
COUNTY OF MAUI DEPARTMENT OF WATER SUPPLY

ANNUAL REPORT FY 2021

Jeffrey Pearson, P.E., Director
Helene Kau, Deputy Director



Aerial view of the Iao Water Treatment Facility. Photo courtesy of Shane Tegarden.

Submitted September 23, 2021

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

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DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

EXECUTIVE SUMMARY



Jeffrey T. Pearson, P.E.,
Director

The Department of Water Supply (DWS) is proud to present its Fiscal Year 2021 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 FY21 continued to be the COVID-19 health emergency. Everyone in DWS were deemed essential workers, 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.



Helene Kau
Deputy Director

Our Engineering Division is constantly working on many projects, highlights include the Pookela Well B development and Upcountry Phase 10 construction projects, contracted in FY20. Both projects are critical to maintaining a reliable supply of water for the department's Upcountry customers.

Water Resources and Planning oversaw Phase 2 of the department's Strategic Plan continued implementation. The Maui Island Water Use and Development Plan (WUDP) was reviewed by multiple committees during FY21, and we are hopeful for full council approval in FY22. 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 318 water reduction fixtures.

The DWS Fiscal Division continued to maintain fiscal responsibility while focusing on our customer service for both external and internal customers. During the 4th quarter of FY20 they implemented a four-year program for small meter replacement. 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.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

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 4,155 backflow preventer assemblies being monitored in Maui County; and the laboratory ensured that all 14,086 samples in FY21 were taken 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 began in FY21 and are expected to be complete in the first quarter of FY22. Overall, the division helped distribute approximately 11.9 million gallons of clean water to our customers daily, or over four *billion* gallons for FY21.

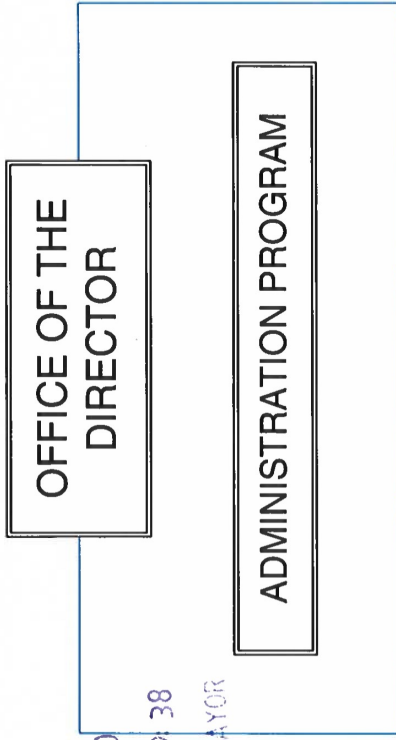
Field Operations had another busy year. Pipefitters, welders, carpenters, electricians, equipment operators, mechanics, technicians and laborers in yards in Hana, Molokai, Upcountry, Central Maui and Maui's West Side, are responsible for approximately 780 miles of water transmission and distribution lines and for the system infrastructure including base yards and plants. The team responded to over 2,500 customer calls and were called out on over 900 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 FY21, which is significant when you realize each job may be 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.***

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by: MAK - 4 2021
 Jeffrey Pearson, P.E. Date

Approved by: 8/12/21
 Sandy K. Baz, Managing Director Date



County of Maui
 DEPARTMENT OF RECEIVED
 WATER SUPPLY
 FY 2021 Financial Report
 As of September 30, 2020
 OFFICE OF THE MAYOR

FISCAL/CUSTOMER SERVICE
 EP Count = 30

The Fiscal/Customer Service Program provides customer services and general accounting to both internal and external customers. Customer services include meter reading, pre-audit, billing, collections, new customer and agricultural applications, jobbing, cashiering, and administration of regulations. The accounting section includes budget development and control, the annual audit, long-range financial planning, payroll processing, accounts payable and payment distribution, fixed asset tracking, depreciation calculations, expense and revenue reconciliation, CIP reconciliation and capitalization,* centralized purchasing, and maintenance of the Kahului warehouse and stores inventory. Fiscal/Customer Service also advises the Board of Water Supply on related matters.* Per County of Maui Charter Ch. 11 Section 8-11.6 through 8-11.7

ADMINISTRATION
 EP Count = 9

The Administration Program is managed by the Director and the Deputy Director. This division manages and controls all water systems of the County on a day-to-day basis*, which includes overseeing all DWS functions and keeping staff focused on "Providing Clean Water Efficiently". They coordinate DWS affairs with Board of Water Supply, Mayor, County Council and are in charge of human resources, community relations and preparing the annual report. Administration provides water education and technical interpretation for legal issues.* Per County of Maui Charter Ch.11 Section 8-11.2

ENGINEERING
 EP Count = 25

The Engineering Program reviews all development plans for conformity with departmental standards. They prepare plans and specifications for water supply 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 contracts. They prepare and administer agreements with public agencies and private developers. They also prepare plans and specifications for in-house projects. This program develops and maintains water supply standards and conduct studies for feasibility of pipeline alignment and sites for reservoirs, pump stations, wells, water treatment facilities, and other facilities. They provide engineering services and field survey support to all divisions and is in charge of inspecting the construction of all water system facilities for adherence to departmental standards and policies. Finally, Engineering conducts studies, tests, and investigations on water resources*. Per County of Maui Charter Ch. 11 Section 8-11.2

WATER RESOURCES & PLANNING
 EP Count = 9

The Water Resources and Planning Program is responsible for long-range, master and capital and area planning and resource management,* including Water Use and Development Plans and conservation plans; planning and geospatial information systems including water consumption, supply and demand*, mapping; permit review; oversight of regulatory compliance. They also manage water resource development and source protection, water pollution prevention, and conservation*. Per County of Maui Charter Ch. 11 Section 8-11.2 through 8-11.3

(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 Section 8-11.3.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by:

MAK - 4 2021

Date

Jeffrey T. Pearson

Jeffrey T. Pearson, P.E.

Approved by:

Sandy K. Baz

Sandy K. Baz, Managing Director

Date

OFFICE OF THE DIRECTOR

WATER OPERATIONS PROGRAM

County of Maui
DEPARTMENT RECEIVED
WATER SUPPLY

FY 2021 Functional Chart 5
As of September 30, 2020
OFFICE OF THE MAYOR

FIELD OPERATIONS
EP Count = 88

The Field Operations Program is responsible for water transmission and distribution. This includes responding to customer complaints; installing, maintaining, and replacing pipelines in all areas of the county water system including hazardous mountain and valley terrain; water storage tank maintenance; leak detection; fixing main breaks, service laterals, meters and water pressure problems 24/7; and water system flushing. Field Operations also provides support services for vehicles and equipment, fire hydrants, reservoir sites, system hydraulic valves, heavy equipment, carpentry, and water meter installation. Field Operations maintains baseyards in Kahului, Makawao, Lahaina, Hana, and Molokai. Per County of Maui Charter Ch. 11 Sections 8-11.1, 8-11.2

WATER TREATMENT PLANT OPERATIONS
EP Count = 28

The Water Treatment Plant (WTP) Operations Program operates and maintains surface water treatment facilities. For the Upcountry area, WTP is in charge of the Karnole Weir microfiltration, the Pihiolo direct filtration, and the Olinda microfiltration sites. In the Lahaina area, WTP is in charge of the Lahainaluna microfiltration and the Mahinahina direct filtration sites. In Wailuku, the WTP division operates the microfiltration facility at Iao. WTP manages Upcountry water resources and inventories and ensures compliance with federal and state Surface Water Treatment Rules and water quality standards. This division also reviews and evaluates pending water regulations and their impact on DWS operations. Development and implementation of surface water compliance strategies are also handled by WTP. Per County of Maui Charter Ch. 11 Sections 8-11.1, 8-11.2

PLANT OPERATIONS
EP Count = 34

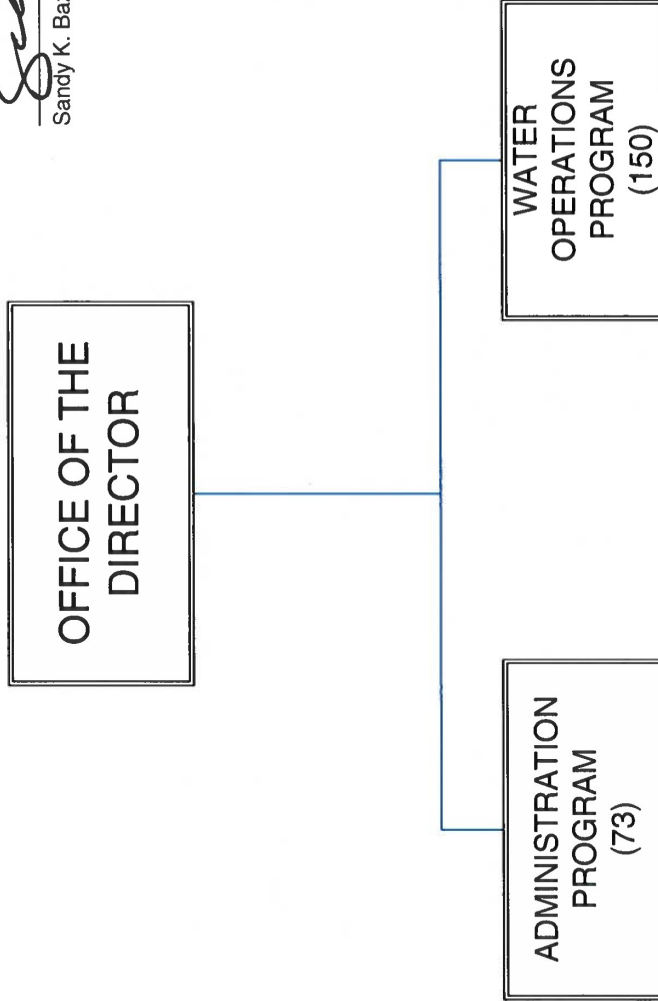
The Plant Operations Program is comprised of four sections: Plant Maintenance, Water Quality, SCADA-Telemetry, and Backflow Prevention. The Plant Maintenance section operates and maintains groundwater wells and booster pumping facilities. The SCADA-Telemetry section provides ongoing development and support 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

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by: Jeffrey T. Pearson, P.E. Date: MAR - 4 2021

Approved by: Sandy K. Baz Date: 3/12/21
Sandy K. Baz, Managing Director

County of ~~MAUI~~ **MAUI**
DEPARTMENT OF
WATER SUPPLY 9:39
FY 2021 Organizational Chart
Effective Date: September 30, 2020

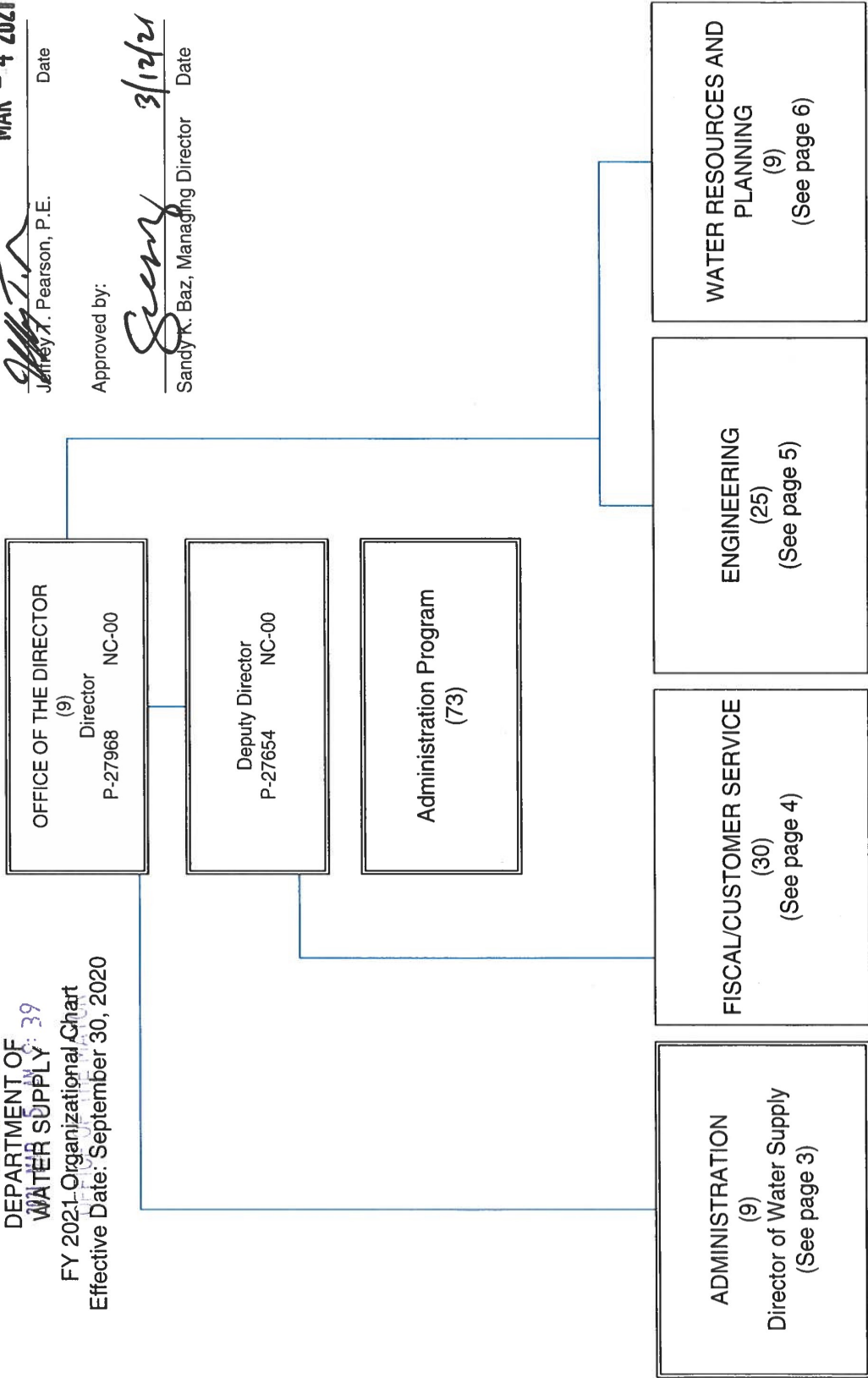


DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by: Jarvis T. Pearson, P.E. **MAR - 4 2021** Date

Approved by: Sandy K. Baz **3/12/21** Date
Sandy K. Baz, Managing Director

COURTNEY MATHIS
DEPARTMENT OF
WATER SUPPLY: 39
FY 2021 Organizational Chart
Effective Date: September 30, 2020

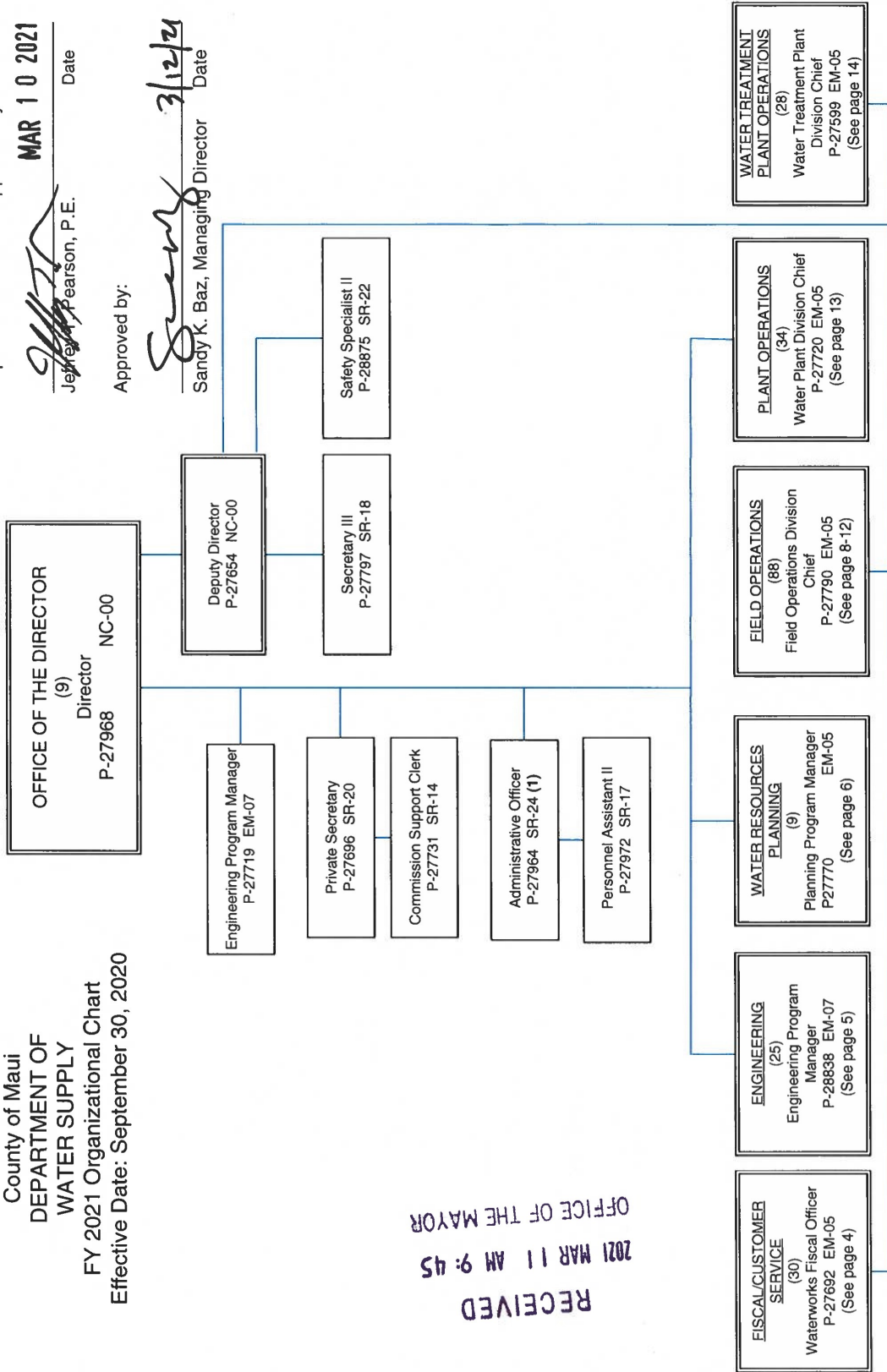


DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

County of Maui
**DEPARTMENT OF
 WATER SUPPLY**
 FY 2021 Organizational Chart
 Effective Date: September 30, 2020

Department Submittal/Approved by: *[Signature]* **MAR 10 2021**
 Jeffrey Pearson, P.E. Date

Approved by: *[Signature]* **3/12/21**
 Sandy K. Baz, Managing Director Date



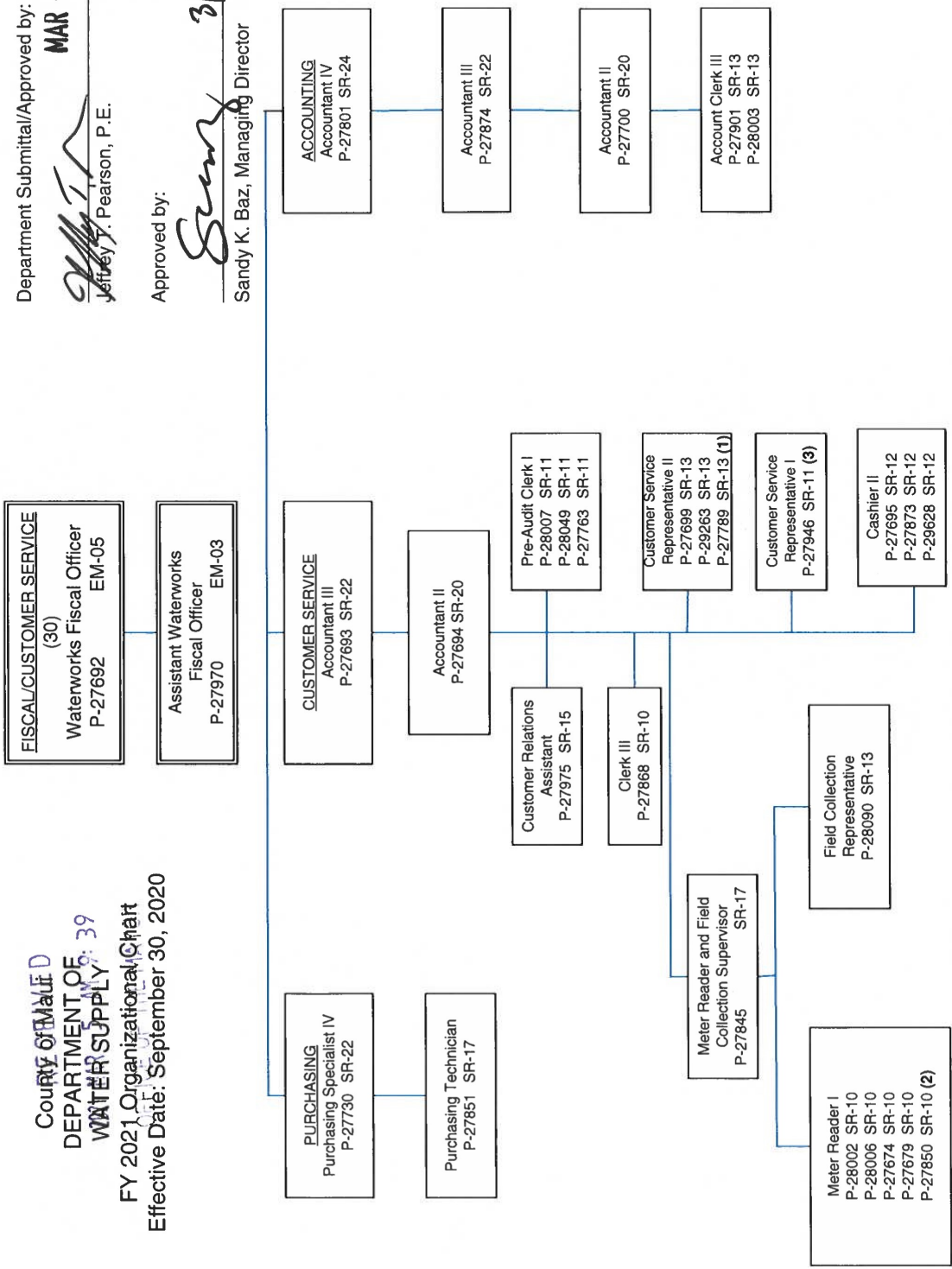
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 OFFICE OF THE MAYOR

(1) P-27964, P-27972 incorrectly annotated on FY20 organizational chart. Direct supervisor per position description for P-27964 is Director of Water Supply eff. 2004.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

COUNTY OF MAUI
DEPARTMENT OF
WATER SUPPLY
 FY 2021 Organizational Chart
 Effective Date: September 30, 2020

Department Submittal/Approved by: *Jeffrey Pearson* **MAR - 4 2021** Date
 Approved by: *Sandy K. Baz* **3/17/21** Date
 Jeffrey Pearson, P.E. Sandy K. Baz, Managing Director

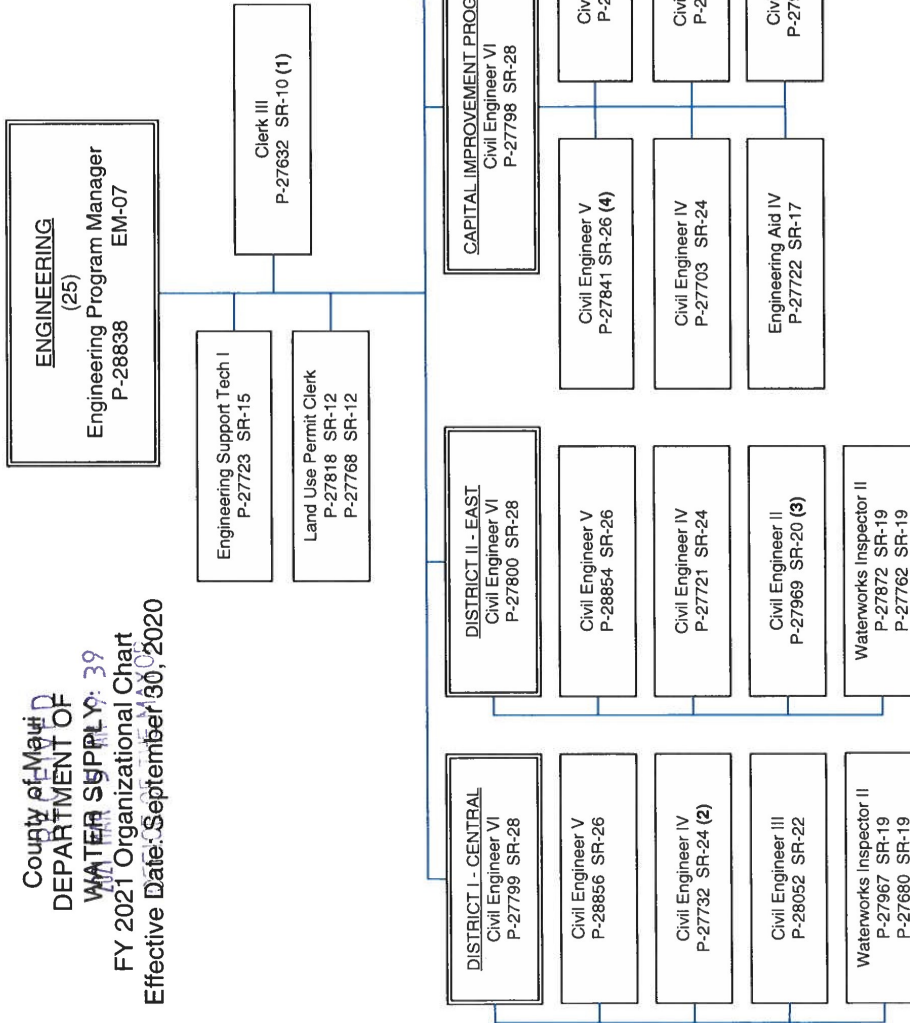


(1) P-27789 reallocated to Customer Service Representative II SR-13 NODA eff. 02/01/20, FY21 Council Adopted Budget as CSR II SR-13.
 (2) P-27850 is incorrectly stated in the FY21 Council Adopted Budget as Meter Reader I SR-13 and should be Meter Reader I SR-10.
 (3) P-27946 is incorrectly stated in the FY21 Council Adopted Budget as Customer Service Representative I SR 13 and should be Customer Service Representative I SR 11.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by: Jeffrey J. Pearson, P.E. **MAR - 4 2021**
Date

Approved by: Sandy K. Baz, Managing Director **3/12/21**
Date



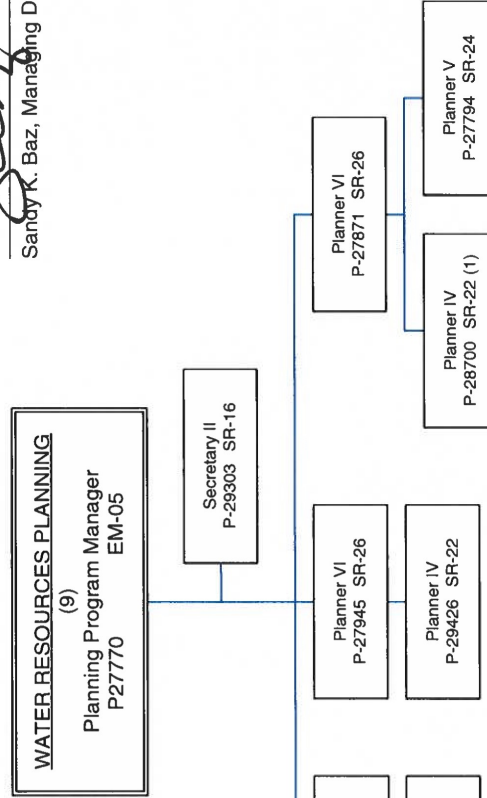
(1) P-27632 is incorrectly stated in the FY21 Council Adopted Budget as Clerk III SR-12, and should be Clerk III SR-10.
 (2) P-27732 Civil Engineer III SR-22 reallocated to Civil Engineer IV SR-24 NODA eff. 10/01/19, FY21 Council Approved Budget as Civil Engineer IV SR-24
 (3) P-27969 Civil Engineer II SR-20 anticipated to be reallocated to Civil Engineer III SR-22, incumbent resigned, FY21 Council Approved Budget as Civil Engineer III SR-22
 (4) P-27841 is incorrectly stated in the FY21 Council Adopted Budget as Engineering Drafting Aid III, SR-17, and should be Civil Engineer V SR-26.
 (5) P-27971 Civil Engineer II SR-20 reallocated to Civil Engineer III SR-22 NODA eff. 02/20/2020, FY21 Council Approved Budget as Civil Engineer III SR-22.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by: *Jeffrey Pearson* **MAR - 4 2021**
 Jeffrey Pearson, P.E. Date

Approved by: *Sandy K. Baz* **3/12/21**
 Sandy K. Baz, Managing Director Date

COUNTY OF MARIETTA
DEPARTMENT OF WATER SUPPLY
 FY 2021 Organizational Chart
 Effective Date: September 30, 2020



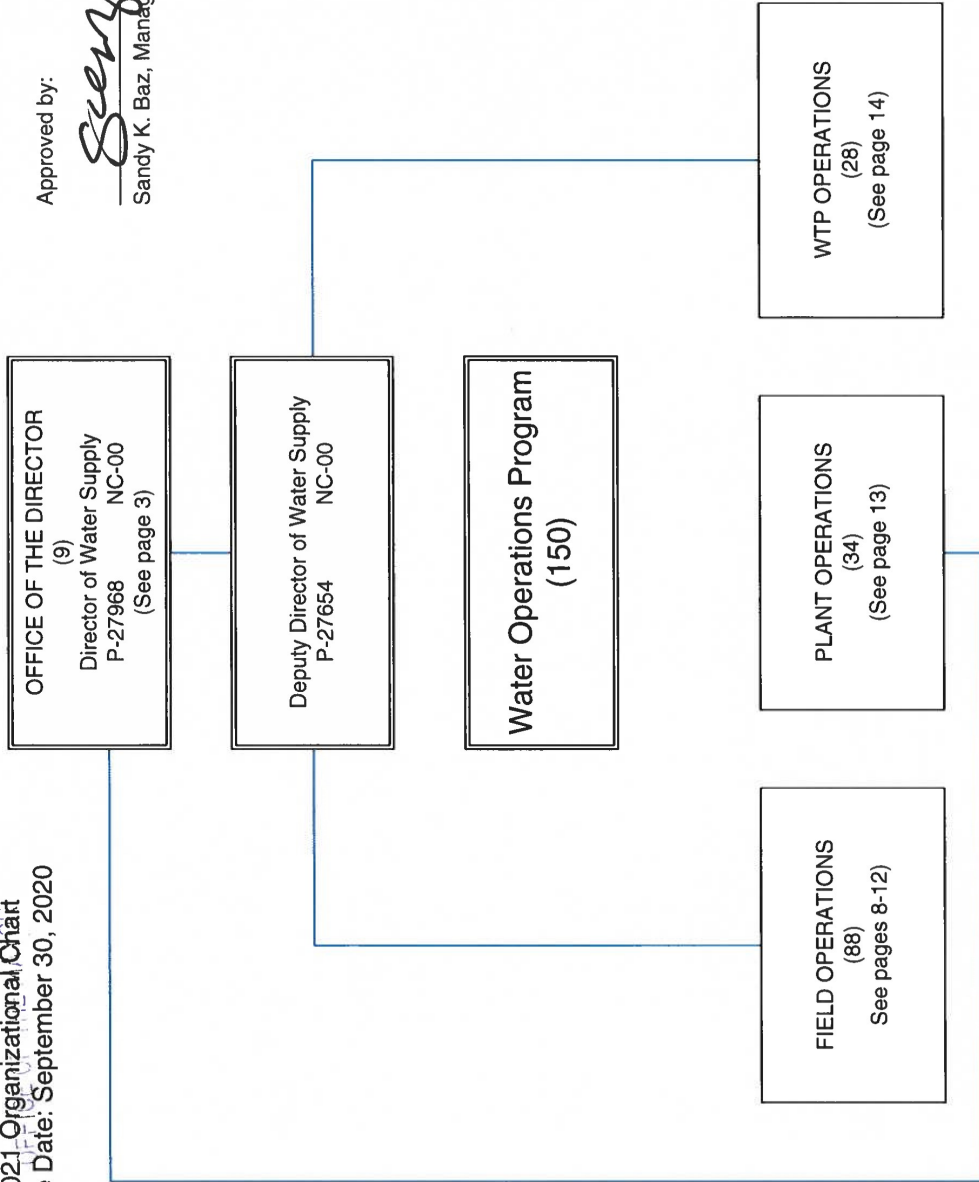
(1) P-29303 Secretary I SR-14 reallocation process began 07/01/20 to Secretary II SR-16 process completed 02/23/21. FY21 Council Approved Budget as Secretary II SR-16. NODA received 02/24/21 eff. Date 07/01/20.
 (2) P-28700 Planner III SR-20 reallocated to Planner IV SR-22 NODA eff. 09/20/20, FY21 Council Approved Budget as Planner III SR-20

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT


Department Submittal/Approved by: *Jeffrey T. Pearson* **MAR - 4 2021**
 Jeffrey T. Pearson, P.E. Date

Approved by: *Sandy K. Baz* **3/12/21**
 Sandy K. Baz, Managing Director Date


COUNTY OF MAUI
DEPARTMENT OF
WATER SUPPLY
 FY 2021 Organizational Chart
 Effective Date: September 30, 2020

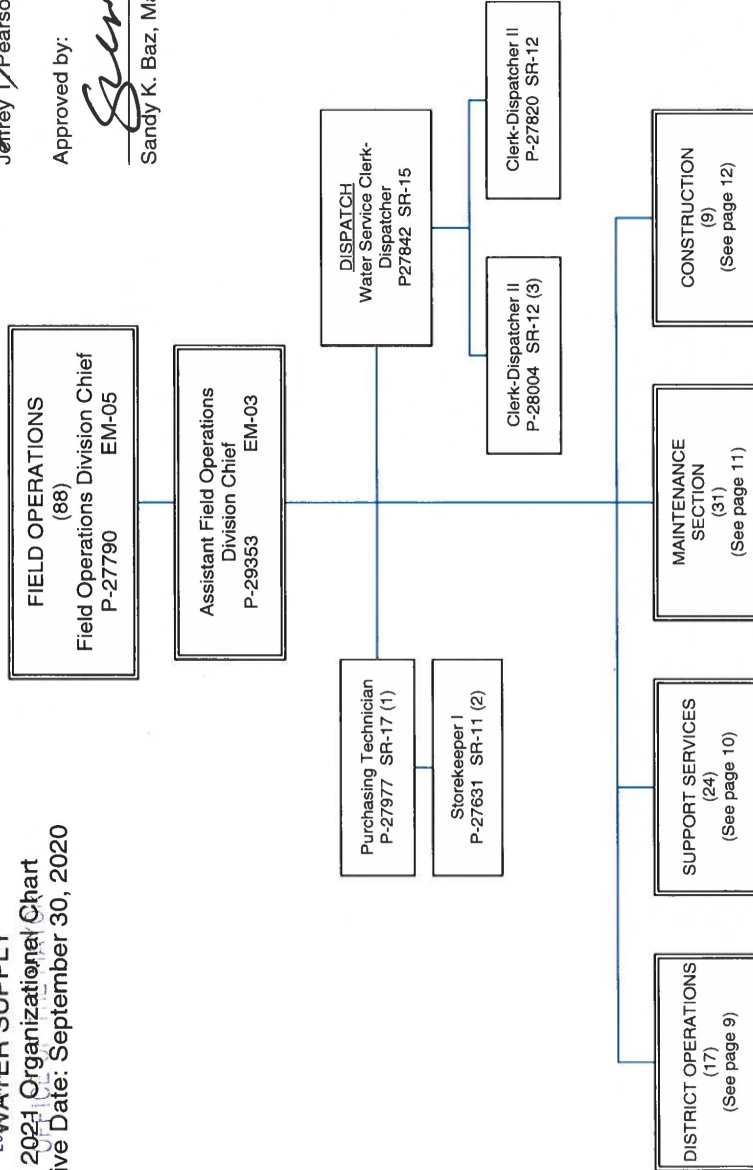


DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by:  **MAK - 4 2021**
 Jeffrey T. Pearson, P.E. Date

Approved by:  **3/12/21**
 Sandy K. Baz, Managing Director Date


DEPARTMENT OF WATER SUPPLY
 FY 2021 Organizational Chart
 Effective Date: September 30, 2020



(1) P-27977 Purchasing Technician SR-17 position moved from DWS Fiscal to DWS Field Operations per MD Approved ReOrg 10/28/19 and reflected in FY21 Council Approved Budget
 (2) P-27631 Storekeeper I SR-11 position moved from DWS Fiscal to DWS Field Operations per MD Approved ReOrg 10/28/19 and reflected in FY21 Council Approved Budget
 (3) P-28004 Clerk III SR-10 reallocated to Clerk-Dispatcher II SR-12 NODA eff. 08/06/20, FY21 Council Approved Budget as Clerk III SR-10

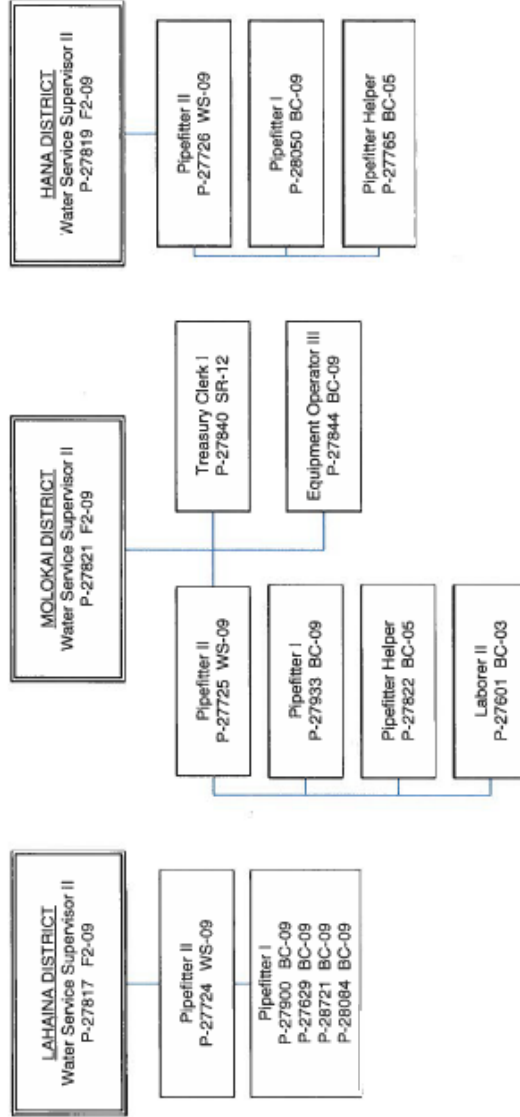
DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by: Jeffrey T. Pearson 11/30/20
 Jeffrey T. Pearson, P.E. Date

Approved by: Sandy K. Baz 1/25/21
 Sandy K. Baz, Managing Director Date

County of Maui
 DEPARTMENT OF
 WATER SUPPLY
 FY 2021 Organizational Chart
 Effective Date: September 30, 2020

FIELD DISTRICT OPERATIONS (17)

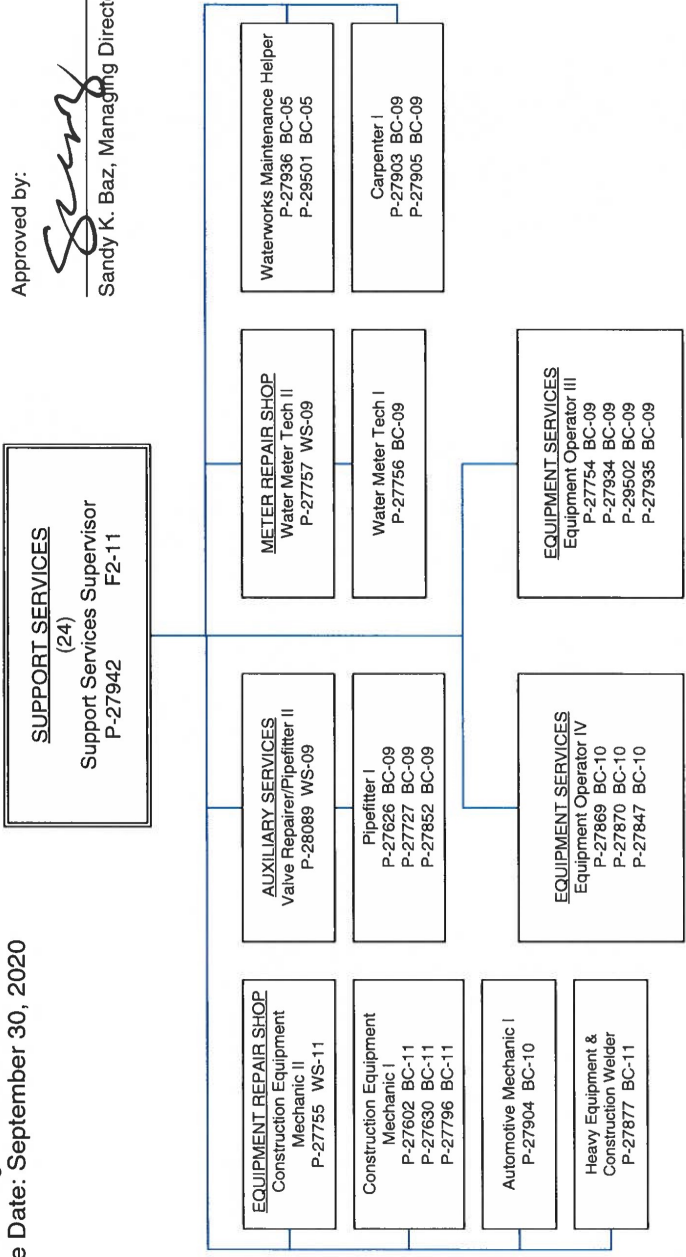


DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by: *Jeffrey Pearson* **FEB 25 2021**
 Jeffrey Pearson, P. E. Date

Approved by: *Sandy K. Baz* **3/12/21**
 Sandy K. Baz, Managing Director Date

County of Maui
 DEPARTMENT OF
 WATER SUPPLY
 FY 2021 Organizational Chart
 Effective Date: September 30, 2020

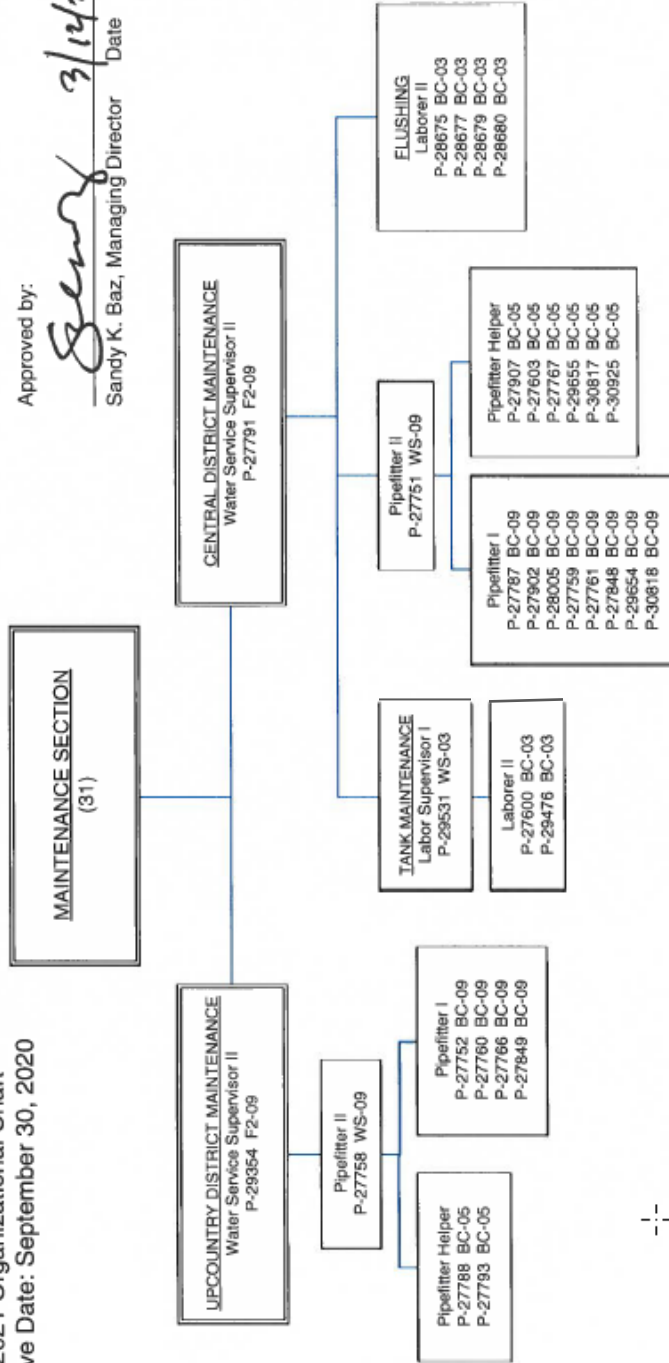


DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by: *J.P.P.* **FEB 25 2021**
 Jeffrey J. Pearson, P.E. Date


Approved by: *Sandy K. Baz* **3/14/21**
 Sandy K. Baz, Managing Director Date

County of Maui
 DEPARTMENT OF
 WATER SUPPLY
 FY 2021 Organizational Chart
 Effective Date: September 30, 2020



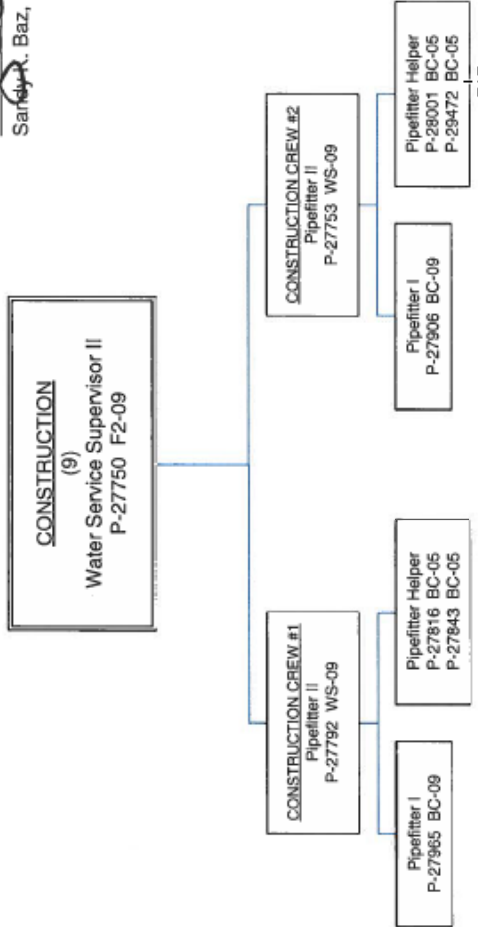
DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

County of Maui
 DEPARTMENT OF
 WATER SUPPLY
 FY 2021 Organizational Chart
 Effective Date: September 30, 2020

Department Submittal/Approved by:

 Jeffrey T. Pearson, P.E.
 Date: 11/20/20

Approved by:

 Sarah R. Baz, Managing Director
 Date: 11/20/20



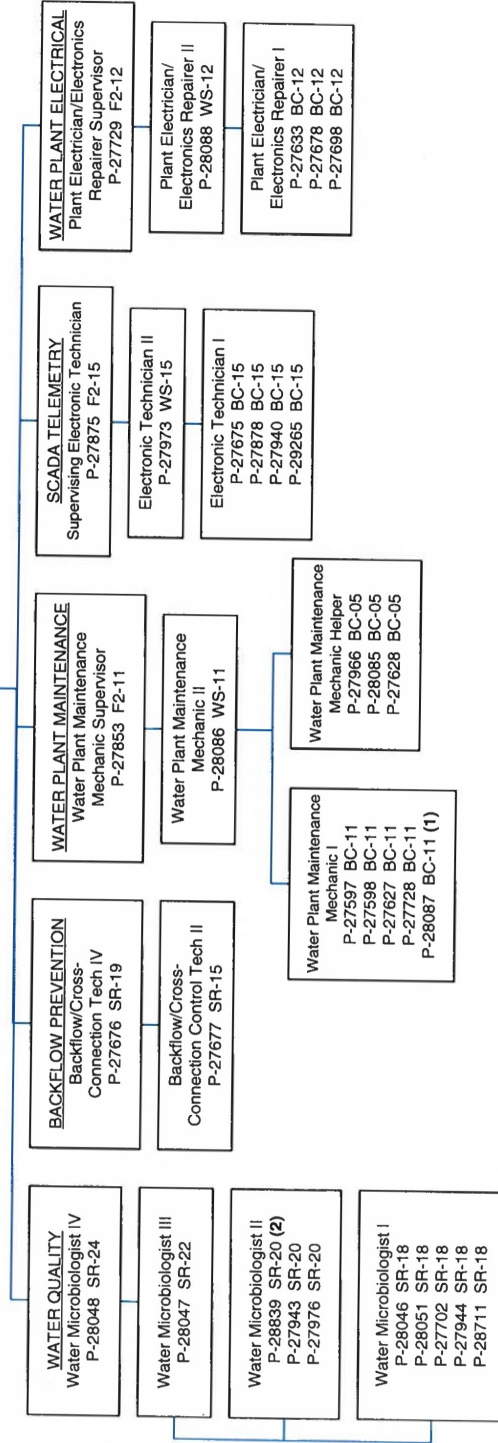
DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by: *Jeffrey I. Pearson* **MAR 10 2021**
 Jeffrey I. Pearson, P.E. Date

Approved by: *Sandy K. Baz* **3/12/21**
 Sandy K. Baz, Managing Director Date


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OFFICE OF
WATER SUPPLY
DEPARTMENT OF
Maui County
Effective Date: September 30, 2020
FY 2021 Organizational Chart

PLANT OPERATIONS
 (34)
 Water Plant Division Chief
 P-27720 EM-05



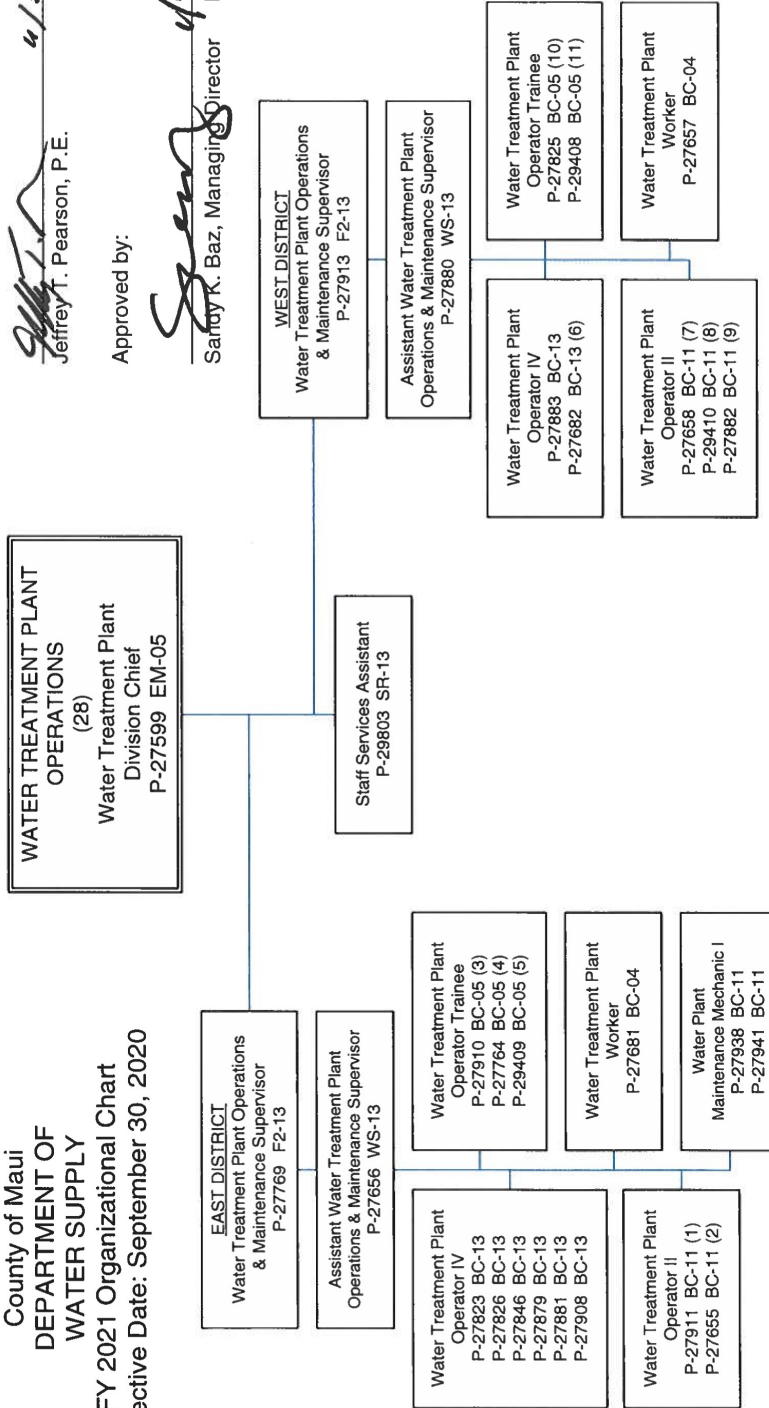
(1) P-28087 Water Plant Maintenance Mechanic Helper BC-05 reallocated to Water Plant Maintenance Mechanic I BC-11 NODA eff. 12/16/19, FY21 Council Approved Budget as Water Plant Maintenance Mechanic I BC-11.
 (2) P-28839 is incorrectly stated in the FY21 Council Adopted Budget as Water Microbiologist II SR-18 and should be Water Microbiologist II SR-20.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department Submittal/Approved by:  4/30/20
 Jeffrey T. Pearson, P.E. Date

Approved by:  4/26/21
 Sanford K. Baz, Managing Director Date

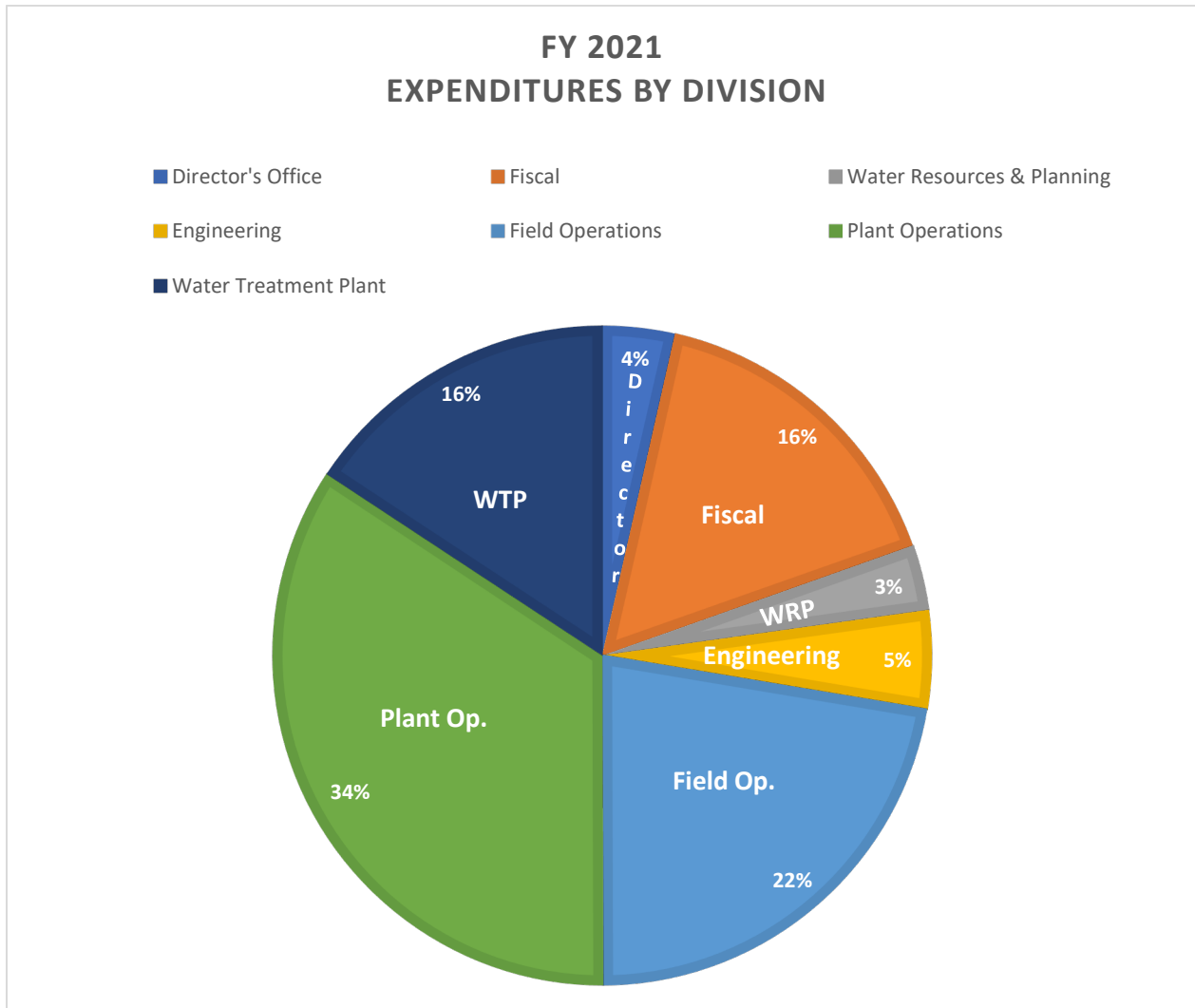
County of Maui
 DEPARTMENT OF
 WATER SUPPLY
 FY 2021 Organizational Chart
 Effective Date: September 30, 2020



- (1) P-27911 Water Treatment Plant Operator II BC-11, appears FY21 Council Approved Budget as a WTPO IV BC-13; incumbent should be reallocated up during FY21
- (2) P-27655 Water Treatment Plant Operator II BC-11, appears FY21 Council Approved Budget as a WTPO IV BC-13; incumbent should be reallocated up during FY21
- (3) P-27910 Water Treatment Plant Operator Trainee BC-05, appears FY21 Council Approved Budget as a WTPO II BC-11; incumbent should be reallocated up during FY21
- (4) P-27764 Water Treatment Plant Operator Trainee BC-05, appears FY21 Council Approved Budget as a WTPO II BC-11; incumbent should be reallocated up during FY21
- (5) P-29409 Water Treatment Plant Operator IV BC-13 reallocated to Water Treatment Plant Operator Trainee BC-05 NODA 06/08/2020, FY21 Council Approved Budget as a WTPO IV BC-13
- (6) P-27682 Water Treatment Plant Operator II BC-11 reallocated to Water Treatment Plant Operator IV NODA 08/07/2020, FY21 Council Approved Budget as a WTPO IV BC-13
- (7) P-27656 Water Treatment Plant Operator II BC-11, appears FY21 Council Approved Budget as a WTPO IV BC-13; incumbent should be reallocated up during FY21
- (8) P-29410 Water Treatment Plant Operator II BC-11, appears FY21 Council Approved Budget as a WTPO IV BC-13; incumbent should be reallocated up during FY21
- (9) P-27882 Water Treatment Plant Operator Trainee BC-05, appears FY21 Council Approved Budget as a WTPO II BC-11; incumbent should be reallocated up during FY21
- (10) P-27825 Water Treatment Plant Operator Trainee BC-05, appears FY21 Council Approved Budget as a WTPO II BC-11; incumbent should be reallocated up during FY21
- (11) P-29408 Water Treatment Plant Operator IV BC-13 reallocated to Water Treatment Plant Operator Trainee NODA 04/01/2020, FY21 Council Approved Budget as a WTPO IV BC-13

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

FY 2021 EXPENDITURES BY DIVISION



Division	FY 2020	FY 2021
Director's Office	\$1,187,146	\$1,404,800
Fiscal	\$3,945,317	\$6,341,949
Water Resources & Planning	\$955,831	\$1,266,658
Engineering	\$1,935,238	\$1,898,945
Field Operations	\$8,568,819	\$8,822,017
Plant Operations	\$14,820,071	\$13,565,139
Water Treatment Plant	\$5,777,118	\$6,209,644

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

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, Alaaloa, 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 2021, along with the respective phase of the project (planning, design, construction, completed construction) are listed below:

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

<u>Project Name</u>	<u>Phase</u>
Olinda Water Treatment Plant – Dam seismic and stability analysis, Olinda, Maui – Seismic and stability analysis of the 8-million-gallon basin. Study estimated to be completed end 2021.	Study
Kamole Water Treatment Plant – Clearwell Refurbishment, Haliimaile, Maui – Concrete repairs to the clear well. Construction funding appropriated FY2022	Design
Kamole Water Treatment Plant – Chemical Building Repainting, Haliimaile, Maui – Repainting of the chemical building. Construction funding appropriated FY2022.	Design
Kanaha Wells Motor Control Center (MCC) Upgrades, Wailuku, Maui – Installation of new motor control center and construction of new control building. Construction funding to be considered 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 to be considered FY2023.	Design
Kaupakalua Well Motor Control Center (MCC) Upgrades, Wailuku, Maui – Installation of new motor control center and construction of new control building. Construction funding appropriated FY2022.	Design
Launiupoko Well Development, Lahaina, Maui – Development of a potable groundwater source. Construction funding for exploratory well drilling to be considered FY2023.	Design
Mahinahina Water Treatment Plant Backwash Water Tank Replacement, Kapalua, Maui – In-house design for replacement of existing 100,000-gallon tank and demolition of existing tank. Construction funding to be considered FY2023.	Design
Olinda Water Treatment Plant – Clearwell Roof Refurbishment, Makawao, Maui – Refurbishment of the existing the clear well roof. Construction funding to be considered FY2023.	Design
Waiehu Heights Well #1 Replacement, Wailuku, Maui – Development of a potable groundwater source to replace the existing Well #1. Exploratory well drilling estimated to be completed mid-2022. Construction funding to be considered FY2024.	Design
Waipuka Wells Motor Control Center (MCC) Upgrades, Wailuku, 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 appropriated FY2022.	Design
Lahaina Water Treatment Plant 1 MG Clearwell Tank Refurbishment, Lahaina, Maui – Interior refurbishment of 1-million-gallon concrete clear well. Project to be completed by November 13, 2021.	Construction In Progress
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 to be completed by January 31, 2022.	Construction In Progress

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Mahinahina Water Treatment Plant Controls Upgrade, Kapalua, Maui – Replacement of the processing and automation controls. Project to be completed by September 30, 2021.	Construction In Progress
Mahinahina Water Treatment Plant UV Disinfection, Kapalua, Maui – Installation of ultra-violet disinfection system. Project to be completed by September 30, 2021.	Construction In Progress
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 January 27, 2022.	Construction In Progress
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 January 27, 2022.	Construction In Progress
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 June 30, 2022.	Construction In Progress
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 October 4, 2022.	Construction In Progress
Wailea Tank Roof Refurbishment, Wailea, Maui – Refurbishment of the existing concrete tank roof. Project to be completed by November 26, 2021.	Construction In Progress
Wailuku Heights Booster Pump Stations Upgrades, Wailuku, Maui – Replacement of the existing booster pumps at Kuikahi and Waiale sites.	Construction In Progress
Kula 200 Lower Water Tank Replacement, Kula, Maui – Replacement of the existing 60,000-gallon tank with a new 260,000-gallon tank.	Project In- Service
Nahiku Potable Water Tank Interior Recoating, Nahiku, Maui – Installation of interior coating for the existing 30,000-gallon concrete tank.	Project In- Service
Napili ‘A’ and Napili ‘C’ Water Tank Refurbishments, Napili, Maui – Interior and exterior refurbishment of the existing 100,000-gallon concrete tanks to extend service life.	Project In- Service
On-site Sodium Hypochlorite Generation System for Well Sites – Installation of disinfection systems for the Kanoa Well site to discontinue use of chlorine gas.	Project In- Service
On-site Sodium Hypochlorite Generation System for Well Sites – Installation of disinfection systems for the Waihee Well site to discontinue use of chlorine gas.	Project In- Service
Olinda Water Treatment Plant On-Site Individual Wastewater Treatment System, Makawao, Maui – Installation of new septic system and leach field.	Project In- Service

During Fiscal Year 2021, the Engineering Division reviewed approximately 1,314 residential and commercial plumbing permit applications. The division also received approximately 19 subdivision applications, 410 general inquiries and 29 Uniformed Information Practices Act (UIPA) inquires.

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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 36,708 accounts on Maui and Molokai with a staff of 81.

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, perform 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

<u>Maintenance District</u>	<u>Consumer Complaints</u>	<u>After-Hour Calls</u>
Central	1,306	457
Hana	85	28
Lahaina	317	67
Molokai	222	65
Upcountry	729	366

CENTRAL MAINTENANCE

The Central maintenance crew is responsible for the largest service area in the department and in FY2021 they responded to 1,306 consumer complaints during regular working hours and 457 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, main line valve replacement and exercise program, trench/road patching, patching sidewalks,

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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 DOT testing.

In FY2021 Central Maintenance crews replaced:

- 1185 of ¾" copper pipe
- 3100' of 1" copper pipe
- 2065' of 1 ¼" copper pipe
- 415' of 1 ½" copper pipe
- 195' of 2" copper pipe
- 200' of 2" copper pipe to replace polyethylene or galvanized mainline
- 40' of 4" ductile iron pipe
- 81' of 6" ductile iron pipe
- 98' of 8" ductile iron pipe
- 47' of 12" ductile iron pipe
- 8' of 30" ductile iron pipe

The Central crew responded to 162 shut and open meter requests, 18 customer complaints of dirty water, 38 consumer complaints of no water and 80 high and/or low-pressure complaints. The crew participated in 17 tie-ins, five bores, six taps and other contractor related projects, many of which involved after-hours and night work.

The crew also replaced or repaired 318 relief valves and/or gate valves/ball valves/stopcocks, replaced or repaired approximately 331 meters, repaired approximately 68 service laterals, replaced 268 service laterals, installed six service laterals, replaced 14 cast iron meter box covers, replaced five concrete meter box covers, and unlocked 17 cast iron meter box covers. They also replaced 42 hydrants/standpipes and completed 122 field activity requests, replaced 86 defective meters, replaced 88 defective transponders, relocated six meters and transponders, upgraded one meter, reconnected one new meter, installed two new service laterals, reinstalled one meter, reconnected one service lateral, turned on one service for Fiscal, unburied one meter put meter to grade level, raised one meter per Engineering, 43 job orders, and four agricultural inspections

The Laborers in the Central crew flushed the Upcountry water system daily for water quality purposes (a total of 2,713 hydrants flushed and 3,950,509 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

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updated for the Central district which covers all areas from Makena to Waihee to Sprecklesville, and all of the Kahului and Wailuku areas.

Upcountry Maintenance

The Upcountry crew responded to a total of 729 calls during regular working hours and responded to 366 calls after hours. The crew completed 34 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 45 field activities which included the installation of 20 new meters, seven new service laterals and 17 new meter boxes, replaced 13 defective meters, 11 defective transponders, relocated 13 meters and transponders, turned service back on per Fiscal, replaced one chlorine meter box and unlocked one meter per Fiscal. The crew conducted 40 agricultural inspections.

The crew repaired and replaced 274 service lines ranging from 1" to 1½". A total of 1,471 feet of service laterals were replaced with copper pipe. They also repaired and replaced 134 main lines ranging from 2" to 12". A total of 1032 feet of main line were replaced with ductile iron, polyethylene and copper pipe. The crew responded to 44 "no leak to be found" complaints, 82 private leak complaints, 69-meter leak complaints, 27 dirty water complaints, 36 hydrant/standpipe complaints, 56 high/low psi complaints, and 210 miscellaneous complaints.

Lahaina Maintenance

The Lahaina Maintenance crew responded to a total of 317 consumer complaints during regular business hours and 67 after-hours emergency call outs. They repaired 18 main line leaks, 49 service leaks, 41 meters and 32 hydrant/standpipes. The crew replaced 70 feet of main line pipe ranging from 2" to 12" and 887 feet of service laterals ranging from ¾" to 2". A total of four main line valves were replaced, along with 22 service laterals, 22 hydrant/standpipes, 12 gate valves/stopcocks, three air relief valves and 35-meter boxes/covers. The crew cut and plugged three old service laterals and one illegal connection to the DWS system, replaced/raised 19 sliding valve boxes and completed concrete work on sidewalks, meter pads and valve donuts. The crew resolved 29 no water/high-low pressure complaints, 31 shut/open water requests and five dirty water complaints. Crew members also assisted consumers in locating meters/valves, unlocking meter covers verifying possible leaks and distributing consumer notices.

There were 14 job orders and 317 field activities completed – replaced 196 defective meters, replaced 205 defective transponders, installed six new meters, tested six meters all functioned properly, replaced one chlorine meter box cover, one corporation tap for contractor, relocated one meter, verified five readings, unlocked one meter for

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Fiscal, checked one meter for tampering, removed one construction meter, remounted two transponders, installed one transponder wire clip, upgraded three meters, replaced a plastic meter box, unlocked one chlorine meter box for Fiscal, installed one construction meter, relocated one construction meter, moved one meter and transponder for contractor, flagged one meter for consumer, reinstalled one meter and removed one meter. A total of six corporation taps and two bores ranging from 1" to 4" 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. They relocated/raised seven meters, installed/removed two temporary construction meters, installed/replaced 202 meters ranging from 5/8" to 6", replaced ten transponders, recorded six-meter readings and locked/unlocked one meter due to non-payment.

Weekly system checks were performed on the Honokohau Valley System, which consists of over seven miles of 2" to 6" driscoll and galvanized mainline pipes. The crew also serviced 206 hydrants throughout the Lahaina District and made system adjustments in the Lahaina/Wahikuli and Kahana areas when necessary. They repaired road patches and periodically flushed water in the Puamana-Front Street and Honokowai-Napili areas.

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 and Valve Repair crews. 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. The crew delivered/received paperwork, fittings, materials and equipment from Central base yard. Water payments were collected at Lahaina base yard and dropped off to the Fiscal office.

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 vehicles maintenance. Monthly requirements included meter reading, delinquency notifications, locking meters, base yard storeroom maintenance, freight pickup and inspection of transmission lines, bacti samplings and meter reading at well sites.

The crew completed a total of 196 field activities, replaced 78 defective meters, replaced 81 defective transponders, profiled 31 meters, verified 48 meters, installed three new meters, installed one new service lateral, installed one new meter box activated one meter, unlocked one meter, tested 13 meters all functioned properly,

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replaced one endpoint, verified two meter and transponder numbers, reinstalled two meters, activated four meter and transponders, collected five payments, profiled one meter, locked one meter per owner, tested one meter found to be faulty, crew responded to 222 consumer complaints during regular business hours and responded to 65 after-hour emergency call outs. They completed one agricultural inspection and one job order. A total of 18 service lines were repaired ranging from 3/4" to 2" lines. The crew responded to 60 leaking meters which corresponded with either a consumer complaint or a generated service request from the department. A total of 280' of pipeline was replaced for a variety of pipe sizes ranging from 2" to 12".

The crew repaired and replaced four fire hydrants, installed eight new service lines, and repaired 16 mainline breaks. The crew was able to repair sidewalks due to service and mainline breaks and to repair concrete around hydrant barriers and manholes. The crew attended American Water Works Association (AWWA) classes, DSO classes and assisted DWS inspectors.

Hana Maintenance

The Hana district covers Keanae to Kaupo, which has extremely rough terrain. The crew responded to 85 consumer complaints during working hours and 28 consumer/SCADA complaints after hours. They completed 56 field activities -replaced three defective meters, eight defective transponders, verified 21 readings, tested 12 meters 11 functioned properly and one deficient, assisted one consumer in finding their meter, activated one transponder, profiled eight meters, turned off one meter per consumer request. Personnel logged all tank chlorine levels, pump operation hours and amount of water pumped from each well site. Visual checks were performed daily on the system from Koali to Keanae.

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 554 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.

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The crew completed thirty, 4" main line repairs. When the break was too big, an equipment operator from the Central base yard was requested to assist.

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 CPR classes, DSO 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 FY2021 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 FY2021 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: Olinda Water Treatment Plant, Wailea Mid-Level, Pukalani Tank, Dowling Well, Olinda Tank, Hawaiian Homes Tanks 3 and 4, Omaopio Tank, Kanaio Tank, Ulupalakua, Kihei, Kamaole Tank, Haleakala Acres, Kula Kai, Haiku wells, Laumania PI, and Kehalani Tank.

The Construction Section helped with the Sanitary Survey at the following tank sites: Naalae Road #348 and #403, Upper Omaopio Tank #377, Hawaiian Homes (Waiohului) Tanks 1,2 and 3; Upper and Lower Paia Tanks, Haiku Well Tank.

During FY2021, the section responded to 30 consumer complaints during regular business hours and two after hours, completed 457 field activities -replaced 433 defective meters, replaced 437 defective transponders, verified meter number and size for Engineering, replaced 7 plastic meter box/covers, removed one meter due to non-payment (NRP), reinstalled one meter, replaced 11 chlorine meter box covers, tested two meters and found them functional, installed two new meters, upgraded five meters,

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installed one new service lateral, verified one meter reading, replaced one curb stop, reset one meter box for Fiscal, removed one construction meter and relocated three meters.

Construction Crew Projects throughout the year included:

- Measured out new waterline installations, located and checked water main in-line valves at the following sites: Kamole, Iao, and the Mahinahina Water Treatment Facility.
- Installed 4" pressure regulator valve (PRV), gate valves and flushed lines. Installed concrete pressure regulator valve vault at Kawehi Place.
- Located 8" and 4" mainline and in-line valves for pressure regulator valve installment at Pilikono Place.
- Cleaned and painted hydrants and standpipes on Kaupakalua Road.
- Removed 4" stools on PRV bypass on Kolohala Drive.
- Exposed 12" sludge line and replaced 12" butterfly valve. Installed 12" gate valve for new drain line. Concrete donuts at Lahaina Water Treatment Plant.
- Exposed 12" drain line, installed one 12" x 4" tee, two 4" gate valves and 160' of 2" polyethylene pipe at the Mahinahina Water Treatment Facility.
- Repaired 3" PVC water line. Reinforced 2" and 4" pump lines with cement. Repaired 3" PVC sludge line. Cut and plugged 1½" non-potable water line and replaced concrete sidewalk. Checked air relief valves (ARVs). Located 8" and 24" main line and intake lines at Piiholo Water Treatment Plant.
- Replaced 16" mega lock gland and replaced 1" ARV to 2" ARV, repaired 16" raw waterline. Installed and cemented 4" ballads and safety posts around meter and fire line vaults. Installed new walk-through gate at Iao Water Treatment Plant.
- Installed 1" sample line off of the 16" mainline at Kamole Water Treatment Plant.
- Replaced service laterals at Kaiemi Street, Liholani Street, Alohi Place, Pio Drive and Akala Drive.
- Replaced hydrants/standpipes on Mano Street, Ka Drive, Kaupakalua Road, Omaopio Road, Kauhikoa Road, Uni Place, and Hale Pili Way.
- Installed 12" x 1" water sample line at the Olinda Water Treatment Plant.
- Repaired and replaced leaks on 4", 6" and 12" mainline in Honokohau Valley.
- Replaced 46' of 2½" service lateral, concrete pad for standpipe, and replaced 15' of 1" copper pipe repaved the road at Hale Pili Way.
- Repaired 8" mainline, replaced hydrant and repaved portion of Hana Highway.
- Walked line, cleared trees, installed chassis, buried exposed lines and serviced ARVs. Replaced 200' of 2" polyethylene pipe.
- Walked mainline and checked for leaks, serviced ARVs from Kapakalua Tank to Esau Tank.
- Located mainline valves. Replaced 2" galvanized water line with 300' of 2" polyethylene pipe on Kealaloa and Meha Roads.

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- Cut and plug 2" galvanized water line and re-located and tapped eight service laterals off of the 6" water main on Kuhuo'i Place.
- Cleaned out meter vaults in the Kihei area.
- Replaced 6" mainline. Installed two 2" polyethylene pipe water lines. Replaced standpipe. Cut and plug 6" and 4" mainline, installed sliding valve boxes, flushed line and tested valves, repaved Lepo Place.
- Repaired 6" cast iron mainline at Olinda Road.
- Replaced 4" mainline, cut and plugged 4" mainline, installed three type B single service laterals, relocated three 1" meters, replaced two 1½" regulators, cemented meter pads and repaved section of Omaopio Road.
- Assisted in removing water line at the Awalau Intake.
- Repaved portion of Haiku Road with cold mix.
- Repaired leaks on 2" polyethylene pipe.
- Cleaned condo parking lots and driveways due to water main break, assisted Lahaina maintenance crew with traffic control and repaired section of Lower Honoapiilani Highway.
- Serviced and checked ARVs at Olinda Water Treatment Plant, Omaopio Tank, Waiohuli Tank, Kula, Kamaole and Kanaio Tank.
- Exposed water lines and PRVs, cut and plugged water line and removed old galvanized lines at the old Tanaka Tank.
- Replaced 240' of 1" polyethylene pipe water line at Calasa Road.
- Cleaned driveways due to water main break along Kananui Road.
- Backfilled area on West Waiko Road.
- Replaced standpipe on Hog Back Road.
- Installed 12" tee, two 8" tees, four 8" gate valves, one 8" PRV, and one standpipe, all with concrete thrust blocks at the Holomakani Tank.
- Cut and removed 1" backflow and capped water lines at Hawaiian Homes Tank 411.
- Assisted Upcountry maintenance install Type A single service lateral on Kaupakalua Road.
- Replaced damaged hydrant on Makawao Avenue.
- Replaced double service lateral in Napili.

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 FY21, the meter shop replaced 776 defective transponders, replaced 742 older meters and rebuilt one meter. The meter shop upgraded 24 meters, tested 746 meters and found 610 functioning properly and 136 deficient. The crew installed 22 new meters, installed one construction meter and removed one. The meter shop is on a program to

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replace ageing 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, pre-inspection 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 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 438 hydrants in the Haiku and Pukalani area and has threaded over 70 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 were 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 four utility boxes, which consisted of replacing the floor and cross members. The welder also repaired body panels on generators and performed maintenance repairs for rust on backhoes and trailers.

The carpenters also worked on the Sanitary Survey in the Kula 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 the Olinda Water Treatment Plant building which consisted of replacing the back wall and installing a header over the roll up door. They renovated the 5th floor lunch room of the Kalana O Maui building by replacing flooring and cabinets and repairing moldings around windows. The carpenters worked on the hypochloride generation building in Waihee. They extended the building, poured the floor, installed the roll up door and rain gutters and painted. The carpenters extended the mechanic shop office and repaired termite damaged wooden shelving in the construction shed. The carpenters built two standby generator sheds, one at the Lahaina base yard, and one in Makawao which consisted of pouring slabs, placing generators on pads and building walls and roof to protect generators from the elements.

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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 cleaning out the sludge pond at the Olinda and Kamaole water treatment plants, hauled in eco blocking to create a barrier for the mud and repaired a storm damaged road at Ulapalakua.

Warehouse

The DWS Warehouse is responsible for the purchase, receipt, inspection, custodial 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 standard. Inventory is tracked through the Integrated Financial and Administration Solutions (IFAS) system. IFAS 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 Operation 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.

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PLANT OPERATIONS DIVISION

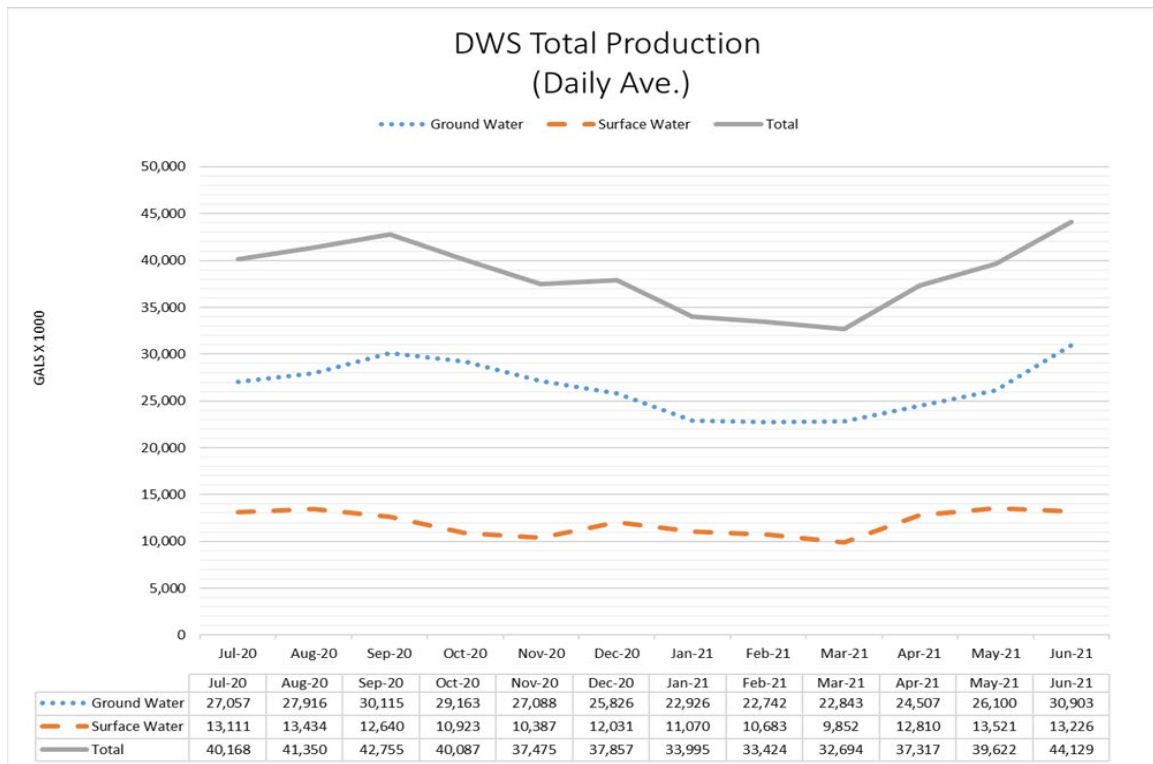
PLANT OPERATIONS DIVISION

FY 2021 Annual Report

The **Plant Operations Division** consists of 34 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 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 and Electronic sections provide support for six surface water treatment facilities.



Total production of ground and surface water for Fiscal Year 2021

Aside from normal daily operations and maintenance, notable in-house and CIP projects for FY2021 included:

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- Completed in-house control system design / installation and programming for logic control systems and SCADA (Supervisory control and data acquisition) integration/upgrades at Kehalani mid-level boosters, Maui Lani wells.
- 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) National Accreditation Board (ANAB).
- Installation of emergency generators at Makawao and Lahaina base yards.
- Electrical/Electronic integration/installation of hypochlorite generators and feeders at Waihee and Kanoa wells.
- Replacement/repairs of Wailuku Country Estates two booster, Pookela A well, Waihee #2 and Wailuku #2 well.
- Provide data and system operation detail for mandatory water audit report performed by the department’s Water Resource and Planning division which is required by the Hawaii State Water Commission.
- Assist with implementation of new fuel management system at the Naska Base yard.
- Upgrade of department SCADA (Supervisory control and data acquisition) Historian server.

Scheduled and Unscheduled Maintenance Events

	Electrical	Mechanical	Electronics
Central	81	81	271
Upcountry	35	41	177
Lahaina	0	21	35
Napili	10	20	45
Molokai	0	0	5
Hana	10	22	52
Water Treatment Facilities	26	<i>na</i>	104
Preventive Maintenance	39	99	190

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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 2021, the Backflow Cross-Connection Control Section, conducted 1,305 field surveys, performed 185 final inspections (newly installed backflow preventers), mailed 2,841 annual test due notices and handled 284 requests for information. Currently, there are 4,155 backflow preventer assemblies monitored in Maui County.

FY 2021 put forward enhanced standards from DWS requiring all new residential permits including swimming pools, CPR's water features or existing swimming pools to install a new backflow preventer assembly. Along with additional requirements, from DOH Sanitary Surveys, the backflow section continued to remain busy through the past fiscal year. 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

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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 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 2021

Microbiology

- 2721 Compliance samples collected and analyzed
- 600 Non-compliance samples collected and analyzed

Chemistry

- Triennial Lead and Copper testing was completed for two systems.
- Biannual Lead and Copper testing was completed for one system.
- Compliance samples analyzed in house: 7,722.
- Process control samples analyzed in house: 2,342.
- Analytes include fluoride, nitrates/nitrite, sulfate, chloride, phosphate, total organic carbon, pH, conductivity, total & free chlorine residuals.
- 701 compliance samples were collected and sent out for analysis.

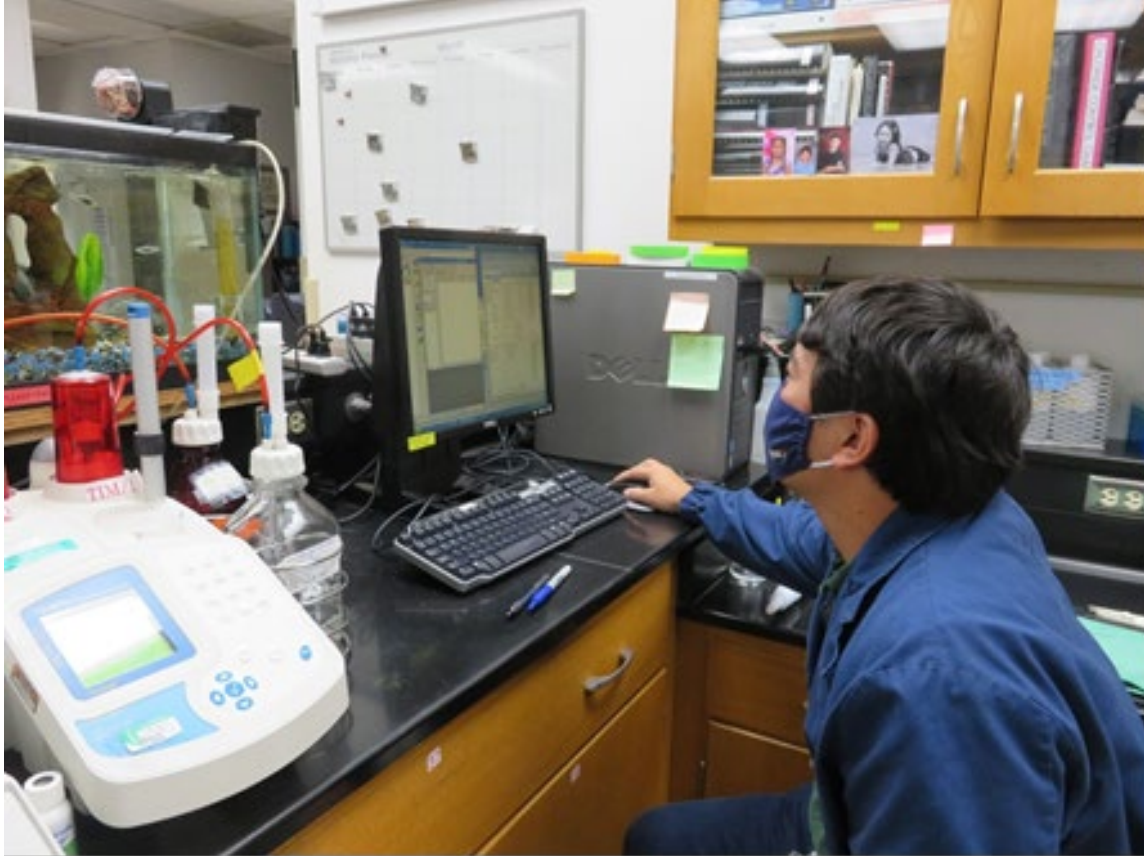
Interdepartmental Collaboration and Miscellaneous Activities

- The COVID-19 pandemic significantly altered how we function in the drinking water industry, with safety measures for both water system personnel and customers being taken by our staff. We continue to follow social distancing, PPE and sanitation procedures to ensure staff and customer safety.
- In spite of restrictions due to the COVID-19 pandemic, the lab was able to complete, using virtual technology, the annual audit required to maintain their Field Sampling and Management Organization (FSMO) national accreditation through ANAB.

Priorities for FY 22 include the following:

- Triennial lead and copper testing for 3 water systems.
- Continue tri-annual chemistry compliance sample collection at all entry points to the distribution system for the Department of Health 2020-2022 monitoring period.
- Complete on-site audits to maintain accreditation for FSMO, TNI and Hawaii State Department of Health agencies.

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Water Department microbiologist Chris Kawaguchi analyzing well chlorides on Radiometer Titramaster instrument at Water Quality Laboratory in Kahului.

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WATER TREATMENT PLANTS DIVISION

Water Treatment Plants Division

The Water Treatment Plants Division consists of 27 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 12 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 for FY21 in the WTP's Division

- Andrew-James Landgraf, Grade IV WTPO (East)
- Brandon Wong, Grade IV WTPO (West)
- Francis Martin, Grade II WTPO (East)
- Daniel Paman, Grade II WTPO (East)

East District

Olinda Water Treatment Facility

FY21 production – 408,580,000 gallons; 1.12-million-gallon daily average

A pilot study of a sediment/sludge drying geotextile bag system was successfully tested at the Olinda Water Treatment Facility for containment and removal of settled material from the plant's 8.5-million-gallon raw water sedimentation basin. Large scale versions of these "bags" designed to hold sediment and release water have been purchased and will be used in the next clean-out of the basin. Sludge handling and disposal has long been a challenge at this facility. Once the condensed sediment is separated from the water, it will be stored at a designated location on site.

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A drought-driven shutdown of the treatment plant was initiated in September 2020 due to low raw water reservoir levels at Waikamoi and Kahakapao reservoirs. 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 health of the system and is an industry standard. Drought conditions subsided and the plant was re-started with a conversion back to Chloramine disinfection in December of 2020.



Board of Water Supply members Dean Frampton, Norm Franco and Nalani Kaninaw with DWS Kelly Wright at Waikamoi Flume

Piiholo Water Treatment Facility

FY21 production – 1,044,788,000 gallons; 2.86-million-gallon daily average

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

During FY21 a major leak found at the facility under the flocculator deck was located and repaired by Field Operation crews. 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.

The Piiholo Water Treatment Facility assisted the Maui Fire Department (MFD) by allowing the utilization of its facilities during the MFD's annual confined spaces training. In addition, the University of Hawaii Maui Campus (UHMC) Sustainable Science

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Management Program's Water Resource Management class toured Piiholo Water Treatment Facility in September 2020.



Piiholo Control Room with WTPO Grade IV operators Dale Kawahara (seated) and Phillip Noetzel



Piiholo Intake

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Kamole Water Treatment Facility

FY21 production – 865,868,000 gallons; 2.37-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 this fiscal year, plant staff replaced all membranes in four of the eight machines for a total of 360 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.

In FY2021 all eight original, individual filter, turbidity meters were replaced with upgraded equipment. The “streaming current monitor” was also replaced. This instrument measures the electrical charge in the raw water and is used to determine optimal coagulant dose to the front of the treatment process. Program changes were made to the control system to allow individual filter shutdowns and after hour notification to stand-by personnel if turbidity limits are approached, but well before they are exceeded.



Water Treatment Plant Maintenance Mechanic | Federico Quitevis replacing the seal on a flange.

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lao Water Treatment Facility

FY21 production – 940,380,000 gallons; 2.58-million-gallon daily average

The Wailuku Water Company shut down the lao ditch twice during the fiscal year for maintenance. During the shutdowns and stoppage of ditch flows, treatment plant staff entered the ditch and manually removed any mud, debris, sticks and leaves that may have built up near the plant's raw water intake.

Fluctuation in flows entering the facility from the ditch were found to have partially lifted the intake piping manifold from its original setting. Treatment plant staff mechanic and operators ordered and installed a robust support and clamping apparatus which secured the piping and corrected the problem.

Multiple tours were given this year at the DWS newest water treatment plant. DWS personnel from the 5th floor of the Kalana O Maui building, as well as the Water Resource Management class from the University of Hawaii Maui Campus (UHMC) visited in FY21. Council member Shane Sinenci, staff and members of the Board of Water Supply also toured the plant.

The global commissioning engineer from membrane manufacturer EVOQUA arrived in April of 2021 on a three-year service visit. The other three membrane plants also utilized his services to rectify any problems or abnormalities. Changes to the SCADA operating system can also be made during these visits. Staff here had a difficult time removing and replacing the membranes during maintenance.

West District

Mahinahina Water Treatment Facility

FY21 production – 452,740,000 gallons; 1.24-million-gallon daily average

Due to extreme drought conditions, causing low flows in the Honoloa Ditch, the Mahinahina Water Treatment Facility was shut down from October 21st to November 4th 2020.

The Mahinahina Water Treatment Facility was shut down again on May 31st 2021 in order to facilitate 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 is the mandated installation of an Ultra-Violet disinfection system. Both projects are expected to be completed by the first quarter of FY2022.

A replacement entry gate system and electronic keypad were installed at the Mahinahina Water Treatment Facility to enhance security. Other upgrades included the replacement of the fire alarm system and annunciator panel.

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Lahaina Water Treatment Facility

FY21 production – 657,858,000 gallons; 1.80-million-gallon daily average

A replacement HVAC system was installed at this facility in November 2020 replacing the original A/C unit. With many electronic components at the plant, keeping them cool is critically important to provide uninterrupted service.

All five individual filter turbidity meters at Lahaina were replaced in January of 2021. These instruments ensure accurate measurement of filtered water clarity and provide required data to the regulatory agency, DOH, as well as operation staff.

A third major project was started in the West District in FY21 at the Lahaina Water Treatment Facility. This one is for cleaning, stripping and replacement 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 during the expected two months shut down period.



Lahaina Water Treatment Facility

Total FY21 Production East District – 3,259,616,000 gallons
Total FY21 Production West District – 1,110,598,000 gallons
Total FY21 Production WTP Division – 4,370,214,000 gallons

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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 FY2021, the DWS strived to support projects that protect the county's watersheds and freshwater resources. The department provided financial support for ten 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 \$2,498,800 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 Hawai'i Office of Research Services (U.H. ORS)
- West Maui Mountains Watershed Partnership-U.H. ORS
- East Molokai Watershed Partnership- The Nature Conservancy

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- 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.

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.

Discretionary Permit and Water Meter Reservation Processing

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 40 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 initiates and implements measures designed to help reduce the overall 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 and rain barrels. The division continues to encourage sustainable water efficient landscaping with native plants and provide community outreach through school presentations, public events and multiple media as described below.

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Water Audit

The water audit investigates water system flows from production to customer consumption and billing throughout all the department's water distribution systems. Results from the fiscal year 2020 water audit (completed in fiscal year 2021) informs managers about data and system improvement needs to reduce non-revenue water losses or to help identify areas of concern on the supply side. For example, various types of leaks or losses can be stemmed throughout the distribution system. Problems caused by reporting errors and data handling may also be investigated as areas to consider to improve efficiency and reduce 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)	57
Bathroom Faucet Aerators (1.0 gpm)	62
Kitchen Faucet Aerators (1.5 gpm)	40
Hose Nozzles (max flow – 2.4 gpm)	124
Toilet Tank Bags (displace .08 gpf)	19
Hose Timers	9
Moisture Meters	7
Total	318

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

Rain Barrel Program

The division distributed 119 50-gallon Ivy Rain Barrels to eligible DWS customers. The Rain Barrel Catchment Program is estimated to result in annual water savings of up to 1.73 million gallons. The barrels are made in the US by Rain Water Solutions using 100% recycled materials.

Toilet Replacement Program

This fiscal year eight vouchers for replacing old inefficient toilets were issued. Estimated annual water savings from this program is at least 17.5 million gallons, and about \$39,000 annually in production and operation costs.

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Public Outreach

Division staff promote the value of water, conservation and source protection through targeted outreach at community events and various media outlets. Due to COVID-19, direct outreach at community events were curtailed this fiscal year and the division pivoted to extensive public education through other media:

- Sixty (60) PSAs on Akaku Community Television, featuring 2020 conservation poster contest material
- Annual Source Protection Video Contest
- Radio advertisement airing on six (6) local radio stations
- Weekly printed ads in Maui News 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

Don't Waste a Drop Campaign

A new summer campaign “Don't Waste a Drop” kicked off in June to educate the public about water conservation and raise awareness about the drought conditions in the County. The campaign slogan and logo aired on 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 2021.



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Source Protection

The annual Source Water Protection Video Contest for high school students was extended to middle school this year, resulting in 24 entries. Video productions showcased the importance of protecting our ground and surface water sources and sharing the students' unique water stories. This interactive initiative is meant to provide our youth with an opportunity to learn about source water protection and use their creative talents to produce a short video that addresses drinking water protection. The theme this year was "A Clean Water Story: What Goes Around, Comes Around". Winning videos are featured on the DWS website.

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

- Staff assisted plant and field operations with Sanitary Survey Reports for Upcountry systems.
- Annual updates to Emergency Action Plans for department reservoirs were completed and distributed in December 2020.
- Tracking new requests for water use permits in Groundwater Management Areas to ensure pumping compliance on a twelve-month moving average basis.
- Responded to nine requests for information from County Council on various matters.

Water Use & Development Plan

The draft Maui Island Water Use and Development Plan (WUDP) submitted to Maui County Council in Fiscal Year 2019 was reviewed by the Water, Infrastructure and Transportation Committee, Environmental, Agricultural and Cultural Preservation Committee at six meetings and subsequently the Agriculture and Public Trust Committee

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at four meetings during FY2021. Targets for FY22 are approval by County Council and by the Commission on Water Resource Management.

An update to the Molokai Water Use and Development Plan commenced with a contract awarded to Townscape, Inc. The Commission on Water Resource Management approved the project description and the public process is well underway with multiple community engagement opportunities conducted. Targets for FY22 include water demand projections; summary of regional water use and development systems and strategies, costs and benefits; Ka Pa’akai Analysis for future water resources and facility options.

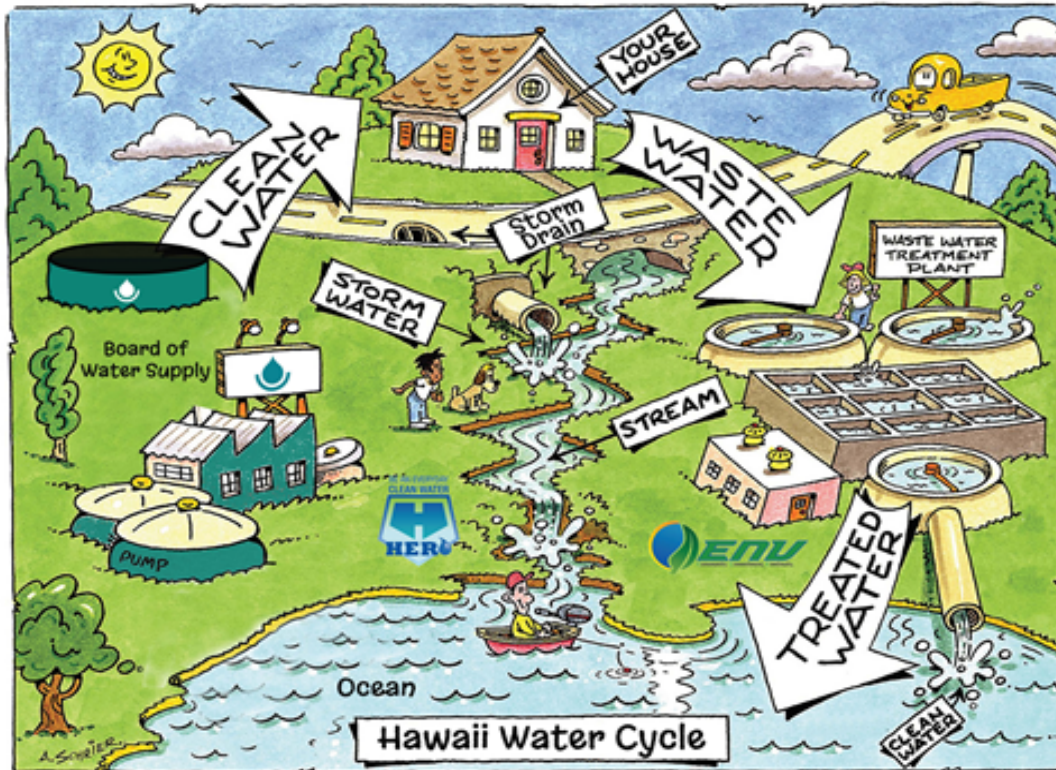
MAJOR ACCOMPLISHMENTS

- The division contracted Brown & Caldwell to conduct a source feasibility study. The objective of the study is to develop sufficient, reliable and cost-efficient new water source and adequate infrastructure to serve planned growth on the Central Maui and Upcountry water systems. This study will address some requirements as spelled out in the East Maui Consent Decree.
- Two contracts were executed to inform the County’s potential acquisition of the Wailuku Water Company conveyance system. Consultants were selected to conduct a business evaluation and an assessment of the ditch system and infrastructure. The Mayor’s office is tasked with managing these tasks.
- In compliance with America’s Water Infrastructure Act mandates, the division submitted timely certifications of completed Risk and Resilience Assessments and an updated Emergency Response Plan to the U.S. Environmental Protection Agency. Certifications encompassed all DWS water systems and the work was contracted to Stantec, Inc.
- The department joined the Honolulu Board of Water Supply and other agencies in the national campaign “**Imagine a Day Without Water.**” The division coordinated a community sign waving event in conjunction with local elementary schools on October 21, 2020 PSAs aired on Akaku Community Television, on social media and the department website.



Imagine A Day Without Water

October 21, 2020



www.neerod.org • Original art by Northeast Ohio Regional Sewer District / Modified for use by Honolulu Board of Water Supply • www.boardofwatersupply.com

Join us October 21 on Facebook as we educate the community about the value of water and the need to invest in our water infrastructure.

Facebook participants: Board of Water Supply* (@BWSHonolulu), Resilient O'ahu (@ResilientOahu), Department of Environment Services* (@CCH.ENV), Department of Facility Maintenance (@CleanWaterHNL), Commission on Water Resource Management/Division of Forestry and Wildlife (@HawaiiDLNR), and the University of Hawai'i College of Tropical Agriculture and Human Resources (@UHCTAHR)

*You can submit questions for these agencies by emailing contactus@hbws.org by September 30 and look for a response on their Facebook Page during the event.



Other event partners: State of Hawaii Department of Health Safe Drinking Water Branch, Kaua'i Department of Water, Maui County Department of Water Supply, Hawaii Commission on Water Resource Management (CWRM).

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Photos of October 21, 2020 sign waving event "Imagine a Day Without Water"

FISCAL YEAR 2022 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. Maui Island Water Use and Development Plan: County Council Adoption by ordinance and approval by the Commission on Water Resource Management.
3. Contract and construction of the Launiupoko Beach Park Greywater Reuse system. 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.

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FISCAL DIVISION

The Fiscal Division is committed to maintaining fiscal responsibility while focusing on our customer service for both external and internal customers. The Fiscal Division operates with internal goals concurrent with water utility industry practices for strengthening our financial future. These goals include meeting or exceeding debt coverage requirements and maintaining responsible cash levels.

The Fiscal Division is faced with financial challenges to fund daily operations, capital projects designed to address increased state and federal utility requirements, and maintenance and replacement of aging infrastructure systems. The Fiscal Division also assists other division heads in the establishment and daily management of annual budgets.

During the 4th quarter of FY20 the Division implemented a four-year program for small meter replacement. The new meters, in conjunction with cellular transponders, will assist customers in controlling consumption as they will be able to view their daily consumption via the internet. The Department will also be able to read meters using local cellular system infrastructure and in the future will need to reassess the meter reader's job description as meter reading responsibilities will be reduced.

Accounting

As evidenced by continued clean opinions on annual independent audits, Accounting continues to adhere to strict guidelines imposed by Generally Accepted Accounting Principles as well as the Government Accounting Standards Board. The Accounting section is anchored by technically proficient staff that support our commitment to maintaining fiscal responsibility and goals consistent with industry practices. Accounting produces an array of high-quality work from its processing of payables and payroll to periodic financials and other internal reports. This provides management with support and tools necessary to maintain a financially strong enterprise.

In direct support of the Water Administration Program's goal to provide reliable, quality service at a reasonable cost, the Department has maintained more than a three-month operating cash reserve throughout FY21. The Accounting Section continues to oversee the department payroll functions and also trained all DWS employees on the new Workday payroll system. The payroll project successfully ensured that all payroll is accounted for electronically and the system conversion was accomplished with very few issues.

Purchasing

In accordance with State of Hawaii procurement laws and with technical oversight provided by the Department of Finance's Purchasing Division, the Purchasing section provides procurement services for the Department.

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Customer Service

The Customer Service section is responsible for payment processing and addressing customer concerns for more than 37,032 accounts. This section is the primary contact for customers opening and closing accounts, seeking answers to billing issues, requesting field visits about equipment, payment processing, and addressing payment issues. Despite technological, staffing, and COVID-19 challenges in FY21 we strove to improve timeliness of call response, quality of response, and ease of doing business as these are critical factors to achieving a good customer experience and a high level of customer satisfaction.

Meter Reading and Collections

The Meter Reading section is responsible for meter reading as well as field collection. Each day, meter readers travel to various commercial and residential locations throughout the island to gather accurate data about the amount of water used. Due to COVID-19, and mandates from the mayor, all field collections ceased for fiscal year 2021. In FY21, this section continued to gather timely and accurate meter readings despite staffing challenges.

Fiscal Year 2022 Goals and Expectations

The Fiscal Division will continue the process of 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.

The Fiscal Division will experience a series of staff retirements in FY2022 and the ensuing five years. We need to create, evaluate, and implement appropriate succession plans as key experienced personnel will be leaving the work force.

The Division finished the rate study which will give projections of future rates that will enable the Department to fund operations and capital improvement programs for the next five years.

Fiscal will continue to support the Water Administration Program's goal to recruit and retain needed staff by encouraging relevant training opportunities. We will also continue efforts to promote effective communication throughout the division.

The Division will continue with the Meter Replacement program which will take about four years to complete. The second quarter of the year will see the installation of approximately 6,400 new meters in the areas of Kahului and Lahaina, though this effort has been slowed by COVID related supply chain issues.

We will also be working with the County of Maui, Department of Finance in the upgrade of our accounting system. This is expected to be implemented by January 2022.

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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

DWS Safety Specialist II, reports DWS in FY21 was able to complete the Forklift Certifications and Crane Written Exams. Since then most efforts have been 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. FY21 saw the launch of VectorSolutions, a new learning management system for accredited safety training and Continuing Education Units (CEUs).

DWS Personnel staff also maintained Human Resources for the department, including onboarding, promotions, 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. In FY2021, the department continued to drive forward its vision through Phase 2 of the Strategic Plan.

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 FY2021.

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

Lori Gilmore
Lloyd Corpuz
Irvin Sarsona
Kawika Chang
James Landgraf

15 Years

Linda Kimura
Jerold Sanchez
Kamuela Len-Wai
Dale Kawahara
Byron Purdy
Kenneth Ogawa
Lilia Hudson
Kevin Arakaki
Gail Martinellie

20 Years

Eugene Nakamura
Rodney Kama
Neilson Waikiki

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25 Years

Dean Tanimoto
Lori Perreira
Daniel Dancil
Victoria Burrows-Ignacio
Kenneth Bissen
Leonore Amano

30 Years

Brian Okada
Rochelle Amadeo

35 Years

Warren Sardinha
Robert Vida

Perfect Attendance for Calendar Year 2020

Leonore Amano
Ray Hirata
Wendy Taomoto

Cullen Falces
Michele Sakuma
Kelly Wright

Juleen Flory
Warren Sardinha
Jason Zolotow

Congratulations on Retirement in FY21 for these DWS employees:

Rochelle Amadeo
Pierson Kapuni
Colin Yoshida

Michael Goslin
Brian Okada

Bruce Highland
Roland Torres

DWS New Hires for FY21 by division

Fiscal/Customer Service: Jamie Galam, Esther Manibog, Mark Jaylord Fagaragan, Isaiah Yamaguchi, Nicholas Nakata
Plant Operations: Brian Tyau
Field Operations: Linette Suehiro
Administration: Adam Mundy, Sherilyn Ostubo

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BOARD OF WATER SUPPLY

Board of Water Supply - Annual Report July 2020 to June 2021 (FY 2021)

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 met twenty-four times and one meeting was canceled during this fiscal year. Two new appeals were filed with the board secretary, two appeals were withdrawn and three were settled. Currently, three appeals are still active and will be scheduled at a later date for a hearing before the board.

Between May 2020 and January 2021, the board received information and presentations, and had numerous discussions over concerns raised by its board members and the public on various issues regarding the purchase of Wailuku Water Company.

At its February 18, 2021 meeting, the board unanimously approved an Executive Summary which includes key findings and concerns, followed by its recommendation to authorize the purchase of Wailuku Water Company under conditions, to the Mayor and the Maui County Council.

The board also continues to have discussions on water rates and rate structure.

At the January 21, 2021 meeting, the board welcomed new member Johanna Amarin and new Deputy Corporation Counsel, Keola Whittaker.

On March 31, 2021, members Shay Chan Hodges and Zoltan Milaskey fulfilled their terms on the board. We presented them with resolutions and thanked them for their time, energy and dedication to the board and the County of Maui.

On April 15, 2021, the board elected Dean Frampton as the Chair and Nalani Kaninau as the Vice Chair for the 2021-2022 term.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

**BOARD OF WATER SUPPLY
COUNTY OF MAUI**

MEMBER LIST as of June 30, 2021

MEMBERS

TERM EXPIRATION

Dean Frampton, Chair (Pukalani)	03/31/2023
J. Nalani Kaninau, Vice Chair (Kihei)	03/31/2022
Norman Franco (Kahului)	03/31/2022
Joseph Aquino (Lahaina)	03/31/2023
Buddy James Nobriga (Wailuku)	03/31/2024
Antonette Eaton (Wailuku)	03/31/2024
Johanna Amorin (Kihei)	03/31/2024
Vacant	
Vacant	

EX-OFFICIO MEMBERS

Michele McLean, Director of Planning
Rowena Dagdag-Andaya, Director of Public Works

Keola Whittaker, Deputy Corporation Counsel

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

GOALS AND OBJECTIVES FOR FISCAL YEAR 2021

Program Goal	Success Measure	FY 2021 Estimate	FY 2021 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	18
	# of staff training/educational opportunities provided	350	1,544
	% of annual evaluations completed on time	85%	76%
Goal #3: Improve public relations and customer service.	# of Upcountry List requests processed	80	60
	Average days for single family residential permit review	28	34
Goal #4: Support a sustainable water supply.	# of actionable watershed management plans in place	10	9

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

GOALS AND OBJECTIVES FOR FISCAL YEAR 2021 CON'T

Program Goal	Success Measure	FY 2021 Estimate	FY 2021 Actual
Goal #1: Economically produce the highest quality potable water that meets or exceeds all state and federal water quality standards in sufficient quantity to meet the needs of the customers.	# of system outages or water restrictions due to facility shutdown or deficient water quality	0	2
	# of water quality violations received	0	0
	# of samples analyzed to meet regulatory requirements	17,000	14,086
Goal #2: Operate and maintain the collection, transmission, and processing infrastructure in an efficient manner to ensure that our customers receive the maximum useful life from their facility investment.	Cost of repair and maintenance	\$500,000	\$339,896
	# of well pumps replaced	4	1
	# of booster pumps replaced	2	1
Goal #3: Water loss prevention to ensure service lines are efficient and reliable in ensuring minimal interrupted service.	# of feet of mainline inspected for leaks	25,000 LF	62,000 LF
	# of feet of mainlines repaired	150	193
	# of feet of mainline replaced	2,500	2,972

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

FISCAL YEAR 2021 Water Service Charges *Effective July 01, 2021*

Schedule A

Single Family Dwellings, Single-Family and Accessory Dwellings with 5/8"

<u>Meters</u>		<u>Monthly</u>
0 - 5,000 Gallons	\$	2.05
5,001 - 15,000 Gallons		3.90
15,001 - 35,000 Gallons		5.85
Over 35,000 Gallons		6.55

All Other General Water Consumers

0 - 5,000 Gallons	\$	2.05
5,001 - 15,000 Gallons		3.90
Over 15,000 Gallons		5.85

Agricultural Rates

0 - 5,000 Gallons	\$	2.05
5,001 - 15,000 Gallons		3.90
Over 15,000 Gallons		1.10

Non-Potable Agriculture Rates

All Usage	\$	1.00
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Schedule B

<u>Size of Meter</u>		<u>Per Meter/ Per Month</u>
5/8 inch	\$	19.80
3/4 inch		32.00
1 inch		47.50
1 1/2 inch		91.00
2 inch		141.00
3 inch		249.00
4 inch		432.00
6 inch		793.00
8 inch		1,251.00

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

FISCAL YEAR 2021
System Expansion Rates
Effective July 01, 2020

Water System Development Fee Schedule

<u>Size of Meter</u>		<u>Meter Fee*</u>
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

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

NUMBER OF SERVICES BY METER SIZE FISCAL YEAR ENDED JUNE 30, 2021

DISTRICT	5/8"	3/4"	1"	1-1/2"	2"	3"	4"	6"	8"	TOTAL
REGULAR SERVICE METERS										
Wailuku	17,614	2,000	543	417	409	51	37	6	1	21,078
Makawao	9,011	503	165	70	39	6	1	2	0	9,797
Lahaina	2,673	395	109	127	119	25	14	2	0	3,464
Molokai	1,537	91	29	14	15	2	0	1	0	1,689
Hana	462	43	10	6	4	1	0	0	0	526
Subtotal	31,297	3,032	856	634	586	85	52	11	1	36,554
AGRICULTURAL SERVICE METERS										
Wailuku	17	15	4	3	1	2	1	0	0	43
Makawao	294	50	69	84	29	1	0	0	0	527
Lahaina	4	3	5	0	1	0	1	0	0	14
Molokai	8	2	3	0	0	0	0	0	0	13
Hana	26	0	1	0	0	0	0	0	0	27
Subtotal	349	70	82	87	31	3	2	0	0	624
TOTAL	31,646	3,102	938	721	617	88	54	11	1	37,178
COMBINED TOTAL										
Wailuku	17,631	2,015	547	420	410	53	38	6	1	21,121
Makawao	9,305	553	234	154	68	7	1	2	0	10,324
Lahaina	2,677	398	114	127	120	25	15	2	0	3,478
Molokai	1,545	93	32	14	15	2	0	1	0	1,702
Hana	488	43	11	6	4	1	0	0	0	553
TOTAL	31,646	3,102	938	721	617	88	54	11	1	37,178

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

OUTSIDE WATER DELIVERIES YTD FY2021

PURCHASE FROM	1,000 Gallons	\$ YTD Amt	Cost Per 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 <small>(Billed Bi-Monthly)</small>	7,579	\$ 84,850	11.195
TOTAL	3,892,586	\$ 883,867	0.227

DISTRICT	1,000 Gallons	\$ Amount	Cost Per 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

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Dept. of Water Supply, County of Maui
Consumption By District
General & Agricultural in Thousands of Gallons

General	Total	Wailuku	Makawao	Kula	Lahaina	Molokai	Hana
July	976,482.0	627,306.0	97,967.0	58,471.0	160,415.0	27,122.0	5,201.0
August	938,772.0	640,361.0	95,245.0	59,965.0	116,984.0	20,524.0	5,693.0
September	986,978.0	658,892.0	95,649.0	59,008.0	140,872.0	26,932.0	5,625.0
October	922,265.0	612,717.0	85,396.0	48,434.0	151,080.0	19,873.0	4,765.0
November	949,736.0	645,307.0	93,384.0	46,371.0	144,102.0	16,349.0	4,223.0
December	816,778.0	548,025.0	66,695.0	47,566.0	127,064.0	22,620.0	4,808.0
Subtotal	5,591,011.0	3,732,608.0	534,336.0	319,815.0	840,517.0	133,420.0	30,315.0
January	945,627.0	635,630.0	83,317.0	48,441.0	156,205.0	18,432.0	3,602.0
February	738,889.0	505,140.0	63,171.0	44,340.0	119,407.0	2,641.0	4,190.0
March	754,064.0	488,891.0	63,909.0	36,783.0	123,901.0	35,360.0	5,220.0
April	913,013.0	610,179.0	73,270.0	51,434.0	150,403.0	21,381.0	6,346.0
May	891,090.0	613,577.0	76,397.0	50,022.0	145,163.0	267.0	5,664.0
June	1,038,349.0	686,810.0	85,077.0	63,587.0	151,666.0	44,240.0	6,969.0
Subtotal	5,281,032.0	3,540,227.0	445,141.0	294,607.0	846,745.0	122,321.0	31,991.0
Total General	10,872,043.00	7,272,835.0	979,477.0	614,422.0	1,687,262.0	255,741.0	62,306.0
AGRICULTURAL							
July	105,072.0	18,879.0	6,506.0	74,452.0	2,417.0	2,136.0	682.0
August	97,999.0	16,932.0	5,609.0	71,058.0	2,595.0	1,417.0	388.0
September	103,632.0	18,758.0	6,290.0	74,071.0	2,452.0	1,331.0	730.0
October	88,766.0	16,101.0	5,251.0	62,961.0	2,666.0	984.0	803.0
November	86,053.0	16,353.0	6,637.0	59,390.0	2,402.0	572.0	699.0
December	83,366.0	16,009.0	3,601.0	60,609.0	1,502.0	754.0	891.0
Subtotal	564,888.0	103,032.0	33,894.0	402,541.0	14,034.0	7,194.0	4,193.0
January	81,503.0	18,468.0	4,333.0	54,965.0	2,417.0	450.0	870.0
February	61,315.0	9,684.0	3,181.0	46,299.0	1,270.0	8.0	873.0
March	57,910.0	12,177.0	3,395.0	39,028.0	1,195.0	1,048.0	1,067.0
April	81,191.0	9,275.0	4,165.0	65,076.0	1,125.0	848.0	702.0
May	86,110.0	14,033.0	4,488.0	65,375.0	1,642.0	-	572.0
June	165,751.0	7,789.0	5,522.0	147,053.0	2,051.0	2,831.0	505.0
Subtotal	533,780.0	71,426.0	25,084.0	417,796.0	9,700.0	5,185.0	4,589.0
Total Agricultural	1,098,668.0	174,458.0	58,978.0	820,337.0	23,734.0	12,379.0	8,782.0
Grand Total	11,970,711.0	7,447,293.0	1,038,455.0	1,434,759.0	1,710,996.0	268,120.0	71,088.0

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

COMPARISON OF WATER CONSUMPTION AND SALES BY DISTRICT TWELVE MONTHS ENDED JUNE 30, 2021 OVER 2020

BY DISTRICT	Services			Consumption (1,000 Gallons)			Revenues		
	2020	2021	Increase (Decrease)	2020	2021	Increase (Decrease)	2020	2021	Increase (Decrease)
Wailuku District									
Wailuku	6,635	6,618	(17)	1,405,529	1,470,160	64,631	8,365,746	8,683,151	317,405
Waihee	202	199	(3)	21,605	23,626	2,021	132,242	145,328	13,086
Waikapu	973	970	(3)	128,374	137,805	9,431	701,813	743,276	41,463
Wailuku Heights	498	497	(1)	67,167	71,878	4,711	373,753	380,318	6,565
Kahului	5,342	5,342	0	1,501,186	1,492,470	(8,716)	8,681,190	8,607,853	(73,337)
Puunene	12	12	0	4,923	3,365	(1,558)	31,074	22,364	(8,710)
Kihei	6,048	6,038	(10)	3,965,657	3,705,842	(259,815)	22,070,835	21,000,018	(1,070,818)
Maalaea	45	45	0	95,308	75,041	(20,267)	578,000	460,961	(117,039)
Makena	203	205	2	242,687	246,954	4,267	1,447,060	1,458,741	11,682
Paia-Kuau	914	905	(9)	145,897	140,767	(5,130)	836,637	804,656	(31,981)
Spreckelsville	206	202	(4)	74,069	79,385	5,316	423,068	448,538	25,471
Subtotal	21,078	21,033	(45)	7,652,402	7,447,293	(205,109)	43,641,416	42,755,203	(886,213)
Makawao District									
Kokomo-Kaupakalua	1,161	1,162	1	170,476	184,876	14,400	943,097	1,017,651	74,554
Kuiaha	306	306	0	48,412	53,881	5,469	248,975	277,211	28,236
Haiku-Pauwela	858	862	4	121,245	132,467	11,222	664,008	720,686	56,677
Makawao	2,020	2,028	8	281,899	301,919	20,020	1,565,377	1,666,470	101,094
Pukalani	2,143	2,141	(2)	321,735	333,050	11,315	1,786,271	1,840,122	53,852
Haliimaile	200	200	0	33,704	32,262	(1,442)	183,963	173,972	(9,991)
Upper Kula	2,352	2,349	(3)	441,641	482,136	40,496	2,151,790	2,316,817	165,027
Lower Kula	1,127	1,125	(2)	656,742	754,109	97,367	2,113,040	2,249,545	136,505
Ulupalakua-Kanaio	81	81	0	60,057	52,693	(7,364)	145,266	142,788	(2,478)
Kula Ag Park	39	38	(1)	131,155	145,821	14,666	172,722	188,872	16,150
Subtotal	10,287	10,292	5	2,267,066	2,473,214	206,149	9,974,508	10,594,134	619,626
Lahaina District									
Lahaina	2,186	2,184	(2)	848,277	802,141	(46,136)	4,917,264	4,644,944	(272,320)
Honokowai	452	448	(4)	489,974	429,683	(60,291)	2,913,407	2,567,811	(345,596)
Alaelo	805	807	2	520,146	477,963	(42,183)	3,051,292	2,809,458	(241,834)
Honokohau	13	13	0	1,116	1,209	93	7,231	7,690	458
Subtotal	3,456	3,452	(4)	1,859,514	1,710,996	(148,518)	10,889,194	10,029,903	(859,291)
Molokai District									
Kawela-Kaunakakai	1,179	1,183	4	195,310	195,606	296	1,155,652	1,151,970	(3,682)
Ualapue/Kamalo	396	399	3	60,814	64,413	3,599	355,720	362,015	6,295
Kalae	114	114	0	8,596	8,101	(495)	55,009	52,057	(2,952)
Halawa	6	6	0	0	0	0	0	0	0
Subtotal	1,695	1,702	7	264,721	268,120	3,399	1,566,381	1,566,042	(339)
Hana District									
Hana	408	408	0	57,550	58,981	1,431	348,429	347,496	(933)
Nahiku	38	38	0	3,834	3,063	(771)	25,463	20,136	(5,327)
Keanae	86	86	0	7,190	6,366	(824)	48,829	43,707	(5,121)
Kaupo	21	21	0	2,076	2,678	602	6,486	7,028	542
Subtotal	553	553	0	70,650	71,088	438	429,206	418,367	(10,840)
Total ALL DISTRICTS	37,069	37,032	(37)	12,114,352	11,970,711	(143,641)	66,500,705	65,363,649	(1,137,056)

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

FIVE - YEAR SUMMARY

	2020-21	2019-20	2018-19	2017-18	2016-17
Customer and Sales					
Number of Customers	37,032	37,069	36,719	36,615	36,365
Water Sales (M Gals.)	11,970,711	11,970,711	11,674,537	11,749,584	11,624,710
Income and Expenses					
Revenue from Sale of Water *	66,299,927	67,078,752	63,672,230	63,352,395	62,814,311
Total Operating Revenues	67,052,157	68,185,499	64,460,451	64,297,392	63,633,235
Total Operating Expense	70,708,043	69,051,656	62,311,770	62,534,558	61,818,557
Depreciation	16,907,642	18,464,719	15,867,467	15,043,935	14,406,243
Operating Income	(3,655,886)	(866,157)	2,148,681	1,762,834	1,814,678
Utility Plant					
Construction Work in Progress	22,393,521	21,923,859	34,418,791	48,842,240	34,854,383
Total Plant Investment	702,896,427	693,585,969	676,806,594	658,790,761	628,078,322
Reserve for Depreciation	(353,063,839)	(336,922,227)	(318,692,910)	(302,840,984)	(287,921,052)
Current Positions					
Revenue Funds	54,421,402	47,762,509	42,994,879	37,646,269	42,416,273
Total Current Assets	90,715,195	84,719,564	79,816,045	71,269,194	62,372,099
Total Current Liabilities	14,822,679	13,348,324	15,300,802	13,506,850	14,035,294
Net Current Assets	75,892,516	71,371,240	64,515,243	57,762,344	48,336,805
Current Ratio	6.1	6.3	5.2	5.3	4.4
Net Position					
Net Investments in Capital Assets	288,516,881	293,509,050	291,816,714	290,547,253	288,741,142
Restricted	34,547,312	33,108,459	32,155,789	20,211,812	16,923,769
Unrestricted	24,365,143	20,924,572	16,034,665	9,679,375	24,120,887

* Includes Fire Protection

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

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 Years Ended June 30, 2021 and 2020



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

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

DEPARTMENT OF WATER SUPPLY COUNTY OF MAUI

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DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

PART I FINANCIAL SECTION

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT



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

INDEPENDENT AUDITOR'S REPORT



To the Board of Water Supply
County of Maui

Report on the Financial Statements

We have audited the accompanying 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 years ended June 30, 2021 and 2020, and the related notes to the financial statements, which collectively comprise the Department's basic financial statements as listed in the table of contents.

Management's Responsibility 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; this includes 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 Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with 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. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements 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 entity's internal control. Accordingly, we express

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

N&K CPAs, Inc.

ACCOUNTANTS | CONSULTANTS

no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Department as of June 30, 2021 and 2020, 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.

Emphasis of Matter

As discussed in Note 1, the financial statements of the Department are intended to present the financial position, the changes in financial position, and cash flows of only that portion of the business-type activities of the County of Maui, State of Hawaii that is attributable to the transactions of the Department. They do not purport to, and do not, present fairly the financial position of the County of Maui, State of Hawaii as of June 30, 2021 and 2020, the changes in its financial position, or its cash flows for the fiscal years 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.

Other Matters

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 basic financial statements. Such missing information, although not a part of the basic 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 basic financial statements is not affected by this missing information.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

N&K CPAs, Inc.

ACCOUNTANTS | CONSULTANTS

Other Information

Our audit was conducted for the purpose of forming an opinion on the Department's basic financial statements. The supplemental schedules of capital assets for the fiscal year ended June 30, 2021 and of long-term debt - general obligation bonds as of June 30, 2021 are presented for purposes of additional analysis and are not a required part of the basic financial statements.

The schedules of capital assets and of long-term debt - general obligation bonds are 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. Such 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.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated January 31, 2022 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 31, 2022

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
STATEMENTS OF NET POSITION
June 30, 2021 and 2020

	2021	2020
CURRENT ASSETS		
Equity in pooled cash and investments held in County Treasury	\$ 80,536,039	\$ 75,990,422
Customer receivables		
Billed	4,800,448	3,919,842
Less: allowance for doubtful accounts	<u>(119,633)</u>	<u>(90,686)</u>
Unbilled	4,680,815	3,829,156
Total customer receivables	<u>8,347,145</u>	<u>7,012,012</u>
Materials and supplies	1,824,267	1,577,959
Other current assets	<u>7,747</u>	<u>139,171</u>
Total current unrestricted assets	<u>90,715,198</u>	<u>84,719,564</u>
RESTRICTED ASSETS		
Equity in pooled cash and investments held in County Treasury	<u>37,513,073</u>	<u>36,188,231</u>
Total current assets	<u>128,228,271</u>	<u>120,907,795</u>
CAPITAL ASSETS		
Utility plant in service	672,495,761	663,654,966
Less accumulated depreciation	<u>(353,063,839)</u>	<u>(336,922,227)</u>
	319,431,922	326,732,739
Land	8,007,145	8,007,145
Construction work in progress	<u>22,393,522</u>	<u>21,923,861</u>
Total capital assets	<u>349,832,589</u>	<u>356,663,745</u>
TOTAL ASSETS	<u>478,060,860</u>	<u>477,571,540</u>
DEFERRED OUTFLOWS OF RESOURCES		
Deferred outflows of resources related to pensions	8,417,806	8,035,456
Deferred outflows of resources related to OPEB	5,007,564	4,788,398
Unamortized loss on advanced refunding	<u>84,134</u>	<u>100,418</u>
TOTAL DEFERRED OUTFLOWS OF RESOURCES	<u>13,509,504</u>	<u>12,924,272</u>
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	\$ <u>491,570,364</u>	\$ <u>490,495,812</u>

See accompanying notes to financial statements.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
STATEMENTS OF NET POSITION (Continued)
June 30, 2021 and 2020

	2021	2020
CURRENT LIABILITIES		
Payable from unrestricted current assets		
Bonds payable, current portion	\$ 2,168,747	\$ 2,472,697
Notes payable, current portion	2,611,724	2,550,020
Accounts payable	3,336,115	3,226,657
Accrued vacation, current portion	954,189	934,650
Accrued compensatory time off	153,743	139,680
Construction contracts payable, including retainages	2,148,209	904,125
Claims and judgments	392,776	322,171
Accrued interest payable	344,978	364,418
Customer advances for utility construction	953,322	308,282
	13,063,803	11,222,700
Payable from restricted assets		
Construction contracts payable, including retainages	154,038	404,567
Customer deposits	604,837	721,055
Refundable advances	1,000,000	1,000,000
	1,758,875	2,125,622
Total current liabilities	14,822,678	13,348,322
NON-CURRENT LIABILITIES		
Bonds payable, non-current portion	15,489,761	17,640,706
Notes payable, non-current portion	41,166,246	43,024,331
Net pension liability	46,897,310	43,112,852
Net OPEB liability	21,991,924	24,007,403
Accrued vacation, non-current portion	1,224,830	981,141
Total non-current liabilities	126,770,071	128,766,433
TOTAL LIABILITIES	141,592,749	142,114,755
DEFERRED INFLOWS OF RESOURCES		
Deferred inflows of resources related to pensions	257,819	460,319
Deferred inflows of resources related to OPEB	2,290,459	378,657
TOTAL DEFERRED INFLOWS OF RESOURCES	2,548,278	838,976
NET POSITION		
Net investment in capital assets	290,913,751	293,509,050
Restricted	34,547,310	33,108,459
Unrestricted	21,968,276	20,924,572
TOTAL NET POSITION	347,429,337	347,542,081
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	\$ 491,570,364	\$ 490,495,812

See accompanying notes to financial statements.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
 County of Maui
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
 Fiscal Years Ended June 30, 2021 and 2020

	2021	2020
OPERATING REVENUES		
Water sales	\$ 66,299,928	\$ 67,078,751
Other revenues	<u>865,986</u>	<u>1,106,747</u>
Total operating revenues	<u>67,165,914</u>	<u>68,185,498</u>
OPERATING EXPENSES		
Administrative and general	24,296,920	18,068,336
Depreciation and amortization	16,907,642	18,464,719
Power and pumping	11,728,780	12,584,077
Transmission and distribution	8,499,638	9,585,103
Purification	6,765,031	6,793,043
Customers' accounting and collection	1,624,439	1,880,398
Source of supply	<u>885,594</u>	<u>1,675,982</u>
Total operating expenses	<u>70,708,044</u>	<u>69,051,658</u>
Operating loss	<u>(3,542,130)</u>	<u>(866,160)</u>
NONOPERATING INCOME (EXPENSES)		
Interest and investment income	105,308	3,262,190
Interest expense, net of amortization of bond premiums of of \$334,957 in 2021 and \$354,951 in 2020	(911,847)	(1,106,083)
Other expense	<u>(113,756)</u>	<u>—</u>
Total nonoperating (loss) income	<u>(920,295)</u>	<u>2,156,107</u>
(Loss) income before capital contributions	(4,462,425)	1,289,947
Capital contributions	<u>4,349,681</u>	<u>6,244,966</u>
Change in net position	(112,744)	7,534,913
NET POSITION		
Beginning of fiscal year	<u>347,542,081</u>	<u>340,007,168</u>
End of fiscal year	\$ <u><u>347,429,337</u></u>	\$ <u><u>347,542,081</u></u>

See accompanying notes to financial statements.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
STATEMENTS OF CASH FLOWS
Fiscal Years Ended June 30, 2021 and 2020

	2021	2020
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers and others	\$ 65,940,247	\$ 68,655,178
Payments to suppliers for goods and services	(28,740,504)	(30,932,777)
Payments to employees for services	(20,956,574)	(19,521,243)
Utility construction advances (refunds)	528,822	(34,033)
Net cash provided by operating activities	16,771,991	18,167,125
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest and investment income received from investments	105,308	3,262,190
Net cash provided by investing activities	105,308	3,262,190
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Cash paid for acquisition of construction of capital assets	(8,004,988)	(13,058,334)
Principal paid on bonds and notes payable	(5,060,996)	(5,313,738)
Proceeds from bonds and notes payable	1,144,677	2,539,399
Cash received from capital contributions and other	2,164,427	2,288,523
Interest paid on bonds and notes payable	(1,249,960)	(1,462,546)
Net cash used in capital and related financing activities	(11,006,840)	(15,006,696)
NET INCREASE IN CASH AND CASH EQUIVALENTS	5,870,459	6,422,619
CASH AND CASH EQUIVALENTS		
Beginning of fiscal year	112,178,653	105,756,034
End of fiscal year	\$ 118,049,112	\$ 112,178,653
RECONCILIATION OF CASH AND CASH EQUIVALENTS TO THE STATEMENT OF NET POSITION		
Unrestricted	\$ 80,536,039	\$ 75,990,422
Restricted	37,513,073	36,188,231
	\$ 118,049,112	\$ 112,178,653

See accompanying notes to financial statements.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
STATEMENTS OF CASH FLOWS (Continued)
Fiscal Years Ended June 30, 2021 and 2020

	2021	2020
RECONCILIATION OF OPERATING LOSS TO		
NET CASH PROVIDED BY OPERATING ACTIVITIES		
Operating loss	\$ (3,542,130)	\$ (866,160)
Adjustments to reconcile operating loss to net cash provided by operating activities:		
Depreciation and amortization	16,907,642	18,464,719
Provision for doubtful accounts	94,931	221,087
Changes in assets, deferred outflows, liabilities and deferred inflows:		
Customer receivables	(1,430,064)	184,994
Materials and supplies	(246,308)	95,693
Other current assets	131,424	74,412
Deferred outflows of resources related to pensions	(382,350)	1,269,903
Deferred outflows of resources related to OPEB	(219,166)	(1,336,546)
Accounts and construction contracts payable	1,312,186	(2,201,822)
Claims and judgments	70,605	(190,769)
Other liabilities and deposits	596,940	827,713
Net pension liability	3,784,458	2,072,495
Net OPEB liability	(2,015,479)	103,709
Deferred inflows of resources related to pensions	(202,500)	(210,848)
Deferred inflows of resources related to OPEB	1,911,802	(341,455)
Net cash provided by operating activities	\$ 16,771,991	\$ 18,167,125
SUPPLEMENTAL DISCLOSURE OF NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES		
Capital contributions	\$ 2,071,498	\$ 3,956,443
Amortization of deferred loss on refunding	\$ 16,284	\$ 16,284
Amortization of bond premium	\$ 334,957	\$ 354,951

See accompanying notes to financial statements.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

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 type 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 statements 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 – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

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 – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

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

- (11) **Debt Premium and Discounts** - Premium and discounts arising from the issuance of debt securities 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 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 year-end, 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 – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

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 non-operating 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 statements 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 statements of revenues, expenses, and changes in net position.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

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** - The Governmental Accounting Standards Board (GASB) issued Statement No. 87, *Leases*. This Statement requires the 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. Under this Statement, a lessee is required to recognize a lease liability and an intangible right-to-use lease asset, and a lessor is required to recognize a lease receivable and a deferred inflow of resources. Management has not yet determined the effect this Statement will have on the Department's financial statements.

The GASB issued Statement No. 91, *Conduit Debt Obligations*. The primary objectives of this Statement are to provide a single method of reporting conduit debt obligations by issuers and eliminate diversity in practice associated with (1) commitments extended by issuers, (2) arrangements associated with conduit debt obligations, and (3) related note disclosures. This Statement achieves those objectives by clarifying the existing definition of a conduit debt obligation; establishing that a conduit debt obligation is not a liability of the issuer; establishing standards for accounting and financial reporting of additional commitments and voluntary commitments extended by issuers and arrangements associated with conduit debt obligations; and improving required note disclosures. Management has not yet determined the effect this Statement will have on the Department's financial statements.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

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

The GASB issued Statement No. 92, *Omnibus 2020*. This Statement establishes accounting and financial reporting requirements for specific issues related to leases, intra-entity transfers of assets, postemployment benefits, government acquisitions, risk financing and insurance-related activities of public entity risk pools, fair value measurements, and derivative instruments. Management has not yet determined the effect this Statement will have on the Department's financial statements.

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 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. 95, *Postponement of the Effective Dates of Certain Authoritative Guidance*. This Statement extends the effective dates of the following Statements that may have an effect on the Department's financial statements as follows:

- Statement No. 87; effective date postponed 18 months for reporting periods beginning after June 15, 2021
- Statement No. 90; effective date postponed one year for reporting periods beginning after December 15, 2019
- Statement No. 91; effective date postponed one year for reporting periods beginning after December 15, 2021
- Statement No. 92, paragraphs 6 and 7; effective date postponed one year for fiscal years beginning after June 15, 2021
- Statement No. 92, paragraphs 8, 9 and 12; effective date postponed one year for reporting periods beginning after June 15, 2021
- Statement No. 92, paragraph 10; effective date postponed one year for government acquisitions occurring in reporting periods beginning after June 15, 2021

The requirements of this Statement were effective in May 2020.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

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

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.

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, 2021 and 2020, the amounts reported on the statements 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 \$118,049,112 and \$112,178,653, respectively.

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 – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

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, 2021 and 2020 were as follows:

	2021	2020
AA+	\$ 200,409,994	\$ 204,029,226
AA	88,067,200	440,368
A - 1+	--	33,997,121
A - 1	--	11,995,722
Not rated	37,398,464	23,511,257
	\$ 325,875,658	\$ 273,973,694

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, 2021 and 2020, substantially all of the County's negotiable time certificates of deposits and cash deposits were insured and collateralized.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2021 and 2020

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 20.0% and 21.1% at June 30, 2021 and 2020, respectively.

As of June 30, 2021, the County and fiduciary fund's cash and investments were as follows:

Type of Investment	% Yield	Maturity				Premiums (Discounts)	Fair Value
		Under 30 Days	31 - 180 Days	181 - 365 Days	1 - 5 Years		
Federal National Mortgage Association Coupon Notes	0.64 - 1.84	\$ --	\$ 1,000,000	\$ 2,000,000	\$ 24,000,000	\$ 380,140	\$ 27,380,140
Federal Home Loan Bank Bank Notes	0.11 - 3.09	15,000,000	1,000,000	5,000,000	36,500,000	1,219,110	58,719,110
Federal Farm Credit Bank Notes	1.55 - 3.21	--	10,000,000	9,000,000	61,238,000	3,221,125	83,459,125
Federal Agricultural Mortgage Corporation Notes	0.88 - 2.55	--	--	3,000,000	21,500,000	437,390	24,937,390
Federal Home Loan Mortgage Corporation Notes	0.28 - 1.89	--	--	--	30,000,000	425,140	30,425,140
U.S. Treasury Strips	1.94	--	--	2,000,000	--	(1,260)	1,998,740
U.S. Treasury Notes	0.06 - 3.05	--	--	27,000,000	59,000,000	68,460	86,068,460
Municipal Securities	0.70 - 3.26	1,755,000	3,205,000	285,000	7,350,000	292,553	12,887,553
Negotiable certificates of deposit	0.10 - 3.55	1,000,000	500,000	2,499,000	5,500,000	260,626	9,759,626
Total investments		\$ 17,755,000	\$ 15,705,000	\$ 50,784,000	\$ 245,088,000	\$ 6,303,284	335,635,284
						Cash on hand and deposits	253,468,181
						Total equity in pooled cash and investments	\$ 589,103,465

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2021 and 2020

NOTE 2 - CASH AND INVESTMENTS (Continued)

As of June 30, 2020, the County and fiduciary fund's cash and investments were as follows:

Type of Investment	% Yield	Maturity				Premiums (Discounts)	Fair Value
		Under 30 Days	31 - 180 Days	181 - 365 Days	1 - 5 Years		
Federal National Mortgage Association Coupon Notes	1.21 - 1.84	\$ --	\$ 2,000,000	\$ --	\$ 17,000,000	\$ 806,280	\$ 19,806,280
Federal Home Loan Bank Bank Notes	1.40 - 3.30	--	3,000,000	--	37,500,000	1,913,465	42,413,465
Federal Farm Credit Bank Notes	1.88 - 3.05	--	4,000,000	1,985,000	80,238,000	5,011,221	91,234,221
Federal Agricultural Mortgage Corporation Notes	2.40 - 2.55	--	--	--	14,500,000	727,325	15,227,325
Federal Home Loan Mortgage Corporation Notes	1.08 - 2.55	--	--	--	15,000,000	879,510	15,879,510
Tennessee Valley Authority Notes	2.33 - 2.72	--	--	5,000,000	--	113,300	5,113,300
U.S. Treasury Strips	1.94	--	--	--	2,000,000	(6,720)	1,993,280
U.S. Treasury Notes	1.78 - 3.04	--	7,000,000	--	13,000,000	461,920	20,461,920
Commercial Paper	0.18 - 0.92	14,000,000	32,000,000	--	--	(7,156)	45,992,844
Municipal Securities	1.25 - 3.26	600,000	1,860,000	380,000	12,595,000	416,549	15,851,549
Negotiable certificates of deposit	0.10 - 3.50	<u>2,250,000</u>	<u>7,980,000</u>	<u>11,250,000</u>	<u>10,999,000</u>	<u>626,735</u>	<u>33,105,735</u>
Total investments		\$ <u>16,850,000</u>	\$ <u>57,840,000</u>	\$ <u>18,615,000</u>	\$ <u>202,832,000</u>	\$ <u>10,942,429</u>	307,079,429
						Cash on hand and deposits	225,257,519
						Total equity in pooled cash and investments	\$ <u>532,336,948</u>

Unrestricted equity in pooled cash and investments held in County Treasury at June 30, 2021 and 2020 include funds for the following purposes:

	2021	2020
Board-designated		
Capital improvements	\$ 23,957,079	\$ 26,111,563
Debt service	<u>2,157,556</u>	<u>2,116,350</u>
Total board-designated	26,114,635	28,227,913
Undesignated	<u>54,421,404</u>	<u>47,762,509</u>
Total	\$ <u>80,536,039</u>	\$ <u>75,990,422</u>

At June 30, 2021 and 2020, construction contract payables, including retentions, to be paid with board-designated funds were approximately \$2,100,000 and \$900,000, respectively. Construction contract commitments as of June 30, 2021 and 2020, to be paid with board-designated funds, aggregated approximately \$11.1 million and \$7.6 million, respectively.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

NOTE 2 - CASH AND INVESTMENTS (Continued)

Restricted equity in pooled cash and investments held in County Treasury consisted of the following at June 30, 2021 and 2020:

	2021	2020
Water system development fee	\$ 21,975,790	\$ 20,384,500
State funds	12,032,734	12,183,829
Bond funds	2,433,505	2,432,640
Customer deposits	604,837	721,055
Special assessment fund for storage	273,829	273,829
Source development fund assessments	192,378	192,378
Total	\$ 37,513,073	\$ 36,188,231

At June 30, 2021 and 2020 construction voucher and contract payables, including retentions, to be paid with restricted assets were approximately \$154,000 and \$405,000, respectively. Construction contract commitments as of June 30, 2021 and 2020, to be paid with restricted assets, aggregated approximately \$8.7 million and \$8.6 million, respectively.

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:

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.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

NOTE 3 - FAIR VALUE MEASUREMENTS (Continued)

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, 2021 and 2020:

	Assets at Fair Value at June 30, 2021			
	Total	Level 1	Level 2	Level 3
U. S. Treasury obligations	\$ 88,067,200	\$ 88,067,200	\$ --	\$ --
U. S. government agency obligations	224,920,905	--	224,920,905	--
Municipal securities	12,887,553	--	12,887,553	--
Negotiable certificates of deposit	<u>9,759,626</u>	<u>--</u>	<u>9,759,626</u>	<u>--</u>
	<u>\$ 335,635,284</u>	<u>\$ 88,067,200</u>	<u>\$ 247,568,084</u>	<u>\$ --</u>

	Assets at Fair Value at June 30, 2020			
	Total	Level 1	Level 2	Level 3
U. S. Treasury obligations	\$ 22,455,200	\$ 22,455,200	\$ --	\$ --
U. S. government agency obligations	189,674,101	--	189,674,101	--
Municipal securities	15,851,549	--	15,851,549	--
Commercial Paper	45,992,844	--	45,992,844	--
Negotiable certificates of deposit	<u>33,105,735</u>	<u>--</u>	<u>33,105,735</u>	<u>--</u>
	<u>\$ 307,079,429</u>	<u>\$ 22,455,200</u>	<u>\$ 284,624,229</u>	<u>\$ --</u>

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
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NOTE 4 - RESTRICTED NET POSITION

At June 30, 2021 and 2020, restricted net position consisted of the following:

	2021	2020
Water system development fee	\$ 21,975,790	\$ 20,384,500
Special assessment fund for storage	273,829	273,829
Source development fund assessments	192,378	192,378
Other restricted funds	12,105,313	12,257,752
Total	\$ 34,547,310	\$ 33,108,459

NOTE 5 - CAPITAL CONTRIBUTIONS

Capital contributions during the fiscal years ended June 30, 2021 and 2020 were as follows:

	2021	2020
Dedication of infrastructure assets	\$ 2,071,498	\$ 3,956,443
Source development fund assessments	2,145,095	2,089,242
Other	133,088	199,281
Total	\$ 4,349,681	\$ 6,244,966

NOTE 6 - CAPITAL ASSETS

Capital assets activity during the fiscal year ended June 30, 2021 was as follows:

	Balance July 1, 2020	Additions	Reductions/ Retirements	Balance June 30, 2021
Non-depreciable assets				
Land	\$ 8,007,145	\$ --	\$ --	\$ 8,007,145
Construction in progress	21,923,861	4,732,511	(4,262,850)	22,393,522
	29,931,006	4,732,511	(4,262,850)	30,400,667
Depreciable assets				
Buildings and systems	191,724,520	2,208,993	--	193,933,513
Machinery and equipment	459,471,122	7,281,150	(753,784)	465,998,488
Infrastructure	12,459,324	116,682	(12,246)	12,563,760
	663,654,966	9,606,825	(766,030)	672,495,761
Accumulated depreciation				
Buildings and systems	85,540,676	4,280,794	--	89,821,470
Machinery and equipment	246,110,107	12,380,891	(753,784)	257,737,214
Infrastructure	5,271,444	245,957	(12,246)	5,505,155
	336,922,227	16,907,642	(766,030)	353,063,839
Total Capital Assets	\$ 356,663,745	\$ (2,568,306)	\$ (4,262,850)	\$ 349,832,589

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply County of Maui NOTES TO FINANCIAL STATEMENTS June 30, 2021 and 2020

NOTE 6 - CAPITAL ASSETS (Continued)

Capital assets activity during the fiscal year ended June 30, 2020 was as follows:

	Balance July 1, 2019	Additions	Reductions/ Retirements	Balance June 30, 2020
Non-depreciable assets				
Land	\$ 7,905,059	\$ 102,086	\$ --	\$ 8,007,145
Construction in progress	34,418,791	12,457,637	(24,952,567)	21,923,861
	<u>42,323,850</u>	<u>12,559,723</u>	<u>(24,952,567)</u>	<u>29,931,006</u>
Depreciable assets				
Buildings and systems	177,554,900	14,169,620	--	191,724,520
Machinery and equipment	445,000,625	14,705,899	(235,402)	459,471,122
Infrastructure	11,927,222	532,102	--	12,459,324
	<u>634,482,747</u>	<u>29,407,621</u>	<u>(235,402)</u>	<u>663,654,966</u>
Accumulated depreciation				
Buildings and systems	79,701,373	5,839,303	--	85,540,676
Machinery and equipment	233,955,741	12,389,768	(235,402)	246,110,107
Infrastructure	5,035,796	235,648	--	5,271,444
	<u>318,692,910</u>	<u>18,464,719</u>	<u>(235,402)</u>	<u>336,922,227</u>
Total Capital Assets	\$ 358,113,687	\$ 23,502,625	\$ (24,952,567)	\$ 356,663,745

NOTE 7 - LONG-TERM LIABILITIES

A summary of changes in long-term liabilities of the Department for the fiscal year ended June 30, 2021 are as follows:

	Balance July 1, 2020	Additions	Reductions	Balance June 30, 2021	Due Within One Year
Bonds payable	\$ 20,113,403	\$ 352,759	\$ 2,807,654	\$ 17,658,508	\$ 2,168,747
Notes payable from direct borrowings	45,574,351	791,918	2,588,299	43,777,970	2,611,724
Accrued vacation payable	1,915,791	1,102,149	838,921	2,179,019	954,189
Accrued compensatory time off	139,680	126,955	112,892	153,743	153,743
Claims and judgments	322,171	370,065	299,460	392,776	392,776
Total	\$ 68,065,396	\$ 2,743,846	\$ 6,647,226	\$ 64,162,016	\$ 6,281,179

A summary of changes in long-term liabilities of the Department for the fiscal year ended June 30, 2020 are as follows:

	Balance July 1, 2019	Additions	Reductions	Balance June 30, 2020	Due Within One Year
Bonds payable	\$ 23,419,062	\$ --	\$ 3,305,659	\$ 20,113,403	\$ 2,472,697
Notes payable from direct borrowings	45,397,982	2,539,399	2,363,030	45,574,351	2,550,020
Accrued vacation payable	1,753,565	1,017,732	855,506	1,915,791	934,650
Accrued compensatory time off	114,265	117,133	91,718	139,680	139,680
Claims and judgments	512,940	127,814	318,583	322,171	322,171
Total	\$ 71,197,814	\$ 3,802,078	\$ 6,934,496	\$ 68,065,396	\$ 6,419,218

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
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June 30, 2021 and 2020

NOTE 8 - BONDS PAYABLE

At June 30, 2021 and 2020, bonds payable consisted of the following:

	2021	2020
General Obligation Refunding Bonds, 2010 Series B, due in annual installments through 2021, interest payable semi-annually from 4.0% to 5.0%. These bonds were refunded by 2020 Series B bonds.	\$ --	\$ 434,195
General Obligation Refunding Bonds, 2012 Series B, due in annual installments through 2032, interest payable semi-annually from 2.1% to 5.0%.	2,690,340	2,886,722
General Obligation Refunding Bonds, 2012 Series C, due in annual installments through 2023, interest payable semi-annually from 4.0% to 5.0%.	2,125,000	3,110,000
General Obligation Refunding Bonds, 2014 Series C, due in annual installments through 2034, interest payable semi-annually from 3.0% to 5.0%.	5,005,000	5,295,000
General Obligation Refunding Bonds, 2015 Series D, due in annual installments through 2027, interest payable semi-annually from 3.0% to 5.0%.	2,334,384	2,661,504
General Obligation Refunding Bonds, 2018 Series C, due in annual installments through 2032, interest payable semi-annually from 3.0% to 5.0%.	3,555,000	3,795,000
General Obligation Refunding Bonds, 2020 Series B, due in annual installments through 2030, interest payable semi-annually from 2.0% to 5.0%	<u>352,759</u>	<u>--</u>
Less current portion	<u>16,062,483</u> <u>(2,168,747)</u>	<u>18,182,421</u> <u>(2,472,697)</u>
Unamortized premium	<u>13,893,736</u> <u>1,596,025</u>	<u>15,709,724</u> <u>1,930,982</u>
Noncurrent portion	<u>\$ 15,489,761</u>	<u>\$ 17,640,706</u>

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
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June 30, 2021 and 2020

NOTE 8 - BONDS PAYABLE (Continued)

At June 30, 2021, future bond principal and interest payments are as follows:

Fiscal Year Ending June 30,	Principal	Interest	Total
2022	\$ 2,168,747	\$ 641,799	\$ 2,810,546
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 - 2031	5,664,737	909,791	6,574,528
2032 - 2034	2,037,481	105,300	2,142,781
Total	\$ 16,062,483	\$ 3,313,728	\$ 19,376,211

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.

NOTE 9 - NOTES PAYABLE

At June 30, 2021 and 2020, notes payable from direct borrowings consisted of the following:

	2021	2020
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.	140,528	152,563
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.	1,355,675	1,469,925
Balance forward	\$ 1,496,203	\$ 1,622,488

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Department of Water Supply
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NOTES TO FINANCIAL STATEMENTS
 June 30, 2021 and 2020

NOTE 9 - NOTES PAYABLE (Continued)

	2021	2020
Notes payable to State of Hawaii, Department of Health		
Balance carried forward	\$ 1,496,203	\$ 1,622,488
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.	540,324	582,478
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.	4,949,717	5,362,194
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.	2,809,321	3,026,609
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.	1,383,644	1,482,861
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.	505,133	538,586
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.	550,513	586,985
Balance forward	\$ 12,234,855	\$ 13,202,201

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Department of Water Supply
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NOTE 9 - NOTES PAYABLE (Continued)

	2021	2020
Notes payable to State of Hawaii, Department of Health		
Balance carried forward	\$ 12,234,855	\$ 13,202,201
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.	104,087	111,865
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.	1,614,729	1,693,893
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.	1,879,559	1,982,786
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.	1,019,415	1,073,004
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.	424,737	447,060
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.	<u>19,475,483</u>	<u>20,488,995</u>
Balance forward	\$ 36,752,865	\$ 38,999,804

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Department of Water Supply
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NOTE 9 - NOTES PAYABLE (Continued)

	2021	2020
Notes payable to State of Hawaii, Department of Health		
Balance carried forward	\$ 36,752,865	\$ 38,999,804
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.	3,685,440	3,135,147
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.	<u>3,339,665</u>	<u>3,439,400</u>
	43,777,970	45,574,351
Less current portion	<u>(2,611,724)</u>	<u>(2,550,020)</u>
	<u>\$ 41,166,246</u>	<u>\$ 43,024,331</u>

As of June 30, 2021, future principal and interest payments for notes payable from direct borrowings are as follows:

Fiscal Year Ending June 30,	Principal	Interest	Total
2022	\$ 2,611,724	\$ 565,746	\$ 3,177,470
2023	2,636,349	531,320	3,167,669
2024	2,661,227	496,601	3,157,828
2025	2,686,601	461,346	3,147,947
2026	2,712,125	425,901	3,138,026
2027-2031	13,955,921	1,583,933	15,539,854
2032-2036	11,864,478	682,597	12,547,075
Thereafter	<u>4,649,545</u>	<u>88,025</u>	<u>4,737,570</u>
Total	<u>\$ 43,777,970</u>	<u>\$ 4,835,469</u>	<u>\$ 48,613,439</u>

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.

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Department of Water Supply
County of Maui
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NOTE 10 - 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.

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NOTE 10 - 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 re-entry 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.

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NOTE 10 - 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.

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NOTE 10 - 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 were \$3,340,500 and \$2,953,047 for the fiscal years ended June 30, 2021 and 2020, respectively.

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NOTE 10 - RETIREMENT BENEFITS (Continued)

Per Act 17 SLH 2017, employer contributions from the State and counties are expected to increase over four years beginning July 1, 2017. The rate for police and firefighters increased to 41% on July 1, 2020. The rate for all other employees increased to 24% on July 1, 2020.

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, 2021 and 2020, the Department reported a liability of \$46,897,310 and \$43,112,852, for its proportionate share of net pension liability of the County. The net pension liability was measured as of June 30, 2020 and 2019, 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, 2020, the Department's proportion of the County's proportion was 6.5569% which was a decrease of 0.0927% from its proportion measured as of June 30, 2019. At June 30, 2019, the Department's proportion of the County's proportion was 6.6496% which was a decrease of 0.2171% from its proportion measured as of June 30, 2018.

There were no other changes between the measurement dates, June 30, 2020 and 2019, and the reporting dates, June 30, 2021 and 2020 that are expected to have a significant effect on the proportionate share of the net pension liability.

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NOTE 10 - RETIREMENT BENEFITS (Continued)

For the fiscal years ended June 30, 2021 and 2020, the Department recognized pension expense of \$6,540,108 and \$6,084,597. At June 30, 2021 and 2020, the Department reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	June 30, 2021	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 533,232	\$ 53,274
Net difference between projected and actual earnings on pension plan investments	1,826,113	--
Changes in proportion and difference between Department contributions and proportionate share of contributions	1,044,240	204,545
Changes of assumptions	1,673,721	--
Department contributions subsequent to the measurement date	3,340,500	--
	\$ 8,417,806	\$ 257,819
	June 30, 2020	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 756,336	\$ 137,507
Net difference between projected and actual earnings on pension plan investments	106,774	--
Changes in proportion and difference between Department contributions and proportionate share of contributions	971,245	322,812
Changes of assumptions	3,248,054	--
Department contributions subsequent to the measurement date	2,953,047	--
	\$ 8,035,456	\$ 460,319

At June 30, 2021, the \$3,340,500 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, 2022.

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NOTE 10 - RETIREMENT BENEFITS (Continued)

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions as of June 30, 2021 will be recognized in pension expense as follows:

Fiscal Year Ending June 30,	Amount
2022	\$ 1,836,460
2023	1,103,198
2024	1,069,340
2025	774,887
2026	35,602
Total	\$ 4,819,487

Actuarial Assumptions - The total pension liability in the June 30, 2020 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:

	2020	2019
Inflation	2.50%	2.50%
Investment rate of return, including inflation	7.00%	7.00%
Salary increases, including inflation		
Police and fire employees	5.00% to 7.00%	5.00% to 7.00%
General employees	3.50% to 6.50%	3.50% to 6.50%
Teachers	3.75% to 5.75%	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, 2020 and 2019 were based on the following:

Active members - Multiples of the RP 2014 mortality 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.

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NOTE 10 - RETIREMENT BENEFITS (Continued)

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, 2020 and 2019 are summarized in the following tables:

June 30, 2020			
Strategic Allocation (Risk-Based Classes)	Target Allocation	Long-Term Expected Rate of Return	Long-Term Expected Real Rate of Return *
Broad growth	63.00%	7.90%	5.70%
Diversifying strategies	37.00%	3.70%	1.50%
	100.00%		

*Uses an expected inflation of 2.20%

June 30, 2019			
Strategic Allocation (Risk-Based Classes)	Target Allocation	Long-Term Expected Rate of Return	Long-Term Expected Real Rate of Return *
Broad growth	63.00%	7.65%	5.40%
Principal protection	7.00%	3.00%	0.75%
Real return	10.00%	4.55%	2.30%
Crisis risk offset	20.00%	5.15%	9.20%
	100.00%		

*Uses an expected inflation of 2.25%

Discount Rate - The discount rate used to measure the net pension liability at June 30, 2021 and 2020 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.

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NOTE 10 - RETIREMENT BENEFITS (Continued)

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, 2021 and 2020, 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:

	June 30, 2021		
	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Department's proportionate share of the net pension liability	\$ <u>58,762,538</u>	\$ <u>46,897,310</u>	\$ <u>35,034,222</u>
	June 30, 2020		
	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Department's proportionate share of the net pension liability	\$ <u>53,906,836</u>	\$ <u>43,112,852</u>	\$ <u>32,654,172</u>

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's 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.

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 comprehensive annual 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, 2021 and 2020, the amounts payable to the ERS totaled \$1,428,880 and \$1,022,694, respectively.

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NOTE 10 - RETIREMENT BENEFITS (Continued)

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.

Employees Covered by Benefit Terms - At July 1, 2020 and 2019, the following number of plan members were covered by the benefit terms:

	2020	2019
Inactive employees or their beneficiaries currently receiving benefits	1,670	1,611
Inactive employees entitled to but not yet receiving benefits	281	280
Active members	2,480	2,467
Total	4,431	4,358

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.

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NOTE 10 - RETIREMENT BENEFITS (Continued)

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 years ended June 30, 2021 and 2020 were \$3,228,570 and \$3,718,455, 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, 2021 and 2020, the Department's share of the net OPEB liability was \$21,991,924 and \$24,007,403, respectively. The net OPEB liability was measured as of July 1, 2020 and 2019, and the total OPEB liability to calculate the net OPEB liability was determined by an actuarial valuation as of those dates.

There were no changes between the measurement date, July 1, 2020, and the reporting date, June 30, 2021, that are expected to have a significant effect on the net OPEB liability.

For the fiscal years ended June 30, 2021 and 2020, the Department recognized OPEB expense of \$3,551,413 and \$5,292,747, respectively. At June 30, 2021 and 2020, the Department reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	June 30, 2021	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 215,533	\$ 2,290,459
Net difference between projected and actual earnings on OPEB plan investments	1,129,879	--
Changes of assumptions	433,582	--
Department contributions subsequent to the measurement date	<u>3,228,570</u>	<u>--</u>
	<u>\$ 5,007,564</u>	<u>\$ 2,290,459</u>
	June 30, 2020	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 255,134	\$ 378,657
Net difference between projected and actual earnings on OPEB plan investments	283,695	--
Changes of assumptions	531,114	--
Department contributions subsequent to the measurement date	<u>3,718,455</u>	<u>--</u>
	<u>\$ 4,788,398</u>	<u>\$ 378,657</u>

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NOTE 10 - RETIREMENT BENEFITS (Continued)

At June 30, 2021, the \$3,228,570 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, 2022.

Other amounts reported as deferred inflows of resources related to OPEB as of June 30, 2021 will be recognized in OPEB expense as follows:

<u>Fiscal Year Ending June 30,</u>	<u>Amount</u>
2021	\$ (53,120)
2022	(9,126)
2023	(2,414)
2024	(67,430)
2025	(203,451)
Thereafter	<u>(175,924)</u>
	\$ <u>(511,465)</u>

Actuarial assumptions - The total OPEB liability in the July 1, 2020 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:

Actuarial cost method	Entry age normal
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. 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	
PPO*	Initial rate of 7.50%, declining to a rate of 4.70% after 13 years
HMO*	Initial rate of 7.50%; declining to a rate of 4.70% after 13 years
Contribution	Initial rate of 5.00%; declining to a rate of 4.70% after 10 years
Dental	Initial rate of 5.00% for the first two years; followed by 4.00% for all future years
Vision	Initial rate of 0.00% for the first two years, followed by 2.50% for all future years
Life insurance	0.00%

* Blended rates for medical and prescription drugs

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NOTE 10 - RETIREMENT BENEFITS (Continued)

The total OPEB liability in the July 1, 2019 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:

Actuarial cost method	Entry age normal
Discount Rate	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. 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	
PPO*	Initial rate of 7.50%, declining to a rate of 4.70% after 12 years
HMO*	Initial rate of 7.50%; declining to a rate of 4.70% after 12 years
Contribution	Initial rate of 5.00%; declining to a rate of 4.70% after 11 years
Dental	Initial rate of 5.00% for the first two years; followed by 4.00% for all future years
Vision	Initial rate of 0.00% for the first two years, followed by 2.50% for all future years
Life insurance	0.00%

* Blended rates for medical and prescription drug

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.

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NOTE 10 - RETIREMENT BENEFITS (Continued)

The target allocation and best estimates of arithmetic real rates of return for each major asset class as of July 1, 2020 and 2019 are summarized in the following table:

Asset Class	2020		2019	
	Target Allocation	Long-Term Expected Real Rate of Return	Target Allocation	Long-Term Expected Real Rate of Return
International equity	16.00%	7.72%	17.00%	6.90%
U.S. equity	14.00%	6.23%	15.00%	5.35%
Private equity	10.00%	5.98%	10.00%	8.80%
Core real estate	10.00%	9.66%	10.00%	3.90%
Trend following	8.00%	2.12%	9.00%	3.25%
U.S. microcap	6.00%	7.85%	7.00%	7.30%
Global options	6.00%	4.65%	7.00%	4.75%
Private credit	6.00%	5.50%	6.00%	5.60%
Long treasuries	6.00%	0.86%	6.00%	2.00%
TIPS	5.00%	0.11%	5.00%	2.75%
Alternative risk premia	5.00%	1.56%	0.00%	0.00%
Reinsurance	5.00%	4.34%	5.00%	1.20%
Core bonds	3.00%	0.08%	3.00%	1.50%
	<u>100.00%</u>		<u>100.00%</u>	

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 temporary ACT 268 suspension would not derail the plan's long-term funding progress. Even if ACT 268 is suspended through fiscal year ending June 30, 2025, as is being discussed, the OPEB plan's fiduciary net position is expected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on OPEB plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

NOTE 10 - 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 with 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 years ended June 30, 2021 and 2020. The ending balances are as of the measurement dates, July 1, 2020 and 2019.

	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
	(a)	(b)	(a) - (b)
Balance at June 30, 2020	\$ 45,072,263	\$ 21,064,860	\$ 24,007,403
Changes for the fiscal year:			
Service cost	963,452	--	963,452
Interest on the total OPEB liability	3,068,806	--	3,068,806
Contributions - employer	--	3,258,034	(3,258,034)
Net investment income	--	413,822	(413,822)
Difference between expected and actual experience	(2,334,778)	--	(2,334,778)
Changes in assumptions	(38,908)	--	(38,908)
Benefit payments	(1,410,241)	(1,410,241)	--
Administrative expense	--	(3,298)	3,298
Other	--	5,493	(5,493)
Net changes	<u>248,331</u>	<u>2,263,810</u>	<u>(2,015,479)</u>
Balance at June 30, 2021	\$ <u>45,320,594</u>	\$ <u>23,328,670</u>	\$ <u>21,991,924</u>

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
 County of Maui
NOTES TO FINANCIAL STATEMENTS
 June 30, 2021 and 2020

NOTE 10 - RETIREMENT BENEFITS (Continued)

	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
	(a)	(b)	(a) - (b)
Balance at June 30, 2019	\$ <u>41,863,889</u>	\$ <u>17,960,195</u>	\$ <u>23,903,694</u>
Changes for the fiscal year:			
Service cost	1,016,133	--	1,016,133
Interest on the total OPEB liability	3,134,524	--	3,134,524
Contributions - employer	--	3,044,435	(3,044,435)
Net investment income	--	841,184	(841,184)
Difference between expected and actual experience	298,466	--	298,466
Changes in assumptions	230,418	--	230,418
Benefit payments	(1,471,167)	(1,471,167)	--
Administrative expense	--	(6,375)	6,375
Other	--	696,588	(696,588)
Net changes	<u>3,208,374</u>	<u>3,104,665</u>	<u>103,709</u>
Balance at June 30, 2020	\$ <u>45,072,263</u>	\$ <u>21,064,860</u>	\$ <u>24,007,403</u>

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:

	June 30, 2021		
	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Department's proportionate share of the net OPEB liability	\$ <u>28,556,881</u>	\$ <u>21,991,924</u>	\$ <u>15,643,868</u>
	June 30, 2020		
	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Department's proportionate share of the net OPEB liability	\$ <u>33,806,953</u>	\$ <u>24,007,403</u>	\$ <u>19,470,989</u>

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

NOTE 10 - RETIREMENT BENEFITS (Continued)

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:

	June 30, 2021		
	1% Decrease	Current Healthcare Cost Trend Rates	1% Increase
Department's proportionate share of the net OPEB liability	\$ <u>15,407,857</u>	\$ <u>21,991,924</u>	\$ <u>28,971,080</u>
	June 30, 2020		
	1% Decrease	Current Healthcare Cost Trend Rates	1% Increase
Department's proportionate share of the net OPEB liability	\$ <u>19,195,040</u>	\$ <u>24,007,403</u>	\$ <u>34,290,940</u>

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 – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2021 and 2020

NOTE 11 - SICK LEAVE

Accrued sick leave aggregated to approximately \$5.6 million and \$5.1 million as of June 30, 2021 and 2020, respectively. 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 12 - 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 \$500,000. 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.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

SUPPLEMENTARY INFORMATION

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply County of Maui SCHEDULE I - SCHEDULE OF CAPITAL ASSETS Fiscal Year Ended June 30, 2021

Description	Balance	Additions		Reductions/	Balance	Accumulated	Additions		Reductions/	Accumulated
	July 1, 2020	and	Transfers	Retirements	June 30, 2021	Depreciation	and	Retirements	Retirements	Depreciation
	\$	\$	\$	\$	\$	July 1, 2020	\$	\$	\$	June 30, 2021
Land	8,007,145	9,200	—	—	8,007,145	—	272,135	—	—	1,661,631
Source of Supply Structures	13,643,247	—	—	—	13,652,447	1,889,496	—	—	—	3,822,478
Collecting and Impounding Reservoirs	4,251,683	—	—	—	4,251,683	3,768,763	53,715	—	—	6,802,157
Wells & Springs	23,669,280	—	—	—	23,669,280	6,333,493	468,664	—	—	3,710,745
Power & Pumping Structures	23,302,101	78,571	—	—	23,380,672	3,192,939	517,806	—	—	33,130,741
Purification Buildings	35,296,935	—	—	—	35,296,935	32,523,500	607,241	—	—	37,846,574
Distribution Reservoirs	87,947,865	2,121,222	—	—	90,069,087	35,549,972	2,296,602	—	—	1,297,283
Office Building	1,672,930	—	—	—	1,672,930	1,265,017	32,266	—	—	958,778
Field Operation Building	1,349,400	—	—	—	1,349,400	926,537	32,241	—	—	591,083
Utility Plant - Unclassified	591,079	—	—	—	591,079	590,959	124	—	—	30,990,047
Electric Pumping Equipment	41,687,814	1,150,937	—	(223,439)	42,615,312	29,030,296	2,184,190	(224,439)	—	2,749,528
Other Power Pumping Equipment	3,430,785	54,437	—	—	3,485,222	2,526,974	222,554	—	—	4,196,423
Purification System - Chlorinators	8,084,554	9,076	—	(774)	8,092,856	3,684,272	512,925	(774)	—	48,030,118
Purification System - Filter Plants	57,185,291	—	—	(147,300)	57,037,991	46,857,117	1,268,746	(95,745)	—	152,100,162
Transmission & Distribution Mains	321,966,995	5,125,767	—	(77,070)	327,015,692	145,248,692	7,045,243	(193,773)	—	2,940,364
Service Laterals	4,609,557	133,088	—	—	4,742,645	2,789,387	150,977	—	—	6,684,551
Meters	8,984,838	11,543	—	—	8,996,381	6,280,291	404,260	—	—	40,488
Office Furniture & Equipment	54,155	23,973	—	—	78,128	37,568	2,920	—	—	125,805
Stores Equipment	198,385	—	—	—	198,385	120,529	5,276	—	—	68,194
Shop Equipment	72,674	—	—	(70)	72,604	67,949	315	(70)	—	394,527
Laboratory Equipment	535,995	—	—	—	535,995	374,946	19,581	—	—	2,105,202
Work Equipment	4,795,956	181,015	—	(30,768)	4,946,203	1,908,045	227,925	(30,768)	—	1,445,449
Communication Equipment	1,682,737	24,863	—	—	1,707,600	1,380,907	64,542	—	—	5,055,963
Meter Boxes	291,058	—	—	(4,163)	286,895	291,058	—	(4,163)	—	214,705
Hydrants	11,848,593	92,709	—	(2,185)	11,939,117	4,824,248	233,900	(2,185)	—	347,249,891
Standpipes	246,277	—	—	(9,991)	236,286	221,150	3,546	(9,991)	—	437,290
Office Machines	665,407,329	9,016,401	—	(485,760)	673,927,970	331,184,105	16,627,694	(561,908)	—	5,376,658
Transportation Equipment	666,070	23,229	—	(202,990)	486,309	617,976	22,304	(202,990)	—	—
Total Capital Assets (1)	5,588,712	500,818	—	(903)	6,088,627	5,120,146	257,644	(1,132)	—	—
	\$ 671,662,111	\$ 9,540,448	\$ —	\$ (699,653)	\$ 680,502,906	\$ 336,922,227	\$ 16,907,642	\$ (766,030)	\$ —	\$ 353,063,839
Construction in Aid		\$ 3,432,428								
Capital Replacement Fund		2,225,491								
Construction in Aid - Direct		1,228,182								
Revenue Fund		751,354								
Water System Development Fund		1,902,993								
		\$ 9,540,448								

(1) Excludes construction in progress.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
County of Maui
SCHEDULE II - SCHEDULE OF LONG-TERM DEBT - GENERAL OBLIGATION BONDS
June 30, 2021

County of Maui General Obligation Bonds	Fiscal Year	Coupon Interest Rate	Bond Dated	Maturing Serially From	Call Dates	Authorized and Issued	Outstanding June 30, 2021	Payable Within One Year
G.O. Refunding Bonds, 2012 Series B (b)								
	2022	5.00	11/1/2012	6/1/2022	Noncallable	\$ 206,056	\$ 206,056	\$ 206,056
	2023	4.00	11/1/2012	6/1/2023	Noncallable	216,214	216,214	--
	2024	2.125	11/1/2012	6/1/2024	6/1/2023	224,921	224,921	--
	2025	3.00	11/1/2012	6/1/2025	6/1/2023	229,758	229,758	--
	2026	3.00	11/1/2012	6/1/2026	6/1/2023	236,529	236,529	--
	2027	3.00	11/1/2012	6/1/2027	6/1/2023	243,785	243,785	--
	2028	3.00	11/1/2012	6/1/2028	6/1/2023	251,040	251,040	--
	2029	3.00	11/1/2012	6/1/2029	6/1/2023	258,779	258,779	--
	2030	3.00	11/1/2012	6/1/2030	6/1/2023	266,519	266,519	--
	2031	3.00	11/1/2012	6/1/2031	6/1/2023	274,258	274,258	--
	2032	3.00	11/1/2012	6/1/2032	6/1/2023	282,481	282,481	--
						<u>2,690,340</u>	<u>2,690,340</u>	<u>206,056</u>
Total 2012 Series B Issue								
G.O. Refunding Bonds, 2012 Series C (c)								
	2022	5.00	11/1/2012	6/1/2022	Noncallable	1,035,000	1,035,000	1,035,000
	2023	4.00	11/1/2012	6/1/2023	Noncallable	1,090,000	1,090,000	--
						<u>2,125,000</u>	<u>2,125,000</u>	<u>1,035,000</u>
Total 2012 Series C Issue								
G.O. Refunding Bonds, 2014 Series C (d)								
	2022	5.00	12/1/2014	6/1/2022	Noncallable	305,000	305,000	305,000
	2023	5.00	12/1/2014	6/1/2023	Noncallable	320,000	320,000	--
	2024	5.00	12/1/2014	6/1/2024	Noncallable	335,000	335,000	--
	2025	3.00	12/1/2014	6/1/2025	6/1/2024	350,000	350,000	--
	2026	3.00	12/1/2014	6/1/2026	6/1/2024	360,000	360,000	--
	2027	4.00	12/1/2014	6/1/2027	6/1/2024	370,000	370,000	--
	2028	3.00	12/1/2014	6/1/2028	6/1/2024	385,000	385,000	--
	2029	3.00	12/1/2014	6/1/2029	6/1/2024	400,000	400,000	--
	2030	3.00	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	--
						<u>5,005,000</u>	<u>5,005,000</u>	<u>305,000</u>
Total 2014 Series C Issue								

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
 County of Maui
SCHEDULE II - SCHEDULE OF LONG-TERM DEBT - GENERAL OBLIGATION BONDS (Continued)
 June 30, 2021

County of Maui General Obligation Bonds	Fiscal Year	Coupon Interest Rate	Bond Dated	Maturing Serially From	Call Dates	Authorized and Issued	Outstanding June 30, 2021	Payable Within One Year
G.O. Refunding Bonds, 2015 Series D (f)								
	2022	5.000	3/1/2016	9/1/2022	Noncallable	\$ 343,128	\$ 343,128	\$ 343,128
	2023	5.000	3/1/2016	9/1/2023	Noncallable	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						2,334,384	2,334,384	343,128
G.O. Refunding Bonds, 2018 Series C (g)								
	2022	5.000	9/1/2018	9/1/2022	Noncallable	250,000	250,000	250,000
	2023	5.000	9/1/2018	9/1/2023	Noncallable	265,000	265,000	--
	2024	5.000	9/1/2018	9/1/2024	Noncallable	275,000	275,000	--
	2025	5.000	9/1/2018	9/1/2025	Noncallable	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						3,555,000	3,555,000	250,000

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

Department of Water Supply
 County of Maui
SCHEDULE II - SCHEDULE OF LONG-TERM DEBT - GENERAL OBLIGATION BONDS (Continued)
 June 30, 2021

County of Maui General Obligation Bonds	Fiscal Year	Coupon Interest Rate	Bond Dated	Maturing Serially From	Call Dates	Authorized and Issued	Outstanding June 30, 2021	Payable Within One Year
G.O. Refunding Bonds, 2020 Series B	2022	5.000	9/23/2020	3/1/2022	Noncallable	\$ 29,563	\$ 29,563	\$ 29,563
	2023	5.000	9/23/2020	3/1/2023	Noncallable	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	--
	2030	5.000	9/23/2020	3/1/2030	Noncallable	50,337	50,337	--
Total 2020 Series B Issue						<u>352,759</u>	<u>352,759</u>	<u>29,563</u>
Total General Obligation Bonds						\$ <u>16,062,483</u>	\$ <u>16,062,483</u>	\$ <u>2,168,747</u>

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

**Department of Water Supply
County of Maui
SCHEDULE II - SCHEDULE OF LONG-TERM DEBT -
GENERAL OBLIGATION BONDS (Continued)
June 30, 2021**

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.

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT

PART II

REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING AND ON COMPLIANCE AND OTHER MATTERS

DEPARTMENT OF WATER SUPPLY – FY 2021 ANNUAL REPORT



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, 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, 2021, and the related notes to the financial statements, and have issued our report thereon dated January 31, 2022.

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.

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N&K CPAs, Inc.
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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. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

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*.

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 31, 2022