

**MONDAY, OCTOBER 1, 2018**  
**WORK SESSION – WATER MASTER PLAN, PART 3, 6:00 P.M.**

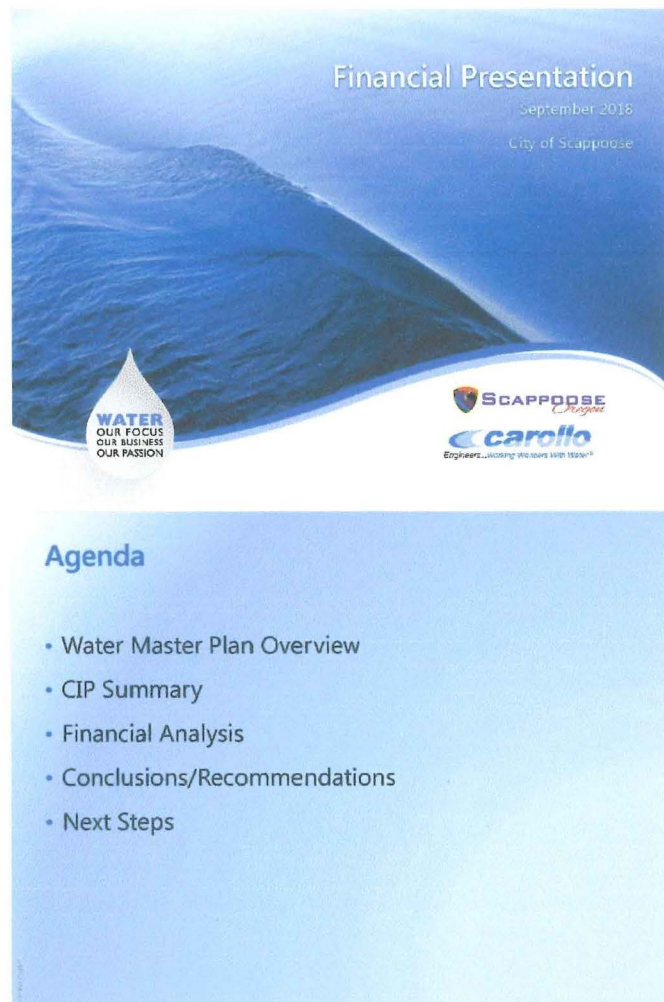
Mayor Burge called the Work Session to order at 6:00 p.m.

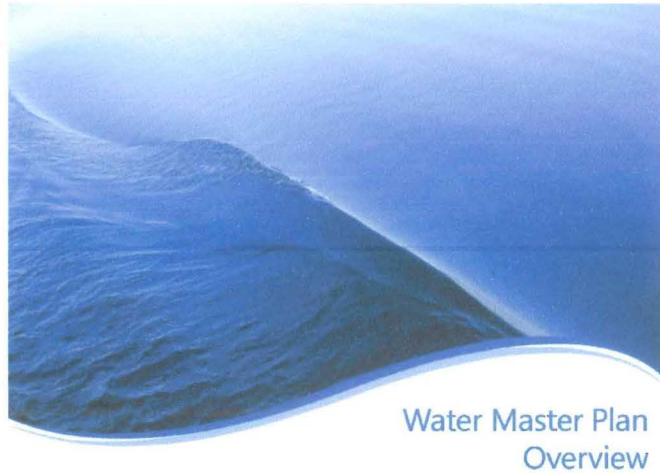
**Present:** Mayor Scott Burge, Council President Mark Reed, Councilor Patrick Kessi, Councilor Megan Greisen, Councilor Natalie Sanders, Councilor Joel Haugen, Councilor Josh Poling, City Manager Michael Sykes, City Recorder Susan Reeves, Kim Mann, Legal Counsel Peters Watts, Treatment Plant Supervisor Darryl Sykes, and Consultant Dan Reisinger.

**Present in the audience:** Public Works Director Dave Sukau, Jude Grounds, City Planner Laurie Oliver, Assistant to City Manager Alexandra Rains, Courtney Vaughn with the Spotlight

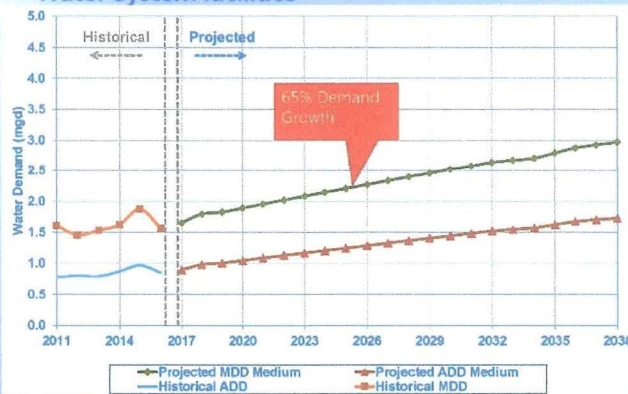
City Manager Sykes explained tonight we are going to discuss the Water Master Plan, part 3. He explained Consultant Dan Reisinger and Treatment Plant Supervisor Darryl Sykes will be outlining some of the options and costs.

Consultant Dan Reisinger went over the power point presentation.





### Strong growth in next 20 years requires new Water System facilities



### New groundwater wells or a Ranney well have the least cost per gallon for future supplies



Councilor Haugen asked in regard to the surface water, this is assuming it is status quo with the reservoir supply as it exists?

Consultant Dan Reisinger replied as it exists, that is correct.

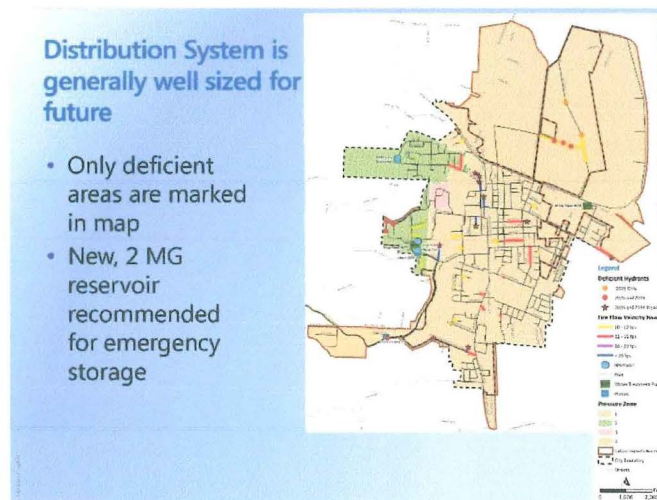
Mayor Burge stated regarding the ranney well collector, he was reminded at the LOC Conference, that the Joint Water Commission had researched out here for that so that information and data should be available. He says they've already done a lot of research on this, so there should be data out there on that.

Treatment Plant Supervisor Darryl Sykes replied GSI were the ones who performed that work, and when he talked to Jason the information they had available was based on our records here, it was nothing in-depth. He thinks they were making assumptions about the wells, but there was nothing in-depth as far as pilot wells.

City Manager Sykes says he thinks the significant point is that they are building a \$1 billion dollar pipeline from Hillsboro to Wilsonville to pull water out of the Willamette there, but one of their top three options was here in our area, and it was about \$200,000 million more than the option they choose, which was about \$1.2 billion, but it was a viable option with a significant supply of water.

Mayor Burge stated we don't have to pipe it over hill.

Consultant Dan Reisinger commented that it should be noted that St. Helens has a ranney well.



Mayor Burge asked how much storage are we currently sitting on?

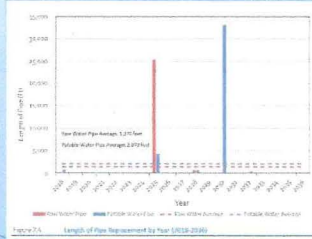
Treatment Plant Supervisor Daryl Sykes replied about three million gallons.

Mayor Burge replied that is a total of five million.



## Rehabilitation of aging infrastructure is needed to maintain the Water System

### Pipeline Rehabilitation Lengths in next 20 years



### Keys Road WTP Condition Summary

Table 3.13: Keys Road Water Treatment Plant Assessment Summary

| System                     | Condition | Year to Replace | Key to Replacement | Assessment |
|----------------------------|-----------|-----------------|--------------------|------------|
| Surface Water Intake       | Good      | 2020            | Good               | Good       |
| Surface Water Transmission | Good      | 2020            | Good               | Good       |
| Groundwater Wells          | Good      | 2020            | Good               | Good       |
| Chemical Systems           | Good      | 2020            | Good               | Good       |
| Screen Filtration Plant    | Good      | 2020            | Good               | Good       |
| Groundwater Filter         | Good      | 2020            | Good               | Good       |
| Sludge Pump Station        | Good      | 2020            | Good               | Good       |
| Backwash Pump Station      | Good      | 2020            | Good               | Good       |
| Finished Water Reservoir   | Good      | 2020            | Good               | Good       |
| Power Supply               | Good      | 2020            | Good               | Good       |
| Admin and Operations       | Good      | 2020            | Good               | Good       |
| Laboratory                 | Good      | 2020            | Good               | Good       |



CIP Summary


## Capital Improvement Plan guides implementation of projects

- Identifies projects
- Determine budgets
- Times projects
  - Short Term: Next 10 years
  - Long-term: 11 to 20 years


## Capital Improvement Plan is made up of 23 projects and programs

| Project              | Enter Cost Type Here: Future Dollars                 | Developer Share (%) |
|----------------------|--|---------------------|
| S-01                 | Dutch Canyon Well #2                                 | 0%                  |
| S-02                 | Dutch Canyon Well #3                                 | 0%                  |
| S-03                 | Miller Road Well #4                                  | 100%                |
| S-04                 | Miller Road Well #5                                  | 6%                  |
| S-05                 | Miller Road Well #6                                  | 0%                  |
| S-06                 | Long-Term Supply                                     | 0%                  |
| <b>Treatment</b>     |  |                     |
| T-01                 | Miller Road R&B                                      | 0%                  |
| T-02                 | Keys Road R&B  | 0%                  |
| T-03                 | Supply and Treatment Plant L&S Goals                 | 0%                  |
| T-04                 | Seismic and Life-Safety Audit                        | 0%                  |
| T-05                 | Treatment Capacity and Operations Optimization Study | 0%                  |
| <b>Distribution</b>  |  |                     |
| D-01                 | Mill Eastview Drive Replacement                      | 0%                  |
| D-02                 | DIV 8th Street Connection                            | 0%                  |
| D-03                 | Big Way Dr Connection Airport Annex                  | 100%                |
| D-04                 | Dutch Canyon Rd to Em Watts Rd                       | 0%                  |
| D-05                 | Moore Rd Airport Annex                               | 0%                  |
| D-06                 | Airport Annex North of Bird Rd                       | 0%                  |
| D-07                 | Water Main Replacement/Replacement                   | 0%                  |
| D-08                 | Dead-End and Small Diameter Mains                    | 0%                  |
| <b>Pump Stations</b> |  |                     |
| PS-01                | High Zone SP3  | 0%                  |
| <b>Storage</b>       |  |                     |
| ST-01                | 2.0 MG Keys Road Reservoir                           | 6%                  |
| ST-02                | Reservoir Seismic Retrofit                           | 0%                  |
| M-01                 | City's Capital Outlay Projects                       | 0%                  |

## Timing for each project assigned, based on technical analyses and balancing City resources



City of Scappoose  
Water System Plan  
Capital Improvement Plan (Future Dollars)



Capital Improvement Plan Summary (Future Dollars)

| Project | Description           | Phase | Year | 20 Years Timeline |      |      |      |      |      |      |      |      |      |      |      |      | Estimated<br>2019-2020 | Estimated<br>2020-2021 | Estimated<br>2021-2022 | Estimated<br>2022-2023 | Estimated<br>2023-2024 | Estimated<br>2024-2025 | Estimated<br>2025-2026 | Estimated<br>2026-2027 | Estimated<br>2027-2028 | Estimated<br>2028-2029 | Estimated<br>2029-2030 | Estimated<br>2030-2031 | Estimated<br>2031-2032 | Estimated<br>2032-2033 | Estimated<br>2033-2034 | Total | Notes |      |      |      |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   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|         |                       |       |      | 2019              | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |                        |       |       | 2032 | 2033 | 2034 |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |   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| 1       | Water Treatment Plant | 1     | 2019 | 100               | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100  | 100                    | 100                    | 100                    | 100                    | 100                    | 100                    | 100                    | 100                    | 100                    | 100                    | 100                    | 100                    | 100                    | 100                    | 100                    | 100   | 100   | 100  | 100  | 100  | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 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| 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Councilor Haugen stated Miller Road 4 specifies that the developers share is 100% and so the CIP cost of \$210,000, how does that factor in?

Consultant Dan Reisinger replied that reflects design and construction of the site by the City, so there will still be some City administration costs, most likely.

## Project Types tells "why" the project is needed and how it is typically funded

### Capacity Projects

- Meet future system growth
- Funding: system development charges (SDCs)

### Repair and Replacement Projects

- Replacing or maintaining existing infrastructure
- Funding: reserves and rate revenue

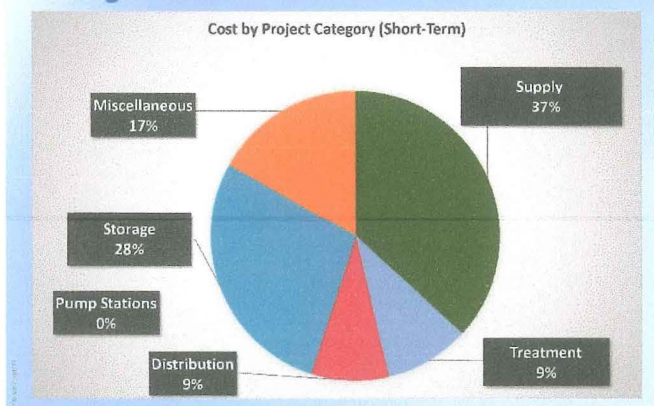
### Upgrade Projects

- Increases level-of-service of existing infrastructure
- Funding: rate revenue

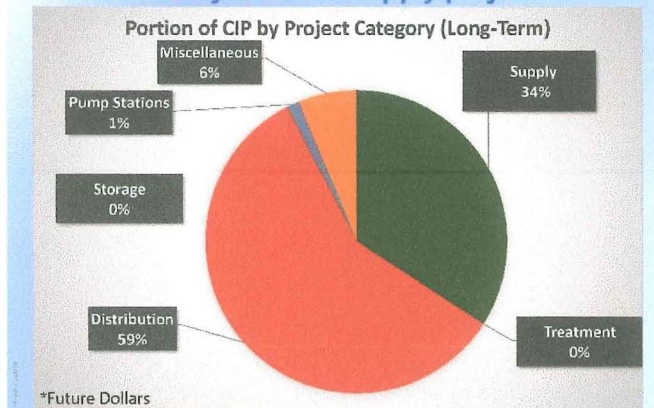
Councilor Kessi asked what would the repair and replacement be for the short-term 2018-2020 year?

Consultant Dan Reisinger replied that they've put a little repair and replacement money in there, relatively small, just to have the annual funding to do small projects as they come up. He explained most of the distribution piping is expected to reach the end of its useful life at some point, and that's really defined as when your maintenance costs begin to exceed the replacement costs. He explained for now we've had some minor funding to help with some of the minor repairs and replacements that will increase as pipes get older. He explained in the long term you will see the need to start replacing a lot more.

### Short-term projects focus on supply and storage



### Long-term projects focuses on the aging distribution system and supply projects





## The Capital Improvement Plan reflects the City's level of service goals

Capital Improvements Plan Summary (Future Dollars)

|             | Short-term<br>(2018-2028) | Long-term<br>(2029-2038) | Total CIP Cost<br>Estimate |
|-------------|---------------------------|--------------------------|----------------------------|
| Total Cost  | \$ 22.5M                  | \$ 56.6M                 | \$ 79.1M                   |
| Annual Cost | \$ 2.5M                   | \$ 4.7M                  | \$ 4.0M                    |

- Costs are based on estimates of future project costs at the time of execution (future dollars).

Mayor Burge stated the \$2.5M isn't just water rates, it could be developers building it, system development charges, or rates depending on how it breaks down.

Consultant Dan Reisinger replied it could be. He explained we've taken the developer funding out of that, but if there are any additional developer fund, then yes, it would subtract from it.

## Large projects create years with higher budgets that can be difficult to fund



Financial Analysis

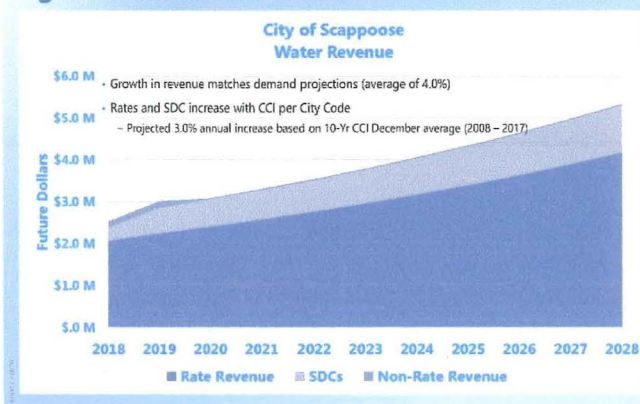
## Financial analysis high-level evaluation of ability of City to support planned spending

- Provides a snapshot of the water utility's current financial status
- Evaluates the ability to finance projects and programs identified in the CIP
- Results are high-level, considering across the board adjustments
  - Not intended to set rates, as it does not consider equity between customers and other detailed considerations.

## Financial analysis compares Expenses and CIP to Revenues

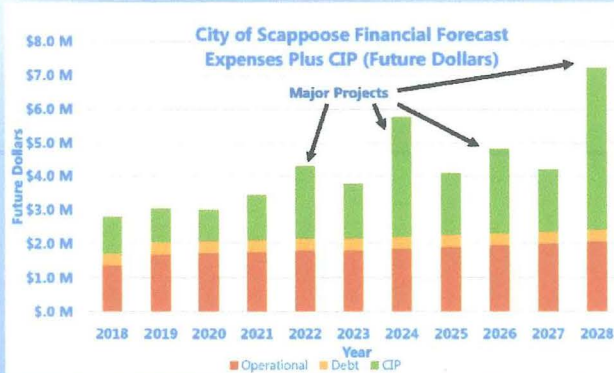
| Revenues   | Expenses   | CIP  |
|--|--|--|
| <ul style="list-style-type: none"> <li>• Charges for services</li> <li>• Infrastructure charges</li> <li>• SDCs</li> <li>• Other Non-Rate Revenue</li> </ul> | <ul style="list-style-type: none"> <li>• Personnel Services</li> <li>• Materials and services</li> <li>• Debt Service</li> </ul> | <ul style="list-style-type: none"> <li>• Capacity</li> <li>• Repair and Replacement</li> <li>• Upgrades</li> </ul> |

## Financial analysis includes inflation and system growth in future revenues

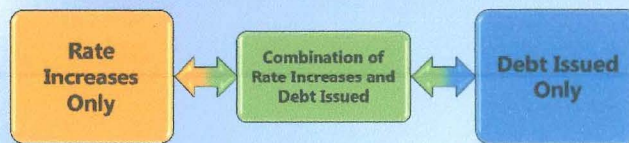




Total expenses include operational, debit, and CIP

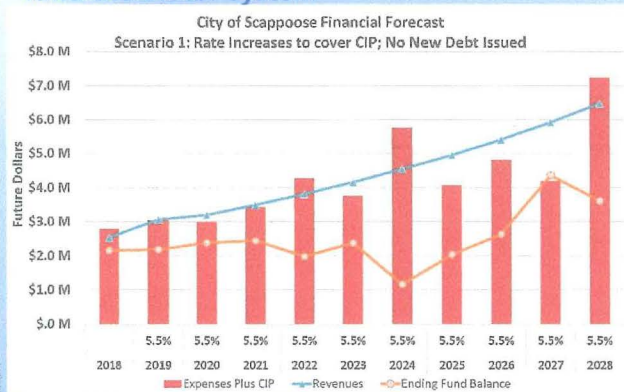


City requires additional revenue to fund its CIP



• "Sweet spot" is typically a combination of the two.

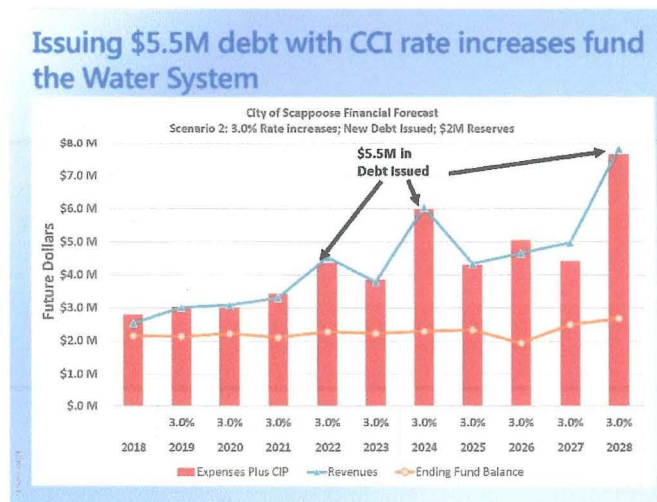
Annual 5.5% rate increase does not use debt to fund the Water System



Mayor Burge asked if the revenue increases also assume year by year growth?

Consultant Dan Reisinger replied yes it does. He stated your system is growing and your revenues are increasing. He explained by doing that you have four new wells and two million

gallons of treatment without issuing debt and that's a lot of CIP. He explained this is a scenario, it's not a recommendation, they're just providing information for the City to consider.



Councilor Haugen asked in this coming 10-year period, 2028, what was the projected growth in residential population?

Consultant Dan Reisinger replied there's an overall 65% increase in demand over 20 years, but a lot of that demand growth is in industrial.

City Manager Sykes asked about the big jump in 2024, what exactly are those capital improvements?

Consultant Dan Reisinger replied there are a few things happening. He explained the big one is a new well, in addition to the Eastview Drive replacement, as well as SW 5<sup>th</sup> Street.

City Manager Sykes asked if that's \$23Million because there's a huge spike there, why is that spike so significant?

Consultant Dan Reisinger replied no, its \$1.8 million.

City Planner Laurie Oliver replied it is just for the project, you still have the operational costs.

Consultant Dan Reisinger replied yes, that is correct.

Mayor Burge stated the well is \$2 Million in 2024.

Consultant Dan Reisinger replied he said the wrong year.

City Manager Sykes replied so that is about \$3.5 million.



Councilor Kessi asked at what interest rate is the debt at this point?

Consultant Dan Reisinger replied it is 5.5% when they did that financial analysis because that's the going rate for loans.

Councilor Kessi asked what interest rate are you using in your model, is it 5.5%?

Consultant Dan Reisinger replied that his understanding is that it is a good historical number to use (5.5%) for municipal loans.

Councilor Kessi asked if the grants are interest driven grants or free grants?

Consultant Dan Reisinger replied that they are free grants.

City Manager Sykes stated he had a couple of Councilors talk to him about not understanding the 30-Million-dollar number for the existing system that we have at Keys. He asked Dan to explain how that number was arrived at. He is looking for an explanation of why that option is so much more expensive than the others.

Consultant Dan Reisinger replied for short-term projects we are really thinking about just improving wells. He explained the City has existing treatment capacity and treatment is a large component of any future supply sources and so from a cost-effective stand point it's usually best to use the treatment that we have, so that's why even in the short-term you're paying for these new wells. He stated the question really is, what do we do in the long-term, so that is where we get to the new surface water supply.





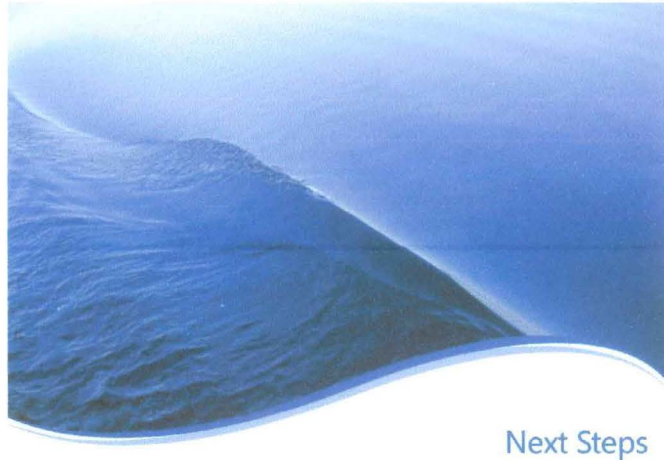
## Conclusions/ Recommendations

### City requires additional revenue to fund its CIP

- Funding "Book ends" of:
  - 5.5% average rate increases
  - Issue \$5.5M in depth
- Debt funding three major projects were considered:
  - S-02: Miller Road Well #5 (partially funded by OMIC)
  - S-04: Dutch Canyon Well #4 or comparable supply project
  - ST-01: New 2 MG Keys Road Reservoir (partially funded by OMIC)

### Refine rate increases and debt issuances through detailed financial analysis

- SDC study to confirm charge is adequate for new development
- Rate and cost of service study to provide equity between customers and to confirm rate increases are appropriate



#### Next Steps

- Incorporate Council Comments into Draft
- Complete Agency Draft
- Agency Review

Mayor Burge asked if the St. Helens interconnection includes treatment?

Consultant Dan Reisinger replied it does.

Mayor Burge said that we'd have to have a treatment plant there, or the ranney well, or the groundwater. He stated it seems that when we're not doing the surface water treatment there's all of a sudden, this gap of water that you're getting from the surface that you have to calculate into these costs of the other supplies. He explained it would be interesting to see that dynamic to see how that plays into those scenarios.

Consultant Dan Reisinger replied as part of the analysis they looked at 5 different options that do just that and they came up with a total cost for each scenario. He explained one of the scenarios was retiring the surface water treatment and moving forward with just the ground water supply.

Mayor Burge replied that when we start talking about abandoning the water source that everyone knows is the best tasting water we have in town that we need to be able to solidly justify that.

Consultant Dan Reisinger replied that he wouldn't characterize it as abandonment. He thinks at some point it will effectively be decommissioned. He explained the City will use that source until it's no longer cost effective to do so. He stated as long as you are making minor repairs to that transmission main and it is cost effective, the City should continue to do that.

City Manager Sykes explained it seems like based on our discussion, the wisest course moving forward would be to develop Dutch Canyon well, have Freeman developed the well by the airport, and in the meantime monitor the flow up on the South Fork water supplies, and that would give us a better idea of what kind of flow we have there, and that can help us take another hard look at surface water to see if there's enough flow to cause the cost per gallon to go down.

Consultant Dan Reisinger replied exactly. He explained part of the challenge is with the surface water sources, and water that's being used for environmental reasons. He explained it is his understanding that Darryl always leaves a little bit of water in the creek and some of that is being used for the city and that balances it out. He explained the other challenge he sees is that he doesn't think the City has a strong grasp for how much water is actually leaking out of the transmission main. By monitoring at the creek and at the plant, he explained we will be able to do some subtraction and that may be a source of water that we don't know about today. He explained it wouldn't be surprising to see even a 10% loss or even more, considering how often that line is repaired.

Mayor Burge replied then that could be a calculation that you would add into the scenarios.

Consultant Dan Reisinger replied we just don't have that information today, but in a year or two we would be able to update the cost, and if the City were able to get more water, the cost would go down.

Councilor Haugen asked over the last 5 years what is the annual percentage of increase and demand on our system?

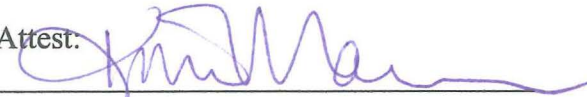
Consultant Dan Reisinger went over the recommendations.

Councilor Kessi stated he hesitates to take on more debt.

Councilor Haugen stated he concurs with Councilor Kessi.

Mayor Burge adjourned the Work Session at 6:54 p.m.

  
\_\_\_\_\_  
Mayor Scott Burge

Attest:   
\_\_\_\_\_  
Office Administrator, Kimberly Mann