COUNTY OF MAUI DEPARTMENT OF WATER SUPPLY

ANNUAL REPORT FY 2022

Helene Kau, Director Shayne Agawa, P.E., Deputy Director



Submitted September 12, 2022

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EXECUTIVE SUMMARY



Helene Kau, Director



Shayne Agawa, P.E., Deputy Director

The Department of Water Supply (DWS) is proud to present its Fiscal Year 2022 Annual Report which provides an overview of the department, its goals and objectives, and highlights of activities performed throughout the year.

HIGHLIGHTS

The biggest event of FY22 continued to be the COVID-19 health emergency. Everyone in DWS was deemed an essential worker, and they lived up to that challenge gracefully, doing their best to keep operations as normal as possible; providing the county customers with clean water and services, while coping with the challenges of the crisis in their personal lives and workplace.

Our Engineering Division is constantly working on many projects, highlights include the Pookela Well "B" development and Upcountry Phase 10 construction projects. Both projects are critical to maintaining a reliable supply of water for the department's Upcountry customers.

Water Resources and Planning oversaw the partial commissioning of a sustainable graywater reuse system at Launiupoko Beach Park in Lahaina. The division oversees our efforts in protecting water resources, participates in educational community events and informs the community about water conservation, source protection, including providing grants for watershed partnerships. They distributed 4,416 water reduction fixtures and water saving devices.

The DWS Fiscal Division continued to maintain fiscal responsibility while focusing on our customer service for both external and internal customers. In FY22, a total of 4,254 meters/transponders were replaced in the Kahului and Lahaina areas; during the second of a five-year small meter replacement project. The new meters work in conjunction with cellular transponders and customers will be able to view their daily consumption via the internet. As an Enterprise Fund, DWS remains as the only County department that has its own full accounting and payroll staff; all other departments use the Department of Finance.

Our Water Plant Operations Division continued to contribute behind the scenes: maintaining the infrastructure for our 49 ground water source locations and public water systems. The Backflow Cross-connection Control Section ensured contaminants and pollutants do not enter our water system through back pressure or back siphonage in the 4,332 backflow preventer assemblies being monitored in Maui County. The Water Quality Laboratory ensured that all 17,812 samples in FY22 were collected and analyzed competently and that all data produced was documented with precision and accuracy to meet state and federal mandates.

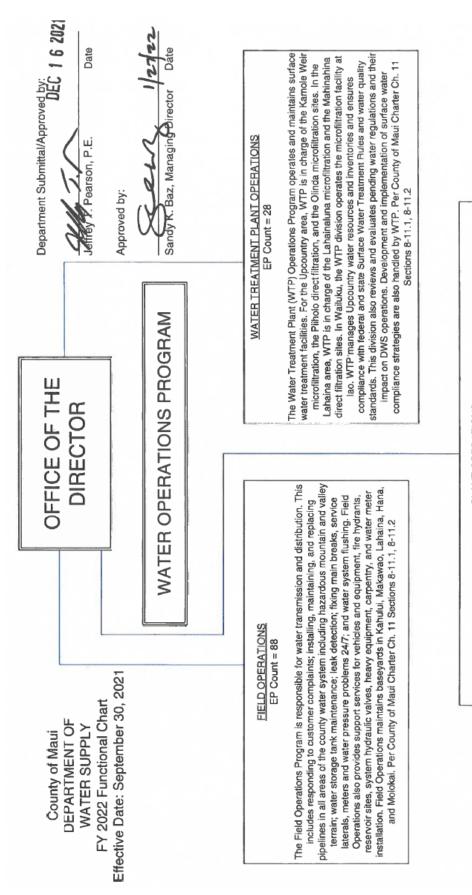
Accomplishments for the Water Treatment Plant Division include the upgrade of the Supervisory Control and Data Acquisition (SCADA) system and the installation of an Ultra-Violet disinfection system. Both projects were completed in the first quarter of FY22. The Water Treatment Plants Division took top honors winning the "Best Tasting Water in Hawaii" competition and having two water treatment facilities finish in the top five of the entire state. Overall, the division purified approximately 11.7 million gallons of clean water to our customers daily, or over four *billion* gallons for FY22.

Field Operations had another busy year. Pipefitters, welders, carpenters, electricians, equipment operators, mechanics, technicians and laborers in yards in Hana, Molokai, Upcountry, Central Maui and Maui's West Side, are responsible for approximately 780 miles of water transmission and distribution lines and for the system infrastructure including base yards and plants. The team responded to over 2,300 customer calls and were called out on over 750 after-hours repairs. In addition to service calls, they continued their work on the service line and mainline valve replacement program. Overall, the division replaced over two miles of pipe in FY22, which is significant when you realize each job may involve a few feet at a time.

All goals and objectives each year lead to the top priority, which is to continue to provide reliable, quality water at a reasonable cost. Many projects and tasks are involved in meeting this goal, from filling vacancies and retaining staff, to ensuring compliance with state and federal regulations, from flushing of hydrants, to minimizing outages and facility shutdowns. With the many dedicated employees, many who perform labor intensive work during and after work hours, even during a health emergency, DWS is proud to continue to work toward its mission *to provide clean water efficiently*.

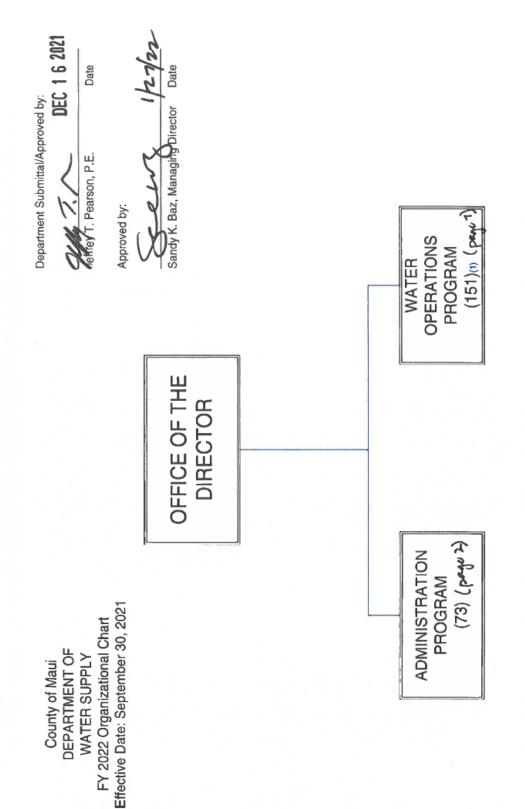
DEC 1 6 2021 Date The Water Resources and Planning Program is responsible for long-range, master financial planning, payroll processing, accounts payable and payment distribution, fixed asset tracking, depreciation calculations, expense and revenue reconciliation. applications, jobbing, cashiering, and administration of regulations. The accounting CIP reconciliation and capitalization," centralized purchasing, and maintenance of information systems including water consumption, supply and demand", mapping; conservation*. Per County of Maui Charter Ch. 11 Section 8-11.2 through 8-11.3 and capital and area planning and resource management," including Water Use The Fiscal/Customer Service Program provides customer services and general accounting to both internal and external customers. Customer services include section includes budget development and control, the annual audit, long-range resource development and source protection, water pollution prevention, and permit review; oversight of regulatory compliance. They also manage water Department Submittal/Approved by: the Kahului warehouse and stores inventory. Fiscal/Customer Service also advises the Board of Water Supply on related matters.* Per County of Maui meter reading, pre-audit, billing, collections, new customer and agricultural and Development Plans and conservation plans; planning and geospatial Sandy-K. Baz, Managine Director earson, P.E. Charter Ch. 11 Section 8-11.6 through 8-11.7 WATER RESOURCES & PLANNING FISCAL/CUSTOMER SERVICE Approved by: EP Count = 30 EP Count = 9 ADMINISTRATION PROGRAM OFFICE OF THE DIRECTOR Mayor, County Council and are in charge of human resources, community relations and he Administration Program is managed by the Director and the Deputy Director. This which includes overseeing all DWS functions and keeping staff focused on "Providing Clean Water Efficiently". They coordinate DWS affairs with Board of Water Supply (1), projects. Coordination and preparation of plans and specifications for projects to be advertised for competitive bidding is another duty of this program. Engineering administers DWS CIP (Capital Improvement Projects)* and coordinates consultant conduct studies for feasibility of pipeline alignment and sites for reservoirs, pump departmental standards and policies. Finally, Engineering conducts studies, tests, and investigations on water resources*. Per County of Maul Charler Ch. 11 division manages and controls all water systems of the County on a day-to-day basis." departmental standards. They prepare plans and specifications for water supply engineering services and field survey support to all divisions and is in charge of preparing the annual report. Administration provides water education and technical contracts. They prepare and administer agreements with public agencies and interpretation for legal issues. *Per County of Maul Charter Ch.11 Section 8-11.2 The Engineering Program reviews all development plans for conformity with private developers. They also prepare plans and specifications for in-house projects. This program develops and maintains water supply standards and stations, wells, water treatment facilities, and other facilities. They provide inspecting the construction of all water system facilities for adherence to ADMINISTRATION ENGINEERING EP Count = 9 EP Count = 25 Section 8-11.2 Effective Date September 30, 2021 2022 Functional Chart DEPARTMENTOF WATER SUPPLY County of Maui OFFICE OF 030 17. REC

(1) The Board of Water Supply consists of nine members who shall be appointed by the mayor with the approval of the council. The board of water supply shall act as advisor to the director of the department of water supply, the mayor and the council in all matters concerning the county's water system. Per County of Maui Charter Ch. 11 Secion 8-11.3.

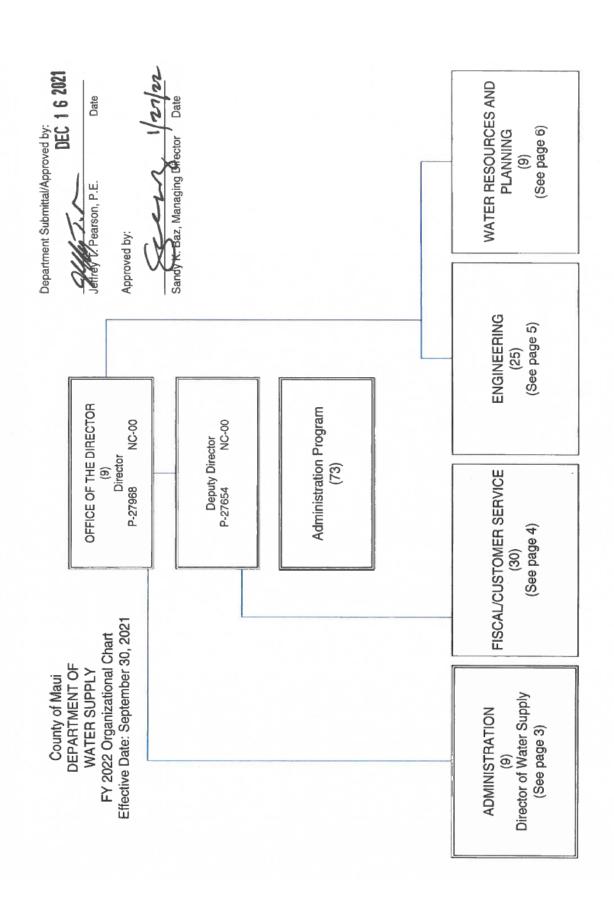


PLANT OPERATIONS EP County = 35

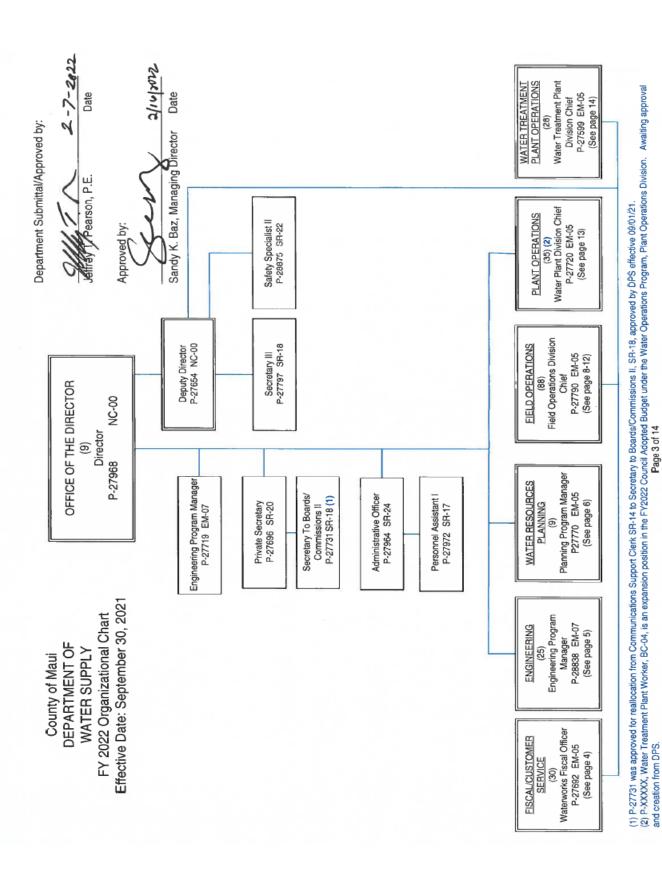
The Plant Operations Program is comprised of four sections: Plant Maintenance, Water Quality, SCADA-Telemetry, and Backflow Prevention. The Plant Maintenance section operates and maintains groundwater wells and booster pumping facilities. The SCADA-Telemetry section provides ongoing development and support to the Supervisory Control and Data Acquisition System that monitors and controls pumping, water treatment facilities, and storage facilities within the distribution system. Both sections also provide electrical and process control support to other divisions. The Water Quality Laboratory tests and ensures that safe drinking water is supplied to our consumers in accordance with current and proposed federal and state water standards. The Backflow Prevention section installs and inspects backflow units, conducts field surveys, and issues annual inspection notices to insure that backflow units adhere to federal, state, and local standards. Per County of Maui Charter Ch. Sections 8-11.1, 8-11.2

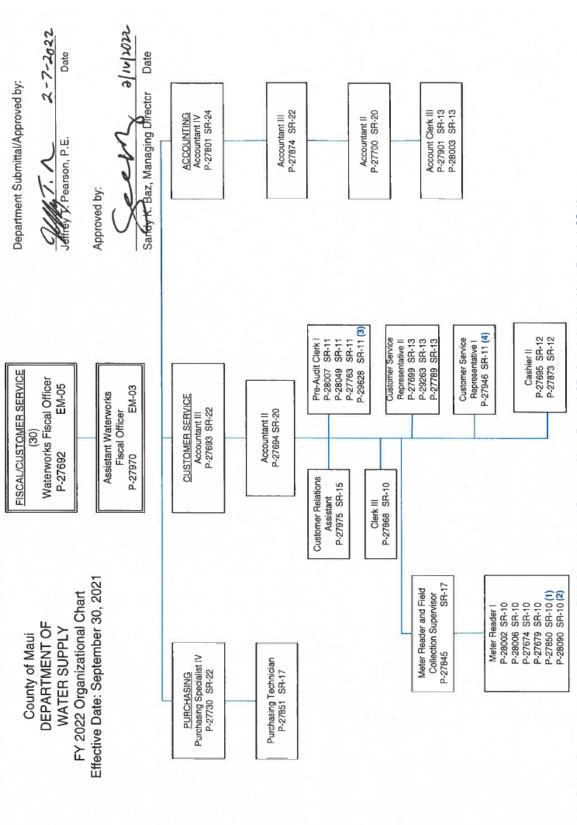


(1) Position P-XXXXX, Water Treatment Plant Worker, BC-04, is an expansion position in the FY2022 Council Adopted Budget under the Water Operations Program.



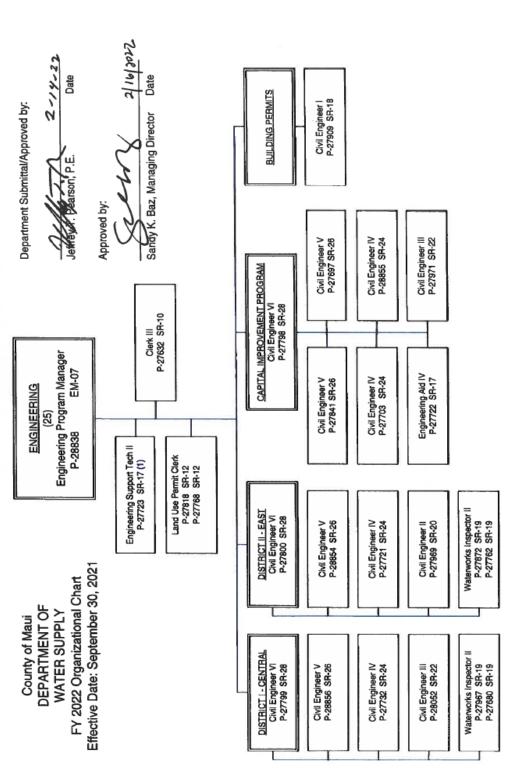
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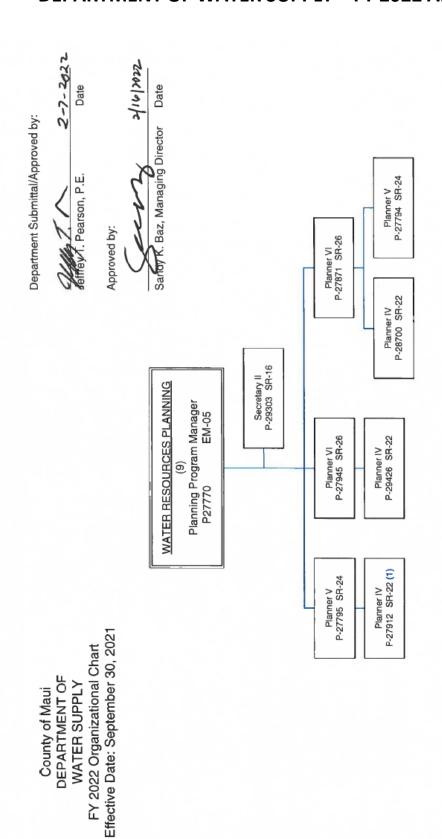


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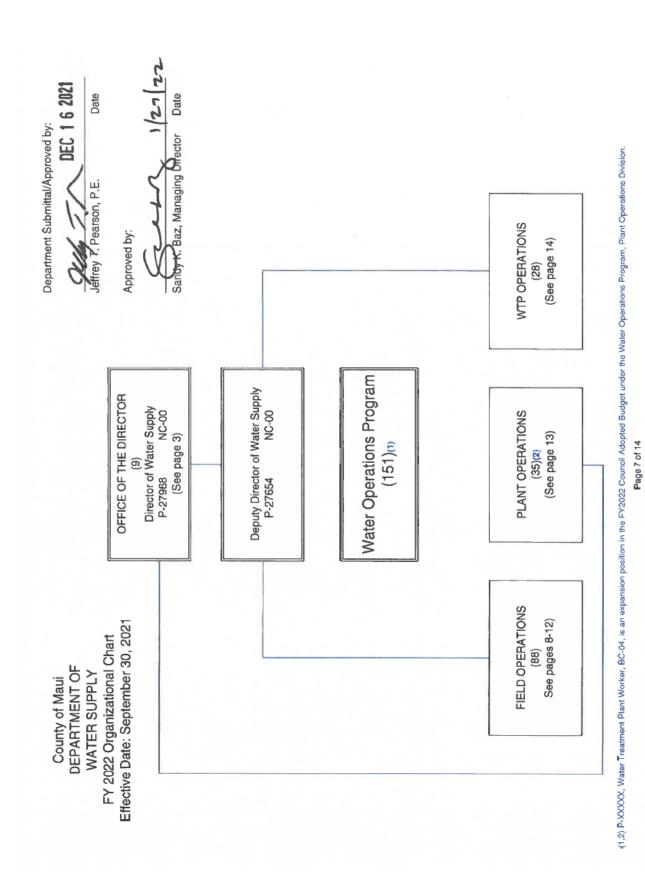
Position P-27850, is incorrectly stated in the FY22 Council Adopted Budget as Meter Reader I, SR-13, and should be Meter Reader I, SR-10.
 P-28090 was approved for reallocation from Field Collection Representative, SR-13, to Meter Reader I, SR-10, approved by DPS effective 03/15/21.
 P-29628 was approved for reallocation from Cashier II, SR-12, to Pre-Audit Clerk I, SR-11, approved by DPS effective 03/15/21.
 Position P-27946 is incorrectly stated in the FY22 Council Adopted Budget as Customer Service Representative I, SR-11.

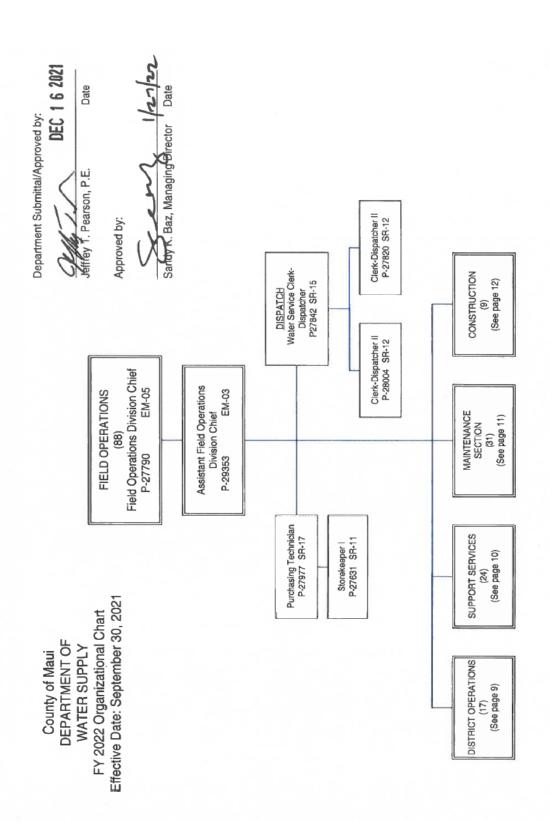


(1) P-27723 was approved for reallocation from Engineering Support Tech I, SR-15, to Engineering Support Tech II, SR-17 approved by DPS effective 08/01/2021.

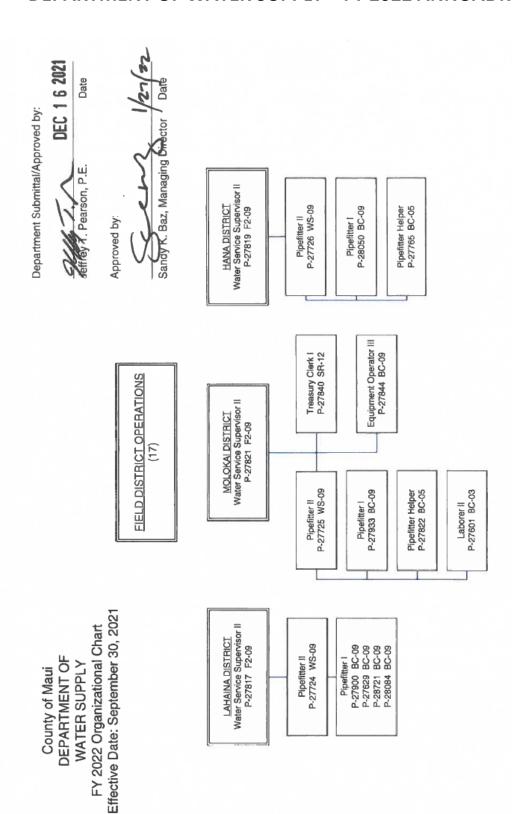


(1) Position P-27912 is incorrectly stated in the FY22 Council Adopted Budget as Planner V, SR-24 and should be Planner IV, SR-22.

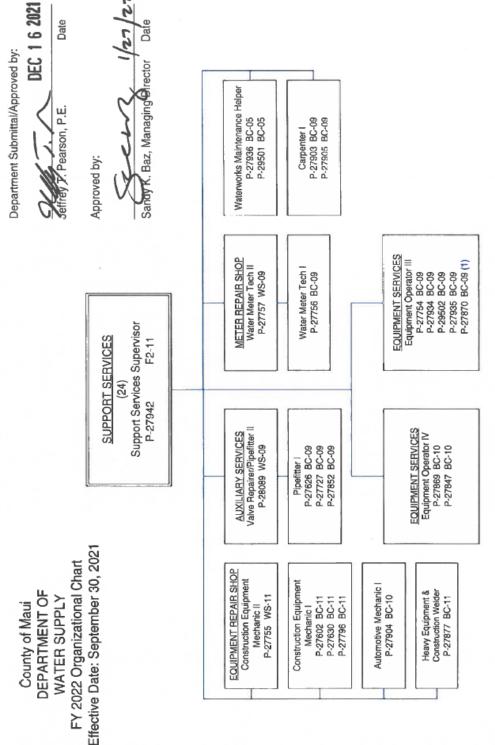




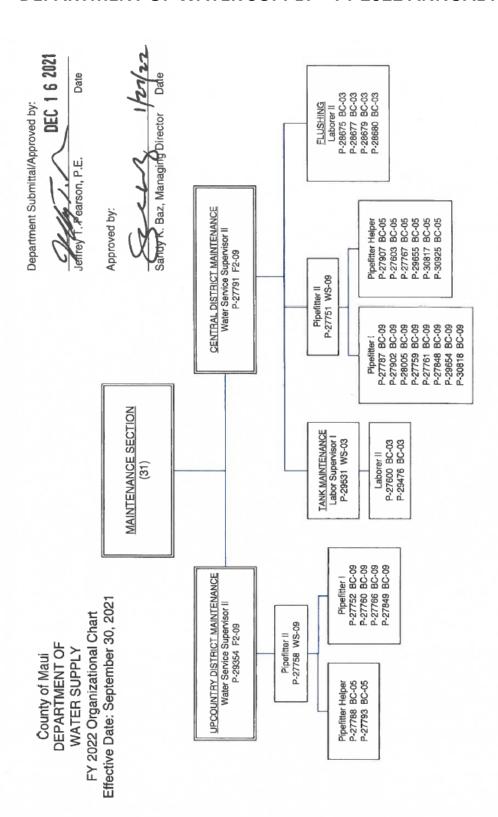
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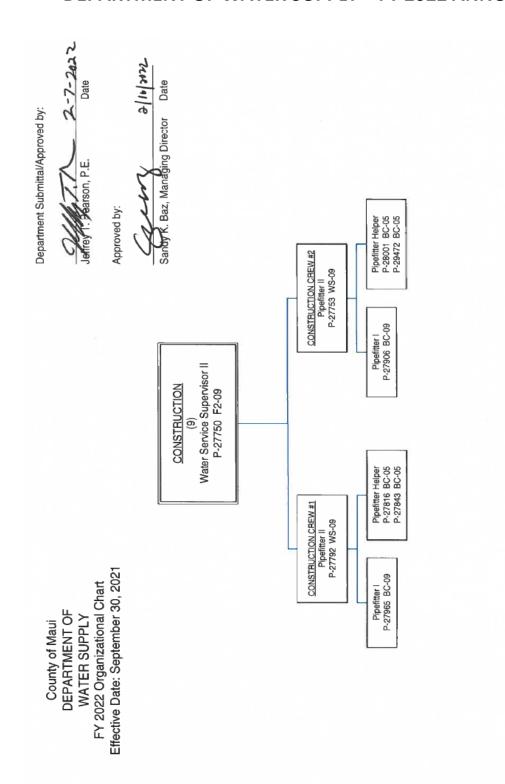


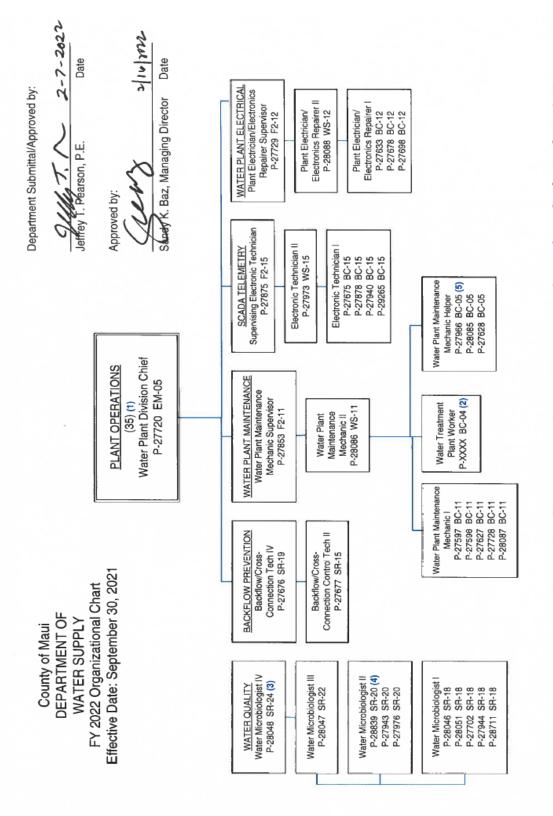
(1) P-27870 was approved for reallocation from Equipment Operator IV, BC-10, to Equipment Operator III, BC-09 approved by DPS effective 07/26/2021



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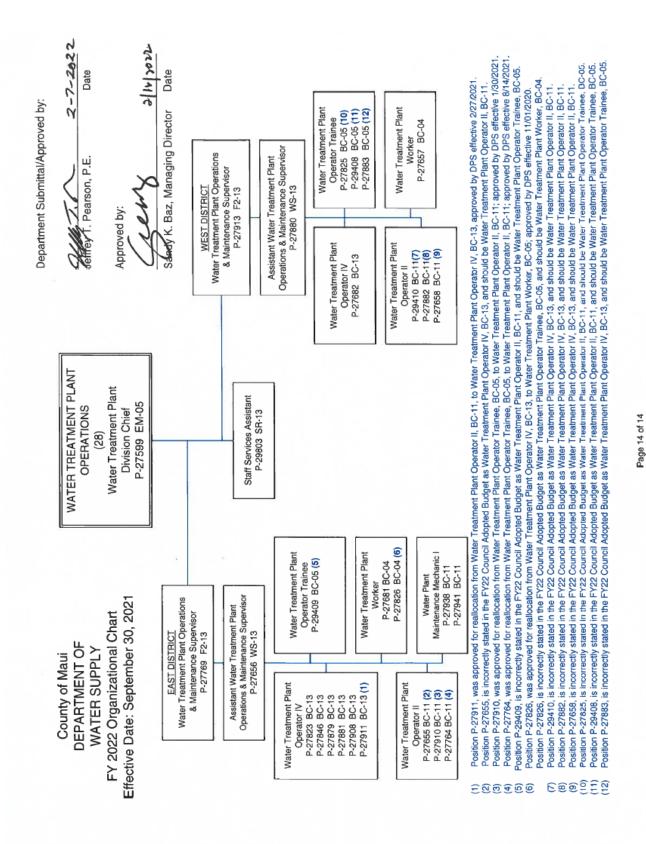




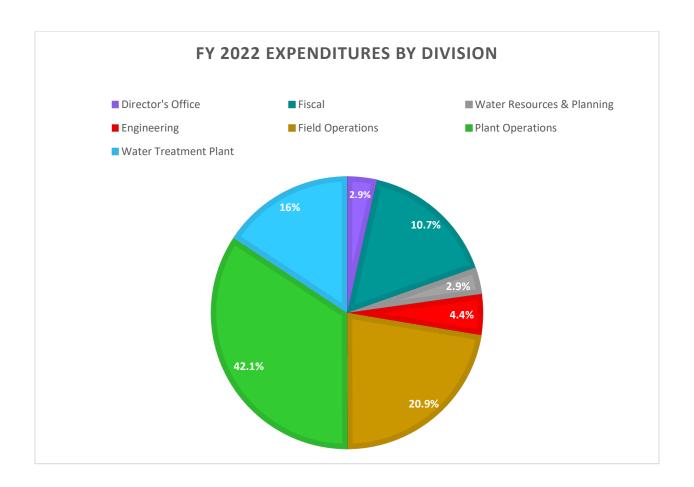
(1,2) P-XXXXX, Water Treatment Plant Worker, BC-04, is an expansion position in the FY2022 Council Adopted Budget under the Water Operations Program, Plant Operations Division. Awaiting creation and approval by DPS. Anticipated target date for creation: 4/15/2022.

[®] **₹ ©**

Position P-28048, is incorrectly stated in the FY22 Council Adopted Budget as Water Microbiologist V, SR-26, and should be Water Microbiologist II, SR-20.
Position P-28839, is incorrectly stated in the FY22 Council Adopted Budget as Water Microbiologist II, SR-18, and should be Water Microbiologist II, SR-20.
Position P-27966, is incorrectly stated in the FY22 Council Adopted Budget as Water Plant Maintenance Mechanic, BC-05, and should be Water Plant Maintenance Mechanic Helper, BC-05.



FY 2022 EXPENDITURES BY DIVISION



Division	FY 2021	FY 2022
Director's Office	1,404,800	1,188,341
Fiscal	6,341,949	4,373,679
Water Resources & Planning	1,266,658	1,185,854
Engineering	1,898,945	1,795,621
Field Operations	8,822,017	8,502,193
Plant Operations	13,565,139	17,140,358
Water Treatment Plants	6,209,644	6,532,960

ENGINEERING DIVISION

The Engineering Division is responsible for the daily administration of Maui County Code Title 14 – Water related to subdivision applications, building permit applications, and water service requests and the implementation of the majority of the department's capital improvement program budget. Division staff also provides technical support to all other divisions and processes the department's land acquisitions and easements. The Engineering Division is divided into four sections: **Administration**, **District I**, **District II**, and **Capital Improvement Program**.

The Administration Section provides the operational and clerical support for the other sections and is responsible for the intake of subdivision applications, building permit applications, plumbing permit applications, and water service requests. This section is also responsible for the review of residential building permit applications and residential and commercial plumbing permit applications, as well as the coordination of the long-term capital improvement program with the other divisions.

The District I Section is responsible for the approval of subdivision applications, commercial building permit applications, and water service requests served from the Wailuku Water System (Kahului, Kihei, Maalaea, Makena, Paia, Wailea, Waihee, Waiehu and Wailuku), the Keanae Water System, the Nahiku Water System, and the Hana Water System (Wakiu, Hana and Hamoa) which comprises approximately 58% of existing water services. This district is responsible for approximately 58% of existing water services. This section also assists with overseeing the construction phase of capital improvement projects within District I.

The District II Section is responsible for the approval of subdivision applications, commercial building permit applications, and water service requests served from the Upper Kula Water System (Upper Kula, Waiakoa, Keokea, Ulupalakua and Kanaio) and the Lower Kula Water System (Olinda, Kula Kai, Omaopio and Pulehu), the Makawao Water System (Haiku, Haliimaile, Makawao, and Pukalani), the Lahaina Water System (Puamana, Wainee, Kelawea, Lahaina, Wahikuli, Honokowai, Mahinahina, Kahana, Alaeloa, and Napili), the Honokohau Water System, the three water systems on Molokai (Kaunakakai Water System, Ualapue Water System, and the Kalae Water System) which comprises approximately 42% of existing water services. This section also assists with overseeing the construction phase of capital improvement projects within District II.

The Capital Improvement Program Section is responsible for the planning and design phase of capital improvement projects, including major repairs at facilities, replacement of aging infrastructure, and development of new water sources. This section also assists with overseeing the construction phase of capital improvement projects.

Capital improvement projects in progress during Fiscal Year 2022, along with the respective phase of the project (planning, design, construction, completed construction) are listed below:

Project Name	<u>Phase</u>
Kamole Water Treatment Plant – Chemical Building Repainting, Haliimaile, Maui – Repainting of the chemical building. Construction funding appropriated FY2023.	Design
Kanaha Wells Motor Control Center (MCC) Upgrades, Lahaina, Maui – Installation of new motor control center and construction of new control building. Construction funding appropriated FY2023.	Design
Kanoa Well Motor Control Center (MCC) Upgrades, Wailuku, Maui – Installation of new motor control center and construction of new control building. Construction funding appropriated FY2023.	Design
Haiku Well Control Tank Replacement, Haiku, Maui – Replace the existing 250,000 - gallon water tank. Construction funding appropriated FY2023.	Design
Holomakani Tank Replacement, Kula Maui – Replace the existing 47,000-gallon water tank. Construction funding appropriated FY2023.	Design
Launiupoko Well Development, Lahaina, Maui – Development of a potable groundwater source. Construction funding for exploratory well drilling pending Environmental Assessment.	Design
Old Wailuku Heights Tank Replacement, Wailuku, Maui – New construction to replace an existing 100,000 - gallon water tank. Construction funding to be requested in FY2024.	Design
Olinda Water Treatment Plant – Clear Well Roof Refurbishment, Makawao, Maui – Refurbishment of the existing the clear well roof. Construction funding appropriated FY2023.	Design
Waihee Aquifer Source Development, Waihee, Maui – Development of a potable groundwater source. Construction funding for exploratory well drilling appropriated FY2023.	Design
Waiehu Heights Well #1 Replacement, Wailuku, Maui – Development of a potable groundwater source to replace the existing Well #1. Construction funding for exploratory well drilling appropriated FY2023.	Design
Waipuka Wells Motor Control Center (MCC) Upgrades, Lahaina, Maui – Installation of new motor control center and construction of new control building. Construction funding to be considered FY2023.	Design
West Maui Well Development – Kahana Well, Kahana, Maui – Development of a potable groundwater source. Construction funding for well development to be requested as a FY2023 budget amendment.	Design
Mokuhau Wells – Motor Control Center (MCC) Upgrades, Wailuku, Maui - Installation of new motor control center and construction of new control building. Project to be completed by December 31, 2022.	Construction
Mokuhau Wells – On site Sodium Hypochlorite Generation System for Well Sites – Installation of disinfection systems for the Mokuhau Wells site to discontinue use of chlorine gas. Project to be completed by December 31, 2022.	Construction

Pookela Well "B", Makawao, Maui – Development of a potable groundwater source that will provide a back-up for the existing Pookela Well "A". Project to be completed by December 31, 2022.	Construction
Upcountry Phase 10 Booster Pump Upgrades, Kula, Maui – Replacement of the existing booster pumps and installation of new electrical controls at Pookela, West Olinda, and Maluhia sites. Project to be completed by April 4, 2023.	Construction
Kaupakalua Well & Booster Pump Motor Control Center (MCC) Upgrades, Haiku, Maui – Installation of new motor control center and emergency generator. Project to be completed by June 29, 2023.	Construction
Kamole Water Treatment Plant – Clear Well Refurbishment, Halimaile, Maui – Concrete repairs to the clear well. Project completed November 30, 2021.	Project Completed
Lahaina Water Treatment Plant 1 MG Clear Well Tank Refurbishment, Lahaina, Maui – Interior refurbishment of 1-million-gallon concrete clear well. Project completed March 30, 2022.	Project Completed
Lower Kula Transmission Line – Tree Clearing, Makawao, Maui – Clearing of trees along the raw water transmission line that transmits source water to the Piiholo Water Treatment Plant. Project completed January 8, 2022.	Project Completed
Mahinahina Water Treatment Plant Controls Upgrade, Kapalua, Maui – Replacement of the processing and automation controls. Project completed January 31, 2022.	Project Completed
Mahinahina Water Treatment Plant UV Disinfection, Kapalua, Maui – Installation of ultra-violet disinfection system. Project completed September 28, 2021.	Project Completed
Wailea Tank Roof Refurbishment, Wailea, Maui – Refurbishment of the existing concrete tank roof. Project completed November 26, 2021.	Project Completed
Wailuku Heights Booster Pump Stations Upgrades, Wailuku, Maui – Replacement of the existing booster pumps at Kuikahi and Waiale sites. Project completed May 20, 2022.	Project Completed
	<u> </u>

FIELD OPERATIONS DIVISION

The **Field Operations Division** consists of the following sections: **Maintenance,** in the Central, Hana, Lahaina, Molokai and Upcountry districts; **Construction**, **Support Services** and the **Field Operations Office**. Field Operations is responsible for approximately 780 miles of water transmission and distribution lines, servicing 37,342 meters on Maui and Molokai with a staff of 84.

The Central, Hana, Lahaina, Molokai and Upcountry districts are responsible to control, repair, replace, install and maintain main and service waterlines and all appurtenances, including meters, hydrants, standpipes, relief valves, gate valves and stopcocks. The District crews assisted the Construction section, contractors, other divisions, departments and consumers as needed to patch roadways and sidewalks, conducted inspections for agriculture water rate requests, participated and complied with Department of Health Sanitary Survey requirements, performed leak detection, prepared for hurricanes and tsunami events and requests for One Call Utility locations. Personnel in the Maintenance sections received and addressed consumer water complaints, flushed water systems and performed tank and ground maintenance. Training classes were conducted for Distribution System Operator (DSO) certification, drug testing, Hawaii Rural Water Association (HRWA) classes, and Department of Transportation (DOT) testing.

Annual Number of Responses per District

Maintenance District	Consumer Complaints	After-Hour Calls
Central	1,041	313
Hana	136	71
Lahaina	296	29
Molokai	126	38
Upcountry	743	317

CENTRAL MAINTENANCE

The Central maintenance crew is responsible for the largest service area in the department and in FY2022 they responded to 1,041 consumer complaints during regular working hours and 313 after-hours calls. The Central crew made system adjustments throughout the year in the Kihei, Wailea, Wailuku, Waihee/Waiehu and Kahului areas. They also assisted the Construction section, and the Upcountry, Lahaina and Hana Maintenance sections.

Daily projects included the service line replacement program, meter replacement program, main line valve replacement and exercise program, trench/road patching, responding to SCADA alerts, patching sidewalks, conducting inspections for agricultural

water rate requests, complying with Department of Health (DOH) Sanitary Survey requirements, and traffic control for projects. The Central crew conducted regular leak detections, hurricane and tsunami preparedness, valve cleaning, and requests for One Call Utility locations. Training classes were conducted for Distribution System Operator (DSO) certification, drug testing, Hawaii Rural Water Association (HRWA) classes and Department of Transportation (DOT) testing.

In FY2022 Central Maintenance crews replaced:

- 975' of 3/4" copper pipe
- 2,485' of 1" copper pipe
- 925' of 1 1/4" copper pipe
- 292' of 1 ½" copper pipe
- 415' of 2" copper pipe
- 400' of 2" copper pipe to replace polyethylene or galvanized mainline
- 37' of 4" ductile iron pipe
- 290' of 6" ductile iron pipe
- 127' of 8" ductile iron pipe
- 154' of 12" ductile iron pipe

The Central crew responded to 139 shut and open meter requests, 19 customer complaints of dirty water, 46 consumer complaints of no water and 88 high and/or low-pressure complaints. The crew participated in 17 tie-ins, 12 bores, 24 taps and other contractor related projects, many of which involved after-hours and night work.

The crew also replaced or repaired 209 relief valves and/or gate valves/ball valves/stopcocks, replaced or repaired approximately 246 meters, repaired approximately 53 service laterals, replaced 171 service laterals, installed seven service laterals, replaced 12 cast iron meter box covers, replaced two concrete meter box covers and unlocked 14 cast iron meter box covers. They also replaced 44 hydrants/standpipes and completed 43 field activity requests, 21 job orders, and three agricultural inspections.

The Laborers in the Central crew flushed the Upcountry water system daily for water quality purposes (a total of 2,276 hydrants flushed and 3,162,000 gallons of water) and performed tank and grounds maintenance in the Lahaina, Upcountry and Central districts. The procedures for both the hurricane and tsunami emergency plans were updated for the Central district which covers all areas from Makena to Waihee to Sprecklesville, and all of the Kahului and Wailuku areas.

The Leak Detection crew toned/located 158,041 feet of water line in the Central/Upcountry/Lahaina/Hana water systems and located 69 potential leaks.

Upcountry Maintenance

The Upcountry crew responded to a total of 743 calls during regular working hours and responded to 317 calls after hours. The crew completed 22 job orders which consisted of shutting down valves for cut-ins and tie-ins, bores, taps, relocating meters and repair/replacement of damaged water service laterals and main lines for contractors. The crew completed 54 field activities and 41 agricultural inspections.

The crew repaired and replaced 287 service lines ranging from 1" to 1½". A total of 1,290 feet of service laterals were replaced with copper pipe. They also repaired and replaced 155 main lines ranging from 2" to 12". A total of 1,197 feet of main line were replaced with ductile iron, polyethylene and copper pipe. The crew responded to 53 "no leak to be found" complaints, 76 private leak complaints, 68-meter leak complaints, 44 dirty water complaints, 46 hydrant/standpipe complaints, 69 high/low psi complaints, and 244 miscellaneous complaints.

Lahaina Maintenance

The Lahaina Maintenance crew responded to a total of 296 consumer complaints during regular business hours and 29 after-hours emergency call outs. They repaired 59 main line leaks, 30 service leaks, 63 meters and 21 hydrant/standpipes. The crew replaced 1,236 feet of main line pipe ranging from 1½" to 16" and 478 feet of service laterals ranging from ¾" to 1½". A total of seven main line valves were replaced, along with 12 service laterals, six hydrant/standpipes, eight gate valves/stopcocks, two air relief valves and 18-meter boxes/covers. The crew cut and plugged one old service lateral and one illegal connection to the DWS system, replaced/raised 16 sliding valve boxes and completed concrete work on sidewalks, meter pads and valve donuts. The crew resolved 37 no water/high-low pressure complaints, 33 shut/open water requests and four dirty water complaints. Crew members installed 10 marker posts for main line valves located in remote areas, one sample station in Honokohau Valley for laboratory personnel and assisted consumers in locating meters/valves, unlocking meter covers, verifying possible leaks and distributing consumer notices.

There were eight job orders and 210 field activities completed. A total of eight corporation taps and one bore ranging from 1" to 8" were completed. The crew also shut and opened valves for contractor tie-ins, and when completed, the main lines were flushed and tested for chlorine residual. The crew relocated/raised 10 meters, installed/removed three temporary construction meters, installed/replaced 171 meters ranging from 5%" to 3", replaced 11 transponders, recorded six-meter readings and removed one 5%" meter due to non-payment.

The crew serviced 86 hydrants throughout the Lahaina District and made system adjustments in the Lahaina/Wahikuli and Kahana areas when necessary. Utility location requests were submitted to the Hawaii One Call Center and all road patches were marked out for contractor repaving. Crew members also assisted the Leak Detection crew, Support Services and laboratory personnel. They located and cleaned out

mainline valves for hurricane/tsunami preparedness, attended DSO classes, special training sessions and completed lab tests for the pocket colorimeters. The crew also performed maintenance at Lahaina base yard and the various tank/pump sites throughout the district.

Molokai Maintenance

The Molokai crew checked chlorine residuals, flushed hydrants on the east side and rotated pumps at Kamiloloa, Ualapue and Kawela daily. Weekly duties included ensuring the hypochloride levels at all tank sites were filled, taking pH readings, maintaining the base yard equipment and performing vehicle maintenance. Monthly requirements included meter reading, distributing delinquency notifications, locking meters, base yard storeroom maintenance, freight pickup and inspection of transmission lines, bacti sampling and meter reading at well sites.

The Molokai crew responded to a total of 126 consumer complaints during regular business hours and 38 after-hour emergency call outs. The crew completed 148 field activities. The crew completed one agricultural inspection. The crew was able to repair sidewalks due to service and mainline breaks and to repair the concrete around hydrant barriers and donuts. The crew attended American Water Works Association (AWWA) classes, Distribution System Operator (DSO) classes and assisted DWS inspectors.

Hana Maintenance

The Hana district covers Keanae to Kaupo, which has extremely rough terrain. The crew responded to 136 consumer complaints during working hours and 71 consumer/SCADA complaints after hours. They completed 59 field activities and eighty-six, 4" main line repairs. When the break was too big, an equipment operator from the Central base yard was requested to assist.

Weekly, the crew collected tank and end-of-line chlorine residual samples to ensure adequate chlorination was delivered throughout the distribution system. Personnel ensured all chlorine containers were topped off at four different tank sites and assured stand-by generators had adequate fuel in case of an emergency. The crew collected chlorine samples for each well for the lab, maintained seven tank sites, landscaped, cut trees, weed control and performed building maintenance.

Monthly, the crew read 545 meters from Keanae to Kaupo. The Hana office is capable of downloading and uploading all pertinent files for meter readings, billing, meter profiling and lock-out meters. The staff also collected monthly payments on accounts. The crew picked up meter readings at the EMI ditch at Makapipi, which feeds the Nahiku system. Periodically, they were asked to collect microbiological samples for chlorine lines, wells, etc. Samplers were certified by the DWS Laboratory for proper sampling procedures.

The crew continued working to reduce leaks by utilizing information from the leak detection crew and SCADA and replacing lines whenever and wherever possible. Throughout the year, the crew kept all hydrants and standpipes in good appearance and physical order. In addition, the crew replaced old air release valves (ARV)s with new ones when identified.

The crew attended Cardio Pulmonary Resuscitation (CPR) classes, Distribution System Operator classes as well as the annual chlorine proficiency testing at the DWS laboratory.

Construction Section

The Construction crew consists of a Water Service Supervisor I, Pipefitter II, Pipefitter I and Pipefitters Helpers. Some of the daily projects that the crew worked on in FY2022 included patching roads, sidewalks, and trenches. They also assisted the maintenance sections of the Central, Hana, Lahaina, Upcountry, and Molokai districts with replacements, repairs, taps of mainlines, valves, service laterals, hydrants, stand pipes, meters, traffic control, sanitary survey requirements, and Hawaii One Call Utility location requests. In addition, the construction section attended Distribution System Operator, Forklift Safety, Defensive Driver and Continuing Educational Units (CEUs),trainings that were offered through the county, the Hawaii Rural Water Association, and other companies.

In FY2022 the crew replaced chain link security fence, fence posts, top rails, and barbed wire fencing, and cut and cleared away trees at the following tank sites: Honokowai Tank, Kahana Ridge Tank, Waipuka Tank, Honokohau Valley, Dowling Tank, Wailuku Heights Tank 30, Waiehu Terrace Tank and Waiale Tank.

The Construction Section helped with the Sanitary Survey at the following sites: Kahana Ridge, Honokowai Tank, Honokohau Valley, Lahaina Water Treatment Facility.

During FY2022, the section responded to 20 consumer complaints during regular business hours, completed 190 field activities, replaced 165 defective meters, replaced 165 defective transponders, verified meter number and size for Engineering, replaced 10 cast iron/plastic meter box covers, removed one meter due to non-payment (NRP), reinstalled one meter and one transponder, tested three meters and found two functional and one deficient, upgraded one meter, assisted consumer in locating meter, removed one construction meter, installed one new construction meter and relocated three meters.

Construction Crew Projects throughout the year included:

- Installed 8" pipe water line, cut and cleared trees at the Holomakani Tank.
- Relocated chlorine injection lines at the Mahinahina Water Treatment Facility.
- Cleaned tank site at the Haiku Well.
- Cut a cleared road and replaced 10' of 8" ductile iron water main line at the Pukalani Tank.
- Repaired 2" polyethylene pipe water line at Kailili Road.
- Conducted traffic control for Upcountry maintenance at Pulehu Road.
- Cut and plugged galvanized service lateral and replaced with a copper water line at Lelehuna Street.
- Repaired 16" water line. Installed 8" gate valve. Reinforced vault box and replaced chain link fencing at the Honokowai Tank.
- Replaced 1,100' of 4" polyethylene water line with 2" polyethylene water line. Repaired multiple leaks on 2" polyethylene water line at Honokohau Valley.
- Replaced 1¼" service laterals at Piihana Road, Kulipuu Street, Melianani Street, Hiolani Street, Hahana Road, Liko Place, Kumulani Street, Laulana Street, Nohokai Street and Keilio Place.
- Replaced 1" service laterals at Papa Avenue, Makia Place, Waiale Road and Noweo Place.
- Removed 2" drain lines and plugged outlets for Sanitary Survey at the Lahaina Water Treatment Facility.
- Replaced a broken standpipe at Iolani Street.
- Repaired driveway at Makawao Avenue.
- Repaired 6" water main at Kolohala Drive.
- Installed a 1½" pressure regulator with outlets at Ulupalakua.
- Walked mainline and checked for leaks, serviced ARVs from Kamaole Tank to Kanaio Tank.
- Repaired one 8" water main at Palapala Drive.
- Replaced one cement cover box pad at Piihana Road.
- Repaired two 12" water lines at the Kahulu Lateral.
- Repaired 4" water main and installed a 4" pressure regulator at Koheo Place.
- Replaced sliding valve boxes and risers at Keolo Place.
- Checked valves along Veteran's Highway.
- Replaced a water line at the Waiale Tank.
- Replaced 12" and 8" water mains at the Waiakoa Gulch and the Alae lateral.
 Replaced a 6" water main at the Alae Lateral.
- Flushed and cleared water lines of debris throughout the Upper Kula Water System.
- Patched road, replaced driveway and sidewalk with concrete at Kaahumanu Avenue.

- Removed damaged pillars and installed new pillars to hold 2" polyethylene pipe water line at Kilohi Street.
- Replaced vault box at Polipoli Road.
- Replaced 10' of 10" water line, replaced 2" polyethylene pipe water line at Awalau Road.
- Located in-line valves at Prison Street.
- Cleaned intake at the Awalau Intake.
- Installed 800' of 4" water main, installed in-line valves, and repaired existing 3" galvanized water main on Stable Road.
- Replaced damaged hydrants on Waiko Road, Kamehameha Avenue, Palama Street, Makena Road and Papa Place.
- Removed 12" flapper from drain line, and installed a 12" x 4" bell reducer and installed two 2" polyethylene pipe water lines for pump at the Lahainaluna Tank.

Support Services Section

The Support Services section consists of the meter shop, equipment repair shop, valve maintenance, hydrant maintenance, equipment operators, welders and carpenters. In FY22, the meter shop replaced 309 defective transponders, replaced 163 older meters. The meter shop upgraded 10 meters, tested 314 meters and found 169 functioning properly and 145 deficient. The crew installed 74 new meters, and removed two construction meters. The meter shop is on a program to replace aging meters throughout the island. As part of this project, they checked meters for unusually high and/or low consumption, investigated illegal water hook ups and completed police reports when necessary.

The mechanic shop worked on an average of 20 to 30 vehicles per month. The types of vehicle repairs included brakes, front-end repair, body damage, engine work, preinspection repairs, and preventive maintenance. The repair shop, maintained generators, heavy equipment such as dump trucks, backhoes, trailers, mobile light units, and fuel levels at generator sites and the NASKA base yard. They also repaired small-engine equipment such as water pumps, chainsaws, weed eaters, riding lawnmowers, road saws, flat plate tampers, tapping machines, power threading machines, and small generators. The shop also rebuilt one backhoe, the project consisted of resealing all cylinders and replacing all hydraulic hoses and the entire cab.

The valve maintenance crew assisted in the Sanitary Survey and repaired tank and valve box deficiencies at various sites. The crew monitored tank heights and corrected and serviced regulators at various locations. They painted and cleaned regulator boxes throughout the island and responded to low and/or high-pressure complaints.

The hydrant maintenance section repaired and serviced 338 hydrants in the Pukalani area and has threaded over 100 stand pipes. Hydrant workers performed plumbing repairs and upgrades to the NASKA base yard.

The welder worked on the Sanitary Survey in the Central district. All tank hatches and gaskets where checked and replacements were made where needed. All vent screens were replaced with nylon screen and all over-flow check valves and flapper valves were checked. The welder replaced meter box covers throughout the island and fabricated valve wrenches and meter box wrenches. The welder repaired water tanker trailers for emergency use and replaced pipe trestles that were destroyed during the storm in Kula in December. In addition, the welder worked on a garage extension at the NASKA base yard.

The carpenters also worked on the Sanitary Survey in the Central district. The repairs included replacing screens and roof vents, sidewalks and drive ways that were damaged from main line and service line work, and valve box and meter box repairs throughout the island. The carpenters worked on installing a header over the roll up door and repaired trestles in the Kula district that were destroyed from the storm in December. The carpenters replaced the lab supply trailer, they poured new footings, raised the trailer to correct height, repaired the ramp to Americans with Disabilities Act (ADA) compliance and installed shelving and painted the trailer. The carpenters also built a garage extension between the shop at the NASKA baseyard.

The equipment operators assisted in numerous jobs from Hana to Honokohau Valley. They excavated mains and service lines to provide access for maintenance crews to conduct repairs. They repaired roads from Upcountry and Lahaina. They cut brush in remote well sites in the Lahaina district from Mahinahina to Honokohau Valley. They also ran the rock screen plant to minimize the amount of material we have to purchase; this material is used for backfill of water lines and minimizes the amount that we dispose of to the landfill. They also hauled in base course and S4C to the NASKA/Kahului base yard. The operators worked on the Kula transmission line to gain access to the pipe and delivered water via water tankers throughout the Kula district. The operators delivered water to houses that were affected by the Awalau Intake breakage.

Warehouse

The DWS Warehouse is responsible for the purchase, receipt, inspection, custody and distribution of supplies and materials required for the maintenance and repair of the county water system. The warehouse inventory consists of potable water works material approved by the American Water Works Association (AWWA) and the County of Maui Department of Water standards. Inventory is tracked through the Finance Enterprise (FE) system. Finance Enterprise records all warehouse functions, transactions and purchases. The warehouse conducts end of fiscal year inventory for the Districts – Central, Hana, Lahaina, Molokai and Upcountry; Construction and Support Services.

Field Operations Office

The Field Operations Office provides all administrative and clerical support for the Field Operations Division. The personnel assist with varied processes and tasks. Some of these tasks include fielding incoming calls on a 24/7 basis and addressing complaints in a timely manner, including calls for emergency service both during work time and after hours. This section is also responsible for processing all field operations paperwork and

reports including recording and reporting daily attendance, ensuring submittal of timesheets and required payroll documents, processing job orders, receiving agriculture applications, processing purchase orders, maintaining accurate call-out schedules, arranging travel and monitoring security access. This section promptly responds to all inquiries from other divisions in the Department of Water Supply.

PLANT OPERATIONS DIVISION

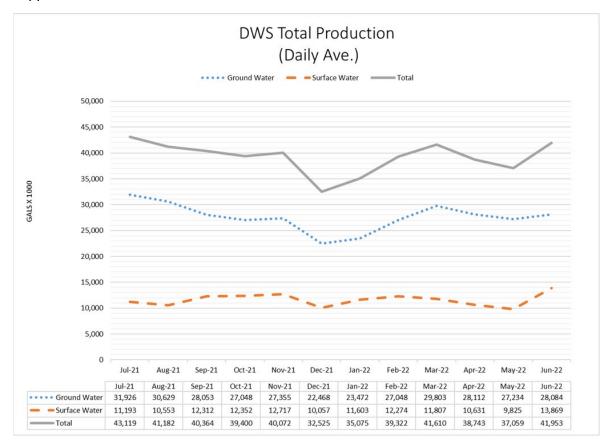
PLANT OPERATIONS DIVISION

FY 2022 Annual Report

The Plant Operations Division consists of 35 positions in five sections: Water Quality Laboratory, Backflow and Cross Connection Prevention, Electrical, Mechanical, and Electronics. Each section plays an integral role in the daily operations of the Department of Water Supply.

Electrical, Mechanical, and Electronics:

The **Electrical, Mechanical**, **and Electronic Sections** maintain and operate 49 ground water sources (approximately 70% of the Departments total daily production), 79 booster pumps and granulated activated charcoal (GAC) treatment facilities, 24 disinfection systems, and 143 remote Supervisory Control and Data Acquisition System (SCADA) sites. The SCADA System provides 24-hour around the clock control of the distribution system, alarming, real time, and historic information. The Electrical, Mechanical, Electronic and Laboratory sections provide support for six surface water treatment facilities.



Total production of ground and surface water for Fiscal Year 2022

Aside from normal daily operations and maintenance, notable in-house and CIP projects for FY2022 included:

- Completed in-house control system design/installation and programming for logic control systems and SCADA (Supervisory control and data acquisition) integration/upgrades at Waiale booster and Mokuhau wells.
- Achieved accreditation through the National Environmental Laboratory Accreditation Program (NELAP); Field Sampling and Measurement Organization (FSMO) accreditation through the American National Standards Institute-American Society for Quality (ANSI-ASQ) from the National Accreditation Board (ANAB).
- Provided data and system operation details for mandatory water audit report performed by the department's Water Resource and Planning division which is required by the Hawaii State Water Commission.
- Assisted with the installation and commissioning of the Mokuhau well On-Site Chlorine Generation (OSG) system.
- Renovated the Laboratory supply trailer.
- Completed the Kawela well treatment building.
- Covered the reservoir pump controller and replaced the decant pump controller and filter building basin valve actuator at the Mahinahina Water Treatment Facility.
- Repaired and cleaned out the ditch intake and replaced decking over the sump at the Kula Ag Park.
- Upgraded and replaced well sample points in west and central Maui.
- Overhauled valves and controls at Waiale booster pump station with contractors.





(Left:) Mokuhau installation of on-site generator that applies electricity to a solution of salt and water to produce sodium hypochlorite used for disinfection of well water. (Right:) Upgraded Waiale booster pump station.

Scheduled and Unscheduled Maintenance Events

	Electrical	Mechanical	Electronics
Central	75	60	293
Upcountry	32	33	147
Lahaina	6	13	43
Napili	12	13	44
Molokai	5	0	2
Hana	16	17	43
Water Treatment Facilities	19	na	59
Preventive Maintenance	31	172	190



(Above:) Water Plant Maintenance Mechanic Mark Amano measures booster pump shaft for adjustments.

Backflow and Cross-Connection Control:

The Backflow Cross-Connection Control Section, currently consists of two employees, a Backflow Cross-Connection Technician IV & Backflow Cross-Connection Technician II. Together, we ensured the public's drinking water safety, by monitoring the annual testing and proper installation of backflow assemblies in Maui County. A properly working backflow assembly, prevents contaminants and pollutants from entering our water system through backpressure or back siphonage. The Backflow Cross-Connection Control Section also conducted field surveys and tested all newly installed backflow assemblies.

For FY 2022, the Backflow Cross-Connection Control Section, completed 1,511 field surveys, conducted 129 final inspections (newly installed backflow preventers), mailed 4,005 annual test due notices and handled 396 requests for information. Currently, there are 4,332 backflow preventer assemblies monitored in Maui County.

FY 2022 continued enhanced standards from DWS requiring all new residential permits including swimming pools, CPR's water features, hot tubs and/or existing swimming pools to install a new backflow preventer assembly. The Backflow section continued to strive to ensure that the DWS water distribution system will be free from any contaminants and/or pollutants.



Photo Left: 4" Reduced Pressure Back-flow Preventer (RPBP) located at Maui Lani Parkway

Photo Right: 4" Double Check Detector Assembly (DCDA) with 3/4" bypass located at Queen Kaahumanu Shopping Center

Water Quality Laboratory:

The Water Quality Laboratory strives to ensure that all sampling and analysis are done competently and all data produced is legally defensible and has documented precision and accuracy. The laboratory maintains accreditation for Chemistry and Microbiology, with the State of Hawaii, Department of Health as well as with the Utah Department of Health Environmental Laboratory Certification Program, an accrediting body with the National Environmental Laboratory Accreditation Program; FSMO accreditation (Field Sampling and Measurement Organization) through ANSI-ASQ National Accreditation Board (ANAB).

The Water Quality Laboratory completed the following in FY 2022

Microbiology

- 2,677 Compliance samples collected and analyzed
- 1,735 Non-compliance samples collected and analyzed

Chemistry

- Triennial Lead and Copper testing was completed for three systems.
- Compliance and process control samples collected and analyzed in house: 12,935.
- Analytes included fluoride, nitrates/nitrite, sulfate, chloride, phosphate, turbidity pH, conductivity, total & free chlorine residual.
- 465 compliance samples were collected and sent out for analysis.

Interdepartmental Collaboration and Miscellaneous Activities

- MDWS met the biannual frequency for two acceptable Laboratory Chemistry and Microbiology PT studies provided by ERA as per Utah ELCP NELAP Chemistry accreditation.
- The laboratory successfully completed two onsite audits required to maintain their Field Sampling and Management Organization (FSMO) national accreditation through ANAB as well as for the Utah ELCP TNI accreditation.

Priorities for FY 23 include the following:

- Triennial lead and copper testing for six water systems including two systems on Molokai.
- Tri-annual chemistry compliance sample collection at all entry points to the distribution system for the Department of Health 2023-2025 monitoring period.
- Sample collection for the monitoring of the US EPA Unregulated Contaminant Monitoring Rule (UCMR5) begins in 2023 and runs through 2025.

WATER TREATMENT PLANTS DIVISION

Water Treatment Plants Division

The Water Treatment Plants Division consists of 28 staff members in two districts, East District and West District. This includes the Division Chief and Staff Services Assistant. The Staff Services Assistant works under the directive of both the Water Treatment Plants and Plant Operations Division managers. The East District has 16 positions; the West District has 10 positions.

The Environmental Protection Agency, (EPA)'s federally regulated Surface Water Treatment Rule, (SWTR) was enacted into law in 1989. Certain treatment techniques and water treatment plant operator certification levels are required in order to comply with these rules utilizing surface water sources, including:

- All Public Water Systems (PWS) must disinfect treated drinking water.
- All PWS must filter and treat surface water for drinking.
- All PWS must be operated by qualified personnel as certified through the State of Hawaii, Department of Health, Safe Drinking Water Branch.

All treatment plant supervisors are certified to the highest level attainable, Grade 4, as is the WTP's Division Manager.

The surface water treatment plants account for roughly 30% of Maui's drinking water demand with the Plant Operations Division providing the remainder through ground water sources.

New or upgraded certifications and promotions for FY22 in the WTP's Division

- Donald Blackwelder, promoted to Grade II WTPO (West)
- Keivan Murashige, promoted to Grade II WTPO (East)
- Troy Evans, promoted to Grade II WTPO (East)
- Kawena Tom, promoted to WTP Trainee (East)

East District

Olinda Water Treatment Facility

FY22 production – 277,190,000 gallons; 0.76-million-gallon daily average

A maintenance-driven shutdown of the water treatment facility was initiated in August 2021 due to the draining and cleaning of the 8.5-million-gallon raw water presedimentation basin. Large permeable geotextile bags were utilized to retain the sediment during the cleaning. Once dried, the bags were removed to a designated site at the facility where the bags naturally deteriorate leaving only dried dirt on site.

During the shutdown, treated water from the Lower Kula plant at Piiholo was pumped up to meet demand in the Upper Kula system. This allows a temporary conversion from disinfection with chloramines to free chlorine, which is a stronger form of chlorination. Making this conversion at times is beneficial to the heath of the system and is an industry standard.

The Olinda Water Treatment Facility returned to service in November 2021. Severe storm damage occurred in December 2021 causing a large portion of the Upper Kula water system to require disinfection with free chlorine. Conditions subsided, and the facility converted back to chloramine disinfection in March of 2022.



Permeable geotextile bag used to retain sediment during the cleaning of the 8.5 million-gallon pre-sedimentation basin in Olinda.



Wide scale view of the 8.5 million-gallon pre-sedimentation basin cleaning project at the Olinda Water Treatment Facility.

Piiholo Water Treatment Facility

FY22 production - 1,054,973,000 gallons; 2.89-million-gallon daily average

The largest producer of all six surface water treatment plants produced over one billion gallons of potable drinking water.

During FY22, two of the plants 30,000 lbs. Granular Activated Carbon, (GAC) vessels had their expended carbon replaced. The GAC system is used to decrease levels of disinfection by-product precursors (DBPs) are a regulated contaminant. In an effort to safeguard the community's drinking water systems, advanced security cameras were installed.

A replacement HVAC system was installed at this facility in June 2022 replacing the original air conditioning system. With many sensitive electronic components at the facility, keeping the temperature regulated is critical to providing uninterrupted service.



Piiholo Intake within the Makawao Forest Reserve.

Kamole Water Treatment Facility

FY22 production - 1,001,550,000 gallons; 2.74-million-gallon daily average

The Kamole Water Treatment Facility is the largest membrane plant in the State of Hawaii, with eight continuous microfiltration machines. During FY22, plant staff replaced all membranes in two of the eight machines for a total of 180 membranes. The membranes had expended their useful life after a five-year run. This is an ongoing replacement project at each of the four membrane plants and is planned for incrementally in the annual budget as needed.



DWS Employees replacing a continuous microfiltration (CMF) unit block at the Kamole Water Treatment Facility.

lao Water Treatment Facility

FY22 production - 891,430,000 gallons; 2.44-million-gallon daily average

A water sample from the Iao Water Treatment Facility took top honors in a statewide blind taste test at the Hawaii Rural Water Association's Training and Technical Conference winning "Best Tasting Water in Hawaii". In addition, the department will have the opportunity to represent Hawaii, at the national level during the National Rural Water Association's (NRWA), National Conference held in Washington D.C. in February 2023 for "Best Tasting Water in America".

Multiple tours were given this year at the state of the art Iao Water Treatment Facility. DWS personnel from the 5th floor of the Kalana O Maui building, staff members from the Mayor's Office and the Managing Director visited in FY22. Members of the Board of Water Supply and members of the Hawaii Rural Water Association (HRWA) also toured the facility.



First, Second and Third Place Winners of the "Best Tasting Water in Hawaii" Competition sponsored by HRWA.

West District

Mahinahina Water Treatment Facility

FY22 production – 386,425,000 gallons; 1.06-million-gallon daily average

The Mahinahina Water Treatment Facility was shut down on May 31st 2021 through August 2021 to complete two major CIP projects. The first, a complete removal and replacement of the original SCADA automated control system with a new, updated version. The second was the Department of Health's mandated installation of an Ultra-Violet disinfection system. The new automated control system significantly improved and modernized operation of the treatment facility.

Due to extreme drought conditions, causing low flows in the Honoloa Ditch, the Mahinahina Water Treatment Facility was shut down again from March 7, 2022 to March 28, 2022.

During FY22, other upgrades to the Mahinahina Water Treatment Facility included the replacement of the backwash lagoon decant water electrical pump control panel and the installation of a new automatic power transfer switch for its emergency generator.



Pump and motor control replacement project at Mahinahina Water Treatment Facility from L-R: Brandon Wong WTPO IV; Frederico "Pocho" Quitevis, Water Plant Maintenance Mechanic I; and Chris Maeda, Plant Electrician/Electronics Repairer II.

Lahaina Water Treatment Facility FY22 production – 663,597,000 gallons; 1.82-million-gallon daily average

The installation of a new wireless master expansion panel and communication system for SCADA control and Streaming Current Detector (SCD) which tracks and controls the variable coagulant chemical dose needed in the process prior to filtration was completed during FY22.

The Lahaina Water Treatment Facility competed in the "Best Tasting Water in Hawaii competition finishing fourth out of the entire state.

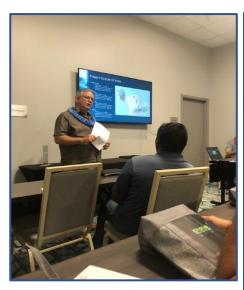
A major project was completed in the West District in FY22 at the Lahaina Water Treatment Facility. The renovation of the interior tank lining in the 1 MG finished water tank. This project involved construction of a 75,000-gallon temporary tank to enable the plant to remain on-line, supplying the Lahaina distribution system. The 1 MG tank was returned to service in March 2022 after a nine-month shut down period.



DWS Employees Water Treatment Plant Operator IV, Brandon Wong and Water Treatment Plant Trainee Ronald Kranchick Jr., cleaning the pre-sedimentation basin at the Lahaina Water Treatment Facility.

Total FY22 Production East District - 3,225,143,000 gallons Total FY22 Production West District - 1,050,022,000 gallons Total FY22 Production WTP Division - 4,275,165,000 gallons

Hawaii Rural Water Association Water Conference 2022



DWS Water Treatment Plants Division Chief, Tony Linder's presentation: "County of Maui DWS transitions from Chlorine Gas to On-Site Generation of Sodium Hypochlorite" during the HRWA 2022 training and technical conference.



Panel of judges from L-R: Executive Chef, Michael Quanan; National Rural Water Association (NRWA) President, David Baird; and NRWA CEO, Matt Holmes



County of Maui, Department of Water Supply, Winner 2022 "Best Tasting Water in Hawaii"



From L-R: DWS WTP Division Chief Tony Linder, Assistant WTP Operations/Maintenance Supervisor-East, Kelly Wright; Hawaii Rural Water Association's Board President Kevin Ihu; DWS Director, Helene Kau



From L-R: WTP Operations/Maintenance Supervisor-East, Marvin Ignacio, WTP Division Chief, Tony Linder; DWS Director, Helene Kau; Assistant WTP Operations/Maintenance Supervisor-East, Kelly Wright and Staff Services Assistant, Lilia Hudson

WATER RESOURCES & PLANNING DIVISION

GOALS

- 1. Maintain and improve water service and quality
- 2. Provide master and area planning support and research necessary to meet department needs
- 3. Provide timely and pertinent permit review, responses and information to other agencies, divisions and the public
- 4. Increase water use efficiency through water conservation supply and demand side measures

OBJECTIVES

- 1. Support watershed protection and rehabilitation programs by maintaining consistent funding for pertinent projects with watershed management plans
- 2. Formulate long range goals of the department and support capital improvement program development
- 3. Ensure quality and efficiency in all communications
- 4. Standardize and streamline data collection, permit processing and grant administration
- 5. Deploy conservation program measures with quantifiable savings
- 6. Support water quality/regulatory compliance

DIVISION ACTIVITIES

Watershed Protection and Grant Management

In FY2022, the DWS strived to support projects that protect the county's watersheds and freshwater resources. The department provided financial support for 10 watershed protection, restoration and research projects on Maui and Molokai. These projects collectively addressed invasive plant and animal threats to the watershed. Fencing and targeted hunting aims to keep feral ungulates out of critical watershed. Invasive weed control and reforestation with native species aim to maintain healthy forested ecosystems that recharge groundwater and streams. DWS awarded grants totaling \$2,593,099 to the following projects:

- Honokowai and Wahikuli Source Protection Project The Nature Conservancy
- Waikamoi Haipua'ena Source Protection Project The Nature Conservancy
- East Maui Watershed Partnership University of Hawaii Office of Research Services (U.H. ORS)
- Mauna Kahalawai Watershed Partnership U.H. ORS
- East Molokai Watershed Partnership The Nature Conservancy
- Maui Invasive Species Committee U.H. ORS
- Hawaii Agriculture Research Center, Wilt Resistant Koa
- Hawaii Agriculture Research Center, ROD Disease Resistant Ohia

- Pu'u Kukui Watershed Preserve Living Pono Project
- Auwahi Forest Restoration Project Friends of Auwahi

The division procured a new grant management software, "Amplifund", to facilitate grant applications and administration. The development and transition will continue into FY25.

Resource Management

The division maintained a joint funded agreement with the United States Geological Survey (USGS) monitoring rainfall, groundwater and surface water at ten different sites on Maui and Molokai. The data is needed to evaluate the status and trends of water resources in the county and serve to improve resource management and use. Two additional wells were added to the monitoring network in Haiku and Kamaole aquifers.

The division commissioned a new joint funding agreement with USGS to study groundwater availability under scenario-based recharge changes. The study will help inform sustainable well pumping and development considering changes to climate and land use and the impact on long term groundwater discharge and water levels.

<u>Discretionary Permit and Water Meter Reservation Processing</u>

The division processed 58 discretionary permits, responses to Environmental Assessments, Environmental Impact Statements, Well Construction Permits and other consultation requests. Educational materials on groundwater protection and water conservation were distributed with the division's responses. The reviews included analysis and recommendations to address potential impacts on water resources.

Public Inquiries

Approximately 32 public inquiries including UIPA requests were fielded from the public, businesses, non-county agencies and consultants. Inquiries related to topics such as water production and consumption, water rates, hydrological data, water distribution system, demand projections, water resources and availability, watershed protection and water quality, meter data, best management practices and conservation measures.

Conservation

The department's water conservation program initiated and implemented measures designed to mitigate water consumption in Maui County. Major program components include an interdepartmental water audit, demand side measures and incentives to provide free water conserving solutions to the public such as high efficiency toilets, low-flow water fixtures and rain barrels. Indoor and outdoor water conservation, including

water-efficient landscaping with native plants, is promoted through community outreach such as presentations, public events and multiple media as described below.

Water Audit

The water audit is mandated by the State of Hawaii from Act 169, SLH 2016 and implemented through the Hawaii Water Audit Validation Effort (WAVE) program. The process involves in-depth investigations on water system flows from production to customer consumption and billing throughout the department's water distribution systems. Results from the fiscal year 2021 water audit (completed in fiscal year 2022) informs managers about data and system improvement needs to reduce non-revenue water losses and to help identify areas of concern on the supply side. For example, various types of leaks or losses can occur throughout the distribution systems. Problems caused by reporting errors and data handling are investigated to ensure information integrity, improve efficiency and to help trace non-revenue water losses. DWS water audits are reported and validated by the State of Hawaii Commission on Water Resource Management.

Fixture Distribution

Fixture Type	# of Fixtures
Showerheads (1.25 – 1.5 gpm)	697
Bathroom Faucet Aerators (1.0 gpm)	965
Kitchen Faucet Aerators (1.5 gpm)	652
Hose Nozzles (max flow – 2.4 gpm)	788
Toilet Tank Bags (displace .08 gpf)	305
Hose Timers	211
Moisture Meters	798
Total	4,416

Leak detection tablets to check for leaks in toilets and shower timers were also distributed to the public.

Rain Barrel Program

The division distributed 174 fifty-gallon Ivy Rain Barrels to eligible DWS customers on Maui. In addition, there were 39 rain barrels distributed in Molokai for a total of 213 rain barrels distributed in FY22. The approximate annual savings in FY22 of the Rain Barrel

Catchment Program was 3.9 million gallons of water. The barrels are made in the US by Rain Water Solutions using 100% recycled materials.

Toilet Replacement Program

Qualified DWS customers received 54 toilet replacement vouchers, 15 on Maui and 39 on Molokai for replacing old inefficient toilets. The annual water savings for FY22 is approximately 800,000 gallons of water.

Public Outreach

Division staff promoted water as a scarce, natural resource and have conservation and source protection public outreach which included targeted outreach at community events, farmer's markets and various media outlets. Water Resources and Planning attended five public events during the FY22 summer campaign to promote water conservation awareness on both Maui and Molokai and conducted public education through the following media outlets:

- Radio advertisement airing on six (6) local radio stations
- Weekly printed ads in Maui News, Hanaside News, Molokai Dispatch and Lahaina News
- Maui Family Magazine
- Digital advertising on Maui News, Maui Now and Pacific Radio Group
- Bus posters on Maui bus routes, every day through summer
- Community Association meeting online

Don't Waste a Drop Campaign

The summer campaign "Don't Waste a Drop" educated the public about water conservation and raised awareness about the drought conditions in the County. The campaign slogan and logo airs on the radio and is seen on various media ads, posters and featured on giveaway water bottles, hats, and tee shirts. The campaign will run through September 2022.



Source Protection

The annual Source Water Protection Video Contest for middle through high school students was postponed in FY22 due to COVID-19. The contest will restart in FY23 to reach students in Maui County and have them learn and showcase their understanding of source protection.

Planning Information Systems

The division maintained the following databases:

- Water use permits vs. production and aquifer sustainable yield
- Discretionary projects
- Source availability
- Monthly billed consumption and production
- Water use and projected demand by type and demographics
- GIS data digitizing and updating various resource and infrastructure layers, including water meters
- Private purveyors source use

Regulatory Compliance/ Council Requests & Bills

- Annual updates to Emergency Action Plans for department reservoirs were completed and distributed.
- Tracking and reporting compliance for water use permits in Groundwater Management Areas
- Responded to four requests for information from County Council on various matters.
- Provided testimony on two House bills, responded to one alleged violation of instream flow standard notice, and commented to one Bill for an Ordinance. Staff provided written and oral testimony on the Commission on Water Resource Management action item to designate the entire West Maui as a groundwater and surface water management area.

Master Planning

The Maui Island Water Use and Development Plan (WUDP) submitted to Maui County Council in 2019 was adopted by ordinance and transmitted to the Commission on Water Resource Management for approval. Staff presented the plan to the Commission, which is now scheduled for public hearing in FY23.

Townscape, Inc. continued work to update the Molokai Water Use and Development Plan. Division staff provided water use data and developed demand projections, briefed the Commission on Water Resource Management, participated in multiple virtual public meetings and provided comments on the preliminary draft report.

The division worked closely with the Planning Department Long Range Division and consultant to support land use plan updates, including the West Maui Community Plan and the South Maui Community Plan and to integrate water resource plans and data. Staff presented at the South Maui Town Hall meeting.

MAJOR ACCOMPLISHMENTS

- Several years of planning and developing resulted in the partial commissioning of a sustainable graywater reuse system at Launiupoko Beach Park in Lahaina. The system has been approved for operation by the State of Hawaii Department of Health, Wastewater Branch, to use a minimum of 2,290 GPD for subsurface landscape irrigation and is now going through trials, testing and optimizing adjustments until full system commissioning by September or November 2022 after a Photo Voltaic (PV) system is installed.
- DWS was initially awarded \$450,000.00 and then in FY2022 another \$1.25M (50% match) by the State of Hawaii to help develop and build a sustainable graywater system at Kanaha Beach Park to save more than 8 million gallons of potable water per year. The project is currently in Phase 1, Design and Permitting.
- The department joined the Honolulu Board of Water Supply and other agencies in the national campaign "**Imagine a Day Without Water**." PSAs were promoted on social media, newspaper, press releases and the department website.
- Division staff organized and hosted a successful public event to distribute free toilet replacements and rain barrels on Molokai in May 2022.



May 2022 Molokai DWS WRP Toilet Replacement Distribution



May 2022 Molokai DWS WRP Toilet Replacement Distribution

FISCAL YEAR 2023 GOALS

- 1. The department's watershed protection grant program will continue to fund eligible projects that provide benefits to the freshwater resources utilized by the department systems.
- 2. Water Use and Development Plan update for Molokai: Submittal to County Council for adoption by ordinance.
- 3. Initiate the first phase of the Kanaha Beach Park Greywater Reuse System, including stakeholder consultation and Environmental Assessment.
- 4. Improved water efficiency through the following strategic plan initiatives:
 - Completion of the DWS Conservation Plan, incorporating formal water demand projections.
 - Submittal of conservation Ordinance to County Council, incorporating input from affected county agencies and stakeholders.

FISCAL DIVISION

The Fiscal Division is made up of Accounting, Purchasing, and Customer Service/Meter Reading sections. The mission of the Fiscal Division is to support and facilitate the Department of Water Supply's operation by the use of an effective and efficient accounting and reporting system as well as serving the needs of our customers.

The Fiscal Division ensured transactions and events were recorded in accordance with Generally Accepted Accounting Principles (GAAP), maintained effective internal controls and ensured department compliance with rules, regulations, policies and procedures. The department received a clean audit opinion in the FY2022 Annual Comprehensive Financial Statement issued by independent auditors.

Accounting

The Accounting section provides and maintains the department's accounting records and related systems of internal control in accordance with GAAP, ensures the department's compliance with the County's policies and procedures, Board of Water Supply's requirements, and Federal and State rules and regulations. The Accounting staff assists various divisions related to budget, financial reports, and compliance issues, verify and process payments to vendors, review and process employees' pay, keep and maintain records of fixed assets and capital improvement projects, prepare monthly reconciliation of various accounts, monitor compliance to the County's budget provisions, prepare financial statements, participate in the annual budget preparation, and coordinate external audits.

Purchasing

The Purchasing section oversees the procurement, contract, travel and vendor records of the department. It provides guidance to various divisions on compliance with the State and County's procurement rules, regulations and policies and procedures. The purchasing staff reviewed all requisitions, travel requests, contract postings for formal bids, generate purchase orders, maintained vendor records and ensured the best value of goods and services were obtained for our funds.

Customer Service

The Customer Service section is responsible for establishing new customer accounts, transferring and/or closing accounts, collecting payments, receiving customer calls, inquiries, and resolving issues pertaining to billing, payment, and/or meter installation. The Customer Service staff maintain records of 37,032 accounts and make sure each account represents accurate billing.

Meter Reading and Collections

The Meter Reading section travel daily to various commercial and residential areas throughout the island to gather data of water usage. Due to COVID-19, all field collections were ceased for fiscal year 2022.

The Small Meter Replacement project is currently on its second of a five-year replacement plan. Despite supply chain issues, a total of 4,254 meters/transponders were replaced in the Kahului, Wailuku, Lahaina and Paia areas during FY2022. For customers whose meters/transponders were replaced, the meters are now being read remotely using the Beacon network system. Customers are now able to monitor their water usage any time using their computer or mobile device. For those areas where cellular coverage is limited, the meters will continue to be read manually by our Meter Reader staff.

Fiscal Year 2023 Goals and Expectations

Due to key personnel retirements in the near future, our goal is to create, evaluate, and implement appropriate succession plans, cross-training of staff, and documenting processes and procedures. The Fiscal Division will continue reassessing staffing, work assignments, and work flow which may have changed due to the implementation of the cloud-based billing system. Additionally, we will continue to look at the integration of new technologies to create an efficient and effective work environment for the entire Division.

ADMINISTRATION DIVISION

Administration provides overall support to the department, including management, safety, human resources, and public relations. Administrative staff prepared daily water supply updates for Upcountry, prepared press releases, and managed the DWS website, www.mauicounty.gov/water.

During FY22 most efforts were directed toward ensuring proper PPE and disinfection supplies are available to employees during extreme shortages, and exploring alternate means of pertinent safety trainings that can be safely administered to employees.

DWS Personnel staff also maintained Human Resources for the department, including onboarding, promotions, retirements, transfers, terminations, position reallocations, reorganizations, enforcement of County policies, administrating workers compensation, relations with unions, drug and alcohol testing for UPW employees, and a myriad of other tasks in service to our customers, and our employees.

Employee Recognition

Due to COVID-19 restrictions, the Employee of the Year, Manager of the Year and Team of the Year recognitions were suspended for FY2022.

The following current Department of Water Supply employees are to be congratulated for their many years of admirable service to the County of Maui:

10 Years	15 Years	20 Years
Ray Hirata Henry Kaili Lopaka Medeiros Victor Murashita Benjamin Nu James Prest Christopher Retuta Tammy Yeh	Ortaine Acidera Helaman Aiwohi Kekoa Babcock Lauren Farmer Chris Maeda Federico Quitevis Rizal Tumacder Jason Wakamatsu	Sharon Matsunaga-Berdel
25 Years	30 Years	35 Years
Celeste Guillermo	Edna Manzano	NA
40Years		
Cullen Falces		

Perfect Attendance for Calendar Year 2021

Leonore Amano Brian Tyau Jimmy Yanos Ray Hirata Michele Sakuma Warren Sardinha

Miki Mukai Kelly Wright Andrew-James Landgraf

Ryan Nagoshi

Congratulations on Retirement in FY22 for these DWS Employees:

Lori Gilmore Barbara Watanabe Craig Takushi William Richard Eric Okazaki Kenneth Ogawa Richard Negrillo Holly Ho Wayne Fujiwara

Curtis Eaton Jeffrey Malunay

DWS New Hires for FY22 by Division

Fiscal/Customer Service: Nolan Cabuyaban, Wendy Nathan, Ortaine Acidera

Engineering: Erin Rodrigues, Monica Vega

Plant Operations: Kilcy De La Vara, Ciera Benfield

Field Operations: Chad Kailiehu, William Manase-Vailea, Nathan Starkey, Justin

Watanabe, Chester Taiseni

Water Treatment Plant Operations: Frank Estrella, Kevin Perreira, Michael Copeland,

Ronald Kranchick Jr.

Water Resources & Planning: Jenny Rivera, Kimberley Willenbrink

BOARD OF WATER SUPPLY

Board of Water Supply - Annual Report July 2021 to June 2022 (FY 2022)

The Board of Water Supply acts as an advisor to the Director, the Mayor, and the County Council in all matters concerning the County's water system. Nine of the eleven Board Members are appointed by the Mayor and approved by the County Council; the other two ex-officio non-voting members are the Director of Planning and the Director of Public Works.

The board reviews the department's operating and capital improvements budget and the department's requests for adjustments to the water rates, and submits their recommendations to the mayor.

The board has adjudicatory powers in that they hear appeals filed by persons who feel they have been aggrieved by a decision of the Director of Water Supply. The board's final decision and order in these appeals cannot be overturned by the director. Should either party not agree with the decision and order of the board, they may further pursue their case to the circuit court.

The board held twelve board meetings and met nine times for contested case hearings, with three hearings being canceled due to lack of quorum. Eight new appeals were filed with the board secretary, two appeals were withdrawn and one appeal was settled. Currently, nine appeals are still active and will be scheduled at a later date for a hearing before the board.

During FY2022, the board discussed and submitted their recommendations concerning charter amendments affecting the Board of Water Supply, the acquisition of leases for the Nāhiku, Keanae, Honomanū, and Huelo license areas through an intergovernmental agreement with the Department of Land and Natural Resources, and supporting the Lahaina Aquifer Sector as a Surface Water and Ground Water Management Area. The board also continues to have discussions on water rates and rate structure.

During FY2022, the board welcomed five new members: Juanita Reyher-Colon, Jason Hew, Edwin "Ekolu" Lindsey III, Donna Sterling and Ralph Thomas.

On March 31, 2022, members Nalani Kaninau and Norm Franco fulfilled their terms and were presented with resolutions from the board and gratitude from the Mayor for their selfless service and dedication to the board and the County of Maui.

On April 21, 2022, the board elected Buddy James Nobriga as the Chair and Jason Hew as the Vice Chair for the 2022-2023 term.

BOARD OF WATER SUPPLY COUNTY OF MAUI

MEMBER LIST as of June 30, 2022

<u>MEMBERS</u>	TERM EXPIRATION
Buddy James Nobriga, Chair (Kahului)	03/31/2024
Jason Hew, Vice Chair (Kihei)	03/31/2024
Dean Frampton (Pukalani)	03/31/2023
Edwin "Ekolu" Lindsey III (Lahaina)	03/31/2023
Antonette Eaton (Wailuku)	03/31/2024
Donna Sterling (Kahikinui)	03/31/2026
Juanita Reyher-Colon (Molokai)	03/31/2026
Ralph Thomas (Kihei)	03/31/2027
Vacant	

EX-OFFICIO MEMBERS

Michele McLean, Director of Planning Jordan Molina, Director of Public Works

Keola Whittaker, Deputy Corporation Counsel

GOALS AND OBJECTIVES FOR FISCAL YEAR 2022

Program Goal	Success Measure	FY 2022 Estimate	FY 2022 Actual
Goal #1: Provide reliable, top quality water service at reasonable cost.	% of CIP design projects within schedule	100%	100%
	Maintaining a three-month operations reserve fund	100%	100%
Goal #2: Recruit and retain needed staff.	# of staff promoted or obtaining new certifications	30	27
	# of staff training/educational opportunities provided	350	1,660
	% of annual evaluations completed on time	85%	71%
Goal #3: Improve public relations and customer	# of Upcountry List requests processed	80	40
service.	Average days for single family residential permit review	28	90
Goal #4: Support a sustainable water supply.	Allocate up to 4% of the operations budget toward watershed protection and management	3.8%	3.7%

GOALS AND OBJECTIVES FOR FISCAL YEAR 2022 CON'T

Program Goal	Success Measure	FY 2022 Estimate	FY 2022 Actual
Goal #1: Economically produce the highest quality potable water that meets or exceeds all state and federal water quality	# of system outages or water restrictions due to facility shutdown or deficient water quality	0	0
standards in sufficient quantity to meet the needs of the customers.	# of water quality violations received	0	0
	# of samples analyzed to meet regulatory requirements	15,000	17,850
Goal #2: Operate and	Cost of repair and maintenance	\$500,000	\$219,809
maintain the collection, transmission, and	# of well pumps replaced	4	2
processing infrastructure in an efficient manner to ensure that our customers receive the maximum useful life from their facility investment.	# of booster pumps replaced	2	2
Goal #3: Water loss prevention to ensure service lines are efficient	# of feet of mainline inspected for leaks	36,000 LF	158,221 LF
and reliable in ensuring	# of feet of mainlines repaired	300	355
minimal interrupted service.	# of feet of mainline replaced	5,000	3,656

FISCAL YEAR 2022 Water Service Charges

Effective July 01,2021

Schedule A

2 inch

3 inch

4 inch 6 inch

8 inch

Single Family Dwellings, Single-Family and Accessory Dwellings with 5/8" Meters 0 - 5,000 Gallons 5,001 - 15,000 Gallons 15,001 - 35,000 Gallons Over 35,000 Gallons	\$ Monthly 2.05 3.90 5.85 6.55
All Other General Water Consumers 0 - 5,000 Gallons 5,001 - 15,000 Gallons Over 15,000 Gallons	\$ 2.05 3.90 5.85
Agricultural Rates 0 - 5,000 Gallons 5,001 - 15,000 Gallons Over 15,000 Gallons	\$ 2.05 3.90 1.10
Non-Potable Agriculture Rates All Usage	\$ 1.00
Schedule B Size of Meter 5/8 inch 3/4 inch 1 inch 1 1/2 inch	\$ Per Meter/ Per Month 19.80 32.00 47.50 91.00

141.00

249.00 432.00

793.00

1,251.00

FISCAL YEAR 2022 System Expansion Rates

Effective July 01,2021

Water System Development Fee Schedule

Size of Meter	Meter Fee*
5/8 inch	\$ 12,060
3/4 inch	18,884
1 inch	33,356
1 1/2 inch	71,948
2 inch	125,012
3 inch	279,380
4 inch	496,460
6 inch	1,113,932
8 inch	1,977,428
10 inch	3,089,360
12 inch	4,447,436

^{*} Plus Installation Charges

NUMBER OF SERVICES BY METER SIZE FISCAL YEAR ENDED JUNE 30, 2022

DISTRICT	5/8"	3/4"	1"	1-1/2"	2"	3"	4"	6"	8''	TOTAL
REGULAR SE	ERVICE MI	ETERS								
Wailuku	17,730	2,048	537	417	409	55	37	6	1	21,240
Makawao	9,039	523	165	73	39	10	1	2	0	9,852
Lahaina	2,637	429	106	123	118	22	14	2	0	3,451
Molokai	1,457	172	30	14	14	2	0	1	0	1,690
Hana	465	44	11	6	4	1	0	0	0	531
Subtotal	31,328	3,216	849	633	584	90	52	11	1	36,764
AGRICULTU	RAL SERV	ICE METI	ERS							
Wailuku	14	16	5	3	1	2	1	0	0	42
Makawao	268	47	69	80	28	1	0	0	0	493
Lahaina	2	1	5	0	1	0	1	0	0	10
Molokai	7	2	2	0	0	0	0	0	0	11
Hana	22	0	0	0	0	0	0	0	0	22
Subtotal	313	66	81	83	30	3	2	0	0	578
TOTAL	31,641	3,282	930	716	614	93	54	11	1	37,342
COMBINED T	ΓΟΤΑL									
Wailuku	17,744	2,064	542	420	410	57	38	6	1	21,282
Makawao	9,307	570	234	153	67	11	1	2	0	10,345
Lahaina	2,639	430	111	123	119	22	15	2	0	3,461
Molokai	1,464	174	32	14	14	2	0	1	0	1,701
Hana	487	44	11	6	4	1	0	0	0	553
TOTAL	31,641	3,282	930	716	614	93	54	11	1	37,342

OUTSIDE WATER DELIVERIES YTD FY2022

	1,000		Cost Per
PURCHASE FROM	Gallons	\$ YTD Amt	1,000 Gallons
East Maui Irrigation	2,373,564	\$ 143,126	0.060
Wailuku Water Co.	1,052,988	\$ 524,677	0.498
Maui Land & Pine	458,455	\$ 131,214	0.286
Hawaiian Home Lands (Billed Bi-Monthly)	7,579	\$ 84,850	11.195
TOTAL	3,892,586	\$ 883,867	0.227
	1,000		Cost Per
DISTRICT	Gallons	\$ Amount	1,000 Gallons
Wailuku	1,052,988	\$ 524,677	0.498
Kula	198,260	\$ 11,955	0.060
Makawao	2,166,780	\$ 130,657	0.060
Lahaina	458,455	\$ 131,214	0.286
Hana	8,524	\$ 514	0.060
Molokai	7,579	\$ 84,850	11.195
TOTAL	3,892,586	\$ 883,867	0.227

OTHER WATER

Wailuku - Wlku. Water Co.	294,249
Wailuku - Hi. Land & Farming	0

Dept. of Water Supply, County of Maui Consumption By District General & Agricultural in Thousands of Gallons Fiscal Year To Date through June 30, 2022

August 1,084,216.0 738,165.0 81,735.0 55,760.0 173,042.0 29,994.0 September 997,093.0 677,319.0 73,677.0 49,659.0 171,404.0 19,507.0	6,284.0 5,520.0 5,527.0 4,943.0 4,470.0 6,544.0 3,288.0
September 997,093.0 677,319.0 73,677.0 49,659.0 171,404.0 19,507.0	5,527.0 4,943.0 4,470.0 6,544.0
	4,943.0 4,470.0 6,544.0
	4,470.0 6,544.0
October 963,654.0 646,924.0 73,470.0 53,890.0 162,377.0 22,050.0	6,544.0
November 959,397.0 646,219.0 72,445.0 59,578.0 153,538.0 23,147.0	
December 871,282.0 576,490.0 78,758.0 35,257.0 155,812.0 18,421.0	3 288 0
Subtotal 5,961,174.0 3,998,449.0 474,263.0 310,757.0 1,005,058.0 139,359.0 3	3,200.0
January 847,993.0 575,388.0 69,509.0 40,297.0 138,472.0 18,718.0	5,609.0
	4,540.0
	7,103.0
April 1,013,318.0 683,173.0 84,615.0 53,253.0 167,732.0 18,602.0	5,943.0
May 903,496.0 607,512.0 72,546.0 46,598.0 147,279.0 23,997.0	5,564.0
June 1,032,841.0 692,873.0 91,191.0 56,722.0 160,371.0 24,855.0	6,829.0
Subtotal 5,486,177.0 3,685,867.0 464,047.0 287,817.0 884,212.0 128,646.0 3	5,588.0
Total General 11,447,351.00 7,684,316.0 938,310.0 598,574.0 1,889,270.0 268,005.0 6	8,876.0
AGRICULTURAL	
July 97,109.0 14,963.0 6,967.0 71,013.0 2,308.0 1,391.0	467.0
August 37,275.0 18,333.0 5,181.0 10,329.0 1,566.0 1,287.0	579.0
September 98,109.0 17,124.0 5,261.0 72,349.0 1,589.0 1,058.0	728.0
October 95,955.0 16,683.0 5,443.0 70,095.0 1,616.0 1,295.0	823.0
November 95,042.0 20,500.0 4,285.0 66,241.0 2,006.0 1,227.0	783.0
December 78,686.0 16,887.0 4,007.0 55,150.0 1,877.0 422.0	343.0
Subtotal 502,176.0 104,490.0 31,144.0 345,177.0 10,962.0 6,680.0	3,723.0
January 69,208.0 13,873.0 3,531.0 49,196.0 1,703.0 563.0	342.0
February 74,430.0 11,313.0 4,116.0 56,991.0 1,343.0 -	667.0
March 85,289.0 14,957.0 4,411.0 60,509.0 1,598.0 2,319.0	1,495.0
April 102,236.0 14,793.0 5,239.0 78,695.0 1,655.0 1,377.0	477.0
May 78,498.0 10,818.0 3,779.0 60,250.0 1,649.0 1,577.0	425.0
June 100,176.0 9,374.0 5,596.0 81,151.0 1,811.0 1,735.0	509.0
Subtotal 509,837.0 75,128.0 26,672.0 386,792.0 9,759.0 7,571.0	3,915.0
Total Agricultural 1,012,013.0 179,618.0 57,816.0 731,969.0 20,721.0 14,251.0	7,638.0
Grand Total 12,459,364.0 7,863,934.0 996,126.0 1,330,543.0 1,909,991.0 282,256.0 7	6,514.0

Kihei use increased .8 mgd (826,441 gpd) for June 2021-June 2022 - post COVD or 10.98 mgd for Kihei Makena use = .7 mgd Maalaea use= .234 mgd total 12 mgd for south Maui in 2022

COMPARISON OF WATER CONSUMPTION AND SALES BY DISTRICT TWELVE MONTHS ENDED JUNE 30, 2022 OVER 2021

BY DISTRICT		Services		Consum	nption (1,000 C	Gallons)		Revenues	
			Increase		(1,000	Increase			Increase
Wailuku District	2021	2022	(Decrease)	2021	2022	(Decrease)	2021	2022	(Decrease)
Wailuku	6,638	6,809	171	1,470,160	1,505,540	35,380	8,683,151	8,847,923	164,772
Waihee	201	202	1	23,626	25,955	2,329	145,328	158,779	13,451
Waikapu	975	973	(2)	137,805	145,157	7,352	743,276	783,324	40,048
Wailuku Heights	499	499	ó	71,878	72,966	1,088	380,318	386,261	5,943
Kahului	5,352	5,350	(2)	1,492,470	1,526,710	34,240	8,607,853	8,818,021	210,168
Puunene	12	11	(<u>-</u>) (1)	3,365	3,506	141	22,364	23,152	789
Kihei	6,066	6,063	(3)	3,705,842	4,007,493	301,651	21,000,018	22,757,558	1,757,540
Maalaea	46	45	(1)	75,041	85,322	10,281	460,961	520,545	59,584
Makena	213	211	(2)	246,954	256,807	9,853	1,458,741	1,528,025	69,283
Paia-Kuau	913	914	1	140,767	152,798	12,031	804,656	867,047	62,391
Spreckelsville	206	205	(1)	79,385	81,680	2,295	448,538	455,474	6,936
Spreckeisville	206	205	(1)	79,305	01,000	2,295	440,530	455,474	0,330
Subtotal	21,121	21,282	161	7,447,293	7,863,934	416,641	42,755,203	45,146,108	2,390,905
Makawao District									
Kokomo-Kaupakalua	1,167	1,170	3	184,876	176,239	(8,637)	1,017,651	968,555	(49,096)
Kuiaha	306	306	ŏ	53,881	50,466	(3,415)	277,211	256,031	(21,179)
Haiku-Pauwela	864	868	4	132,467	123,736	(8,731)	720,686	673,112	(47,574)
Makawao	2,031	2,031	0	301,919	290,534	(11,385)		1,617,175	(49,295)
Pukalani			2				1,666,470		
	2,147	2,149		333,050	321,370	(11,680)	1,840,122	1,804,327	(35,795)
Haliimaile	200	201	1	32,262	33,781	1,519	173,972	192,399	18,427
Upper Kula	2,357	2,363	6	482,136	487,079	4,943	2,316,817	2,283,769	(33,047)
Lower Kula	1,131	1,137	6	754,109	632,750	(121,359)	2,249,545	2,084,174	(165,371)
Ulupalakua-Kanaio	82	81	(1)	52,693	53,451	758	142,788	148,526	5,738
Kula Ag Park	39	39	0	145,821	157,263	11,442	188,872	199,763	10,891
Subtotal	10,324	10,345	21	2,473,214	2,326,669	(146,545)	10,594,134	10,227,832	(366,302)
Lahaina District									
Lahaina	2,198	2,189	(9)	802,141	862,185	60,044	4,644,944	5,002,780	357,836
Honokowai	458	450	(8)	429,683	501,260	71,577	2,567,811	2,985,029	417,218
Alaeloa	809	809	`o´	477,963	545,612	67,649	2,809,458	3,209,456	399,998
Honokohau	13	13	Ö	1,209	934	(275)	7,690	6,197	(1,493)
Subtotal	3,478	3,461	(17)	1,710,996	1,909,991	198,995	10,029,903	11,203,462	1,173,559
Molokai District									
Kawela-Kaunakakai	1,183	1,183	0	195,606	201,032	5,426	1,151,970	1,179,090	27,120
Ualapue/Kamalo	399	398	(1)	64,413	73,101	8,688	362,015	403,121	41,106
Kalae	114	114	0	8,101	8,123	22	52,057	51,956	(100)
Halawa	6	6	ő	0,101	0,123	0	32,037	0 1,930	(100)
Паlawa	0		0	<u> </u>	U	U	U	U	U
Subtotal	1,702	1,701	(1)	268,120	282,256	14,136	1,566,042	1,634,167	68,125
<u>Hana District</u>									
Hana	408	408	0	58,981	62,563	3,582	347,496	370,264	22,768
Nahiku	38	38	o	3,063	3,308	245	20,136	22,291	2,155
Keanae	86	86	ō	6,366	8,069	1,703	43,707	53,608	9,901
Kaupo	21	21	ő	2,678	2,574	(104)	7,628	7,560	(68)
Subtotal	553	553	0	71,088	76,514	5,426	418,967	453,722	34,755
Total ALL DISTRICTS	37,178	37,342	164	11,970,711	12,459,364	488,653	65,364,249	68,665,291	3,301,042

FIVE - YEAR SUMMARY

	2021-22	2020-21	2019-20	2018-19	2017-18
Customer and Sales					
Number of Customers	37,342	37,178	37,069	36,719	36,615
Water Sales (M Gals.)	12,459,364	11,970,711	11,970,711	11,674,537	11,749,584
Income and Expenses					
Revenue from Sale of Water *	68,847,153	66,299,927	67,078,752	63,672,230	63,352,395
Total Operating Revenues	69,677,398	67,052,157	68,185,499	64,460,451	64,297,392
Total Operating Expense	71,577,921	70,708,043	69,051,656	62,311,770	62,534,558
Depreciation	17,126,854	16,907,642	18,464,719	15,867,467	15,043,935
Operating Income (loss)	(1,900,523)	(3,655,886)	(866,157)	2,148,681	1,762,834
Utility Plant					
Construction Work in Progress	29,122,419	22,393,521	21,923,859	34,418,791	48,842,240
Total Plant Investment	721,035,337	702,896,427	693,585,969	676,806,594	658,790,761
Reserve for Depreciation	(369,390,890)	(353,063,839)	(336,922,227)	(318,692,910)	(302,840,984)
Current Positions					
Revenue Funds	55,345,601	54,421,402	47,762,509	42,994,879	37,646,269
Total Current Assets	92,671,404	90,715,195	84,719,564	79,816,045	71,269,194
Total Current Liabilities	18,774,076	14,822,679	13,348,324	15,300,802	13,506,850
Net Current Assets	73,897,328	75,892,516	71,371,240	64,515,243	57,762,344
Current Ratio	4.9	6.1	6.3	5.2	5.3
Net Position					
Net Investments in Capital Assets	296,836,712	290,913,751	293,509,050	291,816,714	290,547,253
Restricted	34,338,612	34,547,310	33,108,459	32,155,789	20,211,812
Unrestricted	21,779,171	21,968,276	20,924,572	16,034,665	9,679,375

DEPARTMENT OF WATER SUPPLY COUNTY OF MAUI

(A Proprietary Fund of the County of Maui)

FINANCIAL STATEMENTS AND SUPPLEMENTARY INFORMATION WITH INDEPENDENT AUDITOR'S REPORTS

Fiscal Year Ended June 30, 2022



999 BISHOP STREET, SUITE 2200 | HONOLULU, HAWAII 96813 **T** (808) 524-2255 **F** (808) 523-2090 | nkcpa.com

DEPARTMENT OF WATER SUPPLY COUNTY OF MAUI

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INDEPENDENT AUDITOR'S REPORT

To the Board of Water Supply County of Maui

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the Department of Water Supply of the County of Maui (the Department), a proprietary fund of the County of Maui, State of Hawaii, as of and for the fiscal year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the Department's financial statements as listed in the table contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the financial position of the Department as of June 30, 2022, and the changes in its financial position and its cash flows for the fiscal years then ended in accordance with accounting principles generally accepted in the United States of America.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States (*Government Auditing Standards*). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Department and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Emphasis of Matter

As discussed in Note 1, the financial statements present only the Department and do not purport to, and do not, present fairly the financial position of the County of Maui, State of Hawaii, as of June 30, 2022, the changes in its financial position, or, where applicable, its cash flows for the fiscal year then ended in accordance with accounting principles generally accepted in the United States of America. Our opinion is not modified with respect to this matter.

N&K CPAs, Inc. ACCOUNTANTS | CONSULTANTS

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibilities of the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and Government Auditing Standards will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and Government Auditing Standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Department's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.

We are required to communicate with those charged with governance regarding, amount other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

N&K CPAs, Inc. ACCOUNTANTS | CONSULTANTS

Required Supplementary Information

Management has omitted management's discussion and analysis, the schedules of proportionate share of the net pension liability, pension contributions, changes in the net OPEB liability and related ratios and OPEB contributions information that accounting principles generally accepted in the United States of America require to be presented to supplement the financial statements. Such missing information, although not a part of the financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. Our opinion on the financial statements is not affected by this missing information.

Supplementary Information

Our audit was conducted for the purpose of forming an opinion on the financial statements that collectively comprise the Department's basic financial statements. The supplemental schedules of capital assets and of long-term debt - general obligation bonds are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relate directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the schedules of capital assets and of long-term debt - general obligation bonds are fairly stated, in all material respects, in relation to the basic financial statements as a whole.

N&K CPAs, Inc. ACCOUNTANTS | CONSULTANTS

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated January 27, 2023 on our consideration of the Department's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the Department's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the Department's internal control over financial reporting and compliance.

N&K CPAS, INC.

Honolulu, Hawaii January 27, 2023

Department of Water Supply County of Maui STATEMENT OF NET POSITION June 30, 2022

CURRENT ASSETS		
Equity in pooled cash and investments		
held in County Treasury	\$	82,285,340
Customer receivables Billed		E 222 270
Less allowance for doubtful accounts		5,223,379 (134,145)
Less allowance for doubtful accounts		5,089,234
Unbilled		3,384,238
Total customer receivables		8,473,472
Total customer receivables		0,413,412
Materials and supplies		1,907,779
Other current assets		4,813
Total current unrestricted assets		92,671,404
RESTRICTED ASSETS		
Equity in pooled cash and investments		
held in County Treasury		37,270,501
Total current assets		129,941,905
CAPITAL ASSETS		
Utility plant in service		683,393,486
Less accumulated depreciation		(369,390,890)
		314,002,596
Land		8,107,580
Construction work in progress		29,122,419
Lease asset		411,852
Less accumulated amortization		(68,642)
Total capital assets		351,575,805
TOTAL ASSETS		481,517,710
DEFERRED OUTFLOWS OF RESOURCES		
Deferred outflows of resources related to pensions		6,736,322
Deferred outflows of resources related to OPEB		3,932,847
Unamortized loss on advanced refunding		67,850
TOTAL DEFERRED OUTFLOWS OF RESOURCES		10,737,019
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	s	492,254,729

Department of Water Supply County of Maui STATEMENT OF NET POSITION (Continued) June 30, 2022

CURRENT LIABILITIES Payable from unrestricted current assets	
Bonds payable, current portion \$	2.283,303
Notes payable, current portion	2,658,504
Accounts payable	3,404,981
Accrued vacation, current portion	907,510
Accrued compensatory time off	138,990
Construction contracts payable, including retainages	1,559,157
Claims and judgments	3,753,639
Accrued interest payable	318,415
Customer advances for utility construction	748,881
Lease liability, current portion	60,996
	15,834,376
Payable from restricted assets	
Construction contracts payable, including retainages	1,321,006
Customer deposits	618,694
Refundable advances	1,000,000
	2,939,700
Total current liabilities	18,774,076
NON-CURRENT LIABILITIES	
Bonds payable, non-current portion	12,891,498
Notes payable, non-current portion	39,003,814
Net pension liability	40,831,743
Net OPEB liability	14,589,145
Accrued vacation, non-current portion	1,195,690
Lease liability, non-current portion	294,377
Total non-current liabilities	108,806,267
TOTAL LIABILITIES	127,580,343
DEFERRED INFLOWS OF RESOURCES	
Deferred inflows of resources related to pensions	5,385,777
Deferred inflows of resources related to OPEB	6,334,114
TOTAL DEFERRED INFLOWS OF RESOURCES	11,719,891
NET POSITION	
Net investment in capital assets	296,836,712
Restricted	34,338,612
Unrestricted	21,779,171
TOTAL NET POSITION	352,954,495
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES	
·	492,254,729

Department of Water Supply County of Maui STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION Fiscal Year Ended June 30, 2022

OPERATING REVENUES	
Water sales	\$ 68,847,153
Other revenues	830,245
Total operating revenues	69,677,398
OPERATING EXPENSES	
Administrative and general	20,895,667
Depreciation and amortization	17,126,854
Power and pumping	15,324,339
Transmission and distribution	8,291,195
Purification	7,280,319
Customers' accounting and collection	1,782,124
Source of supply	877,423
Total operating expenses	71,577,921
Operating loss	(1,900,523)
NONOPERATING INCOME (EXPENSES)	
Interest and investment expense	(2,767,333)
Interest expense, net of amortization of bond premiums of \$314,960	(897,868)
Other income	521,160
Total nonoperating loss	(3,144,041)
Loss before capital contributions	(5,044,564)
Capital contributions	6,986,933
Transfers in	3,582,789
Change in net position	5,525,158
NET POSITION	
Beginning of fiscal year	347,429,337
End of fiscal year	\$ 352,954,495

Department of Water Supply County of Maui STATEMENT OF CASH FLOWS Fiscal Year Ended June 30, 2022

Cash FLOWS FROM OPERATING ACTIVITIES Cash received from customers and others Payments to suppliers for goods and services Payments to employees for services Utility construction refunds	\$ 69,575,753 (31,385,471) (20,794,315) (190,584)
Net cash provided by operating activities	17,205,383
CASH FLOWS FROM INVESTING ACTIVITIES	
Interest and investment losses received from investments	(2,767,333)
Net cash used in investing activities	(2,767,333)
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES	
Transfers from other funds	3,582,789
Net cash provided by noncapital financing activities	3,582,789
Cash paid for acquisition of construction of capital assets Principal paid on lease liability Principal paid on bonds and notes payable Proceeds from bonds and notes payable Cash received from capital contributions and other Interest paid on bonds and notes payable	(15,172,622) (56,479) (4,780,471) 496,072 4,222,497 (1,223,107)
Net cash used in capital and related financing activities	(16,514,110)
NET INCREASE IN CASH AND CASH EQUIVALENTS	1,506,729
CASH AND CASH EQUIVALENTS Beginning of fiscal year End of fiscal year	\$ 118,049,112 119,555,841
RECONCILIATION OF CASH AND CASH EQUIVALENTS TO THE STATEMENT OF NET POSITION Unrestricted Restricted	\$ 82,285,340 37,270,501
1100010100	\$ 119,555,841

Department of Water Supply County of Maui STATEMENT OF CASH FLOWS (Continued) Fiscal Year Ended June 30, 2022

RECONCILIATION OF OPERATING LOSS TO	
NET CASH PROVIDED BY OPERATING ACTIVITIES	
Operating loss	\$ (1,900,523)
Adjustments to reconcile operating loss to	
net cash provided by operating activities:	
Depreciation and amortization	17,126,854
Provision for doubtful accounts	110,547
Changes in assets, deferred outflows, liabilities	
and deferred inflows:	
Customer receivables	(236,874)
Materials and supplies	(83,512)
Other current assets	2,934
Deferred outflows of resources related to pensions	1,681,484
Deferred outflows of resources related to OPEB	1,074,717
Accounts and construction contracts payable	542,202
Claims and judgments	3,360,863
Other liabilities and deposits	(176,576)
Net pension liability	(6,065,567)
Net OPEB liability	(7,402,779)
Deferred inflows of resources related to pensions	5,127,958
Deferred inflows of resources related to OPEB	4,043,655
Net cash provided by operating activities	\$ 17,205,383
SUPPLEMENTAL DISCLOSURE OF NONCASH CAPITAL	
AND RELATED FINANCING ACTIVITIES	
Capital contributions	\$ 3,285,596
Acquisition of capital assets financed with lease liabilities	\$ 411,852
Amortization of deferred loss on refunding	\$ 16,284
Amortization of bond premium	\$ 314,960

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 1 - ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

- (1) Organization The Department of Water Supply (the Department) operates as a proprietary fund in the County of Maui, State of Hawaii (the County), to develop adequate water sources, storage, and transmission for both urban and agricultural uses for the County. The County Charter, as amended, provides the following:
 - The Department is a regular County of Maui agency subject to the Mayor's executive management and Maui County Council's (Council) legislative oversight.
 - The current Board of Directors of the Department is an advisory body (with power to recommend budget proposals and rate adjustments).
 - The Mayor has the power to appoint the Director (with approval of Council).
 - The Department has the responsibility to survey public and private water sources
 - The Department must prepare and annually update a long-range capital improvement plan (subject to Council approval) and implement such approved plans. The Council has the power to issue general obligation bonds and provide appropriations for capital improvements of the water system.
- (2) Financial Statement Presentation The Department is a proprietary fund of the County (the primary government). The accompanying financial statements present only the financial position and activities of the Department, and do not purport to, and do not, present the financial position of the County, the changes in its financial position, or its cash flows in accordance with accounting principles generally accepted in the United States of America (GAAP).
- (3) Measurement Focus and Basis of Accounting The accompanying financial statements are presented using the economic resources measurement focus and the accrual basis of accounting. Under this method, revenues are recorded when earned and expenses are recorded at the time liabilities are incurred.
- (4) Use of Estimates The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, deferred outflows of resources, liabilities, deferred inflows of resources, and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant items subject to such estimates and assumptions include the carrying amount of capital assets, valuation allowances of receivables, accrued workers' compensation, and pension and post-retirement benefits. Actual results could differ from those estimates.
- (5) Cash Equivalents For purposes of the statement of cash flows, the Department considers all equity in pooled cash and investments held in the County's Treasury (including restricted assets) to be cash equivalents.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 1 - ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

(6) Cash and Investments - The Department's cash and investments are maintained in an investment pool with the County's Treasury. The Department's share of the pooled cash and investments and income and losses arising from the investment activity of the pool are allocated to the Department based on the percentage of the Department's total cash and investment balance to the total cash and investments maintained by the County's Treasury.

Investments in negotiable time certificates of deposits and repurchase agreements are carried at cost, which approximates fair value. Investments in U.S. Treasury, U.S. government agencies obligations, municipal securities, and commercial paper are reported at fair value.

- (7) Customer Receivables and Allowance for Doubtful Accounts Customer receivables are net of an allowance for doubtful accounts. The Department considers accounts delinquent once they have reached 31 days past due. Management charges off uncollectible customer receivables to expense and turns over delinquent accounts for collection when it is determined the amounts will not be realized. The allowance for doubtful accounts is based on the Department's prior experience of collections.
- (8) Materials and Supplies Materials and supplies are stated at weighted average cost (which approximates the first-in, first-out method). The cost of materials and supplies are recorded as expenses when consumed rather than when purchased.
- (9) Restricted Assets Funds received by the Department, which are refundable or restricted as to use, are recorded as restricted assets.
- (10) Capital Assets Utility plant in service is stated at cost and include contributions by governmental agencies, private developers, and customers at their cost or estimated cost. Capital assets include individual assets or group of similar assets with an initial cost of more than \$5,000 and an estimated useful life in excess of one year.

Major replacements, renewals and betterments are capitalized. Maintenance, repairs, and replacements that do not improve or extend lives of the assets are charged to expense. Gains or losses resulting from the sale, retirement, or disposal of utility plant are charged or credited to operations.

Depreciation is computed over the estimated useful lives of the individual assets using the straight-line method. The estimated useful lives of the utility plant's capital assets are as follows:

Buildings and systems 10 - 50 years Machinery and equipment 5 - 50 years Infrastructure 5 - 50 years

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 1 - ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

The Department leases an office space located in the One Main Plaza Building at 250 South High Street, which has a rental area of approximately 2,808 square feet. The Department initially measured the lease liability and right-to-use lease asset using base rent, and excluded from its calculation variable payments such as those based on the Department's proportionate share of the underlying asset's operating expenses.

- (11) Debt Premium and Discounts Premium and discounts arising from the issuance of debt are amortized over the life of the bonds. Amortization of debt premiums is recorded as a reduction of interest expense.
- (12) Deferred Amounts on Advance Refunding For advance refunding resulting in defeasance of debt, the difference between the reacquisition price and the carrying amount of the old debt is deferred. This amount is amortized as a component of interest expense using the bonds outstanding method over the remaining life of the old debt or the life of the new, whichever is shorter. The amount deferred is reported as a deferred inflow or outflow of resources.
- (13) Compensated Absences Employees earn vacation benefits at one and three-quarters working days for each month of service. Each employee is allowed to accumulate a maximum of 90 days of vacation as of the end of the calendar year. Unused vacation benefits are converted to pay upon termination of employment. Employees earn compensatory time off at the rate of one and a half hours for each hour of overtime worked. Unused compensatory time off is converted to pay upon termination of employment.
- (14) Deferred Outflows of Resources and Deferred Inflows of Resources Deferred outflows of resources represent a consumption of net position that applies to a future period and will not be recognized as an outflow of resources (expense or expenditure) until that time. Deferred inflows of resources represent an acquisition of net position that applies to a future period and will not be recognized as an inflow of resources (revenue) until that time.
- (15) Net Position Net position represents the difference between assets and deferred outflows of resources less liabilities and deferred inflows of resources. The three components of net position are defined as follows:
 - Net investment in capital assets This component of net position consists of
 capital assets, net of accumulated depreciation and amortization, and reduced by
 the outstanding balances of any bonds, mortgages, notes, or other borrowings
 that are attributable to the acquisition, construction, or improvement of those
 assets. If there are any significant unspent related debt proceeds at fiscal yearend, the portion of the debt attributable to the unspent proceeds are not included
 in the calculation of net investment in capital assets. Rather, that portion of debt
 is included in the same net position component as the unspent proceeds.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 1 - ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

- Restricted This component of net position consists of constraints placed on net
 position use through external constraints imposed by creditors (such as through
 debt covenants), grantors, contributors, or laws or regulations of other
 governments or constraints imposed by law through constitutional provisions or
 enabling legislation. The Department's policy is generally to use restricted net
 position first, as appropriate opportunities arise.
- Unrestricted This component of net position consists of net position that does not meet the definition of "restricted" or "net investment in capital assets."
- (16) Operating Revenues and Expenses Revenues and expenses are distinguished between operating and non-operating.
 - Operating Revenues Operating revenues generally result from providing goods and services in connection with the Department's principal ongoing operations.
 The principal operating revenues of the Department are fees for water service.

The Department's policy is to bill customers on a monthly basis for water usage. An estimated accrual for unbilled water revenues to the end of the fiscal period is made based on prorated actual usage from the first meter reading date subsequent to June 30th.

 Operating Expenses - Operating expenses include the costs associated with production, treatment, and transmission of water, including administrative expenses and depreciation on capital assets.

All revenues and expenses not meeting these definitions are reported as nonoperating revenues and expenses.

- (17) Water System Development Fee A water system development fee is levied against all new developments requiring water from the Department's systems, except those developments that have paid for and installed a complete water system, including source, transmission, and daily storage facilities. The amounts collected, net of costs incurred for water credits used to acquire additional water supply, are recorded as capital contributions. The amounts received are recorded as capital contributions in the accompanying statement of revenues, expenses, and changes in net position.
- (18) Capital Contributions The Department receives Federal and State of Hawaii grants to pay for portions of construction costs related to various capital projects. The Department also receives development fees and dedications of infrastructure assets for various developments. The amounts received are recorded as capital contributions in the accompanying statement of revenues, expenses, and changes in net position.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 1 - ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

- (19) Pensions For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions and pension expense, information about the fiduciary net position of the Employees' Retirement System of the State of Hawaii (ERS) and additions to/deductions from the ERS's fiduciary net position have been determined on the same basis as they are reported by the ERS. For this purpose, employer and employee contributions are recognized in the period in which the contributions are legally due and benefit payments (including refunds of employee contributions) are recognized when due and payable in accordance with benefit terms. Investments are reported at their fair value.
- (20) Postemployment Benefits Other Than Pensions (OPEB) For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of the Hawaii Employer-Union Health Benefits Trust Fund (EUTF) and additions to/deductions from EUTF's fiduciary net position have been determined on the same basis as they are reported by EUTF. For this purpose, EUTF recognizes benefit payments when due and payable in accordance with the benefit terms. Investments are reported at fair value, except for investments in commingled and money market funds, which are reported at net asset value (NAV). The NAV is based on the fair value of the underlying assets held by the respective fund less its liabilities.
- (21) New Accounting Pronouncements In June 2017, the GASB issued Statement No. 87, Leases (GASBS 87). The objective of this Statement is to better meet the information needs of financial statement users by improving accounting and financial reporting for leases by governments. This statement requires recognition of certain lease assets and liabilities for leases that previously were classified as operating leases and recognized as inflows of resources or outflows of resources based on the payment provisions of the contract. It establishes a single model for lease accounting based on the foundational principle that leases are financings of the right to use an underlying asset. The requirements of this Statement are effective for reporting periods beginning after June 15, 2021. The implementation of this Statement resulted in the Department recording a right to use lease asset and lease payable of \$411,852. The implementation of this statement had no impact to net position as of June 30, 2021.

The GASB issued Statement No. 94, Public-Private and Public-Public Partnerships and Availability Payment Arrangements. The primary objective of this Statement is to improve financial reporting by addressing issues related to public-private and public partnership arrangements (PPPs). As used in this Statement, a PPP is an arrangement in which a government (the transferor) contracts with an operator (a governmental or nongovernmental entity) to provide public services by conveying control of the right to operate or use a nonfinancial asset, such as infrastructure or other capital asset (the underlying PPP asset), for a period of time in an exchange or

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 1 - ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

exchange-like transaction. This Statement also provides guidance for accounting and financial reporting for availability payment arrangements (APAs). As defined in this Statement, an APA is an arrangement in which a government compensates an operator for services that may include designing, constructing, financing, maintaining, or operating an underlying nonfinancial asset for a period of time in an exchange or exchange-like transaction. The requirements of this Statement are effective for reporting periods beginning after June 15, 2022. Management has not yet determined the effect this Statement will have on the Department's financial statements.

The GASB issued Statement No. 96, Subscription-Based Information Technology Arrangements. This Statement provides guidance on the accounting and financial reporting for subscription-based information technology arrangements (SBITA) for government end users. This Statement (1) defines a SBITA; (2) establishes that a SBITA results in a right-to-use subscription asset - an intangible asset - and a corresponding subscription liability; (3) provides the capitalization criteria for outlays other than subscription payments, including implementation costs of a SBITA; and (4) requires note disclosures regarding a SBITA. The requirements of this Statement are effective for reporting periods beginning after June 15, 2022. Management has not yet determined the effect this Statement will have on the Department's financial statements.

The GASB issued Statement No. 99, Omnibus 2022. The objectives of this Statement are to enhance comparability in accounting and financial reporting and to improve the consistency of authoritative literature by addressing (1) practice issues that have been identified during implementation and application of certain GASB Statements and (2) accounting and financial reporting for financial guarantees.

The requirements of this Statement are effective as follows:

- The requirements related to extension of the use of LIBOR, accounting for SNAP distributions, disclosures of nonmonetary transactions, pledges of future revenues by pledging governments, clarification of certain provisions in Statement 34, as amended, and terminology updates related to Statement 53 and Statement 63 are effective upon issuance.
- The requirements related to leases, PPPs, and SBITAs are effective for fiscal years beginning after June 15, 2022, and all reporting periods thereafter.
- The requirements related to financial guarantees and the classification and reporting of derivative instruments within the scope of Statement 53 are effective for fiscal years beginning after June 15, 2023, and all reporting periods thereafter.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 1 - ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

Management has not yet determined the effect this Statement will have on the Department's financial statements.

The GASB issued Statement No. 100, Accounting Changes and Error Corrections. The primary objective of this Statement is to enhance accounting and financial reporting requirements for accounting changes and error corrections to provide more understandable, reliable, relevant, consistent, and comparable information for making decisions or assessing accountability. This Statement defines accounting changes as changes in accounting principles, changes in accounting estimates, and changes to or within the financial reporting entity and describes the transactions or other events that constitute those changes. As part of those descriptions, for (1) certain changes in accounting principles and (2) certain changes in accounting estimates that result from a change in measurement methodology, a new principle or methodology should be justified on the basis that it is preferable to the principle or methodology used before the change. That preferability should be based on the qualitative characteristics of financial reporting-understandability, reliability, relevance, timeliness, consistency, and comparability. This Statement also addresses corrections of errors in previously issued financial statements. The requirements of this Statement are effective for accounting changes and error corrections made in fiscal years beginning after June 15, 2023, and all reporting periods thereafter. Management has not yet determined the effect this Statement will have on the Department's financial statements.

The GASB issued Statement No. 101, Compensated Absences. The objective of this Statement is to better meet the information needs of financial statement users by updating the recognition and measurement guidance for compensated absences. That objective is achieved by aligning the recognition and measurement guidance under a unified model and by amending certain previously required disclosures. This Statement requires that liabilities for compensated absences be recognized for (1) leave that has not been used and (2) leave that has been used but not yet paid in cash or settled through noncash means. A liability should be recognized for leave that has not been used if (a) the leave is attributable to services already rendered, (b) the leave accumulates, and (c) the leave is more likely than not to be used for time off or otherwise paid in cash or settled through noncash means. Leave is attributable to services already rendered when an employee has performed the services required to earn the leave. Leave that accumulates is carried forward from the reporting period in which it is earned to a future reporting period during which it may be used for time off or otherwise paid or settled. In estimating the leave that is more likely than not to be used or otherwise paid or settled, a government should consider relevant factors such as employment policies related to compensated absences and historical information about the use or payment of compensated absences. However, leave that is more likely than not to be settled through conversion to defined benefit postemployment

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 1 - ORGANIZATION AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (Continued)

benefits should not be included in a liability for compensated absences. This Statement requires that a liability for certain types of compensated absences—including parental leave, military leave, and jury duty leave—not be recognized until the leave commences. This Statement also requires that a liability for specific types of compensated absences not be recognized until the leave is used. This Statement also establishes guidance for measuring a liability for leave that has not been used, generally using an employee's pay rate as of the date of the financial statements. A liability for leave that has been used but not yet paid or settled should be measured at the amount of the cash payment or noncash settlement to be made. Certain salary-related payments that are directly and incrementally associated with payments for leave also should be included in the measurement of the liabilities. The requirements of this Statement are effective for fiscal years beginning after December 15, 2023, and all reporting periods thereafter. Management has not yet determined the effect this Statement will have on the Department's financial statements.

NOTE 2 - CASH AND INVESTMENTS

The Department's cash and investments are maintained with the County's Treasury in a cash and investment pool available for use by all of the County's funds. At June 30, 2022, the amounts reported on the statement of net position as equity in pooled cash and investments held in County Treasury represents the Department's relative position in the County's cash and investment pool and amounted to \$119,555,841.

County's Investment Policy

The County's investment policy conforms with the State of Hawaii statutes (Chapter 46, Section 50), which authorize the County to invest in obligations of the U.S. Treasury and U.S. government agencies, municipal securities, auction rate securities collateralized by student loans, bank repurchase agreements, commercial paper, banker's acceptances, and money market funds.

Specific requirements under the County's investment policy are as follows:

- With the exception of U.S. Treasury securities and bank certificates of deposit fully insured by the Federal Deposit Insurance Corporation (FDIC) not to exceed \$250,000 per banking institution, no more than 30% of the County's investment portfolio will be invested in a single type of security, a single issuer, or financial institution.
- Investment maturities are not to exceed five years.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 2 - CASH AND INVESTMENTS (Continued)

Investment Risk - The investments are subject to certain types of risk, including interest rate risk, credit quality risk, concentration of credit risk, and custodial credit risk.

Interest Rate Risk - Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The County has a formal investment policy that follows State of Hawaii statutes, which limits investment maturities to five years as a means of managing its exposure to fair value losses arising from increasing interest rates.

Credit Quality Risk - Credit risk is the risk that an issuer or counterparty to an investment will not fulfill its obligation. The County's investment policy limits investments in municipal securities, U.S. Treasury securities, negotiable time certificates of deposits, U.S. government agency obligations, repurchase agreements, commercial paper, bankers' acceptances, money market funds, and auction rate securities collateralized by student loans maintaining Triple-A rating. The bond ratings for the County's investments in U.S. agency obligations (government sponsored enterprises) at June 30, 2022 were as follows:

	Amount
AA+	\$ 371,992,199
A-	350,000
A - 1	14,955,000
Not rated	33,286,209
	\$ 420,583,408

Concentration of Credit Risk - Concentration of credit risk is the risk of loss attributable to the magnitude of the County's investments in a single issuer or investment. The County diversifies its investments to minimize such risk and with the exception of U.S. Treasury securities, no more than 30% of the investment portfolio can be invested in a single type of security or financial institution.

Custodial Credit Risk - Custodial credit risk is the risk that in the event of failure of the counterparty to an investment, the County would not be able to recover the value of investment or collateral securities that are in the possession of an outside party. All of the County's investments are either insured or held by an agent in the name of the County, including the investment collateral underlying the repurchase agreements.

Custodial credit risk for bank depository accounts is the risk that in the event of a bank failure, the County's deposits may not be returned. It is the County's policy to place its bank deposits with State of Hawaii high credit quality financial institutions that are able to meet the collateral requirements for the County's deposits. As of June 30, 2022, substantially all of the County's negotiable time certificates of deposits and cash deposits were insured and collateralized.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 2 - CASH AND INVESTMENTS (Continued)

Pooled Cash and Investments Held in County Treasury

Information relating to individual bank balances, insurance, and collateral of cash deposits is determined on a county-wide basis and not for individual departments and funds. Information regarding the carrying amount and corresponding bank balances of the County's cash and investment pool and collateralization of those balances is included in the County's annual comprehensive financial report.

The Department's share of the County's cash and investment pool, as summarized in the tables below was approximately 16.5% at June 30, 2022.

As of June 30, 2022, the County and fiduciary fund's cash and investments were as follows:

			Ma	iturity			
		Under 80	31 - 180	181 - 385	1-6	Premiums	Fair
Type of Investment	% Yield	Days	Days	Days	Years	(Discounts)	Value
Federal National Mortgage Association Coupon Notes	0.64 - 1.75	\$ -	\$ -	\$ -	\$ 28,300,000	\$ (1,591,519)	\$ 26,708,481
Federal Home Loan Bank Bank Notes	0.67 - 3.09	_	5,000,000	4,000,000	103,700,000	(4,144,152)	108,555,848
Federal Farm Credit Bank Notes	1.88 - 3.21	_	2,000,000	10,000,000	49,238,000	(331,072)	60,906,928
Federal Agricultural Mortgage Corporation Notes	0.88 - 2.40	_	_	_	32,700,000	(1,353,602)	31,346,398
Federal Home Loan Mortgage Corporation Notes	0.28 - 3.25	_	_	6,000,000	44,000,000	(1,387,410)	48,612,590
U.S. Treasury Notes	0.14 - 3.05	7,000,000	9,000,000	28,000,000	83,840,000	(5,663,951)	122,176,049
Commercial Paper	1.35	_	15,000,000	_	_	(45,000)	14,955,000
Municipal Securities	2.18 - 3.26	510,000	2,490,000	_	4,350,000	(27,886)	7,322,114
Negotiable certificates of deposit	1.65 - 3.55		2,250,000	2,000,000	1,250,000	(24,338)	5,475,662
Total investments		\$ 7,510,000	\$ 35,740,000	\$ 50,000,000	\$ 347,378,000	\$ (14,568,930)	426,059,070
						and and deposits	300,152,761
				Total equ	uity in pooled cash	and investments	\$ 726,211,831

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 2 - CASH AND INVESTMENTS (Continued)

Unrestricted equity in pooled cash and investments held in County Treasury at June 30, 2022 include funds for the following purposes:

		Amount
Board-designated	_	
Capital improvements	\$	24,807,133
Debt service		2,132,606
Total board-designated		26,939,739
Undesignated		55,345,601
Total	\$	82,285,340

At June 30, 2022, construction contract payables, including retentions, to be paid with board-designated funds were approximately \$1.5 million. Construction contract commitments as of June 30, 2022, to be paid with board-designated funds, aggregated approximately \$11.1 million.

Restricted equity in pooled cash and investments held in County Treasury consisted of the following at June 30, 2022:

	_	Amount
Water system development fee	\$	21,816,713
State funds		11,983,339
Bond funds		2,385,548
Customer deposits		618,694
Special assessment fund for storage		273,829
Source development fund assessments		192,378
Total	s	37,270,501

At June 30, 2022, construction voucher and contract payables, including retentions, to be paid with restricted assets were approximately \$1.4 million. Construction contract commitments as of June 30, 2022, to be paid with restricted assets, aggregated approximately \$4.7 million.

NOTE 3 - FAIR VALUE MEASUREMENTS

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (level 1) and the lowest priority to unobservable inputs (level 3). The three levels of the fair value hierarchy are described as follows:

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 3 - FAIR VALUE MEASUREMENTS (Continued)

Level 1 - Inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that a government can access at the measurement date. An active market is a market in which transactions for the asset or liability take place with sufficient frequency and volume to provide pricing information on an ongoing basis.

Level 2 - Inputs other than quoted prices included within level 1 that are observable for an asset or liability, either directly or indirectly. If the asset or liability has a specified (contractual) term, a level 2 input must be observable for most of the full term of the asset or liability. Level 2 inputs include:

- · Quoted prices for similar assets or liabilities in active markets,
- Quoted prices for identical or similar assets or liabilities in markets that are not active,
- . Inputs other than quoted prices that are observable for the asset or liability,
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means.

Level 3 - Inputs are unobservable for an asset or liability.

Following is a description of the valuation techniques used by the County to measure fair value:

- U.S. Treasury obligations: Valued using quoted prices in active markets for identical assets.
- U.S. government agency obligations, municipal securities, and commercial paper: Valued using quoted prices for identical or similar assets in markets that are not active.

Negotiable certificates of deposit: Valued using quoted prices in markets that are not active or for which all significant inputs are observable, either directly or indirectly.

The following table sets forth by level, within the fair value hierarchy, assets measured at fair value on a recurring basis as of June 30, 2022:

		Assets at Fair Value at June 30, 2022							
	Ξ	Total		Level 1		Level 2		Level 3	
U. S. Treasury obligations	\$	122,176,049	\$	122,176,049	\$	-	\$		
U. S. government agency obligations		276,130,245		_		276,130,245			_
Municipal securities		7,322,114				7,322,114			-
Commercial Paper		14,955,000				14,955,000			
Negotiable certificates of deposit		5,475,862				5,475,662			
	\$	426,059,070	\$	122,176,049	\$	303,883,021	\$		

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 4 - RESTRICTED NET POSITION

At June 30, 2022, restricted net position consisted of the following:

		Amount
Water system development fee	\$	21,816,713
Special assessment fund for storage		273,829
Source development fund assessments		192,378
Other restricted funds		12,055,692
Total	s	34,338,612

NOTE 5 - CAPITAL CONTRIBUTIONS

Capital contributions during the fiscal year ended June 30, 2022, were as follows:

	_	Amount
Dedication of infrastructure assets Source development fund assessments	\$	3,285,596 3,068,637
Other	s	6,986,933
i otai	5	0,300,333

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 6 - CAPITAL ASSETS

Capital assets activity during the fiscal year ended June 30, 2022 was as follows:

	Balance						
	July 1, 2021				Reductions/		Balance
	(as Restated)	_	Additions	_	Retirements	June 30, 2022	
Capital assets							
Non-depreciable assets							
Land	\$ 8,007,145	\$	100,435	\$		\$	8,107,580
Construction in progress	22,393,522		13,197,045		(6,468,148)		29,122,419
	30,400,667		13,297,480		(6,468,148)		37,229,999
Depreciable assets							
Buildings and systems	193,933,513		2,554,175		(27,183)		196,460,505
Machinery and equipment	465,998,488		9,035,854		(706,244)		474,328,098
Infrastructure	12,563,760		41,123				12,604,883
	672,495,761		11,631,152		(733,427)		683,393,486
Accumulated depreciation							
Buildings and systems	89,821,470		4,356,568		(24,917)		94,153,121
Machinery and equipment	257,737,214		12,455,113		(706,244)		269,486,083
Infrastructure	5,505,155		246,531				5,751,686
	353,063,839		17,058,212		(731,161)		369,390,890
Lease asset							
Office space	411,852		-				411,852
	411,852						411,852
Accumulated amortization							
Office space			68,642				68,642
			68,642				68,642
Total	\$ 350,244,441	\$	7,801,778	\$	(6,470,414)	\$	351,575,805

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 7 - LONG-TERM LIABILITIES

A summary of changes in long-term liabilities of the Department for the fiscal year ended June 30, 2022 are as follows:

	Balance July 1, 2021 (as Restated)	Additions	Reductions	J	Balance lune 30, 2022	Due Within One Year
Bonds payable	\$ 17,658,508	\$ 	\$ 2,483,707	\$	15,174,801	\$ 2,283,303
Notes payable from direct borrowings	43,777,970	496,072	2,611,724		41,662,318	2,658,504
Accrued vacation payable	2,179,019	864,406	940,225		2,103,200	907,510
Accrued compensatory time off	153,743	125,399	140,152		138,990	138,990
Claims and judgments	392,776	3,661,069	300,206		3,753,639	3,753,639
Lease liability	411,852	_	56,479		355,373	60,996
Total	\$ 64,162,016	\$ 5,146,946	\$ 6,532,493	\$	63,188,321	\$ 9,802,942

NOTE 8 - BONDS PAYABLE

At June 30, 2022, bonds payable consisted of the following:

	_	Amount
General Obligation Refunding Bonds, 2012 Series B, due in annual installments through 2032, interest payable semi-annually from 2.1% to 4.0%.	\$	2,484,284
General Obligation Refunding Bonds, 2012 Series C, due in annual installments through 2023, interest payable semi-annually from 4.0%		1,090,000
General Obligation Refunding Bonds, 2014 Series C, due in annual installments through 2034, interest payable semi-annually from 3.0% to 5.0%.		4,700,000
General Obligation Refunding Bonds, 2015 Series D, due in annual installments through 2027, interest payable semi-annually from 3.0% to 5.0%.		1,991,256
General Obligation Refunding Bonds, 2018 Series C, due in annual installments through 2032, interest payable semi-annually from 3.0% to 5.0%.		3,305,000
Balance forward	\$	13,570,540

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 8 - BONDS PAYABLE (Continued)

	Amount
Balance carried forward	\$ 13,570,540
General Obligation Refunding Bonds, 2020 Series B, due in annual installments through 2030, interest payable	
semi-annually from 2.0% to 5.0%	323,196
Less current portion	13,893,736 (2,283,303)
Unamortized premium	11,610,433 1,281,065
Noncurrent portion	\$ 12,891,498

At June 30, 2022, future bond principal and interest payments are as follows:

Fiscal Year Ending June 30,	Principal		Interest		Total		
2023	\$	2,283,303	\$	532,551	\$	2,815,854	
2024		1,247,502		430,746		1,678,248	
2025		1,303,528		373,992		1,677,520	
2026		1,357,185		319,549		1,676,734	
2027		1,412,717		267,101		1,679,818	
2028 -2032		5,374,501		703,140		6,077,641	
2033 -2037		915,000		44,850		959,850	
Total	\$	13,893,736	\$	2,671,929	\$	16,565,665	

The County issues general obligation bonds for the construction of major capital facilities. The County's general obligation bonds are direct obligations of the County for which its full faith and credit are pledged. A portion of the County's general obligation bonds are designated as reimbursable bonds to be repaid from the net revenues of the Department.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 9 - NOTES PAYABLE

At June 30, 2022, notes payable from direct borrowings consisted of the following:

	_	Amount
Notes payable to State of Hawaii, Department of Health		
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 1.00%, and loan fee rate of 1.00%, maturing in 2032.	\$	128,376
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 0.50%, and loan fee rate of 1.00%, maturing in 2033.		1,240,850
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 1.00%, and loan fee rate of 1.00%, maturing in 2033.		497,758
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 0.00%, and loan fee rate of 1.00%, maturing in 2033.		4,537,241
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 0.50%, and loan fee rate of 1.00%, maturing in 2034.		2,590,974
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 1.00%, and loan fee rate of 1.00%, maturing in 2034.		1,283,461
Balance forward	\$	10,278,660

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 9 - NOTES PAYABLE (Continued)

	Amount
Notes payable to State of Hawaii, Department of Health (Continued)	
Balance carried forward	\$ 10,278,660
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 1.00%, and loan fee rate of 1.00%, maturing in 2035.	471,344
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 1.00%, and loan fee rate of 1.00%, maturing in 2035.	513,686
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi- annual installments of principal, interest at a rate of 1.00%, and loan fee rate of 1.00%, maturing in 2034.	96,229
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 1.00%, and loan fee rate of 1.00%, maturing in 2038.	1,534,100
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 0.50%, and loan fee rate of 1.00%, maturing in 2037.	1,774,777
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 1.00%, and loan fee rate of 1.00%, maturing in 2037.	964,749
Balance forward	\$ 15,633,545

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 9 - NOTES PAYABLE (Continued)

	_	Amount
Notes payable to State of Hawaii, Department of Health (Continued)		
Balance carried forward	\$	15,633,545
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 1.00%, and loan fee rate of 1.00%, maturing in 2037.		401,965
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 0.00%, and loan fee rate of 1.00%, maturing in 2039.		18,451,811
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 0.50%, and loan fee rate of 1.00%, maturing in 2038.		3,493,592
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi-annual installments of principal, interest at a rate of 0.75%, and loan fee rate of 1.00%, maturing in 2040.		3,185,333
Note payable to State Revolving Loan Fund for a capital improvement project, payable in semi- annual installments of principal, interest at a rate of 1.15%, and loan fee rate of 1.00%, maturing		
in 2041.		496,072
Less current portion		41,662,318 (2,658,504)
	\$	39,003,814

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 9 - NOTES PAYABLE (Continued)

As of June 30, 2022, future principal and interest payments for notes payable from direct borrowings are as follows:

Fiscal Year Ending June 30,	Principal		Interest		 Total
2023	\$	2,658,504	\$	541,806	\$ 3,200,310
2024		2,683,801		506,670	3,190,471
2025		2,709,663		470,927	3,180,590
2026		2,735,685		434,983	3,170,668
2027		2,762,100		398,605	3,160,705
2028-2032		14,218,833		1,433,733	15,652,566
2033-2037		11,107,714		549,835	11,657,549
2038-2041		2,786,018		40,882	2,826,900
Total	\$	41,662,318	\$	4,377,441	\$ 46,039,759

The Department's notes payable from direct borrowings are direct obligations of the County for which its full faith and credit, including a pledge of the County's general taxing power, as security for the notes payable. Repayments of principal and interest shall be a first charge on the County's General Fund.

NOTE 10 - LEASE LIABILITY

At June 30, 2022, future lease liability principal and interest payments are as follows:

Fiscal Year Ending June 30,	Principal			Interest	Total		
2023 2024 2025	\$	60,996 65,765 70,799	\$	13,203 10,657 7,915	\$	74,199 76,422 78,714	
2026 2027		76,108 81,705		4,964 1,795		81,072 83,500	
Total	\$	355,373	\$	38,534	\$	393,907	

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS

Pension Plan

Pension Plan Description - Generally, all full-time employees of the State and counties are required to be members of the ERS, a cost-sharing multiple-employer defined benefit pension plan that administers the State's pension benefits program. Benefits, eligibility, and contribution requirements are governed by HRS Chapter 88 and can be amended through legislation. The ERS issues publicly available annual financial reports that can be obtained at ERS' website: https://ers.ehawaii.gov/.

Benefits Provided - The ERS Pension Trust is comprised of three pension classes for membership purposes and considered to be a single plan for accounting purposes since all assets of the ERS may legally be used to pay the benefits of any of the ERS members or beneficiaries. The ERS provides retirement, disability and death benefits with three membership classes known as the noncontributory, contributory and hybrid retirement classes. The three classes provide a monthly retirement allowance equal to the benefit multiplier (generally 1.25% or 2.00%) multiplied by the average final compensation multiplied by years of credited service. Average final compensation for members hired prior to July 1, 2012 is an average of the highest salaries during any three years of credited service, excluding any salary paid in lieu of vacation for members hired January 1, 1971 or later and the average of the highest salaries during any five years of credited service including any salary paid in lieu of vacation for members hired prior to January 1, 1971. For members hired after June 30, 2012, average final compensation is an average of the highest salaries during any five years of credited service excluding any salary paid in lieu of vacation.

Each retiree's original retirement allowance is increased on each July 1 beginning the calendar year after retirement. Retirees first hired as members prior to July 1, 2012 receive a 2.5% increase each year of their original retirement allowance without a ceiling (2.5% of the original retirement allowance the first year, 5.0% the second year, 7.5% the third year, etc.). Retirees first hired as members after June 30, 2012 receive a 1.5% increase each year of their original retirement allowance without a ceiling (1.5% of the original retirement allowance the first year, 3.0% the second year, 4.5% the third year, etc.).

The following summarizes the provisions relevant to the largest employee groups of the respective membership class. Retirement benefits for certain groups, such as police officers, firefighters, some investigators, sewer workers, judges, and elected officials, vary from general employees.

Noncontributory Class

Retirement Benefits - General employees' retirement benefits are determined as 1.25% of average final compensation multiplied by the years of credited service. Employees with 10 years of credited service are eligible to retire at age 62. Employees with 30 years of credited service are eligible to retire at age 55.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

Disability Benefits - Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 35% of their average final compensation. 10 years of credited service is required for ordinary disability. Ordinary disability benefits are determined in the same manner as retirement benefits but are payable immediately, without an actuarial reduction, and at a minimum of 12.5% of average final compensation.

Death Benefits - For service-connected deaths, the surviving spouse/reciprocal beneficiary receives a monthly benefit of 30% of the average final compensation until remarriage or reentry into a new reciprocal beneficiary relationship. Additional benefits are payable to surviving dependent children up to age 18. If there is no spouse/reciprocal beneficiary or dependent children, no benefit is payable.

Ordinary death benefits are available to employees who were active at time of death with at least 10 years of credited service. The surviving spouse/reciprocal beneficiary (until remarriage/re-entry into a new reciprocal beneficiary relationship) and dependent children (up to age 18) receive a benefit equal to a percentage of member's accrued maximum allowance unreduced for age or, if the member was eligible for retirement at the time of death, the surviving spouse/reciprocal beneficiary receives 100% joint and survivor lifetime pension and the dependent children receive a percentage of the member's accrued maximum allowance unreduced for age.

Contributory Class for Employees Hired Prior to July 1, 2012

Retirement Benefits - General employees' retirement benefits are determined as 2% of average final compensation multiplied by the years of credited service. General employees with five years of credited service are eligible to retire at age 55.

Police and firefighters' retirement benefits are determined using the benefit multiplier of 2.5% for qualified service, up to a maximum of 80% of average final compensation. Police officers and firefighters with five years of credited service are eligible to retire at age 55. Police officers and firefighters with 25 years of credited service are eligible to retire at any age, provided the last five years is service credited in these occupations.

Disability Benefits - Members are eligible for service-related disability benefits regardless of length of service and receive a one-time payment of the member's contributions and accrued interest plus a lifetime pension of 50% of their average final compensation. 10 years of credited service is required for ordinary disability. Ordinary disability benefits are determined as 1.75% of average final compensation multiplied by the years of credited service but are payable immediately, without an actuarial reduction, and at a minimum of 30% of average final compensation.

Death Benefits - For service-connected deaths, the surviving spouse/reciprocal beneficiary receives a lump sum payment of the member's contributions and accrued interest plus a monthly benefit of 50% of the average final compensation until remarriage or re-entry into a new reciprocal beneficiary relationship. If there is no surviving spouse/reciprocal beneficiary, surviving dependent children (up to age 18) or dependent parents are eligible for the monthly benefit. If there is no spouse/reciprocal beneficiary or dependent children/parents, the ordinary death benefit is payable to the designated beneficiary.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

Ordinary death benefits are available to employees who were active at time of death with at least one year of service. Ordinary death benefits consist of a lump sum payment of the member's contributions and accrued interest plus a percentage of the salary earned in the 12 months preceding death, or 50% joint and survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least 10 years of service and designated one beneficiary, or 100% joint and survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

Contributory Class for Employees Hired After June 30, 2012

Retirement Benefits - General employees' retirement benefits are determined as 1.75% of average final compensation multiplied by the years of credited service. General employees with 10 years of credited service are eligible to retire at age 60.

Police officers and firefighters' retirement benefits are determined using the benefit multiplier of 2.25% for qualified service, up to a maximum of 80% of average final compensation. Police officers and firefighters with 10 years of credited service are eligible to retire at age 60. Police officers and firefighters with 25 years of credited service are eligible to retire at age 55, provided the last five years is service credited in these occupations.

Disability and Death Benefits - Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 50% of their average final compensation plus refund of contributions and accrued interest. 10 years of credited service is required for ordinary disability.

For police officers and firefighters, ordinary disability benefits are 1.75% of average final compensation for each year of service and are payable immediately, without an actuarial reduction, at a minimum of 30% of average final compensation.

Death benefits for contributory members hired after June 30, 2012 are generally the same as those for contributory members hired June 30, 2012 and prior.

Hybrid Class for Employees Hired Prior to July 1, 2012

Retirement Benefits - General employees' retirement benefits are determined as 2% of average final compensation multiplied by the years of credited service. General employees with five years of credited service are eligible to retire at age 62. General employees with 30 years of credited service are eligible to retire at age 55.

Disability Benefits - Members are eligible for service-related disability benefits regardless of length of service and receive a lifetime pension of 35% of their average final compensation plus refund of their contributions and accrued interest. 10 years of credited service is required for ordinary disability. Ordinary disability benefits are determined in the same manner as retirement benefits but are payable immediately, without an actuarial reduction, and at a minimum of 25% of average final compensation.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

Death Benefits - For service-connected deaths, the surviving spouse/reciprocal beneficiary receives a lump sum payment of the member's contributions and accrued interest plus a monthly benefit of 50% of the average final compensation until remarriage or re-entry into a new reciprocal beneficiary relationship. If there is no surviving spouse/reciprocal beneficiary, surviving dependent children (up to age 18) or dependent parents are eligible for the monthly benefit. If there is no spouse/reciprocal beneficiary or dependent children/parents, the ordinary death benefit is payable to the designated beneficiary.

Ordinary death benefits are available to employees who were active at time of death with at least five years of service. Ordinary death benefits consist of a lump sum payment of the member's contributions and accrued interest plus a percentage multiplied by 150%, or 50% joint and survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least 10 years of service and designated one beneficiary, or 100% joint and survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

Hybrid Class for Employees Hired After June 30, 2012

Retirement Benefits - General employees' retirement benefits are determined as 1.75% of average final compensation multiplied by the years of credited service. General employees with 10 years of credited service are eligible to retire at age 65. Employees with 30 years of credited service are eligible to retire at age 60. Sewer workers, water safety officers, and emergency medical technicians may retire within 25 years of credited service at age 55.

Disability and Death Benefits - Provisions for disability and death benefits generally remain the same except for ordinary death benefits. Ordinary death benefits are available to employees who were active at time of death with at least 10 years of service. Ordinary death benefits consist of a lump sum payment of the member's contributions and accrued interest, plus a percentage multiplied by 50% joint and survivor lifetime pension if the member was not eligible for retirement at the time of death but was credited with at least 10 years of service and designated one beneficiary, or 100% joint and survivor lifetime pension if the member was eligible for retirement at the time of death and designated one beneficiary.

Contributions - Contributions are governed by HRS Chapter 88 and may be amended through legislation. The employer rate is set by statute based on the recommendations of the ERS actuary resulting from an experience study conducted every five years. Since July 1, 2005, the employer contribution rate is a fixed percentage of compensation, including the normal cost plus amounts required to pay for the unfunded actuarial accrued liabilities. Contributions to the pension plan from the Department was \$3,190,780 for the fiscal year ended June 30, 2022. The contribution rates for fiscal year 2022 were 41% for police officers and firefighters and 24% for all other employees.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

The employer is required to make all contributions for noncontributory members. Contributory members hired prior to July 1, 2012, are required to contribute 7.8% of their salary and police officers and firefighters are required to contribute 12.2% of their salary. Contributory members hired after June 30, 2012, are required to contribute 9.8% of their salary, except for police officers and firefighters who are required to contribute 14.2% of their salary. Hybrid members hired prior to July 1, 2012 are required to contribute 6.0% of their salary. Hybrid members hired after June 30, 2012 are required to contribute 8.0% of their salary.

Pension Liabilities, Pension Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions - At June 30, 2022, the Department reported a liability of \$40,831,743, for its proportionate share of net pension liability of the County. The net pension liability was measured as of June 30, 2021, and the total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of those dates. The Department's proportion of the net pension liability was based on a proportion of the Department's contributions to the pension plan relative to the project contributions of the County. At June 30, 2021, the Department's proportion of the County's proportion was 7.4757% which was an increase of 0.9188% from its proportion measured as of June 30, 2020.

There were no other changes between the measurement dates, June 30, 2021, and the reporting date, June 30, 2022 that are expected to have a significant effect on the proportionate share of the net pension liability.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

For the fiscal years ended June 30, 2022, the Department recognized pension expense of \$3,934,655. At June 30, 2022, the Department reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources		
Differences between expected and actual experience	\$ 1,024,300	\$ 53,484		
Net difference between projected and actual earnings on pension plan investments		5,210,290		
Changes in proportion and difference between Department contributions and proportionate share of contributions	1,859,587	122,003		
Changes of assumptions	661,655			
Department contributions subsequent to the measurement date	3,190,780			
	\$ 6,736,322	\$ 5,385,777		

At June 30, 2022, the \$3,190,780 reported as deferred outflows of resources related to pensions resulted from contributions made subsequent to the measurement date that will be recognized as a reduction of the net pension liability in the fiscal year ending June 30, 2023.

Other amounts reported as deferred inflows of resources related to pensions as of June 30, 2022 will be recognized in pension expense as follows:

Fiscal Year Ending June 30,	Amount				
2023 2024 2025 2026 2027	\$	(344,132) (354,557) (449,604) (690,531) (1,411)			
Total	\$	(1,840,235)			

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

Actuarial Assumptions - The total pension liability in the June 30, 2021 actuarial valuation was based on the results of an experience study as of June 30, 2018, with most of the assumptions based on the period from July 1, 2013 through June 30, 2018. The actuarial assumptions used in the actuarial valuation as of June 30, 2018 was based on the results of an actuarial experience study for the five-year period ended June 30, 2018:

Inflation 2.50% Investment rate of return, including inflation 7.00%

Salary increases, including inflation

 Police and fire employees
 5.00% to 7.00%

 General employees
 3.50% to 6.50%

 Teachers
 3.75% to 5.75%

There were no changes to ad hoc postemployment benefits including cost of living allowances.

Mortality rates used in the actuarial valuation as of June 30, 2021 were based on the following:

Active members - Multiples of the Pub-2010 morality table for active employees based on the occupation of the member.

Healthy retirees - The 2019 Public Retirees of Hawaii mortality table, generational projection using the BB projection table from the year 2019 and with multipliers based on plan and group experience.

Disabled retirees - Base table for healthy retirees' occupation, set forward five years, generational projection using the BB projection table from the year 2019. Minimum mortality rate of 3.5% for males and 2.5% for females.

The long-term expected rate of return on pension plan investments was determined using a "top down approach" of the Bespoke Client Constrained Simulation-based Optimization Model (a statistical technique known as "re-sampling with replacement" that directly keys in on specific plan-level risk factors as stipulated by the ERS Board of Trustees) in which best-estimate ranges of expected future real rates of return (expected returns, net of pension plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return (real returns and inflation) by the target asset allocation percentage and by adding expected inflation. The target allocation and best estimates of geometric real rates of return for each major asset class as of June 30, 2022 are summarized in the following tables:

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

		Expected		
		Long-Term		
Strategic Allocation	Target	Geometric		
(Risk-Based Classes)	Allocation	Average Return*		
Broad growth	63.00%	8.00%		
Diversifying strategies	37.00%	5.10%		
	100.00%			

Discount Rate - The discount rate used to measure the net pension liability at June 30, 2022 was 7.00%. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that contributions from the County will be made at statutorily required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees.

Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Department's Proportionate Share of the Net Pension Liability to Changes in the Discount Rate - The following presents the Department's proportionate share of the net pension liability as of June 30, 2022, calculated using the discount rate of 7.00%, as well as what the Department's proportionate share of the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.00%) or 1-percentage point higher (8.00%) than the current rate:

	1	% Decrease (6.00%)	_	iscount Rate (7.00%)	 (8.00%)
Department's proportionate share of the net pension liability	\$	45,425,275	\$	40,831,743	\$ 23,310,704

Pension Plan Fiduciary Net Position

The pension plan's fiduciary net position is determined on the same basis used by the pension plan. The ERS financial statements are prepared using the accrual basis of accounting under which expenses are recorded in the accounting period in which they are earned and become measurable. Employer and member contributions are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Investment purchases and sales are recorded as of their trade date. Administrative expenses are financed exclusively with investment income.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

There were no significant changes after the report measurement date. Detailed information about the pension plan's fiduciary net position is available in the separately issued ERS financial report. ERS' complete financial statements are available at https://ers.ehawaii.gov.

The County of Maui's annual comprehensive financial report contains further disclosures related to the County's proportionate share of the net pension liability and the employer pension contributions.

Payables to the Pension Plan

At June 30, 2022, the amounts payable to the ERS totaled \$1,086,089.

Postemployment Benefits Other Than Pensions (OPEB)

Plan description - The State provides certain health care and life insurance benefits to all qualified employees. Pursuant to Act 88, SLH 2001, the State contributes to the EUTF, an agent multiple-employer defined benefit plan that replaced the Hawaii Public Employees Health Fund effective July 1, 2003. The EUTF was established to provide a single delivery system of health benefits for state and county workers, retirees and their dependents. The EUTF issues an annual financial report that is available to the public. The report may be obtained by writing to the EUTF at P.O. Box 2121, Honolulu, Hawaii 96805-2121.

For employees hired before July 1, 1996, the County pays the entire base monthly contribution for employees retiring with 10 years or more of credited service, and 50% of the base monthly contribution for employees retiring with fewer than 10 years of credited service. A retiree can elect a family plan to cover dependents.

For employees hired after June 30, 1996 but before July 1, 2001, and who retire with less than 10 years of service, the County makes no contributions. For those retiring with at least 10 years but fewer than 15 years of service, the County pays 50% of the base monthly contribution. For employees retiring with at least 15 years but fewer than 25 years of service, the County pays 75% of the base monthly contribution. For those retiring with at least 25 years of service, the County pays 100% of the base monthly contribution. A retiree can elect a family plan to cover dependents.

For employees hired after on or after July 1, 2001, and who retire with fewer than 10 years of service, the County makes no contributions. For those retiring with at least 10 years but fewer than 15 years of service, the County pays 50% of the base monthly contribution. For those retiring with at least 15 years but fewer than 25 years of service, the County pays 75% of the base monthly contribution. For those retiring with at least 25 years of service, the County pays 100% of the base monthly contribution. Only single plan coverage is provided for retirees in this category. Retirees can elect family coverage, but must pay the difference.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

Employees Covered by Benefit Terms - At July 1, 2021, the following number of plan members were covered by the benefit terms:

Inactive employees or their beneficiaries currently receiving benefits	1,/1/
Inactive employees entitled to but not yet receiving benefits	253
Active members	2,482
Total	4,452

Contributions - Measurement of the actuarial valuation and the annual required contributions (ARC) are made for the County as a whole and are not separately computed for the individual County departments and agencies such as the Department. Contributions are governed by HRS Chapter 87A and may be amended through legislation.

The County allocates the ARC to the various departments and agencies based upon a systematic methodology. The Department's contributions paid to the County for the fiscal year ended June 30, 2022 was \$3,425,665, which equaled the Department's allocated ARC for postemployment health care and life insurance benefits.

OPEB Liabilities, OPEB Expense, and Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB - At June 30, 2022, the Department's share of the net OPEB liability was \$14,589,145. The net OPEB liability was measured as of July 1, 2021, and the total OPEB liability to calculate the net OPEB liability was determined by an actuarial valuation as of that date.

There were no changes between the measurement date, July 1, 2021, and the reporting date, June 30, 2022, that are expected to have a significant effect on the net OPEB liability.

For the fiscal year ended June 30, 2022, the Department recognized OPEB expense of \$1,141,258. At June 30, 2022, the Department reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 174,546	\$ 3,076,309
Net difference between projected and actual earnings		
on OPEB plan investments	-	3,075,265
Changes of assumptions	332,636	182,540
Department contributions subsequent to the		
measurement date	3,425,665	
	\$ 3,932,847	\$ 6,334,114

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

At June 30, 2022, the \$3,425,665 reported as deferred outflows of resources related to OPEB resulting from contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability in the fiscal year ending June 30, 2023.

Other amounts reported as deferred inflows of resources related to OPEB as of June 30, 2022 will be recognized in OPEB expense as follows:

Fiscal Year Ending June 30,	Amount
2023	\$ (1,197,696)
2024	(1,186,825)
2025	(1,292,123)
2026	(1,512,418)
2027	(496,941)
Thereafter	(140,929)
	\$ (5,826,932)

Actuarial assumptions - The total OPEB liability in the July 1, 2021 actuarial valuation was determined using the following actuarial assumptions, based on the experience study covering the five-year period ended June 30, 2018 as conducted for the ERS:

Investment rate of return 7.00% Inflation 2.50%

Salary increases 3.50% to 7.00%, including inflation

Demographic assumptions Based on the experience study covering the five-year period

ended June 30, 2018, as conducted for the ERS

Mortality System-specific mortality tables utilizing scale BB to project

generational mortality improvement

Participation rates 98% healthcare participation assumption for retirees that

receive 100% of the base monthly contribution (BMC). Healthcare participation rates of 25%, 65%, and 90% for retirees that receive 0%, 50%, or 75% of the BMC, respectively. 100% for life insurance and 98% for Medicare

Part B

Healthcare cost trend rates

Life insurance

PPO* Initial rate of 7.25%, declining to a rate of 4.70% after 12 years HMO* Initial rate of 7.25%; declining to a rate of 4.70% after 12 years Contribution Initial rate of 5.00%; declining to a rate of 4.70% after 9 years Dental 4.00% Vision 2.50%

0.00%

^{*} Blended rates for medical and prescription drugs

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

The long-term expected rate of return on OPEB plan investments was determined using a building-block method in which best-estimate ranges of expected future real rates of return (expected returns, net of OPEB plan investment expense and inflation) are developed for each major asset class. These ranges are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation.

The target allocation and best estimates of arithmetic real rates of return for each major asset class as of July 1, 2021 are summarized in the following table:

Asset Class	Target Allocation	Long-Term Expected Real Rate of Return
U.S. equity	16.00%	6.09%
Private equity	12.50%	10.19%
International equity	11.50%	7.12%
Trend following	10.00%	2.01%
Real assets	10.00%	6.16%
Private credit	8.00%	5.83%
U.S. microcap	6.00%	7.62%
Long treasuries	6.00%	1.06%
Global options	5.00%	4.33%
TIPS	5.00%	-0.07%
Alternative risk premia	5.00%	1.46%
Reinsurance	5.00%	4.44%
	100.00%	

Single Discount rate - The discount rate used to measure the total OPEB liability was 7.00%, based on the expected rate of return on OPEB plan investments of 7.00%. Beginning with the fiscal year 2019 contribution, the funding policy of the County of Maui is to pay the recommended actuarially determined contribution, which is based on layered, closed amortization periods. In July 2020, the Governor's office issued the Tenth Proclamation related to the COVID-19 Emergency, allowing employers of the EUTF to suspend ACT 268 contributions for fiscal year ending June 30, 2021 and instead limit their contribution amounts to the OPEB benefits due. This relief provision related to OPEB funding was extended to the fiscal year ended June 30, 2022 and 2023 by Act 229, Session Laws of Hawaii 2021. The EUTF's fiduciary net position is still expected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on the EUTF's investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

OPEB Plan Fiduciary Net Position - The OPEB plan's fiduciary net position has been determined on the same basis used by the OPEB plan. The EUTF's financial statements are prepared using the accrual basis of accounting under which revenues are recorded when earned and expenses are recorded at the time liabilities are incurred, regardless of the timing of the cash flows. Employer contributions are recognized in the period in which the contributions are due. Benefits and refunds are recognized when due and payable in accordance with the terms of the plan. Investment purchases and sales are recorded on a trade-date basis. Administrative expenses are financed exclusively by investment income.

There were no significant changes after the report measurement date. Detailed information about the OPEB plan's fiduciary net position is available in the separately issued EUTF financial report. The EUTF's complete financial statements are available at https://eutf.hawaii.gov.

Changes in the Net OPEB Liability

The following schedule presents the changes in the net OPEB liability for the fiscal year ended June 30, 2022. The ending balances are as of the measurement date, July 1, 2021.

	Increase (Decrease)							
		Total OPEB		lan Fiduciary		Net OPEB		
		Liability		Net Position		Liability		
	_	(a)	_	(b)	_	(a) - (b)		
Balance at June 30, 2021	\$	45,320,594	\$	23,328,670	\$	21,991,924		
Changes for the fiscal year:								
Service cost		973,031				973,031		
Interest on the total OPEB liability		3,178,213				3,178,213		
Contributions - employer		-		3,228,570		(3,228,570)		
Net investment income		_		6,658,417		(6,658,417)		
Difference between expected and								
actual experience		(1,439,637)				(1,439,637)		
Changes in assumptions		(222,810)				(222,810)		
Benefit payments		(1,430,587)		(1,430,587)				
Administrative expense		-		(3,425)		3,425		
Other		_		8,014		(8,014)		
Net changes		1,058,210		8,460,989		(7,402,779)		
Balance at June 30, 2022	\$	46,378,804	\$	31,789,659	\$	14,589,145		

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 11 - RETIREMENT BENEFITS (Continued)

Sensitivity of the Department's Proportionate Share of the Net OPEB Liability to Changes in the Discount Rate - The following presents the Department's proportionate share of the net OPEB liability calculated using the discount rate, as well as what the Department's proportionate share of the net OPEB liability would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the current rate:

	1	% Decrease (6.00%)	 iscount Rate (7.00%)	1	% Increase (8.00%)
Department's proportionate share of the net OPEB liability	\$	22,531,869	\$ 14,589,145	\$	8,882,229

Sensitivity of the Net OPEB Liability to Changes in the Healthcare Cost Trend Rates - The following presents the net OPEB liability of the Department, as well as what the Department's net OPEB liability would be if it were calculated using healthcare cost trend rates that are 1-percentage point lower or 1-percentage point higher than the current healthcare cost trend rates:

		Current	
		Healthcare	
		Cost Trend	
	1% Decrease	Rates	1% Increase
Department's proportionate share of the net OPEB liability	\$ 8,580,357	\$ <u>14,589,145</u>	\$ 23,041,166

Deferred Compensation Plan

The County participates in a deferred compensation plan established by the State of Hawaii in accordance with Internal Revenue Code Section 457. The plan is available to all the County employees, and permits employees to defer a portion of their salary until future years by contributing to a fund managed by a plan administrator. The deferred compensation is not available to employees until termination, retirement, death, or unforeseeable emergency.

All plan assets are held in a trust fund to protect them from claims of general creditors and from diversion to any uses other than paying benefits to participants and beneficiaries. The County has no responsibility for loss due to the investment or failure of investment of funds and assets in the plans, but does have the duty of due care that would be required of an ordinary prudent investor. Therefore, in accordance with GASB Statement No.32, Accounting and Financial Reporting for Internal Revenue Code Section 457 Deferred Compensation Plans, deferred compensation plan assets are not reported in the accompanying basic financial statements.

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2022

NOTE 12 - SICK LEAVE

Accrued sick leave aggregated to approximately \$5.4 million as of June 30, 2022. Sick leave can accumulate at the rate of one and three-quarters working days for each month of service without limit, but can be taken only in the event of illness and is not convertible to pay upon termination of employment. However, a County employee who is vested in the retirement system and retires or leaves government service in good standing with 60 days or more of unused sick leave is entitled to additional service credit in the ERS.

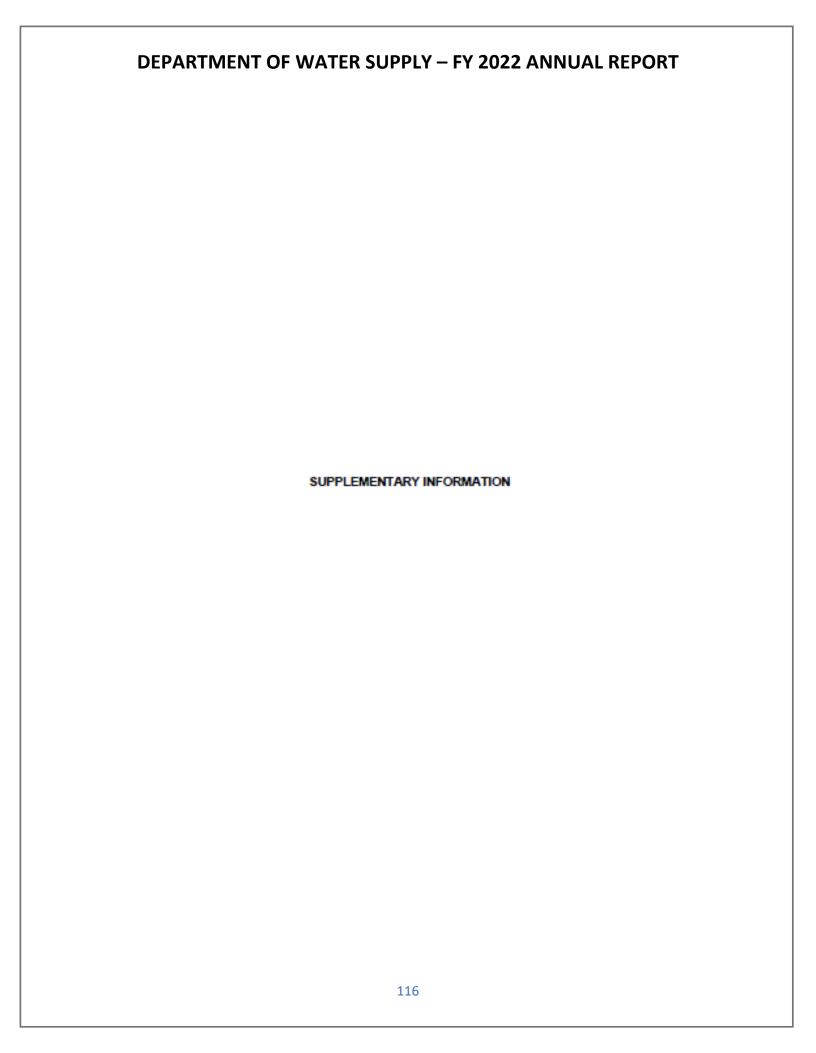
NOTE 13 - RISK MANAGEMENT

The Department participates in the County's insurance program, which is self-insured for worker's compensation, vehicle, and general liabilities. The County has excess insurance for vehicle and general liability losses over \$750,000. The liability for claims and judgments was estimated based on a combination of case-by-case review and the application of historical experience. Because of the inherent uncertainties in estimating future projected liabilities of claims and judgments, it is at least reasonably possible that the estimates used may change within the near-term.

Claim liabilities are calculated and periodically re-evaluated taking into consideration the effect of inflation, recent claim settlement trends, including frequency and amount of compensation subject to settlements, and other economic and social factors. Changes in the claims and judgments liability account for the fiscal year ended June 30, 2022 and 2021 were as follows:

Fiscal Year			nge to Estimate Additions/ Reductions)	Claim Payments	Liability at End of Year		
2022	\$	392,776	\$ 3,661,069	\$ 300,206	\$	3,753,639	
2021	\$	322,171	\$ 370,065	\$ 299,460	\$	392,776	

The estimated total liability has been determined through case-by-case analysis and from historical experience performed by the County's risk management division. Those historical results, combined with the evaluation of pending claims against the County by the County's Corporation Counsel, aids in this evaluation.



Department of Water Supply County of Maui SCHEDULE I - SCHEDULE OF CAPITAL ASSETS Fiscal Year Ended June 30, 2022

	July	lance 1, 2021		Additions		eductions/		Balance		Accumulated Depreciation				uctions/	ı	Accumulated Depreciation
Description	(es R	estated)		and Transfers	R	drements	Ju	e 30, 2022	_	July 1, 2021	_	Additions	Retir	rements	J	une 30, 2022
Land	\$ 8	007,145	\$	100,435	\$	-	\$	8,107,580	\$	_	\$	-	\$	-	\$	-
Source of Supply Structures	13	852,447		-		-		13,652,447		1,661,631		272,289		-		1,933,920
Collecting and Impounding Reservoirs	4	251,683		-		-		4,251,683		3,822,478		27,497		-		3,849,975
Wells & Springs	23	889,280		-		-		23,689,280		6,802,157		468,664		-		7,270,821
Power & Pumping Structures	23	,380,672		51,896		(27,183)		23,405,185		3,710,745		518,501		(24,917)		4,204,329
Purification Buildings	35	298,935		-		_		35,296,935		33,130,741		606,815		_		33,737,558
Distribution Reservoirs	90	,089,087		2,502,479		-		92,571,566		37,848,574		2,398,295		-		40,244,889
Office Building	1	872,930		-		-		1,672,930		1,297,283		32,266		-		1,329,549
Field Operation Building	1	349,400		-		-		1,349,400		958,778		32,241		-		991,019
Utility Plant - Unclassified		581,079		-		-		591,079		591,083		-		-		591,083
Electric Pumping Equipment	42	,815,312		2,188,906		(107,741)		44,696,477		30,990,047		2,152,401	-	(107,741)		33,034,707
Other Power Pumping Equipment	3	485,222		-		-		3,485,222		2,749,528		225,276		-		2,974,804
Purification System - Chlorinators	8	092,856		1,330,871		-		9,423,727		4,196,423		604,115		-		4,800,538
Purification System - Filter Plants	57	037,991		-		-		57,037,991		48,030,118		1,268,451		-		49,298,589
Transmission & Distribution Mains	327	,015,692		4,959,205		-		331,974,897		152,100,162		7,089,221		-		159,189,383
Service Laterats	4	742,645		74,900		-		4,817,545		2,940,364		152,039		-		3,092,403
Meters	8	,996,381		14,903		-		9,011,284		6,684,551		393,153		-		7,077,704
Office Furniture & Equipment		78,128		-		-		78,128		40,488		3,420		-		43,908
Stores Equipment		198,385		-		-		198,385		125,805		5,205		-		131,010
Shop Equipment		72,604		-		-		72,604		68,194		315		-		68,509
Laboratory Equipment		535,995		_		-		535,995		394,527		15,448		-		409,975
Work Equipment	4	948,203		79,740		(22,796)		5,003,144		2,105,202		232,205		(22,799)		2,314,608
Communication Equipment	1	707,600		40,416		-		1,748,016		1,445,449		68,246		-		1,513,895
Meter Boxes		288,895		-		-		288,895		286,895		-		-		288,895
Hydrants	11	939,117		41,123		-		11,980,240		5,055,963		234,977		-		5,290,940
Standpipes		238,286			_	_	_	238,286		214,705		2,614	_	_	_	217,319
	673	927,970		11,384,674		(157,723)		685,154,921		347,249,891		16,803,654	((155,457)		363,898,088
Office Machines		488,309		-		-		488,309		437,290		15,281		-		452,571
Transportation Equipment	- 6	088,627		346,913	_	(575,704)	_	5,859,836		5,376,658		239,277		(575,704)	_	5,040,231
Capital Assets	680	502,906		11,731,587		(733,427)		691,501,066		353,063,839		17,058,212		(731,161)		389,390,890
Lease Asset - Office Space		411,852		_	_	_	_	411,852				68,642	_	_	_	68,642
Total Capital Assets (1)	\$ 680	914,758	\$	11,731,587	\$	(733,427)	\$	691,912,918	\$	353,063,839	\$	17,128,854	\$ ((731,161)	\$	369,459,532
Construction in Aid				3.806.371												
Capital Replacement Fund			-	5,184,812												
Construction in Aid - Direct				1,268,857												
Revenue Fund				590,221												
Water System Development Fund				881,326												
			\$	11,731,587												

⁽¹⁾ Excludes construction in progress.

Department of Water Supply County of Maui SCHEDULE II - SCHEDULE OF LONG-TERM DEBT - GENERAL OBLIGATION BONDS June 30, 2022

County of Maul General Obligation Bonds	Fisoal Year	Coupon Interect Rate	Bond Dated	Maturing Serially From	Call Dates	Authorized and issued	Outstanding June 30, 2022	Payable Within One Year
G.O. Refunding Bonds, 2012 Series B (b)								
• • • • • • • • • • • • • • • • • • • •	2023	4.000	11/1/2012	6/1/2023	Noncallable	216,214	216,214	216,214
	2024	2.125	11/1/2012	6/1/2024	6/1/2023	224,921	224,921	_
	2025	3.000	11/1/2012	6/1/2025	6/1/2023	229,758	229,758	_
	2026	3.000	11/1/2012	6/1/2026	6/1/2023	236,529	236,529	-
	2027	3.000	11/1/2012	6/1/2027	6/1/2023	243,785	243,785	_
	2028	3.000	11/1/2012	6/1/2028	6/1/2023	251,040	251,040	-
	2029	3.000	11/1/2012	6/1/2029	6/1/2023	258,779	258,779	-
	2030	3.000	11/1/2012	6/1/2030	6/1/2023	266,519	266,519	_
	2031	3.000	11/1/2012	6/1/2031	6/1/2023	274,258	274,258	-
	2032	3.000	11/1/2012	6/1/2032	6/1/2023	282,481	282,481	
Total 2012 Series B Issue						2,484,284	2,484,284	216,214
G.O. Refunding Bonds, 2012 Series C (c)								
	2023	4.000	11/1/2012	6/1/2023	Noncallable	1,090,000	1,090,000	1,090,000
Total 2012 Series C Issue						1,090,000	1,090,000	1,090,000
G.O. Refunding Bonds, 2014 Series C (d)								
•	2023	5.000	12/1/2014	6/1/2023	Noncallable	320,000	320,000	320,000
	2024	5.000	12/1/2014	6/1/2024	Noncallable	335,000	335,000	_
	2025	3.000	12/1/2014	6/1/2025	6/1/2024	350,000	350,000	_
	2026	3.000	12/1/2014	6/1/2026	6/1/2024	360,000	360,000	_
	2027	4.000	12/1/2014	6/1/2027	6/1/2024	370,000	370,000	_
	2028	3.000	12/1/2014	6/1/2028	6/1/2024	385,000	385,000	-
	2029	3.000	12/1/2014	6/1/2029	6/1/2024	400,000	400,000	_
	2030	3.000	12/1/2014	6/1/2030	6/1/2024	410,000	410,000	-
	2031	3.125	12/1/2014	6/1/2031	6/1/2024	420,000	420,000	-
	2032	3.250	12/1/2014	6/1/2032	6/1/2024	435,000	435,000	-
	2033	3.250	12/1/2014	6/1/2033	6/1/2024	450,000	450,000	-
	2034	3.250	12/1/2014	6/1/2034	6/1/2024	465,000	465,000	
Total 2014 Series C Issue						4,700,000	4,700,000	320,000

Department of Water Supply County of Maui SCHEDULE II - SCHEDULE OF LONG-TERM DEBT - GENERAL OBLIGATION BONDS (Continued) June 30, 2022

County of Maul General Obligation Bonds	Fisoal Year	Coupon Interect Rate	Bond Dated	Maturing Serially From	Call Dates	Authorized and issued	Outstanding June 30, 2022	Payable Within One Year
G.O. Refunding Bonds, 2015 Series D (f)								
	2023	5.000	3/1/2016	9/1/2023	Noncallable	360,528	360,528	360,528
	2024	5.000	3/1/2016	9/1/2024	Noncallable	378,624	378,624	_
	2025	5.000	3/1/2016	9/1/2025	Noncallable	397,416	397,416	-
	2026	3.000	3/1/2016	9/1/2026	9/1/2025	416,904	416,904	_
	2027	3.000	3/1/2016	9/1/2027	9/1/2025	437,784	437,784	
Total 2015 Series D Issue						1,991,256	1,991,256	360,528
G.O. Refunding Bonds, 2018 Series C (g)								
	2023	5.000	9/1/2018	9/1/2023	Nongallable	265,000	265,000	265,000
	2024	5.000	9/1/2018	9/1/2024	Nor callable	275,000	275,000	_
	2025	5.000	9/1/2018	9/1/2025	Norsallable	290,000	290,000	_
	2026	5.000	9/1/2018	9/1/2026	Noncallable	305,000	305,000	_
	2027	5.000	9/1/2018	9/1/2027	Noncallable	320,000	320,000	-
	2028	5.000	9/1/2018	9/1/2028	Noncallable	335,000	335,000	_
	2029	5.000	9/1/2018	9/1/2029	9/1/2028	350,000	350,000	_
	2030	5.000	9/1/2018	9/1/2030	9/1/2028	370,000	370,000	_
	2031	4.000	9/1/2018	9/1/2031	9/1/2028	390,000	390,000	-
	2032	3.000	9/1/2018	9/1/2032	9/1/2028	405,000	405,000	
Total 2018 Series C Issue						3,305,000	3,305,000	265,000

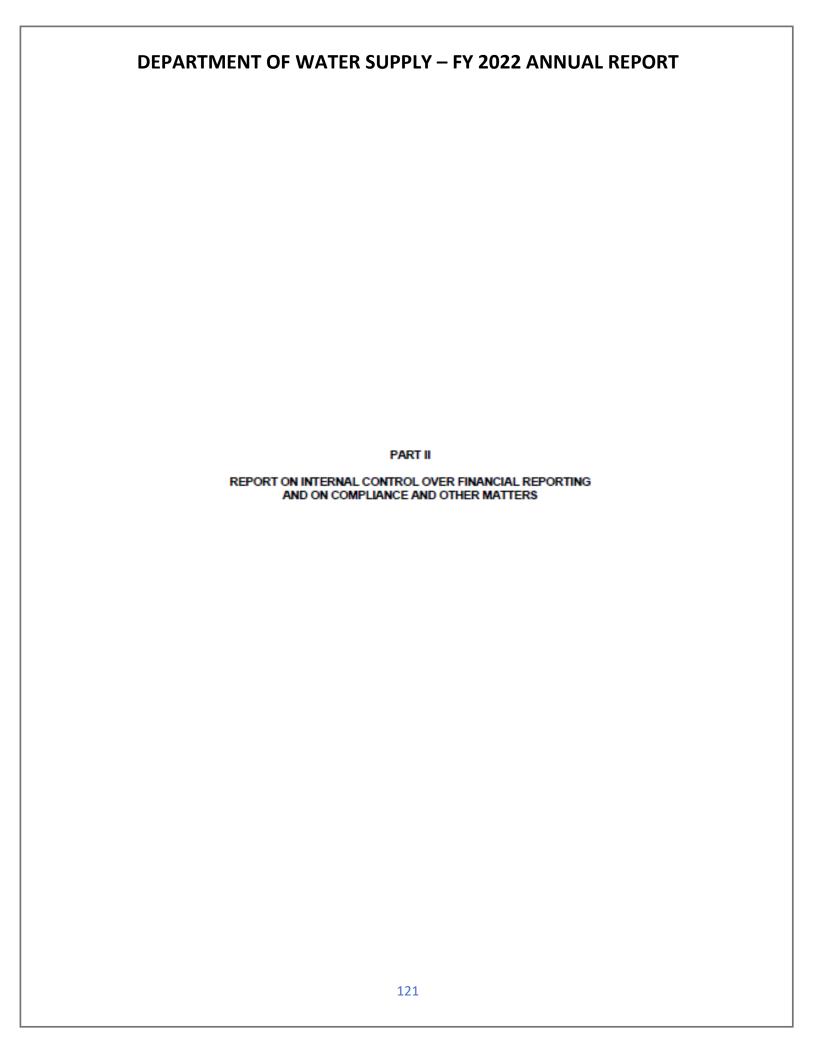
Department of Water Supply County of Maui SCHEDULE II - SCHEDULE OF LONG-TERM DEBT - GENERAL OBLIGATION BONDS (Continued) June 30, 2022

County of Maul General Obligation Bonds	Fiscal Year	Coupon Interect Rate	Bond Dated	Maturing Serially From	Call Dates	Authorized and issued	Outstanding June 30, 2022	Payable Within One Year
G.O. Refunding Bonds, 2020 Series B								
•	2023	5.000	9/23/2020	3/1/2023	Noncallable	31,561	31,561	31,561
	2024	5.000	9/23/2020	3/1/2024	Noncallable	33,957	33,957	_
	2025	5.000	9/23/2020	3/1/2025	Noncallable	36,354	36,354	-
	2026	5.000	9/23/2020	3/1/2026	Noncallable	38,752	38,752	-
	2027	5.000	9/23/2020	3/1/2027	Noncallable	41,149	41,149	_
	2028	5.000	9/23/2020	3/1/2028	Noncallable	43,945	43,945	-
	2029	5.000	9/23/2020	3/1/2029	Noncallable	47,141	47,141	-
Total 2020 Series B Issue	2030	5.000	9/23/2020	3/1/2030	Noncallable	50,337	50,337	
						323,196	323,196	31,561
Total General Obligation Bonds						\$ 13,893,736	\$ 13,893,736	\$ 2,283,303

Department of Water Supply
County of Maui
SCHEDULE II - SCHEDULE OF LONG-TERM DEBT GENERAL OBLIGATION BONDS (Continued)
June 30, 2022

NOTES:

- (a) The General Obligation Refunding Bonds, 2012, Series B, maturing on or before June 1, 2023 are issued without the right or option of the County of Maui to redeem the same prior to their respective maturity dates. The County of Maui reserves the right and option to redeem the Bonds maturing on June 1, 2024 to June 1, 2032, prior to their stated maturity, on or after June 1, 2023, in whole or in part at any time, in order of maturity selected by the County of Maui and by lot within a maturity, at 100% of the principal amount.
- (b) The General Obligation Refunding Bonds, 2012, Series C, maturing before June 1, 2023 are issued without the right or option of the County of Maui to redeem the same prior to their respective maturity dates.
- (c) The General Obligation Refunding Bonds, 2014, Series C, maturing on or before June 1, 2024 are issued without the right or option of the County of Maui to redeem the same prior to their respective maturity dates. The County of Maui reserves the right and option to redeem the Bonds maturing on June 1, 2025 to June 1, 2034, prior to their stated maturity, on or after June 1, 2024, in whole or in part at any time, in order of maturity selected by the County of Maui and by lot within a maturity, at 100% of the principal amount.
- (d) The General Obligation Refunding Bonds, 2015, Series D, maturing on or before September 1, 2025 are issued without the right or option of the County of Maui to redeem the same prior to their respective maturity dates. The County of Maui reserves the right and option to redeem the Bonds maturing on September 1, 2026 to September 1, 2027, prior to their stated maturity, on or after September 1, 2025, in whole or in part at any time, in order of maturity selected by the County of Maui and by lot within a maturity, at 100% of the principal amount.
- (e) The General Obligation Refunding Bonds, 2018, Series C, maturing on or before September 1, 2028 are not subject to redemption prior to maturity. The bonds maturing on or after September 1, 2029 are subject to redemption at the option of the County on or after September 1, 2028, in whole or in part at any time, from any maturities selected by the County, at a redemption price equal to 100% of the principal amount of the Bonds or portions thereof to be redeemed plus accrued interest to the date of redemption.
- (f) The General Obligation Refunding Bonds, 2020 Series B, maturing on or before March 1, 2030 are issued without the right or option of the County of Maui to redeem the same prior to their maturity dates.





999 BISHOP STREET, SUITE 2200 HONOLULU, HAWAII 96813 T (808) 524-2255 F (808) 523-2090

INDEPENDENT AUDITOR'S REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH GOVERNMENT AUDITING STANDARDS

To the Board of Water Supply County of Maui

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in Government Auditing Standards issued by the Comptroller General of the United States (Government Auditing Standards), the financial statements of the Department of Water Supply of the County of Maui (the Department), a proprietary fund of the County of Maui, State of Hawaii as of and for the fiscal year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the Department's financial statements, and have issued our report thereon dated January 27, 2023.

Report on Internal Control over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Department's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Department's internal control. Accordingly, we do not express an opinion on the effectiveness of the Department's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control, such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

N&K CPAs, Inc. ACCOUNTANTS | CONSULTANTS

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that were not identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We identified certain deficiencies in internal control, described in the accompanying schedule of findings and responses as items 2022-01 that we consider to be a significant deficiency.

Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the Department's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under Government Auditing Standards.

Department's Response to Findings

Government Auditing Standards requires the auditor to perform limited procedures on the Department's response to the findings identified in our audit and described in the accompanying schedule of findings and responses. The Department's response was not subjected to the other auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on the response.

Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with Government Auditing Standards in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

N&K CPAS,INC.

Honolulu, Hawai'i January 27, 2023

DEPARTMENT OF WATER SUPPLY – FY 2022 ANNUAL REPORT	
PART III	
SCHEDULE OF FINDINGS AND RESPONSES	
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Department of Water Supply, County of Maui SCHEDULE OF FINDINGS AND RESPONSES Fiscal Year Ended June 30, 2022

Ref

No. Internal Control Findings

2022-001 Timeliness of Developing Financial Statement Estimates - Significant Deficiency

Criteria: The preparation of financial statements in accordance with accounting principles generally accepted in the United States of America (US GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets, deferred outflows of resources, liabilities, deferred inflows of resources, and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period.

Accounting principles generally accepted in the United States of America requires that an estimated loss from a claim be recorded as an expenditure/expense and as a liability if both of these conditions are met:

- Information available before the financial statements are issue indicates that it is probable that an asset has been impaired or a liability has been incurred at the date of the financial statements.
- The amount of loss can be reasonably estimated.

Condition: As of June 30, 2022, the County was in discussions with two union organizations related to a claim for temporary hazard pay for certain County employees for working during the COVID-19 pandemic. These County employees included Department employees. In September and November 2022 the County agreed with the two unions for up to 25% of the employee's base pay. An estimated liability for this loss had not been recorded by the Department as of June 30, 2022.

In January 2023, County management developed an estimate for these liabilities. Based on the County's estimate, the Department's recorded an estimate for its portion of approximately \$3.6 million. The County also recorded a transfer out to the Department of approximately \$3.6 million to pay for the estimated liability.

Cause: US GAAP requires Department management to make estimates and assumptions that affect the reported amounts of assets, deferred outflows of resources, liabilities, deferred inflows of resources, and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Department management did not develop an independent estimate for this liability.

Effect: In January 2023, the Department record an adjustment to record a liability for claims and judgements of approximately \$3.6 million as of June 30, 2022. An adjustment of approximately \$3.6 million to record a transfer in from the County to pay for the estimated liability was also recorded by the Department.

Department of Water Supply, County of Maui SCHEDULE OF FINDINGS AND RESPONSES (Continued) Fiscal Year Ended June 30, 2022

Ref.

No. Internal Control Findings

2022-001 Timeliness of Developing Financial Statement Estimates - Significant Deficiency (Continued)

Recommendation: Department management should ensure that estimates related to estimated losses from claims are recorded on a timely basis. If management of the Department relies on having the Finance Division assist with these estimates, we recommend that the Department better communicate with the Finance Division to ensure that these estimates are recorded in accordance with US GAAP.

Views of Responsible Officials and Planned Corrective Action: The Department agrees with the finding and the recommendation. See Department's Corrective Action Plan.

DEPARTMENT OF WATER SUPPLY – FY 2022 ANNUAL REPORT
PARTIV
CORRECTIVE ACTION PLAN
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RICHARD T. BISSEN, JR. Mayor

KEKUHAUPIO R. AKANA Acting Managing Director

JOHN STUFFLEBEAN, P.E. Acting Director

JAMES A. LANDGRAF Deputy Director



DEPARTMENT OF WATER SUPPLY COUNTY OF MAUI 200 SOUTH HIGH STREET WAILUKU, MAUI, HAWAI'I 96793

http://www.mauicounty.gos/water

January 27, 2023



Mr. Dwayne S. Takeno N&K CPAs, Inc. 999 Bishop Street, Suite 2200 Honolulu, Hawai'i 96813

> SUBJECT: REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING FINDINGS – CORRECTIVE ACTION PLAN FOR THE FISCALYEAR ENDED JUNE 30, 2022

Dear Mr. Takeno,

The Department of Water Supply of the County of Maui (Department) understands that the audits for the Department's basic financial statements identify opportunities for improving our performance and operational processes. Accordingly, attached is our Corrective Action Plan in response to the finding for the fiscal year ended June 30, 2022. It is the Department's goal for every audit to have positive results and our response to this finding and recommendation allow the Department to take the appropriate corrective actions for improvement of our operational processes.

The Department would like to take this opportunity to express our appreciation to you and your audit team during this fiscal year's audit and the opportunity to provide our response to the audit finding.

Sincerely,

JÓHN SŤUFFLEBEAN Acting Director

"By Water All Things Find Life"

Department of Water, County of Maui CORRECTIVE ACTION PLAN Fiscal Year Ended June 30, 2022

Ref.

No. Internal Control Findings

2022-001 Timeliness of Developing Financial Statement Estimates - Significant

Deficiency

Recommendation

Department management should ensure that estimates related to estimated losses from claims are recorded on a timely basis. If management of the Department relies on having the Finance Division assist with these estimates, we recommend that the Department better communicate with the Finance Division to ensure that these estimates are recorded in accordance with US GAAP.

View of Responsible Officials and Planned Corrective Action

Management concurs with this audit finding. The Department's Fiscal Division would, to the extent possible as allowed by the County obtain information that may impact our financial statements. And that entries related to estimated losses from claims are recorded on a timely basis.

End Date: Ongoing

Responding Person(s): Ortaine M. Acidera, Fiscal Officer

Department of Water Supply Phone No. (808) 270-7303

DEPARTMENT OF WATER SUPPLY – FY 2022 ANNUAL REPORT
PART V
SUMMARY SCHEDULE OF PRIOR AUDIT FINDINGS
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Department of Water Supply, County of Maui STATUS REPORT Fiscal Year Ended June 30, 2022

No prior audit findings which apply under the current criteria of the Uniform Guidance were noted.