

**MONDAY, NOVEMBER 20, 2017
Scappoose Council Chambers
33568 East Columbia Avenue**

WORK SESSION ~ MASTER PLAN WASTEWATER RATE IMPACTS, 6:00 PM

Mayor Burge called the Work Session to order at 6:00 p.m.

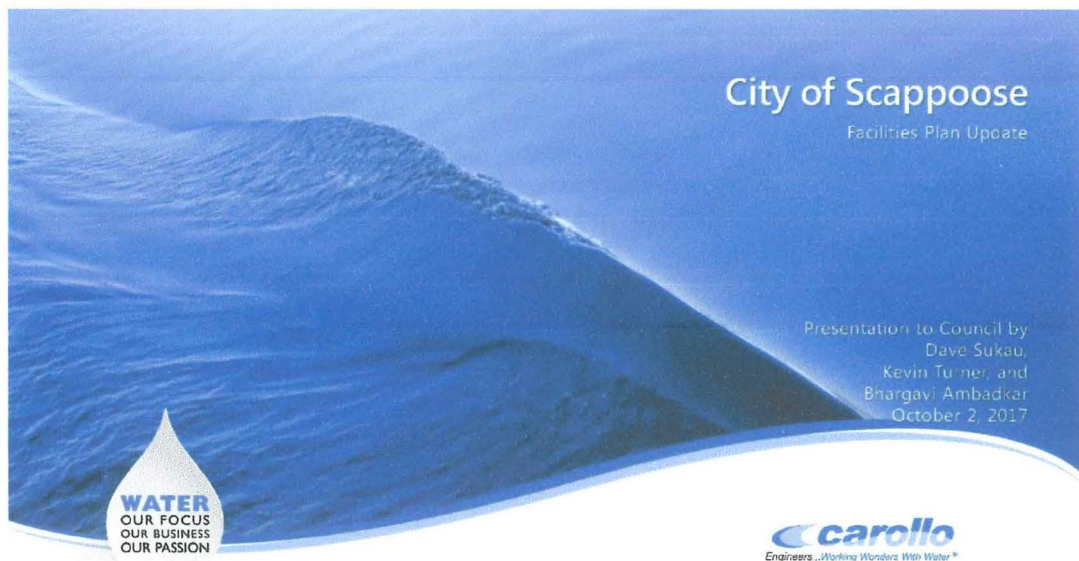
Present: Mayor Scott Burge, Councilor Rich Riffle, Councilor Patrick Kessi, Councilor Joel Haugen, City Manager Michael Sykes, City Recorder Susan Reeves, Legal Counsel Peter Watts, Treatment Plant Supervisor Kevin Turner, Carollo Consultants Bhargavi Ambadkar and Consultant Steve Donovan.

Also present in audience: Assistant to City Manager Alexandra Rains, City Planner Laurie Oliver, City Engineer Chris Negelspace, AmeriCorps RARE Participant Garrett Peterson, and Courtney Vaughn with the Spotlight.

City Manager Sykes explained tonight staff wanted to give Council an update on the progress of our Wastewater Master Plan work, and also wanted to share with you how that could affect rates and go over some potential scenarios.

Treatment Plant Supervisor Kevin Turner explained he and Bhargavi Ambadkar, with Carollo are just going to do a recap of what they presented the last time.

Carollo Consultant Bhargavi Ambadkar went over the power point, which was presented to City Council on October 2, 2017.



The Facilities Plan Update aligns with Council goals and identifies what is required to:

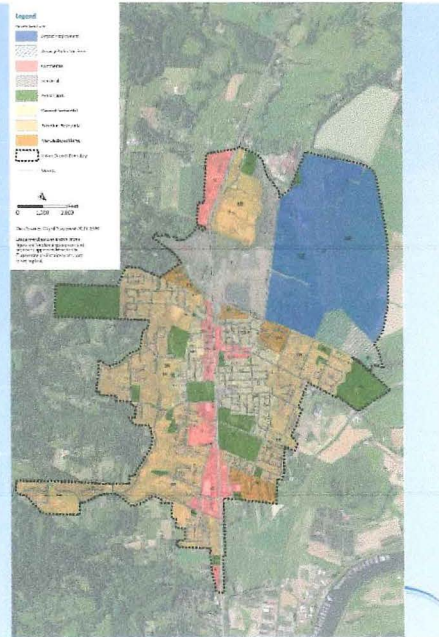
- Develop a Long Term Comprehensive Community Vision
 - Complete Wastewater Master Plan
- Address Aging Infrastructure Now
 - Capacity upgrade: Wastewater treatment and collections

Facilities Plan Update Objectives

- Treatment capacity to accommodate growth
- Treatment processes to meet regulatory requirements
- Improve and replace existing facilities that are deficient or are anticipated to become deficient during the planning period

City of Scappoose Service Area

- Worked with City to define extent of study area
- Used PSU PRC 2017 data for current population
- Used existing land use calibrating current flows
- Used projected zoning, estimate of large commercial/industrial customers for projecting flow and loads to the plant
- Used DEQ methodology to compare projections



Anticipated growth within the UGB

- 56% of growth on Average Dry Weather basis
 - Increase in population
 - New industrial growth – metallurgy, light/heavy industrial customers
 - Commercial – hotels
 - Institutional – community college

Flow Parameter	Current	Year 2035
Average Dry Weather Flow, mgd	0.66	0.96
Peak Instantaneous Flow, mgd	4.0	5.6

Treatment facility evaluation included:

- Regulatory scenarios
- Condition assessments
- Hydraulic assessments
- Process assessment
- Liquids and solids stream evaluations

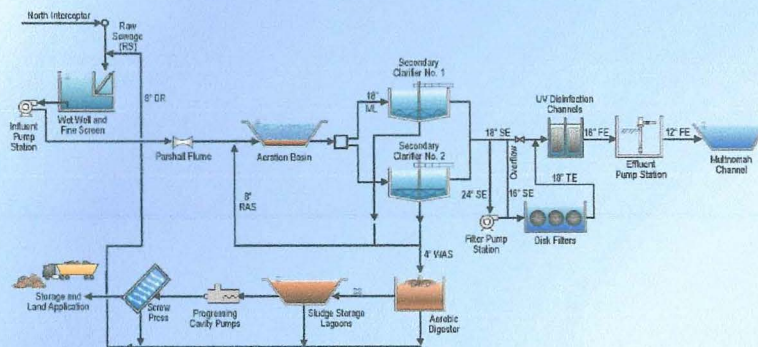
Regulatory Requirements

- Mass load limitation
- Blending
- Temperature
- Ammonia toxicity
- Endocrine disrupting compounds
- Technology based nutrient limits
- Priority persistent pollutants
- Greenhouse gases
- Biosolids usage and disposal

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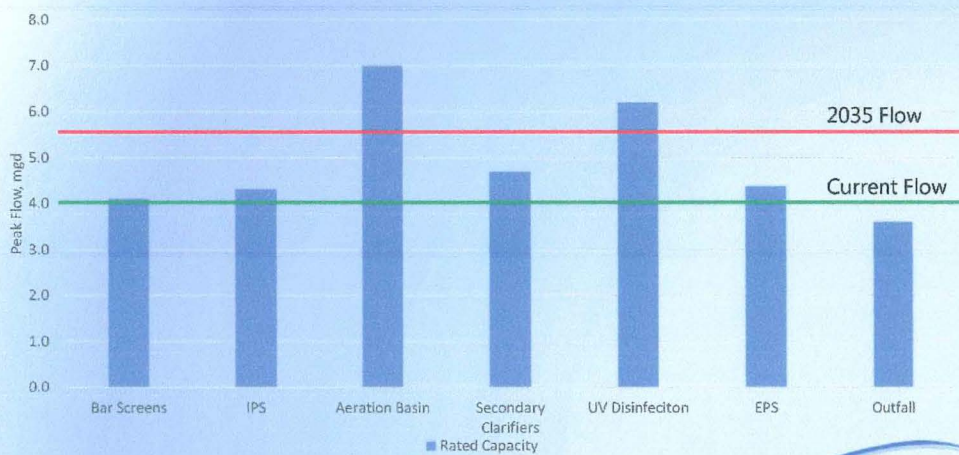
Existing Treatment Processes



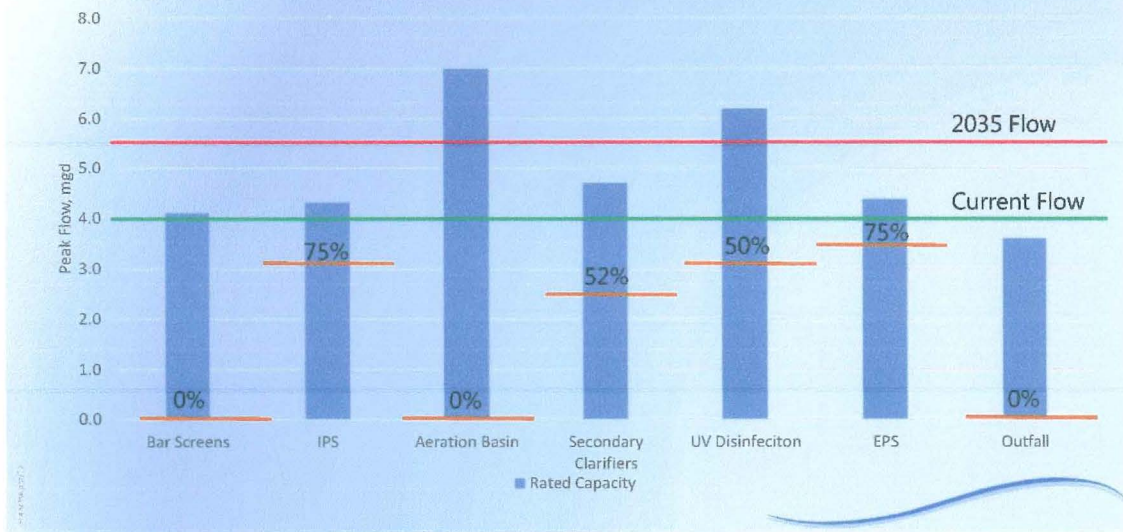
Condition Assessment

- Influent Pumping Station
 - Pumps at the end of their useful life
 - Severe leaks
 - HVAC system does not meet current code
- Secondary clarifiers
 - Wiring to drive mechanisms
- UV Disinfection
 - At the end of its useful life
 - Seals leaking
- Effluent Pumping Station
 - Pumps at the end of their useful life
 - Difficult to remove pumps for maintenance
- Aerobic Digester
 - Some diffusers are plugged
 - No backup for sludge pump
- SCADA
- WWTP Office

Hydraulic Capacity Needs



Available Redundancy in the System



Solids Process

- Aerobic digester needed to meet Class B biosolids requirements
- Currently undersized – 12 days average SRT
- Need 15 days SRT

Treatment Facility Capital Improvement Plan:

CIP Project Phase	Cost, \$	Project Period
Immediate Phase (Condition Improvements)	\$1,321,000	2018 - 2019
Spring Lake Lift Station	\$272,000	
UV Disinfection	\$617,000	
Aerobic Digester	\$433,000	

Treatment Facility Capital Improvement Plan:

CIP Project Phase	Cost, \$	Project Period
Immediate Phase (Condition Improvements)	\$1,321,000	2018 - 2019
Spring Lake Lift Station	\$272,000	
UV Disinfection	\$617,000	
Aerobic Digester	\$433,000	
Phase 1	\$12,117,000	2020 - 2022
Headworks and Influent Pumping	\$5,500,000	
UV Disinfection (Addition of second channel)	\$1,686,000	
Effluent Pumping Station	\$537,000	
Outfall	\$2,171,000	
Hydraulic Improvements	\$520,000	
Operational Improvements	\$1,700,000	

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Phase 2	\$4,590,000	2026 - 2028
Secondary Clarifier with RAS/WAS pumping Upgrades	\$4,590,000	

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Phase 2	\$4,590,000	2026 - 2028
Secondary Clarifier with RAS/WAS pumping Upgrades	\$4,590,000	
Phase 3	\$2,487,000	2033 - 2035
Aerobic Digester	\$2,487,000	

Total CIP Cost = \$20.5 M

Treatment facilities strategically located on existing site:



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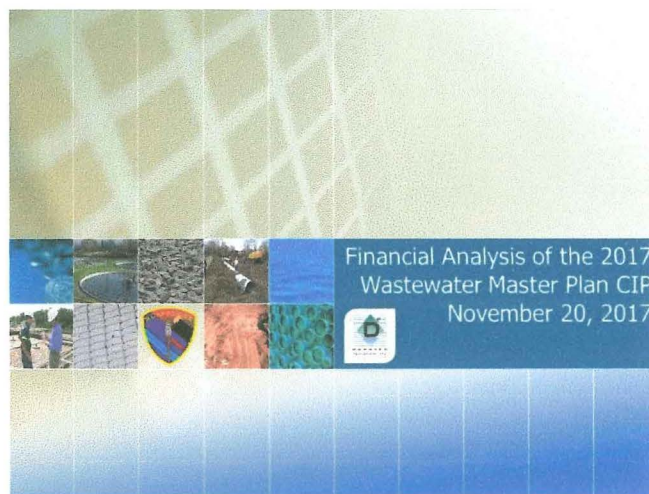
Call to Action

- Council to Adopt Facility Plan Update

Councilor Haugen asked if the cost estimates are in current dollars or inflated?

Bhargavi Ambadkar replied she has it in current dollars.

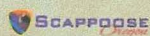
Consultant Steve Donovan explained over the past month he and City staff having been going through this. He stated what you have to talk about is a cash flow. He stated the plan says we need this stuff, but when we set rates we have to know how much are we going to spend, and when are we going to spend it, that is the real key. He explained we have to generate a cash flow analysis from 2018 to 2032 and we have to take into account all of those spikes. He went over the agenda for the discussion. He explained we have had to take some projects and push them further out and this was discussed with Kevin, and he thinks that could happen. He stated if for some reason what we talk about changes, the timing of the cash flows, all the rate presentations that he gives tonight will be wrong. He went over his power point presentation ~



Agenda



- Deviations from the master plan projects phasing
- Analysis of wastewater master plan CIP cash flow
- Draft funding plan for the wastewater CIP
- Forecasted cash position of the wastewater fund
- Rate profiles
- Wastewater rates in neighboring communities
- Rate modeling conclusions



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Deviation from the MP CIP Implementation Plan

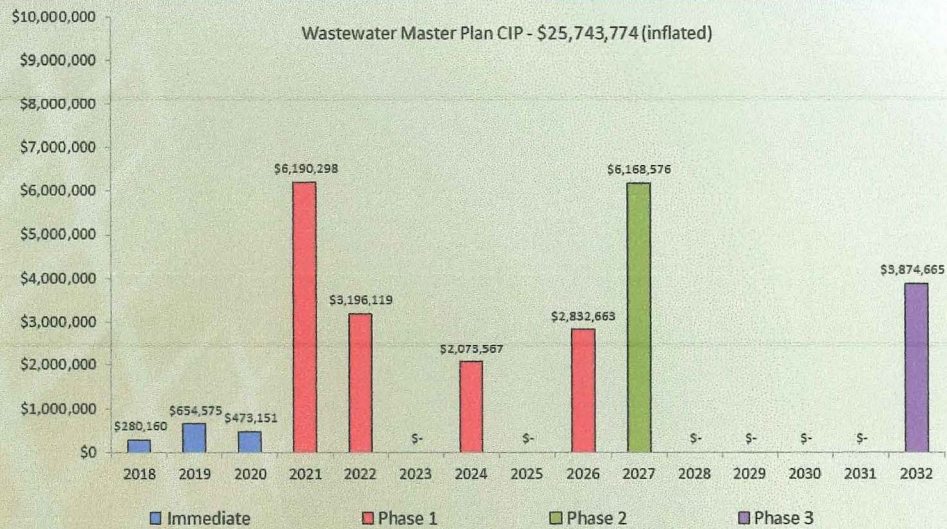


Project Name	Estimated Cost in 2017 Dollars (\$)	Master Plan Construct Date	Financial Plan Construct Date
UV Disinfection	\$1,686,000	2021	2024
New Outfall	\$2,171,000	2022	2026



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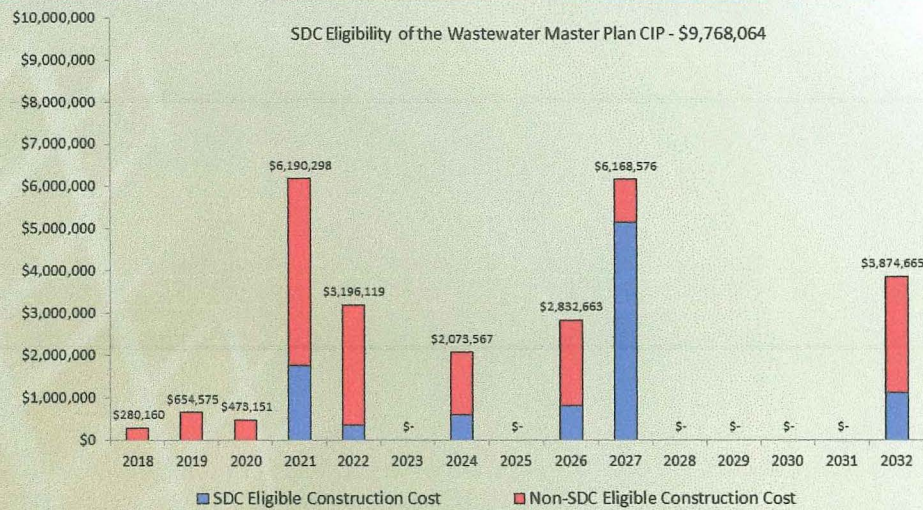
Analysis of Master Plan CIP Cash Flow



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Analysis of Master Plan CIP Cash Flow - Continued



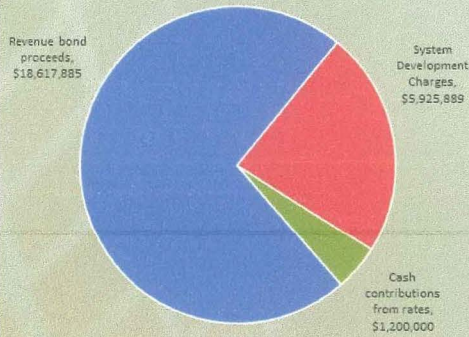
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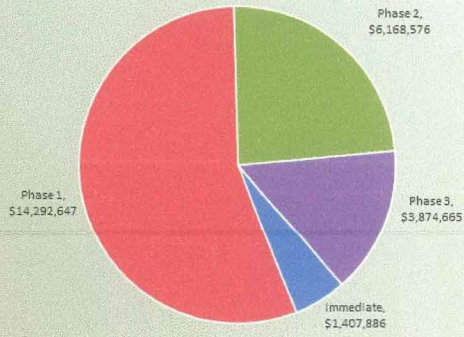
Draft Funding Plan for the WW MP CIP



Sources of Funds \$25,743,774

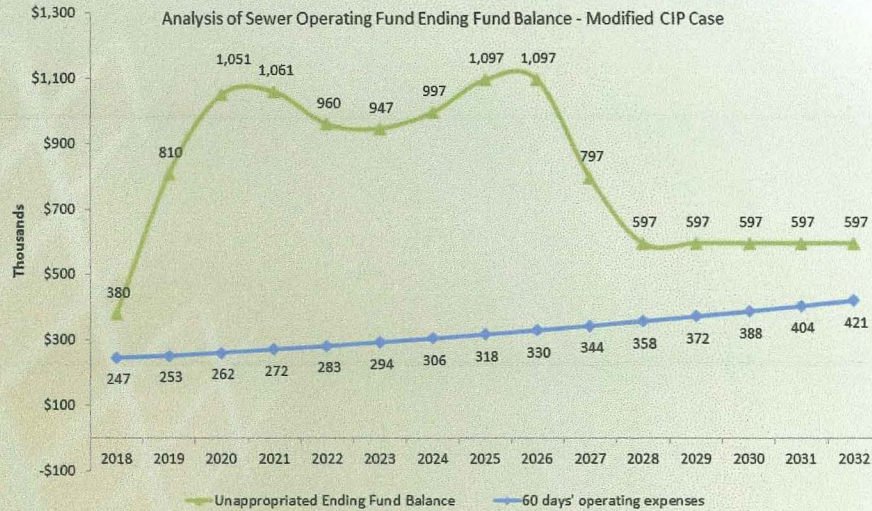


Uses of Funds \$25,743,774



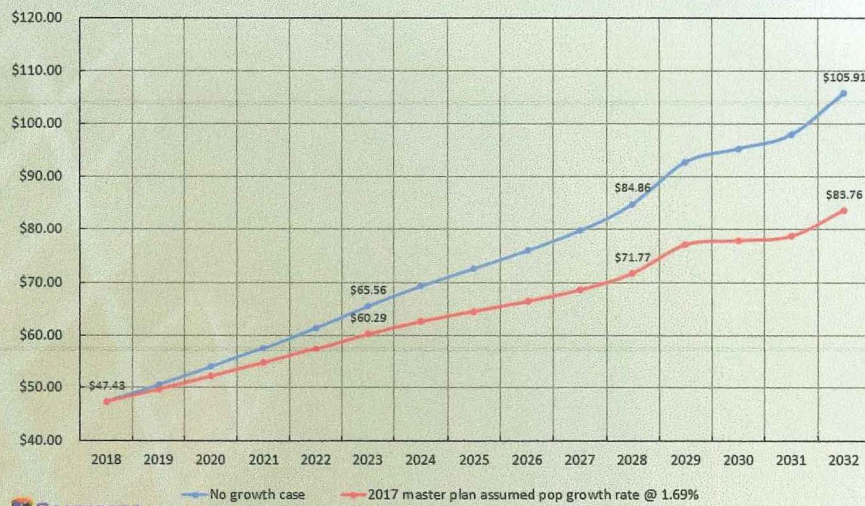
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Forecasted Cash Position of the Wastewater Fund



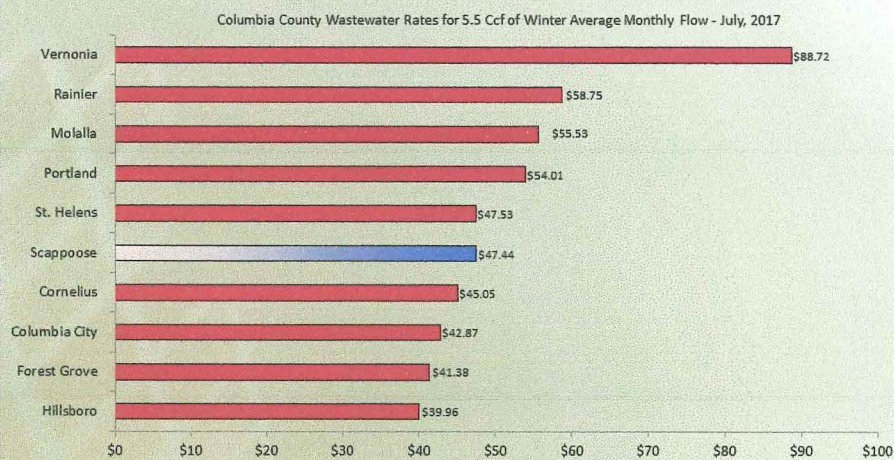
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Monthly Wastewater Rate Profiles



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Monthly Wastewater Rates in Neighboring Communities



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Wastewater Master Plan Rate Modeling Conclusions

- In order to keep rates manageable, the issuance of new long term debt is essential to fund the CIP (i.e., \$18.6 million on new debt through 2032).
- Rate profile trends (assuming current CIP cash flow):
 - ✓ FY19 - 23 ~5% per year
 - ✓ FY24 - 28 ~4% per year
 - ✓ FY29 - 32 ~4% per year
- Growth in customer base and wastewater flows consistent with master plan assumption of 1.69% per year



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Questions



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Steve Donovan thanked Council, and explained this is a proposal, we are not asking you to move on it, but he thinks they can put a business plan together that makes sense. He stated the other good news is the City doesn't have much debt in the wastewater fund now. He stated so you have capacity to borrow.

Councilor Haugen asked, excluding Vernonia, are the other cities listed in the same predicament with infrastructure for wastewater?

Steve Donovan went back over the list regarding rates in neighboring communities, and said yes, some of the other cities are facing the same situation. He explained what they would ask is for City Manager Sykes and Kevin Turner to start planning for this stuff now, and they will have to keep Council informed. He asked is this a strategy that might work for Council, if not what could we change that would make it better?

Mayor Burge replied he thinks this strategy is better with rates versus waiting. He stated something that is predictable is helpful for people and they understand. He stated it is just like anything else, things get old and you have to replace them.

City Manager Sykes explained staff tried real hard to keep the top rate at 5% and that is one of the reasons why we moved some of the projects out into 2022 and 2024.

Councilor Kessi replied he doesn't think the loan should be for any longer than 20 years.

Councilor Riffle stated last time we talked about raising the rates he had a citizen complain that until his lines are brought up to speed he can't support a future project. He asked if the current sewer lines are doing okay?

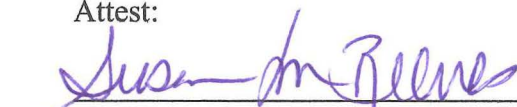
Treatment Plant Supervisor Kevin Turner replied there are definitely issues out there. He explained every year staff TV's and cleans the system, so they know where the really bad areas are. They just have to do the flow modeling and get that all laid out. He explained redoing the flow testing is not budgeted this year, but they will see if they can still squeeze it in. He explained there are still some collections projects out there that will be added.

Mayor Burge adjourned the Work Session at 6:44 pm.



Mayor Scott Burge

Attest:



City Recorder Susan M. Reeves