



PROJECT 2030 WATER MAIN REPLACEMENT



Customer Advisory Committee Meeting #3 Summary

Tuesday, December 11, 2018, 6:30-9:15 pm

INTRODUCTION

Jenna Moser, Chair of the Customer Advisory Committee (CAC), called the meeting to order at 6:32 p.m. After welcoming the members of the CAC, she turned the meeting over to Laura Mason-Smith, the CAC meeting facilitator, who reviewed with the CAC the **Meeting Agenda**:

1. Introductions
2. Public Comment
3. Approve minutes of August 28, 2018 CAC Meeting #2
4. Infrastructure Challenges, Main Replacement Findings and Costs, and Basic Financial Considerations
 - a. Review of updated CAC Meeting Schedule for 2019
 - b. Infrastructure Challenges (Technical Memorandum 2)
 - c. Main Replacement Findings and Costs (Technical Memorandum 3)
 - d. Basic Financial Considerations
5. Public Comment
6. Next Steps
7. Close

Laura reiterated that meeting materials are provided electronically to the CAC members in advance of and following their meetings and are posted on the CHWD website, [Customer Advisory Committee Section](#). In addition, meeting summaries that provide an overview of each of the CAC meetings as well as a video of the meetings are posted to the website to be available to the CAC members and the general public.



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ATTENDEES

CAC Members:

Kimberly Berg	Commercial Representative
Julie Beyers	Residential Representative
Ray Bohlke	Residential Representative
Deborah Cartwright	Residential Representative
Patti Catalano	Residential Representative
Jon Jacobs	Representing Wes Ervin, Commercial Representative
Michael Goble	Residential Representative
Suzanne Guthrie	Residential Representative
Doug MacTaggart	Residential Representative
Dave Mitchell	Institutional Representative
James Monteton	Residential Representative
Richard Moore	Residential Representative
Jenna Moser	Residential Representative and CAC Chair
Richard Moses	Residential Representative
Mike Nishimura	Commercial Representative
Aimee Pfaff	Residential Representative
Peg Pinard	Residential Representative
Cyndi Price	Institutional Representative
Ray Riehle	CHWD Director
Javed Siddiqui	Residential Representative

Not in Attendance:

Katherine Cooley	Institutional Representative
David Paige	Residential Representative
Chris Ralston	Institutional Representative
Noe Villa	Institutional Representative

CAC Alternates:

Bren Martinez
Andrew Johnson

CHWD Staff:

Chris Castruita	Management Services Supervisor/Chief Board Clerk
Tamar Dawson	Assistant Engineer
David Gordon	Operations Manager
Madeline Henry	Management Services Specialist/Deputy Board Clerk
Rex Meurer	Water Efficiency Supervisor
Missy Pieri	Engineering Manager/District Engineer
Susan Sohal	Administrative Services Manager
Hilary Straus	General Manager
Paul Dietrich	Project Manager

Consultants:

Roger Kohne	Harris & Associates
Andrew MacDonald	Harris & Associates
Habib Isaac	Raftelis Financial Consultants, Inc.
Laura Mason-Smith	Mason-Smith Success Strategies



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PUBLIC COMMENT

There was no public comment.

APPROVAL OF AUGUST 28, 2018, CAC MEETING #1 MINUTES

CAC Member Suzanne Guthrie motioned to approve the August 28, 2018 minutes. The motion was seconded by CAC Member Patti Catalano. The minutes of the August 28, 2018, CAC Meeting #2 were unanimously approved without comments or changes.

INFRASTRUCTURE CHALLENGES, MAIN REPLACEMENT FINDINGS AND COSTS, AND BASIC FINANCIAL CONSIDERATIONS

CHWD Engineering Manager/District Engineer and Project 2030 Project Manager Missy Pieri outlined the updated 2019 CAC Meeting Schedule and encouraged all CAC members to note the CAC Meeting dates on their calendars. To continue to build shared understanding among the CAC members, District Engineer Pieri outlined the Project 2030 Scope as well as those Project 2030 "Building Blocks" that were part of the evening's Meeting topics (please see the CHWD Website section on Project 2030 CAC Meeting #3 for the slide presentation detail).

Infrastructure Challenges, Technical Memorandum #2

Andrew MacDonald, Harris & Associates, reviewed and explained infrastructure challenges (what makes water main replacement challenging), supply challenges, and regulatory challenges, all of which are important Building Blocks for the Water Main Replacement Study.

Main Replacement Findings and Costs, Technical Memorandum #3

- Roger Kohne, Harris & Associates, reviewed another important Building Block, main replacement risk analysis findings, including:
 - How the risk-based approach will be used,
 - Summary of risk analyses for main replacements, and
 - Risk factors and their relative weighting.

- Andrew MacDonald reviewed the key components of water main replacement cost estimates, another Building Block for the Water Main Replacement Study:
 - Replacement cost estimates,



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- Total pipeline replacement costs, and
- Spending over various phasing time periods.
- CAC members identified questions about the Technical Memorandums #2 and #3 which were answered by the District Staff and Consultants later in the Meeting.

Basic Financial Considerations

- Habib Isaac, Raftelis Financial Consultants, Inc, provided an overview of:
 - Citrus Heights Water District's capital costs,
 - How spending and funding options become alternatives,
 - Funding 101—the process for developing a funding strategy for Water Main Replacement,
 - Debt financing,
 - Spending and funding metrics, and
 - Next steps.
- CAC members identified additional questions about the Basic Financial Considerations which were then answered by the District Staff and Consultants (please see the summary of questions and answers below).

CAC MEMBER QUESTIONS AND DISTRICT ANSWERS

Q1: Is there peer analysis for the Study?

A1: *The District is reaching out to neighboring water districts on issues of mutual/related concern (e.g., future water demand projections and coordinating pipe purchases) and for both formal and informal reviews related to the Project 2030 Study.*

Q2: Are the replacement costs projected based on 2030 supply, or do they project for future cost increases?

A2: *The costs are in 2018 dollars for now. However, the financial model will account for adjustments based on proposed year of spending. In future meetings, inflation will be addressed as part of the revised cost estimates.*

Q3: Has the District looked at any correlation between where the pipes break and why? More referencing newer pipes?

A3: The District does try and determine why a pipe breaks every time a leak is identified. This data is inputted into the District's maintenance management software for history and analysis. For the purposes of the Project 2030 Study, pipe break data was considered and given a small weighting factor within the Risk Analysis software model since there was not a significant amount of pipe break data available. Analysis of pipe break data will continue to be analyzed during the implementation phase at the operational level, after the Project 2030 Study is complete. It is expected that the District



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will update the Risk Analysis model including the various weighting factors at regular intervals (e.g., annual, 5-years) to ensure the model reflects current conditions.

Q4: Have you factored in inflation?

A4: *Inflation was not included in the initial cost estimate presented on December 11, 2018. However, the financial model will account for adjustments based on the proposed year of spending and as described above the various options presented in future meetings will include inflation-adjusted costs.*

Q5: This is a lot of pipe for only \$540 million.

A5: *\$540 million would be the cost to replace the entire distribution system, if we had to do so tomorrow. It is understood that approximately two-thirds to three-quarters of the District's pipes (to be determined with the CAC) will need to be replaced as part of Project 2030. Therefore cost estimates will be revised to reflect options and inflation factors associated with each option.*

Q6: Will there be increased District costs (i.e., new employees, etc.)?

A6: *Yes, there will be increased District operation and overhead costs. These costs were included in the cost projections and could be a combination of new employees and external resources.*

Q7: Knowing that other districts have already been through this, how do your educated guesses as far as weighting hold up?

A7: *The District is at the forefront of looking at this in this detailed of a manner. Most Districts do asset management, and some do weighting to determine which is more important. A lot of surrounding Districts have not taken this rigorous of an approach yet. One agency that is using this tool, East Bay Municipal Utility District, serves a much larger service area and are doing an extensive amount of work and scientific research on water main breaks. They are using a much higher weighting (30%) vs. our (10%) on breaks. Each water agency is unique and need to determine their own weighting factors.*

Q8: Do you expect to continue the \$20 million per decade repairs?

A8: *Yes, the District currently has budgeted \$2 million per year for pipeline replacement up to the year 2030. The District's financial model will be updated based on the outcomes of the Project 2030 Study.*

Q9: Has there been any research into a different delivery system instead of in the roadways?

A9: *After the Project 2030 Study, during the design phase of each project, the District will look at the best location for each pipeline installation (e.g., under sidewalks or under roads). Putting water mains in road ways has been a common practice due to right-of-way and easy accessibility, however there are cost considerations to keep in mind (e.g., pavement replacement or traffic control). Some of the District's water mains are located on private property which makes them difficult to repair and replace. For those private*



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property locations, the goal will be to move them into the public right-of-way where feasible.

- Q10: Can we figure a dollar cost for failures, factoring time, type of failure, location?
A10: *The District hasn't determined a dollar cost for a failure, as each failure is unique. Failures can be very expensive depending on where they are located. Failures are typically a lot more expensive than replacing the pipeline. The District's goal is to replace the water mains before there are significant failures.*
- Q11: Did the District set aside replacement funds in past years?
A11: *We do have reserve accounts--the Capital Improvement Project reserve. We have these funds set aside in our financial model up to the year 2030. However, as has been highlighted in the Project 2030 Study, significant costs are ahead and funding strategies need to be identified. While funds are currently being set aside, additional funding will be needed to reduce or eliminate debt financing for the replacement of what will be a significant number of water mains that will age-out after the year 2030.*
- Q12: Have there been any studies about how the pipes are laid in order to minimize breaks?
A12: *There is a lot of research with recommendations on pipeline installation (e.g., depth to bury, pipe bedding, the amount of traffic and weight loads, and how much you can deflect a pipe to keep it as strong as possible). We will look into any possible studies to see how we can reduce breaks, looking at approaches to pipeline installation.*
- Q13: How will the District pay for the increases? Are there Federal grants to help pay for pipe replacement?
A13: *There are grants primarily for recycle and reuse but not typically for repair and replacement. Repair and replacement costs are more of a local obligation. The District will explore all possible non-rate-based funding options.*
- Q14: Will some of the property taxes that the City will be receiving in 2022 be available to help fund Project 2030?
A14: *CHWD is an Irrigation District under state law and does not receive property tax or other sources of funding that cities receive.*
- Q15: Will funding options include the percentage of rate increases/revenues required?
A15: *Any funding option, other than "do nothing", will likely include projected rate increases tied to pay-as-you-go, debt financing, or both. These funds would be set aside into their own account (designated reserve for water main replacements). These reserves are typically invested in the California Local Agency Investment Fund (LAIF), which currently generates an annual rate of return of approximately 2%.*



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- Q16: How will decreased water use (income decreases) affect this?
A16: *With conservation there will be a reduction in the revenue received by the District, because a portion of the District's rate remains volumetric, tied to customer's usage.*
- Q17: When prefunding, is that money in an interest bearing account? Where does it get invested, and with what kind of return?
A17: *Yes it would be set aside in its own account (designated reserve for water main replacements). These reserves are typically invested in the California Local Agency Investment Fund (LAIF), which currently generates an annual rate of return of approximately 2%.*
- Q18: Based on historical experience, is there a target percentage water districts have increased their rates that was acceptable by the community?
A18: *There is not a standard accepted amount as the circumstances and objectives of each agency vary based upon individual needs.*
- Q19: Our community will not be able to rely on development to offset costs, so what are others' experiences in figuring out distribution of costs?
A19: *The District is substantially built-out, and the infrastructure costs are related to repair and replacement as opposed to accommodating new growth. Even if there is land for development on the horizon, the District would not recommend assuming the new homes / units be part of funding projections because they may not materialize, causing a funding shortfall for Project 2030 financial planning.*
- Q20: When communities are not forecasting revenue increases tied to development, what has been your experience with how they handle it? What has worked, what hasn't?
A20: *Typically local funding, which is primarily rate-based funding is utilized to fund infrastructure replacements. The rates can support either debt financing, pay-as-you-go, or both.*
- Q21: Are there cameras or videos to see inside the water main lines?
A21: *Cameras or video inspection have been used to inspect water mains but are more widely used on sewer lines as sewer lines are non-pressurized and require less preparation to perform an inspection. Video inspection for water mains generally requires the water main to be shut down and dewatered, access ports for camera insertion to be installed, and chlorination and repressurization of the water main to put it back in service. There are other types of water main inspection techniques that are non-invasive (e.g. visual, electromagnetic, ultrasonic). The District will develop an implementation plan with the Project 2030 Study that will include recommendations for water main inspections.*



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Q22: How will CHWD coordinate with the city or county?

A22: *The District routinely checks with the City, County, and other regional agencies to coordinate water main projects and other infrastructure projects within and around our service area.*

Q23: What are the most vulnerable parts of the water mains after the creek crossings? (Missy)

A23: *While there are different opinions on this, the District finds that water mains located on private property are the most vulnerable.*

Q24: When will the \$540 million funding will be gathered by?

A24: The timing for revenue and costs needs will be determined by the CAC and presented through various options.



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CAC PROCESS AND LOGISTICS OVERVIEW

The CAC reviewed the updated schedule of 2019 CAC Meetings). The meetings shown below are planning to be after-dinner meetings and the high-level topics for each meeting are listed below.

Workshop #4: February 5, 2019, 6:30-9:15 pm, Citrus Heights Community Center
Options for Spending Options for Funding Spending/Funding Alternatives
Workshop #5: February 26, 2019, 6:30-9:15 pm, Citrus Heights Community Center
<ul style="list-style-type: none">• Analysis of the Pros and Cons of the Spending/Funding Alternatives• Selection of up to 4 Spending/Funding Alternatives
Workshop #6: March 19, 2019, 6:30-9:15 pm, Citrus Heights Community Center
<ul style="list-style-type: none">• Market Research Primer• Review the Pros and Cons of the Spending/Funding Alternatives• Selection of up to 2 Spending/Funding Alternatives for Market Research
Workshop #7: June 11, 2019, 6:30-9:15 pm, Citrus Heights Community Center
<ul style="list-style-type: none">• Market Research Results• Develop Final Recommendation to the Board• Steps for Implementation Plan
Workshop #8: September 10, 2019, 6:30-9:15 pm, Citrus Heights Community Center
<ul style="list-style-type: none">• Review Implementation• Review Final Board Recommendation



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CAC MEMBER COMMENTS

The CAC members indicated what they were taking away from the Meeting as:

1. I so appreciate the amount of work and effort by the District to do this
2. I appreciate that we're doing this now instead of later
3. There is an amazing amount of information the staff is putting out, and I thank them for this
4. I've learned a tremendous amount
5. All of this is starting to come together
6. Still processing all of the information and options, look forward to future meetings.
7. There are so many uncertainties, especially when dealing with the pipes on private property
8. This is what I expected; we're getting more and more details
9. I'm interested to learn more about the ranking possibilities
10. This is really dependent on the construction timeline
11. It is very interesting to look at when we replace the big pipes
12. There are lots of moving parts
13. We're all going to learn a lot
14. I'm looking forward to the financial piece
15. Some things are getting clearer and clearer
16. There are great opportunities now to reroute certain pipes
17. It will be interesting to see how we will handle this with an aging population, both for us and for future generations
18. I am really fascinated with the impressive process; it is really good
19. It would be helpful to get the Technical Memorandums sooner to be able to review the material we are considering
20. I look forward to reviewing the alternatives and funding options
21. It is very interesting that we are an irrigation district, and how we compare with cities and other districts
22. Pipe life expectancy versus survival probability is very interesting; I'd like to dig into this even more
23. This is a very informative process, and more information is being filled in
24. I look forward to the financial discussions
25. It will be important to think about how we'll be able to get the public involved before any rate increases
26. I have a realization of the depth and gravity of this vital issue
27. We all have a stake in this
28. This is scarier than Jaws, but we need to look at this now, and we can solve these problems
29. We have the best water in the world
30. I appreciate everyone for volunteering their time and for the staff providing the information and visuals



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PUBLIC COMMENTS

None

CLOSE

CAC Chair Jenna Moser thanked the CAC members and District staff and consultants for their participation and adjourned the meeting at 9:15 p.m.