



**BOARD OF DIRECTORS
EAST BAY MUNICIPAL UTILITY DISTRICT**

375 - 11th Street, Oakland, CA 94607

Office of the Secretary: (510) 287-0440

Notice of Special Meeting

Long-Term Financial Stability Workshop

Tuesday, November 28, 2017

8:30 a.m.

Training Resource Center

375 Eleventh Street

Oakland, California

At the call of President Lesa R. McIntosh, the Board of Directors has scheduled a Long-Term Financial Stability Workshop for 8:30 a.m. on Tuesday, November 28, 2017. The meeting will be held in the Training Resource Center of the Administration Building, 375 - 11th Street, Oakland, California.

The Board will meet in workshop session to receive information on the District's water system long-term financial planning tool and customer bill affordability.

Dated: November 22, 2017

A handwritten signature in blue ink, reading 'Rischa S. Cole', is written over a horizontal line.

Rischa S. Cole
Secretary of the District



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EAST BAY MUNICIPAL UTILITY DISTRICT**

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AGENDA
Tuesday, November 28, 2017
Special Meeting
Long-Term Financial Stability Workshop
8:30 a.m.
Training Resource Center
375 Eleventh Street
Oakland, California

ROLL CALL:

PUBLIC COMMENT: The Board of Directors is limited by State law to providing a brief response, asking questions for clarification, or referring a matter to staff when responding to items that are not listed on the agenda.

DISCUSSION:

1. Staff presentation on EBMUD's water system long-term financial planning tool and customer bill affordability.

ADJOURNMENT:

Disability Notice

If you require a disability-related modification or accommodation to participate in an EBMUD public meeting please call the Office of the Secretary (510) 287-0404. We will make reasonable arrangements to ensure accessibility. Some special equipment arrangements may require 48 hours advance notice.

Document Availability

Materials related to an item on this Agenda that have been submitted to the EBMUD Board of Directors within 72 hours prior to this meeting are available for public inspection in EBMUD's Office of the Secretary at 375 11th Street, Oakland, California, during normal business hours.

EAST BAY MUNICIPAL UTILITY DISTRICT

DATE: November 22, 2017

MEMO TO: Board of Directors

FROM: Alexander R. Coate, General Manager *Amc*

SUBJECT: Board Workshop on Long-Term Financial Planning Tool and Affordability

SUMMARY

Staff has scheduled three planned Board workshops to address aspects of the District's Long-Term Financial Stability: Workshop No. 1 on November 28, 2017; Workshop No. 2 on January 23, 2018; and Workshop No. 3 on February 27, 2018. These workshops will address in sequence: the District's new long-term financial planning tool and affordability for ratepayers; the State's Low-Income Rate Assistance Program, the EBMUD Customer Assistance Program (CAP), District payment plans and deposits; and District shutoffs, key performance indicators, water use efficiency, outreach, education, and partnerships.

At the first workshop on November 28, staff will introduce a 20-year Water System financial tool recently developed as part of the District's Long-Term Financial Stability effort. This financial model will be used to forecast the interrelated long-term implications of the Capital Improvement Program (CIP), financial policies, water sales projections, and drought planning scenarios. The second half of the workshop will examine the affordability of EBMUD's customer bills, a concern raised at recent Board meetings. Staff has analyzed the relative affordability of customer bills across the full spectrum of service area household incomes, and has concluded that for the vast majority of the District's customers, the bills are affordable (representing less than 4.5 percent of their household income). Billing statistics also show that over 99 percent of ratepayers are able to regularly pay their EBMUD bills. However, for a small subset of low-income customers, the bills may be less affordable.

At the workshop, staff will also review several elements of the District's current billing approach that may impact customers' perception of the District's rates and fees. Staff has also identified and completed preliminary analyses of several options that could reduce the financial burden of District services for low-income customers. While these options may have benefits, many of these options have definitive or potential significant downsides, which will be addressed in this memo and in the attached presentation planned for the November 28 workshop.

DISCUSSION

Long-Term Financial Stability

One of the District's six Strategic Plan goals is Long-Term Financial Stability. Beginning in 2014, staff has conducted six workshops addressing how the District can achieve long-term financial stability goals. A key component of achieving long-term financial stability goals is to analyze long-term financial forecasts of key financial policy metrics under various scenarios. During the past year, staff has been developing a 20-year Water System financial planning model that can be used to make long-term financial forecasts. Building on data generated and maintained in multiple sections of the District, as well as Board policies on working capital, share of volumetric revenue, and debt funding and debt service coverage; and informed with current and past practices, the forecasting tool demonstrates the challenges and feasibility of different implementation scenarios over a 20-year period.

At the workshop, the basic data incorporated in the model will be explained, along with the considerations that affect results, and how conclusions can be drawn. A few sample scenarios were run and will be explored at the workshop: one for current practices, one for less debt funded capital, and one for a multi-year drought scenario. Staff will present how beginning in FY22 the District can meet current projected CIP spending with 4 to 6 percent rate increases following a 65 percent debt funded capital plan and 1.60 debt service coverage ratio approach. To achieve a 50 percent debt funded capital and 2.0 debt service coverage ratio, the rate increases would have to be 4 to 7 percent. The benefit of the latter approach is that lower debt levels allow the District to ease the financial burden of reduced water sales during and after droughts by issuing more debt.

The workshop will also provide a brief review of District water system capacity charges (SCC). As a large independent special district, EBMUD's SCC is designed to recapture all the costs of bringing new development to the system. As a result, they appear larger than those of cities or counties that recapture their costs through other revenues such as sales tax. Recently, the Board and staff have been approached about considering a different approach to charging SCCs for very small housing units designed to support more housing for homeless people. In support of these efforts, staff has researched these "Micro Units" and recommends a pilot program to take these units out of the Multi-Family Residential SCC category in which they currently fall and review their water use for ultimate creation of a more specific SCC for these units.

Affordability Analysis

Before discussing potential options to address concerns over affordability, it is important to assess the current affordability of the District's services. The most widely used test of water and wastewater affordability is a comparison of the cost of these services to median household income (MHI). The United States Environmental Protection Agency maintains that annual water and wastewater bills within an area are affordable if the cost is no more than 2.5 percent and 2 percent, respectively, of that area's MHI. This method of evaluating affordability takes into

account that, by definition, half of the households in any given geographic area will earn less than the median income. By this measure, the District's bills are quite affordable. The total District bill, including District water and wastewater services as well as city and agency sewer collection service charges, amounts to just 2.2 percent of the MHI in Alameda County and 1.9 percent in Contra Costa County. This is less than half of the combined 4.5 percent that is used as the industry standard for affordability.

Staff reviewed several scenarios to assess, in practical terms, the affordability of the District's water and wastewater services. For simplicity, all of these scenarios assume a household of three people. Staff modeled water use for this household at both 'typical' and 'basic needs' levels. For basic needs, staff used the World Health Organization's (WHO) definition of sufficient water per person for drinking, personal sanitation, washing clothes, food preparation, and personal and household hygiene. The WHO identifies approximately one hundred cubic feet (1 CCF) of water per month per person as being sufficient for these purposes. For the analysis that follows, staff assumed one CCF of water per month per person, which is approximately 25 gallons per person per day. In addition to basic needs, staff examined the affordability of more typical usage. Although typical usage levels in the District's service area vary significantly, staff used three CCF per person per month as the assumption for 'typical' use.

Basic Needs versus Typical District-only Costs

Using these assumptions, at a level of water use that satisfies basic needs, District-only combined water and wastewater services cost \$1.66 per day for a household of three. Of this amount, \$1.08 per day pays for water service alone, with the remaining \$0.58 paying for the District's wastewater treatment service. At a typical usage level, the same household size would use three times the amount of water at a total cost of \$2.65 per day. Of this total amount, \$1.85 would pay for water service alone, with the remaining amount covering wastewater treatment service.

Agency Billing Impacts

While \$1.66 per day intuitively seems affordable for both wastewater treatment and water use sufficient to meet a three person family's basic needs, the total amount due on a customer's bill may not be seen as such. One important factor is that for customers living in Oakland, Berkeley, and Emeryville, their city's sewer collection service charge is added to the bill. In the basic needs scenario, the \$1.66 that the District's services cost amounts to a little over \$50 per month, but this same household in Oakland will see total monthly charges on EBMUD's bill of nearly \$88 per month. This is due to the District including a \$37.57 monthly sewer collection service charge on its bills on behalf of the City of Oakland. For this household of three using the basic needs level of water, 41 percent of their bill is for the City of Oakland sewer collection service charge.

For a household of three in Berkeley with typical water use, the \$2.65 per day they pay for District services amounts to \$80.54 per month. However, this household would pay an additional \$50.76 per month for the City of Berkeley's sewer collection service charges, bringing the total monthly bill to \$131.30. It is important to keep in mind that these examples of bills still amount to just 2.2 percent of the MHI for Alameda County, well below the 4.5 percent national standard.

Bimonthly Bill Perception

In addition, the District bills residential customers on a bimonthly basis. The Oakland household that uses water for basic needs only will receive a bimonthly bill of more than \$175 and the Berkeley family with typical water use would receive a bimonthly bill of more than \$262. This undoubtedly has the effect of altering the perception of the affordability of the District's water and wastewater services. The two tables below show an EBMUD bill broken down by EBMUD water and wastewater charges with sewer collection service charges for Oakland and Berkeley for the basic need and typical use customers.

Use	EBMUD Monthly			Oakland Sewer	Total Daily Bill	Total Monthly Bill	Total Bimonthly Bill
	Water	Wastewater	EBMUD Total				
Basic Need 3 CCF	\$32.95	\$17.47	\$50.42	\$37.57	\$2.89	\$87.99	\$175.98
Typical 9 CCF	56.23	24.31	\$80.54	\$37.57	\$3.88	\$118.11	\$236.22

Use	EBMUD Monthly			Berkeley Sewer	Total Daily Bill	Total Monthly Bill	Total Bimonthly Bill
	Water	Wastewater	EBMUD Total				
Basic Need 3 CCF	\$32.95	\$17.47	\$50.42	\$16.92	\$2.21	\$67.34	\$134.68
Typical 9 CCF	56.23	24.31	\$80.54	\$50.76	\$4.31	\$131.30	\$262.60

Billing Statistics

The District issues over two million customer bills per year, of which approximately 12 percent become delinquent. The District follows a standard delinquent process which informs customers of the status of their account, action needed to avoid service shut-off, and directions to contact the District if they are experiencing difficulty paying their bill. As these delinquent accounts advance closer to service termination, the number of delinquencies significantly decreases. For Fiscal Year 2017 (FY17), 99.5 percent of all bills were paid or have established District payment plans to avoid service shut-off.

A service is shut-off when the customer has not taken action on their account and is generally more than 90 days overdue. On average approximately 50 shut-offs occur per day for a variety of reasons: late payments, financial difficulties, traveling, customer moved, etc. The number of shut-offs for customers who participate in the District's CAP is only one per day. Once a service is shut-off, almost 90 percent contact the District within 12 days to pay or establish a payment plan to restore service. Staff work closely with customers and approve 16,000 payment plans each year. The District's extended delinquent process, payment plans and CAP help customers maintain service, and result in a very low number of shut-offs.

Affordability Considerations

The affordability analysis above shows that while District charges for water and wastewater services are affordable for the majority of customers, there are several aspects of the charges and bill that have direct impacts on affordability. In addition, bimonthly billing and the collection of other city and agency sewer collection service charges on the District's bill affects affordability. The presentation at the November 28 workshop will examine three areas: 1) EBMUD billing practices; 2) Billing for outside agencies (city and agency sewer collection service charges); and 3) the EBMUD rate structure. Other EBMUD issues that impact affordability such as the CAP, bill payment program, customer deposits, delinquent payment and shut-off processes will be reviewed in subsequent Board workshops.

EBMUD Billing Practices

The District currently bills the majority of customers on a bimonthly basis but some large commercial and a few high-use residential accounts are billed on a monthly basis. The District sends out over two million bills per year or almost 9,000 bills per day. Customers who receive a bimonthly bill have their meter read approximately every 60 days. To generate and process bimonthly bills, the District employs 39 meter readers, 14 field services staff and 26 office staff. The District also spends approximately \$1 million per year on postage and mailing materials as well as about \$150,000 per year for electronic payment processing. These costs do not include the customer service staff at the call center. Any significant change to the billing and collection practice will have a direct impact on the billing and support costs. Detailed below are three proposed changes to customer billing practices that will be presented at the workshop.

1) Monthly Billing

Converting to monthly billing would change the District's billing frequency and delinquent process from bimonthly to monthly for all customers. Monthly billing may mitigate the difficulties customers have in paying a larger bimonthly bill, customers may be alerted to high consumption more quickly, and shorter billing periods may result in improved cash flow. However, true monthly billing would require a physical meter read every month, instead of our current practice of only reading meters every 60 days.

Monthly billing using monthly meter reads would double the staff and resources required to read meters monthly, respond to field requests, customer bill inquiries/read exceptions, and additional staff required to process the additional payments. This option would also require the District to purchase additional equipment, paper and postage. The total estimated cost of this alternative is \$10.2 million annually. Because of the level of expense, staff does not recommend this alternative at this time. The District is currently piloting technology allowing meter reads to be obtained on demand through automated meter infrastructure (AMI), which does not require staff to physically go out to read the meter. While the cost to install AMI would be higher, it could incorporate cost of a transition to monthly billing. Hence staff

recommends monthly billing be evaluated at a later time when the District converts to automated meters.

An alternative would be for the District to estimate every other month's water use from a customer's past use history and make adjustments when the meter is actually read every 60 days; this process is called estimated reads. Monthly billing using estimated meter reads does not require doubling of the meter reading staff but will require additional staff to process the additional payments as well as to respond to field requests and customer bill inquiries/read exceptions. This option would also require the District to purchase additional equipment, paper and postage too for an estimated cost of \$6.7 million annually. Because of these expenses and the anticipated complaints about estimated reads, staff does not recommend this alternative.

A move to either of these monthly billing practices has drawbacks primarily from added billing costs. Note that currently, customers with District approved payment plans make monthly installment payments. Budget-minded customers also have the option to pay smaller monthly amounts in advance during their bimonthly billing period. Additional customer education on this option is planned for a future Customer Pipeline article and for the District's website.

2) Bimonthly bill with two payment stubs

Another alternative to monthly billing is to keep the current bimonthly billing and overdue process but provide customers with two payment stubs to pay in installments, similar to the county statements for property taxes. This option only provides a mechanism for customers to pay monthly, but no incentive for them to pay early.

To implement this option, additional staff would be needed to process the increased customer payments. Anticipated customer issues could increase staff time, e.g., misplaced payment stubs, delayed payments, researching payments received without stubs, and lien processing for multi-family accounts. Additionally, modifications will be required to the billing system and increased paper supplies for an estimated annual cost of under \$1 million. Because of high potential for customer confusion and an increase in potential for missed payments, staff does not recommend this alternative.

3) Fixed District Charges on the Property Tax Bill

Staff researched placing fixed District charges on the property tax bill so that customers who are not the property owner would not directly pay EBMUD for the fixed portion of the bill. To place fixed District charges on the property tax bill would be a major change to the way the District bills its customers. To comply with legal requirements, this alternative would require the property owner to become the customer of record for all water charges, with the fixed charges being collected on the property tax bill and volume charges collected via

bimonthly bills. More specifically, the Municipal Utility District (MUD) Act Section 12822.6 prohibits the District from recovering “any charges or penalties” from the property owner for a tenant’s nonpayment of charges when the account is in the tenant’s name. Therefore, to make the property owner responsible for the water service charges, the District would have to require the property owner to be the customer of record. The disadvantage of this approach is that without a direct billing for water use, the tenant would have less incentive to monitor water use or to conserve.

Although this alternative could help tenants with water affordability, this has a significant impact on property owners and landlords who may contest this change. In addition, changes would be necessary to multiple District regulations and information systems including billing and geographic information systems. The billing system would need to be revised and reconciled with county database records which has been challenging in the past.

A temporary increase in staff would be necessary to address issues related to the substantial changes to billing. There would also be the added cost related to Contra Costa County charging 1.7 percent and Alameda County charging \$0.76 per parcel. The estimated one time implementation cost is under \$1 million. The estimated additional yearly cost is approximately \$1.5 million. Because MUD Act prohibitions would necessitate that all property owners become the customer of record on the entire water bill regardless of landlord-tenant arrangements, and because of the challenges associated with matching the account service address information with the county parcel address information, this alternative is not recommended.

4) Revise Presentment of Bimonthly Bill

The format and information presented on the current bimonthly bill could be revised to better highlight that the bill is for a two-month period and that a portion of the total is for non-EBMUD city and agency sewer collection service charges. Currently, the bill shows the billing start and end dates and has a line item for the city sewer collection service charge, but these are not emphasized in the bill presentment and are nearly hidden among the other billing items. Any changes to the bill presentment would require programming changes to the billing system and could require changes in paper stock used for the bills. A team of staff from various departments would be involved to develop a revised bill statement since the bill is used to send conservation, customer service, and public affairs messages in addition to documenting the customer’s charges. The cost to revise the bill statement will depend on the scale of the proposed revisions, but would likely be relatively small compared to the other proposed billing alternatives and could be implemented in approximately a year. This alternative is recommended because at a low cost it has the potential to improve how the District’s bill may currently be perceived.

Billing for Outside Agencies

The District contracts with cities and sanitation agencies to bill for their sewer collection service charges and utility users tax on the District's water bill. This arrangement is cost efficient for all agencies, and offsets the District's operational and mailing costs. The District receives approximately \$2.5 million annually for these services. Section 12810 of the MUD Act authorizes the District to collect the fees and charges for any sewage disposal enterprise with the fees and charges for any water or other utility service rendered by the District on the same bill. The MUD Act allows the city and agency sewer collection service charges and the District's charges to be collected as one item.

Accordingly, for the past 30 years, the District has entered into agreements with the cities of Oakland, Emeryville, Berkeley and San Leandro, as well as the Oro Loma Sanitary District and the Dublin San Ramon Services District to bill certain sewage collection service charges. The most recent agreements were authorized by the Board in June 2013 for a contract term of 10 years. The agreements with the cities and agencies require the District to furnish the labor, services, materials and equipment required to provide for billing and collection of city and agency sewer collection service charges and that such sewer collection service charges be identified on the District's bill and collected on the same basis as the District's charges. The agreement further provides that the District will bill and collect the city and agencies' sewer collection service charges until the contracts expire in June 2023.

While the term of the agreement is 10 years, a clause provides for termination prior to the expiration of the contract, with caveats. If the District is the party terminating the agreement, it must give the city or agency written notice at least 12 months prior to the effective date of termination. If the city or agency is terminating the agreement, it must give the District written notice at least 90 days prior to the date of termination. The agreement is not subject to modification or amendment, except by written agreement by both parties.

For customers in Berkeley and Oakland, the city sewer collection service charges can account for up to 50 percent of the EBMUD Single Family Residential (SFR) bimonthly bill. If the District is interested in decoupling the city or agency charges and/or modifying the billing services for other agencies to address affordability issues, there are several options available. The options include: 1) remove city and agency sewer collection service charges from the EBMUD bill and send out a separate standalone bill for the city or agency sewer collection service charge; 2) stop collecting city and agency sewer collection service charges on the EBMUD bill; 3) require the cities of Oakland and Emeryville to replace flat sewer collection service charges with a flow based or distance based fee; and 4) require cities and agencies to participate in the EBMUD CAP discount for their sewer collection service charges.

1) Standalone bills for city and agency sewer collection service charges

EBMUD could send city and agency sewer collection service charges in a separate bill statement from the EBMUD bill statement. This would require a renegotiation of the current contracts. Increased staffing would be needed to support the additional statement mailing and payments processing. The District would also incur increased costs on postage and paper stock. This is a significant change to the District's billing system and would take approximately four years to implement. The estimated additional annual cost is \$2 million. Part of the contract modification would include negotiating with the cities and agencies on how much they would pay for the District's billing services. Since this is unknown at this time, the fiscal impact cannot currently be determined. This alternative is not recommended because it doubles the printing, mailing, and processing costs for the affected accounts, and does not directly improve affordability. The cities and agencies would be reluctant to take on these added costs especially if separating their sewer collection service charges from the EBMUD bill would reduce their collection rate. This alternative will not be discussed at the workshop.

2) Require agencies to use a flow or distance based rate structure for their sewer collection service charges

The cities of Oakland and Emeryville use a fixed sewer collection service charge for SFR customers; therefore, cost conscious and lower water use customers, including low income customers, are not able to reduce that portion of their bill by cutting back on water use. It has been suggested that EBMUD include in its billing agreement a requirement that the cities use a flow or distance based rate structure. A flow based rate structure (as used by Berkeley) could benefit low income customers with low water use, while the distance based rate structure could benefit low income customers who live close to the wastewater interceptor. Such modifications would require the cities to change their cost of service (COS) analyses and go through a new Proposition 218 process. Staff can suggest the use of a flow based rate structure to Oakland and others to improve affordability for low income residents but has no direct control on how Oakland or others wish to set their rate structure; therefore this alternative is not recommended.

3) Stop collecting city and agency sewer collection service charges on EBMUD bill

Eliminating the sewer collection service charge would decrease the EBMUD bill for customers, particularly those in Berkeley and Oakland. If the District cancels city and agency billing contracts, the District would lose \$2.5 million in annual revenue/operational offsets/cost efficiencies. Current contracts do not expire until June 30, 2023 although there is a clause that allows cancellation of the contract by the District at any time with one year advance notification. The cities and agencies will still need to collect sewer collection service charges from their residents, so their charges could be transferred to the property tax bill or collected directly by the cities and agencies themselves. Depending on how it is collected,

low income customers may or may not ultimately benefit from the removal of city and agency sewer collection service charges from the bill. This alternative is not recommended because cancelling or not renewing the contracts will impact revenues and may impact the District's relationship with these cities and would not improve overall affordability.

4) Require agencies to participate in EBMUD CAP for the city sewer collection service charges

Another option to assist low income customers is to require agencies to effectively contribute funds to the District's CAP that would be allocated towards city or agency sewer collection service charges. The current CAP only provides a discount on EBMUD water and wastewater charges and is funded by a portion of District property tax revenue. The MUD Act only authorizes the District to establish a program which provides temporary relief to customers who are unable to pay for services furnished by the District. In other words, the District does not have authority to provide financial relief from the payment of sewer collection service charges rendered by other agencies. In order to provide relief from the payment of sewer collection service charges, the agencies must first have express authority to provide such financial aid, and the governing bodies of the cities or agencies must enact their own local legislation to fund and administer such programs. There is no legal authority for allowing the District to apply its CAP to charges other than the charges for District services.

Initial discussions with City of Oakland leadership staff indicated that although this alternative sounds reasonable, it is unlikely that the cities and agencies have discretionary funding available to support this effort. Cities are not currently affected by water affordability concerns and therefore have little incentive to pursue this option. There are several administrative and system challenges associated with this option as each city or agency may want to establish its own rules for CAP. This would result in custom coding for each city or agency in the District's billing system. To maintain consistency in the CAP program the agencies would need to follow EBMUD CAP requirements. The District's billing system would require changes to calculate the CAP discount for city and agency charges. The estimated one time implementation cost is approximately \$0.5 million. Even though there was initial hesitance by the City of Oakland, it is recommended that the District pursue discussions with the cities and agencies on their participation in the CAP as a way to assist low income customers.

EBMUD Rate Structure

The current rate structure for SFR customers is a fixed charge of \$22.60 per month and a tiered volume charge of \$3.45 per CCF for the first seven CCF of use per month, \$4.74 per CCF for use between 8 and 16 CCF per month, and \$6.27 per CCF for use above 16 CCF per month. Legally, changes to the existing rate structure must apply to all customers regardless of income level. It may be possible to adjust the rates to reduce the water bill for all low water users, which could coincidentally benefit low income customers who are also low water users. However, half of the District's SFR customers are low water users using six CCF or less per month on average.

Reducing the bill for low water use in order to improve low income affordability would likely reduce the water bill for more than 50 percent of the SFR customers. In order to maintain the appropriate COS revenue recovery from the SFR customer class, a rate structure change that recovers less revenue from one group of SFR customers would have to be recovered from the remaining SFR customers.

Four potential changes to the rate structure to address low income assistance and affordability issues will be presented at the workshop.

1) Reduce Tier 1 Volume Charge and Increase Tiers 2 and 3 Volume Charges for all SFR Customers

The current SFR Tier 1 charge is for the first seven CCF of water use per month, which represents average indoor water use. It may be possible to reexamine the COS allocation of costs for the SFR tiers such that a reduction in Tier 1 is justified. One challenge is that about half the SFR volume revenue comes from Tier 1, so reducing the Tier 1 charge would result in proportional increases to Tiers 2 and 3 where the water consumption is more discretionary. Because the monthly fixed charge is half the bill for low water users, a reduction in the Tier 1 volume charge would result in a small decrease in the total monthly bill for low water users. The monthly bill for high water use customers would increase as volume charges for Tiers 2 and 3 would have to be increased. Because this rate change would require an update to the COS, the most appropriate time to pursue this change would be at the next COS update. This alternative is not recommended because it impacts revenue stability but can be considered as a part of the next COS update planned for FY22.

2) Minimum Water Use Allowance in Fixed Charge for all SFR Customers

Currently, customers are assessed a volume charge for every CCF of consumption. It was requested that staff investigate an alternative to include a minimum allowance of water use in the fixed monthly charge for all customers. Under this approach, a customer would only be assessed a volume charge for water consumed above the minimum water use allocation. A review of this proposal concluded that this would raise several legal issues. By not charging for water use within the minimum water use allowance, arguments could be made that higher water users are effectively subsidizing customers whose use is at or below the minimum water use allowance, which is prohibited under Proposition 218. Even if the District could establish that the cost for the minimum water use is captured in the fixed charge, the District could still be subject to a Proposition 218 challenge on proportionality. For example, a customer who uses less than the minimum water use allowance could challenge the rate structure as not being based on proportional costs since they are paying for water that they are not using. Because of these legal issues, this change to the rate structure is not recommended. This alternative will not be discussed at the workshop.

3) Reduce Fixed Charges and Increase Volume Charges for all SFR Customers

Many advocates for affordability promote lower fixed charges to improve affordability for low income customers. The premise is that customers who reduce their water bill in an attempt to lower their bills cannot impact the fixed charges. EBMUD relies on the fixed charges to help stabilize revenues in response to fluctuations in water consumption. The fixed charge from SFR customers generates about \$90 million per year. A reduction in the fixed charges would require a recalculation of EBMUD's COS analysis and would result in an increase to the volume charges potentially including the volume charge for Tier 1. A substantial decrease in the monthly fixed charge would likely benefit low use water customers, but would increase the overall bill for other customers. Because this rate change would require an update to the COS, the most appropriate time to evaluate this change would be at the next COS update. Making changes to the fixed charge and increasing volume charges must be balanced with the impact to revenue stability; therefore, this alternative is not recommended in the near term but can be considered as part of the next COS update planned for FY22.

4) Adjust Tier 1 Breakpoint by Household Size for All SFR Customers

The current SFR Tier 1 charge is for the first seven CCF of water use per month, which represents the average indoor use for all SFR customers regardless of household size. Using the basic needs criterion one CCG per person per month, seven CCF per month would provide basic needs for a household of seven. Again, as discussed above, it may be possible to reexamine the COS allocation for the SFR tiers so that the SFR Tier 1 breakpoint could be adjusted for household size similar to a water budget based rate structure. This would allow for large families to use more water within the lower Tier 1 volume rate rather than the higher Tier 2 volume rate.

In order to reduce the collection of individual household information, most agencies who implement budget based rates make the initial assumption of three or four persons per household with a request that larger households submit documentation of more than four persons per household. Since the average household size is less than three persons, the initial Tier 1 breakpoint under this method would be overly generous for half of the SFR customers. If a significant number of SFR customers request increases to their Tier 1 breakpoint, there would be significant revenue loss to be recovered from the SFR customer class. In addition, such a rate structure change would require a significant revision to the billing system and require EBMUD to identify and maintain information on the number of persons in each household. It would be most appropriate to implement this rate structure change as part of a transition to a water budget based rate structure. As discussed in previous Board workshops, water budget based rates would be ideally implemented with automated meter reading so customers can actively monitor their water use with respect to their monthly water budget. This alternative could be pursued in the long-term along with budget based rates.

NEXT STEPS

Staff will receive feedback and develop a plan and schedule upon conclusion of all workshops. The remaining workshops will cover the following topics:

Workshop No. 2 – January 23, 2018
Overview of the State’s Low Income Rate Assistance Program,
EBMUD CAP, Payment Plans and Deposits

Workshop No. 3 – February 27, 2018
Shut-offs, Key Performance Indicators, Water Use Efficiency,
Outreach Education, and Partnerships

ARC:SDS:rl:sh

Attachment

Long-Term Financial Stability Workshop

Long-term financial planning tool
Affordability of EBMUD bill

3 Long-Term Financial Stability and Affordability Workshops



- Workshop #1 November 28, 2017
 - Long-term financial planning tool
 - Affordability for ratepayers
- Workshop #2 January 23, 2018
 - CA Low Income Rate Assistance Program (LIRA)
 - EBMUD Customer Assistance Program (CAP)
 - EBMUD payment plans and deposits
- Workshop #3 February 27, 2018
 - EBMUD shutoffs, key performance indicators, water use efficiency, outreach, education, and partnerships

Workshop Agenda



- I. Overview of water system long-term financial planning tool
 - Key financial inputs and factors
 - Sample model runs
 - Link to System Capacity Charges
- II. Affordability of EBMUD bills for ratepayers
 - EBMUD charges for basic needs and typical/high use
 - EBMUD bimonthly bill
 - Agency Billing (sewer collection charges)

3

Long Range Financial Plan



- I. Introducing the 20-year Water System Financial Planning Tool

4

Basic Inputs of Water System Financial Planning Tool



- Data Sources
 - Growth assumptions
 - Labor assumptions
 - Outstanding debt
 - Long Term CIP
- Policy Parameters
 - Debt service coverage
 - Working capital
 - Rate Stabilization Fund
- Planning Factors
 - CIP implementation rate
 - Debt percentage
 - Cost of future debt issuance
 - Revenue structure
 - Revenue growth

5

Use of Financial Planning Tool



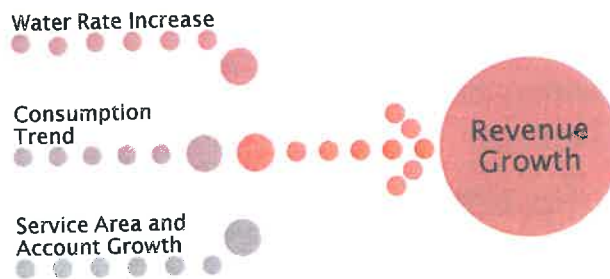
- Illustrates consequences of financial decisions
 - Allows changes to one or more Financial Planning Factors
 - Shows financial impact of the changes
 - Shows financial feasibility of the changes

6

Key Considerations are Revenue Growth Assumptions



- Revenue growth is not just rate increases but is a close proxy



- Assumptions of low consumption & low account growth place increased financial pressure on rates

7

Financial Planning Insights



- Decision-making factors are interrelated
 - More debt funding
 - lowers near-term cash needs
 - lowers near-term revenue growth needs
 - but*
 - increases future expenses
 - reduces future debt (borrowing) capacity
 - reduce coverage ratio

8

Financial Planning Insights



- Large shocks to any parameters can be absorbed over long-term

- initially show stress in the forecast (compounded by desire to limit large rate increases)

but

- can be accommodated through smoothing rate increases over the long term

9

Sample Model Run #1: Inputs

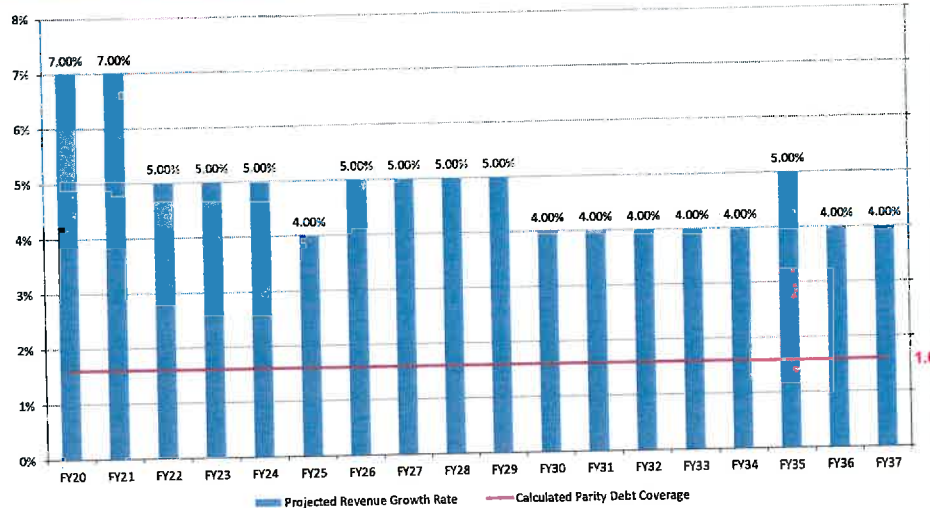


- Using Historical Strategic Planning Factors Data

- | | |
|----------------------------------|------------|
| - CIP implementation rate | current |
| - Debt-financed percentage | historical |
| - Interest rate for future debt | budgeted |
| - Percent of fixed revenues | actual |
| - Percent of volumetric revenues | actual |
| - Water demand growth | budgeted |
| - Revenue growth maximum | capped |
| - Debt Service Coverage Ratio | minimum |

10

Sample Model Run #1: Results



11

Sample Model Run #2: Inputs

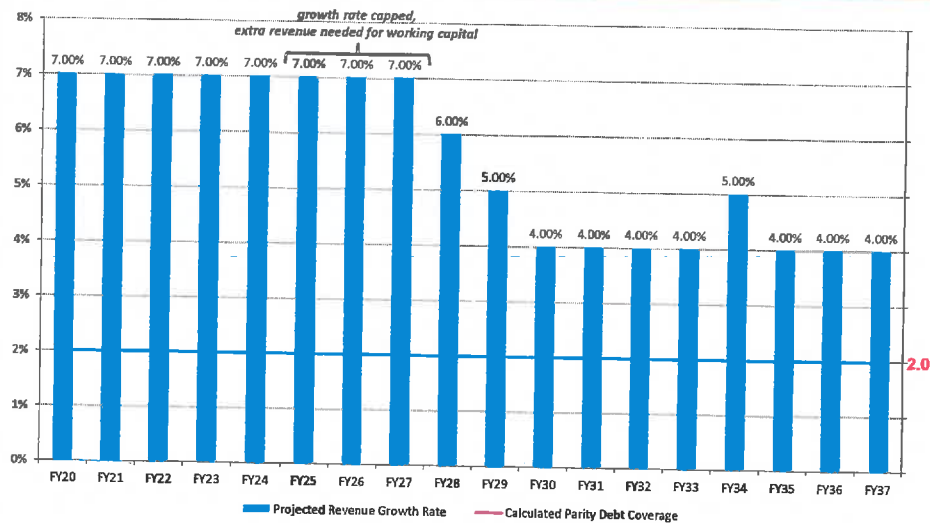


Using Accelerated Strategic Planning Factors Data

- | | |
|----------------------------------|-----------|
| - CIP implementation rate | increased |
| - Debt-financed percentage | lowered |
| - Interest rate for future debt | budgeted |
| - Percent of fixed revenues | actual |
| - Percent of volumetric revenues | actual |
| - Water demand growth | budgeted |
| - Revenue growth maximum | capped |
| - Debt Service Coverage Ratio | increased |

12

Sample Model Run #2: Results



Drought Modeling Takeaways



- 3-year drought/7-year recovery was run
- Drought period impact
 - Drought rates and RSF are main tools
- Recovery period impact
 - Higher rate increases than projected to restore financial health
 - Can rely on increased borrowing - capacity limits may exist
 - Critical to replenish reserves
 - Multiple sequential drought events would compound issues

14

Financial Planning Tool Conclusions



- Model runs show we will be able to meet CIP implementation goals with 4% -7% rate increases
- Need to stay on sound financial path we have been on (↑ Debt Coverage, ↓ Debt Funding)
- Biggest threat is drought or other similar event which disrupts water sales
 - Drought rates, strong reserves, and creation of borrowing capacity will all help
 - Sequential drought may disrupt rate plans

15

System Capacity Charge



- Overview of structure and methodology of SCC
- Estimating future SCC projections
- Pilot for micro units



16

System Capacity Charge Structure and Methodology



- Started in 1983 (1987 wastewater)
- Assessed on new connections or increased demand to recover cost of system investments
- Three water component costs: system-wide, regional, and future water supply
- Based on expected water use by customer class and SCC region
- SCC revenue pays a portion of annual debt service and cash funds capital rehab projects

17

SCC Calculated from Expected Consumption and Unit Costs



SCC Region	System-Wide/ Regional/ FWS \$/100 gpd	SFR Expected Consump gpd	SFR SCC	MFR Expected Consump per Dwelling Unit gpd	MFR SCC per Dwelling Unit
Region 1	\$5,979	280	\$16,740	163	\$10,200
Region 2	8,067	360	29,040	168	14,160
Region 3	6,388	580	37,050	199	13,300

Commercial (over 1.5") SCC based on District review of applicant's expected water use gpd

18

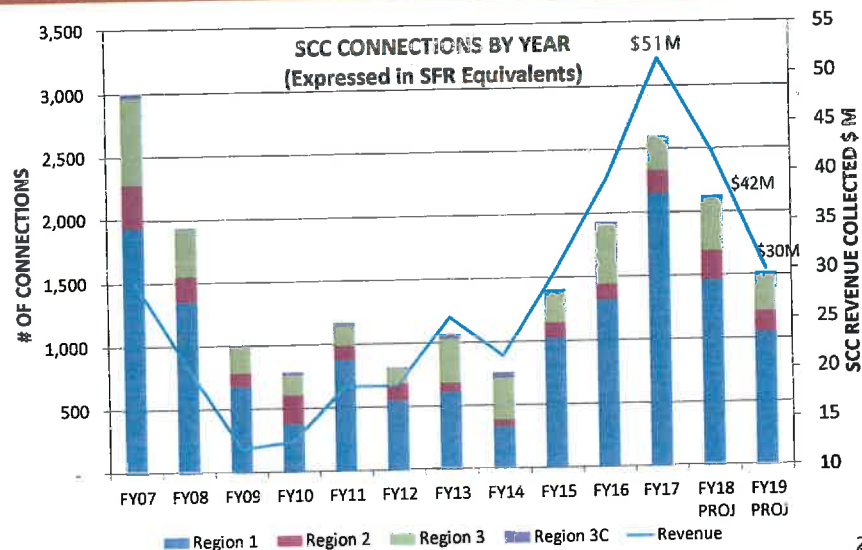
Estimating Future SCC Projections



- Contingent upon building/economic trends and timing of specific development projects
- Historic SCC data and trends
- Consideration from regional projections from ABAG and LAFCO, building permits, development community feedback
- SCC credits for infill development adds a variable to projections
- "Boom and Bust" cycles

19

Historic SCC Collections



20

Micro Unit Pilot



- Objective is to evaluate how micro unit projects should be addressed in the SCC
 - Evaluate gpd of micro units projects during pilot
- District is currently updating the system wide water demands - will be incorporated into a comprehensive update to the SCC
- Timeline
 - Micro Unit Pilot – 2018/2019
 - Demand study – 2019
 - SCC COS – 2020
 - Proposed adoption - 2021



21

Affordability for Ratepayers



II. Affordability for ratepayers

22

Is Water and Wastewater Service Affordable?



- Most common test of W and WW affordability is annual bill $\leq 4.5\%$ of median household (MHI) income*
 - Assumes W bill $\leq 2.5\%$ of MHI and WW bill $\leq 2\%$ of MHI
 - Note that half of the population earns less than the median
 - Include all W and WW charges - sewer collection charges
- The cost of W and WW services is 2.2% of MHI in Alameda County and 1.9% of MHI in Contra Costa County
 - Represents combined W and WW bill based on typical use and including agency sewer collection charge in each county

* US Environmental Protection Agency



23

Median Household Income Varies in Service Area



Place*	County	Median household income
Piedmont	Alameda	\$212,222
Orinda	Contra Costa	\$166,866
Alamo	Contra Costa	\$163,151
Danville	Contra Costa	\$140,616
Lafayette	Contra Costa	\$138,073
Moraga	Contra Costa	\$132,651
Hercules	Contra Costa	\$100,267
El Cerrito	Contra Costa	\$88,380
Castro Valley	Alameda	\$83,442
Walnut Creek	Contra Costa	\$80,399
Albany	Alameda	\$78,769
Alameda	Alameda	\$75,763

Place*	County	Median household income
Pinole	Contra Costa	\$74,379
San Lorenzo	Alameda	\$74,283
Emeryville	Alameda	\$69,329
Berkeley	Alameda	\$65,283
San Leandro	Alameda	\$64,279
El Sobrante	Contra Costa	\$60,732
Richmond	Contra Costa	\$54,857
Oakland	Alameda	\$52,962
Cherryland	Alameda	\$50,374
Ashland	Alameda	\$45,074
San Pablo	Contra Costa	\$42,746

*Selected cities

24

Household Income Distribution and Utility Burden – Alameda County



Income Range	% of Households	% of Income for W and WW - Typical Use	% of Income for W and WW - Basic Needs	% of Income for W and WW Basic Needs CAP Customers
Less than \$10,000	5.3%	15.8%	10.6%	8.0%
\$10,000 to \$14,999	4.5%	10.5%	7.1%	5.3%
\$15,000 to \$24,999	7.7%	6.3%	4.2%	3.2%
\$25,000 to \$34,999	7.0%	4.5%	3.0%	2.3%
\$35,000 to \$49,999	9.9%	3.2%	2.1%	1.6%
\$50,000 to \$74,999	15.3%	2.1%	1.4%	1.1%
\$75,000 to \$99,999	11.9%	1.6%	1.1%	0.8%
\$100,000 to \$149,999	17.5%	1.1%	0.7%	0.5%
\$150,000 to \$199,999	9.4%	0.8%	0.5%	0.4%
MEDIAN of \$75,619	--	2.1%	1.4%	1.1%

Note: Includes multi-family households that do not directly pay EBMUD bill and uses top end of each income range 25

Water Affordability – Basic Needs



- World Health Organization's standard for basic human needs is 13-26 gallons per person per day
 - 25 gpd = 1 CCF/person/month
- Cost of water use for basic needs
 - 3 CCF per month for household, (1 CCF per person for a household of 3)
 - \$1.08 per day (\$0.36 per person per day) or \$32.95/month
 - \$0.11-\$0.13 per day for each additional CCF or \$4/month for an additional person
- Conservatively, at basic needs level of use, ~9% of Alameda County households in District service area pay more than 2.5% of their income toward water service

26

Single Family Residential Water Use Distribution



SUMMARY SFR QUARTILES

SFR Consumption Level*	Annual Use CCF	Equivalent Monthly Use CCF
25%	48	4
50% (median use)	72	6
75%	120	10
95%	264	22
Average SFR**	96	8

*Represents historical average single-family residential use. District customers have conserved 13% over 2013 average use to date so average use is currently lower the historical average.

**While average SFR currently uses 8 CCF/month, we have used 9 CCF/month for examples used in this workshop for ease of illustration as 3 times 3 CCF/month basic needs use.

27

Water Affordability - Typical Use



- Affordability of typical example household water use
 - 9 CCF per month for a household, (3 CCF/person for a household of 3)
 - \$1.85/day (\$0.62/person/day) or **\$56.23/month**
 - \$0.13-\$0.16/day for each additional CCF

28

EBMUD Wastewater Treatment Service



- A portion of District Water customers (~140,000 SFR accounts) are also Wastewater customers
- These customers have combined bills with both Water and Wastewater charges from the District

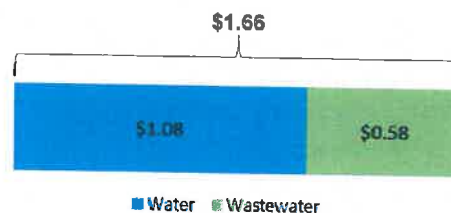


29

Affordability of Combined Water and Wastewater Bill – Basic Needs



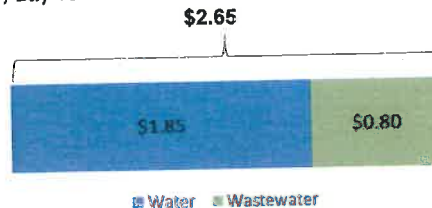
- Combined W and WW bill for basic needs
 - What the customer gets:
 - 3 CCF/month for household, (1 CCF/person for a household of 3)
 - Wastewater treatment
 - What it costs:
 - \$1.66 per day (\$0.55/person/day) or **\$50.42/month**
 - \$0.15-\$0.17/day for each additional CCF or **~\$5/month** for each person over 3



30

Affordability of Combined Water and Wastewater Bill – Typical Use

- Combined W and WW bill for typical example household use
 - What the customer gets:
 - 9 CCF, (3 CCF/person for a household of 3)
 - Wastewater treatment
 - What it costs:
 - \$2.65 per day (\$0.88/person/day) or \$80.54/month
 - \$0.16-\$0.17/day for each additional CCF or ~\$5/month for each person over 3



31

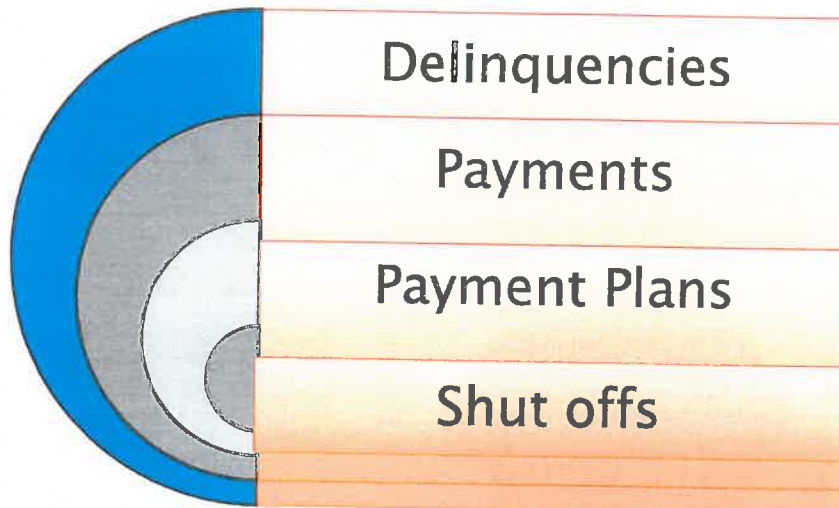
Is EBMUD Service Affordable?

- Yes, for the majority of our customers our services are affordable, for those with very low incomes we have the CAP and the State is working on LIRA
- Basic W and WW needs cost roughly the same as a 20 oz. bottle of water per day
 - Assumes basic needs water use for a household of three
- Typical W and WW usage level costs roughly the same as large cup of coffee per day
 - Assumes typical water use for a household of three



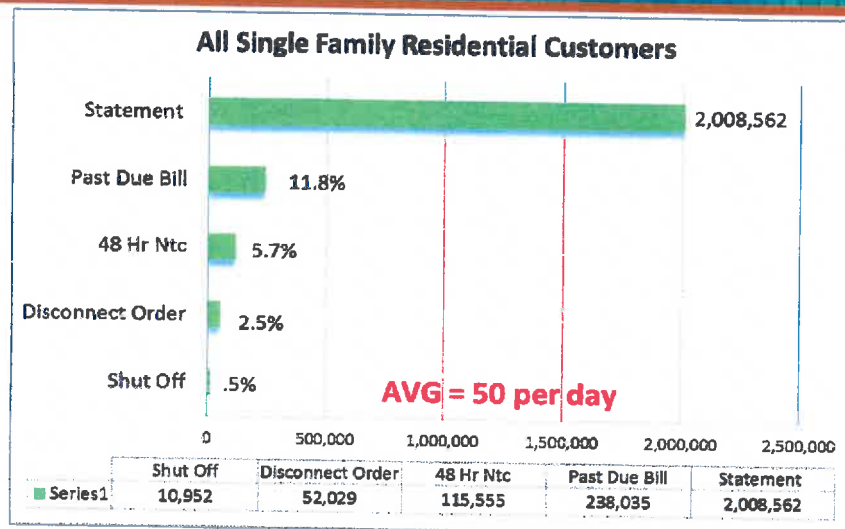
32

Single Family Residential (SFR) Billing Statistics



33

Delinquencies FY17



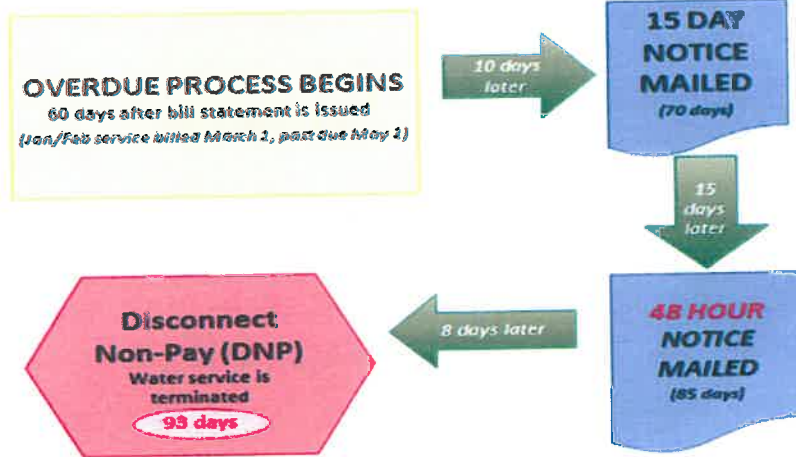
* Over 90% of shut-offs are restored

34

Overdue Process

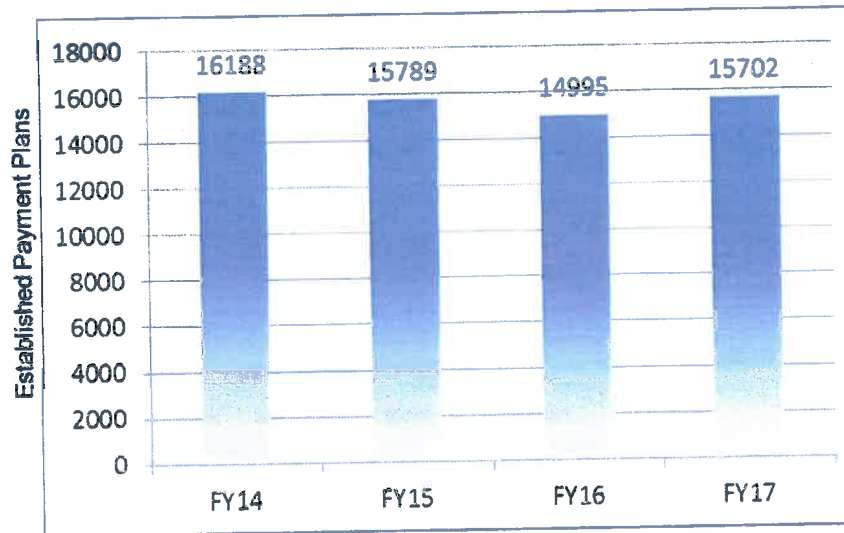


Effective process for customer notification prior to shut-off.



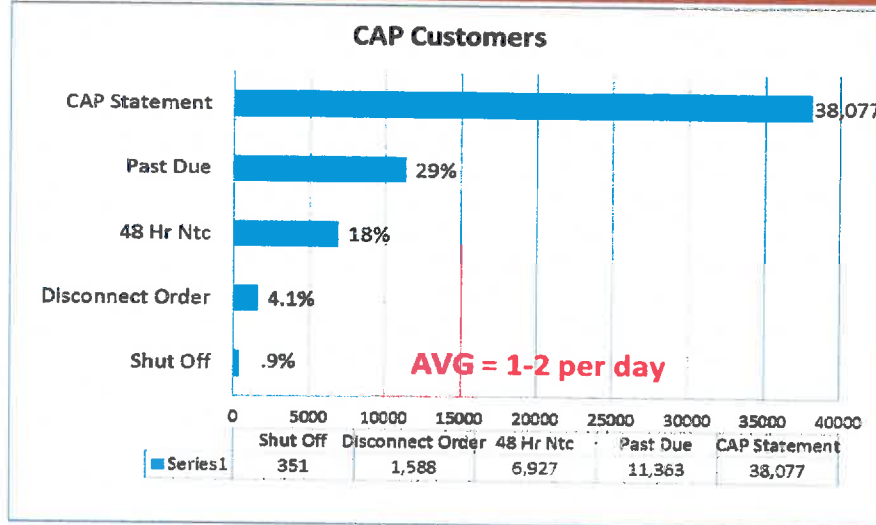
35

Annual Customer Payment Plans FY14 – FY17



36

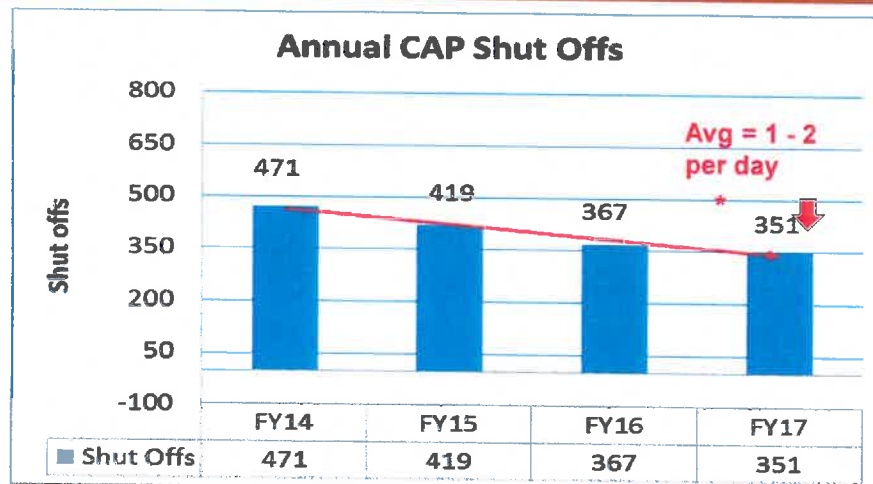
CAP Customer Delinquencies FY17



* Over 90% of shut-offs are restored

37

CAP Customer Annual Shut Offs FY14 – FY17



* 25% reduction within last 3 years

38

Summary SFR Billing Statistics



Water and wastewater charges are affordable:

- 99.5% of SFR bills are paid or establish payment plans
- Very small % of shut-offs
- Services are available to assist low income customers to maintain water service
- We have made progress to reduce shut-offs and will continue to identify enhancements

39

BREAK!



40

Affordability Considerations



- Bimonthly Billing – Affects how bill is perceived
- Bill Format – Affects how bill is perceived
- Agency Billing – Affects affordability and how bill is perceived
- Rate Structure – Affects affordability
- EBMUD Payment Plans Deposits
- EBMUD Low Income Program (CAP)
- EBMUD Delinquent Process and Shutoffs, KPIs, Water Use Efficiency
- State's LIRA initiative

Will be Discussed in Workshops 2 and 3

41

Recap Affordability – Total Bill at Basic Needs and Typical Level



Use	EBMUD Monthly			Oakland	Total	Total Monthly Bill	Total Bimonthly Bill
	W	WW	EBMUD Total	Sewer	Daily Bill		
Basic Needs 3 CCF	\$32.95	\$17.47	\$50.42	\$37.57	\$2.89	\$87.99	\$175.98
Typical 9 CCF	56.23	24.31	\$80.54	\$37.57	\$3.88	\$118.11	\$236.22

Use	EBMUD Monthly			Berkeley	Total	Total Monthly Bill	Total Bimonthly Bill
	W	WW	EBMUD Total	Sewer	Daily Bill		
Basic Needs 3 CCF	\$32.95	\$17.47	\$50.42	\$16.92	\$2.21	\$67.34	\$134.68
Typical 9 CCF	56.23	24.31	\$80.54	\$50.76	\$4.31	\$131.30	\$262.60

Note high level of fixed charge for Oakland sewer collection leads to small difference between Basic Needs and Typical Use in Oakland. Further, sewer agencies do not have CAP programs.

42

Bimonthly Billing Affects How Bill is Perceived



- District W service costs just
 - \$1.08 per day for basic needs
 - \$1.85 per day for typical use
- District W and WW service cost
 - \$1.66 per day for basic needs
 - \$2.65 per day for typical use
- The District bills residential customers every two months
 - Two months worth of charges at once
 - Bills other charges on behalf of outside agencies

EAST BAY MUNICIPAL UTILITY DISTRICT
 EBMUD 1-800-49-EBMUD YOUR ACCOUNT NO. IS: 12345678901

Next Payment Due is 01/15/2018
 Your Payment is Due by 02/01/2017
 Search is suggested when making your water bill payments in a batch, with some fees and some items required. With our new secure payment service, you can schedule automatic payments from your bank account, pay by text message or log in online to pay whenever you are. Sign up at ebmud.com/ebmud

1234 Pipeline St
 Oakland, CA 94605-1234

Set Date: 11/17/17
 Billing Period: From 01/01/17 To 11/30/17

For	AMOUNT	TOTAL
1234 Pipeline St Fluoride Reservoir		
PREVIOUS CHARGES AND CREDITS		
PREVIOUS AMOUNT DUE	398.40	0.00
PAYMENT - 08/25/17	-398.40	
WATER CHARGES - 08/25/17	45.20	
WATER SERVICE CHARGE	45.20	
WATER FLOW CHARGE 14 UNITS @ \$3.48	48.68	112.48
WASTEWATER CHARGES - 08/25/17	18.00	
WASTEWATER TREATMENT CHARGE	45.22	
94 DAY POLLUTION PREVENTION FEE	0.40	46.82

CITY OF OAKLAND SEWER SERVICE 79.16

PLEASE SEE REVERSE SIDE FOR BILLING EXPLANATION

PLEASE PAY THIS AMOUNT NOW Due

METER	REV	METER READINGS	UNIT	CONSUMPTION	INFORMATION	DATE	DAY
00 inch	1	2,881	18	19,484	00	234	234
		LAST YEAR	18	12,484	80	234	

PLEASE DETACH AND RETURN THIS PAYMENT SLIP WITH CHECK OR MONEY ORDER PAYABLE TO EBMUD
 1234 Pipeline St, Oakland, CA 94605-1234 01/01/17 11/30/17 ACCOUNT NO. 12345678901

Pay by check/this check for a fee
 Call 1-800-495-0800

EBMUD PAYMENT CENTER
 PO BOX 1000
 OAKLAND CA 94648-0001

PLEASE PAY THIS AMOUNT NOW Due

TOTAL PREVIOUS 0.00
 TOTAL CURRENT 236.22

236.22

43

Other Agency Charges Affects How Bill is Perceived



EBMUD Charges (Bimonthly)
 18 hundred cubic feet (CCF)
 @ CCF/mo. about 2.25 gpd

Water \$1.08
 Wastewater \$1.85
 BMU PAYMENT \$161.08

City of Oakland Sewer Service Charge
 \$75.14

EAST BAY MUNICIPAL UTILITY DISTRICT
 EBMUD 1-800-49-EBMUD YOUR ACCOUNT NO. IS: 12345678901

Next Payment Due is 01/15/2018
 Your Payment is Due by 02/01/2017
 Search is suggested when making your water bill payments in a batch, with some fees and some items required. With our new secure payment service, you can schedule automatic payments from your bank account, pay by text message or log in online to pay whenever you are. Sign up at ebmud.com/ebmud

1234 Pipeline St
 Oakland, CA 94605-1234

Set Date: 11/17/17
 Billing Period: From 01/01/17 To 11/30/17

For	AMOUNT	TOTAL
1234 Pipeline St Fluoride Reservoir		
PREVIOUS CHARGES AND CREDITS		
PREVIOUS AMOUNT DUE	398.40	0.00
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PLEASE PAY THIS AMOUNT NOW Due

METER	REV	METER READINGS	UNIT	CONSUMPTION	INFORMATION	DATE	DAY
00 inch	1	2,881	18	19,484	00	234	234
		LAST YEAR	18	12,484	80	234	

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Pay by check/this check for a fee
 Call 1-800-495-0800

EBMUD PAYMENT CENTER
 PO BOX 1000
 OAKLAND CA 94648-0001

PLEASE PAY THIS AMOUNT NOW Due

TOTAL PREVIOUS 0.00
 TOTAL CURRENT 236.22

236.22

44

Monthly Billing Considerations



- Moving to true monthly billing doubles
 - Meter reading
 - Cost of billing
- 67% of water utilities nationally have monthly bills
- 25% of local water utilities have monthly billing



45

Exploring Monthly Billing – Monthly Meter Reading



Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> • Read meter monthly rather than bimonthly and send monthly bills • Board approval only 	<ul style="list-style-type: none"> • ~2 years • Double meter reading staff • Additional printing, mailing, and customer service costs • Total ~10M/year or 2% on rates 	<ul style="list-style-type: none"> + More manageable bills + Addresses how bills are perceived - Higher staffing, printing and mailing costs - Higher expenses = higher overall charges

Viable/Not Recommended – AMI pilot results should be considered as part of continued assessment of monthly billing

46

Exploring Monthly Billing - Monthly Bill from Bimonthly Reads



Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> • Monthly bill with every other bill off-cycle estimated from past use • On-cycle meter read will true up estimated off-cycle bill • Board approval only 	<ul style="list-style-type: none"> • ~2 years • No additional meter reading costs but additional printing, mailing and customer service costs • Programming costs • Additional CUS and field services staff • Total ~\$7M or 1.5% on rates 	<ul style="list-style-type: none"> + More manageable bills + Addresses how bills are perceived - Higher printing and mailing costs - Possible additional customer service costs - Likely complaints about estimated billing - Higher expenses = slightly higher overall charges

Viable/Not Recommended - Estimated bills are unpopular and result in a higher level of customer dissatisfaction

47

Exploring Monthly Billing - Bimonthly Bill with 2 Payment Stubs



Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> • Bimonthly bill will include 2 payment stubs with 60 day deadline • Board approval only 	<ul style="list-style-type: none"> • ~1 year • Reprogramming of billing system • Total ~\$1M or 0.2% on rates 	<ul style="list-style-type: none"> + More manageable bills if customer chooses to pay monthly - Customer confusion about payments - Some increased customer service costs

Viable/Not Recommended - May be confusing to customers; possibility to pay monthly already exists - could advertise this

48

Exploring Billing – Moving Service Charge to Property Tax



Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> Remove fixed charges from bill and place on annual property tax bill MUD Act requires every property owner to be customer of record Board approval Coordination with Alameda and Contra Costa Counties 	<ul style="list-style-type: none"> ~2 years Extensive preparatory work to finalize parcel and account data Transfer all tenant accounts to owners Ongoing County billing costs ~\$1.4M or 0.3% on rates 	<ul style="list-style-type: none"> + Reduces bimonthly bill - Increases fees on property tax bill - Landlord responsible for entire bill - Reduces conservation incentive

Viable/Not Recommended – MUD Act implications, conservation implications, and changes landlord-tenant relationship

49

Exploring Billing – Revise Bill Presentment on Bimonthly Bills



Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> Revise how bill is presented <ul style="list-style-type: none"> Clearly show this is a 2 month bill Clearly identify total EBMUD charge More clear separate out agency collection charges Board approval only 	<ul style="list-style-type: none"> ~2 years Effort to decide on bill changes Some reprogramming of billing system 	<ul style="list-style-type: none"> + Potentially easier to read + Could help change how bills are perceived - Does not actually change affordability - Potential roll out with other billing initiatives

Recommended – Low cost potential to clarify bill and change how bills are perceived

50

Agency Billing



- A major portion of District bill is not District charges:

- City of Oakland Sewer Collection Charge \$37.57/month
 - \$75.14 on every bi-monthly bill
- City of Berkeley Sewer Collection Charge \$5.65/CCF
 - \$16.92 for 3 CCF, \$50.76 for 9 CCF/month
- City of Emeryville Sewer Collection Charge \$8.72/month
 - \$17.44 on every bi-monthly bill

- In Summary:

- In Oakland, 32% to 41% of SFR bill is non-District charges
- In Berkeley, 25% to 39% of SFR bill is non-District charges
- Roughly 38% of all customers live within one of the three cities

51

Exploring Agency Sewer Collection System Charges



- EBMUD collects sewer collection charges for:
 - Berkeley, Oakland, Emeryville; commercial Oro Loma, San Leandro and DSRSD
- Agencies sign agreements with EBMUD collect their charges on our bill (set to expire in 2023)
- None of these agencies offer a CAP
- EBMUD collects fees of \$2.5M annually for these services
- Agencies prefer EBMUD collections to property tax bill collections for timing of revenue receipt and ease

52

Exploring Agency Sewer Collection Charges – Require Flow Based Rates



Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> Require agency collection charge to be flow based (like Berkeley) Requires agreement by agencies Agencies would need entire new COS studies and public process 	<ul style="list-style-type: none"> Several years May require programming changes Can re-open contracts with 1 year notice but there are significant agency implementation impacts 	<ul style="list-style-type: none"> + Benefits low water users - Higher outdoor water users could pay higher bills while not actually contributing flows depending on structure

Not recommended – EBMUD would be mandating other agencies' rate structures

53

Exploring Agency Sewer Collection Charges – Require Distance Based Rates



Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> Require agency collection charge to be based on distance from EBMUD interceptor Requires agreement by cities Agencies would need entire new COS studies and public process 	<ul style="list-style-type: none"> Several years Requires programming changes District can re-open contracts with 1 year notice but there are significant agency implementation impacts 	<ul style="list-style-type: none"> + Benefits customers close to the interceptors - Increases bills for customers in the hills

Not recommended – EBMUD would be mandating other agencies' rate structures

54

Exploring Agency Sewer Collection Charges – Stop Collecting Other Charges

Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> • Terminate contracts when they come due (2023) or with notice • Board authority 	<ul style="list-style-type: none"> • Contracts don't expire right away • District can re-open contracts with 1 year notice but there are significant agency implementation impacts 	<ul style="list-style-type: none"> + Reduces EBMUD bills for all affected customers - Higher costs ultimately for customers of separate billing/customer service - EBMUD impact ~0.5% on rates

Viable/Not Recommended – Would impact EBMUD relationships with local agencies; could cause them significant cost and effort

55

Exploring Agency Sewer Collection Charges – Require EBMUD CAP

Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> • Require contracting agencies, who have legal authority to offer financial relief from the payment of sewer rates, to implement a program mirroring the District's CAP, as a condition of contracting for sewer billing services • Modify agreements to include sewer billing services and administration of agency's CAP on agency's bill 	<ul style="list-style-type: none"> • ~2 years • District can re-open contracts with 1 year notice • Agency implementation impacts 	<ul style="list-style-type: none"> + Reduces agency sewer collection charges for low income customers - Increases costs to agencies - Will require more process from agencies to implement but likely less than having to replicate full billing and customer service • Agencies' CAP programs may have to differ from the District's in eligibility criteria and the type of assistance provided

Recommended – Effectively mandates CAP as a condition of EBMUD billing; helps low income customers

56

Rate Structure Considerations



- Basic water needs affordability
 - As low as \$1.08 per day for water only and \$1.66 per day for W and WW for family of 3
 - CAP eligible customers pay \$0.54 and \$0.92 per day
- Average and high use customers pay more
 - Average use pay 60% more than basic and high use pay 80% more than average



- Current rate structure generates significant rate revenue from all three rate tiers
 - Those who use more pay more
 - Changes to one tier will result in changes to other tiers
 - Any change requires COS analysis

57

Current Water Rate Structure



- Fixed charge based on meter size
 - \$22.60 per month for standard SFR
- Tiered volume charge per CCF
 - Tier 1-\$3.45: 7 CCF per month (172 gpd)
 - Tier 2-\$4.74: 16 CCF per month (393 gpd)
 - Tier 3-\$6.27: 16+ CCF per month (393+gpd)

58

Proposals to Modify Rate Structure for Affordability



- Reduce Tier 1 volume charge
- Reduce fixed charge and increase volume charge
- Change Tier 1 volume breakpoint based on household size

59

Exploring Rate Proposals- Reduce Tier 1 Volume Rate



Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> • Further reduce Tier 1 rate <ul style="list-style-type: none"> ◦ Tier 1 use is about 60% of total use and about 50% of total volume revenue ◦ Lower Tier 1 volume rate would require increase to other Tiers • Requires update to COS analysis 	<ul style="list-style-type: none"> • Could be addressed in next COS update (FY22) • Low implementation cost 	<ul style="list-style-type: none"> + Low use customers will see a minimal benefit because fixed charge dominates + Moderate water users likely to benefit the most - High use customers will pay more - Would lose more revenue during droughts

Viable/Not Recommended – Impacts revenue stability particularly during drought; SFR tiers steepened in last COS

60

Exploring Rate Proposals – Reduce Fixed/Increase Variable Charges



Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> Reduce portion of revenues collected on fixed charge <ul style="list-style-type: none"> \$90M SFR fixed revenue Volume charges will need to be increased Requires a new COS analysis and rate structure 	<ul style="list-style-type: none"> Could be addressed in next COS update (FY22) Low implementation cost 	<ul style="list-style-type: none"> + Low use customers will benefit <ul style="list-style-type: none"> Significant portion of the bill for low water users + Higher use customers will likely pay more - Impacts revenue stability - Increases need for RSF

Viable/Not Recommended Near Term – Impacts revenue stability particularly during drought; can consider as part of next COS

61

Exploring Rate Proposals – Adjust Tier 1 Breakpoint by Household Size



Description & Authority	Implementation Cost & Timeline	Considerations
<ul style="list-style-type: none"> Adjust Tier 1 for household size Requires COS justification 	<ul style="list-style-type: none"> Could be addressed in next COS update (FY22) Update billing system to create new Tier 1 breakpoints for each household size Development of a process to determine household size Relatively low cost 	<ul style="list-style-type: none"> + Could benefit very large households - No benefit to very low water users - Smaller households with high water use would likely pay more

Viable/Not Recommended in Near Term – Should be reviewed with AMI consideration along with budget based rate structure

62

In Conclusion



- Reviewed new Water System Long-Term Financial Planning Tool
 - Can implement W CIP at current projection levels with increases of 4%-7% barring multiple sequential drought or inflation and make progress on increasing debt coverage and increasing cash funding of CIP
 - Will create an analogous model for WW
- Reviewed SCC
 - SCC update will follow demand study to conclude in 2019
 - Recommend proceeding with proposed Micro Unit pilot

63

In Conclusion (cont.)



- EBMUD provides affordable W and WW service but bills can be perceived as high mainly due to bimonthly billing and agency charges
- In near-term recommend
 - Working with agencies on CAP for sewer collection charges
 - Working on billing statement redesign to better highlight charges
 - Continue to look for other cost effective billing alternatives as customers move to online bill receipt
 - Continue with AMI pilot – links to monthly meter reading
 - Continue looking for opportunities to better serve low income customers

64