



Bay City Wastewater Treatment Plant Improvements

City Council Work Session

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March 14, 2023

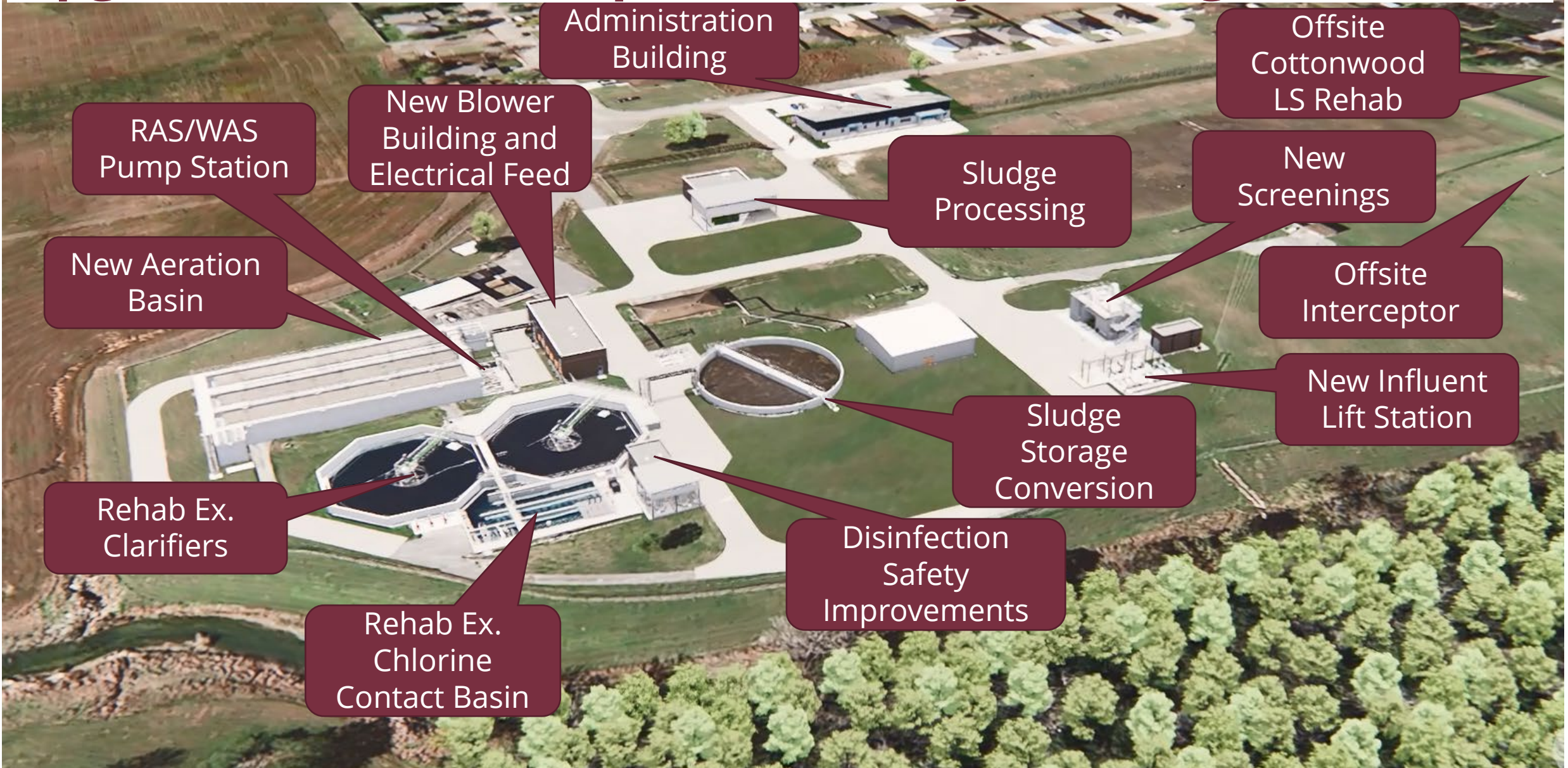
OUR AGENDA

- 1. TWDB Budget and VE Efforts**
- 2. WWTP Phasing**
- 3. WIFIA Funding**

Our original TWDB CWSRF Loan Application of \$38 million was completed in 2019

Budget Item	Est. Funding
WWTP Improvements	\$31.6 million
Main Trunk Sewer Rehab	\$3.0 million
12" Sewer Line Extension (SH-35 East)	\$1.0 million
Cottonwood Lift Station Rehab	\$0.8 million
Fiscal Services	\$1.6 million
TOTAL	\$38 million

The original WWTP project included comprehensive upgrades intended to provide a 30-year design life.

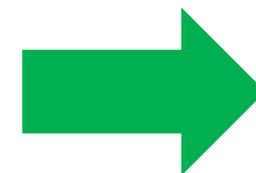


The proposals exceeded the 2019 estimate and TWDB funding of \$30M for Construction

Proposal Item	LEM Construction
Cash Allowances	\$1,118,000
Contingency Allowances	\$2,500,000
WWTP Improvements Base Proposal	\$56,640,000
Trunk Sewer Rehabilitation	\$3,192,760
Overall Project Base Proposal	\$63,450,760

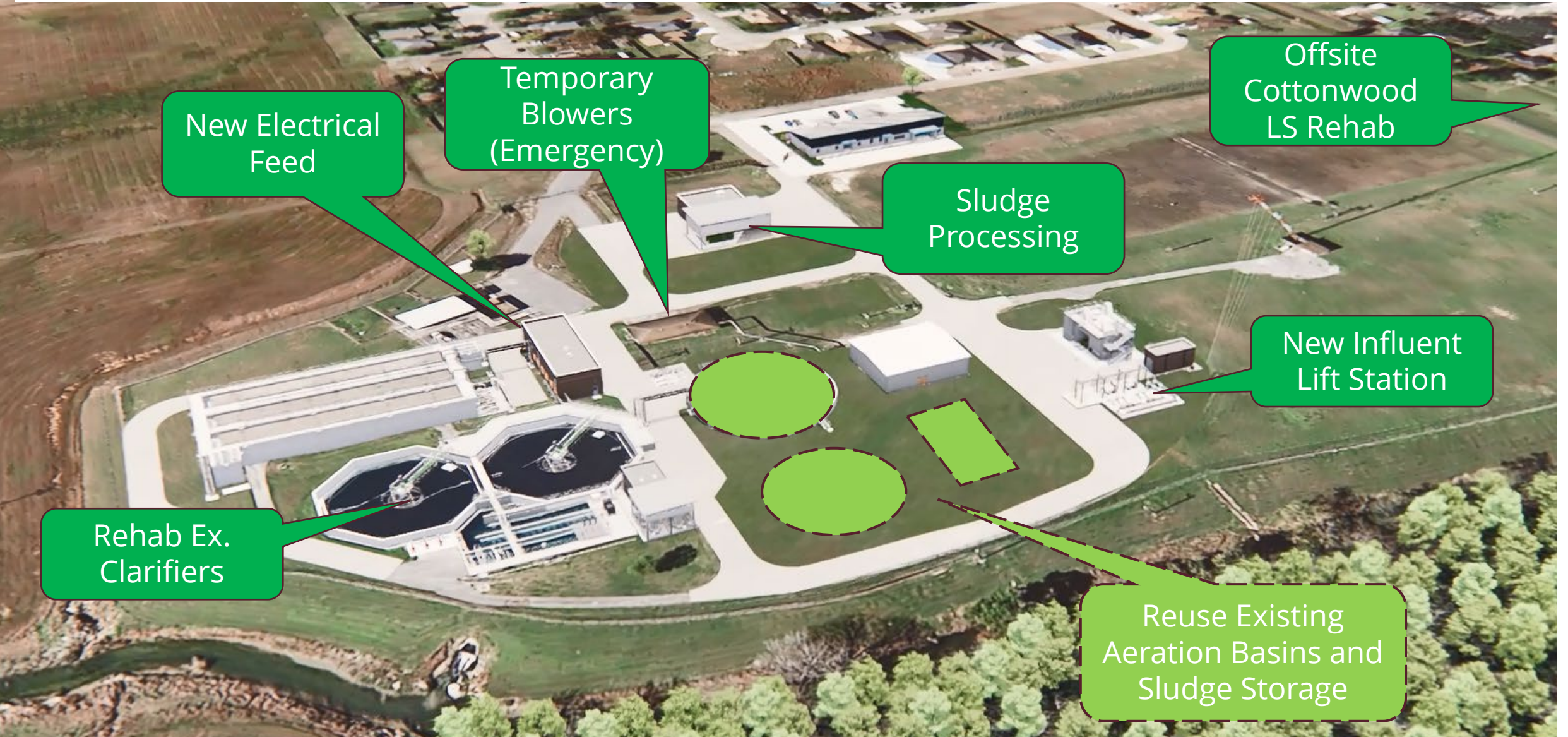
We continued to work through Cost Savings that would maintain the original design vision.

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WWTP Improvements Base Proposal	\$56,640,000
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Overall Project Base Proposal	\$63,450,760
Adjustments for Proposal Alternates	
- Remove Administration Building	-\$6,452,760
- Remove Trunk Sewer Repairs	
Overall Project Adjusted Proposal	\$56,998,000
Post-Proposal Cost Savings Identified	
• Alternate Yard Piping, Modified Equipment	≈ \$5M
• Reduced Allowances	
Original Design Vision Cost	≈\$50M to \$52M



**Alternate Vision
based on
Prioritization**

We have identified the highest-priority items that will fit within the existing \$30M TWDB budget allotment



New Electrical Feed

Temporary Blowers (Emergency)

Offsite Cottonwood LS Rehab

Sludge Processing

New Influent Lift Station

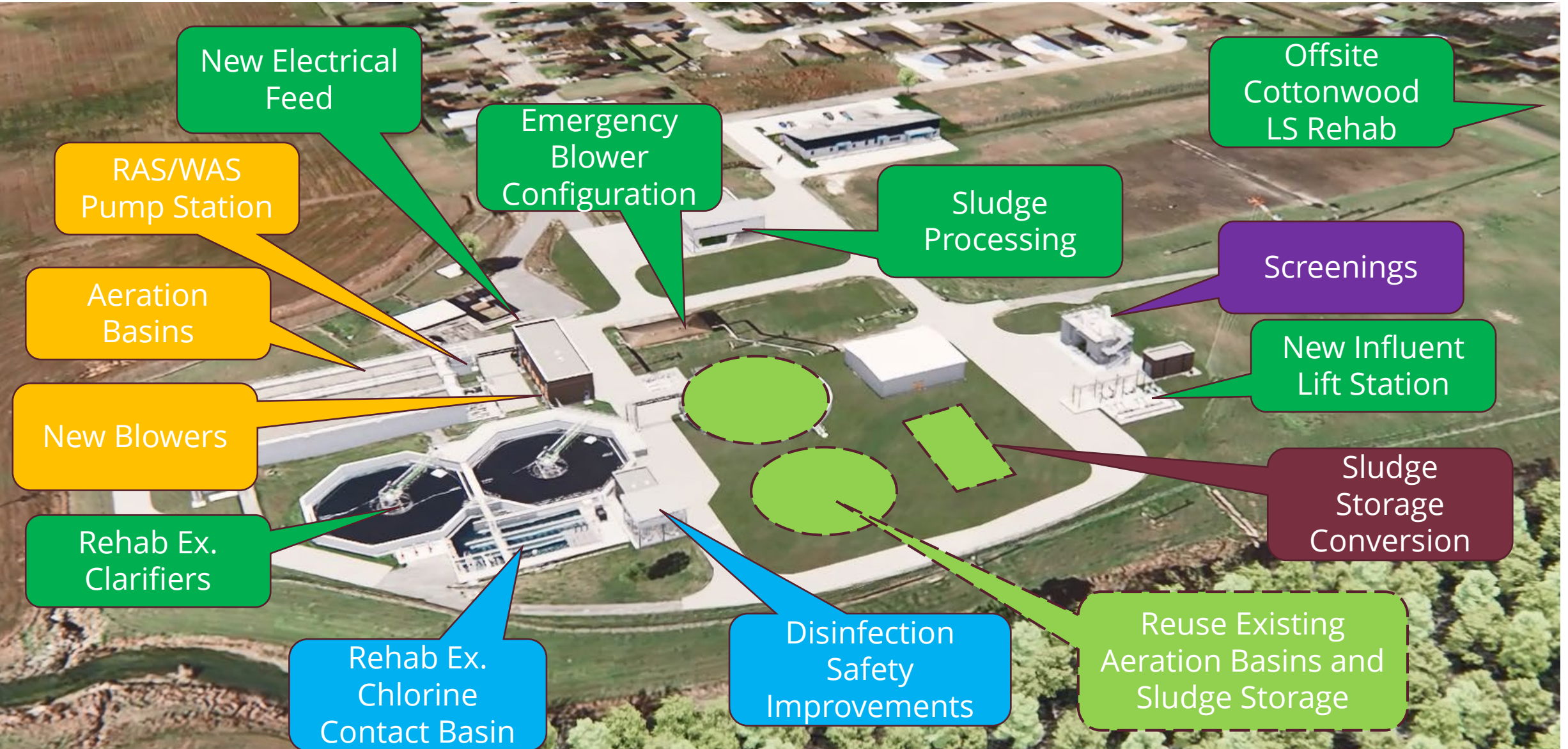
Rehab Ex. Clarifiers

Reuse Existing Aeration Basins and Sludge Storage

Path Forward on TWDB-Funded WWTP Scope

- Immediately
 - Finalize redesign efforts for TWDB Authorization
 - Develop Change Order with LEM to modify scope
- April 2023
 - Finalize Authorization with LEM
 - Issue Construction NTP
- Construction Period
 - Reduced construction period

Which improvements haven't made the cut and what does that mean?

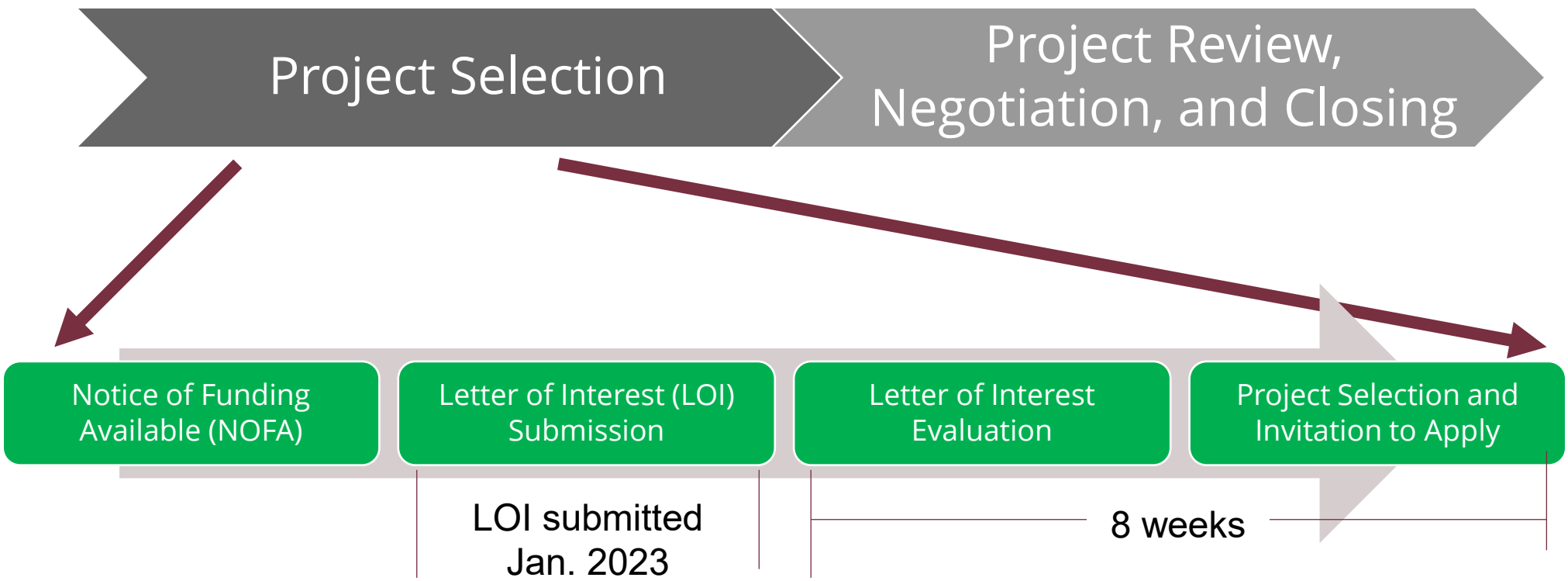


Prioritization, Design Revisions, and WIFIA funding would allow for significant improvements in plant longevity, function, and optimization

Extended Priority	Process Area	Drivers for Improvements
1	Blower Replacement	<ul style="list-style-type: none">• Blower Age• Improve lineup with ABs
2	Existing Aeration Basin Improvements	<ul style="list-style-type: none">• Diffuser age, basin isolation• Aeration Controls
3	RAS/WAS Pumping	<ul style="list-style-type: none">• Eliminate Airlift Pumps• Improve Process Controls
4	Disinfection	<ul style="list-style-type: none">• Safety• Systematic Bleach Conversion
5	Existing Headworks	<ul style="list-style-type: none">• Corrosion Repairs



WIFIA Process – Project Selection



WIFIA Process – Project Review, Negotiation, and Closing



1. Pre-Application	2. Application Submission	3. Application Evaluation	4. Negotiations	5. Approval	6. Closing	7. Post-Closing
<i>Up to 1 year</i>		<i>1-3 months</i>	<i>2-6 months</i>	<i>1-3 months</i>		<i>Life of Loan</i>
Average Time = 6 months						

WIFIA Funding

- Up to \$30M is available
- Amount of loan value can be reduced through closing
- Possible to utilize less than the full amount after closing
- Funding is only available as a supplement to other funding sources at less than 80% of the project total (previously 50%)
- Can defer loan payments for up to 5 years from Substantial Completion of the project (7+ years from Contractor NTP)

Additional efforts have been made to mitigate rate impacts

The following projects have been removed from the TWDB DWSRF funding:

- 12" New Waterline Extension – SH35 East: \$1,000,000
- 12" New Waterline Extension (Ph 2) – SH60 North: \$1,159,000
- 12" New Waterline – 12" St East: \$1,210,000
- 6" New Waterline – Hillcrest Dr: \$155,000
- 12" New Waterline Extension – SH60 South: \$1,354,000

Total: \$4,878,000



Q&A