From: Mark Picciano

To: <u>Cabrera, Stephanie (BOS)</u>

Cc: Safai, Ahsha (BOS); Richard Shearin

Subject: Comments on SFPUC's Proposed Rate Increases

Date: Wednesday, July 12, 2023 1:50:08 PM

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Dear Stephanie,

We are concerned about the proposed rate increase to our monthly water/sewer bills. We are retired and on fixed incomes and although we understand the need for upgrading the city's infrastructure, the rate increases should be spread out over a longer period of time.

Reviewing our most recent bill, more than 50% of that bill is for the sewer charges. In past years we had a discount on the sewer rate because we watered vegetation in our yard which was mostly a permeable surface. That discount ended with the drought, resulting in higher sewer rate and now we pay more for sewer services than for water services. Discharge rates should not be higher than the consumption rates.

Respectfully, Mark Picciano Richard Shearin 139 San Juan Ave, San Francisco, CA 94112 415.239.5499 From: <u>Peter Drekmeier</u>

To: Cabrera, Stephanie (BOS)
Cc: Board of Supervisors (BOS)
Subject: SFPUC Audit - Support

Date: Wednesday, July 12, 2023 6:11:18 AM
Attachments: TRT Comments Re SFPUC Audit.pdf

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Dear Ms. Cabrera,

Please forward the attached comments to the Government Audit and Oversight Committee.

Thank you.

-Peter

Peter Drekmeier Policy Director Tuolumne River Trust peter@tuolumne.org

(415) 882-7252



July 12, 2023

Government Audit and Oversight Committee San Francisco Board of Supervisors

Via email: stephanie.cabrera@sfgov.org, Board.of.Supervisors@sfgov.org

Re: Item 2, Audit of the SFPUC's Water and Wastewater Enterprises, July 13, 2023.

Dear Supervisors Preston, Stefani and Chan:

Please support conducting a comprehensive audit of the SFPUC's Water and Wastewater Enterprises. We encourage you to refer this item to the full Board.

While we cannot turn back the clock on the SFPUC to correct the problem of decades of deferred infrastructure maintenance that have led to astronomical rate hikes, we have a major opportunity right now to prevent unnecessary future increases.

In June, the SFPUC released a draft Alternative Water Supply (AWS) Plan.¹ The Plan suggests the SFPUC might need to develop 92 million gallons of water per day (mgd) of AWS to meet projected demand in 2045. The evidence is clear that this number is extremely inflated.

Many AWS are very expensive, so investing wisely is important. For example, San Francisco's Westside Recycled Water project has a budget of \$213.32 million, but would only produce 2 mgd of new water. Assuming AWS would cost an average of \$3,000 per acre foot (less than the Westside project), developing 92 mgd would cost \$300 million per year. Imagine what this would do to rates.

It's critical that the SFPUC accurately project how much water might be needed in the future before embarking on a plan that would certainly result in stranded assets. The SFPUC has failed to do so, and the Board of Supervisors needs to step in to provide the leadership that is so desperately needed.

For years, the conservation and fishing communities have demonstrated that the SFPUC's projected future water needs are highly inflated. The SFPUC has intentionally inflated projections to justify their opposition to the State Water Board's Bay Delta Water Quality Control Plan. It appears the SFPUC has adopted its position based on a 1995 agreement with the Modesto and Turlock Irrigation Districts that states:

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Modesto

Sonora

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 $^{^1\,} SFPUC\, Draft\, Alternative\, Water\, Supply\, Plan - \underline{https://sfpuc.org/about-us/policies-plans/alternative-water-supply-plan}$

The City agrees to support the District's negotiating position regarding volumes of water to be provided for fish flows during the FERC [Federal Energy Regulatory Commission] mediation process and during any proceedings before FERC relating to that fish flow issue.²

At the heart of the SFPUC's flawed analysis is their Design Drought. For drought planning purposes, the SFPUC has combined the six-year drought of record (1987-92) with the driest 2-year period on record (1976/77) to create a 8.5-year megadrought. On top of this, the Design Drought assumes water demand in the SFPUC service area will increase substantially to 265 mgd, despite the fact that water demand has decreased considerably over the past three decades. Demand has been under 200 mgd for the past nine years.

To settle the issue of whether the Design Drought is prudent or overly conservative, under the leadership of former General Manager, and then Commissioner, Ed Harrington, the SFPUC launched a serious of seven workshops to take deep dives into Tuolumne River issues. The assumption was that upon conclusion, the SFPUC would revisit the Design Drought. They never did, despite overwhelming evidence that it not justified.

The Design Drought doesn't just lead to irresponsible environmental policies that have left the Tuolumne River salmon population worse off than on any other Central Valley river, but now it threatens to exacerbate already skyrocketing water and wastewater rates.

The SFPUC's AWS Plan acknowledges that planning assumptions affect water supply needs, yet it fails to assess alternative scenarios. It states:

The SFPUC design drought and adopted rationing policy, which are discussed in Section 2.3 (Water Supply) and detailed in Appendix B, are assumptions that affect the estimates of water availability during dry-year conditions. Changes to the assumptions around the design drought or rationing would change total system yield estimates.

Design Drought

The Design Drought was conceived following the 1987-92 drought of record. It was totally arbitrary and has never been backed up by any supporting evidence. Much has changed since the 1987-92 drought. For example:

- Heading into the drought, water demand was at an all-time high of 293 mgd. It has been under 200 mgd for the past nine years.
- Cherry Lake, the SFPUC's second largest reservoir in the Tuolumne watershed (3/4 the capacity of Hetch Hetchy) was drained for maintenance in 1989.

² 1995 agreement between the City and County of San Francisco and the Modesto and Turlock Irrigation Districts – https://static1.squarespace.com/static/5eebc0039b04b54b2fb0ce52/t/64934e9a7af21e557759af8f/16873755149 91/1995+Agreement+%281%29.pdf

- The SFPUC adopted a Water First Policy, prioritizing water supply over hydropower generation. According to an SFPUC presentation, precipitation in 1976/77 was 39.14 inches, and was similar in 2020/21 at 39.28 inches. Yet, while total system storage was 563,298 acre feet on June 10, 1977, it was substantially higher at 917,455 acre feet on the same date in 2021.
- In December 2021, the SFPUC released its \$743,000 Long-Term Vulnerability Assessment³ (LTVA) that studied how climate change might impact future water supply. The report suggested there's much less to worry about than we might have assumed.

The LTVA states, "According to climate projections and expert elicitations, there is a central tendency of warming of +2°C and +4°C by 2040 and 2070 (Representative Concentration Pathway [RCP] 8.5), respectively, with no clear direction of change in mean annual precipitation over the planning horizon."

In other words, we might expect wetter and drier years, but on average precipitation isn't expected to change much. In fact, the report suggests that the Hetch Hetchy watershed is more likely to experience slightly greater precipitation in the future. Interestingly, earlier runoff projected by the study would likely benefit the SFPUC's water entitlements based on the way water rights were established on the Tuolumne River. Based on the study's projection that runoff will likely come three weeks earlier by 2070, if the Design Drought were to occur, the SFPUC would pick up an additional year's-worth of water over the course of the 8.5-year drought.

The LTVA includes return periods (probability of occurrence) for the known droughts, but suspiciously does not include a return period for the Design Drought. Through a Public Records Act request, we received a presentation showing that the study authors had previously assessed the severity of the Design Drought and found the return period to be about once every 25,000 years.

³ SFPUC Long-Term Vulnerability Assessment – https://sfpuc.org/about-us/reports/long-term-vulnerability-assessment

Return periods of historical drought

	Drought Event	Deficit (TAF)	Duration (Year)	Return Period (Year) (best estimate and 95% confidence interval)			
				Deficit	Duration	Deficit and Duration	
	1976-77	517	2	217 (188; 255)	30 (29; 31)	316 (273; 371)	
	1987-92	797	6	1,456 (1,031; 2,140)	486 (422; 563)	20,406 (14,589; 29,851)	
	2012-16	752	4	1,093 (820; 1,520)	121 (110; 133)	4,250 (3,190; 5,899)	
	Design Drought	1,309	8	25,293 (12,940; 56,679)	1,954 (1,620; 2,376)	1,371,578 (720,390; 2,997,390)	

Source: "Hydrological Drought Frequency Analysis for the Upper Tuolumne River," 12/8/2020

Despite numerous references to "climate uncertainty," the AWS Plan dedicated a mere three paragraphs to the LTVA, with no citations to justify the Design Drought.

Removing one year from the Design Drought would have a huge impact on the perceived need to invest in expensive AWS. For one of the SFPUC workshops, at the insistence of then-Commissioner Anson Moran, SFPUC staff reluctantly produced the following slide showing that by removing one year from the Design Drought, the SFPUC could manage 2045 water demand projections by developing 35 mgd of AWS, far less than the 92 mgd the AWS Plan suggests would be needed.



VII. Bay-Delta Plan with Alternative Water Supply Projects, Modified Rationing Policy and Modified Design Drought

- · Base Conditions
- Includes SFPUC contribution to the Bay-Delta Plan displayed in the graph as a reduction in Firm Yield, assuming the flow requirement is 40% of unimpaired flow at La Grange from February through June. Current FERC flow requirements are assumed for the rest of the year.
- SFPUC contributions are calculated according to the 4th Agreement and assuming continuation of the 1995 side agreement.
- · Includes a total of 35 MGD of new water supply projects, as described on slide 12 for scenario V
- Yield values are estimated using a 7.5-year design drought
- Includes 6.5 years of rationing at 20% in the 7.5-year design drought sequence.

SFPUC Water Supply and Demand Worksheet Results All values are in million gallons per day (MGD)

	FY 2019-20	2025	2030	2035	2040	2045
Total Yield:	299	192	196	196	238	238
RWS Demand:	198	213	215	220	227	236
Lower Tuolumne Contribution:	NA	101	101	101	101	101
Surplus or Deficit:	100	-21	-19	-24	12	2

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Water Demand Projections

The demand projections cited in Scenario VII above are based on the SFPUC's Urban Water Management Plan (UWMP). History has shown that prior UWMPs over-projected future demand by an average of more than 20%.

The SFPUC keeps two sets of books dealing with demand projections. The figures included in the UWMP are produced by the Water Enterprise, but for financial planning, the SFPUC uses sales projections produced by the Finance Bureau. Following years of controversy over which figures are more accurate, the Commission directed staff to compare the two. In response, staff issued a report⁴ stating:

The [UWMP] projections represent an outside bound of whatever demand will occur in the next 25 years...These demands will likely always be greater than actual demands because not all developments materialize, or they materialize slower than projected.

And:

By contrast, for the purpose of financial planning and for short term water system management, we estimate the demand that we are likely to experience. For budgeting

⁴ SFPUC Water Enterprise and Finance Bureau Water Demand Projections, July 5, 2022 – https://sfpuc.sharefile.com/share/view/sa628ebe9c31e4326b84ffa2976f9f9a3

and rate setting we use demand projections that are as close to actual as we can make them.

The Finance Bureau currently projects water sales will remain flat for at least the next decade.

Modeling of a repeat of the 1987-92 drought of record, with the Bay Delta Plan flow requirement in place and at current demand, shows that the SFPUC could manage that drought without requiring any rationing or developing any new AWS. Modest rationing would enable to SFPUC to manage an additional year of drought, and more aggressive rationing (but within the SFPUC's level of service goals) coupled with a very modest amount of new AWS would enable the SFPUC to manage an unprecedented eighth year of drought.

The SFPUC is better positioned than any other water agency to weather extended droughts. There are two reasons for this. The SFPUC has an enviable amount of reservoir storage — enough to last six years. During the recent drought, the SFPUC never had less than four yearsworth of water in storage. The SFPUC also benefits from exceptional water rights in normal and wet years. In an average year, the SFPUC is entitled to enough water to last three years, so storage fills quickly following droughts. Even in 2021/22, the third year of drought, the SFPUC was entitled to enough water to meet its needs for that year. In 2017, a big water year, the SFPUC was entitled to enough water to last 14 years.

Conclusion

I'll be blunt. The SFPUC lacks leadership, and ratepayers and the environment are paying the price. They plan for a Design Drought that they cannot defend. The Design Drought now threatens ratepayers by suggesting the need to develop 92 mgd of AWS at a cost of \$300 million per year. The Board of Supervisors must step in to end this madness.

We encourage you to not only audit the SFPUC Water and Wastewater Enterprises, but also to hold a joint study session between the Board and the SFPUC Commission. We would be very interested in presenting and discussing the issues raised above in real time.

Thank you for considering our comments.

Sincerely,

Peter Drekmeier Policy Director peter@tuolumne.org (650) 248-8025

Peter Dulmeier

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From: <u>Dave Warner</u>

To: <u>Cabrera, Stephanie (BOS)</u>

Subject: July 13 Special Meeting Item 2, SFPUC Rate Setting and Oversight Processes

Date: Tuesday, July 11, 2023 1:01:17 PM

Attachments: July 13 Special Meeting Item 2, SFPUC Rate Setting and Oversight Process.pdf

This message is from outside the City email system. Do not open links or attachments from untrusted sources.

Hi Ms. Cabrera,

Thank you for your service! Would you forward the attached letter to the Government Oversight and Audit Committee members and include it as a part of the public record?

Kind regards,

Dave Warner

Re: July 13 Special Meeting Item 2, SFPUC Rate Setting and Oversight Processes

Dear Government Audit and Oversight Committee Members,

Thank you for your service and thank you for considering the motion to direct the Budget and Legislative Analyst to audit the SFPUC's Water and Wastewater Enterprises rate setting and contract oversight processes.

As the two attached letters to the SFPUC detail, I'm concerned that the SFPUC does not have adequate financial oversight to understand the risks associated with the proposed rate increases. None of the commissioners, nor General Manager Herrera nor COO Ron Flynn have overseen an organization with anything close to the financial situation of the SFPUC. The SFPUC's CFO may be as far down the organization as reporting to the COO. There was no substantive presentation nor discussion on risk at any of the commission meetings regarding the 10 year capital plan nor rate setting. In my view there is substantial risk that future water demand will be lower than what the SFPUC is projecting for their rate calculations. If this occurs, water rates will need to be even higher than projected. Such risk should be well understood.

My attached letter of June 26, 2023 provides support for these concerns. My letter of May 22, 2023 describes that only a part of the picture was presented when comparing the SFPUC's rates to those of other agencies.

I am a technology industry CFO by trade and also chair an audit committee for a small public company. Your attention to this matter is valuable to your constituents.

Kind regards,

Dave Warner

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Enclosures

June 26, 2023

Re: Spending Up, Sales Down, Short on Financial Oversight - A Perfect Storm?

Dear Commissioners, General Manager Herrera and Assistant General Manager Ritchie,

When the \$5 billion WSIP program was implemented in the early 2000's no one expected water demand (sales) to decline as it has in the last 20 years. With such large fixed costs retail water rates had to go up. From 15 years ago (the oldest rate data I could find), retail rates went up 300%. The Consumer Price Index during that same time increased by 50%.

Now the plan is to spend \$8.8 billion on capital projects over the next 10 years and that does not include any significant spending on alternative water supplies.

Water sales are down. Spending is up, way up. In this year's budget and rate meetings there was limited risk analysis presented for what rates will be if things don't go as planned (and they never do). Risk analysis was remarkably missing¹. Understanding and making decisions based on risk is a core function of executive management and a primary oversight responsibility that citizens rely on from the commission.

Topics that should have been addressed during budget and rate meetings:

1) What if water demand drops below assumptions? How will water rates be affected? Are there contingency plans? Water and sewer charges are based on water demand. What will rates look like in that scenario? Population, the most influential variable on water demand, has declined 7% in the last two years along with median household income.

As you know combined water and sewer rates are currently planned to increase 90% in the next 10 years. On a per ccf basis San Francisco already has by far the highest rates of any major urban supplier. What would the rates look like if demand continues to decline below projections? Yes, it could be that more housing could increase population growth and water demand. But even so it is prudent to understand the risk to rates if demand continues to decline.

Such demand and rate sensitivity data were not presented at the commission hearing on water and sewer rates and such data was not asked for. Understanding how demand relates to rates is needed to understand demand/sales related financial risks.

2) What are the risks to the \$8.8 billion 10 year capital plan? It was briefly mentioned that the capital budget does not include significant spending on alternative water supplies (AWS), but no range of possible AWS capital funding needed was provided. In addition to AWS capital funding, what are other risks to the capital plan, including investing in our existing infrastructure (such as mitigating Arkstorm flood risk)?

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¹ In a 47 page 10 year financial plan document included in the February 14 commission meeting materials, there were two pages on minor operational sensitivities but no quantified risk analysis nor insights on how changes in demand or capital spending would affect rates. In a 44 page 10 year capital plan document included in the February 14th, 2023 report there was no sensitivity or quantified risk analysis. At the February 14th,2023 meting a 3 minute subjective overview of risk management was presented but no quantifiable data was presented. The approach appeared to be a general overview of how risks might be addressed if any occur.

² Per the January 30th, 2023 special meeting presentation slide 20, projections are based on retail water rates increasing from 52.4 mgd in FY'22 to 54.1 mgd in FY'33. Note that in the last 30 years there has not been a 10 year period where retail demand has increased.

It was briefly mentioned that the \$8.8 billion capital plan was front end loaded, but not quantified. It should have been noted that 50% of the \$8.8 billion was spent in the first 3 years along with attendant risks mentioned. Having such a large portion of the capital spent in the first three years severely reduces operational flexibility. If later it is determined financial priorities need to shift, there is less ability to do so.

No quantified risks to the capital budget were presented. No alternatives were provided including no alternative to spread out capital spending more evenly over the 10 year timeframe, providing better operational flexibility. Such information would provide an understanding of risks associated with the capital plan and vastly improve risk based decision making.

3) What is the relationship between rates and the 10 year capital plan? There was no discussion for how the 10 year capital plan affected water and sewer rates. How would rates be different if the capital plan was reduced or increased by 10%, 20% or by whatever amounts that should have been identified in item 2 above? How would rates change if the capital plan spending was not front end loaded? Understanding the relationship between rates and the capital plan would better inform the impact of the capital plan and the associated risks.

The above are all essential areas that citizens should expect to be understood and weighed in the decision process for taking on such significant spending in a declining demand environment. But none of them were discussed at either of the two budget meetings (January 30th, 2023 and February 14th, 2023) nor the rates approval meeting (May 23rd, 2023).³

Neither SFPUC management nor the commissioners seemed to be aware of the importance of understanding these risks. The questions need to be asked (or materials presented) for at least two reasons:

- i) Are the risks reasonable?
- ii) Does management have a highly informed understanding of all of the major risks and how did management get to the conclusion that the risks were reasonable? This is about evaluating management.

There are good attributes to GM Herrera and his direct reports, but there isn't sufficient financial oversight at least with respect to governance for an organization expecting to have \$10 billion or more in debt and declining demand. Such expertise has not been demonstrated in meetings and does not appear in their biographies. There should be better financial expertise in Mr. Herrera's direct reports. The same holds true for the commissioners, excellent strengths brought to the commission, but not as much strength in financial oversight.

Please consider finding ways to beef up the SFPUC's financial expertise at both the executive level and commission oversight level to ensure a better view into our future and reduce the risk of very difficult financial decisions years from now. I am speaking only from my experience of commission meetings, my perspectives of the issues and reading the backgrounds of the individuals mentioned. I have no visibility or connection to any internal discussion.

I've been a technology CFO for more than 20 years and specializing in technology finance functions for 35 years. This letter is not intended to be adversarial. Instead, it is intended to provide a view of you the

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³ See footnote 1 on prior page.

commissioners, you GM Herrera and Mr. Herrera's direct reports through a different lens and ideally offers an opportunity to learn and grow in the area of financial oversight.

I also acknowledge the large amount of work talented professionals have put in preparing the projections and presentations. It's possible that the above three topics and risks have been quantified internally but didn't make it to a commission level discussion. If so, that's a mistake to be embraced and to learn from.

The fear of course is that demand, rather than rising 3%, drops 10% or more in the next 10 years.⁴ Then add that the SFPUC decides to invest in AWS (as one might not imagine that demand could decline further as was the case in 2015) spending another \$1-2 billion. Or add that \$1 billion or more needs to be spent on infrastructure. What happens to rates in this scenario and is it tolerable? Rather than rates going up 90% in the next 10 years, do they go up 200%? A quantified discussion of the three topics above is appropriate at the commission level, particularly when already dealing with such large rate increases in an environment of declining demand.

Best regards,

Dave Warner

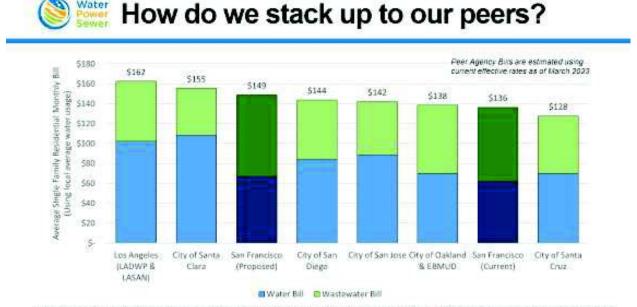
cc: Nicole Sandkulla, BAWSCA CEO

⁴ From FY 2015 to FY 2022, retail demand dropped from 60.3 mgd to 52.4 mgd, a 13% decline in 7 years. In 2015, at the height of the 2012-2015 drought, few would have imagined demand continuing to decline another 13% in 7 years, not to mention imagining it would decline at all.

Re: Biased Comparative Water Rates Chart – Please Improve

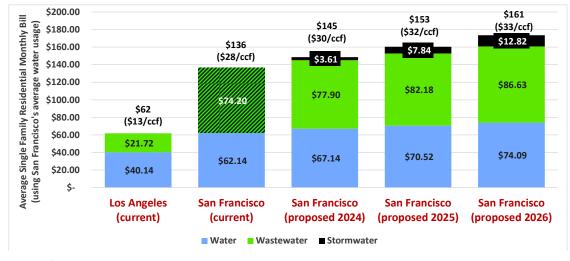
Dear Commissioners, General Manager Herrera and Assistant General Manager Ritchie,

Regarding item 6 on the upcoming May 23rd SFPUC meeting, in Erin Corvinova's presentation, slide 18 copied here, is biased or at least incomplete. It is commendable that a comparison is provided and thanks to Ms. Corvinova and staff for providing it, but you as commissioners should expect unbiased, complete relevant information from staff.



Each utility's average water usage is pulled from their online resources and published cost of service studies. If usage was provided per person per day, we calculated the average household size for each city using data from the US Census Bureau and an average of 30 5 days in a month.

The presented chart above compares water and wastewater bills, using local average water usage. However one cannot tell what the local average water usage is. This is relevant because if one compares bills using the same level of water usage across agencies, the chart would look very different. Here's a comparison with Los Angeles for bills based on San Francisco's average single family water usage of 4.8 ccf per month:



Page 1 of 2

While the presented chart (first chart above) is informative and useful as one can see that San Francisco water and wastewater bills are in line with other major cities, it does not reflect how expensive the water is if usage were the same. The second chart shows that based on 4.8 ccf consumed per month, San Francisco's current charges are more than double that of Los Angeles, and proposed 2026 charges are more than 2.5x of Los Angeles' current charges.

This second chart data is valuable too, particularly from understanding an affordability perspective. I'm guessing the average Los Angeles bills in the first chart are for about 12 ccf, which means a Los Angeles low-income family likely has a much easier time reducing their usage by as much as 50% to lower costs, than a San Francisco family would have.

Data that neither of the above two charts provide is EPA affordability. Such comparative data should also be provided for a complete picture for decision making. San Francisco water and wastewater bills today will likely look reasonable from an EPA affordability perspective because of San Francisco's remarkably high household incomes. Of course an affordability comparison also has its challenges as there's no desire for San Francisco to become just an enclave for the wealthy.

What can be done to manage costs?

I believe commissioners understand how costly our water is from a combined water and wastewater bill perspective. However it is not clear to me that staff has the same understanding. What staff presents makes everything look fine (the staff presented comparative chart above is an example). I was also surprised that during capital budget hearings earlier in the year, the CFO did not discuss an option of spreading out capital projects over a longer period time, perhaps 15 or 20 years rather than 10. As a CFO, I have asked this question many times for the companies I supported. As much of our water and wastewater costs are paying for these projects in the form of principal and interest, lengthening the time horizon would substantially reduce the impact on rates.

And as you know, alternative water supplies are not yet in the capital plan. Forgive me for being repetitive and critical: Scientific analysis clearly shows that shortening the design drought model by a year is low risk including in the context of climate change and would have a substantial reduction in alternative water supply needs. This would help reduce further upward pressure on the capital plan and rates.

At this late stage there's not a choice other than to approve the proposed rates. However I hope during the next capital budget cycle staff puts more effort into finding ways to slow the growth in our water rates.

In the meantime, please ask staff to continue to provide comparative data, but more unbiased and complete as suggested here.

Best regards,

Dave Warner

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PS. On slide 17 of the same presentation, the totals for 3 of the four columns don't tie to the sum of the amounts within the columns.

cc: Erin Corvinova, Financial Planning Director