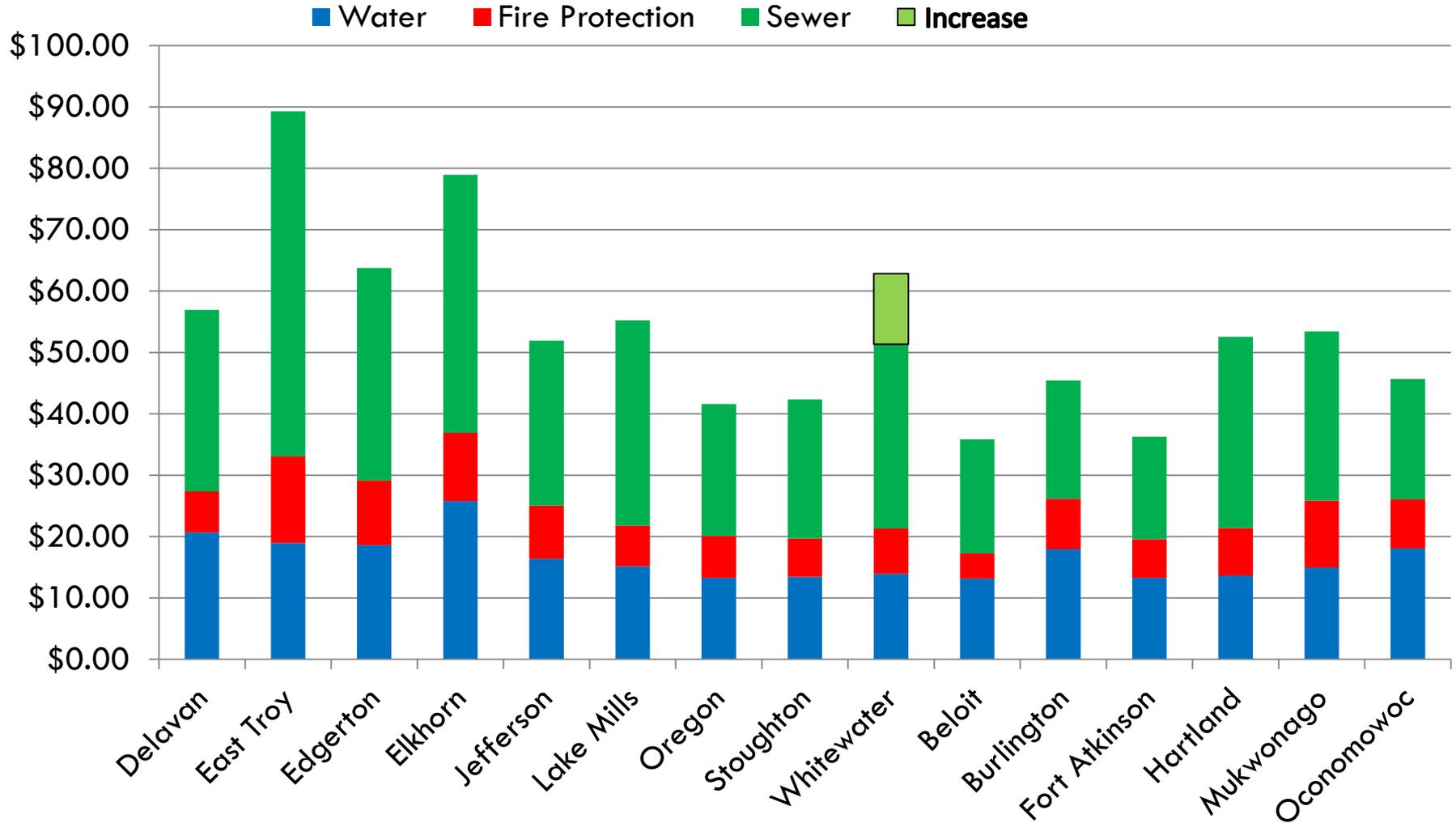
# Residential Users – Preliminary Results

## Fixed Charge By Meter Size

### Summary for Typical Residential User, 3/4" Meter Size

User Rate Elements	Current Monthly User Rates	Proposed Monthly User Rates
Fixed Monthly Service Charge	\$9.56	\$9.00
Volume Charge (\$/1000 gal)	\$6.57	\$10.45
Average Monthly Volume (1000 gal)	3.11	3.11
Volume Charge	\$20.44	\$32.50
Total Charge (Fixed + Volume)	\$30.00	\$41.50

# Estimated Total Utility Costs / Month



# Residential Example Users

<b>Example Users</b>	<b>Average Monthly Usage (1000gals/month)</b>	<b>Current Monthly User Rate</b>	<b>Estimated Monthly User Rate</b>
User 1	2.36	\$25.03	\$33.61
User 2	2.45	\$25.68	\$34.64
User 3	2.64	\$26.88	\$36.55
User 4	3.27	\$31.07	\$43.21
User 5	3.84	\$34.78	\$49.11
User 6	6.07	\$49.43	\$72.41
User 7	6.36	\$51.35	\$75.47
User 8	6.41	\$51.67	\$75.98
User 9	7.17	\$56.68	\$83.94

# 2 Year Phased Rate Increase

- City has been working with the DNR on implementing a 2 year phased rate increase
  - ▣ Requires split Clean Water Fund loan
  - ▣ Advantage
    - Rate increases can be phased in 2016 and 2017
  - ▣ Disadvantages
    - Additional costs with funding application and bond counsel (approximately \$25,000)
    - Interest rates could change for 2017 portion of loan

# Implementation Schedule

