



City of **SANDWICH, ILLINOIS**

City Hall Annex · 128 East Railroad Street

Committee-of-the-Whole Council Meeting
of February 15, 2021 @ 7:00 PM

MINUTES

In the absence of Mayor Robinson, City Clerk li called the meeting to order at 7:00 PM

Roll call was taken:

Present: City Clerk li; Aldermen Dell, Killey, Kreinbrink, Littlebrant, Surratt & Whitecotton

Also Present: City Attorney Harrill, Department of Public Works Horak & Chief Bianchi

Absent: Mayor Robinson, Alderman Kelleher & EMA Director Ciciora

Clerk li requested a motion to appoint a Mayor Pro Tem for the duration of the meeting: **Motion was made by Alderwoman Killey to appoint Alderman Pete Dell as Mayor Pro Tem. Motion was seconded by Alderman Surratt. Aye: Aldermen Dell, Killey, Kreinbrink, Littlebrant, Surratt & Whitecotton Nay:0 Motion carried 6:0**

Mayor Robinson: Absent

Foster, Buick, Conklin & Lundgren Law Group: No report

City Clerk li: No report

City Department Reports:

EMA Director Ciciora: Absent

Chief Bianchi: No report

Director of Public Works / City Engineer Tom Horak

1. **WWTF (Wastewater Treatment Facility) Project Plan Presentation:** Senior Project Manager, Stephen Dennison from EEI (Engineering Enterprises, Inc) gave a presentation (see attached) on options to upgrade the wastewater treatment plant and to meet IEPA mandate addressing the amount of phosphorus in the water. Overall costs, including improvements and upgrade, is estimated at \$18,304,000.00. Funding options to be reviewed include raising sewer rates, bonding, or a low-interest rate IEPA loan.

2. **Lower Little Rock Creek Watershed Study:** The Goals Workshop Virtual/Remote Meeting is scheduled for Wednesday, February 17, 2021 at 10:00 AM. Audience participation in

this workshop meeting will assist in setting the watershed project goals and priorities. Log-in information was provided at the Council meeting. Workshop results will be submitted to IEPA in August.

3. Clark Street WTP Pressure Filter Media Replacement Project: Bid opening was conducted on Wednesday, February 10th at 10:00 AM. Engineer Horak explained Crossroad's bid did not include the contract-specified filter media. Crossroads had informed EEI that they intended to use a substitute material. The City is unable to use an approved substitute filter media without redoing the previous pilot testing. The City's IEPA construction permit approval was based on the Tonka filter media. Bid results were as follows:

- a. Crossroad Construction, Inc. of Addison, IL: \$99,740.00
 - i. Base Bid: \$89,700.00
 - ii. Mandatory Alternate Bid Item A: \$3,800.00
 - iii. Mandatory Alternate Bid Item B: \$6,240.00
- b. Marc Kresmery Construction LLC of Elgin, IL: \$164,871.00
 - i. Base Bid: \$159,515.00
 - ii. Mandatory Alternate Bid Item A: \$5,200.00
 - iii. Mandatory Alternate Bid Item B: \$156.00
- c. All Service Contracting Corp. of Decatur, IL: \$189,860.00
 - i. Base Bid: \$169,258.00
 - ii. Mandatory Alternate Bid Item A: \$3,300.00
 - iii. Mandatory Alternate Bid Item B: \$17,302.00
- d. Global Water Services LLC of Lisbon, IA: \$202,800.00
 - i. Base Bid: \$175,000.00
 - ii. Mandatory Alternate Bid Item A: \$4,400.00
 - iii. Mandatory Alternate Bid Item B: \$23,400.00

4. 2021 MFT General Maintenance (21-00000-00-GM): Engineer Horak should have final project numbers in the new few weeks. A Resolution must be approved before submitting to IDOT (IL Department of Transportation) for allocation of funds. Plans are to use MFT funds for this calendar year and the next calendar year.

5. 2021 Duvick Avenue/Church Street and Indian Springs Drive/Church Street Traffic Signal Modification Project: Engineer Horak has received contract drawings for review last week. IDOT and possibly ICC (IL Commerce Commission) must approve prior to bid letting. Both the Sandwich Police Department and Sandwich Community Fire Department expressed no interest nor funding in the proposed traffic signal preemption. Alderman Kreinbrink will investigate grant money availability or donations. Estimated preemption cost is \$10,000 per traffic signal intersection.

6. Main Street – Center to 2nd Street Sidewalk and Street Light Replacement: Engineer Horak has submitted notice to IDOT to try to use Rebuild Illinois funds for the project. Topographic work was completed last week, and preliminary costs have been received. There was question on the street light selection as to cost using a different street light post than what is located on Center Street.

7. 20-00046-00-FP Latham Street Reconstruction Project: Affected residents on Latham Street have been notified of the timeline with construction anticipated in the fall. Residential concerns are to be addressed to Engineer Horak by February 20, 2021. A one-way detour is expected during construction.

8. 2021 Sludge Hauling: Chris Frederick sent bid documents to Stewart Spreading and Ag Tech. A response is expected in the new few weeks.

Aldermen Reports: Alderman Kreinbrink thanked public works for snow removal. The City has experienced it's third major winter storm in as many weeks.

Announcements: The Finance Committee Meeting will meet immediately following the Committee-of-the-Whole Meeting on February 15, 2021.

Audience Comments: None

Adjournment: There being no further business to come before the Council, **motion made by Alderman Kreinbrink and seconded by Alderman Whitecotton to adjourn the Committee-of-the-Whole Council meeting at 8:23 PM. Motion carried unanimously on voice vote.**

/s/ Denise Li – City Clerk



Wastewater Treatment Facility Modifications Project Plan

Committee of the Whole Update


February 15, 2021



Stephen T. Dennison, PE
Senior Project Manager / Principal




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Outline

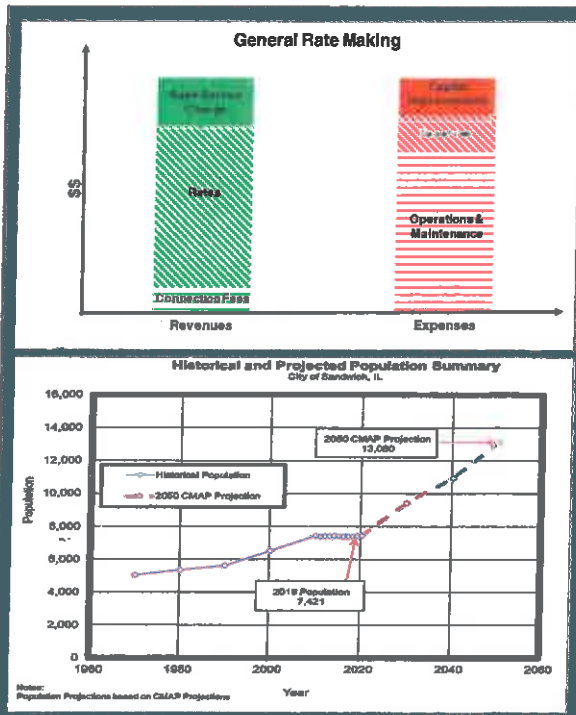
1. Summary of Previous Sewer Rate Study Discussion
2. Overview of Near-Term Wastewater System CIP Projects and Proposed Project Plan Scope
3. Funding Options Overview
4. Future Scenarios Financial Analysis
5. Schedule and Permit Compliance Overview
6. Summary of Conclusions and Next Steps
7. Q&A



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SUMMARY OF PREVIOUS SEWER RATE STUDY DISCUSSION

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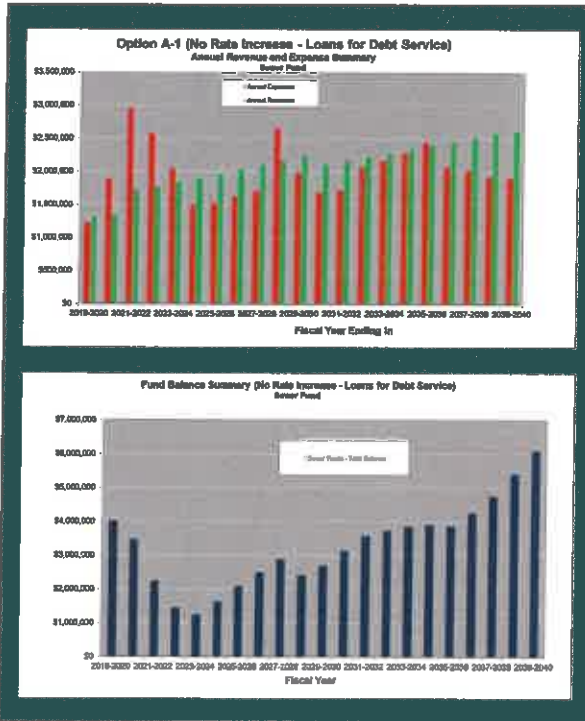


Sewer Rate Study Background

- Used Required PDOP, PRFS and CMOM as Vehicle for Evaluating Upcoming Capital and O&M Cost Projections for Sewer System
- Created General Asset Management Plan and Detailed Budget Using Projected Revenues and Expenses
- Evaluated Current Sewer Rates and Explored Rate Options



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Sewer Rate Analysis

- Option A-1 – No Change to Rate Increase (2%/YR); Use Loans for Debt Service Projects
- Option A-2 – No Change to Rate Increase (2%/YR); No Loans for Debt Service Projects
- Option B-1 – 2.50%/YR Rate Increase; Use Loans for Debt Service Projects
- Option C-1 & 2 – Same as Options A-1 and B-1, Except Use Minimum Population Growth (Instead of CMAP 2050 Population Projections)



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Sewer Rate Study Next Steps


- City Staff/Council to Review Reserve Policy Options and Determine Whether to Formalize Policy – *Under Consideration*
- EEI to Implement Changes to Projected Revenues/Expenditures, Rate Options, etc. as Directed by City Staff – *Incorporated Into Final Sewer Rate Study Report*
- EEI to Continue Sewer Rate Analysis and NPDES Permit Reports – *Submitted to IEPA by Due Dates*
- Funding Determination for 1.0 mg/L Total P Improvements at WWTF – *See Following Discussion*



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OVERVIEW OF NEAR-TERM CIP PROJECTS AND PROPOSED PROJECT PLAN SCOPE

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NPDES Permit Requirements

Special Condition 14: CMOM

- ◆ Eliminate SSO's/Backups and Reduce I/I in Sewer Collection System

Special Condition 21: 1.0 mg/L Total Phosphorus Limit

- ◆ Annual (12-month rolling average, calculated monthly) WWTF effluent limit for Total Phosphorus
- ◆ Permit Compliance Schedule Overview:
 - October 1, 2020: Complete Phosphorus Removal Feasibility Study and Phosphorus Discharge Optimization Plan
 - October 1, 2022: Complete Construction of WWTF Improvements
 - April 1, 2023: Achieve Compliance with 1.0 mg/L Limit

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NPDES Permit Requirements

Special Condition 24: Future 0.5 mg/L Total Phosphorus Limit

- ◆ Compliance by 2030
- ◆ Considerations for Constructing with 1.0 mg/L Limit Improvements
 - Will be Required
 - Constructing with Other Improvements Will Reduce Construction Costs
 - More Efficient to Design and Construct Together Compared to Separate, Particularly if Using IEPA Loan Funding
 - Reduce Impact of Inflation
 - Currently Low Interest Rates on Financing
 - Operational Advantages
 - Will Reduce Chemical Usage/Costs
 - Higher Quality Effluent Sooner

SEA

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Project Plan – WWTF Improvements


1.0 mg/L Total Phosphorus Limit

- ◆ Modifications/Upgrades to Existing Oxidation Ditches
- ◆ New Alum Chemical Feed Building and Equipment
- ◆ Two (2) New Aerobic Digesters

Total Cost Estimate: \$2,841,000

SEA

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SANDWICH WWTF

Project Plan – WWTF Improvements

0.5 mg/L Total Phosphorus Limit

- ◆ All 1.0 mg/L Improvements, plus:
- ◆ New Ox Ditch Flow Diversion Structure and Underground Piping Modifications
- ◆ New Fermentation Tank/RAS Flow Diversion Structure
- ◆ New Tertiary Disk Filtration System
- ◆ Replace Existing Three (3) Aerobic Digesters

Total Cost Estimate: \$6,017,000*

(*Does not include costs for 1.0 mg/L improvements; Assumes 1.0 and 0.5 mg/L improvements constructed concurrently)

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Project Plan – WWTF Improvements

Additional Improvements

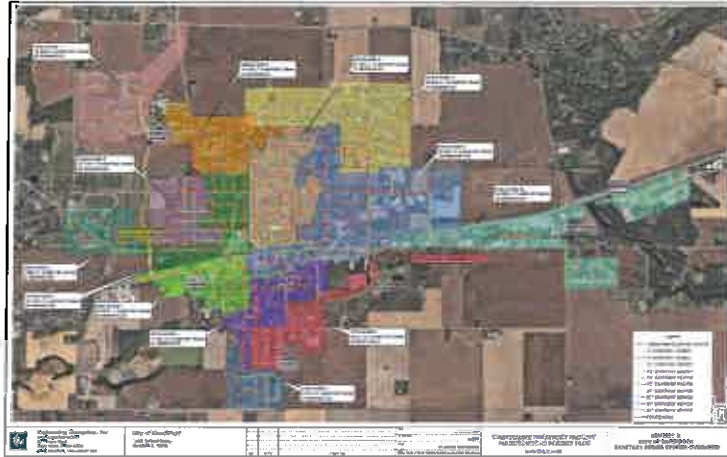
- ◆ New Permanent Generator with Automatic Transfer Switch
 - Not in Violation, but Not Meeting Intent of Requirements for Backup Power
 - Existing Backup Power (Temporary Generator) Cannot Power Entire Facility
 - Operations and Safety Considerations – Manual Hookup and Monitoring
- ◆ Raw Sewage Pump Station Modifications/Excess Flow Return Improvements
- ◆ New Computers and PLC/SCADA System Upgrades
- ◆ WWTF Gravel Roadway Repairs
- ◆ Oxidation Ditch Aerators Inspection/Repairs and Lighting/Wiring Improvements
- ◆ Roof Replacement for Various WWTF Buildings
- ◆ New Laboratory Equipment
- ◆ Lab/Office Building HVAC Equipment Replacement/Upgrades
- ◆ Demo/Relocate Existing Garage Structure Near Sludge Thickening Building
- ◆ Fully Enclose Dewatered Biosolids Storage Structure

Total Cost Estimate: \$1,905,000

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Project Plan – Inflow / Infiltration Reduction Program

- ◆ The proposed scope is a continuation of the City's I/I Reduction Program.
- ◆ Flow Monitoring previously completed for Basins A-H, and SSES completed for Basins A and E.
- ◆ Flow Monitoring, Sanitary Sewer Evaluation Surveying (SSES), and Rehabilitation Work for Sanitary Basins A-L (Basin M excluded due to location & additional wetland/floodplain permitting requirements)
- ◆ **Total Cost Estimate: \$7,541,000**



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Summary of Proposed Project Plan Cost Estimates

- 1.0 mg/L TP Improvements: \$2,841,000
- 0.5 mg/L TP Improvements: \$6,017,000
- Additional WWTF Improvements: \$1,905,000
- I/I Reduction Program: \$7,541,000

PROPOSED PROJECT PLAN

TOTAL COST ESTIMATE: \$18,304,000

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FUNDING OPTIONS OVERVIEW

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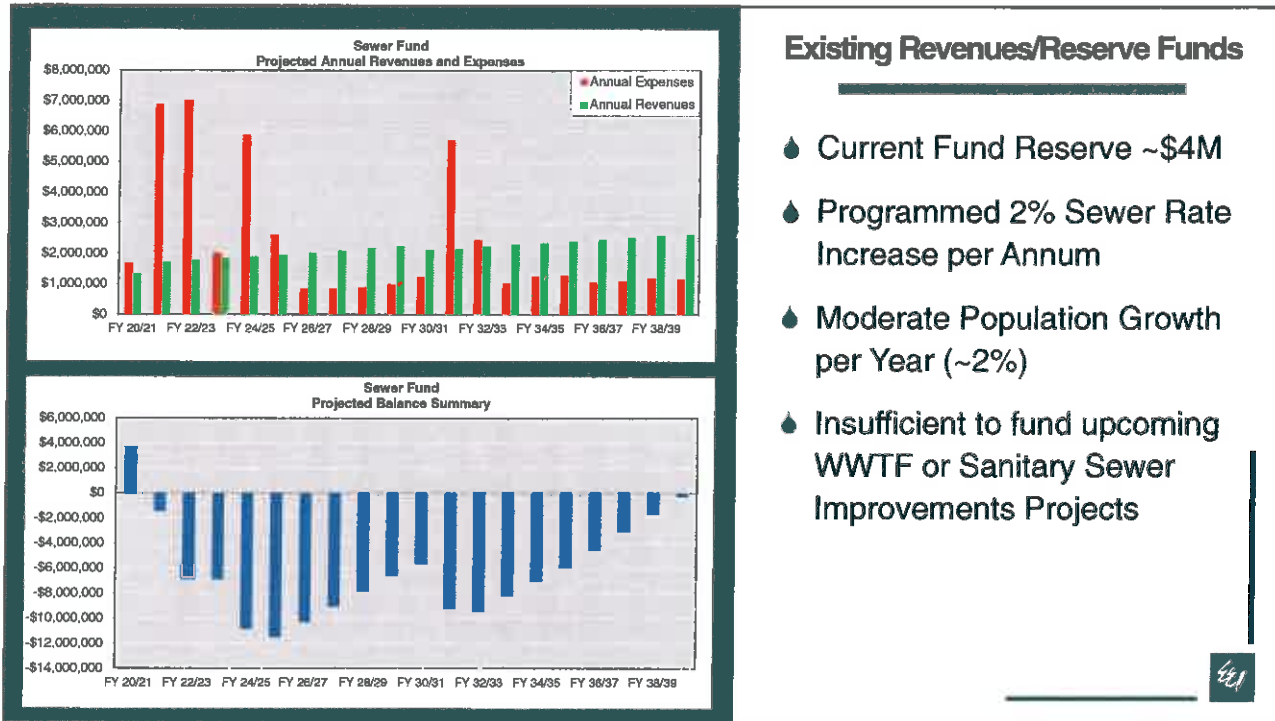


Funding Options Overview

- ◆ Existing Revenues / Reserve Funds
- ◆ IEPA Low Interest Loan
- ◆ General Obligation Bonds

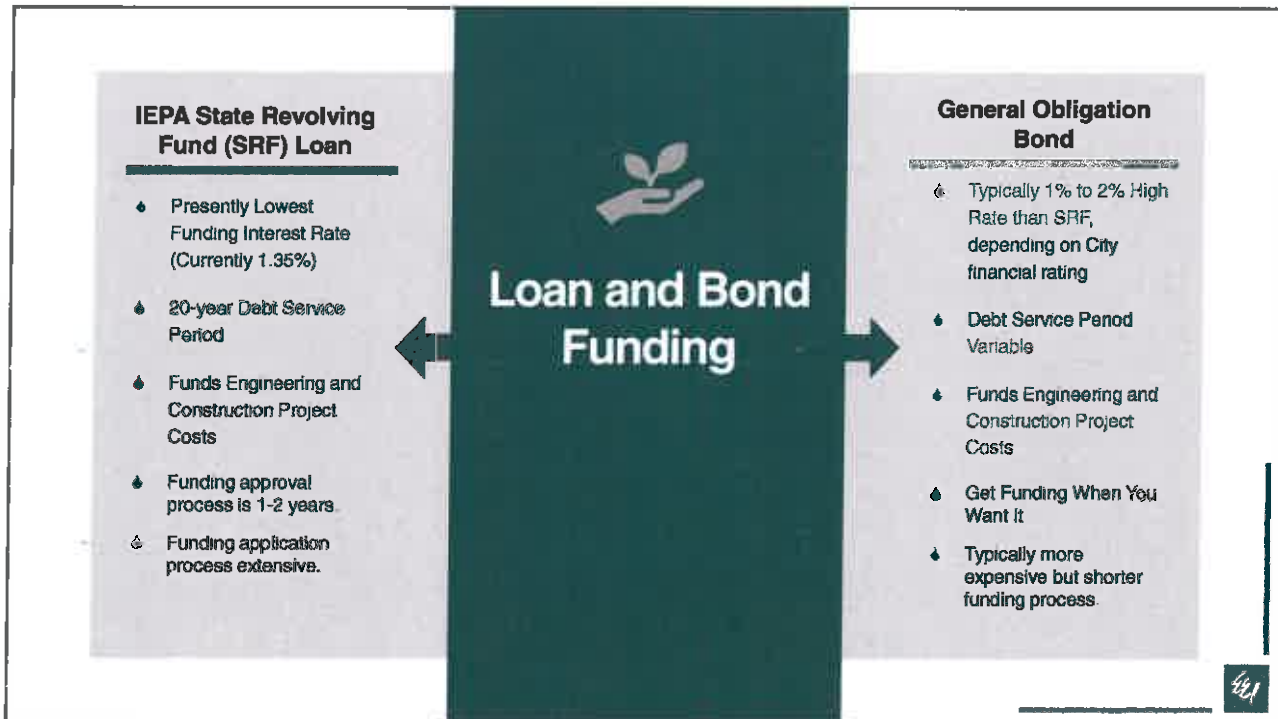


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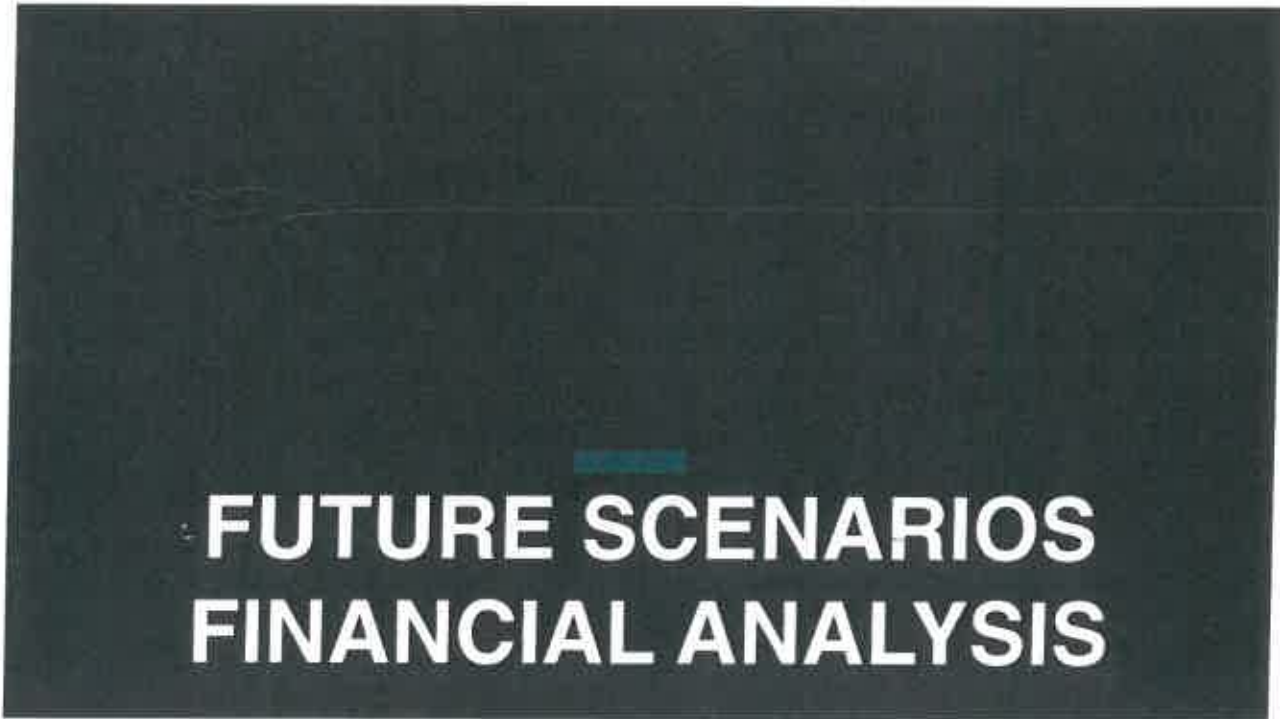
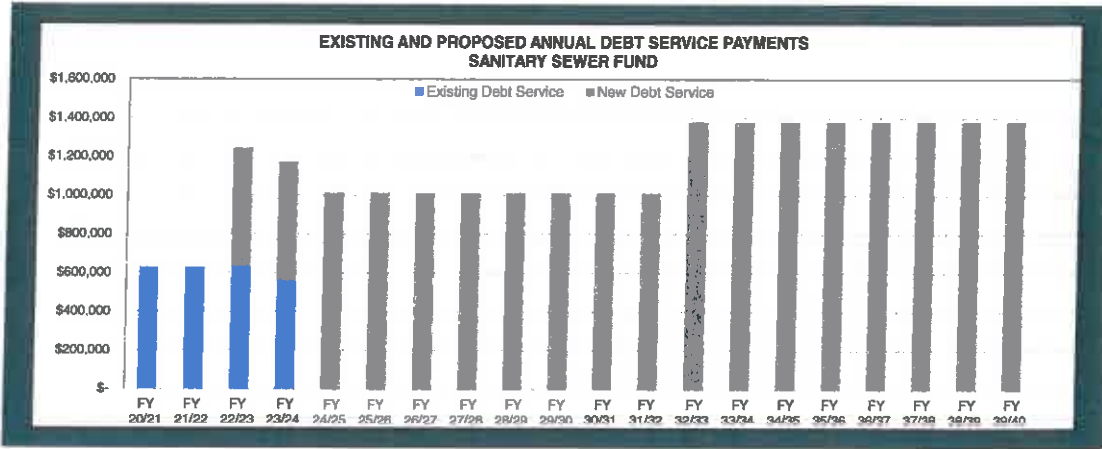
Existing Revenues/Reserve Funds

- ◆ Current Fund Reserve ~\$4M
- ◆ Programmed 2% Sewer Rate Increase per Annum
- ◆ Moderate Population Growth per Year (~2%)
- ◆ Insufficient to fund upcoming WWTF or Sanitary Sewer Improvements Projects



Changes in City Debt Service Using SRF Example

- Currently have ~\$600,000 per year in Debt Service Payments.
- Existing Debt Service Liquidated in 2023.
- New Debt Service for WWTP and Sewer Project anticipated to Begin as Soon as FY 22/23.



**IEPA State Revolving Funding:
Best Case Scenario**

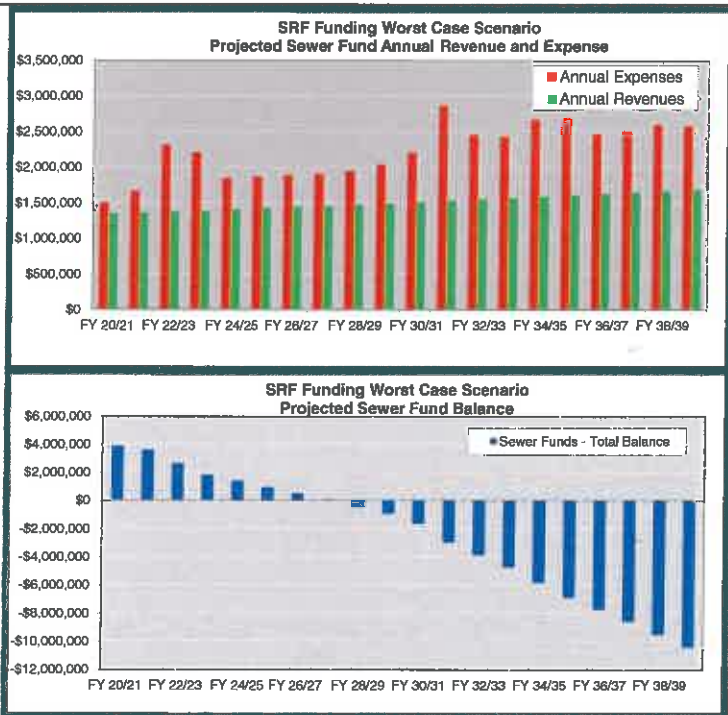
- ◆ Current Loan Rate 1.35%
- ◆ Using Existing 2% Annual Rate Increase and ~2% Pop Growth (CMAP 2050), Fund Option Maintains Fund Balance
- ◆ Scenario Maintains Fund Balance
- ◆ GO Bonds have similar financial patter but slightly debt service.



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**IEPA State Revolving Funding:
Worst Case Scenario**


- ◆ Current Loan Rate 1.35%
- ◆ Using 2% Rate Increase and Min. Pop. Growth (~0.3%).
- ◆ Fund Balance Drops Off in ~6-8 Years.
- ◆ Would require higher rate increases than 2% in 3-4 years.



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SCHEDULE AND PERMIT COMPLIANCE OVERVIEW

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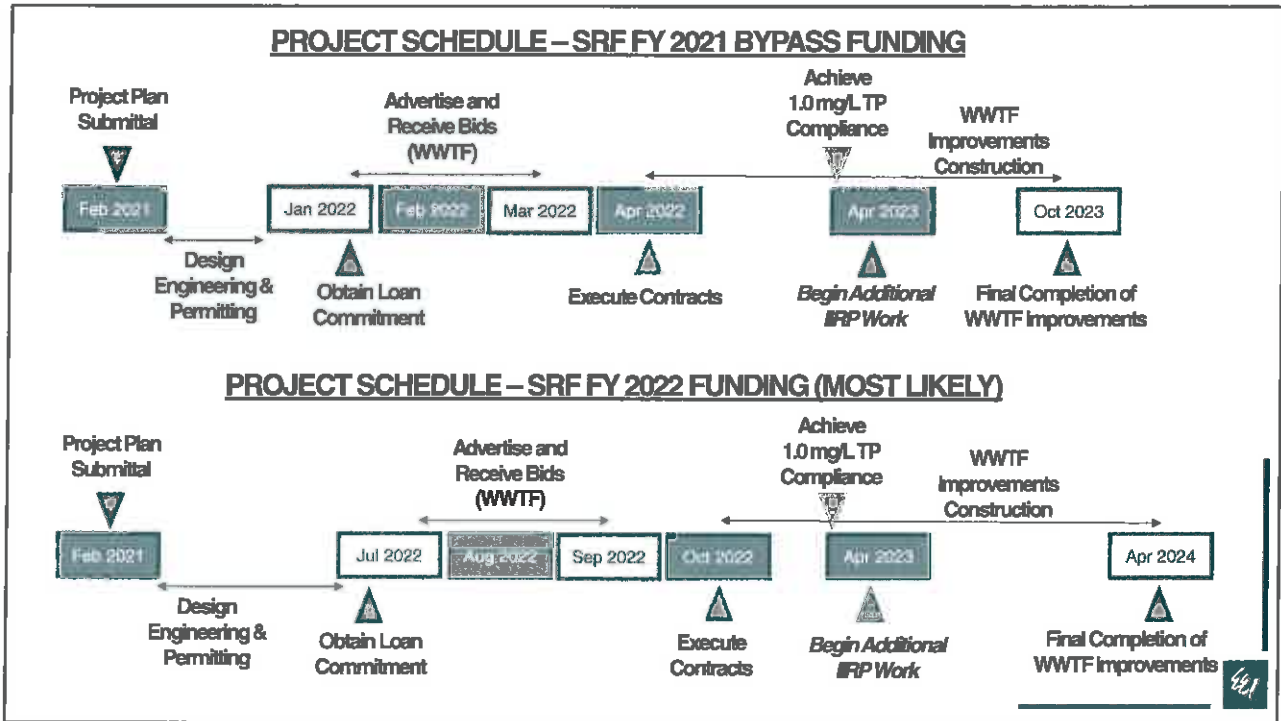


**IEPA
Coordination**

- ◆ Low Interest Loan Available Funding
 - Very Unlikely to Qualify for Funding Cycle Starting in July 2021
 - Possible, but Still Unlikely to Qualify for "Reserve" or "Bypass" Funding by January 2022
 - Highly Likely to Qualify for Funding Cycle Starting in July 2022
- ◆ NPDES Permit Compliance Schedule Status
 - October 2022 Construction Completion
 - April 2023 Compliance Date to Meet 1.0 mg/L P Limit
 - IEPA Understands That Compliance is Dependent on Funding Schedule
 - Can Submit Permit Modification Request



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Summary and Recommendations



- ◆ Scope
 - 1.0 mg/L Total Phosphorus Limit Improvements Required ASAP
 - 0.5 mg/L Total Phosphorus Limit Improvements and Additional WWTF Improvements Recommended Concurrently with 1.0 mg/L Improvements
 - IIRP Work Recommended to Commence Circa FY 23-24 (Separate Loan, but Included in Same IEPA Planning Approval as WWTF Improvements)
- ◆ Financing
 - Existing Reserves Not Sufficient
 - Debt Service Required – IEPA SRF Loan Provides Best Financing Conditions



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DECISION POINTS AND ACTION ITEMS – NEXT STEPS

WWTF IMPROVEMENTS AND IIRP PROJECT PLAN

Review and Finalize / Approve Proposed Project Plan Scope Items



DESIGN ENGINEERING AND IEPA COORDINATION

Begin Design Engineering for Proposed Improvements; Ongoing Coordination with IEPA on Funding and Compliance Schedule



FUNDING

Review Proposed Financial Analysis and Strategy for IEPA Low Interest Loan

CONSTRUCTION OF WWTF IMPROVEMENTS



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THANK YOU



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