

EXHIBIT Z-1

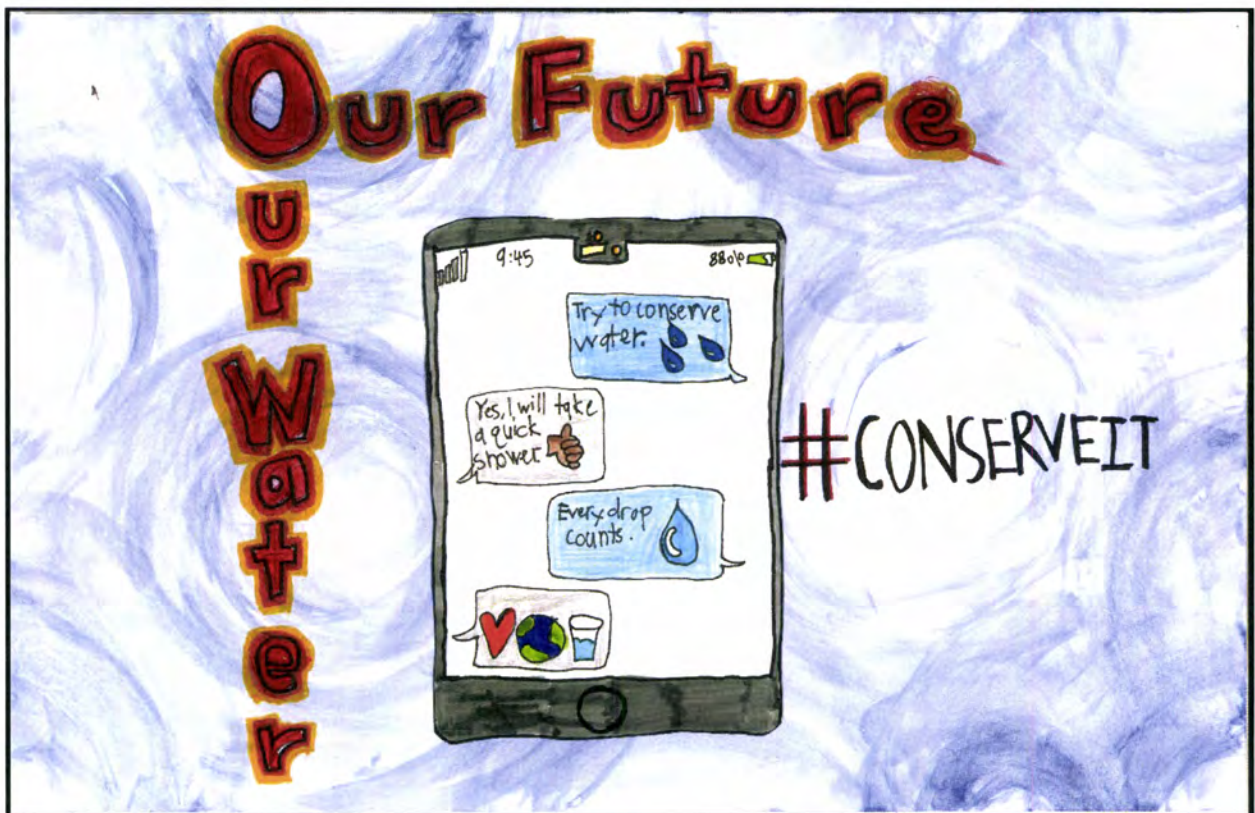
DEPARTMENT OF WATER SUPPLY

County of Maui

ANNUAL REPORT FY 2020

Jeffrey T. Pearson, P.E., Director

Helene Kau, Deputy Director



DWS Water Conservation Poster Contest Division Grade 3-4, 1st Place
Mason Kurokawa, 3rd Grade

Submitted September 18, 2020

EXHIBIT Z-1

DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

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DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

EXECUTIVE SUMMARY



Jeffrey T. Pearson
Director

The Department of Water Supply (DWS) is proud to present its Fiscal Year 2020 Annual Report which provides an overview of the department, its goals and objectives, and highlights of activities performed throughout the fiscal year.

HIGHLIGHTS

The biggest event of FY20 was nowhere on our radar at the beginning of the year: 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 in the workplace.



Helene Kau
Deputy Director

Our Engineering Division is constantly working on many projects, however, 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 the completion of Phase 1 of the department's Strategic Plan and the preparation towards the completion of Phase 2. The Maui Island Water Use and Development Plan (WUDP) was reviewed by County Council during FY20, and we are hopeful for full council approval in FY21. The division oversees our efforts in protecting water resources, participates in educational community events and informs the community about water conservation, source protection and the value of water resources. They distributed over 2,500 water reduction

fixtures, 53 rain barrels and 33 toilets certificates to help our community reduce water use. They also facilitated the County Council allocating over \$2.5 million in grants to watershed partnerships and organizations.

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. DWS still continues to be the only County department that has its own payroll staff; all other departments use the Payroll Section of the Finance Department for the processing of payroll. The Workday HR and Payroll

DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

system is in full use and *all* DWS employees are now used to entering their time on a computer instead of on paper.

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 backpressure or back siphonage in the 3,798 backflow assemblies being monitored in Maui County; and the laboratory ensured that all 14,330 samples in FY20 were taken and analyzed competently and that all data produced was documented with precision and accuracy.

Accomplishments for the Water Treatment Plant Division included installation of the last sodium hypochlorite on-site generation system of the six treatment facilities. This final retrofit signified the end of hazardous chlorine gas usage for disinfection and the complete conversion over to a non-hazardous concentration of sodium hypochlorite, using salt and electricity. Overall, the division helped distribute approximately 11.3 million gallons of clean water to our customers daily, or over four *billion* gallons for FY20.

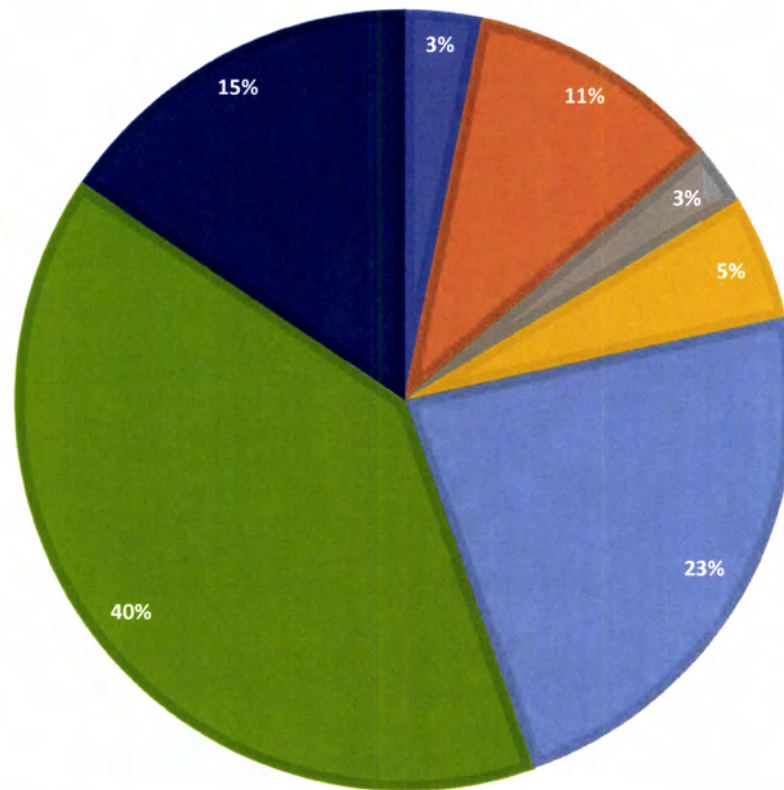
Field Operations had another usual, busy year. Pipefitters, welders, carpenters, electricians, equipment operators, mechanics, technicians and laborers in yards in Hana, Moloka'i, Upcountry, Central Maui and Maui's West Side, are responsible for approximately 780 miles of water transmission and distribution lines and for the system infrastructure including baseyards and plants. The team responded to over 2000 customer calls and were called out on over 800 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 FY20, which is significant when you realize each job is 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 2020 ANNUAL REPORT

FY 2020 EXPENDITURES BY DIVISION


- Director's Office
 - Water Resources & Planning
 - Field Operations
 - Water Treatment Plant
- Fiscal
 - Engineering
 - Plant Operations



Division	FY 2019	FY 2020
Director's Office	1,360,636	1,187,146
Fiscal	3,110,420	3,945,317
Water Resources & Planning	1,092,997	955,831
Engineering	1,685,096	1,935,238
Field Operations	7,503,292	8,568,819
Plant Operations	14,202,959	14,820,071
Water Treatment Plant	5,723,327	5,777,118
Total	34,678,727	37,189,540

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 OFFICE OF THE MAYOR
 DEPARTMENT OF WATER SUPPLY
 County of Maui
 Functional Chart
 As of September 30, 2019

OFFICE OF THE DIRECTOR

Department Submittal/Approved by:

 Jeffrey T. Pearson, P.E. Date
 JUL - 2 2020

Approved by:

 Sandy K. Baz, Managing Director Date
 7/14/20

ADMINISTRATION PROGRAM

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.

FISCAL/CUSTOMER SERVICE
 EP Count = 32

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.

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.

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.

DEPARTMENT OF WATER
SUPPLY
County of Maui
Functional Chart
As of September 30, 2019

OFFICE OF THE
DIRECTOR

Department Submittal/Approved by:

Jeffrey T. Pearson JUL - 2 2020
Jeffrey T. Pearson, P.E. Date

Approved by:

Sandy K. Baz 7/14/20
Sandy K. Baz, Managing Director Date

WATER OPERATIONS PROGRAM

FIELD OPERATIONS
EP Count = 83

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.

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 Kemole Weir microfiltration, the Piipihole 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.

PLANT OPERATIONS
EP County = 34

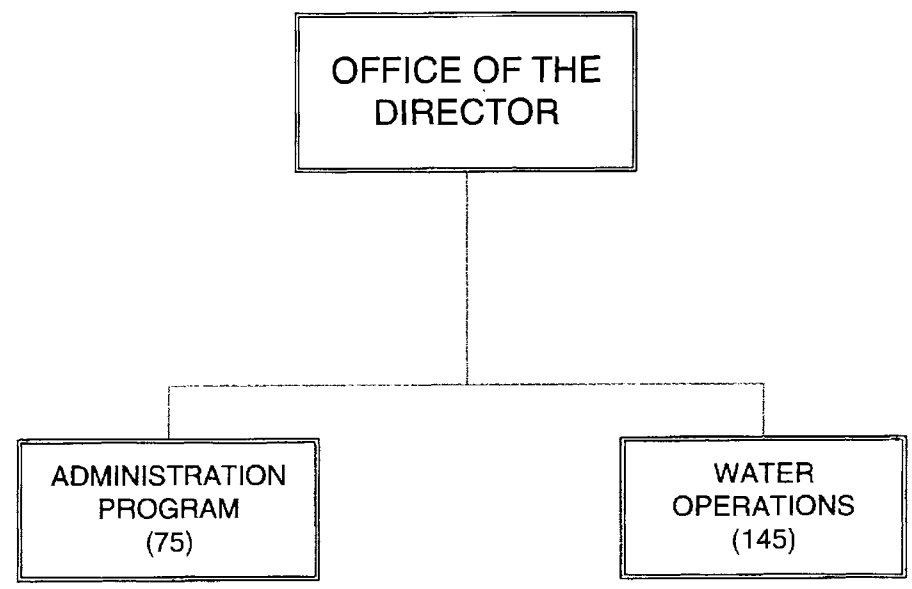
The Plant Operations Program is comprised of four sections: Plant Maintenance, Water Quality, SCADA-Telemetry, and Backflow Prevention. The Plant Maintenance section operates and maintains groundwater wells and booster pumping facilities. The SCADA-Telemetry section provides ongoing development and support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

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DEPARTMENT OF WATER SUPPLY
County of Maui
Effective Date: September 30, 2019
FY 2020 Organizational Chart

Prepared By: *[Signature]* MAR 10 2020
Department Head Date

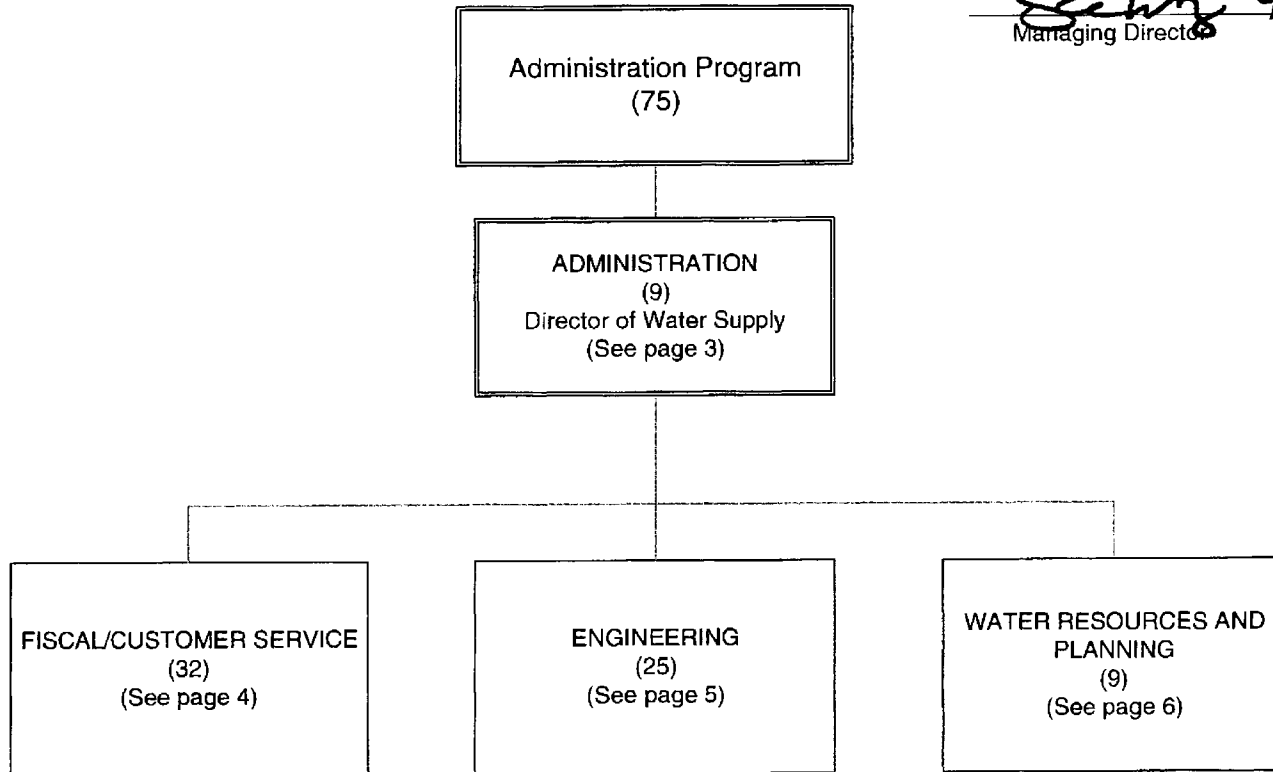
Approved: *[Signature]* 4/2/20
Managing Director Date



DEPARTMENT OF WATER SUPPLY
County of Maui
Effective Date: September 30, 2019
FY 2020 Organizational Chart

Prepared By: [Signature] MAR 10 2020
Department Head Date

Approved: [Signature] 4/2/20
Managing Director Date



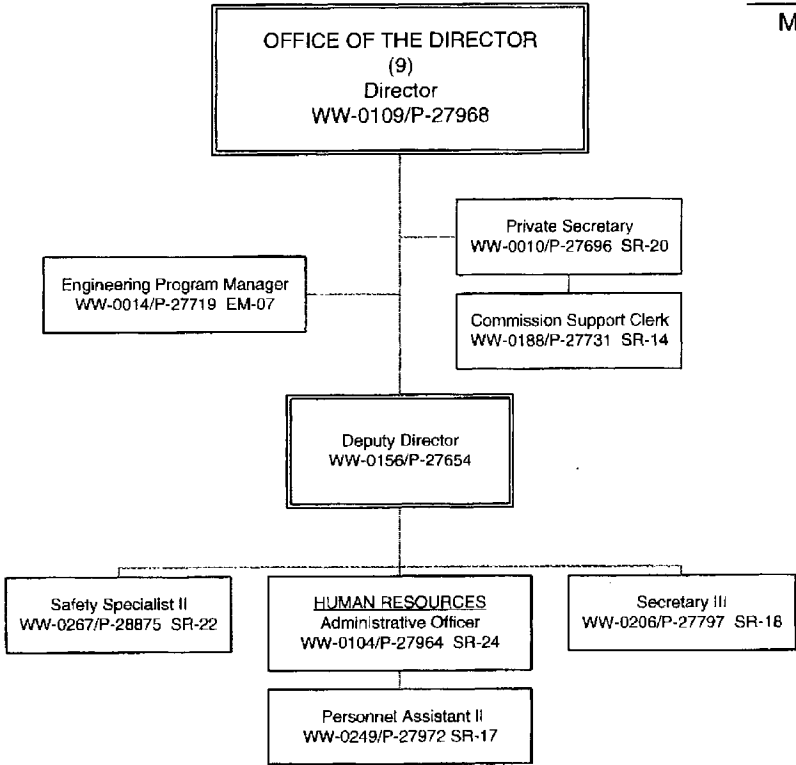
DEPARTMENT OF WATER SUPPLY
County of Maui
Effective Date: September 30, 2019
FY 2020 Organizational Chart

Prepared By:

[Signature] MAR 10 2020
Department Head Date

Approved:

[Signature] 4/2/20
Managing Director Date



DEPARTMENT OF WATER SUPPLY
 County of Maui
 Effective Date: September 30, 2019
 FY 2020 Organizational Chart

FISCAL/CUSTOMER SERVICE
 (32)
 Waterworks Fiscal Officer
 WW-0002/P-27692 EM-05

Assistant Waterworks
 Fiscal Officer
 WW-011/P-27970 EM-03

Department Submittal/Approved by:

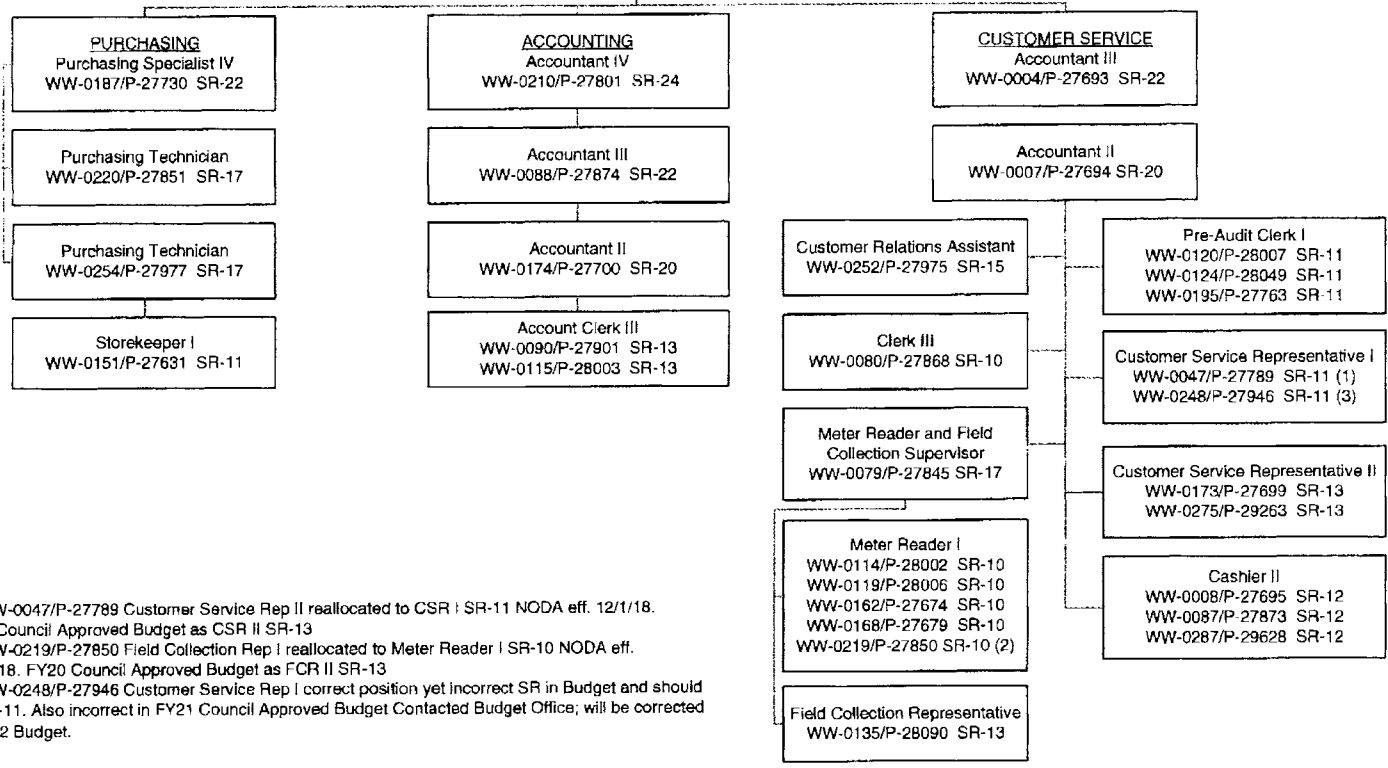
Jeffrey T. Pearson
 Jeffrey T. Pearson, P.E.

AUG 26 2020
 Date

Approved by:

Sandy K. Baz
 Sandy K. Baz, Managing Director

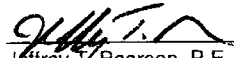
8/28/20
 Date



(1) WW-0047/P-27789 Customer Service Rep II reallocated to CSR I SR-11 NODA eff. 12/1/18. FY20 Council Approved Budget as CSR II SR-13
 (2) WW-0219/P-27850 Field Collection Rep I reallocated to Meter Reader I SR-10 NODA eff. 06/01/18. FY20 Council Approved Budget as FCR II SR-13
 (3) WW-0248/P-27946 Customer Service Rep I correct position yet incorrect SR in Budget and should be SR-11. Also incorrect in FY21 Council Approved Budget Contacted Budget Office; will be corrected in FY22 Budget.

DEPARTMENT OF WATER SUPPLY
 County of Maui
 Effective Date: September 30, 2019
 FY 2020 Organizational Chart

ENGINEERING
 (25)
 Engineering Program Manager
 WW-0269/P-28838 EM-07

Department Submittal/Approved by:

 Jeffrey V. Pearson, P.E. Date: **AUG 28 2020**

Approved by:

 Sandy K. Baz, Managing Director Date: **8/28/20**

Engineering Support Tech I
 WW-0178/P-27723 SR-15

Land Use Permit Clerk
 WW-0064/P-27818 SR-12
 WW-0200/P-27768 SR-12
 WW-0152/P-27632 SR-12

DISTRICT I - CENTRAL
 Civil Engineer VI
 WW-0208/P-27799 SR-28

Civil Engineer V
 WW-0257/P-28856 SR-26

Civil Engineer III
 WW-0127/P-26052 SR-22
 WW-0189/P-27732 SR-22 (1)

Waterworks Inspector II
 WW-0108/P-27967 SR-19
 WW-0169/P-27680 SR-19

DISTRICT II - EAST
 Civil Engineer VI
 WW-0209/P-27800 SR-28

Civil Engineer V
 WW-0255/P-28854 SR-26

Civil Engineer IV
 WW-0018/P-27721 SR-24

Civil Engineer II
 WW-0110/P-27969 SR-20 (1)

Waterworks Inspector II
 WW-0086/P-27872 SR-19
 WW-0193/P-27762 SR-19

CAPITAL IMPROVEMENT PROGRAM
 Civil Engineer VI
 WW-0207/P-27798 SR-28

Civil Engineer IV
 WW-0177/P-27703 SR-24

Engineering Aid IV
 WW-0019/P-27722 SR-17

Engineering Drafting Aid III
 WW-0072/P-27841 SR-17

Civil Engineer V
 WW-0011/P-27697 SR-26

Civil Engineer IV
 WW-0256/P-28855 SR-24

Civil Engineer II
 WW-0112/P-27971 SR-20 (2)


BUILDING PERMITS

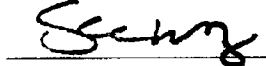
Civil Engineer III
 WW-0235/P-27909 SR-22

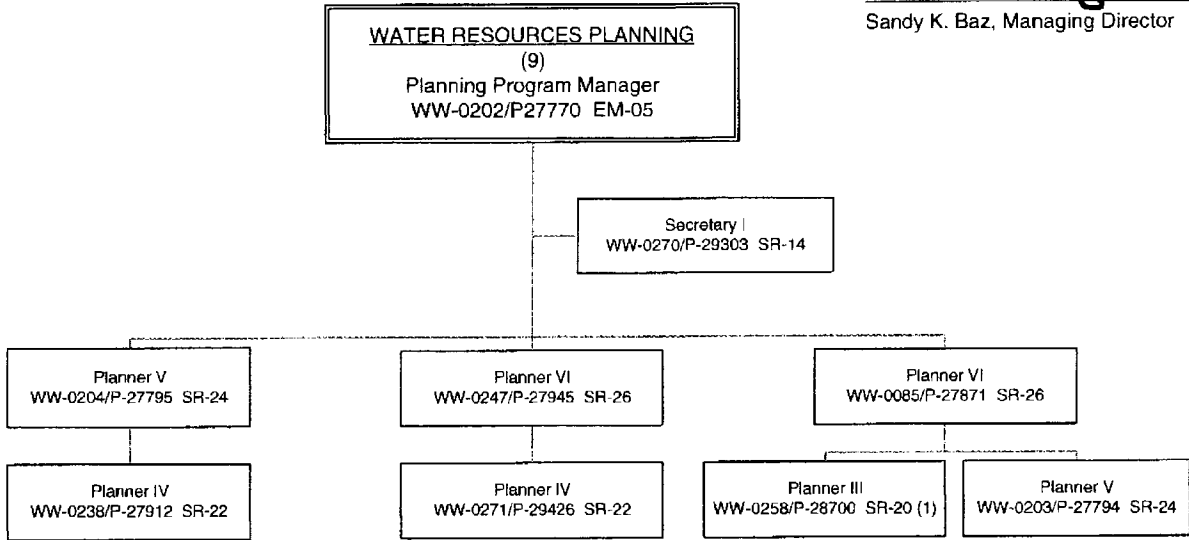
12

(1) WW-0189/P-27732 Civil Engineer III is pending reallocation and approval by DPS to the budgeted Civil Engineer IV, SR-24, with implementation starting date of 10/1/2019.
 (2) WW-0110/P-27969 Civil Engineer I reallocated to Civil Engineer II SR-20 NODA eff. 09/04/19. FY20 Council Approved Budget as Civil Engineer III SR-22
 (3) WW-0112/P-27971 Civil Engineer I reallocated to Civil Engineer II SR-20 NODA eff. 02/20/19. FY20 Council Approved Budget as Civil Engineer III SR-22

DEPARTMENT OF WATER SUPPLY
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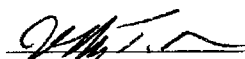
Department Submittal/Approved by:

 Jeffrey V. Pearson, P.E. Date: JUL - 2 2020

Approved by:

 Sandy K. Baz, Managing Director Date: 7/14/20

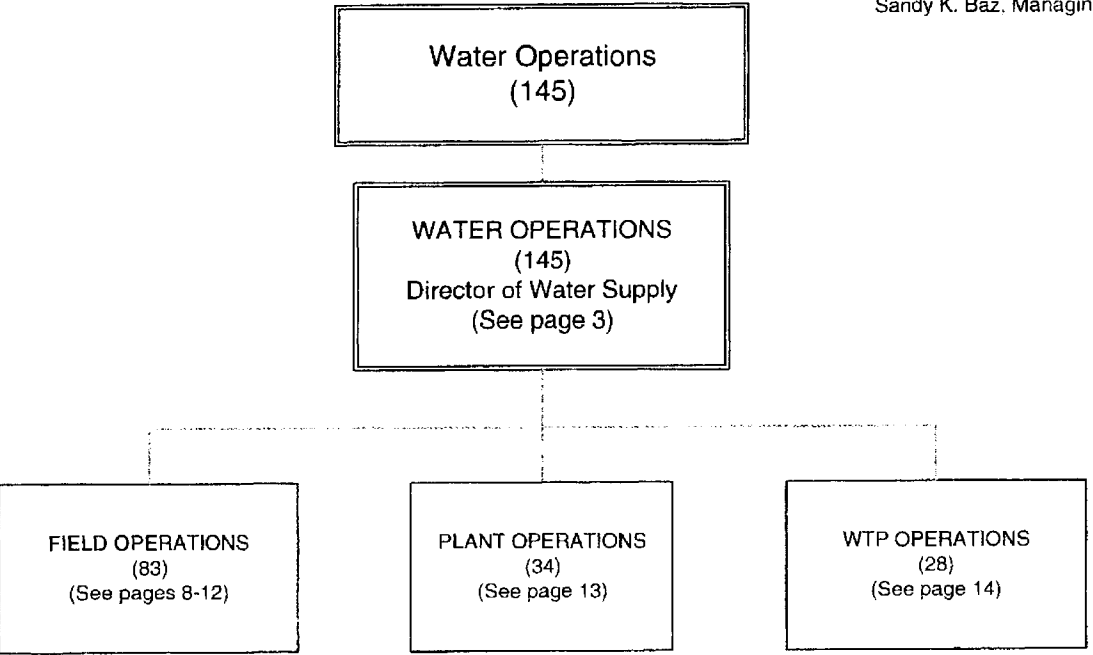


(1) WW-0258/P-28700 Planner IV SR-22 reallocated to Planner III SR-20 NODA eff. 05/20/19. FY20 Council Approved Budget as Planner IV SR-22

DEPARTMENT OF WATER SUPPLY
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 JUL - 2 2020
Jeffrey L. Pearson, P.E. Date

Approved by:
 7/14/20
Sandy K. Baz, Managing Director Date



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Prepared By:

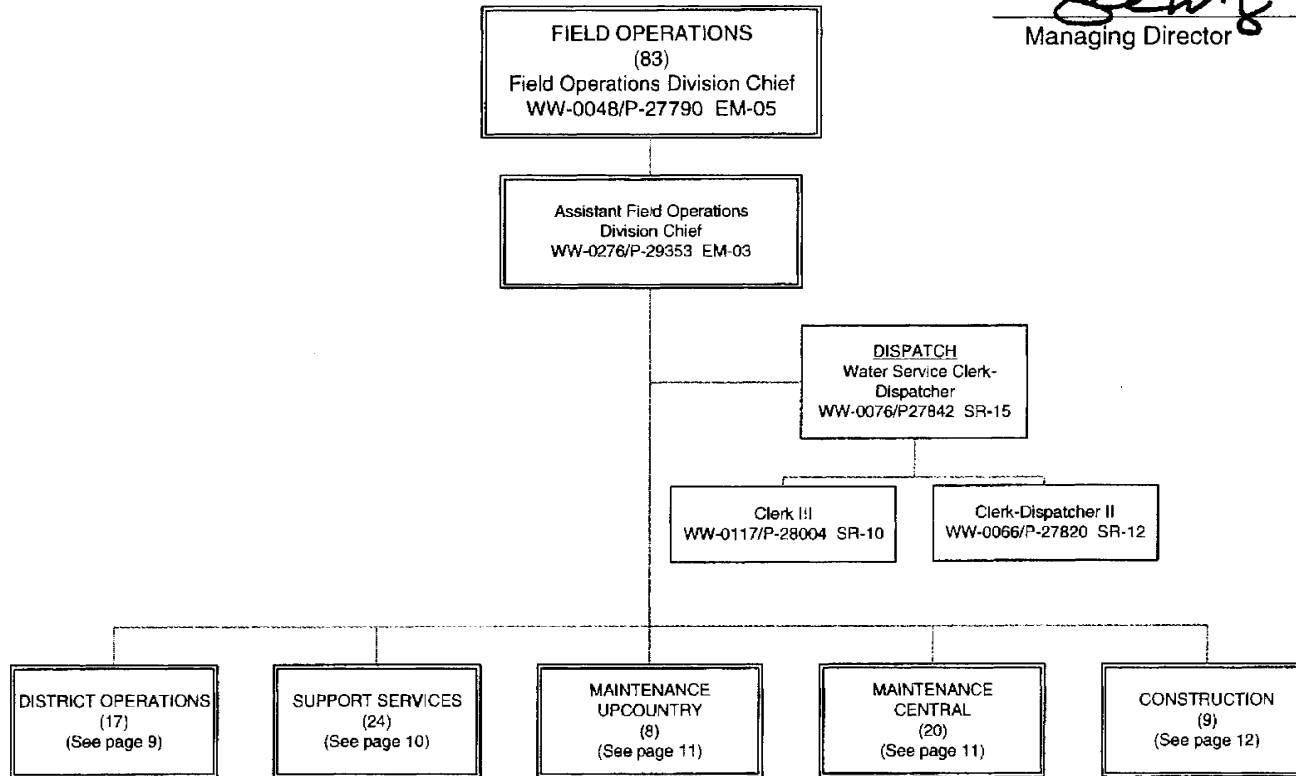
MAR 10 2020

[Signature]
 Department Head

Date

Approved:

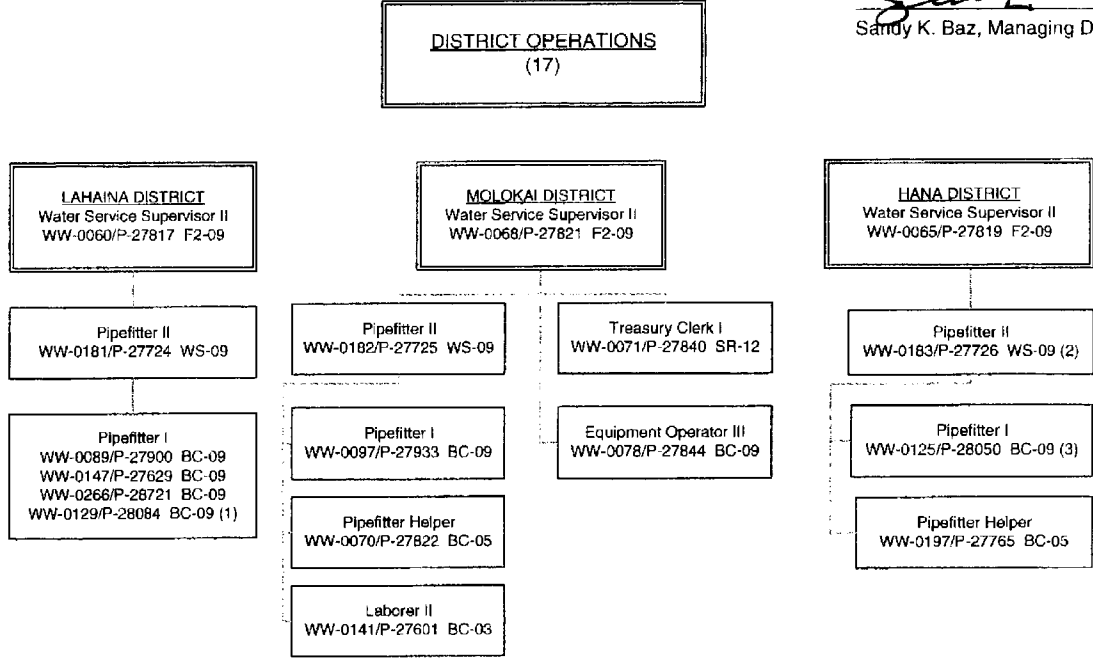
[Signature] 6/2/20
 Managing Director Date



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County of Maui
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Department Submittal/Approved by:
Jeffrey A. Pearson AUG 28 2020
Jeffrey A. Pearson, P.E. Date

Approved by:
Sandy K. Baz 8/28/20
Sandy K. Baz, Managing Director Date



(1) WW-0129/P-28084 Pipefitter Helper BC 05 reallocated to Pipefitter I BC-09 NODA eff. 10/18/19. FY20 Council Approved Budget as Pipefitter Helper.
 (2) WW-0183/P-27726 Pipefitter II, returned PF II after one year temporary reallocation to Laborer I, 6/8/18 to 7/2/19. NODA 7/2/19.*
 (3) WW-0125/P-28050 Pipefitter I, returned PF I after one year temporary reallocation to Pipefitter II, 6/8/18 to 7/2/19. NODA 7/2/19.*
 * Note: The one year temporary reallocations were not reflected in the FY19 Council Approved Budget.

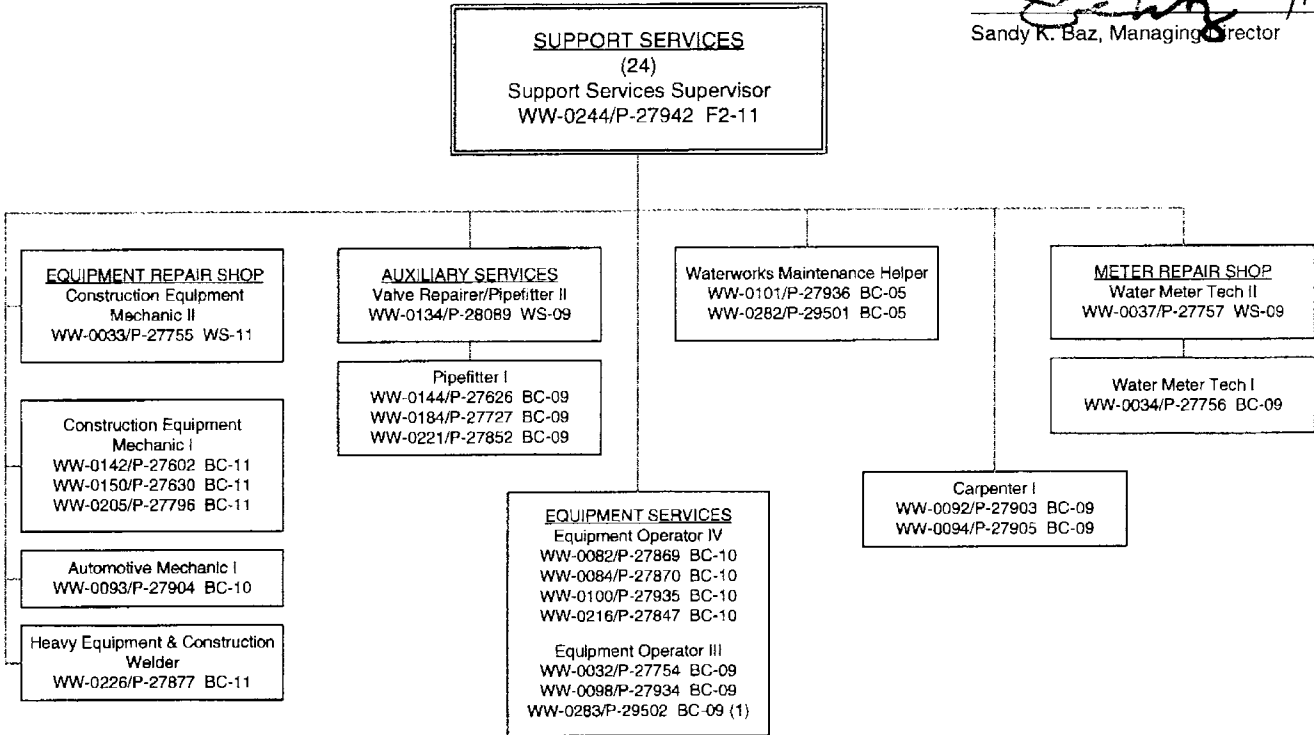
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Jeffrey T. Pearson JUL - 2 2020
 Jeffrey T. Pearson, P.E. Date

Approved by:

Sandy K. Baz 7/14/20
 Sandy K. Baz, Managing Director Date



(1) WW-0283/P-29502 Waterworks Maintenance Helper BC-05 reallocated to Equipment Operator III BC-09 NODA eff. 06/06/19.
 FY20 Council Approved Budget as Waterworks Maintenance Helper BC-05

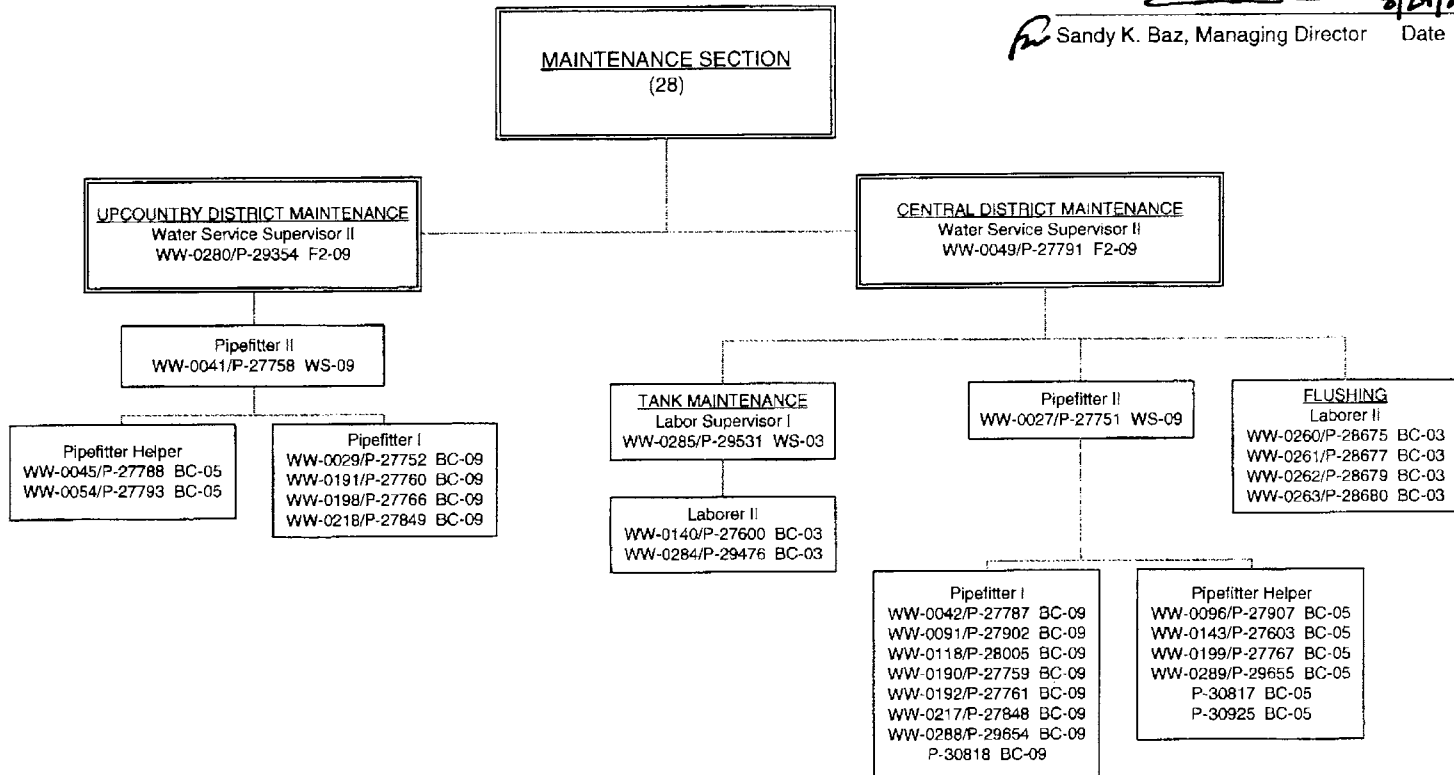
DEPARTMENT OF WATER SUPPLY
 County of Maui
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Department Submittal/Approved by:

Jeffrey T. Pearson **AUG 12 2020**
 Jeffrey T. Pearson, P.E. Date

Approved by:

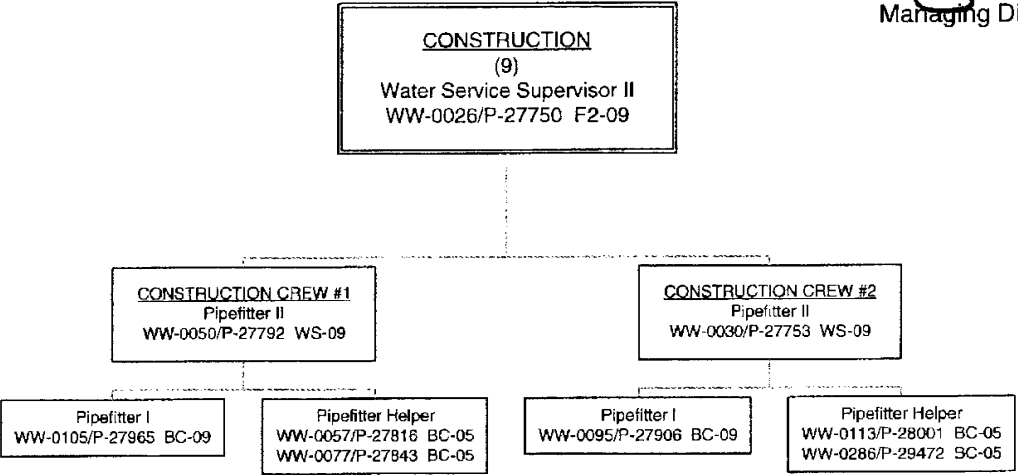
Sandy K. Baz **8/12/2020**
 Sandy K. Baz, Managing Director Date




DEPARTMENT OF WATER SUPPLY
County of Maui
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FY 2020 Organizational Chart

Prepared By: *[Signature]* MAR 10 2020
Department Head Date

Approved: *[Signature]* 6/2/20
Managing Director Date

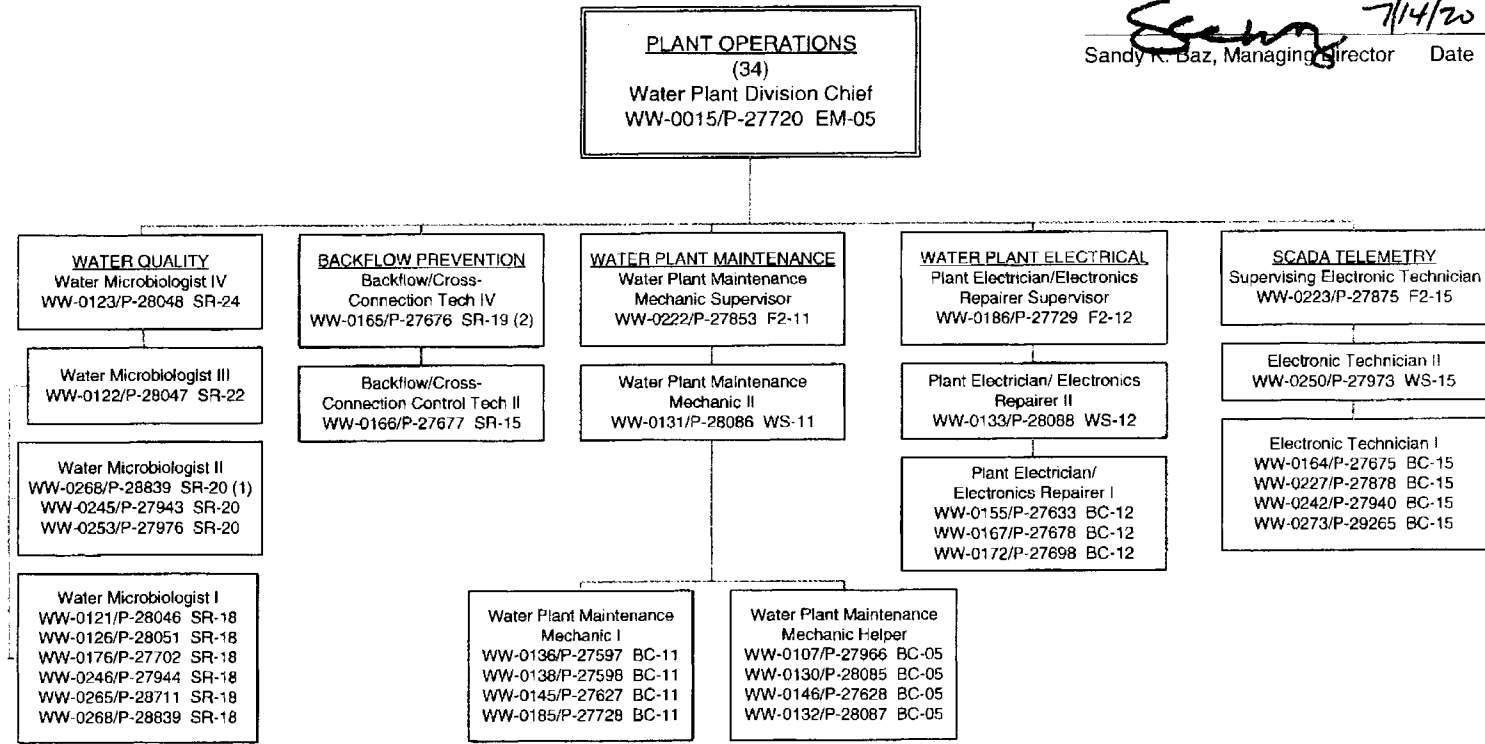


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County of Maui
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 Jeffrey L. Pearson, P.E. Date
JUL - 2 2020

Approved by:

 Sandy R. Baz, Managing Director Date
7/14/20



(1) WW-0268/P-28839 Water Microbiologist I SR-18 reallocated to Water Microbiologist II SR-20 NODA eff. 11/01/18, FY20 Council Approved Budget as Water Microbiologist I SR-18
 (2) WW-0165/P-27676 Backflow/Cross-Connection Tech III SR-17 reallocated to Backflow/Cross-Connection Tech IV SR-19 NODA eff. 10/01/19.
 FY20 Council Approved Budget as Backflow/Cross-Connection Tech III SR-17

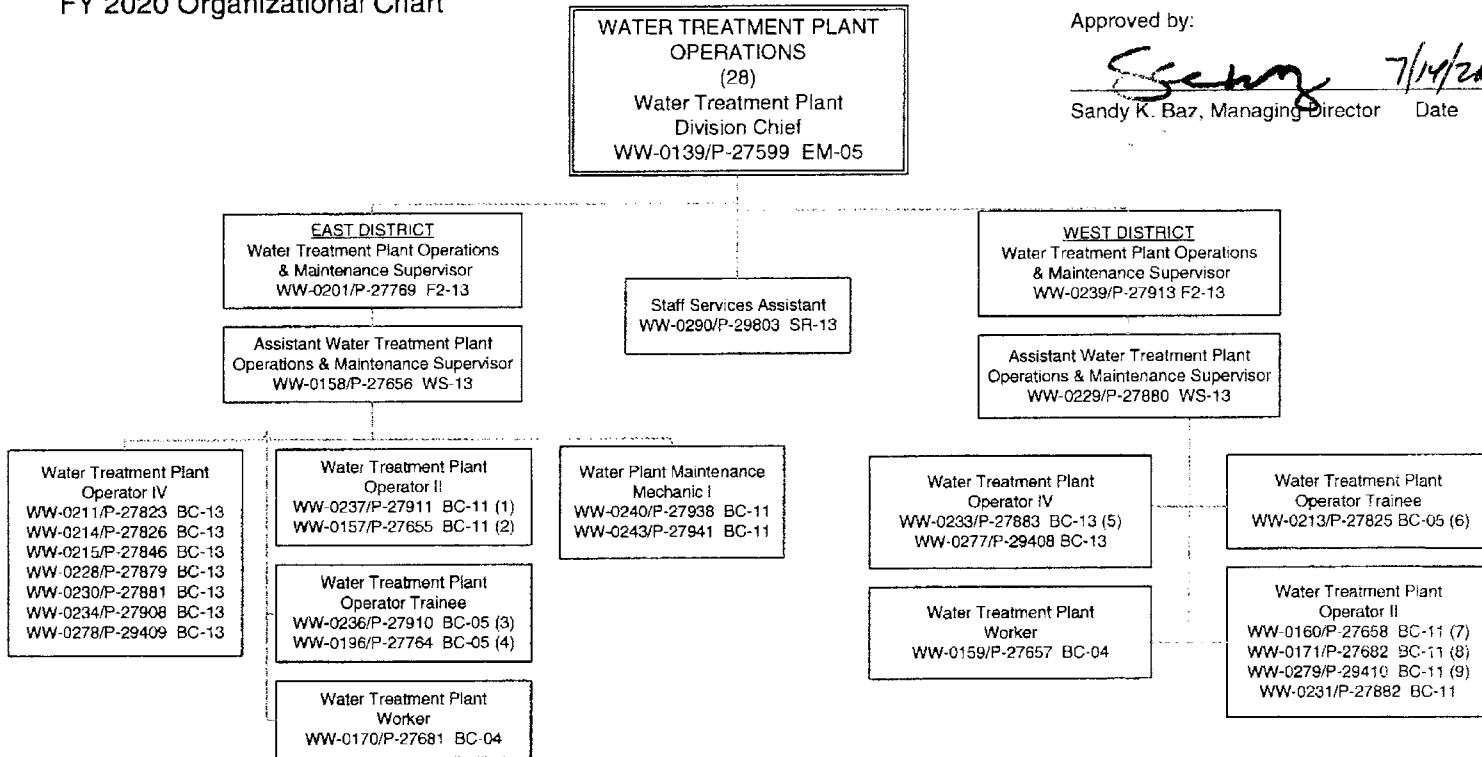
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Jeffrey T. Pearson JUL - 2 2020
 Jeffrey T. Pearson, P.E. Date

Approved by:

Sandy K. Baz 7/19/20
 Sandy K. Baz, Managing Director Date



- (1) WW-0237/P-27911 Water Treatment Plant Operator II BC-11, appears FY20 Council Approved Budget as a WTPO IV BC-13; incumbent should be upgraded during FY21
- (2) WW-0157/P-27655 Water Treatment Plant Operator II BC-11, appears FY20 Council Approved Budget as a WTPO IV BC-13; anticipated upgrade during FY21
- (3) WW-0236/P-27910 Water Treatment Plant Operator Trainee, appears FY20 Council Approved Budget as a WTPO IV BC-13; incumbent should be upgraded to WTPO II during FY21
- (4) WW-0196/P-27764 Water Treatment Plant Operator Trainee BC-05, appears FY20 Council Approved Budget as a WTPO IV BC-13; anticipated reallocation to Water Treatment Plant Operator II BC-11 during FY21
- (5) WW-0233/P-27883 Water Treatment Plant Operator II BC-11, reallocated to Water Treatment Plant Operator IV BC-13, NODA eff. 10/21/19
- (6) WW-0213/P-27825 Water Treatment Plant Operator IV BC-13, reallocated to Water Treatment Plant Operator Trainee BC-05. NODA eff. 01/01/19. incumbent should be upgraded to WTPO II during FY21
- (7) WW-0160/P-27658 Water Treatment Plant Operator II BC-11, appears FY20 Council Approved Budget as a WTPO IV BC-13; incumbent should be upgraded during FY21
- (8) WW-0171/P-27682 Water Treatment Plant Operator II BC-11, appears FY20 Council Approved Budget as a WTPO IV BC-13; incumbent should be upgraded during FY21
- (9) WW-0279/P-29410 Water Treatment Plant Operator II BC-11, appears FY20 Council Approved Budget as a WTPO IV BC-13; incumbent should be upgraded during FY21

DIRECTOR'S REPORTS

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 also responsible for overseeing the construction phase of capital improvement projects within this district.

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

The Capital Improvement Program Section is responsible for the planning and design phase of capital improvement projects.

Capital improvement projects in progress during FY20, along with the respective phase of the project (planning, design, construction, completed construction) are listed below:

DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

<u>Project Name</u>	<u>Phase</u>
Dam Improvements – Olinda Water Treatment Plant, Olinda, Maui – Seismic and stability analysis of the eight-million gallon basin. Study estimated to be completed mid 2021.	Study
Kamole Water Treatment Plant Clearwell & Chemical Building Structural Repairs, Haliimaile, Maui – Structural repairs to the existing three-million gallon concrete clearwell and chemical building. Project estimated to be completed mid 2021.	Design
Lahaina Water Treatment Plant 1MG Clearwell Tank Refurbishment, Lahaina, Maui – Interior refurbishment of one-million gallon concrete clearwell. Project estimated to be completed end 2021.	Design
Launiupoko Well Development, Lahaina, Maui – Development of a potable groundwater source. Exploratory well drilling estimated to be completed end 2022.	Design
Mahinahina Water Treatment Plant Backwash Water Tank Replacement, Kapalua, Maui – Replacement of existing 100,000 gallon tank and demolition of existing tank. Project estimated to be completed end 2021.	Design
Mahinahina Water Treatment Plant Controls Upgrade, Kapalua, Maui – Replacement of the processing and automation controls. Project to be re-bid mid 2021. Project estimated to be completed early 2022.	Design
Mahinahina Water Treatment Plant UV Disinfection, Kapalua, Maui – Installation of ultra-violet disinfection system. Project estimated to be completed end October 2021.	Design
Olinda Water Treatment Plant Clearwell Roof Refurbishment, Makawao, Maui – Refurbishment of the existing the clearwell roof. Project estimated to be completed end 2021.	Design
Olinda Water Treatment Plant On-Site Individual Wastewater Treatment System, Makawao, Maui – Installation of new septic system and leach field. Project estimated to be completed mid 2021.	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.	Design
Wailea Tank Roof Refurbishment, Wailea, Maui – Refurbishment of the existing concrete tank roof. Project estimated to be completed mid 2021.	Design
West Maui Well Development – Kahana Well, Kahana, Maui – Development of a potable groundwater source. Project estimated to be completed end 2021.	Design

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Kula 200 Lower Water Tank Replacement, Kula, Maui – Replacement of the existing 60,000 gallon tank with a new 260,000 gallon tank. Project estimated to be completed end 2020.	Construction
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 estimated to be completed end 2021.	Construction
Mokuhau Wells Motor Control Center (MCC) Upgrades, Wailuku, Maui – Installation of new motor control center and construction of new control building. Project estimated to be completed mid 2021.	Construction
Nahiku Potable Water Tank Interior Recoating, Nahiku, Maui – Installation of interior coating for the existing 30,000 gallon concrete tank. Project estimated to be completed end 2020.	Construction
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 estimated to be completed end 2020.	Construction
On-site Sodium Hypochlorite Generation System for Well Sites – Installation of disinfection systems for the Kanoa, Waihee and Mokuhau well sites to discontinue use of chlorine gas. Project estimated to be completed in mid 2021.	Construction
Pookela Well “B”, Makawao, Maui – Development of a potable groundwater source that will provide a back-up for the existing Pookela Well “A”. Project estimated to be completed end 2021.	Construction
Upcountry Phase 10 Booster Pump Upgrades, Kula, Maui – Replacement of the existing booster pumps and installation of new electrical controls at Pookela, West Olinda, and Maluhia sites. Project estimated to be completed early 2022.	Construction
Wailuku Heights Booster Pump Stations Upgrades, Wailuku, Maui – Replacement of the existing booster pumps at Kuikahi and Waiale sites. Project estimated to be completed early 2021.	Construction
Kamole Water Treatment Plant Traveling Screen Replacement, Haliimaile, Maui – Installation of new traveling screen. Project completed in February 2020.	Construction Completed
Kaupo Non-potable Tank Replacement, Kaupo, Maui – Replacement of the existing 40,000 gallon steel tank with new 100,000 gallon tank. Project completed in September 2019.	Construction Completed
Keanae Motor Control Center (MCC) Upgrades, Keanae, Maui – Replacement of new motor control center. Project completed in May 2020.	Construction Completed

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Keanae Wells Control Tank Replacement, Keanae, Maui – Installation of new 15,000 gallon tank and demolition of existing 15,000 gallon tank. Project completed in July 2019.	Construction Completed
Omaopio Tank Booster Pump and Controls Upgrade, Kula, Maui – Installation of new motor control center and new booster pumps. Project completed in January 2020.	Construction Completed
Omaopio Tank Replacement, Kula, Maui – Construction of new two-million gallon concrete tank and demolition of the existing two-million gallon steel tank. Project completed in January 2020.	Construction Completed
On-site Sodium Hypochlorite Generation System for Water Treatment Plants – Installation of disinfection systems at the Lahaina, Mahinahina, Piihoho, Kamole and Olinda water treatment plants to discontinue use of chlorine gas. Project completed in July 2019.	Construction Completed
Piihoho Water Treatment Plant Roof Replacement, Makawao, Maui – Replacement of roofing on the control building. Project completed in August 2019.	Construction Completed
Waihee Wells Electrical Upgrades, Wailuku, Maui – Upgrade of transformer for the new disinfection system. Project completed in July 2020.	Construction Completed
Wailuku Heights Tank #30 Booster Pump Upgrade, Wailuku, Maui – Installation of the new booster pumps and electrical controls. Project completed in July 2019.	Construction Completed

During FY20, the Engineering Division reviewed approximately 1,061 residential and commercial building permit applications and 45 residential and commercial plumbing permit applications. The division also received approximately 33 subdivision applications, 399 general inquiries and 15 Uniformed Information Practices Act (UIPA) inquires in FY20.

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FIELD OPERATIONS DIVISION

Field Operations consists of the following sections: Maintenance sections in Central, Hana, Lahaina, Moloka'i and Upcountry, Construction, Support Services and the District Office. Field Operations is responsible for approximately 780 miles of water transmission and distribution lines, servicing 36,708 accounts on Maui and Moloka'i and are available for system repairs 24 hours a day, seven days a week.

The Central, Hana, Lahaina, Moloka'i and Upcountry districts are responsible for control, to 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 assist the Construction section, contractors, other divisions, departments and consumers as needed to patch roadways and sidewalks, conduct inspections for agriculture water rate requests, participate and comply with Department of Health Sanitary Survey requirements, perform leak detection, prepare for hurricanes and tsunami events and requests for One Call Utility locations. Personnel in the Maintenance section 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 classes, and DOT testing. Safety "Talk Story" sessions were held between supervisors and crews, yet much of the in-person scheduled safety training was postponed due to the Covid-19 health emergency.

Annual Number of Responses per District

<u>Maintenance District</u>	<u>Consumer Complaints</u>	<u>After-Hour Calls</u>
Central	1,136	362
Hana	90	44
Lahaina	295	48
Moloka'i	178	63
Upcountry	733	303

Central Maintenance

The Central Maintenance crew is responsible for the largest service area in the department, and in FY20 they responded to 1,136 consumer complaints during regular working hours and 362 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.

Other regular projects included the service line replacement program, mainline valve replacement and exercise program, trench/road patching, responding to SCADA alerts, patching sidewalks, conducting inspections for agricultural water rate requests,

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complying with Department of Health (DOH) Sanitary Survey requirements, and traffic control for projects.

The Central crew also 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 classes and DOT testing.

In FY20 Central Maintenance replaced and/or repaired:

- 455' of ¾" copper pipe
- 1,250' of 1" copper pipe
- 1,515' of 1 ¼" of copper pipe
- 520' of 1 ½" of copper pipe
- 470' of 2" of copper pipe
- 73' of 2" of copper pipe to replace Dricso pipe (PE) or galvanized (GI) mainline
- 148' of 4" of ductile iron pipe
- 233' of 6" of ductile iron pipe
- 921' of 8" of ductile iron pipe
- 6' of 12" of ductile iron pipe
- 9' of 18" of ductile iron pipe

The Central crew responded to 161 shut/open meter requests, 17 customer complaints of dirty water, 21 consumer complaints of no water, and 44 high or low pressure complaints. The crew participated in nine tie-ins, 17 bores, 20 taps and other contractor related projects, many of which involved after hours and night work.

The crew also replaced or repaired 24 relief valves and/or gate valves/stopcocks, replaced or repaired approximately 307 meters, repaired approximately 71 service laterals, replaced 149 service laterals, installed six service laterals, replaced 11 cast iron meter box covers, replaced two cement meter box covers, locked/unlocked 10 meters per fiscal, and unlocked 22 cast iron meter box covers. They also replaced 37 hydrants/standpipes and completed 84 field activity requests, 53 job orders, and three agricultural inspections

The laborers in the Central crew flushed the Upcountry water system daily for water quality purposes (a total of 5,991 hydrants flushed and 8,383,800 gallons of water) and performed tank and grounds maintenance in the Lahaina, Upcountry and Central districts. The procedures for both the hurricane and tsunami emergency plans were updated for the Central district which covers all areas from Makena to Waihee to Sprecklesville, and all of the Kahului and Wailuku areas.

Upcountry Maintenance

The Upcountry crew responded to a total of 733 calls during regular working hours and responded to 303 calls after working hours. The crew completed 46 job orders which consisted of shutting down valves for cut-ins and tie-ins, bores, taps, relocating meters

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and repair/replacement of damaged water services and mains for contractors. The crew also completed 48 field activities which included installation of service laterals and meters, assisting to close/open meters for consumer repairs, and relocating and upgrading meters.

The crew repaired and replaced 249 service lines ranging from 1" to 1½". A total of 2,944 feet of service laterals were replaced with copper pipe. They also repaired and replaced 155 main lines ranging from 2" to 12" and 619 feet of main lines were replaced with ductile iron, PE, and copper. The crew responded to 54 "no leak to be found" complaints, 94 private leak complaints, 78 meter leak complaints, 44 dirty water complaints, 40 hydrant/standpipe complaints, 57 high/low psi complaints, and 160 miscellaneous complaints.

During these uncertain times the crew continued working hard during the COVID-19 pandemic, following the guidelines of the Mayor's directives "by staying safe and healthy".

Lahaina Maintenance

The Lahaina Maintenance crew responded to a total of 295 consumer complaints during regular business hours and 48 after-hours emergency call outs. They repaired 31 mainline leaks, 27 service leaks, 45 meters and 14 hydrants/standpipes. The crew installed and/or replaced 198 feet of mainline pipe ranging from 1½" to 8", and 830 feet of service laterals ranging from ¾" to 2". A total of 14 service laterals were replaced, along with 13 gate valves/stopcocks, two air relief valves and 32 meter boxes/covers. The crew also resolved 24 no water/high-low pressure complaints, 34 shut/open water requests and two dirty water complaints. They cut and plugged four illegal connections to the DWS system and completed one agricultural inspection. Crew members also assisted consumers in locating meters/valves, unlocking meter covers and verifying possible leaks.

There were 20 job orders and 286 field activities completed for the Fiscal office, contractors and consumers. A total of four bores and ten corporation taps ranging from 1" to 12" 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 installed six new service laterals, relocated/raised seven meters, installed/removed one temporary construction meter, installed/replaced 231 meters ranging from 5/8" to 4", replaced two transponders, recorded 17 meter readings and removed three meters due to tampering. They also tested meters and checked for under-registering/stopped meters, zero consumption, bad replies and possible tampering.

Weekly system checks were performed on the Honokohau Valley System, which consists of over seven miles of 2" to 6" PE/GI mainline pipe. This is the most challenging system in the Lahaina District, which accounted for 81% of all mainline repairs, and 79% of all mainline footage replaced district wide. Below is a list of work

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performed on the Honokohau system. The amount of illegal taps, mainline repairs and footage replaced are included in the totals stated above.

- Repaired 25 mainline leaks ranging from 1½" to 6" PE/GI pipe.
- Replaced 156' of mainline ranging from 1½" to 6" PE/GI pipe.
- Cut and plugged one illegal tap on DWS water line.
- Installed two flow meters on Honokohau transmission line.
- Performed flow tests on Kapalua pump line and Honokohau transmission line.
- Assisted Construction crew to pull 2" PE pipe above Honokohau tank for a replacement project, and removed abandoned 4" PE pipe from Honokohau Valley.
- Walked and cleared trail while bleeding air from transmission line.

The crew also serviced 141 hydrants throughout the Lahaina District and made system adjustments in the Lahaina/Wahikuli and Kahana areas when necessary. They flushed water in Puamana-Front St. and Honokowai-Napili areas, backfilled and dressed up Driscowork sites, repaired road patches, raised sliding valve boxes and completed cement work on valve donuts. Utility location requests were made with the Hawaii One Call Center and all road patches were marked out for contractor paving. Crew members also assisted the Leak Detection and Valve Repair crews. They located and cleaned out 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. Water payments were collected at Lahaina base yard and dropped off to the Fiscal office.

Moloka'i Maintenance

The Moloka'i crew daily checked chlorine residuals, the rotation of pumps at Kamiloloa, Ualapue and Kawela and flushed hydrants on the East side. Weekly, they filled hypochlorite tanks at all tank sites, picked up PH readings, and maintained the base yard, equipment and vehicles. The crews read meters as needed. When meter readings are picked up, the staff prepares 80-100 high/low field activities to recheck faulty meter readings. This process takes a couple of days to reread and the number for field activities was reduced due to replacing defective meters and transponders. They picked up freight as needed, inspected transmission lines and picked up bacti samples and meter reading at well sites. They also participated in a pilot program with the new cellular meters, however it was not successful because of the limited cellular service on Moloka'i.

The crew completed a total of 564 field activities, responded to a total of 178 consumer complaints during regular business hours and responded to 63 after-hour emergency call outs. They completed one agricultural inspection and one job order. A total of 19 service lines were repaired ranging from 3/4" to 2" lines, with a total of 180 feet of a

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variety of pipes ranging from 2" to 12". They repaired and replaced four fire hydrants, installed four new service lines, and repaired ten mainline breaks.

The crew attended 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 90 consumer complaints during working hours and 44 consumer/SCADA complaints after hours. They completed 84 field activities for the Fiscal office, contractors and consumers and completed two job orders. They logged all tank chlorine levels, amount of pump hours and amount of water pumped from each well site daily, including daily visual checks 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 staff, maintained seven tank sites, landscaped, cut trees, and performed weed control and 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 for billing, meter profiling, lock-out meters and other fiscal needs. The staff also collected monthly payments on accounts. They picked up meter readings at the EMI ditch at Makapipi, which feeds the Nahiku system. Periodically, they were asked to collect microbiological samples for chlorine lines, wells, etc. Samplers were certified by the DWS Laboratory for proper sampling procedures.

The crew completed thirty 4" mainline repairs, with 90% of the repairs dug by hand due to lack of equipment. 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 in working order and were flushed. In addition, the crew has actively replaced old air release valves with new ones when identified.

Earlier this year, the crew noticed that the 12,000 gallon storage tank at Koali was leaking badly from the tank floor, losing approximately 10,000 to 13,000 gallons daily. With assistance from Support Services, the crew installed a 4,000 gallon temporary tank as a replacement.

The crew attended CPR classes, DSO classes as well as the annual chlorine proficiency testing at the DWS laboratory.

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Construction Section

The Construction crew consists of a Water Service Supervisor I, Pipefitters and Pipefitters Helpers. Some of the daily projects that the crew worked on in FY20 included patching roads, sidewalks, and trenches. They also assisted the Maintenance sections in Central, Hana, Lahaina, Upcountry, and Moloka'i 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.

This fiscal year 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:, Wahikuli, Keokea, Waiehu Heights, Naalae Road #348 and #403, Upper Omaopio #377, Waiale, North Waihee, Waihee, and Waikapu Wells, Mokuhanu, Alaeloa Tank, Wailua, Keanae, Waiehu Kou, HHDL 1, 2, and 3, Upper and Lower Holokai Road, Brooks, Honokowai, Hawaiian Homes 1 and 4, Pukalani, Wailea Blue, Waiohuli, Kanaha, and Wailea Upper Level. This work was also done at the Mahinahina WTP, Lahaina WTP, Iao WTP and Olinda WTF.

They helped with the Sanitary Survey at the following tank sites: Naalae Road #348 and #403, Upper Omaopio #377, Waiale, North Waihee and Waihee Wells, Mokuhanu, Alaeloa, Waiehu Kou, HHDL Tanks 1, 2, and 3, Upper and Lower Paia, Haiku Well, Upper and the Lower Holokai Road.

They replaced 181 meters and transponders, 113 defective meters and replaced one cast iron meter box cover.

They also responded to five consumer complaints and completed 306 field activities during this fiscal year.

Projects throughout the year included:

- Installed 4,000' of 2" pipe and 10' of 2" galvanized pipe in the Iao tank area.
- Installed a new hydrochloride meter and water lateral at the Omaopio tank site.
- Excavated, and removed water main, hydrant laterals and valve, ARV's and manhole cylinders. Relocated ARV's and compacted roadways and driveways on Ulumalu Rd.
- Removed debris from North Kihei Road.
- Leveled, graded, raked rocks and hauled away debris from Wailua Keanae tank site.
- Repaired 17 leaks on the 4" mainline, and replaced 30' of 4" PE mainline, repaired 22 leaks and replaced 800' of 2" PE on the 2" PE water line, and cut and cleared trail in the Honokohau, Kapakalua and Honolua areas.
- Removed and rolled 4,200' of 2" PE pipe in the Iao tank, Upper Kehalani area.
- Removed five feet of 3" PVC pipe from the Piiholo Water Treatment Facility area.

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- Installed new 11' drive through gate at the Honokohau tank site.
- Tested pressure release valve, old tank controls and mainline valves. Exposed old tank inlet valve and cut, plugged and cemented old line at the Kauhiko tank site.
- Removed Water Protection Area signs, repaired concrete and sidewalk and installed sign at new location on Mill Street.
- Replaced 15' of 8" ductile iron pipe on Lower Honoapiilani Highway.
- Raised sliding valve box, and replaced ARV and service lateral on Makawao Avenue.
- Exposed dead line, repaired 1" conduit line, backfilled and resurfaced with cold mix at the Olinda Water Treatment Facility.
- Installed two sets of 12" x 6" tapping tees, bored water line for new hydrants laterals, installed 6" hydrant valves, 6" hydrant laterals, hydrants, and poured cement for hydrant valve donuts on Keonekai Road.
- Cut road to replace 13" waterline, tie-in the 12" inlet and outlet, backfill area, installed valve boxes and prep for concrete foundation at the Napili C site.
- Replaced 12" gate valves and capped 12" existing waterline, tied-in the 12" inlet and outlet, backfill area, installed valve boxes and prep for concrete foundation at the Napili A site.
- Replaced 12" control valve and tank control vault. Replaced one ½" gate valve and replaced one ½" galvanized irrigation line, repaired road and cleaned the Makai Heights tank site.
- Exposed and located mainline and mainline valves. Exposed mainlines for new PRV and valve installations, and pre-fab fittings on Waipoli Road, Kolohala Drive, and Mauka Estates.
- Located mainline and tested valves for hydrant relocation at Lekeona Loop.
- Repaired 4" mainline in Wailua.
- Cut and buried analyzer and Dowling Well site.
- Transferred and inventoried construction trucks, and construction cage items at the base yard.
- Replaced two meters and transponders, and replaced four feet of 1" galvanized line on Muliwai Road.
- Cut driveway, exposed meter and service lateral and replaced county shut off valve on Pohai Street.
- Exposed buried hydrant #342 on South Kihei Road.
- Tapped and installed 12" x 1½" saddle and corporation stop.
- Replaced county shut off valves and replaced service laterals on Kalakaua Street, Pohaku Street, and Puunene Avenue.
- Replaced damaged hydrants on Ailana Place and West Papa Avenue.
- Repaired 1½" mainline on Kaiiau Road.

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- Repaired 8" AC mainline on Hobron Avenue.

They also attended DSO, Forklift, Defensive Driver and other classes that were offered by the county, the Hawaii Rural Water Association, and other companies.

Support Services Section

The Support Services section consists of the meter shop, equipment repair shop, valve maintenance, hydrant maintenance, equipment operators, carpenters and a welder. In FY20, the meter shop replaced 1,142 defective transponders, replaced 1,282 older meters, rebuilt six meters. The meter shop also tested 941 meters and found them working properly, tested 204 meters and found them faulty, and upgraded 18 meters. The crew installed 173 new meters in the Central district and 14 meters in the Upcountry district, installed five construction meters and removed six. The meter shop is on a program to 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 ranged from brakes, front-end repair and body damage, engine work, pre-inspection repairs, as well as preventive maintenance. The shop also maintained generators, heavy equipment like dump trucks, backhoes, trailers, light plants, and maintained fuel levels at generator sites and maintained the base yard fuel tank levels. 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 also painted and cleaned regulator boxes throughout the island and responded to low and high pressure complaints.

The hydrant maintenance section repaired and serviced 343 hydrants in the Haiku area and has threaded over 40 stand pipes. Hydrant workers also did plumbing repairs and upgrades to the NASKA/Kahului 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, fabricated valve wrenches and meter box wrenches. He repaired four utility boxes, replacing the floor and cross members, repaired body panels on generators and did maintenance repairs for rust on backhoes and trailers.

The carpenters also worked on Sanitary Survey in the Central district. The repairs included replacing screens and roof vents, the framing for the repairs of sidewalks and

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drive ways that were damaged from main line and service line work, and assisted with valve box and meter box repairs throughout the island. They helped repair the road to the Olinda Water Treatment Facility and installed concrete drainage swales to protect the road from wash outs. They renovated a section of the Engineering Division office, including wall removal, drywall repairs, installing flooring, painting and also repaired interior window moldings. They installed concrete slabs outside of the mechanic shop building to increase work space for the welder and mechanics. They removed the roll-up door and header, demolished the outside chlorine cylinder platform and leveled the floor in the building that houses the hypochlorite generation system at the Waihee Well site.

The equipment operators assisted numerous jobs all over the island from Hana to Honokohau Valley. They dug out mains and service lines to provide access for maintenance crews to do repair work. They repaired roads from Upcountry and Lahaina. They cut brush in remote well sites in the Lahaina district from Mahinahina to Honokohau. They also ran the screen plant to minimize the amount of aggregate 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 aggregate to the NASKA/Kahului base yard.

Warehouse

The DWS Warehouse is responsible for the purchase, receipt, inspection, holding and distribution of materials and supplies required for the maintenance and repair of the county water system. The warehouse inventory consists of potable water works material approved by American Water Works Association (AWWA) and the County of Maui Department of Water standard. This has been the first full year of the warehouse being under Field Operations management. It was previously under management of our Fiscal division. Items from the warehouse support all work and replacement of mainlines, meters, valves, and hydrants for all our districts and sections in Central, Hana, Lahaina, Moloka'i, Upcountry, Construction and Support Services. Inventory is conducted at all locations at the conclusion of each fiscal year.

Inventory is tracked through the Integrated Financial and Administration Solutions (IFAS) system. IFAS records all warehouse functions, transactions and purchases.

Field Operation Office

The Field Operations Office provides all administrative and clerical support for the Field Operations division. Tasks include fielding incoming calls 24/7 and addressing complaints in a timely manner, including calls for emergency service both during work time and after-hours.

This crew 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

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and monitoring security access. This section also responds in a timely manner to all inquiries from other divisions in the Department of Water Supply.

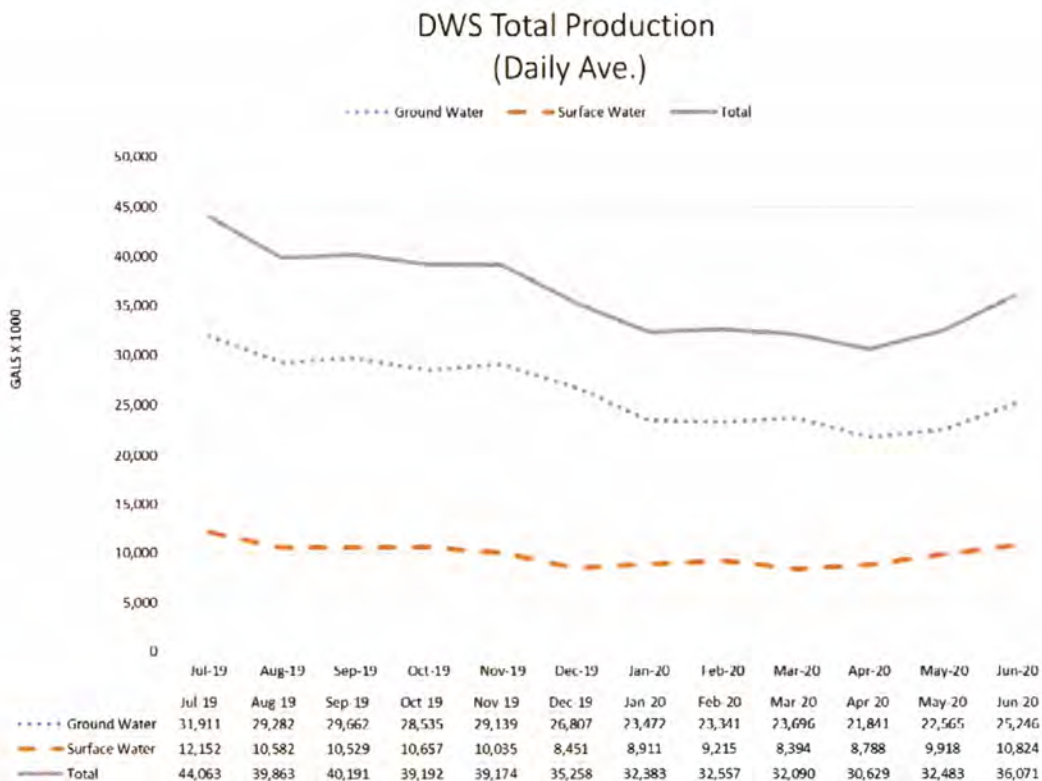
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PLANT OPERATIONS DIVISION

The Plant Operations Division consists of 33 positions in five sections: **Water Quality Laboratory, Backflow 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 Department’s total daily production), 79 booster pumps, ultra-violet (UV) and granulated activated charcoal (GAC) treatment facilities, 24 disinfection systems, and 143 remote Supervisory Control and Data Acquisition System (SCADA) sites. The SCADA System provides 24-hour, around the clock control of the distribution system, alarming, real-time, and historic information. The Electrical and Electronic sections also provide Electrical and Electronic tech support for six surface water treatment facilities.



Total production of ground and surface water for Fiscal Year 2020

Aside from normal daily operations and maintenance, notable in-house and CIP projects for FY20 include:

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- Completed in-house control system design/installation and programming for logic control systems and SCADA integration at Omaopio tank and Keanae wells electrical upgrades.
- NELAC (National Environmental Laboratory Accreditation Conference) audit for FSMO (Field Sampling and Measurement Organization).
- Source water flow meter calibration for the Central, Upcountry, and Lahaina districts.
- Upgrade SCADA Remote Terminal Unit program to incorporate adjustable sodium hypochlorite feed systems at Ualapue well and Kapalua booster.
- Electrical/Electronic integration/installation of calcium hypochlorite feeders for chlorine gas replacements at Waihee, Mokuhanu, and Napili A wells.
- Replacement/repairs of Waihee #578, North Waihee #1, Waikapu, Kualapuu and Wailuku #1 wells.
- Integrate SCADA control for Maui Electric “Fast Demand Response Program” at Mokuhanu, Kula Ag Park, Wailuku #1 & Wailuku #2 wells.

Scheduled and Unscheduled Maintenance Events

	<u>Electrical</u>	<u>Mechanical</u>	<u>Electronics</u>
Central	61	62	317
Upcountry	33	37	122
Lahaina	10	21	31
Napili	10	22	62
Molokai	0	0	25
Hana	5	19	80
Water Treatment Facilities	49	<i>na</i>	81
Preventive Maintenance	88	37	190

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 ensure 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 siphon age. The Backflow Cross-Connection Control Section also conducts field surveys and tests all newly installed backflow assemblies.

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For FY20 the section conducted: 844 field surveys, 122 final inspections (newly installed backflow preventers) and mailed 2,816 annual “test due” letters. Currently, there are 3,798 backflow assemblies being monitored in Maui County.

In FY20, the section’s main priority was to update all backflow assemblies data bases and continue to monitor backflow consumers for delinquent annual testing. Other priorities included inspecting and testing all newly installed backflows assemblies to ensure they conform to DWS standards and to continue to assist the DWS Engineering Section with various field surveys. The Backflow Cross-Connection Section prioritizes keeping Maui County’s water safe and free from any backflow incident.



Photo Right: Back Flow Technician II Rory Honda testing a new Back Flow Preventer

Photo Left: Back Flow Technician IV Supervisor Kimo Ching testing a new Back Flow Preventer

Water Quality Laboratory

The Water Quality Laboratory strives each year to ensure that all sampling and analysis is done competently and that all data produced is legally defensible with 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.

The Water Quality Laboratory completed the following in FY20:

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Microbiology

- 2713 compliance samples collected and analyzed
- 647 non-compliance samples collected and analyzed
- 9 total coliform positive samples
- 11 samples collected for compliance with the Long Term 2 Enhanced Surface Water Rule (LT2) and completed for two water treatment facilities.

Chemistry

- Triennial Lead and copper testing completed for seven systems.
- Processed 9,934 control samples analyzed in house.
- Analytes include fluoride, nitrates/nitrite, sulfate, chloride, phosphate, total organic carbon, pH, conductivity, total and free chlorine residual.
- 983 compliance samples collected and sent out for analysis
- Phase 3 of the UCMR 4 sample collection for three water systems. Analytes tested during Phase 3 included nine cyanotoxins and one cyanotoxin group



Photo Left: Rowena Kellough, Water Microbiologist I
Photo Right: Patricia Mohr, Water Microbiologist I, analyzing samples

Priorities for the Water Quality Laboratory for FY21 include:

- Triennial lead and copper testing for two water systems.
- Biannual lead and copper testing for one water system
- Continue tri-annual chemistry compliance sample collection at all entry points to the distribution system for the Department of Health 2020-2022 monitoring period.

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WATER TREATMENT PLANT DIVISION

The Water Treatment Plants Division consists of 26 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 EPA's federally regulated Surface Water Treatment Rule was enacted into law in 1989. Certain treatment techniques and 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 treated drinking water.
- All PWS must be operated by qualified personnel as certified through the State of Hawaii, Department of Health, Safe Drinking Water Branch.

In the East District, which includes a large portion of upcountry Maui as well as parts of Wailuku via the Iao Water Treatment Plant, there are 4 facilities and 15 positions currently filled. Staffing East include a WTP Operations and Maintenance Supervisor and an Asst. WTP O&M Supervisor. There are 7 licensed WTPO positions currently filled, 2 WTP Mechanics and 2 WTP Trainees along with 1 WTP Worker. There is one vacant WTP Trainee position open.

In the West District, which includes Lahaina and Mahinahina, there are 2 facilities with 9 positions currently occupied. As in the East, there is a WTP O&M Supervisor and an Asst. WTP O&M Supervisor. There are 5 licensed WTPO positions currently filled, 1 WTP Trainee and 1 WTP Worker. There is 1 vacant WTP Trainee position in the West District.

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 1/3 of Maui's drinking water demand with the Plant Operations Division providing the remainder through ground water sources.

New or upgraded certifications for 2019-20 in the WTP's Division:

Patrick Hannon, Grade II WTPO

Lucas Schlueter, Grade IV WTPO

A.J. Landgraf, Grade IV DSO (distribution system operator)

Kamuella Len-Wai, Grade I DSO

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East District

Olinda Water Treatment Facility

FY20 production – 518,220,000 gallons; 1.42 million gallon daily average

The last sodium hypochlorite on-site generation (OSG, for chlorine disinfection) system of the six treatment facilities was installed here at Olinda WTP on August 29, 2019. This one required extra effort from the contractor and treatment plant staff as it is the only plant utilizing chlorine and ammonia (chloramines) for disinfection due to the longer life it provides in the distribution system and it being less reactive. Less likely to form regulated disinfection by-products when coming into contact with organics in the water. This disinfection system uses an automated PLC controller to regulate the chlorine to ammonia ratio at 5 to 1. This final retrofit from Chlorine gas to on-site generation of bleach signified the end of hazardous chlorine gas usage for disinfection in the Treatment Plants Division and the complete conversion over to a non-hazardous concentration of 0.80% sodium hypochlorite, using salt and electricity.

An internal inspection of the 3 MG finished water tank was performed at this site on 3/16/20 to gauge structural integrity and corrosion, and devise a C.I.P. renovation plan for the roof of the tank. The inspection seemed to indicate renovation can be accomplished as opposed to outright replacement of the roof.

Piiholo Water Treatment Facility

FY20 production – 1,034,832,000 gallons; 2.84 million gallon daily average

The East District base yard facility, where all employees start their work day on the East side. The largest producer of all six surface water treatment plants continued to supply much of the upcountry system with high quality drinking water, once again topping the one billion gallon mark for the year.

The entire roof of the Piiholo WTP in Makawao was replaced in July 2019 through a well-executed capital improvement project in coordination with our Engineering Division. All exterior perimeter lighting was replaced in December 2019 with energy efficient LED technology providing brighter lighting and using less energy. Variable frequency drives were also installed on the granular activated carbon (GAC) system pump motors. This project was partially funded by the electrical ratepayer supplemented "Hawaii Energy" program.

A replacement of expended GAC media occurred in January of 2020 with two of the four vessels having their 30,000 pounds of filtration media replaced. This system is in place at the Piiholo facility to reduce regulated disinfection by-products when organic materials in the water come into contact with chlorine used in the disinfection process.

Kamole Water Treatment Facility

FY20 production – 679,440,000 gallons; 1.86 million gallon daily average

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In January 2020, the much anticipated capital improvement project to replace the raw water intake travelling screen was completed. This large piece of machinery is a self-cleaning rotary screen device that protects the sensitive membrane filtration process from debris such as sticks, leaves and any other larger material coming in from the source water at the Wailoa ditch.

A new access road and gate to the Kamole facility was installed by DWS Field Operations in May 2020 off the Baldwin Road entrance. This involved grading and laying of 2 different grades of crushed rock to enable passage during times of heavy rainfall.

Plant staff rented a large trash pump in June 2020 to remove settled material from around the treatment plant intake piping at Wailoa Ditch. These efforts reduce accumulation of decaying sediment from the source water intake area and enhance water quality by reducing the possibility of taste and odor concerns occurring through the treatment process.

The Board of Water Supply members visited this facility for a tour in September 2019.

Iao Water Treatment Facility

FY20 production – 697,520,000 gallons; 1.91 million gallon daily average

This new centrally located, state of the art facility has initiated much interest from our community and staff. Three tours for DWS employees took place in October 2019 and school tours with students from Maui and Oahu have also visited this facility. We expect many more in the future.

Wailuku Water Company stopped diverting into the Iao Ditch down for two days every six months for cleaning. This ensures higher quality raw water to the treatment plant and gives Wailuku Water a chance to inspect the ditch system and make any necessary repairs. Plant staff used this opportunity to do their own clean-ups during the plant shut down and physically entered the ditch intake area to manually remove mud and debris that may have accumulated.

The treatment plant had its first National Pollution Discharge Elimination System inspection from the State of Hawaii Department of Health (DOH), Clean Water Branch, in February 2020 and did extremely well. The facility was required to have an environmental permit issued by the state and it has met strict conditions since the facility was constructed and went on-line. A few minor modifications were requested and made to the reporting methods. No violations or citing's were made by the DOH.

West District

Mahinahina Water Treatment Facility

FY20 production – 554,020,000 gallons; 1.52 million gallon daily average

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The Mahinahina Water Treatment Facility is the West District base yard facility and where all employees start their work day on the West side.

The DOH has mandated an enhancement to the direct filtration treatment process at this plant. WTP Operations staff are working with DWS Engineering and consulting agency Carollo Engineers to retrofit an ultra-violet disinfection system downstream of the filters to add additional treatment credits and meet DOH. requirements. Expected on-line date of this equipment is summer 2021.

New SCADA automated control system computers were installed at this facility in August 2019 replacing outdated equipment. A remote control lawn mower, used on the many embankments and steep hills at the facilities in the West District, was purchased during FY20. This machine has worked out very well, providing staff a safer means to maintain facility sites, including dam faces, which require meticulous mowing in order to facilitate monthly inspections. Based on the success in the West District with this mower, a second machine is slated to be purchased in FY21 for the East District.

With the installation of chlorine solution on-site generators at all six treatment plants, self-contained breathing apparatus (SCBA) equipment, including compressor and fit test gear, are no longer needed as hazardous chlorine gas is no longer in use. Jason Koskey, new West District Operations and Maintenance Supervisor, arranged and completed transfer of all SCBA safety equipment, from all six plants, to the Maui Fire Department in FY20.

Lahaina Water Treatment Facility

FY20 production – 640,016,000 gallons; 1.75 million gallon daily average

In October 2019, former West District Operations and Maintenance Supervisor David Haddock retired after over 15 years with DWS. In December 2019, Jason Koskey was selected as the new district supervisor and in March 2020, Christopher Retuta became the new West District Assistant Operations and Maintenance Supervisor.

Both the Lahaina and the Lao water treatment facilities tested a new, higher purity salt for the on-site chlorine solution generation systems. Optimization of these systems requires salt with little to no impurities. Tests of the Morton Pure and Natural 99.8% pure salt were successful. This higher grade salt will now be used at all six plants and should equate to fewer acid cleanings of the electrolytic cells that produce sodium hypochlorite with salt and electricity.

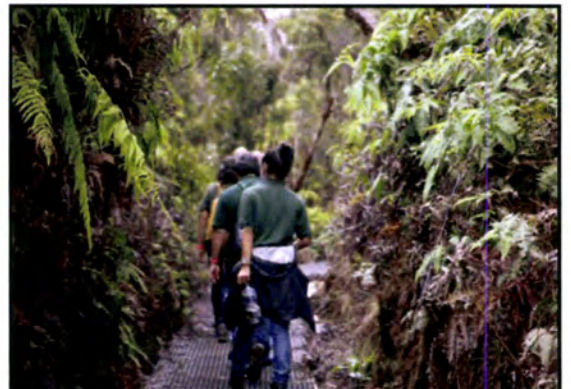
Incremental replacement of the next generation L-10 N-membranes after five years of service began in June 2020. Two full machine replacements are underway at Kamole water treatment facility (90 modules each) and one machine at Lahaina water treatment facility. Replacement of all 1440 membranes, (this excludes Lao WTP as this plant and its membrane system are still new) is expected to be completed over the next four years.

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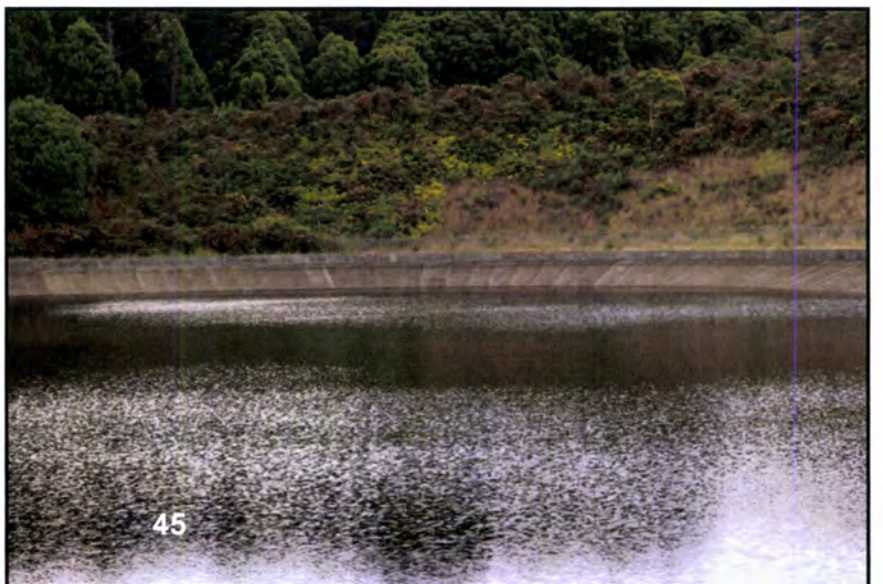
The National Oceanic and Atmospheric Administration, (NOAA), installed a high tech rain and wind gauge in July 2019. They will be monitoring weather conditions for West Maui using this equipment on a regular basis.

Total FY20 Production East District – 2,930,012,000 gallons
Total FY20 Production West District – 1,194,036,000 gallons
Total FY20 Production WTP Division – 4,124,048,000 gallons

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A beautiful place to work. Clockwise from top left: Olinda Sedimentation Basin; One of the intakes into the Waikamoi Flume; DWS Laboratory Staff are led on a tour; the Kahakapao Reservoir; the old and new Waikamoi Flume Project signs; Lab Staff Umi Harding, Chris Kawaguchi and Chris Otsuka enjoying the watershed.



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The views are pretty great when you work for the Department of Water Supply. Clockwise from top left: The view of the central valley and Kahului Harbor from the Kahakapao Reservoir; view of Lana'i from the Lahaina Water Treatment Plant; water intakes in Lahaina; the view from inside the Lahaina Water Treatment Plant; looking down into the west side's Kanaha Valley (yes, Kanaha on the west side), a location of one of our Lahaina ground water intakes; old wooden flume used to transport surface water Upcountry from back in the day.



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Yes, the views in the Department of Water Supply are great, and so are our *people*. Clockwise from top left: Iao Ditch cleaning with AJ Landgraf, Koa Martin, Kieven Murashige, Daniel Paman and Poncho Quitevis; Mahinahina intake maintenance with Donald Blackwelder, Miki Mukai, Damon Gil and Lucas Schlueter; James Landgraf making adjustments to the new raw water travelling screen for the Kamole WTP intake at the Wailoa ditch; Kamuela Len-Wai demonstrating the side hill remote control mower at the Piiholo Dam; Kelly Wright conducting a "jar test" at Piiholo WTP to determine the coagulant.



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WATER RESOURCES AND PLANNING DIVISION

This division is responsible for department long range and area planning and resource management, planning information systems and discretionary permit review. The division provides oversight and department support of regulatory compliance, including requirements for designated water management areas, dam safety programs, emergency action plan, operation and maintenance manuals and sanitary surveys. The division manages water source protection and conservation programs, including the watershed protection and restoration grants program. The division identifies water resource data and research needs and administers resource data monitoring and research contracts.

FISCAL YEAR 2020 GOALS

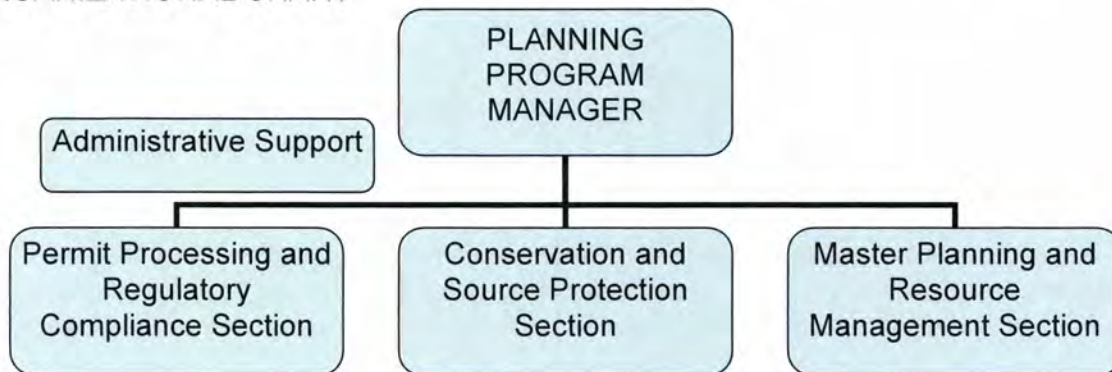
GOALS

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 stream line data collection, permit processing and grant administration.
5. Deploy conservation program measures with quantifiable savings.
6. Support water quality/regulatory compliance.

ORGANIZATIONAL CHART



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The division has nine employees with two vacancies at the end of the fiscal year.

Watershed Protection and Grant Management

DWS strives to support projects that protect the county's watersheds and freshwater resources. The department provided financial support to ten watershed partnerships and organizations on Maui and Moloka'i to ensure perpetual protection of upland watersheds. These organizations collectively address a variety of threats to the watershed through activities such as: ungulate control through fencing and targeted hunting practices; invasive plant control and reforestation. The native vegetation in upland areas and habitats is critical to the recharge and protection of drinking water supply. This fiscal year, the County Council allocated a total of \$2,511,686 in grants to the following watershed partnerships and organizations aimed at protecting water resources:

- 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)
- Leeward Haleakala Restoration Watershed Partnership - U.H. ORS
- West Maui Mountains Watershed Partnership - U.H. ORS
- East Moloka'i Watershed Partnership - The Nature Conservancy
- Maui Invasive Species Committee - U.H. ORS
- Hawai'i Agriculture Research Center
- Pu'u Kukui Watershed Preserve - Living Pono Project
- Auwahi Forest Restoration Project - U.H. ORS

Facing a real threat of the fungal pathogen *Ceratocystis Fimbriata*, known as Rapid Ohia Death (ROD) reaching Maui and decimating watersheds, the division also provided ongoing supplemental funding for a Maui based ROD coordinator to ensure that ROD efforts between the Watershed Partnerships are conducted as efficiently as possible.

Resource Management

The division maintained contracts with the United States Geological Survey (USGS) for ground and surface water monitoring and various hydrological studies. Two studies were completed this fiscal year: An assessment of groundwater availability in the Waikapu, Iao and Waihee aquifer systems and a cooperative study with State Department of Hawaiian Homelands and the Office of Hawaiian Affairs to study groundwater recharge and availability in Moloka'i. A study to quantify the impacts of high-priority non-native and dominant native plant species on freshwater availability on Maui is ongoing. The findings of the studies and monitoring data are expected to

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improve resource management, distribution of pumpage and sustainable source development and provide additional research support for watershed protection efforts.

Discretionary Permit and Water Meter Reservation Processing

The division processed 72 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 and system infrastructure.

Public Inquiries

Approximately 35 verbal and written inquiries were fielded from the public, businesses, non-county agencies and consultants. Inquiries relate 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. Objectives include ongoing improvements to conservation surveys, data and information collection related to water consumption habits, household efforts to save water and views on how to stem water losses.

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.

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 2019 water audit (completed in fiscal year 2020) 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

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are reported and validated by the State of Hawaii Commission on Water Resource Management.

Public Outreach

Division staff participate in educational community events and present to various community groups to inform the community about water conservation, source protection and the value of water resources. Continued use of iPads and digital surveys to gather data at events has helped to increase public interactivity. Advertisements in local newspapers, magazines and radio stations were published, reaching the broader community. Events staffed and direct outreach included:

- Arbor Day Festival at Maui Nui Botanical Gardens
- Moloka`i Ho`olaule`a
- Kamehameha School Sustainability Event
- St Anthony High School presentation and tour of the Piiholo Water Treatment Facility
- Lihikai Elementary School presentation
- Maui County Fair
- Annual Water Conservation Grade School Poster Contest
- Second Annual Source Water Protection Video Contest
- Lahainaluna High School Conservation and Source Protection Presentation
- Kamehameha School Conservation and Source Protection Presentation



As part of our public outreach efforts, we have an annual presence at the Maui County Fair to answer citizen's questions, promote water conservation and provide water saving home devices. Planner III Sarah Reichert is with raffle winner Peter Kovacic and his new timed irrigation system. One of the best outreach activities is hosting local school tours at our facilities. Sarah, Planner V Edna Manzano and WTPO Assistant Supervisor Kelly Wright hosted a class from Carden Academy at our Piiholo WTF.

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Fixture and Native Plant Distribution

Fixture Type	Number of Fixtures
Showerheads (1.25 – 1.5 gpm)	529
Bathroom Faucet Aerators (1.0 gpm)	324
Kitchen Faucet Aerators (1.5 gpm)	521
Hose Nozzles (max flow – 2.4 gpm)	809
Toilet Tank Bags (displace .08 gpf)	253
Hose Timers	231
Total	2667

76 native plants were distributed at staffed events. Leak detection tablets to check for leaks in toilets and shower timers were also distributed to the public.

Rain Barrel Program

The division distributed fifty-three 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 33 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.

Water Conservation Poster Contest

The Water Conservation Poster Contest is on its eleventh year and continue to engage elementary and middle school students to showcase water conservation through artwork. This year's theme was "Our Water, Our Future, Conserve It". Winning posters are featured in the Water Conservation Calendar and in the appendix of this report.

Source Protection

The fourth Source Water Protection Video Contest for high school students resulted in 13 entries and some outstanding video productions showcasing the importance of protecting our ground and surface water sources. 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 one and half to three minutes-long video that addresses drinking water protection. The theme this year was "Our Water, Our Future, Protect It".

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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 to the county MAPPS Enterprise program.
- DWS water purchases from private purveyors.

Regulatory Compliance/ Council Requests & Bills

- Responses were coordinated for Sanitary Survey Reports for the Lahaina and Upper Kula systems.
- Annual updates to six (6) Emergency Action Plans for department reservoirs were completed.
- Tracking and new requests for water use permits in Groundwater Management Areas to ensure pumping compliance on a twelve-month moving average basis.
- Tracked relevant water industry bills in the legislature and responded to nine requests for information from County Council on various matters.

Water Use & Development Plan

The final Draft update to the Maui Island Water Use and Development Plan (WUDP) submitted to Maui County Council in Fiscal Year 2019 was reviewed by Council Water and Infrastructure Committee and subsequently Water, Infrastructure and Transportation Committee at seven council meetings during Fiscal Year 2020. Targets for FY21 are approval by County Council, briefings to the Commission on Water Resource Management, and outreach on Moloka'i to advance the public process for the Moloka'i WUDP Update.

MAJOR ACCOMPLISHMENTS

- Staff coordinated a contract with Harris & Associates as consultant to assist DWS in the development of a first department-wide strategic plan. Phase 1 of the strategic plan was successfully completed with Phase 2 now contracted and initiated. All divisions continue to contribute generously to plan for priority business processes, close gaps in information and knowledge and commit to a long term vision for the department set forth by the strategic plan in which efforts will be tracked and benchmarked. Building on key issues and our future vision identified in Phase 1, strategic initiatives to be implemented starting fiscal year 2021 relate to digital infrastructure, workforce sustainability, infrastructure replacement, SCADA upgrade and water use efficiency.

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- A water audit for calendar year 2019 based on current AWWA standards and software was completed in accordance with Act 169. The water audit helps inform and prioritize department data and infrastructure needs, including meter replacement and data handling.
- The division contracted design and system installation of a grey water system at Launiupoko Beach Park, which has been fully approved by the State Department of Health as the first graywater system of its kind in the State of Hawaii, and is now being prepared for installation. The system will filter used shower and sink water for irrigation in a specially designed landscape that will also help capture run-off into the near shore environment. The design was completed for this project as an interdepartmental effort between DWS and the Parks & Recreation Department. The effort caught the attention of the State Legislature resulting in appropriation of state capital funds to design and build a second greywater reuse system at Kanaha Beach Park, starting fiscal year 2021 to 2022.

Under America's Water Infrastructure Act of 2020, the division contracted with Stantec, Inc. to develop a Risk and Resilience Assessment and update the DWS Emergency Response Plan as required by the U.S. Environmental Protection Agency (EPA) for water systems serving more than 3,300 people. This EPA certification process has been met with strong coordination efforts from all DWS divisions providing their insight, knowledge and expertise regarding the current state of our water distribution infrastructure to assist Stantec with their important work.

FISCAL YEAR 2021 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. Adoption by ordinance of the Maui Island Water Use and Development Plan by the County Council is anticipated early fiscal year 2021. The plan must subsequently be approved by the Commission on Water Resource Management.
3. Securing a consulting contract and advancing the public process for updating the Moloka'i Water Use and Development Plan.
4. Initiate the first phase of the Kanaha Beach Park Greywater Reuse System, requiring initial consultations with the Department of Parks and Recreation and other major stakeholders on conceptual design planning. This will lead to a design contract and county and state permit processing which is expected to be completed in fiscal year 2022.
5. Improved water efficiency as an important strategic initiative.
6. Completion and integration of the AWIA Risk and Resilience Assessment to future departmental efforts and the Department's long-term goals through its Strategic Plan.

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11th ANNUAL WATER CONSERVATION POSTER CONTEST 4th ANNUAL SOURCE WATER PROTECTION VIDEO CONTEST

The Department of Water Supply (DWS) is pleased to announce the winners of its 11th Annual Water Conservation Poster Contest and the 4th Annual Source Water Protection Video Contest.

This year's theme for both contests was "Our Water, Our Future, Protect It". Submitted posters and videos were judged based on three criteria: message, originality, and visual effectiveness. DWS received 726 entries of outstanding artwork from students in Kindergarten through Grade 8 and 13 video entries from high school students. The panel of volunteer judges were immensely impressed by the talent displayed by our youth through their drawings and video recordings.

Winning posters will be featured in the 2021 DWS Water Conservation Calendar, on the department website at www.mauiwater.org and will be on display at the 5th floor of the County Building for one year. Winning videos are available to watch on the department website at:

<https://waterresources.mauicounty.gov/200/2020-Poster-Video-Contest-Results>.

DWS would like to extend a sincere Mahalo to our panel of judges for the poster contest: Ms. Judy Locke, a retired teacher, Ms. Laura Seaton, an artist, and Ms. Juanita Reyher-Colon, Source Water Specialist Programs Manager at Hawaii Rural Water Association. Video entries were judged by DWS staff.

CONGRATULATIONS WINNERS: 11th Annual Water Conservation Poster Contest

KINDERGARTEN

First Place	Olivia Alfaro Butsch, Haiku Elementary School
Second Place	Akash Glickenhau, Carden Academy of Maui
Third Place	Haven Miller, Carden Academy of Maui
Honorable Mention	Naki'i Kenekoa, Haiku Elementary School Aloha Iani Wehrman-Goings, Haiku Elementary School Kolea Cornelison, Carden Academy of Maui

GRADES 1 & 2

First Place	Kayson Maielua, Grade 2, Princess Nahi'ena'ena Elementary
Second Place	Caz Fuchigami, Grade 2, Pomaika'i Elementary School
Third Place	Cohen Vann, Grade 1, Makawao Elementary School
Honorable Mention	Noa Wadsworth, Grade 2, Carden Academy of Maui Coco Arnds, Grade 1, Sacred Hearts School Noah Becker, Grade 2, Sacred Hearts School

GRADES 3 & 4

First Place	Mason Kurokawa, Grade 3, Pu'u Kukui Elementary School
Second Place	Morgan Mitchell, Grade 4, Pu'u Kukui Elementary School
Third Place	Jhamaica Agdinooay, Grade 4, Lihikai Elementary School
Honorable Mention	Kawenalua Hoano Celebrado, Grade 4, St. Anthony School Nikki Kayes, Grade 4, Emmanuel Lutheran School Bree Karatsu-Boteilho, Grade 4, Waihe'e Elementary School

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GRADES 5 & 6

First Place	Giselle Ganoot, Grade 5, Princess Nahi'ena'ena Elementary School
Second Place	Xavier Smith Artui, Grade 5, Kahului Elementary School
Third Place	Xeila Emerson-Santiago, Grade 5, Princess Nahi'ena'ena Elementary School
Honorable Mention	Stephanie Kate Elaydo, Grade 5, Kahului Elementary School Jayden Perry-Waikiki, Grade 5, Kahului Elementary School Kingston Goliday, Grade 5, Kahului Elementary School

GRADES 7 & 8

First Place	Alyssa Mateo, Grade 8, Kamehameha Schools Maui
Second Place	Kye Kukahiku, Grade 7, Kamehameha Schools Maui
Third Place	Karisa Bayudan, Grade 7, Sacred Hearts School
Honorable Mention	Anela Warren, Grade 7, St. Anthony Middle School Hokuala English, Grade 8, Kamehameha Schools Maui Mia Alvarado, Grade 7, Maui Waena Intermediate School

CONGRATULATIONS WINNERS: 4th Annual Source Water Protection Video Contest

Protecting source water from contamination reduces risks to public health from exposure to contaminated water, minimizes potentially negative environmental impacts on our natural resources, and reduces water treatment costs. In creative videos, high school students expressed their understanding of the importance of protecting and preserving Maui's drinking water.

First Place Video Title:	FREEFLOWING FUTURE Baldwin High School Gabriel Morales, Kyrie Sisouvong, Ivan Elf, Ethan Mitsumura
Second Place Video Title:	WATER SOURCE PROTECTION Kamehameha Maui Upper Division Cierra Hoopii, Ezekiel Weber, Bronson Espania
Third Place Video Title:	THE FLOW OF LIFE Kamehameha Maui Upper Division Bryson Reformina, Jayden Bartolome
Honorable Mention Video Title:	OUR WATER, OUR FUTURE, PROTECT IT Kamehameha Maui Upper Division Kailili Palakiko
Video Title:	SOURCE WATER PROTECTION AND CONSERVATION Seabury Hall Carter Rosenthal, Ethan Palmer, Izzy Farwig, Marrissa Tasaki
Video Title:	WAI A KAI III Maui Prep Academy Emma Geng, Jose Vasques, Lily Hill, Tessa Chin

***A BIG MAHALO TO ALL OF THE TEACHERS, STUDENTS AND PARENTS
FOR YOUR SUPPORT OF OUR WATER CONSERVATION and
SOURCE WATER PROTECTION PROGRAMS***

11TH ANNUAL DWS WATER CONSERVATION POSTER CONTEST - Winners FY20



1st Place - Kindergarten Division
Olivia Alfaro Butsch



2nd Place - Kindergarten Division
Akash Glickenhau



3rd Place - Kindergarten Division
Haven Miller



Honorable Mention - Kindergarten Division
Kolea Cornelison



Honorable Mention - Kindergarten Division
Aloha Iani Wehrman-Goings



Honorable Mention - Kindergarten Division
Naki'i Kenekoa

11TH ANNUAL DWS WATER CONSERVATION POSTER CONTEST - Winners FY20



1st Place - 1st/2nd Grade Division
Kayson Maielua, Grade 2



2nd Place - 1st/2nd Grade Division
Caz Fuchigami, Grade 2



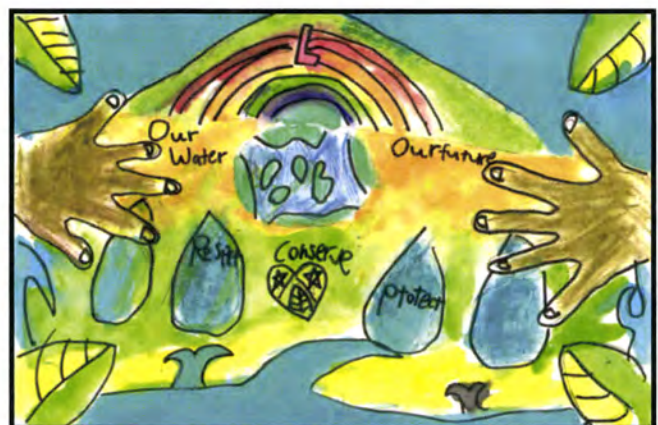
3rd Place - 1st/2nd Grade Division
Cohen Vann, Grade 1



Honorable Mention - 1st/2nd Grade Division
Coco Arnds, Grade 1



Honorable Mention - 1st/2nd Grade Division
Noa Wadsworth, Grade 2



Honorable Mention - 1st/2nd Grade Division
Noah Becker, Grade 2

11TH ANNUAL DWS WATER CONSERVATION POSTER CONTEST - Winners FY20



1st Place - 3rd/4th Grade Division
Mason Kurokawa, Grade 3



2nd Place - 3rd/4th Grade Division
Morgan Mitchell, Grade 4



3rd Place - 3rd/4th Grade Division
Jhamaica Agdinaoy, Grade 4



Honorable Mention - 3rd/4th Grade Division
Bree Karatsu-Boteilho, Grade 4



Honorable Mention - 3rd/4th Grade Division
Kawenaluahoano Celebrado, Grade 4



Honorable Mention - 3rd/4th Grade Division
Nikki Kayes, Grade 4

11TH ANNUAL DWS WATER CONSERVATION POSTER CONTEST - Winners FY20



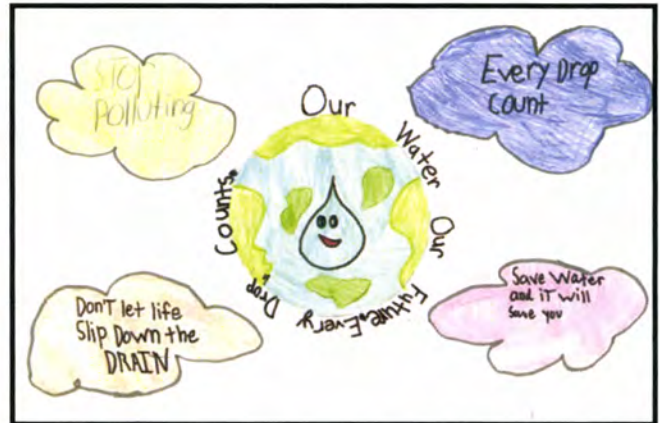
1st Place - 5th/6th Grade Division
Giselle Ganoot, Grade 5



2nd Place - 5th/6th Grade Division
Xavier Smith Artui, Grade 5



3rd Place - 5th/6th Grade Division
Xeila Emerson-Santiago, Grade 5



Honorable Mention - 5th/6th Grade Division
Jayden Perry-Waikiki, Grade 5



Honorable Mention - 5th/6th Grade Division
Kingston Goliday, Grade 5

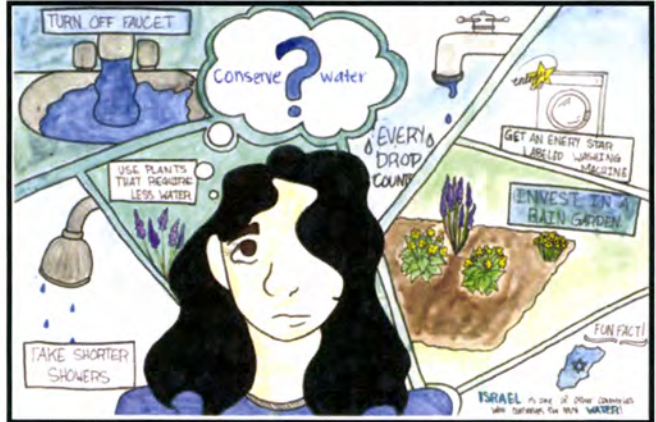


Honorable Mention - 5th/6th Grade Division
Stephanie Kate Elaydo, Grade 5

11TH ANNUAL DWS WATER CONSERVATION POSTER CONTEST - Winners FY20



1st Place - 7th/8th Grade Division
Alyssa Mateo, Grade 8



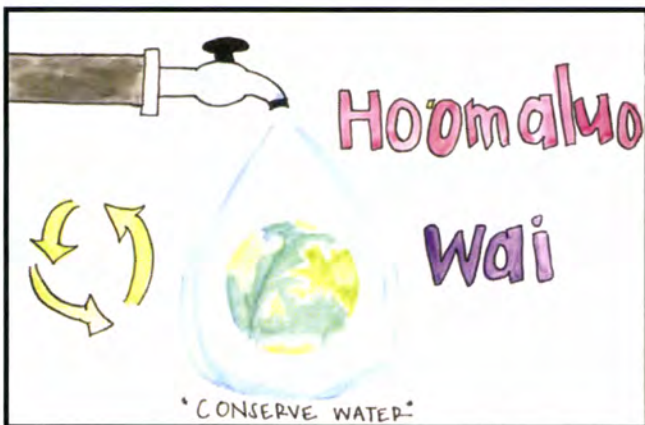
2nd Place - 7th/8th Grade Division
Kye Kukahiko, Grade 7



3rd Place - 7th/8th Grade Division
Karisa Bayudan, Grade 7



Honorable Mention - 7th/8th Grade Division
Anela Warren, Grade 7



Honorable Mention - 7th/8th Grade Division
Hokuala English, Grade 8



Honorable Mention - 7th/8th Grade Division
Mia Alvarado, Grade 7

DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

FISCAL/CUSTOMER SERVICES DIVISION

The Fiscal Division is committed to maintaining fiscal responsibility while focusing on our customer service for both external and internal customers. Fiscal 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.

Fiscal 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 much 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 FY20. The Accounting Staff 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. The Purchasing Division relinquished the supervision of the Warehouse to Field Operations via a departmental reorganization as the warehouse is located at the Department of Water Supply baseyard. Purchasing still oversees the annual inventory audit and reconciliation.

DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

Customer Service

The Customer Service section is responsible for payment processing and addressing customer concerns for more than 37,035 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 COVID19 challenges in FY20 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 Covid19 all field collections came to a standstill for the last quarter of the Fiscal year. In FY20, this section continued to gather timely and accurate meter readings despite staffing challenges. Field collection efforts suffered from inadequate staffing.

Fiscal Year 2021 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. This includes an evaluation of position descriptions and related job classifications. Additionally, we will continue to look at the integration of new technologies with an eye to creating a more efficient and effective work environment for the entire Division.

Like many other Divisions in the County, the Fiscal Division will experience a series of staff retirements in FY2021 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 has also proceeded with a rate study and will have projections of future rates that will enable the Department to fund operations and capital improvement programs by the 2022 budget session.

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 first two quarters of the year will see the installation of approximately 7,700 new meters in the areas of Wailuku, Waihe'e and Paia.

DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

We will be working with the Planning Division to finish the second phase of the Strategic Plan. The first phase will be completed in the first quarter of fiscal year 2020.

FISCAL YEAR 2020
Water Service Charges
Effective July 01, 2019

Schedule A

<u>Single Family Dwellings, Single-Family and Accessory Dwellings with 5/8" 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
<u>All Other General Water Consumers</u>	
0 - 5,000 Gallons	\$ 2.05
5,001 - 15,000 Gallons	3.90
Over 15,000 Gallons	5.85
<u>Agricultural Rates</u>	
0 - 5,000 Gallons	\$ 2.05
5,001 - 15,000 Gallons	3.90
Over 15,000 Gallons	1.10
<u>Non-Potable Agriculture Rates</u>	
All Usage	\$ 1.00

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

FISCAL YEAR 2020
System Expansion Rates
Effective July 01, 2019

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

NUMBER OF SERVICES BY METER SIZE
FISCAL YEAR ENDED JUNE 30, 2020

DISTRICT	5/8"	3/4"	1"	1-1/2"	2"	3"	4"	6"	8"	TOTAL
REGULAR SERVICE METERS										
Wailuku	17,709	1,850	536	421	425	53	37	5	1	21,037
Makawao	9,100	402	170	75	35	6	1	2	0	9,791
Lahaina	2,714	334	114	123	118	26	11	2	0	3,442
Molokai	1,579	43	32	15	14	2	0	1	0	1,686
Hana	464	42	10	6	4	1	0	0	0	527
Subtotal	31,566	2,671	862	640	596	88	49	10	1	36,483
AGRICULTURAL SERVICE METERS										
Wailuku	15	15	4	3	1	2	1	0	0	41
Makawao	272	48	67	79	30	0	0	0	0	496
Lahaina	4	3	5	0	1	0	1	0	0	14
Molokai	5	2	2	0	0	0	0	0	0	9
Hana	25	0	1	0	0	0	0	0	0	26
Subtotal	321	68	79	82	32	2	2	0	0	586
TOTAL	31,887	2,739	941	722	628	90	51	10	1	37,069
COMBINED TOTAL										
Wailuku	17,724	1,865	540	424	426	55	38	5	1	21,078
Makawao	9,372	450	237	154	65	6	1	2	0	10,287
Lahaina	2,718	337	119	123	119	26	12	2	0	3,456
Molokai	1,584	45	34	15	14	2	0	1	0	1,695
Hana	489	42	11	6	4	1	0	0	0	553
TOTAL	31,887	2,739	941	722	628	90	51	10	1	37,069

**OUTSIDE WATER DELIVERIES
YTD FY2020**

PURCHASE FROM	1,000 Gallons	\$ YTD Amt	Cost Per 1,000 Gallons
East Maui Irrigation	2,330,343	\$ 140,520	0.060
Wailuku Water Co.	876,914	\$ 445,959	0.509
Maui Land & Pine	562,737	\$ 159,301	0.283
Hawaiian Home Lands (Billed Bi-Monthly)	9,016	\$ 82,531	9.154
TOTAL	3,779,009	\$ 828,311	0.219

DISTRICT	1,000 Gallons	\$ Amount	Cost Per 1,000 Gallons
Wailuku	876,914	\$ 445,959	0.509
Kula	171,789	\$ 10,359	0.060
Makawao	2,153,278	\$ 129,843	0.060
Lahaina	562,737	\$ 159,301	0.283
Hana	5,276	\$ 318	0.060
Molokai	9,016	\$ 82,531	9.154
TOTAL	3,779,009	\$ 828,311	0.219

OTHER WATER

Wailuku - Wailuku Water Co.	393,047
Wailuku - Hi. Land & Farming	0

Dept. of Water Supply, County of Maui
Consumption By District
General & Agricultural in Thousands of Gallons
Fiscal Year To Date through June 30, 2020

GENERAL	Total	Wailuku	Makawao	Kula	Lahaina	Molokai	Hana
July	1,003,751.9	654,664.1	83,989.9	55,996.6	156,387.7	45,205.6	7,508.0
August	1,059,877.9	709,197.9	84,279.0	54,499.0	184,399.0	21,891.0	5,612.0
September	1,070,434.0	727,578.0	88,902.0	53,978.0	175,092.0	19,634.0	5,250.0
October	923,478.0	614,232.0	74,832.0	48,321.0	157,648.0	23,163.0	5,282.0
November	1,050,806.0	717,304.0	88,101.0	63,483.0	181,922.0	(5.0)	1.0
December	890,196.0	579,203.0	73,500.0	38,863.0	149,635.0	38,100.0	10,895.0
Subtotal	5,998,543.8	4,002,179.0	493,603.9	315,140.6	1,005,083.7	147,988.6	34,548.0
January	910,096.0	610,220.0	71,075.0	43,568.0	163,699.0	16,116.0	5,418.0
February	841,901.0	572,079.0	69,459.0	42,515.0	140,146.0	13,498.0	4,204.0
March	781,653.0	530,356.0	60,009.0	32,384.0	137,572.0	16,252.0	5,080.0
April	822,997.0	552,682.0	69,428.0	41,068.0	135,518.0	19,356.0	4,945.0
May	809,945.0	534,810.0	76,897.0	47,844.0	126,287.0	18,960.0	5,147.0
June	890,350.0	593,359.0	82,577.0	56,336.0	129,184.0	23,963.0	4,931.0
Subtotal	5,056,942.0	3,393,506.0	429,445.0	263,715.0	832,406.0	108,145.0	29,725.0
Total General	11,055,485.80	7,395,685.0	923,048.9	578,855.6	1,837,489.7	256,133.6	64,273.0
AGRICULTURAL							
July	101,817.0	23,512.0	5,674.0	68,269.0	2,227.0	1,334.0	801.0
August	88,344.0	17,519.0	4,987.0	62,281.0	2,230.0	975.0	352.0
September	101,044.0	19,370.0	5,171.0	73,633.0	1,898.0	347.0	625.0
October	90,264.0	17,394.0	4,119.0	64,447.0	2,311.0	1,620.0	373.0
November	101,474.0	24,172.0	5,313.0	70,142.0	1,847.0	-	-
December	85,352.0	18,732.0	4,300.0	58,840.0	1,856.0	900.0	724.0
Subtotal	568,295.0	120,699.0	29,564.0	397,612.0	12,369.0	5,176.0	2,875.0
January	73,739.0	17,846.0	4,076.0	48,983.0	2,140.0	279.0	415.0
February	76,718.0	22,421.0	3,946.0	48,281.0	1,211.0	291.0	568.0
March	73,219.0	28,182.0	4,054.0	38,531.0	1,097.0	155.0	1,200.0
April	83,134.0	27,436.0	3,473.0	49,556.0	1,505.0	623.0	541.0
May	86,259.0	20,017.0	4,306.0	58,558.0	1,681.0	1,242.0	455.0
June	97,502.0	20,116.0	5,003.0	69,218.0	2,021.0	821.0	323.0
Subtotal	490,571.0	136,018.0	24,858.0	313,127.0	9,655.0	3,411.0	3,502.0
Total Agricultural	1,058,866.0	256,717.0	54,422.0	710,739.0	22,024.0	8,587.0	6,377.0
Grand Total	12,114,351.8	7,652,402.0	977,470.9	1,289,594.6	1,859,513.7	264,720.6	70,650.0

COMPARISON OF WATER CONSUMPTION AND SALES BY DISTRICT

TWELVE MONTHS ENDED JUNE 30, 2020 OVER 2019

BY DISTRICT	Services			Consumption (1,000 Gallons)			Revenues		
	2019	2020	Increase (Decrease)	2019	2020	Increase (Decrease)	2019	2020	Increase (Decrease)
Wailuku District									
Wailuku	6,403	6,635	232	1,312,504	1,405,529	93,025	7,720,713	8,365,746	645,033
Waihee	201	202	1	25,868	21,605	(4,263)	132,071	132,242	171
Waikapu	972	973	1	121,485	128,374	6,889	654,341	701,813	47,472
Wailuku Heights	498	498	0	68,804	67,167	(1,637)	404,232	373,753	(30,479)
Kahului	5,314	5,342	28	1,495,568	1,501,186	5,618	8,475,487	8,681,190	205,703
Puunene	11	12	1	18,508	4,923	(13,585)	77,794	31,074	(46,720)
Kihei	6,034	6,048	14	3,918,195	3,965,657	47,462	21,413,297	22,070,835	657,539
Maalaea	45	45	0	111,020	95,308	(15,712)	652,865	578,000	(74,866)
Makena	203	203	0	216,232	242,687	26,455	1,249,762	1,447,060	197,298
Paia-Kuau	912	914	2	138,647	145,897	7,250	782,659	836,637	53,978
Spreckelsville	206	206	0	62,032	74,069	12,037	350,165	423,068	72,903
Subtotal	20,799	21,078	279	7,488,863	7,652,402	163,539	41,913,384	43,641,416	1,728,032
Makawao District									
Kokomo-Kaupakalua	1,157	1,161	4	142,257	170,476	28,219	786,587	943,097	156,510
Kuiaha	303	306	3	42,900	48,412	5,512	220,439	248,975	28,536
Haiku-Pauwela	849	858	9	109,361	121,245	11,884	604,260	664,008	59,749
Makawao	2,018	2,020	2	255,242	281,899	26,657	1,412,739	1,565,377	152,638
Pukalani	2,129	2,143	14	292,253	321,735	29,482	1,602,400	1,786,271	183,870
Haliimaile	199	200	1	29,270	33,704	4,434	160,329	183,963	23,633
Upper Kula	2,335	2,352	17	432,765	441,641	8,876	2,035,452	2,151,790	116,338
Lower Kula	1,122	1,127	5	605,542	656,742	51,200	1,901,680	2,113,040	211,360
Ulupalakua-Kanaio	81	81	0	49,390	60,057	10,667	128,835	145,266	16,431
Kula Ag Park	38	39	1	126,707	131,155	4,448	167,774	172,722	4,948
Subtotal	3,445	3,456	11	1,817,860	1,859,514	41,654	10,417,229	10,889,194	471,965
Molokai District									
Kawela-Kaunakakai	1,176	1,179	3	169,165	195,310	26,145	986,970	1,155,652	168,683
Ualapue/Kamalo	396	396	0	48,688	60,814	12,126	291,627	355,720	64,093
Kalae	113	114	1	6,699	8,596	1,897	44,344	55,009	10,665
Halawa	6	6	0	0	0	0	0	0	0
Subtotal	1,691	1,695	4	224,552	264,721	40,169	1,322,940	1,566,381	243,441
Hana District									
Hana	408	408	0	46,187	57,550	11,363	274,116	348,429	74,312
Nahiku	38	38	0	3,296	3,834	538	21,304	25,463	4,159
Keanae	86	86	0	6,362	7,190	828	41,841	48,829	6,988
Kaupo	21	21	0	1,730	2,076	346	6,486	7,028	542
Subtotal	553	553	0	57,575	70,650	13,075	343,747	429,748	86,001
Total ALL DISTRICTS	36,719	37,069	350	11,674,537	12,114,352	439,815	63,017,796	66,501,247	3,483,451

FIVE - YEAR SUMMARY

DO NOT USE
wait until FY20 Audit FY20

	2019-20	2018-19	2017-18	2016-17	2015-16
Customer and Sales					
Number of Customers	37,069	36,719	36,615	36,365	36,211
Water Sales (M Gals.)	12,114,352	11,674,537	11,749,584	11,624,710	11,785,494
Income and Expenses					
Revenue from Sale of Water *	67,078,752	63,672,230	63,352,395	62,814,311	59,917,910
Total Operating Revenues	68,185,499	64,460,451	64,297,392	63,633,235	60,867,664
Total Operating Expense	67,495,101	62,311,770	62,534,558	61,818,557	42,493,570
Depreciation	18,464,719	15,867,467	15,043,935	14,406,243	15,248,728
Operating Income	690,398	2,148,681	1,762,834	1,814,678	18,374,094
Utility Plant					
Construction Work in Progress	21,923,859	34,418,791	48,842,240	34,854,383	40,902,839
Total Plant Investment	693,585,969	676,806,594	658,790,761	628,078,322	564,620,815
Reserve for Depreciation	336,922,227	318,692,910	302,840,984	287,921,052	272,526,994
Current Positions					
Revenue Funds	47,761,804	42,994,879	37,646,269	42,416,273	28,433,036
Total Current Assets	84,718,859	79,816,045	71,269,194	62,372,099	56,513,213
Total Current Liabilities	13,348,324	15,300,802	13,506,850	14,035,294	10,979,990
Net Current Assets	71,370,535	64,515,243	57,762,344	48,336,805	45,533,223
Current Ratio	6.3	5.2	5.3	4.4	5.1
Net Position					
Net Investments in Capital Assets	293,509,048	291,816,714	290,547,253	288,741,142	284,873,905
Restricted	33,108,462	32,155,789	20,211,812	16,923,769	14,825,370
Unrestricted	22,481,124	16,034,665	9,679,375	24,120,887	16,509,674

* Includes Fire Protection

DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

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.mauewater.org.

Safety Specialist II, Lauren Farmer, reports DWS in FY20 was able to complete the Forklift Certifications and Crane Written Exams before the State and County was shut down due to Covid-19. 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.

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, our employees.

Workday, the County of Maui's new time/attendance/personnel software came into full use in FY20, providing a single home for processing all personnel and time entry functions for the department DWS uses the Workday system as the rest of the county does. yet remains the only county department that processes its own payroll, Workday also allows employees to maintain details in their electronic personnel file like personal data, time and attendance, leave, benefit selection, and access to pay slips, tax forms and other documentation. Workday also is the new county training portal where employees can sign up for a wide variety of courses for personal and professional development and growth.

Employee Recognition

Elise Moniz, Account Clerk III, was our **Employee of the Year** for 2019. Elise single-handedly managed the payroll for the 200+ employees of the DWS, during an extremely challenging year with the departure of the other Account Clerk and the transition from ADP/eP to the Workday time and attendance program. She was integral in training DWS staff on the new software program.

She ensured that DWS employees were paid on time and accurately and was also able to keep up with her section of Accounts Payable responsibilities. Elise exudes a spirit of hard-work, determination and demonstrates a caring attitude towards everything she is involved with.

Our **Manager of the Year** was Supervising Electronic Technician, Ryan Nagoshi. In his 25+ year career with COM, he has built a reputation of being very knowledgeable of his

DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

craft, being there to assist others when needed and consistently following through. His ability to clearly explain technical details so anyone can understand them has earned him the role as lead point person on many major COM projects, as well as being the expert on our SCADA operations and control systems. He is also known as a helpful and attentive supervisor, for making solid operational decisions in times of crisis and is never too busy to lend a hand to someone who may ask. Ryan is pictured below with DWS Director Jeff Pearson and Mayor Mike Victorino.



The 2019 DWS **Team of the Year** was our Water Quality Laboratory Team: Rowena Kellough, Umi Harding, Ann Yanagi, Tricia Mohr, Juleen Flory, Chris Kawaguchi, Leonore Amano and Kamalani Uehara (Missing: Chris Otsuka). This team of Water Microbiologists provides inorganic chemistry and microbiology analyses in support of the US EPA Safe Drinking Water Act for both regulatory and non-regulatory purposes, and maintains accreditation with two different entities for chemistry and microbiology analysis, the State of Hawaii Department of Health Safe Drinking Water Branch and the National Environmental Laboratory Accreditation Program. In addition, the laboratory's analysts, in conjunction with electronic technicians from the Maui DWS Plant Operations SCADA division, maintain a Field Sampling and Measurement Organization accreditation through the National Accreditation Board.

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. In 2019, the Water Quality Laboratory collected and analyzed a total of 3,224 microbiological samples for required regulatory compliance monitoring and special monitoring. Triennial lead and copper testing was completed for three water systems. They also collected 12,295 process control chemistry samples.

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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

Viliani Filimoeatu
Jared Kauhaaha
Joyce Higuchi
Thomas Ochwat
Piyalerg Kongsil
Curtis Eaton

15 Years

Helene Kau
Barbara Watanabe
Waiohuli Dancil
Myron Purdy
Elise Moniz
Riki Carvalho

20 Years

Eva Blumenstein
Brian Silva

25 Years

Jason Zolotow

30 Years

Scott Saito
Sherman Baisa

Perfect Attendance for Calendar Year 2019

Harry Aki
Ray Hirata
Michele Sakuma
Dean Tanimoto

Leonore Amano
Kenneth Ogawa
Avismarie Salzer
Kelly Wright

Cullen Falces
Richard Okuda
Warren Sardinha

Congratulations on Retirement in FY20 for these DWS employees:

Louis Cambra
Charles Decambra
David Haddock
Gaye Hayashida

Lawrence Lee
Herbert Sagon
Charlene Sakamoto
Teri Schiller

Lloyd Shiraki
Lucille Tom
Ann Yanagi

DWS New Hires for FY20 by division

Water Treatment Operations: Troy Evans

Fiscal/Customer Service: Brendee Martin

Plant Operations: Patricia Mohr

Field Operations: Joshua Wallace, Luka Kuailani, Aristotle Cortez, Layson Hoewaa,

Rowdy Fernandez, Keith Kauhane, Joseph Aheong, Jr., Kevin DeCoite, Lawai'a Tehiva

Administration: Laura Seaton

DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

BOARD OF WATER SUPPLY

COUNTY OF MAUI

MEMBER LIST as of June 30, 2020
2020 - 2021

<u>MEMBERS</u>	<u>TERM EXPIRATION</u>
Shay Chan Hodges, Chair (Haiku)	03/31/2021
Zoltan Milaskey, Vice Chair (Lahaina)	03/31/2021
Norman Franco (Kahului)	03/31/2022
J. Nalani Kaninau (Kihei)	03/31/2022
Joseph Aquino (Lahaina)	03/31/2023
Dean Frampton (Pukalani)	03/31/2023
Buddy James Nobriga (Wailuku)	03/31/2024
Antonette Eaton (Wailuku)	03/31/2024

EX-OFFICIO MEMBERS

Michele McLean, Director of Planning

Rowena Dagdag-Andaya, Director of Public Works

Mimi DesJardins, Deputy Corporation Counsel

DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

The County of Maui Board of Water Supply met eleven times during FY20 with one meeting being canceled. A total of six appeals were filed. Two appeals were withdrawn and two were dismissed. Currently four appeals are still active and will be scheduled at a later date for a hearing before the board.

At the July 18, 2019 meeting, the board formed a Temporary Investigative Group (TIG) whose purpose was to “explore the feasibility of purchasing and maintaining the EMI Water Delivery System and examine other alternatives for ensuring that the people of Maui County have authority over the delivery of water”. Members Norman Franco, Antonette Eaton and Shay Chan Hodges were appointed to the TIG Committee. The TIG report with amendments was approved by the board on December 19, 2019, and it was forwarded to the Mayor and the Maui County Council.

At the June 21, 2020, meeting, the board welcomed Deputy Corporation Counsel Mimi Desjardins. She replaced Edward Kushi, Jr. who retired in May 2020.

In September 2019, Member Michael Nakashima resigned from the board, as did Dr. Hanna Mounce in May 2020, due to personal reasons. We thanked them for their time, energy and dedication to the board and the County of Maui.

Member Nalani Kaninau was welcomed to the board in November 2019 and we appreciate her willingness to serve on this board.

DEPARTMENT OF WATER SUPPLY - FY 2020 ANNUAL REPORT

GOALS AND OBJECTIVES FOR FISCAL YEAR 2020

Program Goal	Success Measure	FY 2020 Estimate	FY 2020 Actual
Goal #1: Provide reliable, top quality water service at reasonable cost.	% of CIP design projects within schedule	100%	60%
	Maintaining a three month operations reserve fund	100%	100%
Goal #2: Recruit and retain needed staff.	# of staff promoted or obtaining new certifications	30	26
	# of staff training/educational opportunities provided	300	246
	% of annual evaluations completed on time	80%	87%
	# of Upcountry List requests processed	75	40
	Average days for single family residential permit review	20	30
Goal #3: Support a sustainable water supply.	# of actionable watershed management plans in place	11	9
Goal #4: 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	0
	# of water quality violations received	0	1
	# of samples analyzed to meet regulatory requirements	15,000	14,330
Goal #5: 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	\$178,809
	# of well pumps replaced	4	5
	# of booster pumps replaced	2	2
Goal #6: Water loss prevention to ensure service lines are efficient and reliable in ensuring minimal interrupted service.	# of miles of mainline inspected for leaks	900	7
	# of mainlines repaired	150	308
	# of feet of mainline replaced	12,000	4,176

**DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI
(A Proprietary Fund of the County of Maui)**

**FINANCIAL STATEMENTS AND SUPPLEMENTARY INFORMATION
WITH INDEPENDENT AUDITOR'S REPORT**

Fiscal Years Ended June 30, 2020 and 2019



N&K CPAs, Inc.

ACCOUNTANTS|CONSULTANTS

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

**DEPARTMENT OF WATER SUPPLY
COUNTY OF MAUI**

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PART I
FINANCIAL SECTION

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, as of and for the fiscal years ended June 30, 2020 and 2019, 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

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, 2020 and 2019, 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 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 as of June 30, 2020 and 2019, 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.

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, 2020 and of long-term debt - general obligation bonds as of June 30, 2020 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 December 23, 2020 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
December 23, 2020

**Department of Water Supply
County of Maui
STATEMENTS OF NET POSITION
June 30, 2020 and 2019**

	<u>2020</u>	<u>2019</u>
CURRENT ASSETS		
Equity in pooled cash and investments held in County Treasury	\$ 75,990,422	\$ 70,510,717
Customer receivables		
Billed	3,919,842	4,416,275
Less: allowance for doubtful accounts	<u>(90,686)</u>	<u>(61,346)</u>
	3,829,156	4,354,929
Unbilled	<u>3,182,856</u>	<u>3,063,164</u>
Total customer receivables	<u>7,012,012</u>	<u>7,418,093</u>
Materials and supplies	1,577,959	1,673,652
Other current assets	<u>139,171</u>	<u>213,583</u>
Total current unrestricted assets	<u>84,719,564</u>	<u>79,816,045</u>
RESTRICTED ASSETS		
Equity in pooled cash and investments held in County Treasury	<u>36,188,231</u>	<u>35,245,317</u>
Total current assets	<u>120,907,795</u>	<u>115,061,362</u>
CAPITAL ASSETS		
Utility plant in service	663,654,966	634,482,747
Less accumulated depreciation	<u>(336,922,227)</u>	<u>(318,692,910)</u>
	326,732,739	315,789,837
Land	8,007,145	7,905,059
Construction work in progress	<u>21,923,861</u>	<u>34,418,791</u>
Total capital assets	<u>356,663,745</u>	<u>358,113,687</u>
TOTAL ASSETS	<u>477,571,540</u>	<u>473,175,049</u>
DEFERRED OUTFLOWS OF RESOURCES		
Deferred outflows of resources related to pensions	8,035,456	9,305,359
Deferred outflows of resources related to OPEB	4,788,398	3,451,852
Unamortized loss on advanced refunding	<u>100,418</u>	<u>116,702</u>
TOTAL DEFERRED OUTFLOWS OF RESOURCES	<u>12,924,272</u>	<u>12,873,913</u>
TOTAL ASSETS AND DEFERRED OUTFLOWS OF RESOURCES	\$ <u>490,495,812</u>	\$ <u>486,048,962</u>

See accompanying notes to financial statements.

**Department of Water Supply
County of Maui
STATEMENTS OF NET POSITION (Continued)
June 30, 2020 and 2019**

	2020	2019
CURRENT LIABILITIES		
Payable from unrestricted current assets		
Bonds payable, current portion	\$ 2,472,697	\$ 2,950,708
Notes payable, current portion	2,550,020	2,349,064
Accounts payable	3,226,657	2,746,346
Accrued vacation, current portion	934,650	865,175
Accrued compensatory time off	139,680	114,265
Construction contracts payable, including retainages	904,125	2,528,146
Claims and judgments	322,171	512,940
Accrued interest payable	364,418	382,214
Customer advances for utility construction	<u>308,282</u>	<u>305,091</u>
	11,222,700	12,753,949
Payable from restricted assets		
Construction contracts payable, including retainages	404,567	788,574
Customer deposits	721,055	758,279
Refundable advances	<u>1,000,000</u>	<u>1,000,000</u>
	<u>2,125,622</u>	<u>2,546,853</u>
Total current liabilities	<u>13,348,322</u>	<u>15,300,802</u>
NON-CURRENT LIABILITIES		
Bonds payable, non-current portion	17,640,706	20,468,354
Notes payable, non-current portion	43,024,331	43,048,918
Net pension liability	43,112,852	41,040,357
Net OPEB liability	24,007,403	23,903,694
Accrued vacation, non-current portion	<u>981,141</u>	<u>888,390</u>
Total non-current liabilities	<u>128,766,433</u>	<u>129,349,713</u>
TOTAL LIABILITIES	<u>142,114,755</u>	<u>144,650,515</u>
DEFERRED INFLOWS OF RESOURCES		
Deferred inflows of resources related to pensions	460,319	671,167
Deferred inflows of resources related to OPEB	<u>378,657</u>	<u>720,112</u>
TOTAL DEFERRED INFLOWS OF RESOURCES	<u>838,976</u>	<u>1,391,279</u>
NET POSITION		
Net investment in capital assets	293,509,050	291,816,714
Restricted	33,108,459	32,155,789
Unrestricted	<u>20,924,572</u>	<u>16,034,665</u>
TOTAL NET POSITION	<u>347,542,081</u>	<u>340,007,168</u>
TOTAL LIABILITIES, DEFERRED INFLOWS OF RESOURCES AND NET POSITION	\$ <u>490,495,812</u>	\$ <u>486,048,962</u>

See accompanying notes to financial statements.

**Department of Water Supply
County of Maui
STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION
Fiscal Years Ended June 30, 2020 and 2019**

	<u>2020</u>	<u>2019</u>
OPERATING REVENUES		
Water sales	\$ 67,078,751	\$ 63,672,230
Other revenues	<u>1,106,747</u>	<u>788,221</u>
Total operating revenues	<u>68,185,498</u>	<u>64,460,451</u>
OPERATING EXPENSES		
Depreciation and amortization	18,464,719	15,867,467
Administrative and general	18,068,336	17,203,664
Power and pumping	12,584,077	12,640,326
Transmission and distribution	9,585,103	7,635,342
Purification	6,793,043	6,724,199
Customers' accounting and collection	1,880,398	1,619,674
Source of supply	<u>1,675,982</u>	<u>621,098</u>
Total operating expenses	<u>69,051,658</u>	<u>62,311,770</u>
Operating income (loss)	<u>(866,160)</u>	<u>2,148,681</u>
NONOPERATING INCOME (EXPENSES)		
Interest expense	(1,106,083)	(1,239,270)
Interest and investment income	3,262,190	3,908,681
Other income	<u>--</u>	<u>474,554</u>
Total nonoperating income	<u>2,156,107</u>	<u>3,143,965</u>
Income before capital contributions	1,289,947	5,292,646
Capital contributions	<u>6,244,966</u>	<u>14,276,082</u>
Change in net position	7,534,913	19,568,728
NET POSITION		
Beginning of year	<u>340,007,168</u>	<u>320,438,440</u>
End of year	\$ <u>347,542,081</u>	\$ <u>340,007,168</u>

See accompanying notes to financial statements.

**Department of Water Supply
County of Maui
STATEMENTS OF CASH FLOWS
Fiscal Years Ended June 30, 2020 and 2019**

	<u>2020</u>	<u>2019</u>
CASH FLOWS FROM OPERATING ACTIVITIES		
Cash received from customers and others	\$ 68,655,178	\$ 64,254,052
Payments to suppliers for goods and services	(30,932,777)	(25,310,594)
Payments to employees for services	(19,521,243)	(19,038,021)
Utility construction advances (refunds)	<u>(34,033)</u>	<u>206,057</u>
Net cash provided by operating activities	<u>18,167,125</u>	<u>20,111,494</u>
CASH FLOWS FROM INVESTING ACTIVITIES		
Interest and investment income received from investments	<u>3,262,190</u>	<u>3,908,681</u>
Net cash provided by investing activities	<u>3,262,190</u>	<u>3,908,681</u>
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES		
Cash paid for acquisition of construction of capital assets, including capitalized interest	(13,058,334)	(13,379,474)
Principal paid on bonds and notes payable	(5,313,738)	(8,512,692)
Proceeds from bonds and notes payable	2,539,399	9,830,336
Cash received from capital contributions and other	2,288,523	10,098,731
Interest paid on bonds and notes payable	<u>(1,462,546)</u>	<u>(1,557,133)</u>
Net cash used in capital and related financing activities	<u>(15,006,696)</u>	<u>(3,520,232)</u>
NET INCREASE IN CASH AND CASH EQUIVALENTS	6,422,619	20,499,943
CASH AND CASH EQUIVALENTS AT BEGINNING OF FISCAL YEAR	<u>105,756,034</u>	<u>85,256,091</u>
CASH AND CASH EQUIVALENTS AT END OF FISCAL YEAR	\$ <u>112,178,653</u>	\$ <u>105,756,034</u>
RECONCILIATION OF CASH AND CASH EQUIVALENTS TO THE STATEMENT OF NET POSITION		
Unrestricted	\$ 75,990,422	\$ 70,510,717
Restricted	<u>36,188,231</u>	<u>35,245,317</u>
	\$ <u>112,178,653</u>	\$ <u>105,756,034</u>

See accompanying notes to financial statements.

**Department of Water Supply
County of Maui
STATEMENTS OF CASH FLOWS (Continued)
Fiscal Years Ended June 30, 2020 and 2019**

	2020	2019
RECONCILIATION OF OPERATING INCOME (LOSS) TO NET CASH PROVIDED BY OPERATING ACTIVITIES		
Operating income (loss)	\$ (866,160)	\$ 2,148,681
Adjustments to reconcile operating income (loss) to net cash provided by operating activities:		
Depreciation and amortization	18,464,719	15,867,467
Provision for doubtful accounts	221,087	26,162
Changes in assets, deferred outflows, liabilities and deferred inflows:		
Customer receivables	184,994	(206,750)
Materials and supplies	95,693	24,546
Other current assets	74,412	(11,158)
Deferred outflows of resources related to pensions	1,269,903	920,724
Deferred outflows of resources related to OPEB	(1,336,546)	(923,531)
Accounts and construction contracts payable	(2,201,822)	802,767
Claims and judgments	(190,769)	(331,153)
Other liabilities and deposits	827,713	22,183
Net pension liability	2,072,495	1,786,242
Net OPEB liability	103,709	(133,475)
Deferred inflows of resources related to pensions	(210,848)	(315,511)
Deferred inflows of resources related to OPEB	(341,455)	434,300
Net cash provided by operating activities	<u>\$ 18,167,125</u>	<u>\$ 20,111,494</u>
SUPPLEMENTAL DISCLOSURE OF NONCASH CAPITAL AND RELATED FINANCING ACTIVITIES		
Capital contributions	\$ 3,956,443	\$ 4,651,905
Amortization of deferred loss on refunding	\$ 16,284	\$ 16,284
Amortization of bond premium	\$ 354,951	\$ 343,011

See accompanying notes to financial statements.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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 amendment (effective January 2, 2003) provides the following:
- The Department is a regular County of Maui agency subject to the Mayor's executive management and Council's 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 financial position, or its cash flows in conformity 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
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

**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
Other	5 - 50 years

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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

- (11) ***Debt Premium and Discounts*** - Debt 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
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

**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.

(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
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

**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 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. 90, *Majority Equity Interests - an amendment of GASB Statements No. 14 and No. 61*. The primary objectives of this Statement are to improve the consistency and comparability of reporting a government's majority equity interest in a legally separate organization and to improve the relevance of financial statement information for certain component units. It defines a majority equity interest and specifies that a majority equity interest in a legally separate organization should be reported as an investment if a government's holding of the equity interest meets the definition of an investment. Management has not yet determined the effect this Statement will have on the Department's financial statements.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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

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.

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

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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

- 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.

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, 2020, and 2019, 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 \$112,178,653 and \$105,756,034, 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
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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, 2020 and 2019 were as follows:

	2020	2019
AA+	\$ 204,029,226	\$ 238,841,727
AA	440,368	16,357,625
A - 1+	33,997,121	--
A - 1	11,995,722	--
Not rated	23,511,257	30,123,065
	\$ 273,973,694	\$ 285,322,417

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, 2020 and 2019, substantially all of the County's negotiable time certificates of deposits and cash deposits were insured and collateralized.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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 comprehensive annual financial report.

The Department's share of the County's cash and investment pool, as summarized in the tables below was approximately 21.1% and 21.6% at June 30, 2020, and 2019, respectively.

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	1.38 - 2.00	\$ --	\$ 2,000,000	\$ --	\$ 17,000,000	\$ 806,280	\$ 19,806,280
Federal Home Loan Bank Bank Notes	1.50 - 3.38	--	3,000,000	--	37,500,000	1,913,465	42,413,465
Federal Farm Credit Bank Notes	1.55 - 3.05	--	4,000,000	1,985,000	80,238,000	5,011,221	91,234,221
Federal Agricultural Mortgage Corporation Notes	1.70 - 2.68	--	--	--	14,500,000	727,325	15,227,325
Federal Home Loan Mortgage Corporation Notes	1.5 - 2.75	--	--	--	15,000,000	879,510	15,879,510
Tennessee Valley Authority Notes	3.875	--	--	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	1.63 - 1.75	--	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	1.60 - 4.80	600,000	1,860,000	380,000	12,595,000	416,549	15,851,549
Negotiable certificates of deposit	1.25 - 3.55	<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	<u>225,257,519</u>
						Total equity in pooled cash and investments	\$ <u>532,336,948</u>

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 2 - CASH AND INVESTMENTS (Continued)

As of June 30, 2019, 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	\$ --	\$ 7,595,000	\$ 4,000,000	\$ 14,970,000	\$ (102,252)	\$ 26,462,748
Federal Home Loan Bank Bank Notes	1.40 - 3.30	--	2,000,000	11,500,000	70,500,000	492,040	84,492,040
Federal Farm Credit Bank Notes	1.88 - 3.05	--	--	--	76,223,000	1,828,090	78,051,090
Federal Agricultural Mortgage Corporation Notes	2.40 - 2.55	--	--	--	7,000,000	112,140	7,112,140
Federal Home Loan Mortgage Corporation Notes	1.08 - 2.55	2,000,000	2,000,000	--	39,030,000	178,775	43,208,775
Tennessee Valley Authority Notes	2.33 - 2.72	--	--	1,000,000	5,000,000	159,800	6,159,800
U.S. Treasury Strips	1.94	--	--	--	2,000,000	(99,460)	1,900,540
U.S. Treasury Notes	1.78 - 3.04	--	3,500,000	5,000,000	6,000,000	(42,915)	14,457,085
Municipal Securities	1.25 - 3.26	570,000	8,325,000	--	14,430,000	153,199	23,478,199
Negotiable certificates of deposit	0.10 - 3.50	<u>1,000,000</u>	<u>6,750,000</u>	<u>13,450,000</u>	<u>43,190,000</u>	<u>152,553</u>	<u>64,542,553</u>
Total investments		\$ <u>3,570,000</u>	\$ <u>30,170,000</u>	\$ <u>34,950,000</u>	\$ <u>278,343,000</u>	\$ <u>2,831,970</u>	349,864,970
						Cash on hand and deposits	<u>138,908,976</u>
						Total equity in pooled cash and investments	\$ <u>488,773,946</u>

Unrestricted equity in pooled cash and investments held in County Treasury at June 30, 2020 and 2019 include funds for the following purposes:

	<u>2020</u>	<u>2019</u>
Board-designated		
Capital improvements	\$ 26,111,563	\$ 25,003,684
Debt service	<u>2,116,350</u>	<u>2,512,154</u>
Total board-designated	28,227,913	27,515,838
Undesignated	<u>47,762,509</u>	<u>42,994,879</u>
Total	\$ <u>75,990,422</u>	\$ <u>70,510,717</u>

At June 30, 2020 and 2019, construction contract payables, including retentions, to be paid with board-designated funds were approximately \$900,000 and \$1.1 million, respectively. Construction contract commitments as of June 30, 2020 and 2019, to be paid with board-designated funds, aggregated approximately \$7.6 million and \$10.4 million, respectively. There are no amounts included in the construction contract commitment amounts for 2020 and 2019 for maintenance of compliance-order projects and no amounts included for management's estimates needed in anticipation of future regulations for compliance.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 2 - CASH AND INVESTMENTS (Continued)

Restricted equity in pooled cash and investments held in County Treasury consisted of the following at June 30, 2020 and 2019:

	<u>2020</u>	<u>2019</u>
Water system development fee	\$ 20,384,500	\$ 20,433,487
State funds	12,183,829	11,183,829
Bond funds	2,432,640	2,403,368
Customer deposits	721,055	758,279
Special assessment fund for storage	273,829	273,829
Source development fund assessments	<u>192,378</u>	<u>192,525</u>
Total	\$ <u>36,188,231</u>	\$ <u>35,245,317</u>

At June 30, 2020, and 2019 construction voucher and contract payables, including retentions, to be paid with restricted assets were approximately \$405,000 and \$789,000, respectively. Construction contract commitments as of June 30, 2020 and 2019, to be paid with restricted assets, aggregated approximately \$8.6 million and \$7.4 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
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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, 2020 and 2019:

	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>
	Assets at Fair Value at June 30, 2019			
	Total	Level 1	Level 2	Level 3
U. S. Treasury obligations	\$ 16,357,625	\$ 16,357,625	\$ --	\$ --
U. S. government agency obligations	245,486,593	--	245,486,593	--
Municipal securities	23,478,199	--	23,478,199	--
Negotiable certificates of deposit	<u>64,542,553</u>	<u>--</u>	<u>64,542,553</u>	<u>--</u>
	<u>\$ 349,864,970</u>	<u>\$ 16,357,625</u>	<u>\$ 333,507,345</u>	<u>\$ --</u>

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 4 - RESTRICTED NET POSITION

At June 30, 2020 and 2019, restricted net position consisted of the following:

	<u>2020</u>	<u>2019</u>
Water system development fee	\$ 20,384,500	\$ 20,433,487
Special assessment fund for storage	273,829	273,829
Source development fund assessments	192,378	192,525
Other restricted funds	<u>12,257,752</u>	<u>11,255,948</u>
Total	<u>\$ 33,108,459</u>	<u>\$ 32,155,789</u>

NOTE 5 - CAPITAL CONTRIBUTIONS

Capital contributions during the fiscal years ended June 30, 2020, and 2019 were as follows:

	<u>2020</u>	<u>2019</u>
Dedication of infrastructure assets	\$ 3,956,443	\$ 4,651,905
Source development fund assessments	2,089,242	8,429,220
Other	<u>199,281</u>	<u>1,194,957</u>
Total	<u>\$ 6,244,966</u>	<u>\$ 14,276,082</u>

NOTE 6 - CAPITAL ASSETS

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	<u>34,418,791</u>	<u>12,457,637</u>	<u>(24,952,567)</u>	<u>21,923,861</u>
	<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	<u>11,927,222</u>	<u>532,102</u>	<u>--</u>	<u>12,459,324</u>
	<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	<u>5,035,796</u>	<u>235,648</u>	<u>--</u>	<u>5,271,444</u>
	<u>318,692,910</u>	<u>18,464,719</u>	<u>(235,402)</u>	<u>336,922,227</u>
Total Capital Assets	<u>\$ 358,113,687</u>	<u>\$ 23,502,625</u>	<u>\$ (24,952,567)</u>	<u>\$ 356,663,745</u>

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 6 - CAPITAL ASSETS (Continued)

Capital assets activity during the fiscal year ended June 30, 2019, was as follows:

	Balance July 1, 2018	Additions	Reductions/ Retirements	Balance June 30, 2019
Non-depreciable assets				
Land	\$ 7,905,059	\$ --	\$ --	\$ 7,905,059
Construction in progress	48,842,240	11,878,768	(26,302,217)	34,418,791
	<u>56,747,299</u>	<u>11,878,768</u>	<u>(26,302,217)</u>	<u>42,323,850</u>
Depreciable assets				
Buildings and systems	165,974,212	11,580,688	--	177,554,900
Machinery and equipment	424,277,276	20,738,890	(15,541)	445,000,625
Infrastructure	11,791,972	135,250	--	11,927,222
	<u>602,043,460</u>	<u>32,454,828</u>	<u>(15,541)</u>	<u>634,482,747</u>
Accumulated depreciation				
Buildings and systems	75,767,687	3,933,686	--	79,701,373
Machinery and equipment	222,271,454	11,699,828	(15,541)	233,955,741
Infrastructure	4,801,843	233,953	--	5,035,796
	<u>302,840,984</u>	<u>15,867,467</u>	<u>(15,541)</u>	<u>318,692,910</u>
Total Capital Assets	\$ <u>355,949,775</u>	\$ <u>28,466,129</u>	\$ <u>(26,302,217)</u>	\$ <u>358,113,687</u>

NOTE 7 - LONG-TERM LIABILITIES

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	\$ <u>71,197,814</u>	\$ <u>3,802,078</u>	\$ <u>6,934,496</u>	\$ <u>68,065,396</u>	\$ <u>6,419,218</u>

A summary of changes in long-term liabilities of the Department for the fiscal year ended June 30, 2019, are as follows:

	Balance July 1, 2018	Additions	Reductions	Balance June 30, 2019	Due Within One Year
Bonds payable	\$ 21,719,327	\$ 4,621,644	\$ 2,921,909	\$ 23,419,062	\$ 2,950,708
Notes payable from direct borrowings	46,123,084	5,208,692	5,933,794	45,397,982	2,349,064
Accrued vacation payable	1,865,812	808,309	920,556	1,753,565	865,175
Accrued compensatory time off	125,292	101,377	112,404	114,265	114,265
Claims and judgments	844,093	322,946	654,099	512,940	512,940
Total	\$ <u>70,677,608</u>	\$ <u>11,062,968</u>	\$ <u>10,542,762</u>	\$ <u>71,197,814</u>	\$ <u>6,792,152</u>

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 8 - BONDS PAYABLE

At June 30, 2020 and 2019, bonds payable consisted of the following:

	2020	2019
General Obligation Refunding Bonds, 2010 Series B, due in annual installments through 2021, interest payable semi-annually from 4.0% to 5.0%.	\$ 434,195	\$ 851,614
General Obligation Refunding Bonds, 2012 Series B, due in annual installments through 2032, interest payable semi-annually from 2.1% to 5.0%.	2,886,722	3,073,430
General Obligation Refunding Bonds, 2012 Series C, due in annual installments through 2023, interest payable semi-annually from 4.0% to 5.0%.	3,110,000	4,050,000
General Obligation Refunding Bonds, 2014 Series C, due in annual installments through 2034, interest payable semi-annually from 3.0% to 5.0%.	5,295,000	5,570,000
General Obligation Refunding Bonds, 2015 Series B, due in annual installments through 2020, interest payable semi-annually at 5.0%.	--	575,469
General Obligation Refunding Bonds, 2015 Series D, due in annual installments through 2027, interest payable semi-annually from 3.0% to 5.0%.	2,661,504	2,972,616
General Obligation Refunding Bonds, 2018 Series C, due in annual installments through 2032, interest payable semi-annually from 3.0% to 5.0%.	<u>3,795,000</u>	<u>4,040,000</u>
	18,182,421	21,133,129
Less current portion	<u>(2,472,697)</u>	<u>(2,950,708)</u>
	15,709,724	18,182,421
Unamortized premium	<u>1,930,982</u>	<u>2,285,933</u>
Noncurrent portion	<u>\$ 17,640,706</u>	<u>\$ 20,468,354</u>

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 8 - BONDS PAYABLE (Continued)

Future bond principal and interest payments are as follows:

<u>Fiscal Year Ending June 30,</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2021	\$ 2,472,697	\$ 744,104	\$ 3,216,801
2022	2,139,184	624,161	2,763,345
2023	2,251,742	516,392	2,768,134
2024	1,213,545	416,164	1,629,709
2025	1,267,174	361,109	1,628,283
2026 - 2030	5,716,341	1,095,032	6,811,373
2031 - 2034	<u>3,121,738</u>	<u>204,952</u>	<u>3,326,690</u>
Total	\$ <u>18,182,421</u>	\$ <u>3,961,914</u>	\$ <u>22,144,335</u>

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, 2020 and 2019, notes payable from direct borrowings consisted of the following:

	<u>2020</u>	<u>2019</u>
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.	152,563	164,473
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.	<u>1,469,925</u>	<u>1,583,611</u>
Balance forward	\$ 1,622,488	\$ 1,748,084

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 9 - NOTES PAYABLE (Continued)

	2020	2019
Notes payable to State of Hawaii, Department of Health		
Balance carried forward	\$ 1,622,488	\$ 1,748,084
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.	582,478	624,190
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.	5,362,194	5,774,670
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.	3,026,609	3,242,756
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.	1,482,861	1,581,035
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.	538,586	571,708
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.	586,985	623,072
Balance forward	\$ 13,202,201	\$ 14,165,515

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 9 - NOTES PAYABLE (Continued)

	2020	2019
Notes payable to State of Hawaii, Department of Health		
Balance carried forward	\$ 13,202,201	\$ 14,165,515
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.	111,865	119,568
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.	1,693,893	1,711,713
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.	1,982,786	2,084,482
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.	1,073,004	1,125,538
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.	447,060	468,979
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>20,488,995</u>	<u>20,937,537</u>
Balance forward	\$ 38,999,804	\$ 40,613,332

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 9 - NOTES PAYABLE (Continued)

	2020	2019
Notes payable to State of Hawaii, Department of Health		
Balance carried forward	\$ 38,999,804	\$ 40,613,332
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.	3,135,147	3,251,807
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 2041.	3,439,400	1,532,843
	45,574,351	45,397,982
Less current portion	(2,550,020)	(2,349,064)
	\$ 43,024,331	\$ 43,048,918

As of June 30, 2020, future principal and interest payments for notes payable from direct borrowings are as follows:

Fiscal Year Ending June 30,	Principal	Interest	Total
2021	\$ 2,550,020	\$ 587,031	\$ 3,137,050
2022	2,572,828	554,462	3,127,289
2023	2,596,862	520,627	3,117,489
2024	2,621,140	486,509	3,107,649
2025	2,645,905	451,864	3,097,769
2026 - 2030	13,610,068	1,729,121	15,339,189
2031- 2035	12,531,278	827,261	13,358,540
Thereafter	6,446,250	160,585	6,606,835
Total	\$ 45,574,351	\$ 5,317,460	\$ 50,891,810

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.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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% to 2.25%) 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. Retirees first hired as members after June 30, 2012 receive a 1.5% increase each year of their original retirement allowance without a ceiling. The annual increase is not compounded.

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 ten years of credited service are eligible to retire at age 62. Employees with 30 years of credited service are eligible to retire at age 55.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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. Ten 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 ten 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 5 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. Ten years of credited service is required for ordinary disability. Ordinary disability benefits are determined as 1.75% of average final compensation multiplied by the years of credited service but are payable immediately, without an actuarial reduction, and at a minimum of 30% of average final compensation.

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

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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 ten 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 ten 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 ten 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. Ten 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. Ten years of credited service is required for ordinary disability. Ordinary disability benefits are determined in the same manner as retirement benefits but are payable immediately, without an actuarial reduction, and at a minimum of 25% of average final compensation.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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 ten 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 ten 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 with 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 ten 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 ten 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 \$2,953,047 and \$2,459,961 for the fiscal years ended June 30, 2020 and 2019, respectively.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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 officers and firefighters increases to 31.00% on July 1, 2018; and increases to 36.00% on July 1, 2019; and 41.00% on July 1, 2020 and the rate for all other employees' increased to 19.00% on July 1, 2018; 22.00% on July 1, 2019; and 24.00% 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, 2020 and 2019, the Department reported a liability of \$43,112,852 and \$41,040,357, for its proportionate share of net pension liability of the County. The net pension liability was measured as of June 30, 2019 and 2018, 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, 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. At June 30, 2018, the Department's proportion of the County's proportion was 6.8667% which was an increase of 0.3075% from its proportion measured as of June 30, 2017.

There were no other changes between the measurement dates, June 30, 2019 and 2018, and the reporting dates, June 30, 2020 and 2019 that are expected to have a significant effect on the proportionate share of the net pension liability.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 10 - RETIREMENT BENEFITS (Continued)

For the fiscal years ended June 30, 2020 and 2019, the Department recognized pension expense of \$3,138,921 and \$1,648,171. At June 30, 2020 and 2019, the Department reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

	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	<u>2,953,047</u>	<u>--</u>
	<u>\$ 8,035,456</u>	<u>\$ 460,319</u>
	June 30, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ 741,443	\$ 301,719
Net difference between projected and actual earnings on pension plan investments	16,877	--
Changes in proportion and difference between Department contributions and proportionate share of contributions	1,411,571	369,448
Changes of assumptions	4,675,507	--
Department contributions subsequent to the measurement date	<u>2,459,961</u>	<u>--</u>
	<u>\$ 9,305,359</u>	<u>\$ 671,167</u>

At June 30, 2020, the \$2,953,047 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, 2021.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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, 2020 will be recognized in pension expense as follows:

Fiscal Year Ending June 30,	Amount
2021	\$ 2,480,190
2022	1,208,405
2023	438,229
2024	402,240
2025	93,026
Total	\$ 4,622,090

Actuarial Assumptions - The total pension liability in the June 30, 2019 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, 2015:

	2019	2018
Inflation	2.50%	2.50%
Investment rate of return, including inflation	7.00%	7.00%
Payroll growth	0.00%	3.50%
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, 2019 and 2018 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 - 2019: 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. 2018: The 2016 Public Retirees of Hawaii mortality table, generational projection using the BB projection table from the year 2016 and with multipliers based on plan and group experience.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 10 - RETIREMENT BENEFITS (Continued)

Disabled retirees - 2019: 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. 2018: Base table for healthy retirees' occupation, set forward five years, generational projection using the BB projection table from the year 2016. 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 are summarized in the following table:

Strategic Allocation (Risk-Based Classes)	Target Allocation	Long-Term Expected Rate of Return		Long-Term Expected Real Rate of Return*	
		2019	2018	2019	2018
Broad growth	63.00%	7.65%	7.10%	5.40%	4.85%
Principal protection	7.00%	3.00%	2.50%	0.75%	0.25%
Real return	10.00%	4.55%	4.10%	2.30%	1.85%
Crisis risk offset	20.00%	5.15%	4.60%	2.90%	2.35%
	<u>100.00%</u>				

*Uses an expected inflation of 2.25%

Discount Rate - The discount rate used to measure the net pension liability at June 30, 2020 and 2019 was 7.00%. The projection of cash flows used to determine the discount rate assumed that employee contributions will be made at the current contribution rate and that contributions from the County will be made at statutorily required rates, actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive employees. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 10 - RETIREMENT BENEFITS (Continued)

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, 2020 and 2019, 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, 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>
	June 30, 2019		
	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
Department's proportionate share of the net pension liability	\$ <u>48,032,824</u>	\$ <u>41,040,357</u>	\$ <u>27,793,326</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

As of June 30, 2020 and 2019, the Department had \$1,022,694 and \$487,502, respectively, payable to the pension plan.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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 ten years or more of credited service, and 50% of the base monthly contribution for employees retiring with fewer than ten 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, 2019 and 2018, the following number of plan members were covered by the benefit terms:

	2019	2018
Inactive employees or their beneficiaries currently receiving benefits	1,611	1,534
Inactive employees entitled to but not yet receiving benefits	280	269
Active members	2,467	2,463
Total	4,358	4,266

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.

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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, 2020 and 2019 were \$3,718,455 and \$3,044,435, 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, 2020 and 2019, the Department's share of the net OPEB liability was \$24,007,403 and 23,903,694, respectively. The net OPEB liability was measured as of July 1, 2019 and 2018, 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, 2019, and the reporting date, June 30, 2020, that are expected to have a significant effect on the net OPEB liability.

For the fiscal years ended June 30, 2020 and 2019, the Department recognized OPEB expense of \$1,574,292 and \$622,706, respectively. At June 30, 2020 and 2019, the Department reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

	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>
	June 30, 2019	
	Deferred Outflows of Resources	Deferred Inflows of Resources
Differences between expected and actual experience	\$ --	\$ 461,685
Net difference between projected and actual earnings on OPEB plan investments	--	258,427
Changes of assumptions	407,417	--
Department contributions subsequent to the measurement date	<u>3,044,435</u>	<u>--</u>
	<u>\$ 3,451,852</u>	<u>\$ 720,112</u>

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 10 - RETIREMENT BENEFITS (Continued)

At June 30, 2020, the \$3,718,455 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, 2021.

Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB as of June 30, 2020 will be recognized in OPEB expense as follows:

Fiscal Year Ending June 30,	Net Deferred Outflows
2021	\$ 95,247
2022	95,247
2023	174,711
2024	186,834
2025	69,399
Thereafter	69,848
	\$ 691,286

Actuarial assumptions - 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:

Inflation	2.50%
Salary increases	3.50% to 7.00%, including inflation
Investment rate of return	7.00%

Healthcare cost trend rates

PPO	Initial rate of 8.00%, declining to a rate of 4.86% after 12 years
HMO*	Initial rate of 8.00%; declining to a rate of 4.86% 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%
Vision	Initial rate of 0.00% for the first two years; followed by 2.50%
Life insurance	0.00%

* Blended rates for medical and prescription drug

The total OPEB liability in the July 1, 2018 actuarial valuation was determined using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified:

Inflation	2.50%
Salary increases	3.50% to 7.00%, including inflation
Investment rate of return	7.00%

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 10 - RETIREMENT BENEFITS (Continued)

Healthcare cost trend rates

PPO	Initial rate of 10.00%, declining to a rate of 4.86% after 13 years
HMO*	Initial rate of 10.00%, declining to a rate of 4.86% after 13 years
Contribution	Initial rates of 4.00% and 5.00%; declining to a rate of 4.70% after 12 years
Dental	Initial rates of 5.00% for the first three years; followed by 4.00%
Vision	Initial rates of 0.00% for the first three years; followed by 2.50%
Life insurance	0.00%

Mortality rates are based on system-specific mortality tables utilizing scale BB to project generational mortality improvement.

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

The target allocation and best estimates of arithmetic real rates of return for each major asset class as of July 1, 2019 and 2018 are summarized in the following table:

Asset Class	2019		2018	
	Target Allocation	Long-Term Expected Real Rate of Return	Target Allocation	Long-Term Expected Real Rate of Return
International equity	17.00%	6.90%	17.00%	6.50%
U.S. equity	15.00%	5.35%	15.00%	5.05%
Private equity	10.00%	8.80%	10.00%	8.65%
Core real estate	10.00%	3.90%	10.00%	4.10%
Trend following	9.00%	3.25%	9.00%	3.00%
U.S. microcap	7.00%	7.30%	7.00%	7.00%
Global options	7.00%	4.75%	7.00%	4.50%
Private credit	6.00%	5.60%	6.00%	5.25%
Long treasuries	6.00%	2.00%	6.00%	1.90%
Alternate risk premium	5.00%	2.75%	5.00%	2.45%
TIPS	5.00%	1.20%	5.00%	0.75%
Core bonds	3.00%	1.50%	3.00%	1.30%
	<u>100.00%</u>		<u>100.00%</u>	

Single Discount rate - The discount rate used to measure the total OPEB liability at June 30, 2020 and 2019 was 7.00%, based on the expected rate of return on OPEB plan investments of 7.00% and the municipal bond rate of 3.62% (based on the daily rate closest to but not later than the measurement date of the Fidelity "20-year Municipal GO AA Index"). Beginning with the fiscal year 2019 contribution, the County's funding policy is to pay the

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 10 - RETIREMENT BENEFITS (Continued)

recommended actuarially determined contribution, which is based on layered, closed amortization periods. Based on those assumptions, the OPEB plan's fiduciary net position was projected to be available to make all projected future benefit payments of current active and inactive 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.

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 year ended June 30, 2020 and 2019. The ending balances are as of the measurement dates, July 1, 2019 and 2018.

	Increase (Decrease)		
	Total OPEB Liability	Plan Fiduciary Net Position	Net OPEB Liability
	(a)	(b)	(a) - (b)
Balance at June 30, 2019	\$ 41,863,889	\$ 17,960,195	\$ 23,903,694
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>

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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, 2018	\$ <u>39,568,747</u>	\$ <u>15,531,578</u>	\$ <u>24,037,169</u>
Changes for the fiscal year:			
Service cost	910,032	--	910,032
Interest on the total OPEB liability	2,711,292	--	2,711,292
Contributions - employer	--	2,528,321	(2,528,321)
Net investment income	--	1,166,847	(1,166,847)
Difference between expected and actual experience	(537,699)	--	(537,699)
Benefit payments	474,496	--	474,496
Administrative expense	(1,262,979)	(1,262,979)	--
Other	--	(3,572)	3,572
Net changes	<u>2,295,142</u>	<u>2,428,617</u>	<u>(133,475)</u>
Balance at June 30, 2019	\$ <u>41,863,889</u>	\$ <u>17,960,195</u>	\$ <u>23,903,694</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, 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>
	June 30, 2019		
	1% Decrease (6.00%)	Discount Rate (7.00%)	1% Increase (8.00%)
	Department's proportionate share of the net OPEB liability	\$ <u>30,470,113</u>	\$ <u>23,903,694</u>

**Department of Water Supply
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

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, 2020		
	Current Healthcare Cost Trend Rates		
	1% Decrease		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>
	June 30, 2019		
	Current Healthcare Cost Trend Rates		
	1% Decrease		1% Increase
Department's proportionate share of the net OPEB liability	\$ <u>17,758,150</u>	\$ <u>23,903,694</u>	\$ <u>30,973,725</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
County of Maui
NOTES TO FINANCIAL STATEMENTS
June 30, 2020 and 2019**

NOTE 11 - SICK LEAVE

Accrued sick leave aggregated to approximately \$5.1 million and \$5.0 million as of June 30, 2020 and 2019, 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.

SUPPLEMENTARY INFORMATION

**Department of Water Supply
County of Maui
SCHEDULE I - SCHEDULE OF CAPITAL ASSETS
Fiscal Year Ended June 30, 2020**

Description	Balance	Additions	Retirements	Balance	Accumulated	Additions	Retirements	Accumulated
	July 1, 2019	and Transfers		June 30, 2020	Depreciation July 1, 2019			Depreciation June 30, 2020
Land	\$ 7,905,059	\$ 102,086	\$ --	\$ 8,007,145	\$ --	\$ --	\$ --	\$ --
Source of Supply Structures	12,306,282	1,336,965	--	13,643,247	598,479	791,017	--	1,389,496
Collecting and Impounding Reservoirs	4,251,683	--	--	4,251,683	3,715,047	53,716	--	3,768,763
Wells & Springs	20,831,410	2,837,870	--	23,669,280	4,762,789	1,570,704	--	6,333,493
Power & Pumping Structures	20,714,841	2,587,260	--	23,302,101	2,725,155	467,784	--	3,192,939
Purification Buildings	34,656,213	640,722	--	35,296,935	31,814,780	708,720	--	32,523,500
Distribution Reservoirs	81,181,062	6,766,803	--	87,947,865	33,367,491	2,182,481	--	35,549,972
Office Building	1,672,930	--	--	1,672,930	1,232,751	32,266	--	1,265,017
Field Operation Building	1,349,400	--	--	1,349,400	894,296	32,241	--	926,537
Utility Plant - Unclassified	591,079	--	--	591,079	590,585	374	--	590,959
Electric Pumping Equipment	38,245,717	3,442,097	--	41,687,814	27,071,685	1,958,611	--	29,030,296
Other Power Pumping Equipment	2,708,773	722,012	--	3,430,785	2,384,785	142,189	--	2,526,974
Purification System - Chlorinators	6,578,061	1,506,493	--	8,084,554	3,100,858	583,414	--	3,684,272
Purification System - Filter Plants	56,692,642	492,649	--	57,185,291	45,489,287	1,367,830	--	46,857,117
Transmission & Distribution Mains	314,585,998	7,380,997	--	321,966,995	138,028,115	7,220,577	--	145,248,692
Service Laterals	4,410,276	199,281	--	4,609,557	2,643,487	145,900	--	2,789,387
Meters	8,923,346	61,492	--	8,984,838	5,879,106	401,185	--	6,280,291
Office Furniture & Equipment	54,155	--	--	54,155	35,347	2,221	--	37,568
Stores Equipment	198,385	--	--	198,385	115,254	5,275	--	120,529
Shop Equipment	72,674	--	--	72,674	67,027	922	--	67,949
Laboratory Equipment	535,995	--	--	535,995	354,038	20,908	--	374,946
Work Equipment	4,141,508	677,911	(23,463)	4,795,956	1,734,309	197,199	(23,463)	1,908,045
Communication Equipment	1,682,737	--	--	1,682,737	1,309,575	71,332	--	1,380,907
Meter Boxes	291,058	--	--	291,058	291,058	--	--	291,058
Hydrants	11,316,491	532,102	--	11,848,593	4,600,845	223,403	--	4,824,248
Standpipes	246,277	--	--	246,277	217,323	3,827	--	221,150
	636,144,052	29,286,740	(23,463)	665,407,329	313,023,472	18,184,096	(23,463)	331,184,105
Office Machines	666,070	--	--	666,070	595,332	22,644	--	617,976
Transportation Equipment	5,577,684	222,967	(211,939)	5,588,712	5,074,106	257,979	(211,939)	5,120,146
Total Capital Assets (1)	\$ 642,387,806	\$ 29,509,707	\$ (235,402)	\$ 671,662,111	\$ 318,692,910	\$ 18,464,719	\$ (235,402)	\$ 336,922,227
Construction in Aid		\$ 4,442,186						
Capital Replacement Fund		6,661,379						
State Revolving Fund		9,647,447						
Construction in Aid - Direct		1,216,004						
Revenue Fund		1,202,202						
Water System Development Fund		565,564						
State Grant		2,500,000						
1991 Construction Fund		1,907,532						
Water Source Development Fund		1,367,393						
		\$ 29,509,707						

(1) Excludes construction in progress.

**Department of Water Supply
County of Maui
SCHEDULE II - SCHEDULE OF LONG-TERM DEBT - GENERAL OBLIGATION BONDS
June 30, 2020**

County of Maui General Obligation Bonds	Fiscal Year	Coupon Interest Rate	Bond Dated	Maturing Serially From	Call Dates	Authorized and Issued	Outstanding June 30, 2020	Payable Within One Year
G.O. Refunding Bonds, 2010 Series B (a)	2021	4.000	12/1/2010	6/1/2021	6/1/2020	\$ 434,195	\$ 434,195	\$ 434,195
Total 2010 Series B Issue						<u>434,195</u>	<u>434,195</u>	<u>434,195</u>
G.O. Refunding Bonds, 2012 Series B (b)	2021	5.000	11/1/2012	6/1/2021	Noncallable	196,382	196,382	196,382
	2022	5.000	11/1/2012	6/1/2022	Noncallable	206,056	206,056	--
	2023	4.000	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	3.000	11/1/2012	6/1/2025	6/1/2023	229,758	229,758	--
	2026	3.000	11/1/2012	6/1/2026	6/1/2023	236,529	236,529	--
	2027	3.000	11/1/2012	6/1/2027	6/1/2023	243,785	243,785	--
	2028	3.000	11/1/2012	6/1/2028	6/1/2023	251,040	251,040	--
	2029	3.000	11/1/2012	6/1/2029	6/1/2023	258,779	258,779	--
	2030	3.000	11/1/2012	6/1/2030	6/1/2023	266,519	266,519	--
	2031	3.000	11/1/2012	6/1/2031	6/1/2023	274,258	274,258	--
	2032	3.000	11/1/2012	6/1/2032	6/1/2023	282,481	282,481	--
Total 2012 Series B Issue						<u>2,886,722</u>	<u>2,886,722</u>	<u>196,382</u>
G.O. Refunding Bonds, 2012 Series C (c)	2021	5.000	11/1/2012	6/1/2021	Noncallable	985,000	985,000	985,000
	2022	5.000	11/1/2012	6/1/2022	Noncallable	1,035,000	1,035,000	--
	2023	4.000	11/1/2012	6/1/2023	Noncallable	1,090,000	1,090,000	--
Total 2012 Series C Issue						<u>\$ 3,110,000</u>	<u>\$ 3,110,000</u>	<u>\$ 985,000</u>

**Department of Water Supply
County of Maui
SCHEDULE II - SCHEDULE OF LONG-TERM DEBT - GENERAL OBLIGATION BONDS (Continued)
June 30, 2020**

County of Maui General Obligation Bonds	Fiscal Year	Coupon Interest Rate	Bond Dated	Maturing Serially From	Call Dates	Authorized and Issued	Outstanding June 30, 2020	Payable Within One Year	
G.O. Refunding Bonds, 2014 Series C (d)									
	2021	5.000	12/1/2014	6/1/2021	Noncallable	\$ 290,000	\$ 290,000	\$ 290,000	
	2022	5.000	12/1/2014	6/1/2022	Noncallable	305,000	305,000	--	
	2023	5.000	12/1/2014	6/1/2023	Noncallable	320,000	320,000	--	
	2024	5.000	12/1/2014	6/1/2024	Noncallable	335,000	335,000	--	
	2025	3.000	12/1/2014	6/1/2025	6/1/2024	350,000	350,000	--	
	2026	3.000	12/1/2014	6/1/2026	6/1/2024	360,000	360,000	--	
	2027	4.000	12/1/2014	6/1/2027	6/1/2024	370,000	370,000	--	
	2028	3.000	12/1/2014	6/1/2028	6/1/2024	385,000	385,000	--	
	2029	3.000	12/1/2014	6/1/2029	6/1/2024	400,000	400,000	--	
	2030	3.000	12/1/2014	6/1/2030	6/1/2024	410,000	410,000	--	
	2031	3.125	12/1/2014	6/1/2031	6/1/2024	420,000	420,000	--	
	2032	3.250	12/1/2014	6/1/2032	6/1/2024	435,000	435,000	--	
	2033	3.250	12/1/2014	6/1/2033	6/1/2024	450,000	450,000	--	
	2034	3.250	12/1/2014	6/1/2034	6/1/2024	465,000	465,000	--	
	Total 2014 Series C Issue						<u>5,295,000</u>	<u>5,295,000</u>	<u>290,000</u>
G.O. Refunding Bonds, 2015 Series D (f)									
	2021	5.000	3/1/2016	9/1/2021	Noncallable	327,120	327,120	327,120	
	2022	5.000	3/1/2016	9/1/2022	Noncallable	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						<u>\$ 2,661,504</u>	<u>\$ 2,661,504</u>	<u>\$ 327,120</u>

**Department of Water Supply
County of Maui
SCHEDULE II - SCHEDULE OF LONG-TERM DEBT - GENERAL OBLIGATION BONDS (Continued)
June 30, 2020**

<u>County of Maui General Obligation Bonds</u>	<u>Fiscal Year</u>	<u>Coupon Interest Rate</u>	<u>Bond Dated</u>	<u>Maturing Serially From</u>	<u>Call Dates</u>	<u>Authorized and Issued</u>	<u>Outstanding June 30, 2020</u>	<u>Payable Within One Year</u>
G.O. Refunding Bonds, 2018 Series C (g)								
	2021	5.000	9/1/2018	9/1/2021	Noncallable	\$ 240,000	\$ 240,000	\$ 240,000
	2022	5.000	9/1/2018	9/1/2022	Noncallable	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	<u>405,000</u>	<u>405,000</u>	--
Total 2018 Series C Issue						<u>3,795,000</u>	<u>3,795,000</u>	<u>240,000</u>
Total General Obligation Bonds						<u>\$ 18,182,421</u>	<u>\$ 18,182,421</u>	<u>\$ 2,472,697</u>

**Department of Water Supply
County of Maui
SCHEDULE II - SCHEDULE OF LONG-TERM DEBT -
GENERAL OBLIGATION BONDS (Continued)
June 30, 2020**

NOTES:

- (a) The General Obligation Refunding Bonds, 2010, Series B, maturing on or before June 1, 2020 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, 2021, prior to their stated maturity, on or after June 1, 2020, 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 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.
- (c) 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.
- (d) 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.
- (e) The General Obligation Refunding Bonds, 2015, Series B, maturing 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.
- (f) 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.
- (g) 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, 2019 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.

PART II

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

**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, as of and for the fiscal year ended June 30, 2020, and the related notes to the financial statements, and have issued our report thereon dated December 23, 2020.

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.

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
December 23, 2020