



Customer Advisory Committee Meeting #2 Summary

Wednesday, March 11, 2020, 6:30-9:15 pm

INTRODUCTION

Jenna Moser, Chair of the Customer Advisory Committee (CAC), called the meeting to order at 6:34 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. Welcome and Pledge of Allegiance
2. Agenda Review
3. Public Comment
4. Meter Replacement Program Recap
5. Purpose and Involvement of the CAC
6. How the District Utilizes Water Meters
7. Overview of Meter Replacement Program Phase II
8. CAC Member Brief Intro's and Closing Comments
9. Clarify Next Steps
10. Public Comment
11. 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 |
| Ray Bohlke | Residential Representative |
| Michael Goble | Residential Representative |
| | |
| Doug MacTaggart | Residential Representative |
| Jenna Moser | Residential Representative and CAC Chair |
| Richard Moses | Residential Representative and CAC Vice Chair |
| Mike Nishimura | Commercial Representative |
| Ray Riehle | CHWD Director |
| Alan Utzig | Residential Representative |
| Unable to attend were: | |
| Julie Beyers | Residential Representative |
| | |
| Deborah Cartwright | Residential Representative |
| Katherine Cooley | Institutional Representative |
| Wes Ervin | Commercial Representative |
| Suzanne Guthrie | Residential Representative |
| Andrew Johnson | Residential Representative |
| | |
| Dave Mitchell | Institutional Representative |
| James Monteton | Residential Representative |
| Richard Moore | Residential Representative |
| | |
| Cyndi Price | Institutional Representative |
| Chris Ralston | Institutional Representative |
| Pamela Schultz | Residential Representative |
| Javed Siddiqui | Residential Representative |
| Noe Villa | Institutional Representative |

CHWD Staff and Board:

| | |
|----------------|---|
| Kelly Drake | Water Efficiency Specialist |
| David Gordon | Director of Operations |
| Madeline Henry | Administrative Services Manager/Chief Board Clerk |
| Rex Meurer | Water Efficiency Supervisor |
| Brittney Moore | Management Analyst/Deputy Board Clerk |
| Rebecca Scott | Senior Management Analyst |
| Hilary Straus | General Manager |
| Susan Talwar | Director of Finance and Administrative Services/Treasurer |

Consultants:

| | |
|-------------------|--------------------------------|
| Eric Vaughan | Harris & Associates |
| Laura Mason-Smith | Mason-Smith Success Strategies |



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PUBLIC COMMENT

Peg Pinard, a customer of CHWD, shared her thoughts on water meter technologies, her concerns about costs, and her support for mechanical meters.

APPROVAL OF SEPTEMBER 10, AND OCTOBER 2, 2019, CAC MEETING MINUTES

Due to the lack of a quorum, the minutes of the September 10, and October 23, 2019, CAC Meetings will be held for approval at the Meter Replacement Program (MRP) CAC Meeting #3 on June 3, 2020.

METER REPLACEMENT PROGRAM RECAP

David Gordon, District Director of Operations, provided a recap of the Meter Replacement Program overview:

1. Study development
2. Seven phases and building blocks:
 - a. Individual Agency Assessment
 - b. Next Generation Program Options
 - c. Meter Testing Program Strategy
 - d. Implementation Strategy
 - e. Long-Term Planning (Beyond Next Generation)
 - f. Final Report/Plan Adoption
 - g. Public Outreach Strategy
3. Study schedule

PURPOSE AND INVOLVEMENT OF THE CAC

Jenna Moser, CAC Chair, discussed the important purpose and involvement of the CAC in the Meter Replacement Program:

1. Act as a representative group of CHWD customers – *this is our Water District, and the District needs our help!*
2. Gain water meter knowledge and understand the key elements of the Meter Replacement Program;
3. Provide input on customer expectations and meter replacement funding options; and
4. Help explain and educate customers on both Project 2030 and the Meter Replacement Program.



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HOW THE DISTRICT UTILIZES WATER METERS

Rebecca Scott, Senior Management Analyst, provided information on how the District utilizes water meters:

1. What purpose water meters serve
2. What kinds of meters are used:
 - a. Types of meters
 - b. Types of meters the District uses
 - c. Types of meters the Consortium uses
3. Meter-reading platforms:
 - a. The different types of meter-reading platforms available
 - b. The types of meter-reading platforms used by the District
4. Overview of Meter Replacement Program Phase I results
5. Recent water meter testing by the District.

NEW TECHNOLOGIES OVERVIEW

Eric Vaughan, Harris & Associates Project Manager, provided an overview of:

1. Meter Replacement Program Phase II new types and versions of technologies:
 - a. Data collection
 - b. Trends in technologies (where things are headed)
2. How meters are tested.

QUESTIONS AND ANSWERS

Q1: Will different styles of meters work better at controlling leaks?

A1: *No, the technology of the meter does not allow the District to control leaks but does help detect leaks. The more frequently data is read by the meter, the more quickly leaks can be detected; therefore, leak detection becomes easier when meter use is read more frequently.*

Q2: Can meters be repaired?

A2: *Large meters are always repaired, and it is more cost effective to repair them than to replace them. However, we don't practice repairing one-inch residential meters because, if the mechanical portion of the meter fails, it's more cost effective to replace the meter. Registers that sit on top of the meters are replaced quickly and easily.*



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QUESTIONS AND ANSWERS *(continued)*

A big part of the Meter Replacement Program Study is to determine if it is better to replace the current meter and register with a new meter that is a combined meter/register.

Q3: How much will enhanced IT cost for non-mechanical meters?

A3: *The MRP Study will analyze the additional cost for IT support for new kinds of infrastructure, which is not known at this time.*

Q4: How many meters does the District have, and how old are they:

- Touch read?
- Drive by/radio read?

A4: *The District's current meter fleet was installed between 1998-2008. There are 18,515 touch read and 1,447 radio read.*

Q5: What is the failure rate of touch-read versus drive-by?

A5: *Failure rate of a meter is much different from a register. The District's current one-inch meters are "work horses," and less than one percent fail; we rarely replace meters. Approximately one percent of registers fail and must be replaced.*

Q6: What is the digital and physical security of collected data? Who can shut off a customer's water meter (we do not want this to be able to be done remotely)?

A6: *Having two-way communication with a meter and turning off a customer's water meter remotely is unproven technology. Therefore, meters are manually turned on or off by the District.*

Q7: How does the District balance the costs of workers to manually read meters versus wireless/robot meter reading? It will be important to explain the various tradeoffs in determining how to outreach to customers about this Study.

A7: *This question cannot be answered today because it a topic the Study will review. There are definitely different factors to consider. When contracting with meter readers or utilizing staff meter readers, there are associated costs. There are software costs for infrastructure which the District could purchase and own, or the District could utilize the services of a cellular network. Again, these tradeoffs will be assessed by the Study and we will have more insights.*

Q8: The analytics in the portal need to be simple and practical, or customers may not see the value of this spending on the portal.

A8: *We have seen different portals which offer different features, and the ones that have been seen so far are easy to understand and can be customized. However, as a result of the Study, the District may not make any changes or utilize a fleet of smart meters with a portal. The District may stay with its current meters for several years; this is unknown until the Study is completed and the results are assessed by the District.*



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QUESTIONS AND ANSWERS *(continued)*

Q9: Can mechanical meters and new technology be combined? How flexible are the meters for “new” technology?

A9: *Right now, we are in a transition of going from touch-read to radio-read (drive-by) meter reading because that technology is available. Also, the new radio-read registers that are being implemented do have the capability for being read electronically, which gives the District flexibility now and for the future.*

Q10: What is the timeframe to have water meters replaced, since technology continues to advance and change?

A10: *Technology does continue to advance and change and is one of the key questions for the Study. The District has meter infrastructure that is aging, and there are many factors to consider. And, it is important to determine the right timing to replace the meters to ensure the transition is as smooth as possible.*

Q11: What kind of batteries are used on non-mechanical meters? What is the life, current and projected, of the battery on non-mechanical meters?

A11: *The current batteries being used are lithium ion with an estimated life expectancy of 10-20 years. There are some agencies within the Consortium whose batteries are lasting 7 years and others whose batteries are lasting 25+ years. Battery life is also dependent on how often the meter is being read, so this is a factor to consider.*

This is a big issue that the Consortium is looking at together. This is an example of how valuable it is to be able to discuss topics with other Consortium members and understand their actual experience rather than having to just rely on the information from vendors.

Q12: On the Smart Registers, do any of them have the flexibility of switching the read frequency to, say, 15 minutes if a problem is suspected and then back to a different frequency?

A12: *Likely we wouldn't custom design different frequencies for different customers, but rather all customers would have the same frequency of meter reading.*

Q13: What are the different shelf lives for meters?

A13? *There are so many different factors analyzed – for example, type of meter, age, water quality, volume of water going through the meters, how often the meters are being read, etc. -- which are still being analyzed. We have very clean water in our District, which is a tremendous advantage.*

Q14: What is the District's current water loss rate?

A14: *The District's water loss rate is approximately 7-8 percent, which is a very strong number. Under 10 percent is considered safe under AWWA standards.*



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QUESTIONS AND ANSWERS *(continued)*

Q15: What is the benefit or “selling point” for customers of new technologies, not just the District?

A15: *Access to data is a benefit for customers to be able to check their usage levels compared to how much water they think they are using. Also, unusually high flows can be detected that may indicate a leak or broken sprinkler head.*

What percentage of District meters were tested?

A16: *About 75 percent of the large meters were tested, and most of the water flows through these meters. For the one-inch-or-below meters (the majority of the District’s meters), less than one percent were tested.*

Q17: What is the possibility that an electrical outlet could be placed physically near a water meter in new homes so no battery would be needed?

A17: *Most agencies’ water meters are located out by the street for accessibility and not on a customer’s property because agencies do not have easements to go onto customers’ properties. There is also a liability issue of having a meter near a house and the possibility of water theft. However, we are always open to new technologies or approaches as they are developed.*

Q18: Will the warranty offers from the vendors be a factor in what meter the District ultimately goes with?

A18: *Absolutely – that is one of the Number One factors we always look at. Every vendor offers a different warranty based on how often it is read. With the strength in numbers of the Consortium members, perhaps doing joint purchasing, we may be able to get better warranties.*

Q19: Do the solid-state meters also have a register?

A19: *Solid-state, non-mechanical meters have a register combined with the meter as one consolidated unit. However, the new meters are made so that it is not possible to replace batteries in the meter/register combination; the entire meter/register unit must be replaced if the battery dies.*



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CAC PROCESS AND LOGISTICS OVERVIEW

The CAC reviewed the upcoming CAC meeting schedule ([see meeting materials on the website for the schedule graphic](#)). These after-dinner meetings and the high-level topics anticipated for each of the meetings are shown below.

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| Workshop #3: June 3, 2020, 6:30-9:15 pm, Citrus Heights Community Center |
| Testing Program Analysis Regional Pilot Program Options Strategy for Implementation |
| Workshop #4: Date TBD, 6:30-9:15 pm, Citrus Heights Community Center |
| Implementation Strategy Options Phasing Strategy Financial Options |
| Workshop #5: Date TBD, 6:30-9:15 pm, Citrus Heights Community Center |
| Long-Term Planning Analysis Final Report and Plan Adoption Development of Public Outreach Strategy |

CAC MEMBER CLOSING COMMENTS

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

1. This was quite interesting, and I'm learning more. I'm not yet sold on needing new meters, but keep going!
2. Anxious to see the cost, the shelf life of the meters, and what the maintenance is going to cost us.
3. Thank you to all the experts for presenting and explaining all the complexities of what you would think is rather simple. Like water main replacement, it's not simple, so thank you.
4. I have a better understanding now of how the meters really work. It will be really interesting to see the Study information more than anything and to see how the numbers work out.



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CAC MEMBER CLOSING COMMENTS *(continued)*

5. I've really enjoyed these meetings and learning more about the Water District and its plans.
6. I'm learning a lot about water meters and appreciate the staff bringing the information down to an understandable level presented in lay-person's terms. I also appreciate the thorough and understandable answers. It will be interesting to learn the results from the Consortium.
7. My takeaway from tonight is that the District may not change the water meters and that the meters may be able to go for a few more years. I like that and that you haven't set this in stone and will work through all the numbers. With Project 2030 hanging over customers, I like that you're thinking that this may not go unless it's absolutely needed.
8. I agree with everything that everyone else has said.
9. I came into this meeting expecting scary worksheets of numbers. Instead, you made the concepts really simple and easy to understand. I'd appreciate more visuals and maps. You've done a great job tonight.

PUBLIC COMMENTS

None

CLOSE

CAC Chair Jenna Moser thanked the CAC members, District staff, and consultants for their participation and adjourned the meeting at 8:54 pm.