

Derek S. K. Kawakami
Mayor



Kurt Akamine
Chair, Board of Water

DEPARTMENT OF WATER

COUNTY OF KAUAI

4398 Pua Loke Street Lihu'e, HI 96766

Telephone (808) 245-5400

Fax (808) 245-5813

Web www.kauaiwater.org

Honorable Derek S. K. Kawakami.
Mayor of the County of Kaua'i
And Chairperson and Members of the
County Council, County of Kaua'i
Lihu'e, HI 96766

Ladies and Gentlemen:

The Board of Water Supply, County of Kaua'i (BWS, Board) is proud to present the annual report for the 2020 fiscal year ending June 30, 2020. This report includes a description of each program, objectives, and accomplishments of the Department of Water (DOW), design and construction projects completed and in progress, operations reports, the DOW's financial status, and changes in physical assets. Because the DOW derives all of its revenue from water service sales, it has no direct subsidies or contributions from the Kaua'i County General Fund.

In FY 2020, the DOW maintained operations, managed over \$19 million of Water Plan 2020 projects and fifty-two (52) private projects, and continues to progress in utilizing the Build America Bond (BAB) fund. Construction is ongoing for the Drill and Test Kapa'a Well No. 4 and Drainage Improvements Project, as well as the Hanapēpē-Elē'ele Water System Improvements Projects, which includes the Hanapēpē Road 6-Inch Main Replacement and the Kaumuali'i Highway 16-Inch Main and Emergency Booster Pump Connection Project. Construction has also started for the Rehabilitate Paua Valley 0.5 MG Concrete Tank No. 1 project. In Fiscal Year 2021, we anticipate construction will commence for the following three projects: Demolition of Kukui'olono 0.2 MG Tank, Kīlauea Wells No. 1 and No. 2 MCC, Chlorination Facilities, and the Kalāheo Water System Improvements project.

On May 27, 2020 the Board of Water adopted a rule change to reduce the Facilities Reserve Charge by \$4,235 for Additional Rental Units as well as Guest Houses containing a kitchen. The DOW continues to work on a one-of-a-kind Island-Wide Vulnerability and Resiliency Assessment. This assessment will identify and prioritize mitigation actions to enhance our preparedness for hurricanes and extreme events, as well as our recovery capabilities. We are also continuing a Master Plan for the DOW Baseyard in Lihu'e, aimed at maximizing the utilization of the existing baseyard facilities and providing future-focused solutions for the Department's growing needs.

On May 28, 2020 the Board of Water implemented a fiscal policy to establish and maintain a minimum reserve of 30% of the DOW's operating revenues to ensure financial stability and provide flexibility in responding to emergencies. The DOW continues to strive for excellence and continuous improvement in its efforts to provide safe, affordable, and sufficient drinking water to the people of Kaua'i with excellent customer service.

Sincerely,

A handwritten signature in black ink, appearing to read "Kurt Akamine", written in a cursive style.

Kurt Akamine
Chairperson
Board of Water Supply, County of Kaua'i



Annual Report for Fiscal Year 2019-2020

Kuleana Wai



*“Together, we
provide safe,
affordable and
sufficient drinking
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**ANNUAL REPORT
FISCAL YEAR 2019 – 2020**

I. MISSION STATEMENT

The following mission statement serves as the guiding principle for the Department of Water (DOW). The mission statement was established in 1998.

Department of Water – Mission Statement

“Together, we provide safe, affordable and sufficient drinking water through wise management of our resources and with excellent customer service for the people of Kaua'i”

II. ORGANIZATION (County Charter, §17.01)

There shall be a Department of Water Supply consisting of a Board of Water Supply (“BWS, COK” or “Board”), a Manager and Chief Engineer and the necessary staff.

The DOW is a self-supporting entity of the County of Kaua'i. The DOW’s revenue is derived from water service sales with no direct subsidy form, or contributions to the County General Fund. The DOW’s water service revenue is used for the operation and maintenance of each water system. In efforts to provide for adequate funding in the future, the DOW will periodically study its water service rates and it’s Facilities Reserve Charge (FRC). The FRC is a fee to be paid by new developers or customers requesting additional water supply from the DOW’s water system.

A. BOARD OF WATER SUPPLY: (County Charter, §17.02)

The BWS shall consist of seven (7) members, four (4) of whom shall be appointed by the Mayor, with the approval of the Council; one (1) of whom shall be the State District Engineer of the Department of Transportation; and two (2) of whom shall be the County Engineer and the Planning Director.

By unanimous vote, Kurt Akamine was appointed as Board Chairperson for calendar year 2020. The BWS also appointed Julie Simonton as Vice Chairperson and Ka`aina Hull as Board Secretary.

	<u>Term Expires</u>
Julie Simonton , Vice Chairperson	12/31/22
Kurt Akamine , Chair	12/31/21
Elesther Calipjo , (Board Member)	12/31/21
Gregory Kamm (Board Member)	12/31/22
Lawrence Dill (State District Engineer)	(ex-officio)
Troy Tanigawa (County Engineer)	(ex-officio)
Ka`aina Hull (Planning Director & Board Secretary)	(ex-officio)

1. Power & Duties of the Board (County Charter, §17.03)

The Board shall manage, control and operate the waterworks of the County and all property thereof, for the purpose of supplying water to the public and shall collect, receive, expend and account for all other moneys and property provided for the use or benefit of such waterworks.

- a. The Board shall maintain accounts to show its complete financial status and the results of management and operations.
- b. The Board may provide for a reserve fund, issue revenue bonds, provide for payment of bonds, expend bond funds and other funds, establish rates and charges, acquire property, sue and be sued, and engage in and undertake all other activities as provided for in Chapter 145-A, Revised Laws of Hawaii 1955, and as may be hereafter provided for by law.
- c. The Board may make and, from time to time, alter, amend, and repeal rules and regulations relating to the management, control, operation, preservation and protection of the waterworks. Such rules and regulations shall have the force and effect of law. Penalties for the violation of any rule or regulation shall be set forth in the rules and Regulations.

B. STAFF (County Charter, §17.04)

The Board shall appoint an engineer duly registered under Hawai'i State laws pertaining to registration of engineers. He shall be known as the Manager and Chief Engineer, and shall be the head of the Department. He shall have the powers and duties prescribed by the Board.

For FY19-20, the DOW funded one hundred twenty five (125) positions, including positions that were partially funded and six (6) summer interns. There were six (6) new hires. Included in these personnel activities, there were eight (8) promotions, one (1) demotion, one (1) transfer, one (5) re-descriptions, two (2) retirements, and five (5) resignations.

The DOW recognized its 2019 Employees of the Year, Elliott Jung of the Fiscal Division and Rayjerry Silva from the DOW's Operations Division.

There are eight (8) divisions under the management of the Manager and Chief Engineer.

1. ADMINISTRATION DIVISION

Under the Manager and Chief Engineer, the administrative staff included ten (10) positions of which thirteen (13) were budgeted for FY19-20. The Administration Division is responsible for the day to day management of the Department and coordination between the DOW and the public, including customers, governmental organizations, and public inquiries; personnel management; contract management; management of Board affairs; and providing service to, and oversight of the operation of each of the six (6) divisions.

Current Staff:

Vacant – Manager and Chief Engineer

Vacant – Deputy Manager-Engineer
Vacant – Civil Engineer VII
Mahealani Krafft – Deputy County Attorney
Mary-jane Akuna – Private Secretary
Vacant – Secretary
Debra Peay – Human Resources Coordinator
Chrysanthemum Erorita- Departmental Contracts Officer
Edith Ignacio-Neumiller – Commission Support Clerk
Margie Mills – Program Support Technician I
Vacant – Senior Clerk
Jonell Kaohelaulii – Information and Education Specialist
Jason Fujinaka – Information Specialist I

Program Description

Administration leads, directs and manages the activities of the Department and provides administrative support for all divisions including: personnel services, clerical support, legal support, community relations, information technology (IT), training and safety; intergovernmental coordination with Federal, State and County agencies; and coordination of long-range planning and Department programs and activities among the divisions.

Program Objectives

- a. Provide support for the BWS, COK in its role to manage, control, and operate the waterworks of the County, and all property thereof; adoption of the DOW's budget and establishment of water service rates and charges; and facilitate development and implementation of administrative rules and Board policies.
- b. Administer the Department's staff and provide support for the operating divisions, through provision of clerical, personnel, legal and IT services; coordination of Department-wide programs; establishing goals, objectives and assignments for the operating divisions; and providing operational financial and procurement oversight for the Divisions.
- c. Provide leadership for the Department's community relations and intergovernmental coordination with other federal, state, and county agencies.
- d. Coordinate Department-wide initiatives and programs, including long range planning, development of business and capital improvement program strategies, staff and organizational development, water system security and adoption, and integration of new technologies.
- e. Communicate internal outreach to employees during monthly staff meetings and weekly Division Head/Lead meetings to ensure all employees are aware of new or amended rules and regulations as well as various issues that require staff attention.
- f. The Department's Administrative support team is comprised of the Private Secretary, Secretary, Commission Support Clerk, Program Support Technician, and Senior Clerk, along with Public Relations and Human Resources. This team implements cross training to support the duties that need immediate assistance on a daily basis, which

allows the Department to function without interruptions when clerical or administrative support is needed throughout all divisions.

Program Highlights

- a. The DOW continues to work on Water Plan 2020 (WP2020) projects. Public outreach to promote water conservation and environmental education, including sponsoring Project WET (Water Education for Teachers), and coordinating of the Make-A-Splash Festival (MAS).
- b. The DOW continues to work with and support the Kaua‘i Watershed Alliance (KWA), an organization for mauka landowners dedicated to watershed conservation and management. The KWA has hired The Nature Conservancy of Hawai‘i (TNC) as the coordinator for the Alliance. The Department, while not a landowner, is a member of the Alliance and continues to support the conservation goals and efforts of this group in recognition of the critical importance of the watershed for maintenance and enhancement of the water resources of the island.
- c. The Department also continues the work with and support the United States Geological Survey’s (USGS) Groundwater Monitoring Program to continue to collect data and evaluate the status and trends of water levels in selected wells on the island.

The following summary is an overview of some of the key Department-wide accomplishments for FY19-20.

Board of Water Supply Items

- a. Approved funding requests in support of training efforts and staff reorganization.
- b. The Board approved the DOW’s FY19-20 operating budget of \$29,500,000 contracting Fifteen (15) new contracts and the following agreements:
 - Hawai‘i Water Agency Response Network (HIWARN) Mutual Aid and Assistance Agreement (*City and County of Honolulu, Honolulu Board of Water Supply; County of Hawai‘i, Department of Water Supply; Department of Water, County of Kaua‘i*)
 - Memorandum of Agreement between the Director of Finance, County of Kaua‘i and the Board of Water Supply, County of Kaua‘i for the Maluhia Road and Kōloa Road Improvement Project Federal-Aid Project NO. TGR 0700(072) (*Kalaheo – Kōloa Water System*)
- c. Rule Changes
 - Part 5, Facilities Reserve Charge, Section III Applicability adopted amendments on May 27, 2020 effective June 15, 2020. This rule change reduces the Facilities Reserve Charge by \$4,235 for Additional Rental Units as well as Guest Houses containing a kitchen.
- d. Water Service Rates
 - Four (4) water service rate increases were implemented on January 1, 2012 and every July 1st thereafter for fiscal years 2013, 2014 and 2015. There were no scheduled water service rate increases for FY16-17 which was the last of the five (5) years in the water rate study. In FY19-20, there were no scheduled water service

rate increases. The Department continues to use the last rate structure which was effective on July 1, 2014.

Departmental Programs

- a. The DOW is a member of the American Water Works Association (AWWA). This is a non-profit organization that benefits the DOW to improve public health with dedication to managing and treating the world's most precious resource with standards and applications of resource and training to the DOW staff.
- b. The DOW is also a member of the Hawai'i Water Works Association (HWWA). HWWA is a locally based non-profit organization and a branch of AWWA. HWWA provides the DOW as the initial point of contact concerning water system standards and the improvement of practice in operating and management of the water works and government policies to the stewardship of water.
- c. Tracking American Water Works Association (AWWA) Performance Indicators in areas of finance, customer service, operations and system replacement.
- d. The DOW continues to strive towards reducing operational costs by filling vacant positions and reducing overtime. This process is incremental and is being hindered because overtime is sometimes needed to cover essential functions as a result of reorganizations that have taken years to complete.
- e. The DOW continues to provide leadership in emergency preparedness through its participation in the Utility Disaster Preparedness and Response Group which is comprised of twenty-one members of electric utility, communications, fuel and gas representatives, private water agencies, hospital representatives including Federal, State, and County Agencies, in order to provide support for the maintenance, repair, and/or restoration of all public utilities serving the County during any emergency or disaster.
- f. Trainings completed in FY19-20 include:
 - Project WET Conference
 - Hawai'i Rural Water Association Conference Training
 - Pacific Water Conference Training
 - American Waterworks Association Conference Training
 - Skillpath Workshops and Webinars

Public Relations

Program Description

The Public Relations (PR) Section, within the Administration division, performs a wide range of public informational activities relating to departmental functions and programs. PR's main objective is to develop, manage and perform the DOW's public information and community outreach initiatives. This involves detailed coordination of community events, presentations and advertising platforms that highlight the DOW in a positive and professional way. PR provides recommendations for the Department's communication methods for divisional and Department-wide announcements. PR programs also includes

community outreach and educational programs water conservation, source water protection, and general water service operations. PR achieves its main objective through the careful development and dissemination of accurate and timely public information to customers regarding the DOW's complex water systems. The PR section coordinates and conducts its successful program with assistance and involvement from all divisions at the DOW.

Program Highlights

The PR activities of note during FY 19-20 include the following:

a. Project Water Education for Teachers (WET) Program

The Project WET program continues to provide valuable curriculum and advancement opportunities for the DOW's PR programs. PR utilizes Project WET curriculum as a supplement to its water educational displays and community outreach efforts. The DOW continues to serve as the state's host institution for Project WET in Hawaii. The Information and Education Specialist position is also the program's state coordinator, and is responsible for fulfilling the Project WET host agreement and includes; overseeing a network of certified Project WET Facilitators and help manage neighbor island requests for Project WET presentations.

PR conducted one (1) facilitator certification workshop this year; acquiring (5) five additional certified volunteers to the statewide program, thereby reaching its goal to expand its facilitator network on Hawai'i Island and Oahu. One (1) additional educator workshop was held by the Facilitator team on O'ahu in March 2020. However, since the COVID-19 stay-at-home orders were issued throughout the state, PR has cancelled training workshops in 2020 which included; two facilitator and educator workshops which were scheduled for April 2020.

In addition to certification training, PR efforts also included coordination of the 16th Annual Make a Splash with Project WET Festival held on September 20, 2019. This year's festival was relocated to the Vidinha Stadium Soccer field, after 15 years at the Pua Loke Arboretum. The festival gathered approximately 650 fifth-grade students, offered 11 activity stations and was successfully conducted with the assistance of over 220 volunteers (over a 2-day period). DOW staff, community partners and volunteers helped to educate students on the importance of water through high-intensity, interactive water education activities. Student participation from schools ranged from public, private, charter and home schools. In an effort to offer an improved, eco-friendly minded event, this year's festival was entered into the State of Hawaii's Green initiatives program; a program offered by the State's Department of Business, Economic development and Tourism (DBEDT) and the Department of Health (DOH) to promote sustainability in businesses. The festival was acknowledged and accepted as a 2019 green initiatives event by the state, however plans to attend the acknowledgement ceremony at the Governor's office in Spring 2020 was postponed due to COVID-19 related orders.

PR's Information Specialist attended the annual Project WET conference in Tucson, Arizona on September 23-27, 2019. The conference offered coordinator training and educational sessions that can be applied to future workshop and learning opportunities to benefit the local Project WET programs.

In January 2020, the Project WET foundation unveiled a brand new logo and tagline to redefine the WET acronym as “Water Education Today”, in order to appeal to a broader audience and provide a worldwide approach to water education beyond the standard classroom. DOW has begun implementing the new logo into presentation and documentation where applicable.

b. Community Outreach & Education

Mini Water Festival for Pre-K – PR coordinated a mini water festival for pre-k students of Island School as part of their hands-on learning experiences about water. The mini festival was held on October 22, 2019 and included 3 activity stations, a story reading and hand-washing demonstrations.

Water Quality and Sustainability at Island School – DOW’s PR and Water Quality team conducted an educational presentation on water quality standards and sustainability for high school students at Island School on December 11, 2019.

Water Quality Presentation in Waimea – PR coordinated a water resource management and water quality presentation for the 6th to 8th grade students at Waimea Canyon Middle School in Waimea on March 10, 2020. Students engaged in water quality discussions with DOW’s Microbiologist V and PR as part of their research project on water.

Kekaha School STREAM Night – PR participated as an exhibitor for the Kekaha Elementary School’s Science, Technology, Reading, Engineering, Art and Math (STREAM) Night on March 11, 2020 at Kekaha Elementary School. PR presented an interactive exhibit that focused on the importance of water service in our community. DOW’s exhibit featured a pretend hand washing station; with a live step-by-step demonstration on how to properly wash your hands for 20 seconds. The exhibit also challenged families to complete water math equations, discussed the importance of drinking water to support a healthy immune system and provided information on common household leaks. Approximately 80 west side families participated in the exhibit. PR offered educational prizes such as activity books, reusable bags, pencils and hand sanitizers for students.

EPA’s Fix a Leak Week – PR coordinated the DOW’s annual Fix a Leak Week campaign on March 16-20, 2020 with community outreach events beginning on March 5th. PR planned for three outreach events in Kilauea, Lihue and Waimea to promote Fix a Leak Week and distribute informational leak detection kits in the community. PR was successful in hosting the distribution event for the north shore community at a local market in Kilauea, providing approximately 75 kits to residents on March 5th, however the remaining events in Waimea and Lihue were cancelled due to covid-19 related guidelines. PR continued its educational awareness during Fix a Leak Week online, via promotional messaging on Facebook page and radio advertisement continued without interruption.

Water Emergency Preparedness for Seniors – PR coordinated the Department’s participation in the statewide distribution of collapsible water storage jugs funded by the Hawaii Emergency Management Agency (HI-EMA). PR partnered with the

County of Kaua'i's Agency of Elderly to help distribute the collapsible water jugs to seniors and vulnerable residents through their meals on wheels programs. Over 2,000 were provided to Kauai's seniors through this program.

DOW's Information & Education Specialist, Jonell Kaohelaulii was the recipient of the 2019 William Thompson Award for her dedication, superior work performance, her outstanding service to the water industry and for her efforts in water education and communications management for the DOW. The winning nomination included information on PR's successful community programs and outreach efforts. The award is given by the Hawaii Water Works Association.

c. Media Campaigns

PR renewed the annual contracts with KFMN-FM97 Radio Station and KONG Radio Group, Inc. to conduct consistent radio advertising when public announcements are needed (i.e. water shutdowns, road closures, emergency water conservation, workshops, festival and general water information). Contracted radio announcements ensure that notices are read on air frequently, and at a moment's notice, when emergencies arise. The DOW also used its radio buys to promote conservation tips and other promotional advertising that benefitted the DOW.

PR composed a radio campaign called "Wise Water Wednesdays" to promote DOW's water conservation initiatives, Department services and announcements weekly. The weekly radio campaign began as an annual summer campaign in 2019 and has since been expanded this year to begin in May 2020 through the end of 2020.

PR promotes water conservation through editorial and half page advertisements in the Kaua'i Family Magazine, a quarterly publication that is distributed island-wide; including through the Department of Education's public and private schools. The publication's target demographic is Kaua'i families with children. The DOW's advertisement and editorial included water conservation tips, leak detection, water education through Project WET, seasonal water saving tips and promotes the Department's available customer services.

d. Community Support

East and West Kaua'i Soil Water Conservation Districts (SWCD) – PR continued to work with the East and West Kaua'i SWCDs to support environmental and conservation education. Members of the SWCD volunteered for the DOW's Make a Splash with Project WET Festival. PR contributed an article for the East and West Kaua'i SWCD's annual report.

Ohana Fit Fest – PR coordinated the DOW's sponsorship and participation of water station service at the annual Ohana Fit Fest event on September 5, 2019. The DOW provided a drinking water station at the popular north shore community event. This was the first time DOW participated in the Ohana Fit Fest and was welcomed back to next year's event.

DOW distributed leak detection kits and low flow fixtures to the Liliuokalani Trust's program, benefiting residents enrolled in their home finance and educational program.

e. Construction Project Blessings and Dedications

PR assisted the DOW's Chief of Construction Management with planning and coordination of two (2) dedication ceremonies this year. The projects included the Koloa Well 16 A and 16B Project and the Ele'ele Booster Pump project.

f. Conferences

PR participated in the 2019 Joint Government Water Conference in August on Kaua'i, Oahu, Maui and on Hawaii Island. The Information and Educational Specialist was a guest speaker/presenter and shared a presentation on the successful outreach and educational water programs utilizing Project WET and the interconnection between water education programs and the Department's community relations and conservation programs. PR's Information Specialist I conducted the activity demonstration during the presentation. The Joint Government Water Conference is coordinated by the Department of Health's Safe Drinking Water Branch.

g. Employee Relations

PR supports positive employee relations through the participation of interoffice and community event opportunities throughout the year. Efforts include invitations to attend and speak at community outreach events such as; career day, volunteering for the DOW's annual Make a Splash Festival and other community presentations. PR also publishes a monthly newsletter highlighting staff achievements, internal updates, share special appreciation and acknowledgement message from customers and promote upcoming employee events, etc. In addition to Departmental emails, the employee newsletter plays an important role in staff communications within the Department. PR's additional employee relations efforts include:

Participation in the Department's Employee Recognition Committee and Fun Committee.

PR host educational staff presentations to provide insight on Departmental functions of all seven divisions, in addition to general water education to help reinforce employee pride and commitment to the DOW's mission statement.

PR staff serves as a Department's representatives on the County of Kaua'i's Employee Council committee.

h. Career Days

To promote the various careers within the DOW, PR continues to participate in classroom presentations, such as career day. With assistance from Water Quality, Fiscal and Administration staff members, PR participated in the Career Day presentations at Wilcox Elementary School, King Kaumuali'i Elementary School, and Ele'ele Elementary School this fiscal year.

i. Media Features

The DOW received multiple features in the Garden Island Newspaper, the For Kauai publication and local, state news stations throughout the year. PR continues to maintain media attention for important water related topics; such as: water conservation, water quality, emergency preparedness and water service announcements. DOW has also received media recognition for PR's outreach and educational efforts in the community.

The DOW was featured in Trade Publishing's Construction Preview 2020 Magazine. A list of expected projects for 2020 and a synopsis of the DOW's 2020 construction projects were featured. Construction Preview 2020 was published in mid-January 2020.

PR designed advertisements and wrote editorials for all of Kaua'i Family Magazine's publication issues from July 2019 to June 2020. Ads and editorials were focused on water conservation messages, participation in national water-related awareness campaign and the Department's new Customer Account Portal Billing features.

j. Increased Social Media Presence

PR continues to utilize the DOW's social media pages for public communication. By the end of June 2020, there were 1,680 followers on Facebook; an approximate 34% increase of followers compared to last year. Based on the likes and shares received on Facebook, social media followers utilize the DOW's page to monitor service notices; such as shutdowns, emergency outages, etc.

In 2019-2020, PR updated the appearance of DOW's Facebook page posts to include the use of logo-branded graphics and informational posts to share conservation tips, water facts and promote available customer services. PR has also participated in joint social media campaigns with water-related agencies, nationwide.

2. INFORMATION TECHNOLOGY DIVISION

Program Description

The Information Technology (IT) Division coordinates with its consultant services and maintains databases for the Department's Financial (Great Plains), Billing (CC&B), and Maintenance Management Systems (M-PET); and, is responsible for maintaining and updating software applications utilized to support Division and Departmental functions. The IT Division maintains, supports and oversees security of the Department's local and internet network systems. Additionally, the Division maintains, supports, updates and troubleshoots the Department's website, Voice over IP Phone System (VoIP), and, assists with the Geographic Information System (GIS) program.

Current Staff:

Vacant – Waterworks Information Technology Manager

Vacant – Information Technology Specialist III

Vacant – Information Technology Specialist III

Darrell Acob – Computer Systems Support Technician I

*Michael Hinazumi temporarily assigned to oversee IT Division – March 1, 2020 to present

**Consultant services contract providing consultant staff member, Jas Banwait, to supplement IT Division staff – October 2019 to present

Program Highlights

The IT Division continues to assist with the support of the Customer Care and Billing System (CC&B) with the review and maintenance of a dedicated (encrypted) virtual private

network (VPN) connection. Continual improvements are ongoing to provide secure connectivity and resource availability to Department staff.

The Department utilizes cloud services to host a variety of its database systems. The Billing System went live in September of 2017; and, more recently, with the assistance of professional services, a Customer Account Portal launched in June of 2019, offering customers online access to their account information, payment history, billing statement and a payment option for customers choosing to use a debit or credit card.

The IT Division supports and maintains the Departmental file sharing servers, in addition to its internal file sharing system, SharePoint.

In light of the COVID pandemic, the IT Division was challenged to provide the resources to allow the Department to service its customers remotely. Procurement of additional equipment and system upgrades along with additional security measures were completed to allow remote access while maintaining the integrity of the system.

5-year IT Strategic Plan

A 5-year I.T. Strategic Plan (ITSP) was completed in May of 2019. The ITSP identified 12 initiatives to improve efficiency of the Department:

1. Replace M-PET with a GIS-based Work Management System
Migration to the improved cloud based version of M-PET work management system has been reviewed and meets the intent of the ITSP. Work to migrate to the cloud with the improved M-PET software has been coordinated and will be completed in the 2nd quarter of FY20.
2. Review and Align Billing System Configuration
Review of the Billing System has started as of FY20 and is currently ongoing.
3. Upgrade SCADA and Replace Servers
SCADA server upgrade work was completed in August of 2020
4. Upgrade Financial Information System
A review of the Financial Information System has been conducted and the Department has decided to upgrade to a cloud based system. Anticipated start is in the 3rd quarter of FY20
5. Develop GIS Technologies and Processes
6. Maintain and Support Hydraulic Model Software
7. Core I.T. Infrastructure Upgrades
Accelerated by COVID needs, IT infrastructure upgrades have been initiated and are continually being improved as the needs arise.
8. Procure Emergency Communication Equipment
Procurement of the equipment was completed in June of 2019.
9. SOPs and Proficiency Testing Program
10. Improve use of SharePoint
Improvements are ongoing with the assistance of professional services consultant.
11. Expand the I.T. Section into a Division to Support DOW's growing needs
Board approved the creation of the IT Division and an additional I.T. position for FY19.
12. Develop User Groups

Vision for the New I.T. Strategic Plan

The Department intends to use information technology to improve its efficiency, maintain good customer service, plan for future needs and provide reliable safe drinking water, while being fiducially responsible. The vision for IT Division over the planning horizon is as follows:

- Manage our work, assets, projects and materials professionally and collaboratively
- Provide excellent customer service, internally and externally to the Department.
- Use technology to operate efficiently and effectively with evidence-based decisions
- Understand, implement and follow realistic processes
- Understand and improve our technologies to best support our processes
- Build partnerships between users and IT staff to work as a team
- Develop an IT organization with the resources needed to provide valued advice and great support

3. WATER RESOURCES & PLANNING DIVISION

Program Description

The Water Resources and Planning Division (WR&P) is responsible for the planning and outreach needed to provide current and future customers with high quality service in alignment with the Department's Mission. The program conducts long-range planning, research and analytical assessment, investigation, analysis and review of the Department's water systems infrastructure and provides guidance to proposed developments' water system planning (subdivision, zoning, and land use amendments, resorts, hotels and hotels, etc.) to ensure compliance with the Department's Rules and Regulations and Water System Standards. In addition, the program maintains the engineering records and provides mapping/drafting services to support the Department.

Current Staff:

Edward Doi, P.E. – Chief of Water Resources & Planning

Michael Hinazumi, P.E. – Civil Engineer VI

Regina Flores – Civil Engineer III

Vacant – Civil Engineer III

Vacant – Civil Engineer II

Vacant – Engineering Support Technician IV

Vacant – Engineering Drafting Technician III

Program Objectives

- a. Conducts long-range planning, research and analytical studies of water usage to monitor and forecast the anticipated water system, needs for the island of Kaua'i.
- b. Conduct condition assessment, investigation, analysis and review of the Department's water systems infrastructure.
- c. Provides guidance and reviews proposed developments' water system planning (subdivisions, zoning and land use amendments, resorts, hotels, water service request, etc.) to ensure compliance with the Department's Rules and Regulations and Water System Standards.

- d. Determine and evaluate hydraulic criteria in the development of an efficient water system distribution network.
- e. Provide information and criteria to Federal, State and County agencies, stakeholder groups and the public to assist with the management and protection of the island’s water sheds and water resources.
- f. Maintain maps and records of the Department’s water infrastructure.

Program Highlights

- a. In FY19-20, WR&P has reviewed and processed the following number of applications and requests for water service:

Subdivisions, Zoning, Use Permit, Land-Use, GPA/Z, ADU Clearance	188
Water Service Inquiries/Water Meter Requests.....	281
Building Permits	1809

- b. WRP continued to administer approved Water Mater Plans for Kukui’ula Development Company, Grove Farm Līhu’e-Puhi Project and the water master plan for the former AMFAC/JMB Līhu’e Hanamā’ulu Master Planned Community Development.

This division also assisted consultants in the preparation and review of the Waiahi Surface Water Treatment Plant Plan Upgrades and the Hokualea Master Plan.

WR&P continues to utilize and amend Water Plan 2020, adopted in 2001, as a long-range financial and facilities plan to use as a basis for the DOW’s CIP/Capital Replacement Projects (CRP) program.

- d. WR&P assisted in the preparation, adoption, and implementation of the November 2015 amendments to Part 5 Facilities Reserve Charge (FRC), Section III Applicability of the DOW’s Rules and Regulations.

The division developed several policies to address the amendments and continues to review and update the DOW’s water meter restrictions.

- e. WR&P continues to assist in the DOW’s annual water conservation programs. These include the DOW’s public education campaign for water conservation.
- f. WR&P continues to assist with new water service applications as well as provide support to management, operations, fiscal and engineering divisions including assistance with the CIP implementation of WP2020 projects.
- g. WR&P remains responsible for the planning and implementation of capital improvement source development, storage and transmission mainline projects as assigned by the Manager and Chief Engineer.
- h. The annual backflow device test program continues to be refined and expanded. WR&P continues to review and approve backflow device construction plans as well as maintain an inventory and status of each of the backflow devices. As of June 30, 2020



- there were 1,642 approved backflow devices. WR&P supported Fiscal's efforts to require the installation of backflow devices in order to qualify for the DOW's agricultural water service rates.
- i. WR&P continues the scanning of maps and other records onto the DOWs SharePoint document imaging program for internal efficiency.
 - j. WR&P participated in community meetings with various drought and watershed groups. WR&P continues to assist Kaua'i's local Drought Committee to develop County mitigation strategies and drought mitigation projects for Kaua'i. WR&P supports the activities of the Kaua'i Watershed Alliance (KWA) that included a DOW \$250,000 grant to their coordinators, the Nature Conservancy for the continued maintenance and conservation efforts to protect Kaua'i's watersheds.
 - k. WR&P continues to coordinate and administer the United States Geological Survey (USGS) cooperative research program that studies the ground water levels for the Līhu'e-Kapa'a areas. WR&P also administered the University of Hawai'i Office of Research Studies, "Projecting Future Rainfall Variations for Kaua'i project." The scope of work involves projecting future rainfall and evapotranspiration for the island of Kaua'i. The project intends to project future changes in rainfall and evapotranspiration at high resolution for Kaua'i using dynamical downscaling approach to provide scientific based data to make sound decisions to better manage future water resources. This will assist in analyzing the small island of Kaua'i and its complex terrain with drastic differences between areas of very high rainfall, such as the summit of Mt. Wai'ale'ale and very dry regions, such as Waimea Valley.
 - l. WR&P continues to administer and participate in the Kaua'i Water Use and Development Plan Update.
 - m. WR&P represents the DOW at the County's Affordable Housing Task Force (AHTF) meetings. The AHTF continues to facilitate the development and approval of affordable housing projects on the island.
 - n. WR&P also assisted in conducting various briefings and presentation to the Kaua'i County and other public groups.
 - o. WR&P participated in the preparation of the Residential Fire Sprinkler Study.
 - p. WR&P continues to participate in completing the Kaua'i Water Source Protection Plan.
 - q. WR&P continues to work with DHHL to finalize revisions to an existing Memorandum of Understanding (MOA) for the interconnection agreement between DHHL's private water system and the DOW's domestic water system. This MOA allows water from either the DHHL system or DOW system to provide backup source in emergency situations.

4. **ENGINEERING DIVISION**

Program Description

The Engineering Division is responsible for maintaining the Water System Standards (WSS) of the Department while overseeing the design of Capital Expansion Projects, and the Capital Rehabilitation and Replacement Projects (R&R). Engineering administers consultant design contracts, evaluates the feasibility of water infrastructure projects and sites for water facilities, prepares plans specifications and bid documents for new water system facilities, and provides design review services to both government agencies and private developers who design and build water system improvements that will be dedicated to the Department.

The Engineering Division performs all necessary construction plan review for WP2020 projects including the plan review for storage tanks, pumping facilities, pipelines and other water system facilities that are installed by other government agencies and private developers.

Current Staff:

Keith Aoki, P.E. – Civil Engineer VI

Bryan Wienand, P.E. – Civil Engineer V

Vacant – Civil Engineer V

Vacant – Civil Engineer V

Vacant – Civil Engineer II

Program Objectives

The Engineering Division is committed to conduct its business and operations in a safe and efficient manner and to achieve the following objectives:

- a. Assist with the implementation of the CIP projects identified in WP2020, including new facilities (well sources, storage tanks, and water mains) through its CIP - Expansion, and maintaining and upgrading existing water facilities through the CIP - R&R Programs.
- b. Provides the necessary engineering services to ensure the construction of water facilities adheres to the Water System Standards and policies of the Department.
- c. Conducts the expansion of the water system by design of the Department's plan review for integration of private development water system improvements into the Department's systems.

Program Highlights

The Engineering Division continues to utilize the \$60 million Build America Bond (BAB) issuance from March 2010 in addition to other funding sources. The construction drawings for new or revisions for several projects have been completed and the design has progressed or been initiated on a multitude of other WP2020 projects to improve source, storage, or transmission infrastructure in various parts of the island.

WP2020 projects of note include:

Waimea District

- HE-14 – Hanapēpē-‘Ele‘ele Booster Pump Replacements
- HE-1 – Reorganize Water System; Pipeline Connecting Hanapēpē and ‘Ele‘ele
- HE-10 – Hanapēpē Road 6” Water Main Replacement
- K-01 & K-12 – Kalāheo Water System Improvements (Yamada 0.5 MG Storage Tank, Clearwell 0.5 MG Storage Tank, 8” Water Main, Yamada Well)
- K-05A – Kukuiolono 0.5 MG Storage Tank
- KP-09 – Kōloa Wells “16A” & “16B” Site & Building Improvements
- KW-07 - Rehabilitate Paua Valley Tank #1, 0.5 MG Concrete
- MO-03 – Land and Well Acquisition: Waimea 0.5 MG Tank, Well ‘A’ Site, Well No. 2 Site, Kekaha Well No. 2 Site)

Līhu‘e District

- PLH-35b – Kapaia Cane Haul Road 18” Water Main
- PLH-27 – Kūhi‘ō Hwy (Hardy-Oxford) 16” Main Replacement
- Job No. 19-02, Department of Water Baseyard Master Plan

Kawaihau District

- WK-23 – Wailua Homesteads 0.25 MG Storage Tank (U.H. Experimental Station Site)
- WK-08 – Kapa‘a Homesteads Two 0.5 MG Storage Tanks, Package B
- WK-08 - Kapa‘a Homesteads Two 0.5 MG Storage Tanks Drain line Package A
- WK-39 – Kapa‘a Homesteads Well #4
- Job No. 18-09 -- Rain18 Makaleha Tunnel Water Line Repairs

Hanalei District

- WKK-15 – Kīlauea (Pu‘u Pane) 1.0 MG Storage Tank and Connecting Pipeline
- HW-11 – Hā‘ena 0.2 MG Storage Tank
- HW-12 – Drill and Test Wainiha Well #4
- MO-03 – Land and Well Acquisition, Moloa‘a: Acquire Source, Install Pump, Controls, and 12” Pipeline
- WKK-03 – MCC, Chlorination Facilities, Kīlauea Wells No. 1 & No. 2. Design completed. Ready for construction.
- WKK-2 – Drill and Develop New Kīlauea Well No. 3
- Job No. 18-08 – Mānoa Stream Water Line Repairs (procurement process started)

General

- Job No. 19-01 – Island Wide Vulnerability and Resiliency Assessment
- Job No. 18-02 – Island Wide Rehabilitation of Tanks

Private development projects of note include:

Waimea District

- Waimea Huakai Affordable Housing (S-2019-10)
- Lima Ola Subdivision, Phase I

- State Highway Hanapēpē Bridge Replacement and Temporary Bridge(DOT)

Kōloa District

- County of Kaua‘i Work Force Housing
- COK – Maluhia and Kōloa Road Improvements
- Kōloa Village, LLC Commercial Site Development
- Kōloa Rum Company

Līhu‘e District

- Wailani Ahukini Makai Subdivision
- Wailani Molokoa Subdivision
- Waiola Ph I Subdivision
- Waiola Ph. II Subdivision
- Waiola Ph. III Subdivision (S-2009-15)
- COK-Rice Street Improvements Tiger Project
- COK – Puhi Road Rehabilitation, Phase II
- Pua Loke Affordable Housing
- Pua Loke Ohana Zone

Kawaihau District

- Kulana subdivision
- DOT - Kūhi‘ō Hwy. Short Term Improvements (Kuamoo – Temp Kapa‘a Bypass)
- COK – Lydgate Bike-Ped Path C(por) & D
- COK – Opaekaa Bridge Replacement changes
- COK - Improvements to Collector Roads: Olohena, Kukui, Ulu
- COK - Kawaihau, Hauaala, Mailihuna, Complete Streets

Hanalei District

- Wainiha Bridges Replacement (DOT)

The Engineering Division has received 50 new private development projects for review in addition to completing 146 plan reviews for ongoing private development and other government agency design projects.

5. CONSTRUCTION MANAGEMENT DIVISION

Program Description

The Construction Management (CM) Division, is responsible for the construction and inspection of all Water Plan 2020 projects; including, but not limited to contracting for construction, preparing construction bid documents, providing subsequent construction management and oversight, and inspecting water system improvements funded by the Department as outlined in Water Plan 2020.

The CM Division administers all of the construction for Capital Improvement Projects (CIP) and Capital Rehabilitation and Replacement Projects (CRP/CRPL) and provides engineering design and inspectional services to the Operations division during emergencies as needed.

In addition, the CM Division administers construction contracts; evaluates the construction feasibility of DOW projects through plan design review; prepares specifications and bid request for proposal (RFP & IFB) documents for new water facilities, and implements and inspects the DOW's standards and policies related to the approved designs.

CM provides construction management to private developers who design and build water system improvements approved by DOW Engineering Division, such as service laterals, subdivisions, County Department of Public Works and Housing projects, and Department of Transportation projects, which will be dedicated to the Department. This includes performing construction inspection and review, as well as approving post-construction documents for water facilities that are being dedicated to the County. The increase in private development over the last year continued and has occupied much of the division's time and is expected to continue over the next year with the increase of Water Plan 2020 projects.

There were eight (8) permanent positions in the CM Division during FY 19-20. The engineers within the division are in the Civil Engineering series as a reflection of the professional engineering level of the work that the Construction Management Division staff engineers do on a normal basis. Of the eight (8) positions, one (1) position is an Engineering Program Assistant that assists staff with project document management including PMWEB software, four (4) positions are within the Civil Engineering Series and three (3) positions are within the Inspector Series. As of June 30, 2020 there was only (1) one vacancy remaining in the Civil Engineering section.

During FY18-19, CM Division was successful in hiring four (4) new staff members. This was a huge success and has paid dividends with workload and improved culture within the CM Team. During FY 19-20, majority of staff progressed enough to be reallocated to higher positions in their series. The inspector I became an Inspector II, while the Inspector II became an Inspector III with the Inspector III becoming the Supervising Waterworks Inspector, and the CE I is now a CE II. The CM division has faced challenges attracting and retaining qualified staff and continues to revise and implement a plan to address this matter. We are currently looking to fill the remaining CE V position in FY 20-21. In the meantime, although much more costly than current permanent staff members, the DOW continues to utilize As-Needed Construction Management consultant contracts to maintain operations when necessary to handle peak work project volumes. During FY19-20, staffing levels have allowed for private projects to start as needed without any DOW staffing delays like the past and the team has persevered during the COVID-19 pandemic to maintain construction management continuity with contractors around the island looking to work on water facility improvements. However, DOW funded projects for the most part have been delayed while awaiting design revisions. This may affect project-scheduling moving forward for staffing.

Current Staff:

Dustin Moises, P.E. – Chief of Construction Management

Vacant – Civil Engineer V

Claus Bollmann – Civil Engineer III

Takara Kunioka – Civil Engineer II

Weston Moniz- Waterworks Inspector II

Craig Shirai - Waterworks Inspector III

Jet Levinthol- Supervising Waterworks Inspector
Bekki Malapit – Engineering Program Assistant

Program Objectives

The Construction Management Division is committed to conduct its business and operations in a safe and efficient manner and to achieve the following objectives:

- a. Improve the water facilities infrastructure by constructing new well sources, storage tanks and waterlines through its Water Plan 2020 CIP (Expansion) Program as assigned.
- b. Maintain and upgrade existing water facilities through the Water Plan 2020 CRP/CRPL (Rehabilitation and Replacement) Program as assigned.
- c. Coordinate construction and integration of privately constructed water system improvements, as assigned, that are dedicated to the Department's system.
- d. Provide construction management and inspectional services to ensure the assigned construction of water facilities adhere to approved plans and specifications and the standards and policies of the Department.
- e. Provide professional engineering design/specification review for all Water Plan 2020 Projects.
- f. Provide professional engineering design response for all construction requests for information, including redesign recommendations and approvals when necessary.
- g. Utilize electronic construction management platform (PMWEB).

Program Highlights

DOW WP 2020 Project:

During FY 19-20, the CM Division has made continued progress in utilizing the \$60 million Build America Bond (BAB) issuance of March 2010. The division also utilizes funding from the State Department of Health Drinking Water State Revolving Fund and acquired grant funding as well. The division also manages construction funding from DOW sources such as the Water Utility General fund. In the process, the CM Division completed construction on several projects and several other projects are nearing completion.

The major project accomplishments by the CM Division on the Department's Water Plan 2020 Contracts during the period of July 1, 2019 through June 30, 2020 include:

Kekaha District

- KW-07, Rehabilitate Paua Valley Tank No. 1, 0.5 MG Concrete was issued notice to proceed in January 2020. Required submittals were approved to start construction, however, design specification issues have put the construction project on hold. It is anticipated that work will resume in FY 20-21.

Hanapepe District

- HE-14 – Hanapēpē-‘Ele‘ele Booster Pump Replacements –The booster pumps

were completed and put into the system in May 2019. The project contract requirements were completed during FY 19-20 and closed out.

- HE-01/HE-10 - Reorganize Water System: Kaunualii Highway 16-inch Main and Emergency Pump Connection, Hanapepe Road 6-Inch Main Replacement continued construction after various delays and completion is anticipated within FY 20-21.

Kōloa District

- Construction was completed for the MCC, Chlorination facilities, Kōloa Well 16A and 16B Site and Bldg. Improvements. The new deep well pump, control building and site improvements were completed and put into the system in June 2019 with project contract requirements being completed during FY 19-20 to close out.

Līhu'e District

- PLH-35b – Kapaia Cane Haul Road 18” Water Main – NTP issued. Project remained on hold due to legal issues. It is anticipated that work will resume in FY 20-21.

Kawaihau District

- WK-39 – Kapa‘a Homesteads Well #4 and WK-08 - Kapa‘a Homesteads Two 0.5 MG Storage Tanks Drain line Package A – Well and Drainage package continued construction. The project has progressed with regards to the drilling of the new well but the drainage system encountered landowner issues and was delayed for the fiscal year. It is anticipated that work will resume on the drainage system within FY 20-21 and be completed in calendar year 2021.

In summary, the CM Division managed various phases of approximately \$25.0 million of Water Plan 2020 contracts for the six (6) listed above.

There are currently five (5) Water Plan 2020 Projects bundled into four (4) existing contracts that remain in the construction phase. Those projects total approximately \$20M with the Hanapepe Waterlines being the most active.

The anticipated projects for FY 20-21 are Kukuiolono 0.2 MG Tank Demolition and the Kīlauea Well/ MCC replacement readvertisements. The projects were solicited for construction but no contract was awarded. The Kalaheo Package A, B and C are slated for construction advertisement by the end of FY 20-21.

PRIVATE PROJECTS:

The CM Division has managed numerous privately funded projects which include additional service laterals, detector checks, waterline extensions, hydrants, and appurtenances.

In total, eighty-three (83) private projects were initiated, continued, and/or completed during the fiscal year. Nine (9) received Certificate of Completion. These private projects require critical project management and inspection as they include review and approval of cost breakdowns, easements, conveyances, and as-builts.

The private sector development has increased since last fiscal year with the completion of projects such as Puuopae Bridge, Koa'e Workforce Housing, Kōloa Rum Waterline and the emergency 2018 Flood projects at Kahilihōlo Road, Weke Road, Waikoko Bridge, Waipa Bridge, Waioli Bridge, Kulana Phase I Onsite Subdivision, Koloa Village, as well as other private projects.

Private projects are in design and are expected to increase during the next fiscal year in Kukui'ula and Grove Farm Properties SWTP expansion while new construction will also start, continue, or soon be closed out at Kulana Phase I Tank and offsite improvements, Opaekaa Bridge, Hanapepe Bridge –Permanent Waterline, Maluhia Road Improvements, Kuamoo Bypass Improvements, Huakai Affordable Housing, Lihue Homeless Facilities (Ohana Zone), Pua Loke Affordable Housing, Kukui'ula Kainani Phase II, Hawaii Public Housing Authority, TIGER Rice Street Improvements,

INITIATIVES:

- 1) Continue efforts to attract and retain qualified permanent CM staff and streamline construction management operations to increase efficiency. This will be done by reallocating positions as necessary, selecting the proper candidates for the desired role and fit within the vision the division, and working with our DOW Engineering design team to assure approved construction drawings requirements and specifications allow CM staff to properly manage construction projects without delays.

- 2) In addition to various County wide trainings, the CM Division staff completed various trainings throughout the fiscal year to stay updated, evolve and progress with the ever changing requirements related to water utility construction such as:
 - Generator and Emergency Power Generation
 - Best value procurement workshop
 - Pricing Contractor Job-site Overhead Delay Costs
 - CAK Fall Protection
 - Hot vs. Cold Suspension of Work:
Meeting the Test for Compensable Time Extension; PLUS
Allowable Costs and Coronavirus Considerations
 - EOC Hurricane Season Training
 - Returning to Service: Addressing Water Quality in Buildings with Low or No Use
 - First Aid, CPR, AED, Stop the Bleed Training
 - CAK 2019 Update NPDES & BMP Workshop
 - Communicating with Tact and Professionalism
 - SPO Procurement Training
 - 2019 Annual HWWA Conference
 - Active Threat Training
 - CAK Excavation Trenching Training

- 3) All Water Plan 2020 and private construction projects are now documented electronically and available via the SharePoint CM Portal created by DOW IT Division. The Construction Management Division continued to evolve with the

paperless process and has continued the transition to a more comprehensive construction management software platform of PMWEB. This program is progressive for a government construction management operation and is a step in leading the way in county and state government construction management. The administration of the program transferred back to DOW IT from the Chief of CM during FY 19-20. DOW CM utilizes the platform as users and it has been a very helpful tool in construction management transparency.

- 4) The long-term vision is to have DOW CM Division be the leading government construction management division in the State of Hawaii. I believe this has been accomplished on the island of Kaua'i in some ways. This initiative will be accomplished by continuing to promote staff members to evolve as people inside and outside of work, evolve as professionals in engineering and inspection, and going beyond the usual or normal limits with progressive adaptive changes when necessary for the betterment of DOW internal and/or external customers as related to Construction Management.

6. WATER QUALITY DIVISION

Program Description

The Water Quality (WQ) Division consists of two (2) Water Microbiologists and one (1) Chemist who are responsible for testing the quality and safety of the water provided by the DOW. The WQ Division oversees the DOW's compliance with the Environmental Protection Agency's (EPA) Safe Drinking Water Act (SDWA). This entails that the requirements of all the rules and regulations set forth by the SDWA are met, including the microbial and chemical aspects of the SDWA. Much of the required microbial and chemical testing is performed at the Water Quality Division's Micro Laboratory. Much of the more involved testing is done by Eurofins Analytical and the Hawai'i Department of Health's Laboratory in Honolulu.

The WQ Division also provides in-house testing for the DOW's Operations Division. Major water main breaks and new infrastructure are tested for coliforms as well as other chemical/physical analysis. Deep water wells are also tested for chemical and microbial contaminants when pumps are repaired or new ones are installed. New and existing sources are routinely tested and monitored for coliform bacteria as well.

The WQ Division also addresses customer inquiries regarding water quality and health/safety concerns. This is done by phone or in person (visits to customers). Additionally, the WQ Division provides the data needed to complete the DOW's annual Consumer Confidence Reports.

Current Staff:

Carl Arume – Water Microbiologist V

Peggy Yoshioka - Water Microbiologist IV

Andrew Canavan – Chemist II

Program Objectives

1. The WQ Division continues to ensure high water quality in all current and future distribution systems. Objectives include:
 - Continue compliance microbial sampling.
 - Update sampling points as necessary to reflect population and community growth.
 - Monitor major main breaks and other threats to the integrity of our water distribution systems.
2. The WQ Division complies with the EPA-SDWA drinking water standards by working with the Hawai'i State Department of Health (DOH's) Safe Drinking Water Branch.
 - Utilize SDWIS and SCRS data management systems.
 - Meet sample deadlines.
 - Perform Pre-Sanitary Surveys to identify potential deficiencies that can be remedied before the actual DOH Sanitary Survey.
3. The WQ Division is working to implement more dedicated sampling stations in the DOW's distribution systems.
 - Work with the DOW's Operations Division to install dedicated sample stations.
 - Work with Engineering to have stations installed in new subdivisions.
 - Work with Operations Division and Engineering to install new infrastructure and equipment to insure good water quality.

Program Highlights

- a. The WQ Division continues to utilize the Sample Reservation and Collection System (SCRS) which allows the DOW MicroLab to schedule and track chemical samples more effectively. It also facilitates better coordination with the DOH's Safe Drinking Water Branch (SDWB), and the system is improving as we give feedback. A new system created by EPA is set to go online by end of 2019. It is called the Compliance Monitoring Data Portal (CMDP). It will tie in the DOH system with the Analytical Labs performing the analysis to send the data directly to the DOH system. We using the CMDP test environment to submit sample to State. Scheduled to go live this year.
- b. Phase II, V sampling underway this fiscal year for all systems for the current event period (2020-2022). Unregulated Contaminant Monitoring Rule (UCMR) 4 sampling is mostly complete.
- c. Effective April 2016, the WQ Division implemented the Revised Total Coliform Rule (RTCR). Sample points were reviewed and updated. Micro Sample Points and sources were mapped and photographed for input into the new format as required by the new regulation. This siting plan has been reviewed and accepted by the DOH SDWB.
- d. The MicroLab inspection was completed by DOH in April of 2018. The WQ Division personnel continue to be certified for analysis of total coliforms, *E. coli* and heterotrophic plate count. Due to Covid19 lab inspection will be done "virtually" for 2020. Lab continues to operate under that certification.

- e. Long Term 2 Enhanced Surface Water Treatment Rule 2nd round sampling plan was completed in September 2018.
- f. The Water Quality Division continues to abide by all existing SDWA rules and standards.
- g. Lead and copper samples are being taken for the 2020 sampling period with results below the action levels set by EPA.
- h. Wainiha Well 2 pH adjustment achieved a pH of 7.0 with alkalinity between 65 and 70 ppm. Lead and copper sampling results were below Action Level in the first sample period since the adjustment. 2020 results also good.
- i. Surface Water Treatment Plant taken off line as the water was discolored. We are working with Aqua Engineers to correct problem.
- j. New site for chlorinator for Moalepe Tunnel water identified and will work with engineering to expedite its development.

6. OPERATIONS DIVISION

Program Description

The Operations Division is responsible for repairing, maintaining and operating the DOW's water distribution network, water storage facilities and water producing sources. As water is an essential commodity, emergency repairs and trouble calls are provided round-the-clock on an as-needed basis with Operations personnel on standby duty to respond to emergencies and requests for assistance from both internal and external customers. In order to accomplish its mission, the Operations Division maintains and stocks a complete inventory of materials and supplies for assurances that repairs are completed in a timely manner.

Along with the responsibilities of providing potable water, Operations Division provides the DOW facilities maintenance and fleet management functions and is responsible for the maintenance, repairs and replacement of DOW owned facilities, vehicles and equipment.

Operations Division prepares bid documents and solicitations, procures and administers repair and construction contracts for projects included in the Division's budget for the fiscal year but not included in the Water Plan 2020 projects; procures and manages professional services contracts as well as maintenance, and goods and services contracts.

In addition to providing external customer service in responding to water related emergency calls from the public, Operations Division personnel also provides internal customer service by assisting and helping other Divisions, Departments and Agencies in need of manpower assistance within the expertise of Operations personnel.

Under the direction of the Chief of Operations, the Operations Division team of fifty-four (54) are with the Plant Operations Section, the Field Operations Section, and the Administration Section

Current Staff:

Valentino Reyna – Chief of Water Operations
Ryan Smith – Assistant Chief of Water Operations
Virgil Kapanui – Water Field Operations Superintendent
Daniel Kittredge – Water Plants Superintendent
Chris Nakamura - Water Service Supervisor III
Darren Lizama - Water Service Supervisor III
Amy Kiyotsuka - Clerk Dispatcher II
Krist'l Castillo-Gray – Waterworks Programs Technician
Zyris Aldin- Account Clerk
Malia Reis – Account Clerk
Shayce L. Yasutake - Automotive Mechanic II
Ray Jerry Silva - Automotive Mechanic I
Duane Moriguchi – Heavy Vehicle & Construction Equipment Mechanic I
Daynes Reynolds – Equipment Operator II
Reid Samio – Equipment Operator II
Larry Dabin – Equipment Operator II
Lenny Camat – Equipment Operator II
Stetson Raposas – Equipment Operator II
Christopher Caoagas – Groundskeeper
Raymond A.F. Jr. Chow – Lead Pipefitter
Michael Mack – Lead Pipefitter
Alan Iwasaki – Lead Pipefitter
Franklin Iwai – Lead Pipefitter
Jeffery Silva - Lead Pipefitter
Wiley Yoshioka – Pipefitter
Vacant – Pipefitter
Selwyn Rita – Pipefitter
Randal Watanabe – Pipefitter
Darren Horner – Pipefitter
Vacant – Pipefitter Helper
Ryan Fu – Pipefitter Helper
Tyrus Shigematsu - Pipefitter Helper
Dean Sacramed – Maintenance Worker II
Reynold Abigania – Maintenance Worker I
Clyde Kojiri – Maintenance Worker II
Vacant – Maintenance Worker I
Serafin Galves S. Jr. – Construction & Maintenance Worker II
Vacant – Construction and Maintenance Worker I
Russell Yonahara - Welder
Neal Iseri – Waterworks Electronics/Plant Electrical Tradesperson II
Darwin P. Bukoski – Waterworks Electronics/Plant Electrical Tradesperson I
Vacant – Plant Electrician
Nelson Inouye – Plant Electrician Helper
Kailio Coelho – Utility Worker
Vacant – Utility Worker
Kevin J.K. Pongasi – Lead Water Meter Mechanic
Vacant – Meter Mechanic
Vacant – Assistant Water Plant Operator

Lance Nakata – Water Plant Operator I
David Okamoto – Water Plant Operator II
Kyle Napoleon – Water Plant Operator I
Vacant – Water Plant Operator I
Brian Fujii – Water Service Investigator
Vacant – Water Service Investigator

Program Objectives

The Operations Division daily activities are centered along the following:

- a. Operating, monitoring and maintaining 52 deep-well pumping stations, 19 booster pumping stations along with its associated electrical motor control centers and chlorination disinfection equipment, four tunnel sources, 60 storage tanks, and 75 control valve stations.
- b. Maintaining, repairing, and replacing mechanical and electrical malfunctioning components, equipment and infrastructure to maintain water service.
- c. Maintaining and repairing the DOW’s 52 vehicles, two backhoes, two skid steer loaders along with their various attachments, 3 mini-excavators, 1 portable air compressor, 11 trailers, 16 trailer-mounted generators ranging in sizes from 70 KW to 400 KW, two light towers, and numerous motorized hand-operated construction equipment.
- d. Operating, monitoring, maintaining, and repairing more than 400 miles of pipelines, 21,200 consumer water service connections, 4,000 valves, 2,600 hydrants and standpipes.
- e. Installing new service connections and meters including the replacement of defective meters and those in service for 20 years. Providing temporary water services through hydrant meter connections for construction activities like dust control and landscaping.

Program Highlights

Field Operations Section Statistics FY19-20

- Various leak repairs (transmission and distribution lines).....369
- Install Lateral.....20
- Install New Meters.....9
- Replace Defective Meters.....253
- Replace Meter Box and Cover.....19
- Live Taps and Contractor Waterline Shutdowns.....11
- One Call Center Tickets (requests for markings).....336
- Fire Hydrants Preventative Maintenance Work Orders.....597
- Fire Hydrant Corrective Maintenance and Replacements.....5
- Temporary Fire Hydrant Meter Installations.....15

Plant Operations Section FY19-20

- a. Auto mechanics performed routine troubleshooting and repairs as well as preventive maintenance of vehicles and equipment.



- b. Electricians performed electrical routine troubleshooting and repairs at various island wide remote sites.
- c. Water Plant Operators performed routine maintenance of all remote sites as well as maintenance of pumps and motors. Water Plant Operators performed routine daily check of island-wide water disinfection and storage systems.
- d. Construction, Welding, Maintenance Workers performed routine construction, repair, maintenance works at island wide remote facilities.
- e. Sodium Hypochlorite on-site generation project completed at the Makaleha Well and Tank Site.
- f. Sodium Hypochlorite on-site generation project at Kapilimao Well Site, contract being processed.

Other Program Highlights for FY 2019 – 2020

- a. Completed and submitted the Water Audits for calendar year 2019 Fiscal Division for processing and forwarding to Commission on Water Resources Management (CWRM) in compliance with Act 169 - Water Audit Law. Water audits were completed of each of the following water systems:
 - 1. Kekaha-Waimea
 - 2. Hanapēpē-Elēele
 - 3. Kalāheo-Kōloa-Po'ipū
 - 4. Puhi-Līhu'e-Hanamā'ulu-Wailua-Kapa'a
 - 5. Anahola
 - 6. 'Anini
 - 7. Kīlauea
 - 8. Hanalei
 - 9. Wainiha-Haena
- b. Contract 647 for Kekaha Shaft Pump and Motor Replacement and Well Refurbishment, completed.
- c. Contract 679 for Puhi Well 3 pump and motor replacement and well refurbishment completed.
- d. Contract 692 for the purchase of hydrants and appurtenances, completed.
- e. Contract 681, on-site generation of Sodium Hypochlorite, completed.
- f. Contract 657, Waipao Valley Well Replacement, completed.
- g. Contract 687, Anahola Well A Refurbishment and Pump Replacement, completed.
- h. Contracts 662, 696, 697, furnishing and delivery of heavy vehicles and equipment, completed.
- i. Contract 693, Koloa Well D Replacement, on-going.
- j. Contract 632, maintenance of SCADA Communication System was renewed, work on-going.
- k. Contract 648, maintenance of air-conditioning systems was renewed, work on-going.
- l. Assisted Engineering Division in construction plan review of DOW facilities improvements, expansions, repairs and maintenance.
- m. Operations Division personnel performed in-house construction, repair, maintenance of remote site access roadways and structures.

- n. Conversion from Chlorine gas disinfection to Sodium Hypochlorite was completed.
- o. Operations personnel provided non-information technology repair and maintenance support to DOW co-workers.
- p. Operations Division personnel attended the following conferences and training classes:
 - 1. Distribution System Operator I and II Exam Review
 - 2. Fundamentals of Math
 - 3. Water Pro Conference
 - 4. Pacific Water Conference
 - 5. HWWA Conference
 - 6. Drinking Water Regulations
 - 7. Drinking Water Disinfection
 - 8. Fundamentals of Excavation
 - 9. Hydraulics and Pumps
 - 10. Electrical Components
 - 11. Utility Operator Safety Overview
 - 12. Flushing and Bacteriological Testing
 - 13. Basic Math I and Chemistry I
 - 14. Facilitating Compliance with America's Water Infrastructure Act of 2018
- q. Two thousand three hundred twenty nine (2,329) total work orders issued for Operations Division in FY 2019-2020. Works included vehicle maintenance and repair; hydrant maintenance and repair; Hawaii One Call requests for markings; transmission/distribution/main line and appurtenances leak repair and maintenance; electrical and electronics repair and maintenance at remote terminal units, tank sites, deep well sites, and booster pump sites; grounds keeping at remote sites; repair and maintenance of access roads and driveways at remote sites; remote buildings and structures repair and maintenance; disinfection/chlorination equipment repair and maintenance; water meters installation, repair and replacement.

In addition to the above-mentioned daily activity of operating, maintaining, repairing DOW's fleet, water distribution network, water storage facilities, and water producing sources, Operations Division procured and administered twelve (12) goods & services, professional services, maintenance services, and construction contracts.

8. FISCAL DIVISION

Program Description:

Under the direction of the Waterworks Controller, the Fiscal Division is comprised of the Accounting section and the Billing section. The Fiscal Division is responsible for the planning and directing financial activities of the DOW and administering the fiscal programs and customer activities of the Department including but not limited to: revenue and cash management, project cost accounting, payroll, leave records, accounts payable, utility plant accounting, meter reading, consumer billing and accounting, preparation of financial and statistical reports, conducting internal audits, facilitating financial and statistical studies of the Department for reports and rate making, preparation of financial statements for yearly audit, and assisting the Manager in the development of the DOW's annual fiscal year budget.

Current Staff:

Marites Yano – Waterworks Controller
Marcelino Soliz – Accountant IV
Analyn Flores – Accountant IV
Anne Parrott – Accountant III
Karen Ann Delgado – Accountant II
Ferdinand Mariano – Accountant II
Jonelle Taira-Kakutani – Accountant II
Vacant – Accountant I
Terrilyn Amorin – Account Clerk
Norma Imada – Customer Relations Assistant
Kahealani Kolo – Customer Relations Assistant
Sherri Braun – Customer Services Representative I
Gina Gudoy - Customer Services Representative I
Valerie Caminos - Customer Services Representative I
Ronald Balbin – Meter Reader/Field Collections Supervisor
Eugemar Manibog – Meter Reader/Field Collections
Elliot Jung – Meter Reader/Field Collections
Tammi Oshiro – Meter Reader/Field Collections
Tessie Guerrero – Janitor II
Matthew Taboniar – Janitor II

Program Objectives:

Waterworks Controller

- a. Administer the affairs of the Fiscal Division and all programs assigned to it.
- b. Preserve the financial integrity of the DOW through internal control and annual financial audits.
- c. Generate a return of investments and to insure deposits with financial institutions are fully collateralized.
- d. Monitor the availability of funds to meet cash flow requirements.
- e. Responsible for the preparation of financial and budgetary reports monthly and annually.

Accounting

- a. Provides accurate, complete, and timely recording and reporting of all financial transactions and activities of the DOW.
- b. Processes the DOW's payroll in a timely manner.
- c. Processes accounts payable and issue payments in a timely and efficient manner.
- d. Maintains records of new and existing general plant and utility plant assets, account for depreciation and dispositions and keep track of the value of the overall changes.

The Accounting section is supervised by an Accountant IV with a staff of four (4) Accountants, each maintaining one or two primary functions in the field of accounting with one (1) Account Clerk supporting the staff with the following:

- Accounts Payable
- Cash & Investments
- Cost accounting & Work Orders

- Debts
 - Fixed Assets
 - Operating and Capital Budgets
 - Payroll
 - Purchasing
- Maintains the general ledger of accounts and financial accounting system with the use of Microsoft Great Plains (GP).
 - Manages the DOW's Purchase Orders (PO) through the use of Paramount Workplace' Purchase Requisition program which is integrated with GP to generate an approved PO. This integration provides a real time encumbrance report that each Division Head uses to manage their budget.
 - Performs monthly closing of the accounting system and prepares monthly reports of Revenues, Expenses and Variances against the Approved Budget.
 - Manages accounts payable and process invoices and payments regularly.
 - Manages payroll for all DOW employees; payroll is processed twice a month through the County's AS 400 payroll system.
 - Maintains subsidiary accounts of Fixed Assets and accounting of new assets and disposals.
 - Maintains subsidiary ledgers of all debts, amortization and payments.
 - Reconciles Cash, Cash in Bank & Treasury and Investment accounts.
 - Performs cost accounting for DOW & Private Jobs; prepare claims for DOW job related work orders and insurance claims.
 - Reviews purchase requisitions for account coding and budgetary controls before processing Purchase Orders.
 - Collaborates with DOW divisions to produce documents for payroll, AP processing, project and job costing and reconciliation of all accounts.

Billing:

- a. Conducts monthly and as needed meter reading of the DOW customer's island wide.
- b. Provides timely billing, collection, accounting and deposits of DOW receipts from customer payments of water bills and miscellaneous receipts.
- c. Process meter applications and application for new services.
- d. Assist customers with their inquiries on billing, payments, water usage, leaks, meter profile and other billing matters.
- e. Maintains records of accounts receivable.
 - The Billing section is supervised by An Accountant IV with a staff of twelve (12) consisting of one (1) Accountant II, two (2) Customer Relations Assistants and three (3) Customer Service Representatives I all working together to maintain a database of over 21,000 customer accounts. In addition, there are three Field Collection Clerks/Meter Readers (FCC/MR) with one Supervising FCC/MR performing meter reading functions and various field activities in connection with water services:
 - Water meters are read monthly and the water bills are also sent out monthly.
 - Mailed in payments are processed through a lock box located outside the DOW.

- Automatic bill payment (ABP) is an option for customers to pay their water bills. This requires customers to set up their ABP at the DOW Fiscal/Billing/ Customer Service window.
- In collaboration with the DOW's IT Division, online payment with a credit and debit card is now available for use by the DOW Customers. Customers will need to create a user name and password to set up a log in account.

Program Highlights

- a. Operating & Non- operating revenues of \$30 million (“M”) consisted of water sales, investment income, miscellaneous and capital contributions from grants and conveyances. The main source of the revenues came from water sales.
- b. Capital contributions of \$3.5M consisted of state grants, conveyances and FRC collections of impact fees for new waterline connections.
- c. The DOW provided water service to approximately 22,356 active customer accounts with annual water usage totaling 3.75 billion gallons. Water sales revenues for FY19-20 amounted to \$ 26.7M.
- d. Operating expenses and debt service for FY 19-20 was \$32.1M; \$3.2M of which was for debt service, \$7.2M for depreciation costs, \$1.5M for bulk water purchases, \$2.2M for hydrants’ maintenance and cost of electrical power purchased for pumping was \$2.4M.

A summary of changes in the physical assets of the DOW is attached:






DOW ANNUAL REPORT FY2019-2020 (09-09-20)

Final Audit Report

2020-09-15

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