

**REGULAR MEETING AGENDA OF THE
CUSTOMER ADVISORY COMMITTEE OF
CITRUS HEIGHTS WATER DISTRICT (CHWD)
WEDNESDAY, MARCH 11, 2020 beginning at 6:30 PM**



**CITRUS HEIGHTS COMMUNITY CENTER
6300 FOUNTAIN SQUARE DRIVE, CITRUS HEIGHTS, CA**

In compliance with the Americans with Disabilities Act, if you have a disability and need a disability-related modification or accommodation to participate in this meeting, please contact the General Manager at (916) 725-6873. Requests must be made as early as possible, and at least one full business day before the start of the meeting.

Customer Advisory Committee meetings are video recorded, and available for web streaming at www.chwd.org and www.youtube.com.

CALL TO ORDER:

ROLL CALL OF COMMITTEE MEMBERS:

PLEDGE OF ALLEGIANCE:

PUBLIC COMMENT:

The Public shall have the opportunity to directly address the Customer Advisory Committee on any item of interest to the public before or during the Committee's consideration of that item pursuant to Government Code Section 54954.3. Public comment on items of interest within the jurisdiction of the Committee is welcome. The Committee Chair will limit comments to three (3) minutes per speaker.

REVIEW AND REORDERING OF THE AGENDA:

Agenda items may be moved to accommodate those in attendance wishing to address that item. Please inform staff at (916) 725-6873 or at cac@chwd.org, if you feel that you may need an accommodation.

(A) Action Item

(D) Discussion Item

(I) Information Item

BUSINESS:

B-1. Approval of Project 2030 Meeting #8 Summary – September 10, 2019 (A)

B-2. Approval of Water Meter Replacement Program Meeting #1 Summary – October 23, 2019 (A)

B-3. Update on the Water Meter Replacement Program Planning Study and Presentation of New Technology Options (I/D)

1. Receive technical information presented on March 11, and provide feedback on new water meter technologies.

COMMITTEE MEMBERS' AND FACILITATOR REPORTS:

- C-1. Facilitator's Report (I)
- C-2. Committee Members' Reports (I)

FUTURE CHWD COMMUNITY ADVISORY COMMITTEE MEETING DATES:

June 3, 2020 6:30 PM Regular Meeting

ADJOURNMENT:

CERTIFICATION:

I do hereby declare and certify that this agenda for this Regular Meeting of the Customer Advisory Committee of the Citrus Heights Water District was posted in a location accessible to the public at the District Administrative Office Building, 6230 Sylvan Road, Citrus Heights, CA 95610 and the Citrus Heights Community Center, 6300 Fountain Square Drive, Citrus Heights, CA 95610 at least 72 hours prior to the regular meeting in accordance with Government Code Section 54954.2.



Madeline Henry, Acting Sr. Management Services
Specialist/Chief Board Clerk

Dated: March 5, 2020



Customer Advisory Committee Meeting #8 Summary

Tuesday, September 10, 2019, 6:30-9:30 pm

INTRODUCTION

Jenna Moser, Chair of the Customer Advisory Committee (CAC), called the meeting to order at 6:33 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. Public Comment
2. Introductions
3. Approve minutes of June 11, 2019 CAC Meeting #7
4. Review of the Project 2030 Phasing and Implementation
5. Project 2030 Recap, including Recommendation to the Board and Next Steps
6. Preview of the Meter Replacement Project
7. Public Comment
8. Clarify Next Steps
9. Recognize Retiring CAC Members
10. 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.



Customer Advisory Committee Meeting #8 Summary

Tuesday, September 10, 2019, 6:30-9:30 pm

ATTENDEES

CAC Members:

Kimberly Berg	Commercial Representative
Julie Beyers	Residential Representative
Ray Bohlke	Residential Representative
Deborah Cartwright	Residential Representative
Katherine Cooley	Institutional Representative
Wes Ervin	Commercial Representative
Michael Goble	Residential Representative
Suzanne Guthrie	Residential Representative
Andrew Johnson	Residential Representative
Doug MacTaggart	Residential Representative
Bren Martinez	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 and CAC Vice Chair
Mike Nishimura	Commercial Representative
Ray Riehle	CHWD Director

Unable to attend were:

Patti Catalano	Residential Representative
David Paige	Residential Representative
Aimee Pfaff	Residential Representative
Peg Pinard	Residential Representative
Cyndi Price	Institutional Representative
Chris Ralston	Institutional Representative
Javed Siddiqui	Residential Representative
Noe Villa	Institutional Representative

CHWD Staff and Board:

Tamar Dawson	Assistant Engineer
Paul Dietrich	Project Manager
David Gordon	Director of Operations
Madeline Henry	Management Analyst and Acting Chief Board Clerk
Rex Meurer	Water Efficiency Supervisor
Missy Pieri	Director of Engineering /District Engineer
Hilary Straus	General Manager
Susan Talwar	Director of Finance and Administrative Services

Consultants:

Andrew MacDonald	Harris & Associates
Michael McCormick	Harris & Associates
Eric Vaughan	Harris & Associates
Habib Isaac	Raftelis Financial Consultants, Inc.
Laura Mason-Smith	Mason-Smith Success Strategies
Roger Kohne	Technical Support



Customer Advisory Committee Meeting #8 Summary

Tuesday, September 10, 2019, 6:30-9:30 pm

PUBLIC COMMENT

None.

APPROVAL OF JUNE 11, 2019 CAC MEETING #7 MINUTES

Michael Gobel made a motion to approve the June 11, 2019 meeting minutes. Julie Beyers seconded the motion. The minutes of the June 11, 2019, CAC Meeting #7 were unanimously approved without comments or changes.

CAC PROCESS OVERVIEW

Missy Pieri, District Engineer and Project 2030 Manager, provided an overview of where the CAC is in the Project 2030 process and outlined what is still to come. Missy also thanked the CAC members for their ongoing thoughtful and active participation in the process.

REVIEW OF PROJECT PHASING AND IMPLEMENTATION

Andrew MacDonald, of Harris & Associates, provided an overview of Project 2030 Phasing and Implementation which included:

1. Project 2030 building blocks
2. The Preferred Alternative
3. The Project Phasing Plan, as outlined in Technical Memo No. 6
4. The Project Implementation Plan, as outlined in Technical Memo No. 7

Questions of clarification were answered throughout the presentation.

PROJECT 2030 RECAP

Andrew MacDonald, of Harris & Associates, provided a Project 2030 recap, and Habib Isaac, of Raftelis Financial Consultants, Inc. reviewed the Project's funding analyses, considered alternatives, and CAC recommendation to the Board. Questions of clarification were answered throughout the presentations.



Customer Advisory Committee Meeting #8 Summary

Tuesday, September 10, 2019, 6:30-9:30 pm

METER REPLACEMENT PROJECT PREVIEW

CHWD General Manager Hilary Straus introduced the Meter Replacement Program and the twelve-agency Regional Consortium that was initiated by and is being managed by Citrus Heights Water District. David Gordon, CHWD Director of Operations and overall Meter Replacement Program Project Manager, provided background information on the Project. Eric Vaughan, Harris & Associates' Project Manager, reviewed the:

1. Consultant team,
2. Seven phases of the Advanced Planning Study,
3. Project schedule,
4. High-level agenda for the Project's CAC Meeting #1, scheduled for Wednesday, October 23, 2019, at 6:30 pm, and
5. The benefits and importance of the Regional Consortium.

David Gordon reiterated that the purpose and importance of the CHWD Customer Advisory Committee (CAC) will be to provide:

1. Valuable input from the end users of the equipment,
2. Involvement in the long-range financial planning for the meter testing and replacement program, and
3. Involvement in the public engagement component of the study.

PUBLIC COMMENT

None

RECOGNITION OF RETIRING CAC MEMBERS

Director Riehle gave special thanks to the CAC members for their tireless work and invaluable input as part of the Committee and recognized retiring CAC members Bren Martinez, David Paige, Peg Pinard, and Aimee Pfaff.

CLOSE

CAC Chair Jenna Moser thanked the CAC members, District staff, and consultants for their participation and adjourned the meeting at 8:53 pm.



PROJECT 2030
WATER MAIN REPLACEMENT



Customer Advisory Committee Meeting #8 Summary

Tuesday, September 10, 2019, 6:30-9:30 pm

APPROVED:

MADELINE HENRY
Deputy Secretary
Citrus Heights Water District

JENNA MOSER, Chair
Customer Advisory Committee
Citrus Heights Water District

DRAFT

Customer Advisory Committee Meeting #1 Summary

Wednesday, October 23, 2019, 6:30-9:30 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 and Brief Intro's
3. Public Comment
4. Meter Replacement Program Overview
5. Water Meter Overview
 - Background
 - New Meter Technologies
6. CAC Input on New Water Meter Technology Preferences
7. Preview of CAC Meeting #2 on March 11, 2020
8. Clarify Next Steps
9. Public Comment
10. 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.

Customer Advisory Committee Meeting #1 Summary

Wednesday, October 23, 2019, 6:30-9:30 pm

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 Moore	Residential Representative
Richard Moses	Residential Representative and CAC Vice Chair
Mike Nishimura	Commercial Representative
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 Montenton	Residential Member
Cyndi Price	Institutional Representative
Chris Ralston	Institutional Representative
Pamela Schultz	Residential Representative
Javed Siddiqui	Residential Representative
Noe Villa	Institutional Representative
Debra Walker	Residential Representative

CHWD Staff and Board:

Tim Cutler	Water Distribution Supervisor
David Gordon	Director of Operations
Madeline Henry	Acting Senior Management Analyst/Deputy Board Clerk
Rex Meurer	Water Efficiency Supervisor
Brittany Moore	Acting Management Analyst/Deputy Board Clerk
Ray Riehle	CHWD Director
Rebecca Scott	Senior Management Analyst
Hilary Straus	General Manager
Susan Talwar	Director of Finance and Administrative Services

Consultants:

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

Customer Advisory Committee Meeting #1 Summary

Wednesday, October 23, 2019, 6:30-9:30 pm

PUBLIC COMMENT

None.

APPROVAL OF SEPTEMBER 10, 2019, CAC MEETING #8 MINUTES

Due to the lack of a quorum, the minutes of the September 10, 2019, CAC Meeting #8 will be held for approval at the Meter Replacement Program (MRP) CAC Meeting #2 on March 11, 2020.

METER REPLACEMENT OVERVIEW

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

1. General overview
2. Study purpose and development:
 - a. The Meter Replacement Program Consortium and its importance
 - b. The benefits of being part of the Consortium
3. The relationship between the Consortium, Citrus Heights Water District, and the Customer Advisory Committee (CAC)
4. The seven stages of the Planning Study and schedule
5. The importance and involvement of the District's CAC in the Meter Replacement Program Planning Study

WATER METER OVERVIEW

Rex Meurer, District Water Efficiency Supervisory, provided background on the District's water meters:

1. How water usage is measured
2. District meter history
3. Why water agencies use meters
4. Specifics of metering
 - a. Meter components
 - b. Reading a meter
 - c. Meter data transmitted to billing
5. Regulatory requirements

Customer Advisory Committee Meeting #1 Summary

Wednesday, October 23, 2019, 6:30-9:30 pm

NEW TECHNOLOGIES OVERVIEW

Eric Vaughan, Harris & Associates Project Manager, provided an overview on meter types and technologies:

1. District meter types
2. Consortium meter types, ages, and numbers
3. New technology advantages and disadvantages

QUESTIONS AND ANSWERS

Q1: Who will be the lead agency of the Consortium?

A1: *CHWD was the first agency to start the process and is the lead agency.*

Q2: Who is part of the Consortium?

A2: *CHWD, Fair Oaks Water District, Orange Vale Water Company, Sacramento Suburban Water District, Sacramento County, City of Sacramento, City of Folsom, Carmichael Water District, Golden State Water Company, Placer County Water Agency, Regional Water Authority, and San Juan Water District.*

Q3: Explain the math. Why are the numbers of meters inconsistent with the population of the City of Citrus Heights?

A3: *CHWD's boundaries overlap the City of Citrus Heights by about two thirds, so the Water District is not the City of Citrus Heights. The District also extends out to parts of Orangevale, Fair Oaks, Roseville, and Placer County. We service approximately 67,000 people, or approximately 3.5 people per water meter.*

Q4: How does the District replace a water meter; is it plug and play?

A4: *When the District replaces water meters that have already been installed, it is a relatively simple process that is essentially plug and play. Depending on the register type, it could be a little more complicated if the meter has AMI, or Automated Meter Infrastructure.*

Q5: Do any of the other agencies have an equivalent of the CAC?

A5: *No, there is no Customer Advisory Committee for the other agencies.*

Customer Advisory Committee Meeting #1 Summary

Wednesday, October 23, 2019, 6:30-9:30 pm

QUESTIONS AND ANSWERS *(continued)*

Q6: Can CHWD use a smart phone/device app to track customer usage?

A6: *Yes, it is possible. However, in order to do that the meter reading platform would need to be AMI that does not have to be read manually and allows two-way communication between the meter and the District and its customers.*

Q7: Would some new technology meters mitigate time loss for locating meters?

A7: *The District has maps that show the location of every meter at every property. However, one thing CHWD will be looking at over the next five years is to GPS all of our facilities that are out in the field, not just water meters. The District has relatively good accuracy within about two to three feet, but GPS would allow us to know within one to two inches.*

Q8: How do economies of scale apply to testing?

A8: *Some of the neighboring agencies have invested in test bench facilities to be able to take meters out of the ground and accurately test them in a controlled environment rather than in the field, which may be less accurate. CHWD thinks that by partnering with several of these agencies who have already invested in a test bench facility, there can be economies of scale through the use of their facilities rather than each agency building their own test bench. That is a possibility CHWD wants to look at as part of the study.*

Q9: Is the District spending an inordinate amount of time leading the Consortium without being reimbursed for time spent?

A9: *There are some staff time and materials for the project management, but it is a major benefit for the District to be able to manage the process and have 12 experts in the room at one time who are not tied to any particular vendor. And, the other agencies are sharing in the costs for the study. By participating in the consortium, the District is saving approximately \$300,000 on the cost of the advanced planning study. CHWD can also work with people we don't normally work with, and this will provide other opportunities to partner in the future that will have unimaginable benefits that we can't even foresee now. CHWD sees this as a real opportunity to gain many more benefits in the future.*

Customer Advisory Committee Meeting #1 Summary

Wednesday, October 23, 2019, 6:30-9:30 pm

QUESTIONS AND ANSWERS (continued)

Q10: How do installation costs and rates vary depending on meter type?

A10: *Installation costs do vary, and the newer technology is slightly more. There are some meter manufacturers who are not using brass products and are using PVC instead, which drops the price. Some agencies have chosen to go with some less expensive products that may be experiencing some related problems. The labor is basically the same for each type of meter.*

Q11: Is water used in fire sprinklers before and after water meters, and is it metered?

A11: *Fire sprinkler systems have a dedicated connection and are individually metered so that the District can capture those flows, either during testing or during an actual fire.*

Q12: Is it possible to take advantage of future 5G installations for future monitoring?

A12: *Yes, it is possible, and this is something that some agencies are really jumping on. However, there is a warning in that some of the agencies went to 3G when it came out; then, once that platform was purchased by our armed forces, it was no longer available and those agencies' 3G networks are being phased out. Therefore, which network used and the implications to the District are something to consider. FYI, 3G, 4G, and 5G are generations of cell technology.*

Q13: How can meters fail?

A13: *There are a few different ways that meters can fail. There can be an obstruction in the meter that is physically stopping the meter from reading or reading accurately. There also can be failures on the registers. If a meter is physically damaged, for example by someone doing some landscaping, it would be replaced with a new meter.*

Q14: Can you dispel smart meters' bad reputations for accuracy?

A14: *There is a lot of misinformation about smart meters. The technology is getting more and more reliable and is progressing, or getting "smarter."*

Q15: Is there any other agency that has attempted this kind of process for meter replacement, and are you able to use their lessons learned?

A15: *Yes, most of the Consortium agencies have already performed some kind of meter replacement study. And, all the agencies believe they can gain a lot through understanding each other's experiences.*

Customer Advisory Committee Meeting #1 Summary

Wednesday, October 23, 2019, 6:30-9:30 pm

QUESTIONS AND ANSWERS *(continued)*

Q16: When will the District go from 90% touch to 90% auto-smart meters?

A16: *That is the basis of this study. CHWD is heading in that direction, with about 5 percent of our meters having the ability to be smart meters, but the study will help us determine whether we should expand this technology to all our meters.*

Q17: Can we just go back to the old, simple style meter rather than advanced technologies?

A17: The study will help CHWD assess this option.

Q18: Regarding the testing facility, will that be used for testing refurbished meters, or spot checking each batch purchased, or is there 100% testing of all purchased meters?

A18: *Testing 20,000 meters would not be cost efficient, so testing will be in batches and ongoing to determine how meters are running consistently throughout their life cycle. Through the study, we are looking forward to developing best management practices for testing meters consistently throughout their life cycle.*

CAC INPUT ON NEW WATER METER TECHNOLOGY PREFERENCES

The CAC members met in two discussion groups to review the potential advantageous features of new water meter technologies. After discussing the features, they indicated which features they believed District customers would find most useful.

The potential advantageous features that the groups believed customers would find most useful are:

1. More proactive leak detection and being able to notify customers about leaks (both groups)
2. Water usage tracking and historical data (both groups)
3. Making water demand forecasting more accurate (one group)
4. Data storage and customer access to their data to make decisions on usage (one group)
5. Online portal and an app for a phone/computer (one group)

They also discussed that the District would have to weigh the costs and benefits for all alternatives.

CAC PROCESS AND LOGISTICS OVERVIEW *(continued)*

Customer Advisory Committee Meeting #1 Summary

Wednesday, October 23, 2019, 6:30-9:30 pm

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

Workshop #2: March 11, 2020, 6:30-9:15 pm, Citrus Heights Community Center
Technology Analysis Regional-Level Investment Analysis Testing Program Options
Workshop #3: June TBD, 2020, 6:30-9:15 pm, Citrus Heights Community Center
Testing Program Analysis Regional Pilot Program Options Strategy for Implementation
Workshop #4: August TBD, 2020, 6:30-9:15 pm, Citrus Heights Community Center
Implementation Strategy Options Phasing Strategy Financial Options
Workshop #5 January TBD, 2021, 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. Excited that the District is spearheading the Consortium, is driving a historical process as a model for other districts and will be able to share costs. Well done, CHWD!
2. Like the idea that we're part of the Consortium.
3. The Consortium is beneficial because 12 heads are better than one. It will be interesting to see more information about the meters, warranties available, and costs. Also, it will be interesting to see what governmental regulations will be in the future.

Customer Advisory Committee Meeting #1 Summary

Wednesday, October 23, 2019, 6:30-9:30 pm

4. I'm amazed with how many different kinds of things there are to deal with in all of this. Meter replacement sounds simple, but there are so many things to deal with.
5. I'm amazed at the information we received today about the meters, how many different kinds of meters exist, and the possibilities for data collection. With our two discussion groups tonight, we pretty much came up with the same item we felt was most important, which was leak detection. Also, I hope as part of a process of replacing meters, that the four-by-four squares will be removed from the driveways and replaced by full panels, which will make customers happier.
6. I came away learning several things. I expected to learn about several types of meters but I didn't expect that there would be that many and that they would be so varied. From the equipment display, I learned that meter testing ensures that the water amounts flowing through are accurate, which is nice to see. Also, it's interesting to learn that there is both meter technology and meter-reading technology, which was new to me.
7. I'm anxious to learn more about the technology and the analysis of choices and costs.
8. I think it's amazing that the District is leading the Consortium, and the value of getting 12 agencies together in one room talking is an amazing feat. Being able to apply lessons learned by other agencies in the long run will really pay for the Consortium.
9. I am very proud that the District is at the head of the Consortium, and everyone should know about this. There are benefits now to the District of being part of the Consortium and benefits that will come to the District over a long period of time, solving problems that come forward, building camaraderie, and opening communication lines.

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.

CITRUS HEIGHTS WATER DISTRICT

DISTRICT STAFF REPORT TO CUSTOMER ADVISORY COMMITTEE OF THE CITRUS HEIGHTS WATER DISTRICT MARCH 11, 2020 REGULAR MEETING

SUBJECT : UPDATE ON THE WATER METER REPLACEMENT PROGRAM PLANNING STUDY AND PRESENTATION OF NEW TECHNOLOGY OPTIONS

STATUS : Action Item

REPORT DATE : March 5, 2020

PREPARED BY : David Gordon, Director of Operations
Rebecca Scott, Senior Management Analyst

OBJECTIVE:

Receive an update on the Water Meter Replacement Planning Study (current status and next steps), and receive an in-depth presentation of new water meter technology options.

BACKGROUND AND ANALYSIS:

Due to an aging inventory of water meters, the Citrus Heights Water District (CHWD) and other water providers in the area are examining how best to replace meters on an ongoing basis. For efficiency, CHWD and 11 additional local water agencies created a Consortium, and agreed to study how to phase, cost, fund and integrate their water meter replacement programs through a Regional Water Meter Replacement Study (Study).

The Study includes the following phases:

- Phase 1: Individual Agency Assessment
- Phase 2: Next Generation Program Options
- Phase 3: Meter Testing Program Strategy
- Phase 4: Implementation Strategy
- Phase 5: Long-Term Planning
- Phase 6: Final Report/Plan Adoption
- Phase 7: Public Outreach

Harris & Associates is completing Phase 2: Next Generation Program Options, and is now working on Phase 3: Meter Testing. The first two technical memorandums are detailed, lengthy documents that are currently still in draft form being reviewed by the Study's Technical Advisory Committee made up of Consortium agencies' meter program staff. The memos will be available for public review once finalized.

The Phase 2 Technical Memorandum will include a detailed narrative describing relevant meter technology trends and a comprehensive breakdown of technology and vendor options. On March 11, the information in the Phase 2 Technical Memorandum will be presented at a high level at the Customer Advisory Committee (CAC) meeting, and will provide foundational information to CAC members as their input will be solicited on March 11 and later in the Study.

RECOMMENDATION:

Receive technical information presented on March 11, and provide feedback on new water meter technologies.