

City and County of Honolulu
Storm Water-Wastewater Advisory Group (SW-WAG) Meeting #3

July 22, 2024, 4:00-6:30 pm

In-Person | Pikake Room, Neal Blaisdell Center

ATTENDEES

SW-WAG Advisory Group Members

Appleseed Policy Center (Gavin Thornton)
Building Owners & Managers Association (Melissa Pavlicek)
Castle & Cooke – Developer Representative (Kapiolani Street)
Chamber of Commerce Hawai'i (Gwen Yamamoto Lau)
City Council District 1 – Neighborhood Board 24 (Philip Ganban; Tiana Wilbur [Alternate Representative])
City Council District 2 – Neighborhood Board 27 (Kathleen Pahinui)
City Council District 6 – Neighborhood Board 16 (Leialoha Tumbaga)
City Council District 7 – Neighborhood Board 18 (Chandra Kanemaru)
City Council District 7 – Neighborhood Board 15 (Susan Domingo)
Fresh Water Initiative (Mark Fox)
Hawai'i Community Foundation (Dana Okano)
Hawai'i Green Growth (Shelley Gustafson)
Hawai'i Reserves, Inc. (Jeff Tyau)
Hawai'i Sea Grant College Program (Melanie Lander)
Hawaiiiana (Jon McKenna)
Honolulu Board of Water Supply (BWS) (Barry Usagawa)
Kamehameha Schools (Calvin P. Mann)
Kyo-Ya Hotels & Resorts (Harzali Hashim)
State of Hawai'i, Department of Hawaiian Home Lands (DHHL) (Cherie-Noelle Kaanana)
Sustainable Coastlines (Rafael Bergstrom)
University of Hawai'i (Sheri Ching)
Wastewater Alternatives and Innovations (WAI) (Stuart Coleman)
Waikiki Improvement Association (Rick Egged)

City & County of Honolulu Staff

Roger Babcock (Director and Chief Engineer, Department of Environmental Services (ENV))
Mike O'Keefe (Deputy Director, ENV)
Gene Albano (Director and Chief Engineer, Department of Facility Maintenance (DFM))
Randall Wakumoto (Program Administrator, DFM, Storm Water Quality Division (SWQ))

Consultant Team

Joan Isaacson (Kearns & West)
Dave Ebersold (CDM Smith)
Rhea Quezon (CDM Smith)
Cami Kloster (G70)
Evelyn Navas-Aron (G70)
Juli Beth (JB) Hinds (Birchline Planning LLC)
Ming Ding (AECOM)

Agency Representatives and Project Partners:

Megan Muramatsu (BWS)
Lauren Roth Venu (3Rwater, Inc.)

1. Welcome and Agenda Overview

Joan Isaacson (Kearns & West), as meeting facilitator, welcomed attendees and reviewed the meeting agenda and guide for productive meetings.

See *slides 1 to 4* of the presentation materials provided at StormWaterUtilityOahu.org.

2. Public Comment

There were no public comments.

See *slides 5 and 6* of the presentation materials.

3. New Member Introduction

New Storm Water-Wastewater Advisory Group (SW-WAG) members and current members who were unable to participate in past SW-WAG meetings were invited to introduce themselves and share the name of the organization they are representing.

New SW-WAG members:

- Kapiolani Street – Castle & Cooke (Developer Representative)
- Kathleen Pahinui – Neighborhood Board 27, North Shore
- Susan Domingo - Neighborhood Board 15, Kalihi-Palama
- Daniel Bender – Neighborhood Board 29, Kahalu‘u (*not in attendance*)

See *slide 7* of the presentation materials.

4. Storm Water Updates

Note: There were no storm water updates at the meeting. The August meeting will include storm water rate and affordability discussions.

See *slide 8* of the presentation materials.

5. Wastewater

Recap of Previous Meetings & Today’s Objectives

Dave Ebersold (CDM Smith) provided a recap of the previous (June 24th) meeting and explained the primary focus for the current meeting would be on the rate structure and affordability.

The previous discussions included an overview of ENV’s wastewater system and the differences in the water systems. A natural nexus exists between storm water and wastewater, even though there are substantive differences in infrastructure, treatment, regulation, and management. The different steps in wastewater treatment were also reviewed, including preliminary treatment, primary treatment and secondary treatment.

Honouliuli Treatment Plant Tour – July 20th, 2024 – The SW-WAG members were invited to attend a tour of Honouliuli Wastewater Treatment Plant (WWTP) in ‘Ewa to learn more about the wastewater system and recent improvements. The first tour took place on Saturday, July 20, 2024, and was led by Roger Babcock, Director and Chief Engineer of ENV. The SW-WAG members who participated in the tour were

invited to share highlights and new perspectives gained from the tour. Examples of their observations included:

- Compared to the Hilo wastewater treatment plant, the Honouliuli WWTP is 'state of the art' and it is clear recycling and reuse is taking place.
- Liked seeing innovations as well as next steps for improvements.
- Liked seeing the full cycle of processing.

The next tour was scheduled for Saturday, August 3, 2024.

Consent Decree – Dave reviewed the Consent Decree issued by the United States Department of Justice that requires specific actions for the City and County of Honolulu to remain in compliance with its binding conditions. Dave explained that upgrades must be made within a specific timeframe for each of the three phases. The first and second phases were completed on time; the third phase, which requires Sand Island to upgrade to secondary treatment by 2035, is currently in progress.

Examples of ENV's capital projects from each basin on O'ahu were provided. Additionally, Dave shared an overview of upcoming climate change-related actions that will be taken at ENV facilities, including raising Sand Island WWTP's facilities by approximately 16 feet above sea level, conducting a vulnerability assessment for pump stations, and rehabilitating sewer infrastructure in low lying areas.

Weighting Rate Objectives Poll – Rates must fund the entire ENV wastewater system. The wastewater program does not receive support from property taxes, and other sources such as fines and fees are not a significant revenue source. ENV is required by City ordinance to be fiscally self-sufficient in providing wastewater services. During the previous meeting, rate objectives were discussed and weighted via a 'dot' ranking exercise. These objectives will be further explored during Advisory Group meetings.

Meeting Purpose – The overall meeting purpose is to engage Advisory Group members in discussion and seek their input regarding ENV increasing sewer rates. The rates will need to balance public and environmental health and safety with affordability for rate payers.

See *slides 9-23* of the presentation materials, including the 'dot' ranking results.

Deep Dive on Rate Structure

ENV Current Rates - Residential – Dave reminded the group that ENV's current rate structure consists of two components: a fixed charge and a volumetric charge based on water usage. For single-family and duplex dwellings, the fixed charge is \$77.55 per month and the volumetric charge is \$4.63 per 1,000 gallons of metered water usage per month. For multi-family dwellings (three or more units), the monthly volumetric charge is the same (\$4.63 per 1,000 gallons of metered water usage) but the fixed charge is \$53.32 per dwelling unit per month. Single-family and duplex dwellings that are not connected to the Honolulu Board of Water Supply (BWS) system pay a fixed charge of \$110.89 and do not pay a volumetric charge since their water usage cannot be determined. The value of \$110.89 was selected to be the fixed charge since it represents the monthly bill of average single-family dwelling. Multi-family dwellings that are not connected to the BWS system are charged a fixed charge of \$86.65 per month. Then, Dave shared an example of how to calculate the monthly bill for a single-family with 9,000 gallons of water consumption, which is the average amount of water used by a single-family connected to ENV's system per month.

Q&A

Please note: For all Q&A / Discussion sections, the notes with dashes (-) represent comments and questions from SW-WAG members and the notes with open points (o) represent the project team's responses.

- What is the justification for reducing the water volume for the 20% irrigation factor?
 - o Dave responded that the irrigation factor or credit is based on the idea that water used to irrigate a yard or landscaping does not enter the sewer system because it is absorbed into the ground.

Comparing Board of Water Supply (BWS) versus ENV Monthly Bills – A comparison between a single-family residence's monthly water and sewer bills (using 9,000 gallons per month, with a ¾" water meter) was presented. At present, approximately 20 percent of a BWS water bill is a fixed charge and approximately 80 percent is a volumetric charge. The current ENV sewer bill for a single-family residence at 9,000 gallons of water use is comprised of approximately 71 percent fixed charge and 29 percent volumetric charge. For both bills, the volumetric charge is based on water use.

Q&A

- Will there be an explanation for the reasons behind the difference in percentages?
 - o Dave responded that from ENV's perspective, the higher percentage of fixed charge is associated with the goal of achieving revenue stability.
 - o Roger shared that the current structure was implemented around 2011 when the last rate increase and re-structuring took place. The large percentage fixed charge in the current rate structure supports revenue stability and services, but the specific percentage charged today is not stipulated by any particular requirement or policy.

ENV Current Rates - Non-Residential – Dave then explained that sewer rates for non-residential customers (e.g. businesses, governmental entities, hotels, etc.) also have a fixed charge, which is currently set at \$77.55 per month per Equivalent Single-Family Dwelling Units (ESDU). An ESDU is based on the average single-family residence's water usage of 9,000-gallon per month. For non-residential customers (e.g. businesses, organizations) ENV used past evaluations of non-residential customers' water usage and converted it into the number of ESDUs (number of units equivalent to a single-family residence with an average water use of 9,000 gallons per month). For new construction, the Department of Planning and Permitting calculates how many ESDUs an entity will generate based on wastewater design flows. For remodeling, DPP looks at the plans to see if there will be a change to the water use and therefore a change to water entering the sewer system to determine if more ESDUs will be added. In addition to the fixed charge per ESDU, non-residential customers also pay a monthly volumetric charge based on measured water consumption. This non-residential volumetric charge is also set at \$4.63 per 1,000 gallons of metered water use per month.

ENV is authorized by ordinance to charge a higher rate for extra strength wastewater. There are relatively few customers that generate extra strength wastewater in the ENV service area. Application of this surcharge requires extensive monitoring from ENV. Therefore, it is uncommon that ENV applies this charge; however, the authority to impose it remains available. Roger added that extra strength charges are only applied to a very few large industrial users.

Wastewater Affordability – The results of a rate survey documenting 1) the average monthly wastewater bill for a single-family residence using 7,500 gallons of water per month, and 2) the monthly wastewater affordability target as defined by the US Environmental Protection Agency (2% of the monthly median household income) was presented for the 50 largest cities across the United States. ENV's monthly wastewater bill for a single-family residence using 7,500 gallons of water per month (\$105.33 per month) and Honolulu's wastewater affordability target (\$145 per month) was also presented. Since the current monthly ENV bill for a single-family customer at 7,500 gallons of water use is less than Honolulu's wastewater affordability target, ENV's rates currently meet the EPA's affordability guidelines. When comparing ENV's monthly bill to the average monthly bill of the 50 largest US cities, there are a few cities with a higher monthly bill than ENV and a number of other cities with a lower monthly bill than ENV. While this metric is widely applied, the shortcomings of applying this metric to suggest affordability for all customers on O'ahu was acknowledged.

Q&A

- Is the median household income calculated at a national or state level?
 - o Dave responded that the median household income calculation is specific to the geographic area served by each city's primary sewer provider.
- Since the chart is based on 7,500 gallons per month, will ENV's calculations based on 9,000 gallons per month still meet the affordability target?
 - o Dave clarified that even with the 9,000 gallons per month calculation, O'ahu is still within EPA wastewater affordability guidelines for a household with O'ahu's median income.
- There are only six cities with a monthly wastewater bill higher than Honolulu?
 - o Dave responded that among the cities included, yes. The example provided only looks at wastewater charges.

County Rate Comparison (July 1st, 2024) Single-family Residence, 9,000 gallons per month – County wastewater bill comparisons were presented for the Hawai'i counties. Kaua'i and Hawai'i counties' monthly wastewater bills are 100 percent fixed charges, with customers paying the same amount regardless of water usage. Kaua'i County is increasing its rates by 11 percent per year from 2024-2028. Hawai'i County's rates are anticipated to rise given that the county has entered an Administrative Order on consent with the EPA on April 1st, 2024. Maui County bills are a mix of fixed and volumetric charges, similar to ENV's. Maui's sewer rates are also expected to increase as they begin to deal with treatment and disposal requirements from the Supreme Court's rulings pertaining to injection wells.

2023 Single Family Water Use Curve, Excluding Zero Usage Bills – ENV's single-family median water usage (50th percentile, distinct from the average) is 6,000 gallons per month. The average water usage (total water usage divided by all monthly bills) is 9,000 gallons per month, and 70 percent of the bills issued are at the average amount or lower. Approximately 10 percent of customers use less than 2,000 gallons per month. Only approximately two percent of customers use more than 30,000 gallons of water per month. When considering what and whose bills are being affected, these metrics are very important.

Rate Structure – Rate structure describes how each customer type (e.g. single-family, non-residential, etc.) will be charged to meet ENV's revenue requirement.

Varying the Volume vs Fixed Charge Proportions – Approximately 71% of ENV's current bill is a fixed charge while approximately 29% is a volumetric charge. The percentage of the charge that is fixed and

the percentage that is volumetric can be changed. At the most extreme ends of the spectrum, a rate could be entirely fixed or entirely volumetric.

Volumetric Rate can be Uniform or Tiered – A **uniform** volumetric rate means that the same rate is charged per specified volume of water (e.g., per 1,000 gallons of water) no matter how much water is used. **Uniform** volumetric rate is the most common volumetric rate structure used for wastewater service. A **tiered** rate means that the rate per specific volume of water increases with the amount of water used. For example, one rate could be applied to the first 1,000 gallons of water used and then a higher rate could be applied for the next 1,000 gallons of water used in that same month. When the rate per 1,000 gallons increases with more water use, an important incentive for conservation is created. BWS uses a **tiered** rate for residential customers to promote greater water conservation.

Please note: All mentions of **uniform** volumetric rate will be completed in **orange text** while all mentions of **tiered** volumetric rate will be completed in **purple text**.

Q&A

- If the volumetric component is retained, should it be **uniform** or **tiered**?
 - o A **uniform** rate is the most common for wastewater service. However, a **tiered** (changing) volumetric rate more strongly promotes water conservation.
- When speaking of fixed vs. volumetric charges, wouldn't you have a rate case analysis where you are able to look at all costs, considering labor, etc.? Would data support more of a split, rather than a rate entirely comprised of one type of charge or the other?
 - o Dave responded that some utilities structure their rates to align them with the percentages of overall system costs that are fixed versus those that are variable. In a utility like ENV, more of the rate would be fixed if it was based on actual costs since there are very few variable costs. Another way utilities approach this decision is by looking at what proportion of the budget is for debt service. The SW-WAG will have an opportunity to further discuss the best proportions of fixed vs. volumetric charges.
 - o Joan offered that the different proportions help to achieve the objectives in different ways and to different degrees. Reviewing these objectives can help the Group evaluate the possible proportions.
 - o Another SW-WAG member shared that in discussing costs of service, providing ENV's operating costs would be helpful.

Weighted Rate Objective Results – Results from the June SW-WAG meeting's rate objective weighing exercise were shared (see 6/24 SW-WAG meeting summary).¹ Dave explained that some of the objectives influence the rate structure and some are more closely tied to the overall revenue needed for the utility.

He reported that promoting water conservation was suggested as an important objective by some SW-WAG members. The desire for more conservation can influence rate structure choices, specifically to have a greater portion of the bill be volumetric. A **tiered** structure promotes even more water conservation as those who use more water are charged at a higher rate.

¹ <https://www.stormwaterutilityoahu.org/stakeholder-advisory-group/>

Comparison of Rate Structures – Dave explained that the rate objectives discussed during the June meeting’s exercise were carried forward so the SW-WAG could analyze how the objectives change based on whether the charge is volumetric or fixed.

- Transparent and Understandable – A 100 percent fixed charge (customers pay the same amount regardless of water use) is easiest to understand. Volumetric charges can be more difficult to understand and require more public communication. A **tiered** volumetric rate adds even more complexity than a **uniform** volumetric rate.
- Supporting Affordability – Under a 100 percent fixed charge, customers pay the same amount regardless of water use. Therefore, low water users pay the same amount as high water users. Additionally, a 100 percent fixed charge means less customer control over their bill and could impact low-income customers. On the other end of the spectrum, if 100 percent of the bill is a volumetric charge, then customers can control their bill based on the amount of water they use. However, shifting to a 100 percent volumetric charge poses revenue sufficiency and predictability issues.
- Stable and Predictable – When the rate is 100 percent fixed, customers know how much they will pay each month and the utility knows how much revenue it will receive. As you increase the percent of the bill that is based on a volumetric charge, you also increase the variability in monthly bills and revenue. Therefore, as you increase the portion of the bill that is volumetric you also decrease the stability and predictability of customers’ bills and utility revenue.
- Fair and Equitable – Everyone paying the same amount per month regardless of usage is generally not considered equitable because the charge is not linked to individual customer’s impact on the system. If a bill is completely volumetric (based solely on water usage), this is generally considered more equitable.
- Promoting Water Conservation² – A 100 percent fixed rate does not encourage conservation because there is no financial incentive to use less water. Charging based on the amount of water consumption tends to promote conservation.

Providing sufficient revenue, complying with all relevant laws and regulations, and supporting a strong ENV credit rating are considered “required” objectives; these are objectives that must be met for ENV to remain in compliance with laws.

Q&A

- When the Advisory Group selected those objectives during the weighting exercise, members lacked context to base their decision-making, so this conversation is helpful. But there is also an issue pertaining to ‘minimum’ and ‘maximums.’ Everyone needs some minimum amount of service; beyond that, there are many complexities.
 - o Dave inquired which objective the Advisory Group member believed they would change based on the discussion.
 - The Advisory Group member replied that they would have ranked ‘fair and equitable’ much higher; perhaps even as the number one choice.
- Water consumption does not always correlate with income level. Are there any examples of this?

² Rate objective suggested by SW-WAG stakeholders.

- Low-income, multi-generational households are an example. Three or more generations living in the same household will use more water than, for example, a smaller household with higher income.
- Another consideration is that people who have a higher income will spend more money on better appliances and have access to other resources to reduce water usage or spend additional time installing water barrels. The ability to have more income allows people to address water usage, so this speaks to equity.
 - Dave responded that there are ways to apply for credits and other ways to reduce costs for those with lower incomes and resources.
- For older systems, there is no trigger that would alert someone of a leak. The only way to find out is when the bill arrives and shows water usage has gone up. In order to be fair and equitable there should be a trigger system to let customers know their costs are increasing.
 - For some BWS customers, there are electronic smart meters that measure water usage every 15 minutes. Customers who have these meters can sign up for alerts and they will receive a text message or email advising them of the change in usage. It also allows the utility to notify customers of small and large leaks, especially if they have no other way of knowing the leak is happening.
 - Waiʻanae is a test area for smart meters that allow customers to access meter information, but wide-spread implementation is years into the future. Smart meters provide access to usage information via a smartphone. An attachment is placed on pipes and fixtures in a household and will then alert users of any leaks. These options provide more control.

Exploring Changes in the Percentage Fixed Charge Uniform Volume Rate – An analysis was conducted that looked at how the monthly ENV bill would be altered by changing the rate structure. **Note that the calculations were based on the 2024 budget and DOES NOT include necessary increases in revenue requirement.** The monthly bill was calculated for a single-family residence at different water usage levels (2,000 gallons, 6,000 gallons, 9,000 gallons, and 35,000 gallons) and at different combinations of fixed and **uniform** volumetric charges (0 percent fixed and 100 percent **uniform** volumetric to 100 percent fixed and 0 percent **uniform** volumetric). For example, at 9,000 gallons of water use, a single-family residence would pay \$125.59 per month under a 100 percent **uniform** volumetric charge and \$105.57 per month under a 100 percent fixed charge.

ENV's current rate structure is approximately 70% fixed and 30% **uniform** volumetric. If ENV chose to increase the percentage of the bill that is **uniform** volumetric (e.g., from 70% fixed and 30% **uniform** volumetric to 20% fixed and 80% **uniform** volumetric), the monthly bill for lower water users would decrease while the monthly bill for higher water users would significantly increase. Note that the average single-family residential customer uses 9,000 gallons per month (70 percent of ENV's customers use 9,000 gallons or less). Additionally, only approximately 2 percent of ENV customers use 35,000 gallons per month or more.

See *slides 39-42* of the presentation materials.

Q&A

- This discussion about rates doesn't seem to account for someone's ability to pay.
 - Dave responded that affordability will be part of the discussion in the latter part of the presentation. There are paths to affordability based on how the rate is ultimately structured.

Additionally, there are affordability measures that are independent of rate structure which will also be discussed.

- Can you provide more information as to who the high-volume water users are?
 - o Dave responded that when BWS was doing its rate evaluations they went through their billing database and mapped users based on 30,000+ gallon usage per month. These customers were found to be largely in more affluent areas (e.g. Lanikai, Hawai'i Kai).
 - o BWS used a mapping technique to evaluate properties and determined high-level users were in higher income areas. However, anomaly areas like Kalihi and Waipahu were also found and point to the presence of multi-family and multi-generational households in these areas.

Tiered Volume Rate Example - Single-Family Residential – An analysis was conducted that evaluated what the ENV monthly bill would look like under a **tiered** volumetric charge instead of a **uniform** volumetric charge. **Note that the calculations were based on the 2024 budget and DOES NOT include necessary increases in revenue requirement.** Purely as an example of the type of tiering that could be done, the current BWS tiers were used for this analysis: Tier 1 (first 2,000 gallons of water use per month), Tier 2 (2001 to 6,000 gallons of water use per month), Tier 3 (6,001 to 30,000 gallons of water use per month), and Tier 4 (30,000 gallons or more of water use per month). For this analysis, the current ENV **uniform** rate was applied to Tier 3, 90% of the **uniform** rate was applied to Tier 2, and 70% of the **uniform** rate was applied to Tier 1. Any additional funds required to meet the revenue requirement would then be allocated to Tier 4 (this tier “floats”). Dave showcased how changing the volumetric rate from **uniform** to **tiered** would impact the monthly bill at different water consumption levels (2,000 gallons of water usage, 9,000 gallons of water usage, and 35,000 gallons of water usage).

At 100 percent fixed and 0 percent **tiered** volumetric, the total monthly bill would be the same as the bill under a 100 percent fixed charge and 0 percent **uniform** volumetric charge since none of the bill is volumetric based. However, at 0 percent fixed and 100 percent **tiered** volumetric, the total monthly bill for 2,000 gallons of water use would be \$8.37 LESS than a 100 percent **uniform** volumetric charge. At a 0 percent fixed and 100 percent **tiered** volumetric charge, the total monthly bill for 9,000 gallons of water use would be \$13.95 LESS than a 100% percent **uniform** volumetric charge. Conversely, at a 0 percent fixed and 100 percent **tiered** volumetric charge, the total monthly bill for 35,000 gallons of water use would be \$104.70 MORE than a 100% percent **uniform** volumetric charge. Therefore, under a **tiered** volumetric charge lower water users would pay less than they would under a **uniform** volumetric charge. However, higher water users would pay significantly more under a **tiered** volumetric charge than they would under a **uniform** volumetric charge.

See *slides 43-48* of the presentation materials.

Q&A

- Why is Tier 3 so large?
 - o Dave explained that it is tied to BWS’s goal to ensure low-income and multi-generational households are not impacted. It is important to remember these particular tiers are only examples for the purpose of the presentation.
- In discussing fair and equitable, why are people paying the same rate regardless of their distance from the nearest wastewater treatment plant? Those that are closer to a plant could potentially pay less.
 - o Dave responded that the charge is tied to services provided and is not based on the distance between the customer and location of the treatment plant. Billing based on distance would be

complicated and likely very inequitable. Customers pay based on the level of service being provided regardless of where in the collection system their particular property is located.

- Non-residential customers are currently billed based on ESDUs, which are calculated on residential customers average usage. Is this going to continue?
 - o If the rate structure is changed to a 100 percent volumetric charge (either uniform volumetric or tiered volumetric), the number of ESDUs would not impact the bill since the entire bill would be based on water usage. Anytime there is a fixed charge component, there needs to be a method to create equivalency between the residential customers and non-residential customers, such as the use of ESDUs.
- What is the distribution of flows between commercial and residential users?
 - o The number of ESDUs for commercial customers ranges from 1 to approximately 4,000. In terms of usage and the total number of customers, this information is provided in the May 13, 2024 SW-WAG presentation (meeting #1).³

Exploring Changes in the Percentage Fixed Charge Tiered Volume Rate – Joan distributed a rate structure and affordability worksheet for SW-WAG members to review and to use to provide feedback based on the discussion. Worksheet input received from Advisory Group members has been transcribed and incorporated into the meeting summary as **Appendix A**.

Q&A

- Based on the first question on the worksheet, Joan asked the Advisory Group if they believed ENV should change its 70 percent fixed charge – If so, how and why?
 - o A preference for a 50-50 charge was voiced. The 70 percent fixed charge is too high; the respondent believes ENV should lower the fixed rate and increase the volumetric charge.
 - o Another Advisory Group member shared they would like to see what a 10 percent fixed rate would look like. More specifically, it was requested ENV share how much it needs monthly to operate.
 - Dave shared that ENV’s current rates are built around its revenue requirement (~\$409 million annually). The rates ensure the total revenue needed to operate and meet debt service obligations is met. This information can be found in the June 24, 2024 SW-WAG presentation (meeting #2).⁴
 - The Water Environment Federation manual explains the generally accepted methodologies for setting wastewater rates. This current rate setting process is in alignment with the Water Environment Federation manual’s approaches. If the percent fixed rate is lowered from 70 percent, ENV might need to raise the base rates since ENV has not increased their rates in more than 11 years. In terms of fairness, it is recognized that a fixed rate is less equitable. Therefore, providing customers with the ability to manipulate their water usage to lower their sewer bill would be more acceptable to the public.
- Communities are complex; they involve kūpuna, schools, industrial users, residential users, etc. What can be done to help kūpuna, especially those that are not connected to the sewer system, to

³ https://www.stormwaterutilityoahu.org/wp-content/uploads/Final_SW-WW-AG-Presentation-Slides_240513-1.pdf

⁴ https://www.stormwaterutilityoahu.org/wp-content/uploads/FINAL_SW-WAG-Presentation_062424.pdf

allow them to decide when and how to use water in their household? What are the rebates going to look like?

- Dave responded that those who have cesspools do not have to pay ENV sewer bills.
- Joan inquired if, in terms of proportions, there is a specific one that has the greatest benefits for low-income households.
 - Dave responded that a 100 percent **tiered** volumetric charge would benefit the lowest water users. However, there are many low-income households that need to use more water to meet their needs. For those customers, a fully volumetric charge—especially a **tiered** volumetric charge—would not benefit them.
- For clarification and to provide transparency, with a 90 percent volumetric rate, what would a 10 percent fixed charge look like?
 - Dave responded that if, for example, your bill is \$35 per month and 10 percent of that bill is fixed, that would amount to \$3.50, and the remaining cost would be based on water usage.
- What is the structure BWS developed for fixed and variable portions in relation to addressing impacts for low-income households? ENV could consider the same approach.
 - Dave responded that BWS took a different approach. They developed a “monthly billing charge” now known as “customer charge.” BWS chose which expenses they would include in the “customer charge” and the cost of those expenses falls under fixed (i.e. billing administration, meter maintenance, customer service, staff costs). ENV could consider this approach.

For the second question on the rate structure worksheet, Joan asked Advisory Group members their opinion on an entirely fixed charge (e.g. wastewater utilities such as Kaua’i and Hawai’i County). Is this a good idea? No support was provided from the group for a 100 percent fixed charge.

Addressing the third question on the worksheet, Joan asked if a volumetric component is retained, should that component be **uniform** or **tiered**, and why?

- Advisory Group members requested clarification on what the policy implications are. A **tiered** structured approach appears to be more preferred, but with caveats.
 - Dave responded that typically water utilities use a **tiered** structure because it is more likely to encourage water conservation (i.e., the more you use the more you pay).
 - Some support for a **tiered** structure was expressed. BWS currently uses a **tiered** structure, and it is easy to understand.
- Customers should be notified well in advance of any rate changes to avoid rate shock and allow them to prepare before the new rates go into effect.
- Are there mechanisms to penalize people who use excessive amounts of water while allowing for certain family units and multi-generational households to prove their status and their reasoning for higher levels of usage?
 - Dave responded that shifting to a large percentage on the volumetric charge would benefit lower water users. The SW-WAG will have the opportunity to discuss options for affordability programs that are outside of the rate structure at a later date.
- Further clarification was requested regarding the pros and cons and the differences between volumetric **uniform** and **tiered** rates. Which prioritizes fairness, which supports affordability, which promotes water conservation?

- Dave responded that for the volumetric portion of the bill there are two ways to implement it: **uniform** or **tiered**. **Uniform** bills the same amount per 1,000 gallons, regardless of usage. If the rate per 1,000 gallons changes, then it is **tiered**. In a **tiered** rate, a customer who is using large amounts of water will pay more per 1,000 gallons for each increased increment of water usage (tier). Volumetric rates therefore are more likely to address conservation and fairness concerns.

Due to the limited time remaining for the meeting, the Advisory Group was unable to address the remaining questions on the rate structure worksheet. Joan advised stakeholders they could take the worksheet with them and send any additional responses and/or input to Randall Wakumoto (DFM). The SW-WAG is welcome to provide feedback at any time.

See *slides 24-52* of the presentation materials.

6. Affordability Programs

Due to time constraints the SW-WAG was unable to discuss the information pertaining to Affordability Programs. This discussion will be resumed during the August 19, 2024, SW-WAG meeting.

See *slides 53-77* of the presentation materials.

7. ENV Updates

Roger stated that the SW-WAG would continue the process of comparing different rate structures and will have the opportunity to provide further input. If affordability is the objective, there are different “levers” that can be used to achieve this. Rate structuring is complicated; whether you are rewarding water conservation or making all customers pay the same rate, ultimately the total revenue generation needs to meet ENV’s requirements. Whether it is the rate structure or a customer assistance program, someone will still have to make up the difference for whomever is paying less. These are the tradeoffs stakeholders must be mindful of when determining what is best for customers. Additionally, it is important to remember that if a rate structure is changed dramatically, it can lead to rate shock. When thinking of fairness, maintaining a balance is important.

See *slide 78* of the presentation materials.

8. Wrap Up

The next SW-WW Advisory Group meeting will be held on Monday, August 19, 2024, at the Neal Blaisdell Center. The conference room may change and will be confirmed in the August agenda.

Dave shared that the August meeting will cover the affordability programs discussion included in this meeting’s presentation which the SW-WAG was unable to review. Additionally, rate modeling results and sample bill examples, as well as a draft rate proposal, will be explored. In September, results of additional alternatives / modeling and a revised rate proposal will be presented to the Advisory Group, and stakeholders will be able to provide feedback.

Randall reminded SW-WAG members that the second tour of Honouliuli Wastewater Treatment Plant will take place Saturday, August 3, 2024, and they are welcome to attend.

See *slides 79-82* of the presentation materials.

The meeting ended at 6:30 PM.

APPENDIX A

City and County of Honolulu
Storm Water & Wastewater Advisory Group Meeting
Monday, July 22, 2024; 4:00-6:30 PM

Rate Structure Discussion Transcribed Responses:

Rate Structure Discussion:

1) Should ENV change from 70% of its charged being fixed? If so, how and why?

- Yes. Should enable customers to have more control over their bill.
- Yes, support water conservation to allow customers to have control over their bill.
- Yes should be changed. Could be a low water user and still have a high sewer bill. If it could be more in line with water use \$28 H2O bill with \$100 sewer bill. Hard for kupuna to pay. Promotes water conservation.
- I would shift toward charges based on volume – perhaps solely based on volume. Give people more control over what they pay. Encourage conservation. Make it based on what a household can pay – although volume isn't always tied to income that's probably generally the case. High occupancy households – or over crowded households – are likely to have more workers and a higher household income – even if low income.
- I support a change from the current 70% fixed charge down to 50% over time ideally not to exceed 10% rate increase.
- Yes 50% - 50% (to start) to give customers more control or their bill (water conservation behaviors).
- Bring down at least to 50%.
- Yes to increase incentives to manage water use. Not sure what would be most effective – maybe 30% fixed?
- Unsure. The visitor industry is a key driver of our economy. If reducing the fixed portion causes too much of an increase to hotels, they will raise hotel costs which could have major economic impacts.
- ENV should consider changing the fix to variable ratio in combination with a tiered rate structure to achieve affordable optimization. Correlate a fixed rate charge that's fair, equitable and incentivizes conservation of water use.

- Yes, if supportable, promote more conservation. And...so customers can control the amount of their sewer bill. Rising tier notes.
- Yes. Perhaps 50:50 with a tiered volumetric. I'd want to ensure the fixed rate is a stable amount of revenue for ENV each month (assuming 9,000 gal/month stays consistent). I'd like to see data that includes these numbers (A total row with the % of the necessary monthly revenue that fixed rate is). If there's an increase every 5 years, would it be towards the fixed or volumetric rate?
- Based on this information today, I would absolutely change it as I think that for the interest of conservation, we should give it a chance. Just looking at numbers I would advocate more for 40% (fixed) with a tiered structure for the additional 60%. (Especially knowing that the egregious users are higher income areas.)
- Yes, fixed should not be more than 50%. Could increase volume rate to encourage conservation.

2) Many wastewater utilities, including on Kaua'i and Hawai'i, have an entirely fixed charge. Would this be a good idea or ENV? Why or why not?

- No because those who are harder on the system pay same as SFR. Pay what you use.
- No. It gives no incentive to conserve water.
- No, because it penalizes the lower household income earners and benefits the higher income/higher user/consumption customer.
- No, customers want to control their bill. Not equitable. If I go Vegas for a month and don't flush once, it's not fair that I have to pay a full bill.
- I assume that this would not incentivize reduced usage, so I think no.
- No. [because it] would not be equitable with no incentive to conserve. There would be a great amount of people who'd find it unfair.
- NO! It makes no sense to me to not distinguish between water usage when we need to be encouraging water conservation.
- No. I see no upside to an entirely fixed charge for the same reasons implied by the above.
- No, because of the urban shift.
- No! Honolulu needs to encourage conservation.
- No, there would be no benefit to conservation.
- No, it's not equitable and does not incentivize water conservation.

- I would not support an entirely fixed charge as this disincentives conservation.
- No. Same reason as #1 above. [*“Should enable customers to have more control over their bill.”*]

3) If a volumetric component is retained, should it be uniform (as it currently is) or tiered? Why?

- No should be based on usage like H2O usage. Tiered structure is preferred.
- Water – tiered structure – more used, more paid. Waste – tiered.
- Tiered to encourage conservation.
- Should be tiered to encourage water conservation.
- Tiers seem to support equity and conservation goals best.
- The 6001 to 30,000 category is too broad use sq. ft. under roof as a way to level the playing field for multi-generational HH [households] while appropriately charging more to smaller HH [households] that are just large water users. While not perfect it at least tries to account for larger HH [households].
- It should be tiered to incentivize conservation.
Question: By decoupling the sewer billing from BWS, wouldn't that increase the administrative cost for ENV? Why not consider keeping the billing with BWS and leverage the synergies. Recommend studying the cost/benefits of the change before deciding on accepting the change.
- Tier to promote conservation and tie to impact on ww [wastewater] system. Is there a greater impact on ww [wastewater] system during peak demand? % rate higher/year CAP avoid rate shock.
- Tiered can allow for gradual shift with equitability. Encourages conservation. Account for multi-gen households. It would be nice to at least see what the numbers would be. I agree it would be good to be able to distinguish in billing multi-gen vs. just a mansion in a high-income neighborhood.
- I don't have a strong opinion but leaning toward tiered for encouraging conservation.
- At first, [another SW-WAG member's] comments convinced me that a tiered volumetric rate would be fairest, but I can't give an informed opinion without having sample scenarios – a shopping center, a hotel, etc.
- I think I agree with this. In principle, I agree with it because it is another level of conservation focused efforts, but I am unsure whether another level is fair vs. just charging for usage.

- I don't see a point to a tiered structure at least not in the way proposed below (where the % fixed charge is so high). If you moved to charges based more or solely on volume, then a tiered structure might make fore sense. A tier more conservative use, reasonable use, and excessive use. All things considered, I wouldn't bother with tiers – I'd just shift to a volume-based change. Also, tiers penalizes households with more people assuming that consumption goes up in connection with household #'s going up.
- Uniform. I am concerned that some larger multifamily households maybe adversely affected by a tiered rate structure.

Affordability Discussion:

1) Should ENV do more to support customer affordability? Why or why not?

- Yes. Need to offer rebate or some other type of assistance based on income.
- Yes. Hawaii's rising costs are not affordable.
- Yes, educating the public about the volumetric sliding scale comparison with other cities/counties similar to Oahu. Uniform or tiered comparison based on output.
- Yes, for those most in need.
- Yes, to help support those customers in low income areas.
- Yes & no. I think it's being well thought out, but I'd like to see some other policy options explained.

2) If you answered more, what specifically would you recommend?

- An annual kupuna rebate – like the property tax exemption. Federal programs for aide/assistance.
- Do this (*commenter points to "ENV's Current Affordability Programs" provided on worksheet*).

ENV's Current Affordability Programs

- Moved to monthly billing
- Zero interest, case-by-case payment plans
- Bill adjustments for underground leaks
- Water conservation device rebates
- Referral to community social-service support
 - Helping Hands
 - Catholic Charities
- I'd like to see the state pressure DOD expenditures to foot the bill for most infrastructure fixed costs. Whether it be Red Hill, bombing, high cost of living because of subsidized military allowances for housing – taxpayers in Hawaii are paying a vastly higher amount for the military to be here than other states.
- ENV – What is their minimum fixed % to operate. Sliding scale for incentives?
- A low income discount paid for by other rate payers.
- Reassess water use trends at various times to establish new realistic baselines (more for commercial customers).

Exploring Changes in the Percentage Fixed Charge Tiered Volume Rate

This table has been revised to incorporate comments from the SW-WAG requesting the inclusion of additional data.

UNIFORM		Percentage Fixed Charge										
Monthly Water Consumption (gallons)	Charge	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
2,000	Fixed Charge	\$0.00	\$10.56	\$21.11	\$31.67	\$42.23	\$52.79	\$63.34	\$73.90	\$84.46	\$95.02	\$105.57
	Volume Charge	\$27.91	\$25.12	\$22.33	\$19.54	\$16.75	\$13.95	\$11.16	\$8.37	\$5.58	\$2.79	\$0.00
	Total	\$27.91	\$35.68	\$43.44	\$51.21	\$58.97	\$66.74	\$74.51	\$82.27	\$90.04	\$97.81	\$105.57
9,000	Fixed Charge	\$0.00	\$10.56	\$21.11	\$31.67	\$42.23	\$52.79	\$63.34	\$73.90	\$84.46	\$95.02	\$105.57
	Volume Charge	\$125.59	\$113.03	\$100.47	\$87.91	\$75.35	\$62.80	\$50.24	\$37.68	\$25.12	\$12.56	\$0.00
	Total	\$125.59	\$123.59	\$121.59	\$119.59	\$117.58	\$115.58	\$113.58	\$111.58	\$109.58	\$107.57	\$105.57
35,000	Fixed Charge	\$0.00	\$10.56	\$21.11	\$31.67	\$42.23	\$52.79	\$63.34	\$73.90	\$84.46	\$95.02	\$105.57
	Volume Charge	\$488.41	\$439.57	\$390.73	\$341.88	\$293.04	\$244.20	\$195.36	\$146.52	\$97.68	\$48.84	\$0.00
	Total	\$488.41	\$450.12	\$411.84	\$373.56	\$335.27	\$296.99	\$258.71	\$220.42	\$182.14	\$143.86	\$105.57
TIERED		Percentage Fixed Charge										
Monthly Water Consumption (gallons)	Charge	0%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
2,000	Fixed Charge	\$0.00	\$10.56	\$21.11	\$31.67	\$42.23	\$52.79	\$63.34	\$73.90	\$84.46	\$95.02	\$105.57
	Volume Charge	\$19.54	\$17.58	\$15.63	\$13.68	\$11.72	\$9.77	\$7.81	\$5.86	\$3.91	\$1.95	\$0.00
	Total	\$19.54	\$28.14	\$36.74	\$45.35	\$53.95	\$62.55	\$71.16	\$79.76	\$88.37	\$96.97	\$105.57
9,000	Fixed Charge	\$0.00	\$10.56	\$21.11	\$31.67	\$42.23	\$52.79	\$63.34	\$73.90	\$84.46	\$95.02	\$105.57
	Volume Charge	\$111.64	\$100.47	\$89.31	\$78.15	\$66.98	\$55.82	\$44.65	\$33.49	\$22.33	\$11.16	\$0.00
	Total	\$111.64	\$111.03	\$110.42	\$109.82	\$109.21	\$108.60	\$108.00	\$107.39	\$106.79	\$106.18	\$105.57
35,000	Fixed Charge	\$0.00	\$10.56	\$21.11	\$31.67	\$42.23	\$52.79	\$63.34	\$73.90	\$84.46	\$95.02	\$105.57
	Volume Charge	\$593.11	\$533.80	\$474.49	\$415.17	\$355.86	\$296.55	\$237.24	\$177.93	\$118.62	\$59.31	\$0.00
	Total	\$593.11	\$544.35	\$495.60	\$446.85	\$398.09	\$349.34	\$300.59	\$251.83	\$203.08	\$154.33	\$105.57

100% Volumetric
Approximate Current ENV Structure
100% Fixed