



KA WAI OLA

WATER FOR LIFE

Honolulu Board of Water Supply

Stakeholder Advisory Group Meeting 58

Thursday, February 26, 2026, 4:00 – 6:00 pm

Online via Zoom

Meeting Notes

PURPOSE AND ORGANIZATION OF MEETING NOTES

The purpose of these notes is to provide an overview of the Board of Water Supply (BWS) Stakeholder Advisory Group meeting. They are not intended as a transcript or as minutes. Major points of the presentations are summarized herein, primarily for context. Copies of presentation materials were provided to all participants and are available on the BWS website. Participants made many comments and asked many questions during the meeting. These are paraphrased to be more concise.

ATTENDEES

This was an in-person meeting in which 13 stakeholders participated, in addition to BWS staff, consultants and members of the public. The stakeholders represent diverse interests and communities island wide.

The following Stakeholders Advisory Group members attended:

Alison Richardson	Coca-Cola Company
Bob Leinau	Resident of Council District 2
Cynthia Rezentes	Resident of Council District 1
Dana Okano	Hawaii Community Foundation
Dean Okimoto	‘Nalo Farms, Inc.
Elizabeth Reilly	Resident of Council District 4
Guy Yamamoto	YHB Hawaii
Helen Nakano	Resident of Council District 5
Jicky Ferrer	AARP Hawaii
Josh Stanbro	Hawaii Council
Mark Fox	Environmental
Shari Ishikawa	Hawaiian Electric Company
Wayne Tanaka	Sierra Club

WELCOME

Facilitator Dave Ebersold welcomed everyone to the 58th meeting of the BWS Stakeholder Advisory Group.

Meeting objectives were identified as:

- Provide BWS updates
- Water Master Plan scorecard update for 2024
- New scorecard revisions
- CIP process and prioritization

PUBLIC COMMENTS: None.

BWS UPDATES

Dave invited Ernest Lau, BWS Manager and Chief Engineer, to share BWS updates. Ernest started with an update on developments with Red Hill. He explained that in 2023, the Navy and the EPA entered an administrative consent order that included a commitment to community engagement through the Community Representation Initiative, or CRI. This initiative was intended to create a forum where representatives from the community, selected by their peers, could meet directly with the Navy and EPA to discuss concerns. Ernest noted that the community recently learned that the Navy will no longer attend CRI meetings, which is disappointing given that community engagement was a major issue raised during the development of the consent order. He added that while the Navy has indicated it will still participate in annual town halls and open houses, it will no longer meet directly with CRI members on a regular basis.

Wayne Tanaka, a Stakeholder Advisory Group member and Sierra Club representative, added that the Navy's withdrawal is especially frustrating given its history of missing CRI meetings and providing limited or unresponsive answers when present. Wayne also expressed disappointment with the EPA, noting that the CRI was one of the few concessions made in response to significant public input during the consent order process. He pointed out that the consent order requires a public hearing before substantive changes are made and stated that no hearings occurred prior to the Navy stepping away from the CRI. Wayne also highlighted ongoing efforts to advance legislation that would increase the frequency of Fuel Tank Advisory Committee meetings from twice a year to at least four times annually, creating additional opportunities for public engagement.

Ernest emphasized that the Red Hill issue is ongoing and has entered a more difficult phase focused on accountability, regulatory oversight, and long-term remediation of the land and water. He noted that both the Navy and regulators have cited low attendance at meetings as a concern but suggested that the structure and timing of meetings can influence public participation, including factors such as holding meetings during working hours or limiting opportunities for public input.

COMMENT: Bob Leinau suggested that the public submit comments to the Honolulu Star-Advertiser to reinforce concerns about Red Hill and support continued accountability efforts.

Ernest continued his presentation by referencing Senate Bill 2093, which would require the Department of Health to hold quarterly Fuel Tank Advisory Committee meetings. He noted that these meetings bring together the Navy, regulators, elected officials, and the public, and would provide an important venue for continued community input and oversight.

WATER MASTER PLAN SCORECARD UPDATE

Dave began his presentation and discussion on the Water Master Plan scorecard results and potential

updates. He provided background that the scorecard was developed as part of the previous Water Master Plan to track implementation progress against established goals. He noted that the BWS Board of Directors adopted a process requiring annual updates of the scorecard, and his presentation reflects the most recent update using data from 2024.

Dave explained that each scorecard indicator includes a defined metric, how it is measured, its purpose, associated goals, baseline values, and current performance. He emphasized that the scorecard is organized around six functional areas, sustain, capture, treat, move, store, and deliver, along with a seventh category for tools and planning. He also encouraged members to consider whether the current 29 indicators are appropriate, whether they dilute impact, and which 3 to 5 metrics are most important for tracking performance.

Carl Lundin, Environmental Engineer with CDM Smith, continued the presentation with a high-level overview of all indicators across the functional areas to provide context before reviewing each in detail. The indicators are noted in the table below.

Metric	Indicator	Metric	Indicator
Sustain	Supply from nonpotable sources	Store	Reservoir restrictions
	Annual water resource yield		Storage deficient pressure zones
	Watershed management		Reservoir condition assessment
	Conservation	Deliver	Pipeline breaks
Capture	Standby source capacity		Transmission pipeline breaks
	Water level at index wells		Non-revenue water
	Permitted or assessed sustainable yield		High risk pipelines
Treat	Water quality regulatory compliance		Pipeline R&R
	Treatment on-line		Fire hydrant supply
	Treatment system condition assessment		Pipeline leak detection
Move	Sufficient pump capacity		PWA pipeline condition assessment
	Pumps available for use	Tools and Planning	Water Mater Plan update
	Emergency power		Hydraulic models and CapPlan updated
	Pump station condition assessment		GIS update
	SCADA reliability		

Under Sustain, Carl described metrics focused on long-term resource management, including non-potable water use, annual water yield, watershed management, and conservation. Under Capture, he outlined indicators related to extracting water from aquifers, including standby source capacity, aquifer levels, and permitted yields. Under Treat, Carl covered regulatory compliance, treatment system availability, and condition assessments. Under Move, he described system capacity to transport water, including pump capacity, availability, emergency power, and condition assessments. Under Store, Carl reviewed reservoir-related metrics and a condition assessment. Under Deliver, he covered distribution system performance such as pipeline breaks, leaks, and hydrant functionality. He also outlined Tools and Planning metrics, which include updates to planning models, GIS systems, and SCADA reliability.

QUESTION: Josh Stanbro asked whether affordability metrics were included in the scorecard. Carl explained that affordability is addressed through financial planning and rate studies rather than within the implementation-focused scorecard.

QUESTION: Bob Leinau asked about fire hydrant reliability, particularly concerns about older pipelines affecting hydrant performance. BWS Information Officer Kathleen Elliott-Pahinui confirmed hydrants are tested every eight months and invited Bob to contact her about specific locations. Ernest Lau added that adequacy also depends on pipe condition, flow, pressure, and hydrant spacing.

Carl resumed his presentation by reviewing performance under the Sustain category. For non-potable water use, he noted the goal was over 12%, but current usage remains around 6%, largely due to lack of demand for available recycled water systems. Ernest Lau emphasized long-term goals to expand recycled water infrastructure and how BWS encourages on-site reuse in developments.

COMMENT: Dana Okano clarified that demand for recycled water has increased, but barriers such as infrastructure and regulations limit access. Ernest Lau agreed and noted growing interest and efforts to expand reuse.

QUESTION: Josh Stanbro asked whether the scorecard goals are tied to specific target years. Carl Lundin explained that while a few metrics include target years, most are currently open-ended without defined timelines. Dave Ebersold added that many of the goals were originally set based on desired conditions at the time of the 2016 Water Master Plan. Kathleen Elliott-Pahinui noted that BWS is beginning work on a new five-year strategic plan, which will incorporate selected Water Master Plan metrics and assign clearer start and end dates for tracking progress.

Carl continued his presentation, reporting that annual water resource yield remains well within sustainable limits at 71% of allowable yield, yet below the 90% target. For watershed management, funding has remained steady, though limitations are tied to partner capacity. Ernest Lau added that BWS is exploring expanding in-house efforts, particularly for wildfire mitigation in high-risk areas like the Wai'anae Coast.

QUESTION: Josh Stanbro asked whether BWS is considering doing more work in-house, such as establishing crews or handling improvements on its own properties. Ernest Lau confirmed that BWS is exploring ways to operationalize these efforts internally, including expanding grounds crews to take on ongoing vegetation management and wildfire mitigation work on BWS lands.

Carl continued, noting that watershed survey metrics have significantly exceeded targets due to a shift from ground-based to aerial/satellite methods, making the original goal outdated. He also explained that fencing goals have largely been met and shifted toward maintenance.

COMMENT: Barry Usagawa noted that while BWS is exploring more in-house efforts, this does not preclude continued partnerships with DLNR and watershed groups when opportunities arise. He added that previous funding benchmarks, such as allocating 4% of CIP to watershed efforts, may no longer be appropriate since the CIP has more than doubled since 2016, and future funding approaches should better reflect current program scale and partner capacity.

Under conservation, Carl reported that per capita water use has already met the long-term goal (142 GPCD versus a target of 145 by 2040), indicating strong performance, though this raises questions about whether goals should be updated.

Moving into Capture indicators, Carl explained that standby source capacity is at 42%, meeting the goal of maintaining redundancy. Aquifer levels are stable at 100%, indicating no over-extraction. However,

two sources exceeded permitted sustainable yield limits, largely due to operational shifts following the shutdown of key sources like Hālawā Shaft.

For Treat indicators, Carl reported zero regulatory violations over the past decade, with full compliance with water quality standards. As system performance has improved over time, the focus has shifted to treatment-related metrics. The first key measure aims to keep regulatory violations at zero and has successfully maintained for the past decade, now measured more precisely as days of violation. The second key measure evaluates whether treatment and chlorination systems are fully operational, with a goal of 100 percent availability, which is currently being met. The third involves completing comprehensive treatment system condition assessments on a five-year cycle, with the most recent assessment nearing completion following the last full review in 2021.

QUESTION: Bob Leinau asked which regulatory standards BWS must comply with and whether those requirements are currently changing. Carl Lundin explained that compliance is set by the Hawai'i Department of Health, which adopts EPA regulations and may make them more stringent. Ernest Lau added that while no formal changes have been enacted yet, the Environmental Protection Agency is considering updates to PFAS regulations, including reducing the number of regulated compounds and potentially extending compliance deadlines beyond 2029. BWS Civil Engineer Marc Chun clarified that current rules regulate six PFAS compounds, with discussions underway to reduce that number and possibly delay enforcement to 2031, though BWS continues to plan for the original 2029 deadline. Wayne Tanaka added that the federal government has repealed the endangerment finding related to greenhouse gas emissions in the transportation sector, raising concerns about increased emissions, potential rollback of additional regulations, and broader impacts on climate change and public health.

Carl Lundin continued his presentation. For Move indicators, he reported that pump capacity meets targets, but pump availability has dropped to 67%, below the 90% goal, due to delays in refurbishment projects.

QUESTION: Bob Leinau asked how much of the system's daily pumping needs are supported by redundancy during normal operations. Carl Lundin explained that overall system capacity is roughly double what is needed, and planning typically assumes one unit is offline to ensure reliability. Ernest Lau added that pumps are among the highest maintenance components and can fail, sometimes requiring significant time to repair or replace. He noted that BWS is working to increase redundancy through additional wells and pumps, though permitting challenges can slow progress. Lau also introduced Jennifer Faler as the new head of the Capital Projects Division, who is working to advance repair and improvement projects.

Carl continued discussing Move indicators, reporting that emergency power capacity now meets targets, with sufficient backup generation to serve most of the population at essential-use levels during outages. Ernest added that while most areas can be served, some localized outages would still occur during major disasters, and BWS continues to expand generator capacity with support from the Federal Emergency Management Agency and state funding.

For Store indicators, Carl explained that reservoir restrictions are minimal and within targets. However, about 10% of pressure zones remain storage-deficient, largely due to geographic and infrastructure constraints, particularly in urban Honolulu. Dave Ebersold and Ernest elaborated that limited land availability at required elevations makes adding new reservoirs difficult, and operational workarounds such as pumping between zones are used instead.

QUESTION: Bob Leinau asked about coordination with developers to improve storage capacity. Ernest

Lau and Barry Usagawa explained that BWS partners with developers like Koa Ridge and Ho'opili to put in the infrastructure themselves and collaborate to build bigger infrastructure to support their development.

QUESTION: Josh Stanbro asked whether storage limitations are due to geography or community resistance. Ernest Lau explained that both factors play a role, with limited suitable land and community concerns affecting siting of new reservoirs.

QUESTION: Jicky Ferrer asked whether BWS coordinates with PV farms to capture rainwater runoff from panels for reuse. Barry Usagawa said BWS is not currently pursuing water capture from PV farms, noting that while panels create hard surfaces, rainwater can still flow around them and contribute to groundwater recharge.

QUESTION: Jicky Ferrer asked if ongoing construction along the H-2 freeway near Waipahu is related to BWS or associated with fuel pipeline infrastructure. Ernest Lau clarified that the work is not a BWS project and is likely related to Department of Transportation activities.

Carl Lundin continued with Deliver indicators reviewing pipeline performance. Main breaks and leaks exceed targets (353 versus a goal of ~300 annually), though distinctions between proactive leak repairs and emergency breaks are now being tracked and may be separated in future metrics. Non-revenue water has risen to about 15%, above the 8% benchmark, and is identified as a key issue under further investigation.

COMMENT: Bob Leinau suggested requiring paving contractors to mark valve locations promptly to reduce delays during repairs. Ernest Lau acknowledged the concern and noted that coordination with state and city agencies is ongoing, though paving is outside BWS control.

Carl Lundin reported that high-risk pipeline percentages appear elevated due to scoring methodology issues rather than actual system deterioration, and that pipeline replacement rates have fallen short of the 1% annual target. Ernest Lau explained this shift is due to reprioritization of funding toward new water sources following the Red Hill crisis, increased demand from housing development, and future needs related to transit-oriented development.

Carl confirmed that fire hydrant performance meets targets, and that leak detection has shifted toward satellite-based methods, improving efficiency. Pipeline condition assessment efforts have been paused due to limited effectiveness of available technologies.

For Tools and Planning indicators, Carl noted that updates to the master plan, hydraulic models, GIS systems, and SCADA upgrades are all on track.

Dave thanked Carl for his presentation and opened discussion for feedback on the scorecard.

COMMENT: Josh Stanbro suggested separating metrics into categories for maintaining performance versus driving improvement, updating goals that have already been met, and revisiting conservation, watershed funding, and non-revenue water strategies. Barry Usagawa responded that conservation and watershed efforts remain priorities and will continue to be refined and acknowledged that non-revenue water is a major focus area.

QUESTION: Dean Okimoto asked about expanding the use of recycled water in agriculture. Ernest Lau

noted that both federal and state regulatory frameworks, along with emerging concerns such as PFAS in biosolids, influence how recycled water can be used in agriculture.

COMMENT: Bob Leinau suggested gathering internal feedback from BWS staff through surveys to identify key metrics. Ernest Lau agreed and noted that internal BWS Divisions have already been asked to provide input and suggested differentiating between operational and strategic metrics.

Dave concluded by inviting participants to share their top two or three most important indicators for measuring BWS performance, asking them to submit responses in the chat. He noted that these inputs would help inform how the Board evaluates whether it is effectively managing the system.

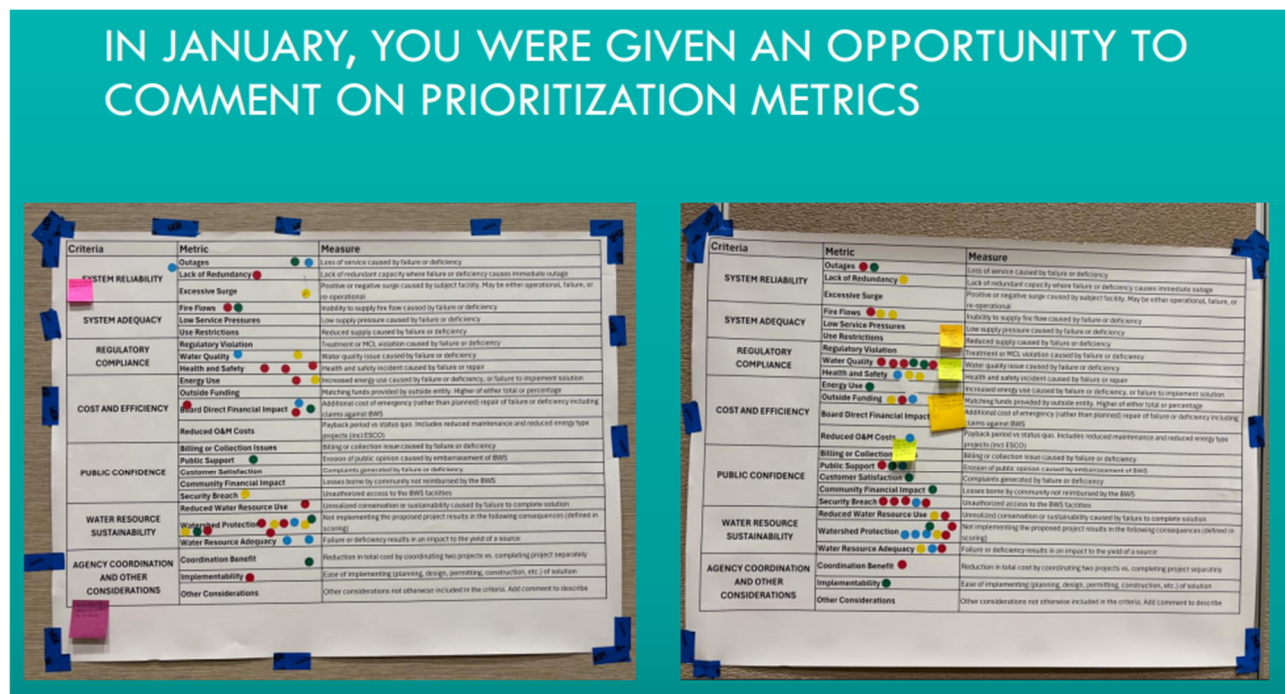
COMMENT: Alison Richardson suggested that several of the performance metrics could be grouped under operational or maintenance-related categories, such as tracking ongoing maintenance activities, work orders, or system performance indicators, rather than being listed separately.

ACCEPT MEETING NOTES

This was deferred to a future meeting.

CAPITAL IMPROVEMENT PLAN PROCESS AND PRIORITIZATION

Dave Ebersold led a discussion on the Capital Improvement Program prioritization process which the group discussed at the previous meeting. The group’s feedback is shown in the image below.



Dave noted that based on this feedback, BWS staff increased scoring weights for security breaches and watershed protection, refining the water equity metric to include contamination, and expanding outside funding considerations to include potential military contributions. He explained that additional input was needed to better define and measure “water equity,” asking members to identify key elements that should be included in that concept.

COMMENT: Josh Stanbro referenced the concept of an energy burden index, suggesting a similar

metric for water that evaluates how much of a household's income is spent on water and sewer bills. He also emphasized tiered rate structures, noting that ensuring essential water use remains affordable while higher usage is charged at increasing rates is an important equity consideration.

Q: Dana Okano commented on how equity could address households above the poverty line but still struggling financially. She highlighted the ALICE population and suggested that traditional affordability metrics may not fully capture their needs. Kathleen Elliott-Pahinui responded that recent focus groups included ALICE participants and revealed new insights, which will be shared with the group to help inform future approaches.

COMMENT: Josh Stanbro said that while consistent service is important, BWS appears to perform well in this area. He suggested expanding equity considerations to include access for cultural practices, small farmers, and other underserved non-residential uses.

COMMENT: Ernest Lau asked whether a portion of funding could be dedicated specifically to equity programs, proposing allocating a percentage of funding toward assistance programs for underserved populations, such as retrofits and water audits. Josh Stanbro supported the idea, suggesting redistributing existing conservation funding to include a dedicated equity component targeting lower-income households.

COMMENT: Barry Usagawa emphasized that equity should also be viewed through implementation, ensuring programs and infrastructure investments are distributed fairly across all regions, not just high-demand urban areas. He noted this applies to conservation programs, pipeline replacements, and climate resilience efforts.

COMMENT: Wayne Tanaka added that equity considerations should incorporate legal and historical frameworks, including public trust responsibilities, access for Native Hawaiian and cultural uses, and prioritization of essential needs over less critical uses. He noted challenges in balancing these priorities with political and economic realities.

NEXT STEPS

Dave shared the list of stakeholder advisory group meetings for 2026:

- March 19 (virtual)
- April 16 (in person)
- July 16 (in person)
- September 17 (virtual)
- October 15 (in person)
- November 19 (virtual)

Dave thanked the attendees for their attention and participation and concluded the meeting.