



## **BOARD OF WATER SUPPLY**

**Duane R. Miyashiro**, Chair; **Adam C. Wong**, Vice-Chair; **David C. Hulihee**; **Kapua Sproat**; **Bryan P. Andaya**; **Ross S. Sasamura**, Ex-Officio; **Ford N. Fuchigami**, Ex-Officio; **Ernest Y.W. Lau**, P.E., Manager and Chief Engineer; **Ellen E. Kitamura**, P.E., Deputy Manager and Chief Engineer

### **POWERS, DUTIES, AND FUNCTIONS**

The Board of Water Supply (BWS) manages Oahu's municipal water resources and distribution system, providing residents with a safe, dependable, and affordable drinking water supply now and into the future. As the largest municipal water utility in the state of Hawaii, the BWS delivered potable and non-potable water to approximately one million customers on Oahu in Fiscal Year 2016. The BWS carefully and proactively manages and invests in its intricate system, consisting of 94 active potable water sources, 171 reservoirs, and nearly 2,100 miles of pipeline.

The BWS is a financially self-sufficient, semi-autonomous agency of the City and County of Honolulu. Its operations and projects are financed with revenues generated by water transmission and distribution fees. It receives no tax money from the city. The BWS also issues revenue bonds and pursues federal grants and State Revolving Fund loans to help subsidize BWS projects.

The BWS is governed by a Board of Directors (Board), consisting of seven members. Five members are appointed by the Mayor and are confirmed by the Honolulu City Council. The remaining two serve in their capacities as the Director of the state Department of Transportation, and the Director and Chief Engineer of the city's Department of Facility Maintenance. The Board appoints the BWS Manager and Chief Engineer to administer the department.

### **Capital Projects Division**

The Capital Projects Division formulates the annual Capital Improvement Program and implements design and construction projects for new source, storage, treatment, transmission and distribution facilities, and repair, maintenance and upgrades of aging water mains and facilities.

### **Customer Care Division**

The Customer Care Division interfaces with BWS customers to provide services in the areas of bill payments, delinquent bills, account inquiries, water service investigations, review of building permit applications, new water services, and investigation of water leaks and possible causes for high water bills.

### **Field Operations Division**

The Field Operations Division maintains and repairs Oahu's water delivery system, which includes all pipelines, valves, and fire hydrants. This division also maintains the BWS's corporation yards and conducts landscaping work at all of its facilities.

### **Finance Division**

The Finance Division ensures the BWS's financial resources are efficiently and effectively managed by providing support for all of the BWS's financial and fiscal functions, including financial reporting, general accounting, payroll, accounts payable, planning and analysis, fixed assets, treasury, debt and investment management, meter reading and customer billing.

### **Information Technology Division**

The Information Technology Division plans, designs, implements, maintains, and supports BWS information technology (IT) and geographic information system (GIS) applications and the BWS IT infrastructure, which includes physical and virtual data centers, servers, personal computers, mobile computing, wired and wireless network communications, telephone systems, the call center system, and video surveillance systems.

### **Land Division**

The Land Division acquires real property and interests therein, in the name of the City and County of Honolulu for BWS use through purchase, condemnation, lease, easement, and executive land order; recommends to the City Council the disposal of surplus real property; and manages real property and real property interests that are under the control of the BWS.

### **Water Quality Division**

The Water Quality Division manages the BWS's compliance with all federal and state drinking water and applicable environmental rules and regulations. This division also manages microbiological and chemical laboratories.

### **Water Resources Division**

The Water Resources Division directs the BWS's long-range water resource and capital planning for the island's water system, and ensures that there is an adequate water supply for current and future water users.

### **Water System Operations Division**

The Water System Operations Division monitors, maintains, repairs, and operates the BWS's diverse water systems, including well and booster stations, control valves, and the various water treatment facilities. This division also inventories, maintains, and repairs the BWS's fleet of motor vehicles, construction equipment, and trailers.

## Office of the Manager and Chief Engineer

The Office of the Manager and Chief Engineer administers the affairs of the BWS in accordance with policies and regulations adopted by the Board and the provisions of the Revised Charter of the City and County of Honolulu; provides comprehensive strategic communication services and support to all divisions, including internal communications and external communications with key stakeholder groups such as customers, community/advocacy groups, neighborhood boards, media, and elected officials; oversees the development and execution of the operating budget, capital improvement program, and departmental revenues; administers and manages human resource classification, recruitment and examination, and labor relations; develops and implements plans and policies to improve security for BWS employees, water resources, and distribution system; and develops and executes risk management and emergency preparedness and response in coordination with other city, state, and federal agencies.

## ACCOMPLISHMENTS

- BWS is developing a long-range Water Master Plan (WMP) – scheduled for adoption in October 2016 – that is a comprehensive evaluation of BWS’s water supplies, needs, and infrastructure over a 30-year period and includes population and water use projections, evaluation of the current system (including causes of water main breaks), and considerations for conservation, watershed management, recycled water and climate change adaptation;
- In May of 2016, BWS celebrated the first year of the Stakeholder Advisory Group (SAG) - a group comprised of nearly 30 local residents, civic organization leaders, and business and environmental professionals, covering all City Council districts - whose purpose is to provide important feedback on the BWS WMP, financial plan, proposed rate study and other important initiatives such as water conservation, recycled water and watershed management; the SAG effort demonstrates BWS’s commitment to increase responsiveness and transparency of public engagement and communications;
- Conducted approximately 17,046 chemical tests, 9,290 microbiological, and 9,873 chlorine residual and other quality tests on samples collected from its sources, distribution systems, and treatment facilities to ensure all water served is safe to drink; chemical tests performed this fiscal year include continued monitoring of BWS wells near the Navy Red Hill Bulk Fuel Facility in response to a fuel leak reported by the Navy in January 2014, and is conducting its own studies to assess the impact the leak may have on the groundwater aquifer;
- In June 2016, BWS completed its annual production of the Consumer Confidence Report, also known as the Water Quality Report, and mailed it to all BWS customers on record to provide information on the quality of the water delivered from the BWS system; the report is also available online at [www.boardofwatersupply.com](http://www.boardofwatersupply.com); the Water Quality Division also placed ads in Honolulu newspapers, including various ethnic language publications, to inform community members of the distribution;
- Responded to 326 main breaks, or about 14 breaks per 100 miles of pipeline, with over \$6.7 million in water main construction projects that systematically identified aging and corroded water mains that needed to be replaced to improve system reliability, reduce main breaks, and to ensure sufficient pressure; concurrently, fire hydrants were replaced to improve fire protection and meet current standards; design contracts were awarded for water main replacements in Kalihi, Keolu Hills, Lanakila, Makakilo, Moanalua, Pauoa, Pearl City, Waiau and Waipio; the BWS continues work on improvement plans that will ensure BWS meets regulations and State Dam Safety requirements;
- BWS entered into a 20-year, \$33 million Energy Savings Performance Contract with NORESKO LLC, allowing BWS to implement comprehensive energy efficiency, renewable energy, and operational improvements which guarantees enough energy savings over the next 20 years to pay for the contract; the project is financed by a loan from the Drinking Water State Revolving Fund, managed by the State of Hawaii Department of Health;
- BWS began the five-year apprenticeship program for Plant Electrical Electronic Equipment Repairer (PEEER) positions that provides classroom and on-the-job training to develop highly-skilled licensed electricians needed to maintain over 200 BWS pump, treatment and emergency generator facilities across Oahu; the first class of PEEER apprentices was hired in 2016;
- BWS partnered with the Hawaii State Fusion Center (HSFC) to increase its threat awareness via interagency sharing of information not otherwise available through other means; access to shared information from federal sources, as well as other HSFC partners, supports BWS’s cyber security program and its focus on improving critical infrastructure security and resilience;
- BWS’s communications efforts resulted in features in Hawaii Business magazine focusing on Oahu’s drinking water and Hawaii Home and Remodeling magazine focusing on xeriscape gardening; new conservation advertising for TV and radio were also created and published; sponsored its 38th annual Water Conservation Week Poster Contest and the 8th annual Water Conservation Week Poetry Contest, receiving more than 1,500 posters and 450 poems from more than 60 Oahu schools, focused on the theme “Pure Water – There Is No Substitute,” in which the winning entries will be featured in the 2017

Water Conservation Calendar scheduled for distribution in December 2016; launched the “free seed of the month” program through the Halawa Xeriscape Garden;

- Improved customer service experience by implementing enhanced telephone service standards, initiating a library of standards, procedures and guidelines for staff use and training, revised call center training program for new employees, and instituted a customer escalation process to support prompt resolution of customer issues; completed a major redesign of the decade-old BWS website to provide a more dynamic, cleaner look, and easier navigation with platform independence – enabling a seamless experience whether using desktop/laptop computer, tablet or smartphone.