

BOARD OF WATER SUPPLY, COUNTY OF KAUAI

On March 16, 2020, Governor David Y. Ige issued a Supplementary Emergency Proclamation related to COVID-19 which suspended Chapter 92 of the Hawai'i Revised Statutes ("HRS"), relating to Public Agency Meetings and Records (commonly referred to as the Sunshine Law) to the extent necessary in order to enable boards to conduct business in-person or through remote technology without holding meetings open to the public. Boards shall consider reasonable measures to allow public participation consistent with social distancing practices, such as providing notice of meetings, allowing the submission of written testimony on items which have been posted on an agenda, live streaming of meetings, and posting minutes of meetings online. No board deliberation or action shall be invalid, if such measures are not taken.

In accordance with the Governor's Proclamations including the stay-at-home order and the Mayor's Proclamations and Emergency Rules, the Board of Water Supply meetings will be conducted as follows until further notice:

- Board meetings will be held via remote technology to be consistent with social distancing practices and stay-at-home orders.
- Board members and/or resource individuals may appear via remote technology.
- Board meetings will continue to be noticed pursuant to HRS Chapter 92.
- Written testimony on any agenda item will continue to be accepted.
 - Written testimony may be submitted to the Commission Support Clerk via email at board@kauaiwater.org by the close of business the day before the Board meeting is scheduled or mailed to the Board of Water Supply at 4398 Pua Loke Street, Lihu'e, Kaua'i, Hawai'i 96766 with attention to the Commission Support Clerk. The public is asked to please provide sufficient time for receipt of the testimony if mailing in public testimony.
 - Persons wishing to testify are requested to register their name, phone number, and agenda item via email at board@kauaiwater.org or by calling (808) 245-5406.
 - If you wish to submit oral testimony prior to the Board meeting, it may be submitted by leaving a voice message at (808) 245-5406.
 - The Commission Support Clerk will provide electronic copies of public testimony received, if any, to the Board members prior to the start of the meeting.
- Board meeting minutes will continue to comply with HRS Chapter 92 and be posted to the Board's website at http://www.kauaiwater.org/cp_waterboard_agendas.asp.

For more information on COVID-19 and to access the Governor's Proclamations please visit: <https://hawaiicovid19.com/>.

For County of Kaua'i information, including the Mayor Kawakami's daily updates, Proclamations, and Emergency Rules, please visit: <http://www.kauai.gov/COVID-19>.

REGULAR MONTHLY TELECONFERENCE MEETING NOTICE AND AGENDA

Thursday, April 22, 2021
10:00 a.m. or shortly thereafter

PUBLIC ACCESS +1-415-655-0001 US Toll, ACCESS CODE: 182 149 0123#, PASSWORD: 4398#

This meeting will be held via Microsoft Teams conferencing only. Members of the public are invited to join this meeting by calling the number above with the conference ID information. You may testify during the video conference or submit written testimony in advance of the meeting via e-mail, fax, or mail. To avoid excessive noise/feedback, please mute your microphone except when you are called to testify.

If members or the public require technical assistance please contact: informationtechnology@kauaiwater.org

CALL TO ORDER

ROLL CALL

ANNOUNCEMENTS:

Next Scheduled Meeting: Thursday, May 20, 2021 – 10:00 a.m. via Tele-Conference.

APPROVAL OF AGENDA

APPROVAL OF MEETING MINUTES:

- a) Regular Board Meeting – March 25, 2021

PUBLIC TESTIMONY

CORRESPONDENCE

OLD BUSINESS:

NEW BUSINESS:

1. *Manager's Report No. 20-22* - Discussion and Approval of a Right of Entry Agreement between the Board of Water Supply, County of Kaua'i and Kulana Association of Apartment Owners, Cy Miyashiro, June Van Dahm, and Kris Van Dahm for Construction Plans for the Relocation of Hauiki Road, affecting the following:
 - a. Kulana Association of Apartment Owners, TMK: (4) 4-3-11:001, Kaua'i, Hawai'i
 - b. Kulana Association of Apartment Owners, Cy Miyashiro, June Van Dahm, and Kris Van Dahm, TMK: (4) 4-3-03:27, Kaua'i, Hawaii

2. *Manager's Report No. 20-23* - Discussion and Approval of the Department of Water's Depreciation Rate Study Draft Report

STAFF REPORTS:

1. Statement of Revenues and Expenditures
 - a. March Monthly Summary Budget
 - b. Accounts Receivable Aging Summary
2. Public Relations Activities
3. Operational Activities
4. Manager and Chief Engineer

QUARTERLY (January 2021 – March 2021)

1. Build America Bond
2. Water Quality
3. Claims Settled by Department of Water
4. Engineering
5. Information Technology

TOPICS FOR FUTURE BOARD OF WATER SUPPLY MEETINGS:

1. Report of the Finance Committee of the Board of Water Supply, County of Kaua'i Draft Budget for Fiscal Year 2021-2022
 - a. Fiscal Year 2021-2022 – Draft Operating Budget
 - b. Fiscal Year 2021-2022 – Draft Capital Outlay Budget
2. Department of Water Performance Audit (Update)
3. Table of Organization Workshop
4. Discussion and Possible Action to establish Fiscal Policies and Procedures
5. Baseyard Master Plan Workshop
6. Board Policy – Delegation to the Manager for Legislative Actions

EXECUTIVE SESSION:

Pursuant to Hawai'i Revised Statutes (HRS) §92-7(a), the Board may, when deemed necessary, hold an executive session on any agenda item without written public notice if the Executive Session was not anticipated in advance. Any such executive session shall be held pursuant to HRS §92-4 and shall be limited to those items described in HRS §92-5(a).

ADJOURNMENT

WRITTEN TESTIMONY

The Board is required to afford all interested persons an opportunity to present testimony on any agenda item. The Board encourages written testimony at least two (2) business days prior to a scheduled Board meeting. At each Board meeting, the Board will accept oral and written testimony on any agenda item at item Public Testimony.

Please include:

1. Your name and if applicable, your position/title and organization you are representing.
2. The agenda item that you are providing comments on; and
3. Whether you are a registered lobbyist and, if so, on whose behalf you are appearing.

Send written testimony to:

Board of Water Supply, County of Kaua'i
C/O Administration
4398 Pua Loke Street
Lihu'e, Hawai'i 96766
E-Mail: board@kauaiwater.org
Phone: (808) 245-5406
Fax: (808) 245-5813

SPEAKER REGISTRATION

Prior to the Day of the Meeting: Persons wishing to testify are requested to register their name, phone number, and identify the agenda item for which they wish to provide testimony via email at board@kauaiwater.org or by calling (808) 245-5406.

On the Day of the Meeting: Persons who have not registered to testify by the time the Board meeting begins will be given an opportunity to speak on an item following oral testimonies of registered speakers. The length of time allocated to person(s) wishing to present verbal testimony may be limited at the discretion of the chairperson.

SPECIAL ASSISTANCE

If you need an auxiliary aid/service or other accommodation due to a disability, or an interpreter for non-English speaking persons, please call (808) 245-5406 or email board@kauaiwater.org as soon as possible. Requests made as early as possible will allow adequate time to fulfill your request. Upon request, this notice is available in alternate formats such as large print, Braille, or electronic copy.

Draft Minutes

MINUTES
BOARD OF WATER SUPPLY
March 25, 2021

The Board of Water Supply, County of Kaua‘i, met in regular meeting **via remote** in Līhu'e on Thursday, March 25, 2021. Chair Gregory Kamm called the meeting to order at 10:08 a.m. The following Board members were present:

BOARD: Mr. Gregory Kamm, *Chair*
Mr. Kurt Akamine, *Vice Chair*
Ms. Julie Simonton
Mr. Lawrence Dill
Mr. Ka'aina Hull
Mr. Troy Tanigawa (*joined @ approx. 10:25 a.m.*)
Mr. Elesther Calipjo

EXCUSED: None

Quorum was achieved with **6** members present at Roll Call.

STAFF: Manager & Chief Engineer Mark Knoff
Mr. Steve Kyono, Board Advisor
Mrs. Jonell Kaohelauii
Mrs. Marites Yano
Deputy County Attorney Mahealani M. Krafft
Mr. Jason Fujinaka
Ms. Jenny Paleracio
Mrs. Peggy Yoshioka

Mr. Carl Arume
Mr. Valentino Reyna
Mrs. Mary-jane Akuna
Mr. Jaspreet Banwait
Mr. Lenny Camat
Mrs. Amy Kitosuka
Mrs. Kristl Castillo-Gray

ANNOUNCEMENTS

Next Scheduled Meeting: Thursday, April 22, 2021 – 10:00 a.m. via Tele-Conference

APPROVAL OF AGENDA

Ms. Simonton moved to approve the Agenda; seconded by Mr. Dill; with no objections, motion carried with 6 Ayes.

APPROVAL OF MEETING MINUTES

a) Regular Board Meeting – February 25, 2021

Ms. Simonton moved to approve the Regular Board Meeting minutes of February 25, 2021; seconded by Mr. Dill; with no objections, motion carried with 6 Ayes.

b) Executive Session – February 25, 2021

Ms. Simonton moved to approve the Executive Session minutes of February 25, 2021; seconded by Mr. Dill; with no objections, motion carried with 6 Ayes.

PUBLIC TESTIMONY

There were no other registered testimonies received by email or by phone.

CORRESPONDENCE

1. There were no correspondence received by email or by phone.

OLD BUSINESS

NEW BUSINESS

1. Manager's Report No. 21-19 – Discussion and Adoption of Resolution No. 21-03 (3/21), Employee of the Year, Lenny Camat, Operations Division

Mr. Dill moved to approve Manager's Report No. 21-19; seconded by Ms. Simonton; with no objections, motion carried with 6 Ayes.

2. Manager's Report No. 21-20 – Discussion and Adoption of Resolution No. 21-04 (3/21), Employee of the Year, Amy Kiyotsuka, Operations Division

Mr. Dill moved to approve Manager's Report No. 21-20; seconded by Ms. Simonton; with no objections, motion carried with 6 Ayes.

3. Resolution NO. 21-05 (3/21), Farewell to Edith "Edie" Ignacio Neumiller (Retiree), Commission Support Clerk, Administration Division

Mr. Dill moved to approve Resolution No. 21-05; seconded by Ms. Simonton; with no objections, motion carried with 7 Ayes.

4. Draft Budget for Fiscal Year 2021-2022
 - a) Fiscal Year 2021-2022 – Draft Operating Budget
 - b) Fiscal Year 2021-2022 – Draft Capital Outlay Budget

Mr. Dill asked that this be presented by the DOW's Waterworks Controller, Ms. Marites Yano and recommends passing this item to the Finance Committee.

Marites Yano gave a brief overview of the DOW's proposed budget and highlighted a few of the highlights such as the different funding, the decline in the comparative water usage as well as the estimated state grants based on the encumbrance of the DOW's projects.

Overall, the DOW's projected revenue is \$43.6 million for fiscal year 2021-2022.

Mr. Dill motioned to move the proposed Fiscal Year 2021-2022 operating and capital outlay budgeted to the finance committee for review and recommendation; seconded by Ms. Simonton; with no objections, motion was carried with 7 ayes.

STAFF REPORTS:

1. Statement of Revenues and Expenditures
 - a. February Monthly Summary Budget
 - b. Accounts Receivable Aging Summary

Mr. Dill had a question on page 194, the DOW's Monthly Budget Summary vs. Actual as of 2/28/2021. The numbers for non-operating revenue is unusual. Tess explained that federal grants, contributions and state grants are based on the completion of the project. The discrepancy is because the DOW has not received all of the funds until there is a submittal for reimbursement.

Mr. Dill asked if this will be closed at the end of the fiscal year. Ms. Yano replied no, because some of the projects are still in progress.

2. Public Relations Activities
3. Operational Activities

The DOW reported 1,175,353 million gallons on non-revenue water due to flushing and reported leaks for this month. Mr. Reyna pointed out that the incident on Kahuna Road was one of them and was also a

headline in the local newspaper. Mr. Reyna gave kudos to the DOW employees who did not give up in fining the leak.

Mr. Reyna also reported that Operations' overtime increased 10% which is the highest since 2016.

Mr. Dill inquired on the leak on Kahuna Road and if Mr. Reyna would recommend any training or equipment that is needed to locate leaks such as these.

Mr. Reyna explained that the DOW is adequately supplied with leak detection equipment. The Kahuna Road experience gave the Operations' team the opportunity to learn from their mistakes and predetermined intuitions.

4. Manager and Chief Engineer

Mr. Dill inquired if there is a policy for the department to submit testimony or delegating the Manager to do this.

Manager Knoff explained that the Mayor's office receives a copy of the DOW' testimony.

In addition to the Manager and Chief Engineer's reports, Mark spoke about changes in the structure of the windows for customer service downstairs as well as his plans to do something similar upstairs on the Administration floor.

All reports received.

TOPICS FOR FUTURE BOARD OF WATER SUPPLY MEETINGS:

1. Department of Water Performance Audit (Update)
2. Table of Organization Workshop
3. Discussion and Possible Action to establish Fiscal Policies and Procedures
4. Baseyard Master Plan Workshop
5. Report of the Finance Committee of the Kaua'i County Board of Water Supply (April 2021)
Draft Budget for Fiscal Year 2021-2022
 - a. Fiscal Year 2021 - 2022 – Draft Operating Budget
 - b. Fiscal Year 2021 - 2022 – Draft Capital Outlay Budget

EXECUTIVE SESSION:

Pursuant to Hawai'i Revised Statues (HRS) §92-7(a), the Board may, when deemed necessary, hold an executive session on any agenda item without written public notice if the Executive Session was not anticipated in advance. Any such executive session shall be held pursuant to HRS §92-4 and shall be limited to those items described in HRS §92-5(a).

There was no executive session held during this meeting.

ADJOURNMENT

Ms. Simonton moved to Adjourn the Regular Board meeting at 11:20 a.m., seconded by Mr. Dill, with no objections, motion carried with 7 Ayes.

Respectfully submitted,

Approved,

Mary-jane Akuna
Private Secretary

Julie Simonton
Secretary, Board of Water Supply

New Business

DEPARTMENT OF WATER

County of Kaua'i

"Water has no Substitute – Conserve It!"

MANAGER'S REPORT No. 20-22

April 22, 2021

Re: Discussion and Possible Action to approve a Right of Entry Agreement with Kulana Association of Apartment Owners, Cy Miyashiro, June Van Dahm, and Kris Van Dahm for Construction Plans for the Relocation of Hauiki Road, affecting the following:

- a. Kulana Association of Apartment Owners, TMK: (4) 4-3-11:001, Kaua'i, Hawai'i
- b. Kulana Association of Apartment Owners, Cy Miyashiro, June Van Dahm, and Kris Van Dahm, TMK: (4) 4-3-03:27, Kauai, Hawaii

RECOMMENDATION:

It is recommended that the Board approve the Right of Entry (ROE) agreement with the subject owners. The purpose of the Right of Entry is to allow the DOW access for the reading of water meters and for the construction, installation, maintenance, repair, and removal of potable pipelines and related meters, valves, and other associated waterworks facilities improvements and appurtenances, and further for ingress and egress at any time to, from, and through the easement area, with or without vehicles or equipment, as the Grantee deems necessary for the proper operation of its water system.

The right of entry shall commence upon execution and shall automatically expire at such time that the Grantor conveys the new roadways to the County of Kauai pursuant to the tentative subdivision approval granted by the Planning Commission for the Hauiki Road Subdivision.

Further, BWS approval is specifically requested of the indemnification provision in the agreement; wherein, the BWS agrees to *"...indemnify and hold harmless the Grantor from and against any claims for injuries or damages of any kind occasioned, in whole or in part, by Grantee's gross negligent actions or omissions arising out of its exercise of this right of entry"*.

FUNDING: N/A.

BACKGROUND:

The Kulana Phase I development involved a relocation of the existing Hauiki Road. The waterline has been connected to the DOW system and is in the process of attaining certificate of completion. The project involves water facilities that will be conveyed to the DOW within future county right of way limits. However, the roadways have not been conveyed to the County of Kauai at this time so the right of entries will be utilized for DOW access in the meantime.

OPTIONS:

Option 1: Approve the Right of Entry agreements.

Pros: This will allow the DOW legally to operate and maintain the newly constructed facilities on the subject property.

Cons: The DOW and Board must agree to the indemnification provisions in the agreement.

Option 2: Do not approve the Right of Entry agreements.

Pros: The DOW and Board does not have to agree to the indemnification provisions in the agreement.

Cons: The project would be connected to our system with no legal access for DOW to operate and maintain as intended and delay certificate of completion.

DM/mja

Attachments: Right of Entry Agreement:

- a. Kulana Association of Apartment Owners, TMK: (4) 4-3-11:001, Kaua'i, Hawai'i
- b. Kulana Association of Apartment Owners, Cy Miyashiro, June Van Dahm, and Kris Van Dahm, TMK: (4) 4-3-03:27, Kauai, Hawaii

Mgrpp/April 2021/20-22/Discussion and Possible Action to approve multiple Right of Entry Agreements Discussion and Possible Action to approve a Right of Entry Agreement with Kulana Association of Apartment Owners, Cy Miyashiro, June Van Dahm, and Kris Van Dahm for Construction Plans for the Relocation of Hauiki Road, affecting the following:

- a. Kulana Association of Apartment Owners, TMK: (4) 4-3-11:001, Kaua'i, Hawai'i
- b. Kulana Association of Apartment Owners, Cy Miyashiro, June Van Dahm, and Kris Van Dahm, TMK: (4) 4-3-03:27, Kauai, Hawaii

RIGHT-OF-ENTRY

THIS INDENTURE made this _____ day of _____, 202_ by and between **KULANA ASSOCIATION OF APARTMENT OWNERS**, an unincorporated Condominium Association, whose mailing address is P.O. Box 2970, Haleko Road, Suite 205, Lihue, HI 96766, (hereinafter, the “Grantor”), and the **BOARD OF WATER SUPPLY** of the County of Kaua‘i, whose mailing address is 4398 Pua Loke Street, Lihu‘e, Hawai‘i 96766 (hereinafter, the “Board”).

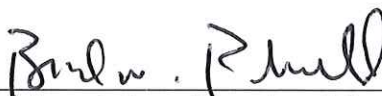
W I T N E S S E T H:

For and in consideration of the sum of One Dollar (\$1.00) to the Grantor paid, the receipt whereof is hereby acknowledged, the Grantor does hereby grant to the Grantee, its officers, employees, contractors, subcontractors, and agents (hereinafter collectively the “Grantee”), a temporary construction right-of-entry subject to the following terms and conditions:

1. This right-of-entry shall be an area over, under, and across that certain property situated, lying, and being Roadway Lot 22 of the Kulana Subdivision (also referred to as Hauiki Road), Kaua‘i, Hawai‘i at Tax Map Key No. (4) 4-3-011-001 and as illustrated in the map attached hereto as Exhibit “A” and made a part hereof.
2. This right-of-entry shall be used by the Grantee for purposes of operation and maintenance of the Hauiki Road Water System, and all necessary appurtenances for Plans entitled, “Construction Plans for the Relocation of Hauiki Road”, as re-certified on September 1, 2017.
3. The Grantee shall indemnify and hold harmless the Grantor from and against any claims for injuries or damages of any kind occasioned, in whole or in part, by Grantee’s gross negligent actions or omissions arising out of its exercise of this right-of-entry.
4. This right-of-entry shall be binding upon and inure to the benefit of the parties and their respective successors and assigns.
5. The Grantor warrants and covenants with the Grantee that Grantor is the fee simple owner of the property upon which the right-of-entry is located, has full right to grant said right-of-entry and will warrant and defend the right-of-entry granted herein against all adverse claims.
6. This right-of-entry may be executed in counterparts. Each counterpart shall be executed by one or more parties hereinbefore named and the several counterparts shall constitute one instrument to the same effect as though the signatures of all the parties are upon the same document.
7. The term of this right-of-entry shall commence upon the execution of the same by Grantor and shall automatically expire, without the submission or presentation of any documents to that effect, at such time that the Grantor conveys the new roadways to the County of Kaua‘i pursuant to the final subdivision approval granted by the Planning Commission for the Kulana Subdivision (S-99-49) with respect to that portion of Tax Map Key No. (4) 4-3-011-001 which the Grantee

deems necessary for the reading of water meters and for the construction, installation, reinstallation, maintenance, repair, and removal of potable water pipelines and related meters, valves, and other associated waterworks facilities improvements and appurtenances, and further for ingress and egress at any time to, from, and through the easement area, with or without vehicles or equipment, as the Grantee deems necessary for the proper operation of its water system.

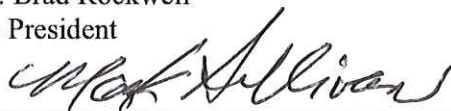
GRANTOR(S):



Kulana Association of Apartment Owners

By: Brad Rockwell

Its: President



Kulana Association of Apartment Owners

By: Mark Sullivan

Its: Treasurer

APPROVED:


Mark R. Knoff
Manager and Chief Engineer

GRANTEE:

BOARD OF WATER SUPPLY, COUNTY OF KAUA'I

Gregory Kamm
Chairperson

APPROVED AS TO FORM AND LEGALITY:


Mahealani M. Krafft
Deputy County Attorney

STATE OF HAWAI'I)
) ss.
COUNTY OF KAUA'I)

On this ____ day of _____, 20____ in the Fifth Circuit, State of Hawaii, before me personally appeared **Gregory Kamm**, who is personally known to me or whose identity I proved on the basis of satisfactory evidence, who being by me duly sworn or affirmed, did say that such person is the **Chairperson** for the **Board of Water Supply, County of Kaua'i** executed _____, dated _____ and consisting of ____ pages at the time of notarization, as the free act and deed of such person, and if applicable in the capacity shown, having been duly authorized to execute such instrument in such capacity.

Notary Public, State of Hawaii
Name of Notary: _____ (Affix Seal)
My Commission expires: _____

1252

STATE OF _____)
) ss.
COUNTY OF _____)

On this ____ day of _____, 20__ in the ____ Circuit,
State of _____, before me personally appeared _____, who is
personally known to me or whose identity I proved on the basis of satisfactory evidence, who
being by me duly sworn or affirmed, did say that such person executed the
_____, dated _____ and consisting of ____ pages at
the time of notarization, as the free act and deed of such person, and if applicable in the capacity
shown, having been duly authorized to execute such instrument in such capacity.

Notary Public, State of _____
Name of Notary: _____ (Affix Seal)
My Commission expires: _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California County of SAN DIEGO)ss.
On 02-10-21 before me, STEVE HOLL, Notary Public,
personally appeared MARK SULLIVAN,
who proved to me on the basis of satisfactory evidence to be the person(s) whose
name(s) is/are subscribed to the within instrument and acknowledged to me that
he/she/they executed the same in his/her/their authorized capacity(ies), and that by
his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of
which the person(s) acted, executed the instrument. I certify under PENALTY OF
PERJURY under the laws of the State of California that the foregoing paragraph is true
and correct. WITNESS my hand and official seal.

Steve Holl



STATE OF Hawaii)
) ss.
COUNTY OF Kauai)

On this 10 day of March, 2021 in the 5th Circuit,
State of Hawaii, before me personally appeared Brad W. Rockwell, who is
personally known to me or whose identity I proved on the basis of satisfactory evidence, who
being by me duly sworn or affirmed, did say that such person executed the
Right-of-Entry, dated undated and consisting of 11 pages at
the time of notarization, as the free act and deed of such person, and if applicable in the capacity
shown, having been duly authorized to execute such instrument in such capacity.

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Notary Public, State of Hawaii
Name of Notary: Kyle J Labenz (Affix Seal)
My Commission expires: 2/11/2022

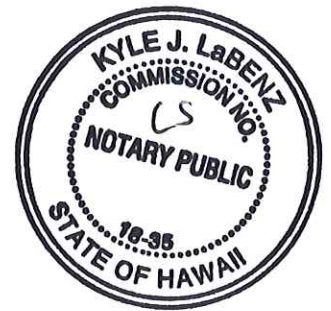


EXHIBIT "A"
ROADWAY LOT 22
(HAUIKI ROAD)

LAND SITUATED AT KAPAA AND WAIPOULI, KAWAIHAU, KAUAI, HAWAII

Being Portion of Royal Patent 7373, L.C. Aw. 8559-B, Apana 42 to William C. Lunailo
 Being Also a Portion of Grant 5266 to Rufus P. Spalding

Beginning at the Northwest corner of this parcel of land, at the Southwest corner of Lot 1, Kulana Subdivision, on the East side of State Ditch 8, the coordinates of said point of beginning referred to Government Survey Triangulation Station "NONOU" being 9,284.43 feet North and 823.65 feet East, thence running by azimuths measured clockwise from True South:

along Lots 1, 2, Roadway Lot 21, and Lot 11, Kulana Subdivision, on a curve to the right with a radius of 1,028.00 feet, the chord azimuth and distance being:

- | | | | |
|----|--------------|--------|--|
| 1. | 308° 07' 14" | 886.08 | feet; |
| 2. | 333° 39' | 172.70 | feet along Lot 11, Kulana Subdivision; |
| 3. | 127° 58' | 129.21 | feet along the North side of Hauiki Road; |
| 4. | 153° 39' | 56.26 | feet along Remnant Parcel 7, Kanai Lani Estates; |

thence along Remnant Parcel 7, Kanai Lani Estates, on a curve to the left with a radius of 972.00 feet, the chord azimuth and distance being:

- | | | | |
|----|--------------|--------|---|
| 5. | 129° 01' 55" | 809.81 | feet; |
| 6. | 163° 54' | 64.40 | feet along the East side of State Ditch 8, to the point of beginning and containing an area of 1.273 Acres. |

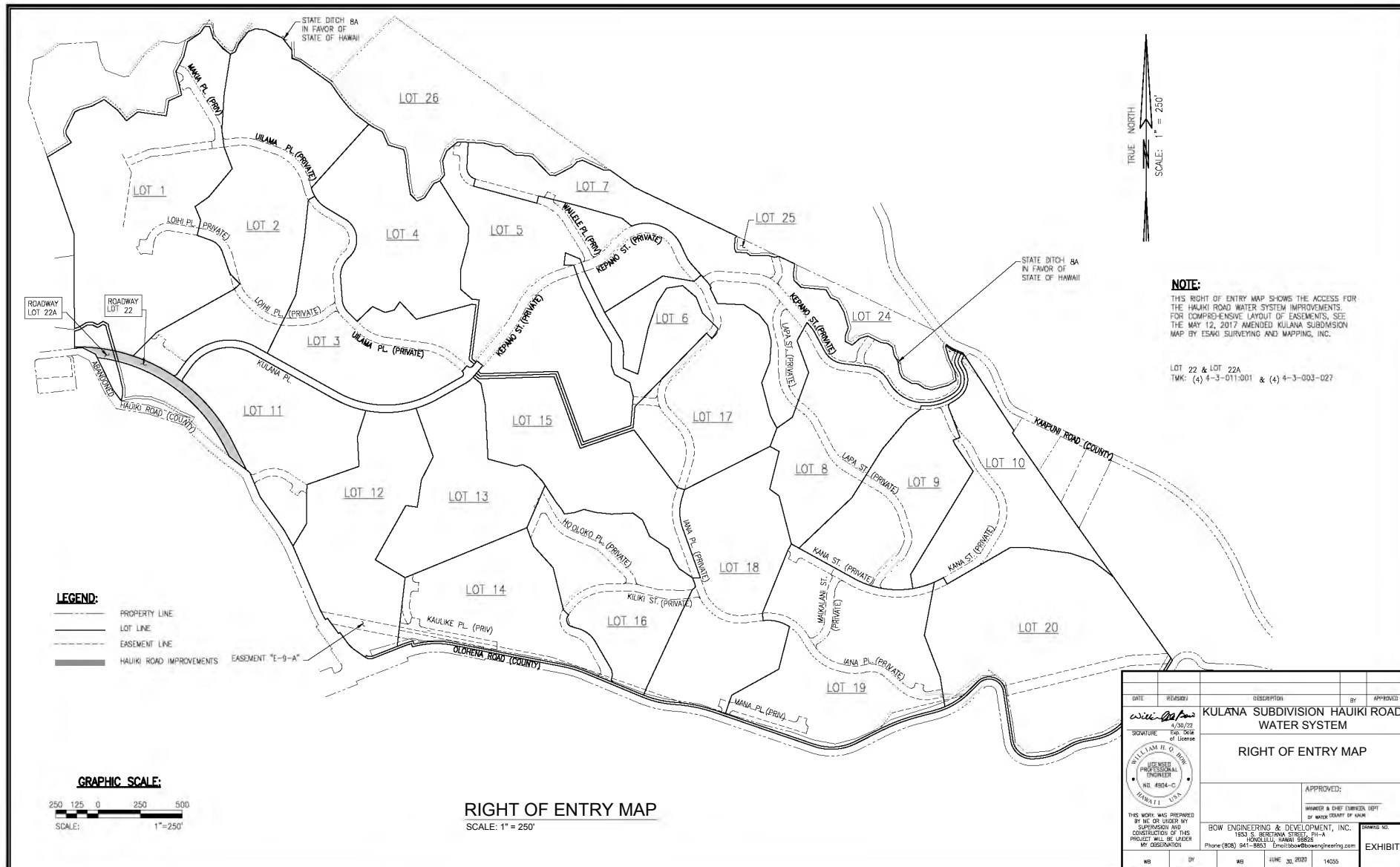


Lihue, Hawaii
 March 2017

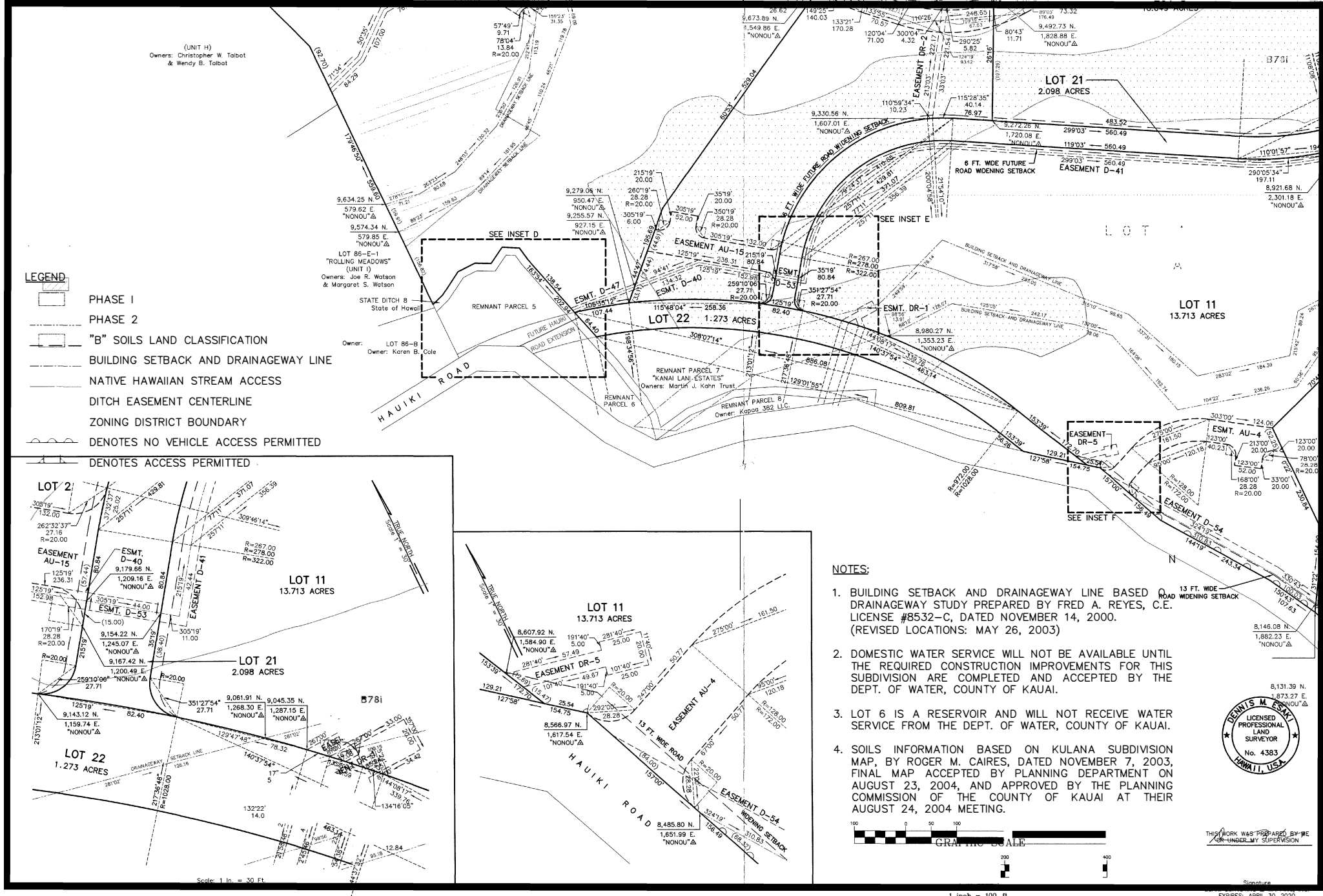
DESCRIPTION PREPARED BY:
 ESAKI SURVEYING & MAPPING, INC.



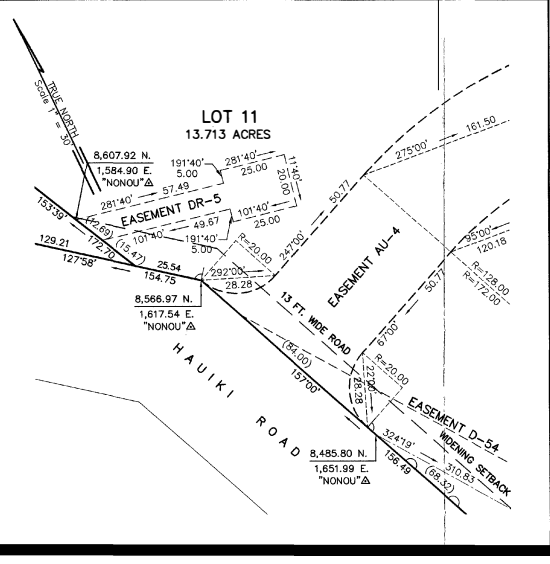
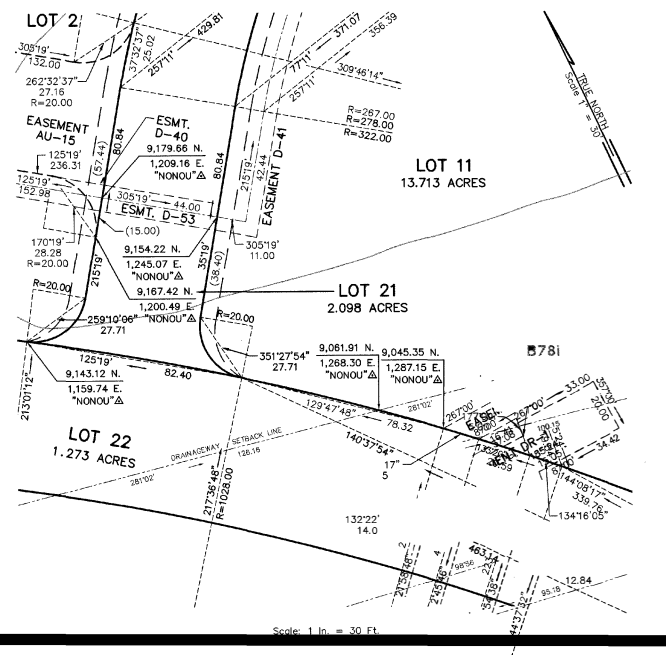
 Dennis M. Esaki
 Licensed Professional Land Surveyor
 Certificate Number 4383



DATE	REVISION	DESCRIPTION	BY	APPROVED
4/30/22		KULANA SUBDIVISION HAUIKI ROAD WATER SYSTEM		
RIGHT OF ENTRY MAP				
			APPROVED: <small>MANAGER & CHIEF ENGINEER, DEPT. OF WATER SUPPLY OF HAWAII</small>	
<small>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION</small>			BOW ENGINEERING & DEVELOPMENT, INC. <small>1843 S. BERETANIA STREET, PH-A HONOLULU, HAWAII 96813 Phone: (808) 841-8853 Email: bow@bowengineering.com</small>	
WB	BY	WB	FILE	DATE
PREPARED BY	DRAWN BY	CHECKED BY	NO. 20, 2022	14055
			PROJECT NO.	EXHIBIT

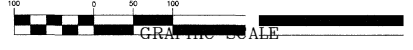


- LEGEND**
- PHASE 1
 - PHASE 2
 - "B" SOILS LAND CLASSIFICATION
 - BUILDING SETBACK AND DRAINAGEWAY LINE
 - NATIVE HAWAIIAN STREAM ACCESS
 - DITCH EASEMENT CENTERLINE
 - ZONING DISTRICT BOUNDARY
 - DENOTES NO VEHICLE ACCESS PERMITTED
 - DENOTES ACCESS PERMITTED



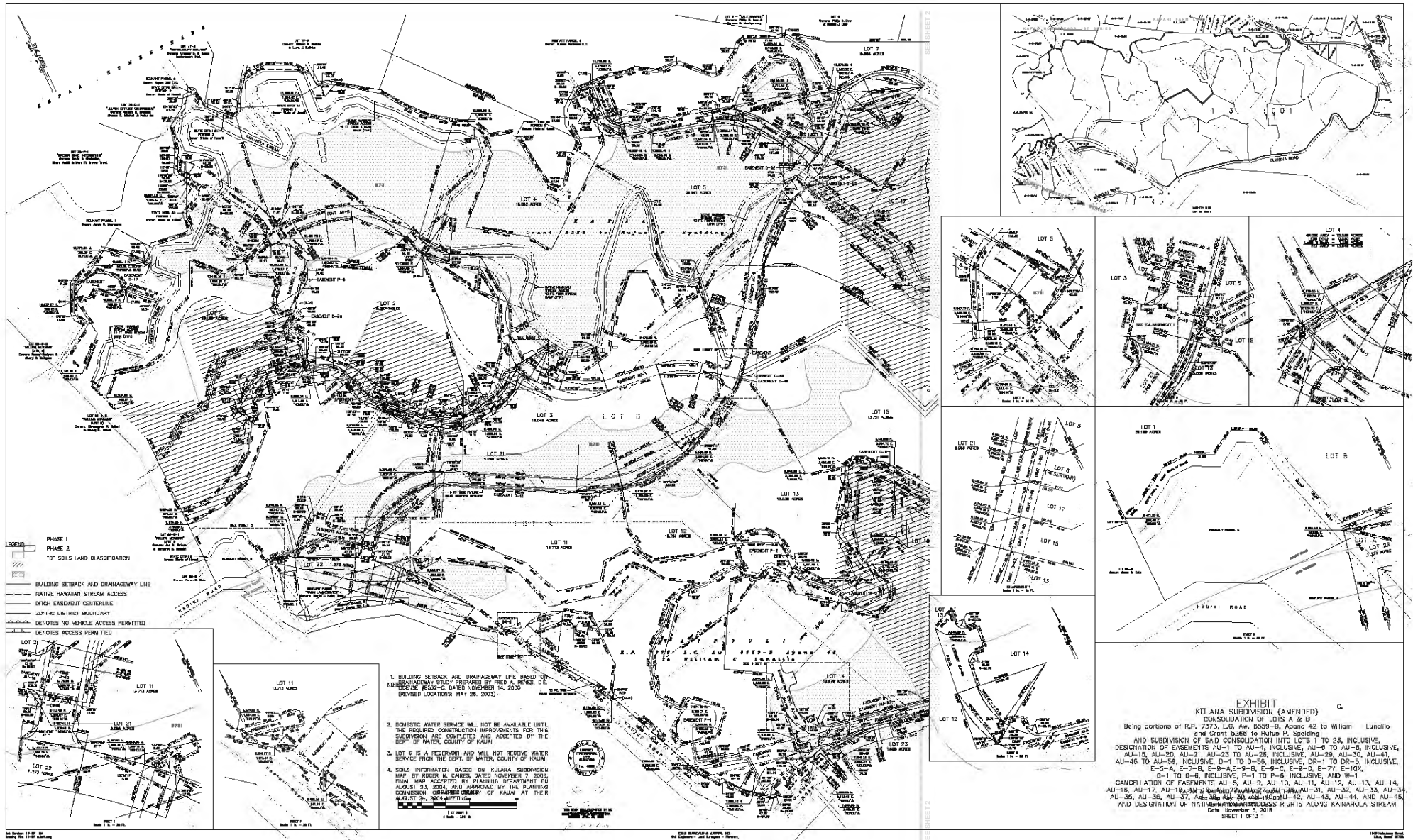
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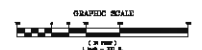
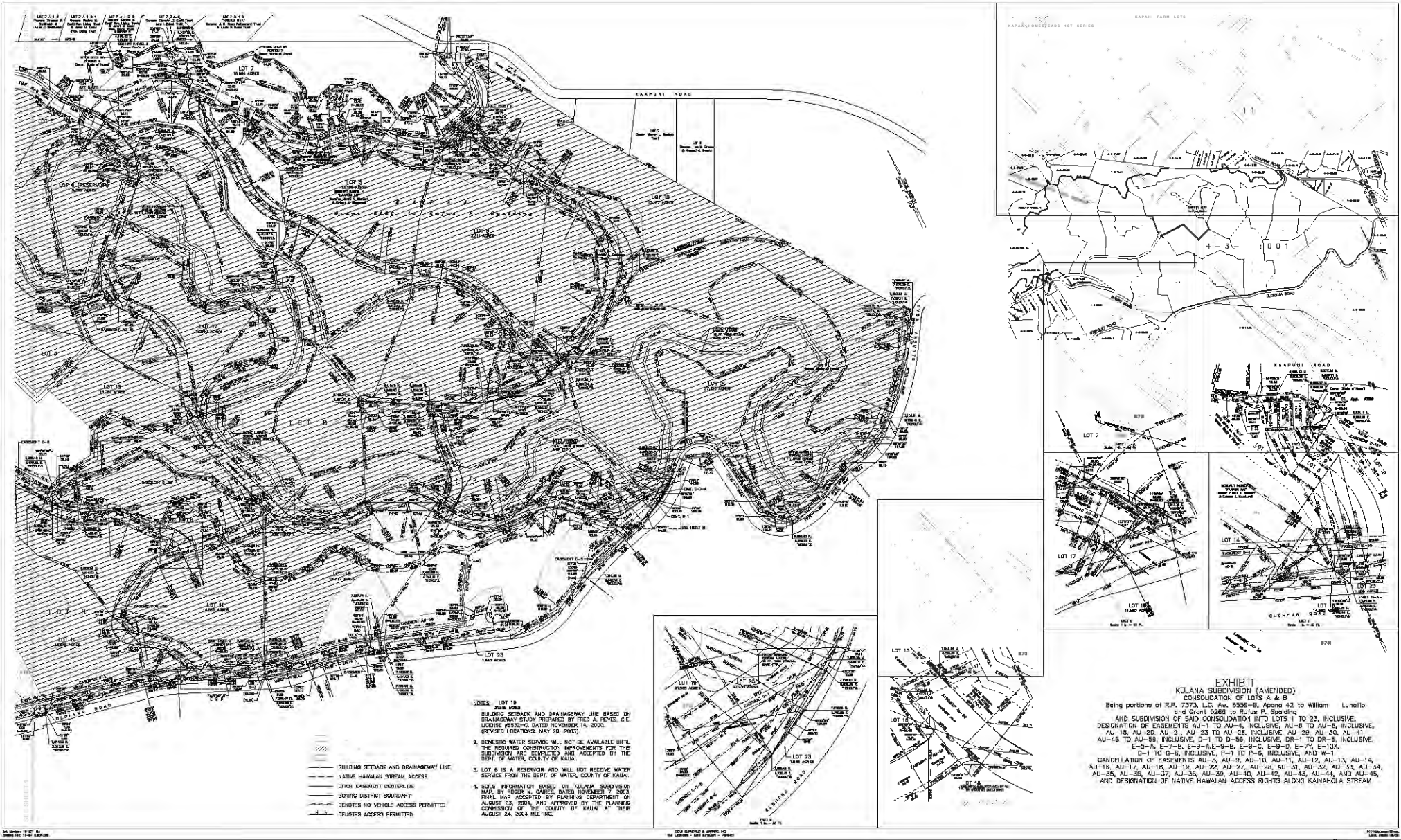
1. BUILDING SETBACK AND DRAINAGEWAY LINE BASED ON DRAINAGEWAY STUDY PREPARED BY FRED A. REYES, C.E. LICENSE #8532-C, DATED NOVEMBER 14, 2000. (REVISED LOCATIONS: MAY 26, 2003)
2. DOMESTIC WATER SERVICE WILL NOT BE AVAILABLE UNTIL THE REQUIRED CONSTRUCTION IMPROVEMENTS FOR THIS SUBDIVISION ARE COMPLETED AND ACCEPTED BY THE DEPT. OF WATER, COUNTY OF KAUAI.
3. LOT 6 IS A RESERVOIR AND WILL NOT RECEIVE WATER SERVICE FROM THE DEPT. OF WATER, COUNTY OF KAUAI.
4. SOILS INFORMATION BASED ON KULANA SUBDIVISION MAP, BY ROGER M. CAIRES, DATED NOVEMBER 7, 2003, FINAL MAP ACCEPTED BY PLANNING DEPARTMENT ON AUGUST 23, 2004, AND APPROVED BY THE PLANNING COMMISSION OF THE COUNTY OF KAUAI AT THEIR AUGUST 24, 2004 MEETING.



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

1 inch = 100 ft.





DATE SPECIFIC & LATEST TO THE EXTENT OF CONFLICT

LOT NUMBER	AREA	POND AREA	DITCH AREA	STREAM AREA	LOT SUMMARIES		EASEMENTS AFFECTING LOT
					AC. ZONE	OPEN AREA	
LOT 1	29.189 ACRES	1.377 ACRES	0.589 ACRE	1.010 ACRES	17.296 ACRES	11.913 ACRES	AU-3, AU-4B, D-10, D-12, D-16, D-17, D-44, D-47, D-56, E-4, P-5
LOT 2	25.367 ACRES	0.039 ACRE	0.300 ACRE	1.253 ACRES	13.000 ACRES	12.386 ACRES	AU-2, AU-15, AU-48, D-11, D-13, D-39, D-40 DR-2, P-6
LOT 3	16.048 ACRES	0.000 ACRE	0.000 ACRE	0.054 ACRE	10.385 ACRES	5.684 ACRES	AU-1, AU-48, D-14
LOT 4	15.082 ACRES	0.000 ACRE	0.059 ACRE	1.388 ACRES	0.075 ACRE	15.007 ACRES	D-15
LOT 5	26.921 ACRES	0.000 ACRE	0.678 ACRE	0.450 ACRE	7.001 ACRES	19.970 ACRES	AU-8, AU-8, AU-30, AU-48, D-19, D-21, D-23, D-25, D-51, DR-3
LOT 6	5.363 ACRES	0.000 ACRE	0.034 ACRE	3.005 ACRES	0.434 ACRE	4.529 ACRES	AU-7, AU-90, AU-91, D-22, D-34, D-50, D-82
LOT 7	18.864 ACRES	0.000 ACRE	1.076 ACRES	0.000 ACRE	18.805 ACRES	0.059 ACRE	AU-23, AU-24, AU-28, AU-47, AU-48, AU-53, D-18, D-20, D-24
LOT 8	13.185 ACRES	0.000 ACRE	0.410 ACRE	0.000 ACRE	13.142 ACRES	0.043 ACRE	AU-25, AU-53, D-27
LOT 9	13.211 ACRES	0.000 ACRE	0.295 ACRE	0.000 ACRE	13.205 ACRES	0.006 ACRE	AU-26, AU-53, AU-54, D-28
LOT 10	13.137 ACRES	0.000 ACRE	0.070 ACRE	0.000 ACRE	13.013 ACRES	0.124 ACRE	AU-46, AU-54, D-29, DR-4
LOT 11	13.713 ACRES	0.000 ACRE	0.559 ACRE	0.000 ACRE	13.713 ACRES	0.000 ACRE	AU-4, D-41, D-54, DR-1, DR-5
LOT 12	15.791 ACRES	0.706 ACRE	1.082 ACRES	0.000 ACRE	15.751 ACRES	0.000 ACRE	D-2, D-3, D-42, D-58, E-9-A, G-1, P-1
LOT 13	13.038 ACRES	0.847 ACRE	0.583 ACRE	0.000 ACRE	13.038 ACRES	0.000 ACRE	AU-57, D-4, D-5, D-43, P-2
LOT 14	13.679 ACRES	0.635 ACRE	0.438 ACRE	0.000 ACRE	13.679 ACRES	0.000 ACRE	AU-55, AU-56, D-1, E-9-B, G-2, P-3
LOT 15	13.791 ACRES	0.000 ACRE	1.078 ACRES	0.000 ACRE	13.710 ACRES	0.041 ACRE	AU-80, D-8, D-31, D-36, D-48
LOT 16	14.560 ACRES	0.000 ACRE	1.282 ACRES	0.000 ACRE	14.580 ACRES	0.000 ACRE	AU-56, AU-57, D-7, D-36, D-45, E-9-C, G-3
LOT 17	16.567 ACRES	0.000 ACRE	0.744 ACRE	0.589 ACRE	1.404 ACRES	15.163 ACRES	AU-50, AU-51, D-26, D-33, D-49
LOT 18	18.707 ACRES	0.000 ACRE	1.180 ACRES	0.817 ACRES	8.706 ACRES	10.001 ACRES	AU-50, AU-56, AU-58, D-8, D-32, D-37, D-46, E-9-D, G-4
LOT 19	21.985 ACRES	0.000 ACRE	0.888 ACRE	0.849 ACRES	11.120 ACRES	10.444 ACRES	AU-20, AU-41, AU-50, AU-52, AU-58, D-9, D-38, E-7-B, G-5, W-1
LOT 20	27.210 ACRES	0.000 ACRE	0.126 ACRE	1.870 ACRES	0.520 ACRE	26.890 ACRES	AU-21, D-30, E-5-A, E-7-A, G-6, W-1
LOT 21	2.098 ACRES	N/A	0.010 ACRE	N/A	N/A	N/A	D-53
LOT 22	1.273 ACRES	N/A	N/A	N/A	N/A	N/A	NONE
LOT 33	1.665 ACRES	N/A	N/A	N/A	N/A	N/A	NONE
TOTALS LOTS 1 - 23	349,925 ACRES*	3,604 ACRES	11,563 ACRES	11,363 ACRES	212,497 ACRES	132,369 ACRES	*TOTALS DO NOT ADD UP DUE TO ROUNDING

Easements designated AU-1 through AU-4, AU-6 through AU-8, AU-15, AU-20, AU-21, AU-23 through AU-26, AU-28, AU-30, AU-41, AU-46 through AU-58 are for Pedestrian and Vehicular Access and Utility purposes in favor of Association of Apartment Owners of Kūlana Condominium (AOAOKC) and others as described below. Affected Remnant Parcels are abbreviated "RP".

- Easement AU-1 (44 Feet wide) affecting Lot 3 in favor of AOAOKC, and RP4 = 1,860 Acres
- Easement AU-2 (44 Feet wide) affecting Lot 2 in favor of AOAOKC, and RP4 = 0,686 Acre
- Easement AU-3 (44 Feet wide) affecting Lot 1 in favor of AOAOKC, and RP4 = 0,634 Acre
- Easement AU-4 (44 Feet wide) affecting Lot 11 in favor of AOAOKC = 0,415 Acre
- Easement AU-6 (56 Feet wide) affecting Lot 5 in favor of AOAOKC, RP3, and RP4 = 1,848 Acres
- Easement AU-7 (58 Feet wide) affecting Lot 8 in favor of AOAOKC, RP3, and RP4 = 0,062 Acre
- Easement AU-8 (58 Feet wide) affecting Lot 5 in favor of AOAOKC, RP3, and RP4 = 1,156 Acres
- Easement AU-15 (44 Feet wide) affecting Lot 2 in favor of AOAOKC = 0,311 Acre
- Easement AU-20 (44 Feet wide) affecting Lot 19 in favor of AOAOKC, RP3, and RP4 = 0,637 Acre
- Easement AU-21 (44 Feet wide) affecting Lot 20 in favor of AOAOKC, RP3, and RP4 = 0,078 Acre
- Easement AU-23 (16 and 56 Feet wide) affecting Lot 7 in favor of AOAOKC, RP1, RP2, RP3, and RP4 = 1,415 Acres
- Easement AU-24 (44 Feet wide) affecting Lot 7 in favor of AOAOKC, and RP1 = 0,174 Acre
- Easement AU-25 (20 and 40 Feet wide) affecting Lot 9 in favor of AOAOKC, RP1, RP2, RP3, and RP4 = 1,041 Acres
- Easement AU-28 (20 Feet wide) affecting Lot 5 in favor of AOAOKC, RP1, RP2, RP3, and RP4 = 0,237 Acre
- Easement AU-29 (44 Feet wide) affecting Lot 7 in favor of AOAOKC, and RP3 = 0,391 Acre
- Easement AU-30 (44 Feet wide) affecting Lot 5 in favor of AOAOKC, and RP3 = 0,325 Acre
- Easement AU-41 (44 Feet wide) affecting Lot 19 in favor of AOAOKC = 0,346 Acre
- Easement AU-46 affecting Lot 10 in favor of AOAOKC, RP1, RP2, RP3, and RP4 = 315 Sq. Ft.
- Easement AU-47 (44 Feet wide) affecting Lot 7 in favor of AOAOKC, and RP2 = 0,158 Acre
- Easement AU-48 (44 Feet wide) affecting Lots 1, 2, and 3 in favor of AOAOKC = 1,852 Acres
- Easement AU-49 (44 Feet wide) affecting Lots 5, and 7 in favor of AOAOKC, RP3 = 0,546 Acre
- Easement AU-50 (44 Feet wide) affecting Lots 6, 15, 17, 18, and 19 in favor of AOAOKC, RP3, and RP4 = 3,967 Acres
- Easement AU-51 (44 Feet wide) affecting Lots 6, and 17 in favor of AOAOKC = 0,155 Acre
- Easement AU-52 (44 Feet wide) affecting Lot 19 in favor of AOAOKC, RP3, and RP4 = 0,465 Acre
- Easement AU-53 (44 Feet wide) affecting Lots 7, 8, and 9 in favor of AOAOKC = 2,129 Acres
- Easement AU-54 (44 Feet wide) affecting Lots 9, and 10 in favor of AOAOKC, RP3, and RP4 = 1,303 Acres
- Easement AU-55 (44 Feet wide) affecting Lot 14 in favor of AOAOKC = 8,862 Acre
- Easement AU-58 (44 Feet wide) affecting Lots 14, 16, and 15 in favor of AOAOKC, RP3, and RP4 = 1,527 Acres
- Easement AU-57 (44 Feet wide) affecting Lots 13, and 15 in favor of AOAOKC = 0,990 Acre
- Easement AU-58 (44 Feet wide) affecting Lots 18, and 19 in favor of AOAOKC = 0,636 Acre
- Easement AU-59 (44 Feet wide) affecting Lot 14 in favor of AOAOKC = 0,328 Acre

Easements designated E-5-A, E-7-A, E-7-B, E-9-A, E-9-B, E-9-C, E-9-D are for Overhead Electrical Transmission purposes in favor of Citizens Utilities Company and are portions of Grant of Easement by The Lihue Plantation Company, Limited to Citizens Utilities Company, Doc. No. 98-161869 recorded with the State of Hawaii Bureau of Conveyances on October 28, 1998.

- Easement E-5-A (60 Feet wide, portion of Easement E-5) affecting Lot 20 = 59,526 Sq. Ft.
- Easement E-7-A (60 Feet wide, portion of Easement E-7) affecting Lot 20 = 6,732 Sq. Ft.
- Easement E-7-B (60 Feet wide, portion of Easement E-9) affecting Lot 19 = 17,743 Sq. Ft.
- Easement E-9-A (60 Feet wide, portion of Easement E-9) affecting Lot 12 = 26,543 Sq. Ft.
- Easement E-9-B (60 Feet wide, portion of Easement E-9) affecting Lot 14 = 40,892 Sq. Ft.
- Easement E-9-C (60 Feet wide, portion of Easement E-9) affecting Lot 16 = 5,822 Sq. Ft.
- Easement E-9-D (60 Feet wide, portion of Easement E-9) affecting Lot 18 = 5,763 Sq. Ft.

Easement designated W-1 is for Water Line purposes in favor of County of Kauai - Department of Water.

Easement W-1 (10 Feet wide) affecting Lots 19, and 20 = 2,161 S. Ft.



Easements designated DR-1 to DR-5, inclusive, are for Drainage purposes in favor of Association of Apartment Owners of Kūlana Condominium (AOAOKC).

- Easement DR-1 affecting Lot 11 = 1,984 Sq. Ft.
- Easement DR-2 affecting Lot 12 = 2,216 Sq. Ft.
- Easement DR-3 affecting Lot 5 = 3,926 Sq. Ft.
- Easement DR-4 affecting Lot 10 = 1,295 Sq. Ft.
- Easement DR-5 affecting Lot 11 = 1,038 Sq. Ft.

Easements designated G-1 to G-6, inclusive, are for Future Road Widening Grading purposes in favor of the County of Kauai.

- Easement G-1 affecting Lot 12 = 0,108 Acre
- Easement G-2 affecting Lot 14 = 0,285 Acre
- Easement G-3 affecting Lot 18 = 0,048 Acre
- Easement G-4 affecting Lot 16 = 0,116 Acre
- Easement G-5 affecting Lot 19 = 0,579 Acre
- Easement G-6 affecting Lot 20 = 0,836 Acre

Easements designated P-1 to P-6, inclusive, are for Irrigation Ditch System purposes in favor of Association of Apartment Owners of Kūlana Condominium (AOAOKC).

- Easement P-1 affecting Lot 12 = 0,706 Acre
- Easement P-2 affecting Lot 13 = 0,847 Acre
- Easement P-3 affecting Lot 14 = 0,635 Acre
- Easement P-4 affecting Lot 1 = 0,402 Acre
- Easement P-5 affecting Lot 1 = 0,973 Acre
- Easement P-6 affecting Lot 2 = 0,039 Acre

Easements designated D-1 to D-56, inclusive, are for Irrigation Ditch System purposes in favor of Association of Apartment Owners of Kūlana Condominium (AOAOKC).

- Easement D-1 (15 Feet wide) affecting Lot 14 = 0,438 Acre
- Easement D-2 (15 Feet wide) affecting Lot 12 = 0,236 Acre
- Easement D-3 (15 Feet wide) affecting Lot 12 = 0,300 Acre
- Easement D-4 (15 Feet wide) affecting Lot 13 = 0,084 Acre
- Easement D-5 (15 and 30 Feet wide) affecting Lot 13 = 0,409 Acre
- Easement D-6 (15 Feet wide) affecting Lot 15 = 0,150 Acre
- Easement D-7 (15 and 30 Feet wide) affecting Lot 16 = 0,857 Acre
- Easement D-8 (30 Feet wide) affecting Lot 18 = 0,502 Acre
- Easement D-9 (30 Feet wide) affecting Lot 18 = 0,865 Acre
- Easement D-10 (15 Feet wide) affecting Lot 11 = 0,282 Acre
- Easement D-11 (15 Feet wide) affecting Lot 2 = 0,088 Acre
- Easement D-12 (15 Feet wide) affecting Lot 1 = 0,136 Acre
- Easement D-13 (15 Feet wide) affecting Lot 7 = 0,140 Acre
- Easement D-14 (15 Feet wide) affecting Lot 3 = 0,125 Acre
- Easement D-15 (15 Feet wide) affecting Lot 4 = 0,050 Acre
- Easement D-16 (15 Feet wide) affecting Lot 1 = 0,051 Acre
- Easement D-17 (15 Feet wide) affecting Lot 1 = 0,010 Acre
- Easement D-18 (20 Feet wide) affecting Lot 7 = 0,165 Acre
- Easement D-19 (20 Feet wide) affecting Lot 5 = 0,280 Acre
- Easement D-20 (15 Feet wide) affecting Lot 10 = 0,140 Acre
- Easement D-21 (15 Feet wide) affecting Lot 5 = 0,120 Acre
- Easement D-22 (15 Feet wide) affecting Lot 8 = 0,007 Acre
- Easement D-23 (20 Feet wide) affecting Lot 5 = 0,072 Acre
- Easement D-24 (10 and 20 Feet wide) affecting Lot 7 = 0,771 Acre
- Easement D-25 (10 Feet wide) affecting Lot 5 = 0,013 Acre
- Easement D-26 (10 Feet wide) affecting Lot 17 = 0,177 Acre
- Easement D-27 (20 Feet wide) affecting Lot 8 = 0,410 Acre
- Easement D-28 (20 Feet wide) affecting Lot 9 = 0,295 Acre
- Easement D-29 (20 Feet wide) affecting Lot 10 = 0,070 Acre
- Easement D-30 (20 Feet wide) affecting Lot 10 = 0,080 Acre
- Easement D-31 (30 Feet wide) affecting Lot 15 = 0,575 Acre
- Easement D-32 (30 Feet wide) affecting Lot 18 = 0,456 Acre
- Easement D-33 (30 Feet wide) affecting Lot 17 = 0,564 Acre
- Easement D-34 (30 Feet wide) affecting Lot 6 = 0,021 Acre
- Easement D-35 (10 Feet wide) affecting Lot 15 = 0,348 Acre
- Easement D-36 (15 Feet wide) affecting Lot 16 = 0,329 Acre
- Easement D-37 (15 and 30 Feet wide) affecting Lot 18 = 0,852 Acre
- Easement D-38 (15 Feet wide) affecting Lot 19 = 0,231 Acre
- Easement D-39 (15 Feet wide) affecting Lot 2 = 0,048 Acre
- Easement D-40 (10 Feet wide) affecting Lot 11 = 0,276 Acre
- Easement D-41 (10 Feet wide) affecting Lot 12 = 0,070 Acre
- Easement D-42 (10 Feet wide) affecting Lot 13 = 0,080 Acre
- Easement D-43 (10 Feet wide) affecting Lot 13 = 0,080 Acre
- Easement D-44 (10 Feet wide) affecting Lot 1 = 0,077 Acre
- Easement D-45 (15 Feet wide) affecting Lot 16 = 0,076 Acre
- Easement D-46 (15 Feet wide) affecting Lot 18 = 0,170 Acre
- Easement D-47 (10 Feet wide) affecting Lot 1 = 0,003 Acre
- Easement D-48 (10 Feet wide) affecting Lot 15 = 0,003 Acre
- Easement D-49 (10 Feet wide) affecting Lot 17 = 0,003 Acre
- Easement D-50 (10 Feet wide) affecting Lot 6 = 0,003 Acre
- Easement D-51 (10 Feet wide) affecting Lot 5 = 0,193 Acre
- Easement D-52 (10 Feet wide) affecting Lot 6 = 0,003 Acre
- Easement D-53 (10 Feet wide) affecting Lot 21 = 0,010 Acre
- Easement D-54 (30 Feet wide) affecting Lot 11 = 0,283 Acre
- Easement D-55 (30 Feet wide) affecting Lot 12 = 0,454 Acre
- Easement D-56 (15 Feet wide) affecting Lot 1 = 0,003 Acre

EXHIBIT
KULANA SUBDIVISION (AMENDED)
CONSOLIDATION OF LOTS A & B
Being portions of R.P. 7373, L.C. No. 8596-B, Plans 42 to William C. Lundin
and Grant 3026 to Ruben P. Steading
AND SUBDIVISION OF SAID CONSOLIDATION INTO LOTS 1 TO 28, INCLUSIVE,
DISTRIBUTION OF EASEMENTS AU-1 TO AU-59, INCLUSIVE, AU-60 TO AU-8, INCLUSIVE,
AU-15, AU-20, AU-21, AU-23 TO AU-28, INCLUSIVE, AU-29, AU-30, AU-41,
AU-46 TO AU-58, INCLUSIVE, D-1 TO D-56, INCLUSIVE, DR-1 TO DR-5, INCLUSIVE,
E-5-A, E-7-A, E-7-B, E-9-A, E-9-B, E-9-C, E-9-D, E-7-A, E-7-B, E-7-C,
G-1 TO G-6, INCLUSIVE, P-1 TO P-6, INCLUSIVE, AND W-1
CANCELLATION OF EASEMENTS AU-5, AU-9, AU-10, AU-11, AU-12, AU-13, AU-14,
AU-15, AU-17, AU-18, AU-19, AU-22, AU-24, AU-25, AU-26, AU-31, AU-32, AU-33, AU-34,
AU-35, AU-36, AU-37, AU-38, AU-39, AU-40, AU-42, AU-43, AU-44, AU-45, AU-48, AU-54,
AND DESIGNATION OF NATIVE HAWAIIAN ACCESS RIGHTS ALONG KAHANUIA STREAM
KAPAA & WAIOLI, KAHANUIA, KAUAI, HAWAII
To: H&M K&S (4) 4-3-11: 001
Dated: Kapa'ae, HI
Date: November 5, 2018
SHEET 3 OF 3

RIGHT-OF-ENTRY

THIS INDENTURE made this _____ day of _____, 202_ by and between **KULANA ASSOCIATION OF APARTMENT OWNERS**, an unincorporated Condominium Association and **CY MIYASHIRO, JUNE VAN DAHM & KRIS VAN DAHM**, whose collective mailing address is c/o McCorriston, Miller, Mukai, MacKinnon, LLP, 4357 Rice Street, Suite 102, Lihue, HI 96766, Atten: Laurel Loo, (hereinafter, the “Grantor”), and the **BOARD OF WATER SUPPLY** of the County of Kaua‘i, whose mailing address is 4398 Pua Loke Street, Lihu‘e, Hawai‘i 96766 (hereinafter, the “Board”).

W I T N E S S E T H:

For and in consideration of the sum of One Dollar (\$1.00) to the Grantor paid, the receipt whereof is hereby acknowledged, the Grantor does hereby grant to the Grantee, its officers, employees, contractors, subcontractors, and agents (hereinafter collectively the “Grantee”), a temporary construction right-of-entry subject to the following terms and conditions:

1. This right-of-entry shall be an area over, under, and across that certain property situated, lying, and being Roadway Lot 22A of the Hauiki Road Subdivision, Kaua‘i, Hawai‘i at Tax Map Key No. (4) 4-3-003-027 and as illustrated in the map attached hereto as Exhibit “A” and made a part hereof.
2. This right-of-entry shall be used by the Grantee for purposes of operation and maintenance of the Hauiki Road Water System, and all necessary appurtenances for Plans entitled, “Construction Plans for the Relocation of Hauiki Road”, as re-certified on September 1, 2017.
3. The Grantee shall indemnify and hold harmless the Grantor from and against any claims for injuries or damages of any kind occasioned, in whole or in part, by Grantee’s gross negligent actions or omissions arising out of its exercise of this right-of-entry.
4. This right-of-entry shall be binding upon and inure to the benefit of the parties and their respective successors and assigns.
5. The Grantor warrants and covenants with the Grantee that Grantor is the fee simple owner of the property upon which the right-of-entry is located, has full right to grant said right-of-entry and will warrant and defend the right-of-entry granted herein against all adverse claims.
6. This right-of-entry may be executed in counterparts. Each counterpart shall be executed by one or more parties hereinbefore named and the several counterparts shall constitute one instrument to the same effect as though the signatures of all the parties are upon the same document.
7. The term of this right-of-entry shall commence upon the execution of the same by Grantor and shall automatically expire, without the submission or presentation of any documents to that effect, at such time that the Grantor conveys the new roadways to the County of Kaua‘i pursuant to the tentative subdivision approval granted by the Planning Commission for the Hauiki Road Subdivision (S-2002-25) with respect to that portion of Tax Map Key No. (4) 4-3-003-027 which the

Grantee deems necessary for the reading of water meters and for the construction, installation, reinstallation, maintenance, repair, and removal of potable water pipelines and related meters, valves, and other associated waterworks facilities improvements and appurtenances, and further for ingress and egress at any time to, from, and through the easement area, with or without vehicles or equipment, as the Grantee deems necessary for the proper operation of its water system.

GRANTOR(S):


Kulana Association of Apartment Owners
By: Brad Rockwell
Its: President

Kulana Association of Apartment Owners
By: Mark Sullivan
Its: Treasurer

By: Cy Miyashiro, Self



By: June Van Dahm, Self



By: Kris Van Dahm, Self

APPROVED:



Mark R. Knoff
Manager and Chief Engineer

APPROVED AS TO FORM AND LEGALITY:



Mahealani M. Krafft
Deputy County Attorney

GRANTEE:

BOARD OF WATER SUPPLY, COUNTY OF KAUA'I

Gregory Kamm
Chairperson

Grantee deems necessary for the reading of water meters and for the construction, installation, reinstallation, maintenance, repair, and removal of potable water pipelines and related meters, valves, and other associated waterworks facilities improvements and appurtenances, and further for ingress and egress at any time to, from, and through the easement area, with or without vehicles or equipment, as the Grantee deems necessary for the proper operation of its water system.

GRANTOR(S):



Kulana Association of Apartment Owners
By: Brad Rockwell
Its: President



Kulana Association of Apartment Owners
By: Mark Sullivan
Its: Treasurer

By: Cy Miyashiro, Self

By: June Van Dahm, Self

By: Kris Van Dahm, Self

APPROVED:

Mark R. Knoff
Manager and Chief Engineer

APPROVED AS TO FORM AND
LEGALITY:

Mahealani M. Krafft
Deputy County Attorney

GRANTEE:

BOARD OF WATER SUPPLY, COUNTY
OF KAUA'I

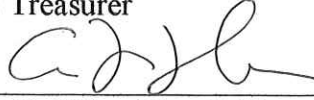
Gregory Kamm
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GRANTOR(S):

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By: Brad Rockwell
Its: President

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By: Mark Sullivan
Its: Treasurer



By: Cy Miyashiro, Self

By: June Van Dahm, Self

By: Kris Van Dahm, Self

APPROVED:

Mark R. Knoff
Manager and Chief Engineer

**APPROVED AS TO FORM AND
LEGALITY:**

Mahealani M. Krafft
Deputy County Attorney

**GRANTEE:
BOARD OF WATER SUPPLY, COUNTY
OF KAUA'I**

Gregory Kamm
Chairperson

STATE OF HAWAI'I)
) ss.
COUNTY OF KAUA'I)

On this ____ day of _____, 20__ in the Fifth Circuit, State of Hawai'i, before me personally appeared **Gregory Kamm**, who is personally known to me or whose identity I proved on the basis of satisfactory evidence, who being by me duly sworn or affirmed, did say that such person is the **Chairperson** for the **Board of Water Supply, County of Kaua'i** executed _____, dated _____ and consisting of _____ pages at the time of notarization, as the free act and deed of such person, and if applicable in the capacity shown, having been duly authorized to execute such instrument in such capacity.

Notary Public, State of Hawai'i
Name of Notary: _____ (Affix Seal)
My Commission expires: _____

1252
STATE OF _____)
) ss.
COUNTY OF _____)

On this _____ day of _____, 20____ in the _____ Circuit,
State of _____, before me personally appeared _____, who is
personally known to me or whose identity I proved on the basis of satisfactory evidence, who
being by me duly sworn or affirmed, did say that such person executed the
_____, dated _____ and consisting of _____ pages at
the time of notarization, as the free act and deed of such person, and if applicable in the capacity
shown, having been duly authorized to execute such instrument in such capacity.

Notary Public, State of _____
Name of Notary: _____ (Affix Seal)
My Commission expires: _____

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California County of SAN DIEGO)ss.
On 02-10-21 before me, STEVE HOLL, Notary Public,
personally appeared MAR SULLIVAN
who proved to me on the basis of satisfactory evidence to be the person(s) whose
name(s) is/are subscribed to the within instrument and acknowledged to me that
he/she/they executed the same in his/her/their authorized capacity(ies), and that by
his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of
which the person(s) acted, executed the instrument. I certify under PENALTY OF
PERJURY under the laws of the State of California that the foregoing paragraph is true
and correct. WITNESS my hand and official seal.

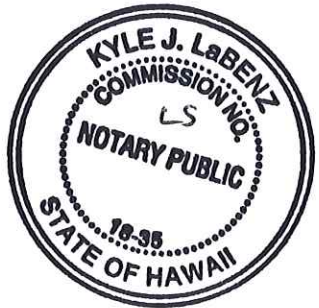


STATE OF Hawaii)
) ss.
COUNTY OF Kauai)

On this 10 day of March, 2021 in the 5th Circuit, State of Hawaii, before me personally appeared Brad W. Rutwell, who is personally known to me or whose identity I proved on the basis of satisfactory evidence, who being by me duly sworn or affirmed, did say that such person executed the Right-of-Entry, dated undated and consisting of 14 pages at the time of notarization, as the free act and deed of such person, and if applicable in the capacity shown, having been duly authorized to execute such instrument in such capacity.



Notary Public, State of Hawaii
Name of Notary: Kyle J LaBenz (Affix Seal)
My Commission expires: 2/11/2022



STATE OF Hawaii)
COUNTY OF Honolulu) ss.

FEB 18 2021


On this ___ day of ___, 20__ in the ___ Circuit,
State of Hawaii before me personally appeared CY MIYASHIRO, who is
personally known to me or whose identity I proved on the basis of satisfactory evidence, who
being by me duly sworn or affirmed, did say that such person executed the
Right of Entry, dated undated and consisting of 12 pages at
the time of notarization, as the free act and deed of such person, and if applicable in the capacity
shown, having been duly authorized to execute such instrument in such capacity.

Marie L. Berry
Notary Public, State of Hawaii
Name of Notary: MARIE L. BERRY (Affix Seal)
My Commission expires: 11-19-23



STATE OF Arizona)
) ss.
COUNTY OF Maricopa)

On this 10 day of February, 2021 in the _____ Circuit, State of AZ, before me personally appeared Kris Van Dahm, who is personally known to me or whose identity I proved on the basis of satisfactory evidence, who being by me duly sworn or affirmed, did say that such person executed the Right of Entry, dated _____ and consisting of 12 pages at the time of notarization, as the free act and deed of such person, and if applicable in the capacity shown, having been duly authorized to execute such instrument in such capacity.


Notary Public, State of Arizona
Name of Notary: Hannah Hill (Affix Seal)
My Commission expires: JUNE 30, 2024



STATE OF Arizona)
) ss.
COUNTY OF Maricopa)

On this 16 day of February, 2021 in the _____ Circuit, State of AZ, before me personally appeared June Van Dahm, who is personally known to me or whose identity I proved on the basis of satisfactory evidence, who being by me duly sworn or affirmed, did say that such person executed the Right of Entry, dated _____ and consisting of 12 pages at the time of notarization, as the free act and deed of such person, and if applicable in the capacity shown, having been duly authorized to execute such instrument in such capacity.



Notary Public, State of Arizona
Name of Notary: Hannah Hill (Affix Seal)
My Commission expires: June 30, 2024



EXHIBIT "A"

PROPOSED LOT 22-A

LAND SITUATED AT KAPAA AND WAIPOULI, KAWAIHAU, KAUAI, HAWAII

Being a Portions of Grant 5266 to Rufus P. Spalding and
R. P. 7373, L. C. Aw. 8559-B, Ap. 42 to William C. Lunailo

Beginning at the Northwest corner of this parcel of land, the coordinates of said point of beginning referred to Government Survey Triangulation Station "NONOU" being 9,308.99 feet North and 580.86 feet East, thence running by azimuths measured clockwise from true South:

			along Proposed Lot 24 and State Ditch 8 on a curve to the right with a radius of 1,028.00 feet, the chord azimuth and distance being:
1.	275° 46' 28.5"	244.08	feet;
2.	343° 54'	64.40	feet along Roadway Lot 22, Kulana Subdivision
			thence along State Ditch 8 and Proposed Lot 25 on a curve to the left with a radius of 972.00 feet, the chord azimuth and distance being:
3.	100° 36' 49"	128.85	feet;
4.	153° 51'	22.64	feet along the East side of Hauiki Road;
5.	116° 29'	87.77	feet along the East side of Hauiki Road;
6.	83° 41'	45.71	feet along the North side of Hauiki Road;

7. 179° 46' 50"

8.27 feet along Lot 89-B to the point of beginning and containing an area of 0.208 Acre.

SUBJECT, HOWEVER, to Easement D-57 for irrigation purposes.

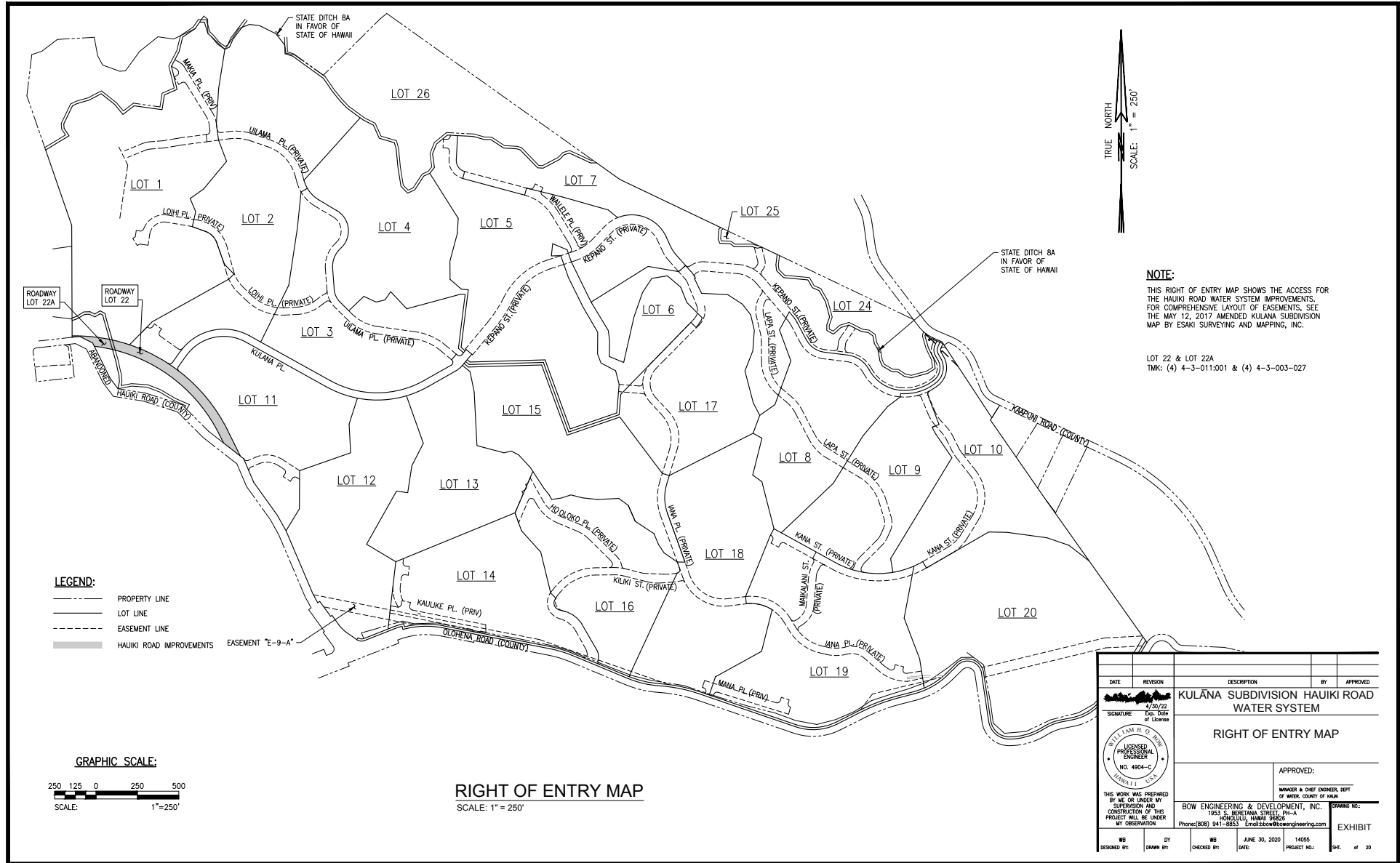


Lihue, Hawaii
August 2020

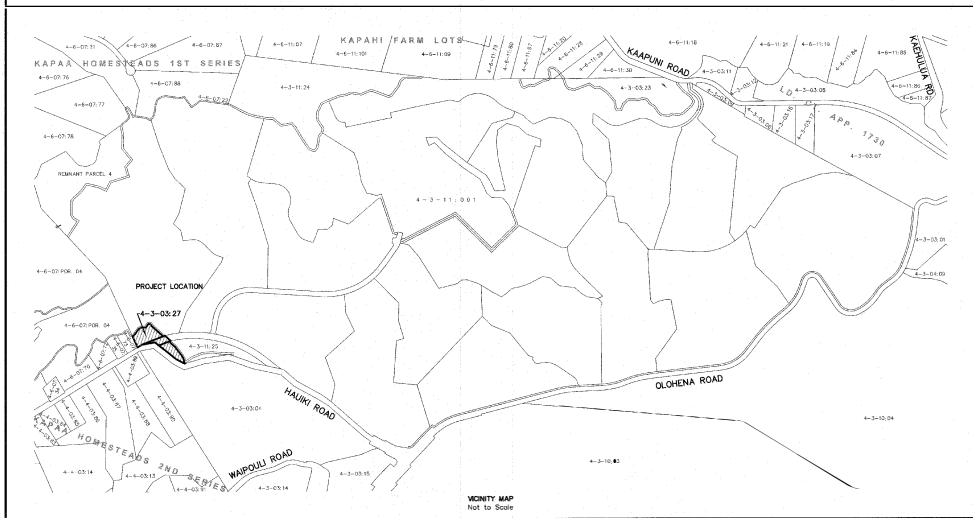
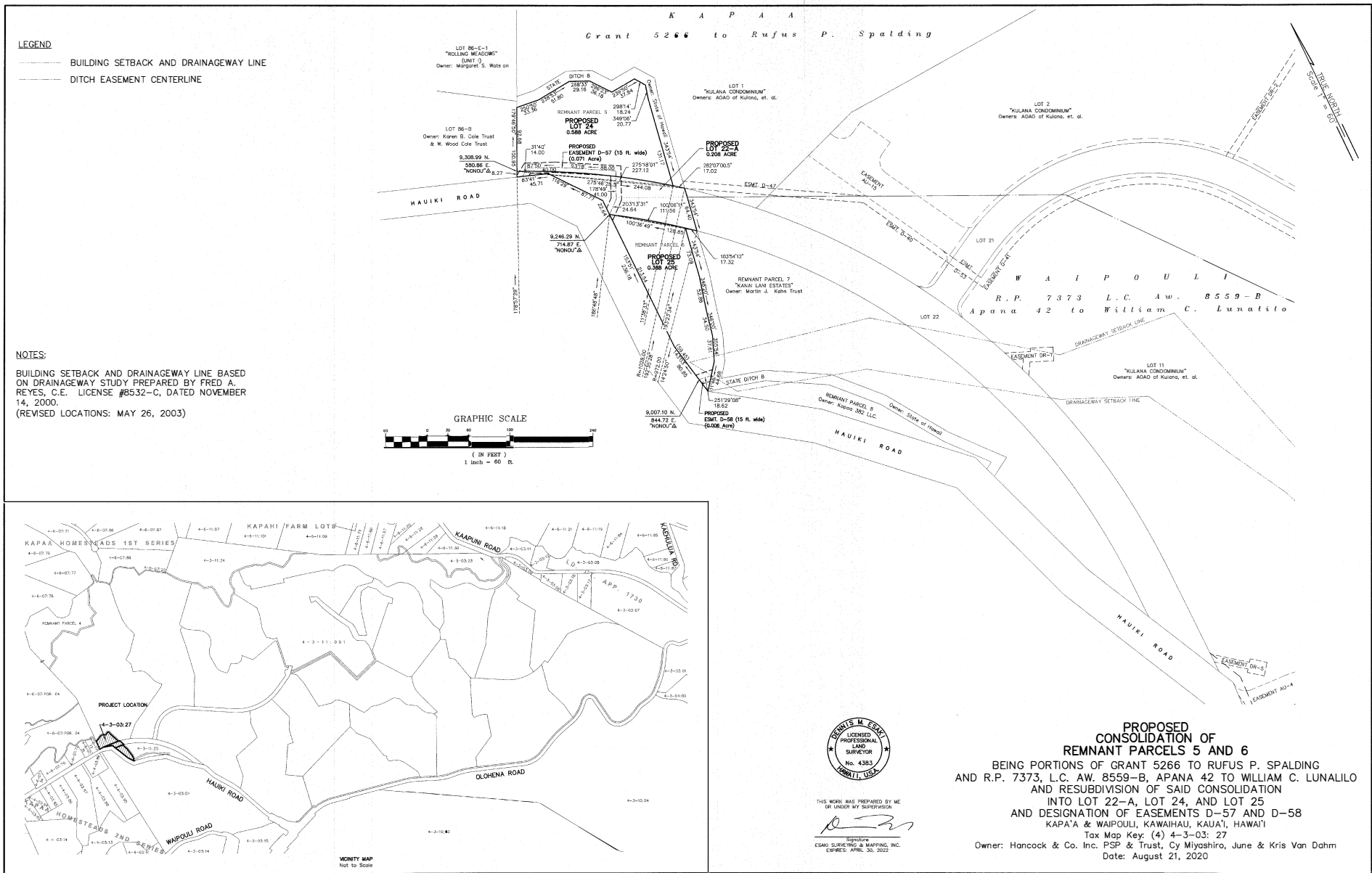
DESCRIPTION PREPARED BY:
ESAKI SURVEYING AND MAPPING, INC.

A handwritten signature in black ink, appearing to read "Dennis M. Esaki".

Dennis M. Esaki
Licensed Professional Land Surveyor
Certificate Number 4383



Māxpc'Cuuqek'kqp"qh'Cr ctwo gpvQy pgtu
 E{"O k{cuj ktq, Jwpg'Vcp Dcj o & Ktku Vcp Dahm
 TMK (4) 4-3-003:027



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

Signature
ESAU SURVEYING & MAPPING, INC.
EXPIRES: APRIL 30, 2022

Job Number: 16-97 MA/MS/SP/PA
Drawing File: 16-97 Hauki sub-02 8-21-20.dwg

ESAU SURVEYING & MAPPING, INC.
Civil Engineers - Land Surveyors - Planners

1610 Halekono Street
Lihue, Hawaii 96766

DEPARTMENT OF WATER

County of Kaua'i

"Water has no Substitute – Conserve It!"

MANAGER'S REPORT No. 20-23

April 22, 2021

Re: Discussion and Approval of the Department of Water's Depreciation Rate Study Draft Report

RECOMMENDATION:

It is recommended that the Board review and approve the DOW's Depreciation Rate Study Draft Report and authorize implementation of updated depreciation rates and methods as well as a one-time adjustment to Accumulated Depreciation increasing the value of net plant to align with the updated projections of asset life.

FUNDING: N/A.

BACKGROUND:

The DOW engaged the services of Brio Consulting to assist the staff in evaluating the effectiveness of the currently in use depreciation rates in calculating the net value of the DOW's utility and plant assets. With the collaborative efforts of the staff from Engineering, Operations and Fiscal, the Consultants developed the new depreciation study draft report that is before you.

Currently, the DOW is using the depreciation rates developed in the DOW's 2007 depreciation study. There are two different depreciation methods being used. For Utility Plant accounts, DOW uses the "group remaining life" method while General Plant, Capital Leases, and Intangible Plant accounts calculate depreciation using the whole life method and unit depreciation accounting.

The main advantage of the Group Remaining Life method when it was first implemented was the automatic correction of any over recovery or under recovery of depreciation in past years without the need to keep detailed records of individual units (assets). However, this accounting method can lead to over-depreciation if the projected average life for the asset group is too short. The continuing expansion of the DOW's plant and utility assets and the construction of longer-lasting infrastructure created an over-depreciation of some utility plant accounts, and this prompted a discussion between the DOW's Auditor and staff two years ago about the need to re-evaluate the effectiveness of the depreciation method and rates in use.

We concur with the Consultants that the DOW is best served by switching to the whole life method and unit depreciation accounting for all its utility plant accounts and adjusting accumulated depreciation to align with the asset life projections in the depreciation study. The DOW now has an accounting system that can support the record keeping needed for unit depreciation. The adjustment to Accumulated Depreciation will provide the DOW with a more accurate representation of asset value. The switch to the unit depreciation method will simplify and standardize the DOW's accounting methods, prevent the type of over-depreciation that resulted from the "group remaining life" method, and allow the DOW to track and report the book value of individual assets. These adjustments have no impact on rates.

OPTIONS:

Option 1:

1. Approve the Depreciation Study Draft Report.
2. Make a one-time adjustment of \$26,073,760 to Accumulated Depreciation which is the difference between actual reserve of \$141,562.50 and theoretical reserve of \$115,488,790. This is illustrated on Table 4-2, Comparison of Actual and Theoretical Reserve.
3. Convert to the whole life unit depreciation method for Plant Assets.

Pros This will provide the DOW with a more accurate representation of asset value. This will simplify and standardize the DOW’s fixed asset accounting methods.

Notes: The adjustment will increase the net book value of the utility and plant assets as of fiscal year (FYE) end, June 30, 2020. This adjustment will be reflected in the financial statements for the FYE June 30, 2021 and 2020 after the DOW’s financial audit.

Prior to the end of this fiscal year, individual plant asset records will be updated to reflect accumulated depreciation for each unit consistent with the adjusted net book value, and the whole life unit depreciation method will then be used to calculate depreciation expense for plant assets for FYE June 30, 2021. Staff considered the possibility of amortizing the adjustment to Accumulated Depreciation over multiple years. Amortization would delay the more accurate representation of asset value, require complex additional accounting, and introduce risks of accounting errors. There is no advantage to spreading the adjustment across multiple years because depreciation is a non-cash expense that does not impact billing rates.

Cons: The DOW’s Financial Statements as of FY 2020 will need to be reinstated to reflect the \$26.1M adjustment.

Option 2: Disapprove the Depreciation Study Draft Report

Pros: The DOW will continue to use the current depreciation rates and no further action is necessary.

Cons: The net book value of assets will continue to be over depreciated.

Attachments: General Accounting of Depreciation of Assets

Mgrrp/April 2021/20-23/ Discussion and Approval of the Department of Water’s General Accounting of Depreciation of Assets

Draft Report | February 24, 2021

Depreciation Rate Study

Based on Plant in Service at June 30, 2020

Department of Water
County of Kauai

Prepared by:



In Association with



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- Schedule 2 Comparison of Existing and Proposed Depreciation Parameters
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Section 1

SUMMARY AND CONCLUSIONS

Introduction

The County of Kauai Department of Water (the DOW) contracted with Brio Consulting and with Subconsultant NewGen Strategies and Solutions, LLC (NewGen) to perform a depreciation study of plant in service as of June 30, 2020. This report summarizes the results of the depreciation study. Summary schedules showing the recommended average service lives and resulting annual depreciation accrual rates are presented at the end of this section. We recommend that the DOW implement the recommended depreciation accrual rates as soon as practical.

Section 2 of this report provides a background on depreciation, which explains the methodology used to develop the recommended annual depreciation accrual rates. Section 3 is a description of the DOW system. Section 4 describes the specific analyses performed in the depreciation study. Section 5 provides account narratives describing the basis for the recommended depreciation parameters.

Acknowledgements

We greatly appreciate the assistance of the DOW staff who provided the data necessary to perform this depreciation study. Below is a list of the DOW staff who were interviewed and provided data for the depreciation study.

- Marites Yano – Waterworks Controller
- Marcelino Soliz – Assistant Waterworks Controller
- Val Reyna – Chief of Water Operations
- Ryan Smith – Assistant Chief of Water Operations
- Keith Aoki – Civil Engineer VI
- Michael Hinazumi – Civil Engineer VI
- Bryan Wienand – Civil Engineer V
- Anne Parrott – Accountant III

Methodology

NewGen developed recommended average service lives for the DOW plant accounts which were used to calculate item-based depreciation expense using the straight-line, whole-life method of depreciation. The whole life method provides for the recovery of the original cost of property, adjusted for net salvage, over the average service life of the property. The DOW does not track net salvage by plant account; therefore, net salvage was assumed to be zero which is reasonable for water utility plant which is often retired in place.

At the DOW's request, the recommended depreciation rates in this study were calculated using the straight-line, whole life method and unit depreciation accounting. Currently the DOW uses two different

depreciation methods. For Utility Plant accounts, DOW uses the “group remaining life” depreciation rates developed in the DOW’s 2007 depreciation study. For General Plant, Capital Leases, and Intangible Plant accounts, DOW calculates depreciation using the whole life method and unit depreciation accounting. Prior to the 2007 depreciation study, the DOW used the whole life method and unit depreciation accounting for all plant accounts. A significant change recommended in this depreciation study is for the DOW to return to using unit depreciation accounting for the Utility Plant accounts.

NewGen believes that the DOW is best served by using unit depreciation accounting for all of its plant accounts for the following reasons:

- More control over accrual calculations by individual asset using the DOW fixed asset records
- Accumulated depreciation and net book value of individual assets can be determined at any time
- Cannot over-depreciate individual assets, particularly older assets on the books that should be retired
- Consistent depreciation method used for all plant accounts within the DOW and other County departments

Further explanation of unit versus group depreciation accounting and the pros and cons of using each depreciation accounting method is provided in Section 2.

Summary of Results

Based on the analyses described in this report, NewGen recommends changes to the average service lives for several DOW plant accounts. In addition, we recommend that the DOW return to the use of unit depreciation accounting to calculate annual depreciation expense for Utility Plant accounts, as is currently used for the DOW General Plant, Capital Leases, and Intangible Plant.

Three summary schedules are presented at the end of this section:

- Schedule 1 Comparison of Depreciation Rates and Annual Accruals
- Schedule 2 Comparison of Depreciation Factors
- Schedule 3 Comparison of Actual vs. Theoretical Depreciation Reserve

As shown in Table 1-1, based on the DOW plant in service as of June 30, 2020, the recommended average service lives and resulting depreciation rates, if adopted, result in a \$746,951 decrease (approximately 10% decrease) in the total annual depreciation accrual compared to the accrual at existing depreciation rates.

**Table 1-1
Comparison of Depreciation Rates and Annual Accruals**

Description	Original Cost at 06/30/2020	Existing		Proposed		Change In Accrual
		Accrual Rate	Annual Accrual	Accrual Rate	Annual Accrual	
Idled Plant and Future Use	\$1,263,404	1.95%	\$24,656	1.99%	\$25,159	\$503
Source of Supply Plant	10,925,023	2.33%	254,935	2.14%	233,918	(21,016)
Pumping Plant	48,841,521	3.76%	1,835,005	2.66%	1,300,976	(534,029)
Water Treatment Plant	3,101,198	5.27%	\$163,474	0.92%	28,395	(135,080)
Transmission & Distribution Plant	248,076,489	1.50%	3,708,789	1.48%	3,674,516	(34,273)
Total Utility Plant	\$312,207,633	1.92%	\$5,986,859	1.69%	\$5,262,964	(\$723,895)
General Plant	24,112,127	4.06%	978,834	3.96%	953,792	(25,042)
Capital Leases	7,415,345	0.07%	4,842	0.03%	2,525	(2,317)
Intangible Plant – Computer Software	1,936,353	11.70%	226,607	11.71%	230,909	4,302
Land and Easements	1,343,146	0.00%	0	0.00%	0	0
Total Plant	\$347,014,605	2.07%	\$7,197,141	1.86%	\$6,450,190	(\$746,951)

Schedule 1, provided at the end of this section, is a comparison of existing and proposed depreciation rates by plant account. Schedule 2 shows the existing and proposed average service lives by plant account.

Most of the change in the depreciation accrual and depreciation rates for Utility Plant is attributable to the recommended change in methodology from group remaining life depreciation to unit depreciation accounting using the whole life method of depreciation. There is very little change in the average service lives for most Utility Plant accounts, with the exception of Account 342, Reservoirs and Standpipes, and Account 343, Mains, where we recommend an increase in average service life.

The largest change in depreciation rate is for Account 346, Meters, from 11.84% to 3.03%. The 2007 Depreciation Study recommended a 20-year average service life for meters; however, the DOW planned to replace all meters with new AMR meters in the next 2 to 3 years. Therefore, the remaining life depreciation rate developed in the 2007 Depreciation Study was based on a 2.5-year remaining life so the existing meters would be fully depreciated by the time the meters were replaced. After the new meters were installed, the depreciation rate should have been adjusted to reflect the new plant investment and longer remaining life for the new meters (20 years), but this was not done. The DOW continued to apply the existing remaining life depreciation rate (11.84%) to the new plant investment, with the result that Account 346 is nearly fully depreciated as of June 30, 2020. This explains why the proposed annual depreciation accrual for meters is so low. Under unit depreciation accounting, new plant assets in Account 346, Meters, should be depreciated using the recommended 20-year average service life.

There is minimal change in the depreciation accrual and depreciation rates for General Plant. The DOW uses unit depreciation accounting for General Plant so there is no change in depreciation methodology. NewGen recommended new average service lives for two General Plant accounts, Account 391.1, Furniture & Equipment, and Account 396, Power Operated Equipment. We also recommend that the DOW establish a new general plant account, Account 395, Laboratory Equipment, and transfer laboratory equipment currently recorded in Account 391.1, Furniture and Office Equipment, to the new plant account.

Actual vs. Theoretical Depreciation Reserve

As part of the depreciation study, NewGen calculated the theoretical depreciation reserve based on the recommended average service lives in the depreciation study applied to the DOW plant balances as of June 30, 2020. A comparison of the DOW's actual book reserve and theoretical reserve as of June 30, 2020 is shown in Schedule 3.

As shown in Schedule 3, the DOW's total actual depreciation reserve is greater than the total theoretical reserve by \$26,073,760 (approximately 23% greater). The actual depreciation reserve ratio based on DOW depreciable plant investment and actual book depreciation reserve is equal to 40.79%. In comparison, the theoretical reserve ratio is 33.28%. The theoretical reserve is discussed in more detail in Section 4 of this report.

In order to better align the actual book depreciation reserve with the theoretical reserve, the DOW can amortize the difference between the actual and theoretical reserve over a period of time or make a one-time adjustment to its financial statements to reduce the reserve for accumulated depreciation on the DOW books to equal the theoretical reserve amounts shown in Schedule 3. The reserve adjustments can be made to all or selected plant accounts. DOW Plant Accounting staff prefer making a one-time adjustment to correct the book reserve.

NewGen believes it is appropriate for the DOW to make a one-time adjustment to its financial statements to correct the book depreciation reserve for Utility Plant accounts to equal the theoretical reserve account balances shown in Schedule 3. The largest difference between the actual and theoretical depreciation reserve occurs with the Utility Plant accounts which is attributable in part to the change in depreciation methodology (group remaining life depreciation vs. unit depreciation accounting) in DOW's last depreciation study.

The difference between the actual and theoretical depreciation reserve for the General Plant accounts is not large; therefore, NewGen does not recommend adjusting the actual book reserve for General Plant accounts at this time. Instead, we recommend that the DOW review the General Plant fixed asset records to identify assets that are no longer in service and can be retired from the books before making any adjustments to the book depreciation reserve for General Plant accounts.

Any adjustments to the actual book depreciation reserve should be reviewed and discussed with DOW management and the DOW's auditor before making any changes.

Assuming the DOW's rates for utility service are developed on the cash basis (rather than the utility basis), adjusting the reserve for accumulated depreciation for Utility Plant should have little or no effect on the DOW water rates.

Recommendations

Based upon the studies, assumptions, considerations, and analyses described in this report, NewGen recommends the following to the DOW:

1. Adopt the proposed average service lives shown in Schedule 2 to determine annual depreciation expense for fiscal year ending June 30, 2021.
2. Implement unit depreciation accounting and the whole life method of depreciation for Utility Plant (Accounts 311-348) and Idled Plant (Account 101) as soon as possible.

- The annual accruals developed in Appendix B and summarized in Schedule 1 can be used by the DOW to determine depreciation expense for Utility Plant for fiscal year ending June 30, 2021.
 - The fixed asset schedule provided in Appendix B of this report can be used to establish the accumulated depreciation amounts as of June 30, 2020 by individual asset for Utility Plant accounts, which is necessary to implement unit depreciation accounting.
3. Establish a new Account 395, Laboratory Equipment, and transfer microbiological laboratory equipment currently recorded in Account 391.1, Office Furniture and Equipment, to Account 395. The transfer of assets to Account 395 is shown in the fixed asset schedule provided in Appendix B.
 4. The DOW plant accountants and Operations and Engineering staff work together to review the DOW fixed asset records to identify assets that are no longer in service to retire from the books.
 5. The DOW establish procedures to improve data collection and reporting for retired assets, so the DOW plant accountants have the information needed to properly record retirements.
 6. The DOW augment its current Geographic Information System (GIS) to include vintage (installation) year data for Utility Plant assets to provide data for appropriate asset retirement.
 7. The DOW consider making a one-time adjustment to its FYE 2020 financial statements to adjust its book depreciation reserve for Utility Plant accounts to equal the theoretical depreciation reserve balances shown in Schedule 3.
 - Note: if the DOW makes an adjustment to the book depreciation reserve, it is important that the accumulated depreciation amounts by individual plant asset in the DOW's fixed asset record be adjusted accordingly. This is particularly important when using unit depreciation accounting.
 8. A review of the DOW's depreciation rates should be conducted every five to seven years, or more often if plant additions, retirements, changes in accounting practices, or other changes indicate that a review of the depreciation accrual rates is appropriate.

Section 2

BACKGROUND ON DEPRECIATION

Introduction

This section of the report is intended to provide a brief synopsis of the meaning of depreciation and briefly describe the procedures and methodologies that are often used to determine annual depreciation accrual rates.

The National Association of Regulatory Utility Commissioners (NARUC) defines depreciation as follows:

‘Depreciation’, as applied to depreciable utility plant, means the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes which are known to be in current operation and against which the utility is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, and changes in the demand and requirements of public authorities.¹

In order to account for the loss in service value, depreciation accounting has been established to recover the capital associated with the plant in service over the plant's useful life. Depreciation accounting is simply the process of charging the book cost of depreciable property to operations over the plant's useful life. This process charges a portion of the capital dollars of the plant to depreciation expense on the income statement and the accumulation of the annual expenses into the accumulated provision for depreciation on the balance sheet. This accumulated provision for depreciation is an offset to plant in service in order to yield net plant. Therefore, over the useful life of any property, the original cost of the plant has been, in effect, amortized through the income statement and accumulated on the balance sheet until such time as the accumulated provision for depreciation is equal to the original cost of the plant.

Life Analysis

The Forecast or Life Span method of estimating service lives is employed for those classes of property that are comprised of a major single-location plant, such as a power plant, which is expected to be retired as a single entity at a point-in-time. The Forecast method requires the estimation of the final retirement date of a unit of property. When using the Forecast method to estimate the average service life of a single location plant, it is appropriate to adjust the estimated life span to reflect an appropriate level of interim retirements. Interim retirement activity represents that portion of retirement dollar activity that is anticipated to occur over the life of a plant account that employs the Forecast method of depreciation. An example of this would be a water treatment plant that has an expected life span of 40 years. During this period, but prior to the ultimate retirement of the entire plant, there will be the need to replace items of the plant such as pumps, filters, or other units of property. In order to reflect the shorter life of these interim replacements, it is necessary to adjust the life span in order to recover 100% of the plant in service by the end of the overall plant life.

¹ Public Utility Depreciation Practices, August 1996, published by the National Association of Regulatory Utility Commissioners (NARUC), Washington, D.C., page 316.

The Survivor Curve method is used to estimate the average service life and remaining life for mass property accounts (e.g., transmission and distribution mains), which consist of a large number of property units that, even though similar, retire independent of each other at different ages. Survivor curves are used to show the statistical dispersion or frequency of retirements throughout the life of the property. A survivor curve can be depicted by a graph showing the number, or percentage, of units surviving at the beginning of each age interval.

The most well-known and generally accepted survivor curves are the Iowa Survivor Curves developed at Iowa State University. As shown in Figure 2-1, the survivor curve begins with the installation of plant in service at age zero (100% surviving) and ends with the ultimate retirement of the units (0% surviving).

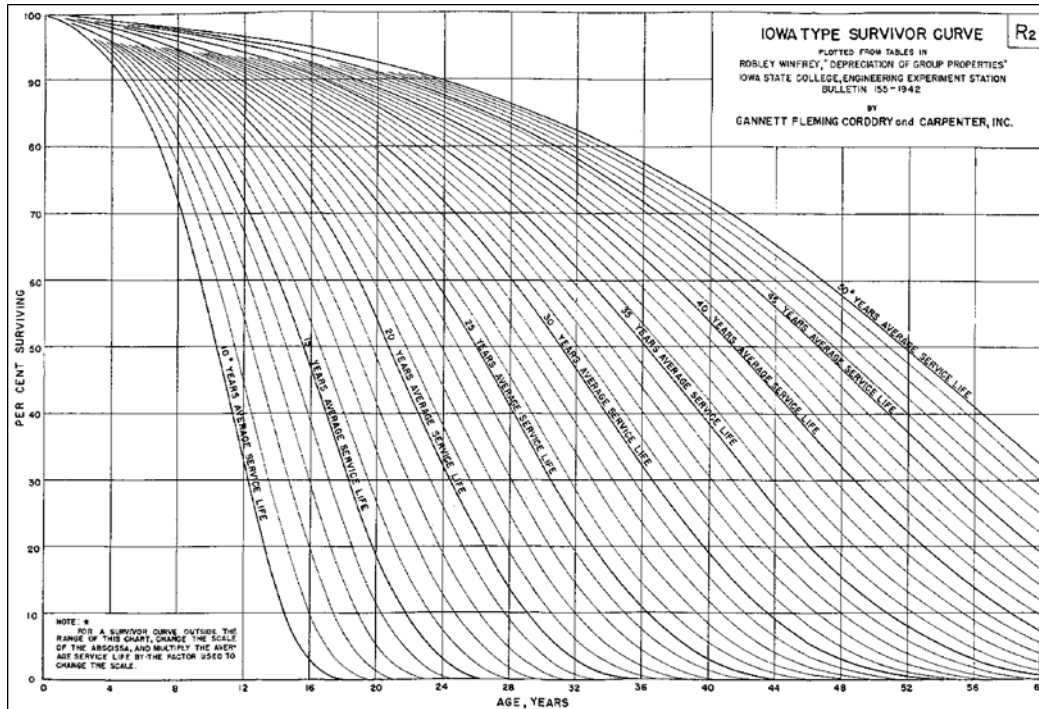


Figure 2-1. R2 Iowa Survivor Curve

In order to reflect the mortality characteristics of mass property accounts, it is not only necessary to establish an estimated average service life, but also the dispersion or survivor curve, which indicates the estimated pattern of retirements. Some property units in a plant account may retire soon after they are placed in service (e.g., a broken hydrant), while other property units may have lives stretching many years in excess of the average service life for the plant account. The pattern of retirements is an integral part of establishing the estimated remaining life associated with a particular plant account, because the remaining life will either be extended or shortened in order to conform to the level of retirement activity that transpired earlier than, the same as, or later than the estimated average service life.

The development of the particular survivor curve and associated estimated average service life for each mass property plant account represents one of the more subjective areas of a depreciation analysis. There are various methods for determining the estimated average service life and dispersion characteristics, depending on the data available. In general, the most accurate and reliable method of life analysis of mass property units is the Actuarial method. However, this method can be performed only when sufficient detailed historic retirement experience has been accumulated. In particular, it is necessary to know the specific age or vintage of the property at the time of its retirement and the age of the surviving plant.

When detailed vintage records are not available, the Simulated Plant Record (SPR) method can be used to estimate survivor curves and average service lives. As the name indicates, the SPR method relies on annual plant additions, retirements, and balances in order to identify a survivor curve and average service life that best describes or simulates historical experience.

There are two types of SPR methods: the Balances method and the Retirements method. In the Balances method, the SPR model determines the survivor curve and average service life that represent the property's retirement characteristics by retiring the vintage additions over time based on the retirement characteristics of successive curve types and calculating the simulated survivors. The survivor curve and average service life that produce the minimum sum of squared differences (SSD) when compared to the actual balances are considered the "best fit" curve and average service life selection. In the Retirements method, the definition of "best fit" is that which best estimates the total quantity of retirements over some period of time. Both methods require that sufficient retirement experience be available in order to select a survivor curve and average service life that best describes the mortality characteristics of a plant account.

When there is insufficient retirement data to perform statistical life analyses, the depreciation analyst has to rely more on industry depreciation statistics and information obtained during interviews with utility staff.

Net Salvage Analysis

The recovery of the original cost investment is adjusted for the estimated net salvage value of the plant. "Net salvage" is equal to the gross salvage for the property less its cost of removal.

'Gross salvage' is defined as the amount recorded for property retired due to the sale, reimbursement, or reuse of the property. 'Cost of removal' refers to the costs incurred in connection with the retirement from service and the disposition of depreciable plant.²

Due to the manner in which net salvage is calculated (gross salvage minus cost of removal), the resulting net salvage value can be either positive or negative. If gross salvage exceeds cost of removal, the net salvage is positive. On the other hand, if the cost of removal is greater than the gross salvage received in the process of retirement of an item of property, then the resulting net salvage value is negative.

Net salvage directly reduces (in the case of positive net salvage) or increases (in the case of negative net salvage) the dollars of plant to be depreciated over the service life of the plant. For example, if net salvage is a positive 10%, then the annual depreciation accrual rate over the plant's service life would need to recover 90% (i.e., 100% minus 10%) of the original cost of the plant. If net salvage is equal to negative 10%, then the annual depreciation accrual rate over the plant's service life would need to recover 110% (i.e., 100% plus 10%) of the original cost of the plant.

Annual Depreciation Accrual

Two commonly used methods used by utilities to calculate the annual depreciation accrual are the straight-line whole life and straight-line remaining life methods. Under the straight-line whole life method, the original cost of property, adjusted for net salvage, is recovered over the average service life of the property. The formula for computing the straight-line whole life depreciation rate is:

² Ibid, pages 317 and 320.

$$D = \frac{1 - NS}{ASL}$$

where: D = annual depreciation accrual
 NS = estimated net salvage ratio
 ASL = average service life

The straight-line remaining life method provides for the recovery of the undepreciated original cost of property (i.e., net plant), adjusted for net salvage, over the remaining life of the property. The formula for computing the straight-line remaining life depreciation rate is:

$$D = \frac{1 - NS - R}{RL}$$

where: D = annual depreciation accrual
 NS = estimated net salvage ratio
 R = depreciation reserve ratio
 RL = average remaining life

For both the whole life and remaining life methods, the annual depreciation accrual rate is calculated as a percentage of gross plant and is applied to the gross plant investment on the utility's books.

Under the remaining life method, any depreciation reserve imbalances are automatically "corrected" in the depreciation accrual calculation. For example, if too much depreciation has been recognized in the past, the depreciable balance to be recovered through future depreciation rates (i.e., the numerator in the remaining life calculation) is less and therefore the annual depreciation rate will be less, all other things being equal.

Under the whole life method, it is important to record retirements and monitor the depreciation reserve to assess whether the depreciation lives and rates are appropriate since, unlike the remaining life method, the whole life method does not automatically correct depreciation rates for any reserve imbalances.

Examples of depreciation accrual calculations using the straight-line, remaining life and whole life methods are presented at the end of Section 2. Example 1 shows the Forecast Remaining Life method, which is used for single location plant, Example 2 shows the Survivor Curve Remaining Life method, which is used for mass property plant accounts. Example 3 shows the Whole Life method.

Unit vs. Group Depreciation Accounting

Utility plant can be depreciated on an individual unit basis or as a group of property. Under unit depreciation, each individual asset is depreciated over the estimated service life of the asset. Depreciation stops when the asset is fully depreciated. If the asset retires before the asset is fully recovered, there is a loss on early retirement. If the asset lasts longer than the estimated service life, no additional depreciation is accrued because the asset is fully depreciated.

Under the group plan of depreciation, utility property is combined into groups (e.g., accounts or sub-accounts) that contain homogeneous units of plant which are alike in character, used in the same manner, and operated under the same general conditions. Under group depreciation, an average service life and net salvage rate are estimated for each group and the depreciation rate is applied to the total original cost for that group or account. The estimated average service life for the group assumes that plant that retires

early will be offset by plant that lives longer than the average service life. Therefore, when plant is retired, the total cost of the retired asset is removed from the accumulated depreciation reserve regardless of the age of the asset when it retired. Under group depreciation, an asset will generate depreciation expense as long as it remains in service.

A key difference between unit and group depreciation accounting is how assets are retired. The following description of how retirements are recorded using unit versus group depreciation accounting is excerpted from the NARUC manual on Public Utility Depreciation Practices:³

Under unit depreciation, the life and net salvage are estimated for individual assets and depreciation is recorded on an individual asset basis. Because of this, the accumulated depreciation and net book value (i.e., original cost less accumulated depreciation) for individual assets can be determined at any time. When an asset is retired, the net book value is compared to the net salvage received (net salvage is the proceeds received from the disposition of the retired asset less cost of removal). If net salvage exceeds net book value, the retirement results in a gain, and if net salvage is less than net book value, the retirement results in a loss. Gains and losses for retirement of assets are recorded in the period that the retirement occurs.

Under group depreciation, no gain or loss is recognized for retirement of individual assets. Upon retirement of an asset from the group, the cost of the asset is debited to the accumulated depreciation account and credited to the asset account. Any gross salvage received for the retired asset is credited to the accumulated depreciation account. Under group depreciation, since the accumulated depreciation relates to the entire group rather than to specific assets within the group, no gain or loss is recognized. This assumes that the group depreciation rate is accurate for the group as a whole and that the cost of the retired asset, net of gross salvage and cost of removal, is being fully provided for in the accumulated depreciation account.

There are advantages and disadvantages of using unit versus group depreciation accounting which are described below. A utility should choose the method that makes the most sense for its needs based on the utility's accounting policies, plant investment, record keeping, and regulatory requirements.

Unit Depreciation

Advantages:

- Easy to understand depreciation accrual calculation.
- Accumulated depreciation and net book value of individual asset can be determined at any time.
- Cannot over-depreciate individual assets, particularly older assets on books that should be retired.

Disadvantages:

- Results in loss on income statement if asset retires early (before the average service life); some utilities recover this loss through additional amortization over the original remaining life of the asset or specified time period.
- Involves more recordkeeping to calculate depreciation; however, utility fixed asset system software may calculate depreciation by asset based on estimated service life and net salvage rate.

³ Ibid, page 49.

Group Depreciation

Advantages:

- Recovers full cost of retired asset from accumulated depreciation on retirement of an asset.
- Less recordkeeping; easy to calculate depreciation by applying accrual rate to the total original cost in the plant account.
- Easy to incorporate survivor curves (mortality dispersion) to calculate average remaining life based on age of assets in the group (plant account).

Disadvantages:

- Failure to retire assets from accounting records can result in overstated depreciation expense since the accrual rate is applied to the total original cost in the plant account.
- Assumes that group depreciation rate is accurate for the group as a whole; failure to review and update group depreciation rates can lead to over or under accrual of plant assets.

Vintage Amortization Accounting

Vintage amortization accounting allows utilities to record the total cost of plant additions for the year as a vintage group and eliminates the record keeping requirements associated with individual items or property. The vintage group is amortized over the average service life for the account and the assets are retired as a group at the end of the amortization period. Vintage amortization accounting is often used for General Plant accounts that are characterized as having high volume, lower value items. The Federal Energy Regulatory Commission (FERC) Accounting Release 15 approved the use of vintage amortization accounting effective January 1, 1997 for general plant accounts, except structures and improvements. Many state public utility commissions have done the same for water and electric utilities regulated at the state level.

The mortality dispersion for accounts using vintage amortization accounting is described by the square (SQ) survivor curve, i.e., 100% of plant additions recorded for the vintage year remain in plant in service until the end of the average service life, at which time all of the additions in the vintage are retired, causing the survivor curve to drop to 0% surviving, resulting in a “square” survivor curve. Alternatively, the whole life method can be used to calculate a simple, straight-line amortization rate for the account, i.e. $\text{depreciation rate} = (1 - \text{net salvage rate}) / \text{average service life}$.

Theoretical Reserve

The theoretical reserve is an estimate of the reserve for accumulated depreciation calculated as if the recommended depreciation factors had been used throughout the lives of the existing assets. Differences between the actual and theoretical may be due to changes in depreciation parameters or accounting policies over time, deviations from forecasts, or any combination of the above.

An advantage to using the Remaining Life method of depreciation is that any depreciation reserve imbalances are automatically reflected in the depreciation accrual calculation. For example, if too much depreciation has been recognized in the past, the depreciable balance to be recovered through future depreciation rates (i.e., the numerator in the remaining life calculation) is less and, therefore, the annual depreciation rate will be less, all other things being equal.

Under the Whole Life method of depreciation, variances between the theoretical and actual reserve can be amortized or corrected through accounting adjustments to the utility's financial statements; however, whether to do so depends on the size of the reserve imbalance relative to the plant account balances, judgement of utility management and its auditors, and any regulatory requirements.

It is important for a utility to periodically review its depreciation rates and reserve levels to assure that the estimated service lives, survivor curves, and net salvage rates are appropriate to avoid future imbalances in the depreciation reserve.

Example No. 1
Forecast Remaining Life Method

Given: Cost \$1,000
 Retirement Date 10 years
 Interim Retirement Rate005/year
 Net Salvage -10%
 Depreciation Reserve \$475

Remaining Life Calculation:

Remaining Life (years)	Interim Retirement Rate	Adjusted Remaining Life (years)
(a)	(b)	(c)
10	.005	9.75

Columns (a), (b) : Estimated depreciation factors.
 Column (c) : $\text{Column (a)} \times [1 - (\text{Column (a)} \times (\text{Column (b)})/2)]$.

Depreciation Accrual Rate Calculation:

Cost (\$)	Net Salvage (\$)	Depreciation Reserve (\$)	Depreciable Balance (\$)	Remaining Life (years)	Annual Accrual	
(a)	(b)	(c)	(d)	(e)	(\$)	(%)
1,000	-100	475	625	9.75	64.10	6.41

Columns (a), (c) : Utility's books and records.
 Column (b) : Estimated net salvage value.
 Column (d) : $\text{Column (a)} - [\text{Column (b)} + \text{Column (c)}]$.
 Column (e) : Column (c) of remaining life calculation.
 Column (f) : $\text{Column (d)} / \text{Column (e)}$.
 Column (g) : $\text{Column (f)} / \text{Column (a)}$.

Example No. 2
Survivor Curve Remaining Life Method

Given: Cost (Mid-year Addition)

1995	\$800	Estimated Average Service Life	30
1998	\$1,200	Estimated IOWA Curve	R2
2000	\$600	Net Salvage	-5%
2003	\$700	Depreciation Reserve.....	\$500
2004	\$600		

Remaining Life Calculation:

Line No.	Year Installed	Age @ 12/31/04 (years)	Plant Investment (\$)	Probable Life (years)	Remaining Life (years)	Weighted Dollar Years
	(a)	(b)	(c)	(d)	(e)	(f)
1	1995	9.5	\$800	31.3	21.8	\$17,440
2	1998	5.5	1,200	30.6	25.1	30,120
3	2000	4.5	600	30.5	26.0	15,600
4	2003	1.5	700	30.2	28.7	20,090
5	2004	.5	600	30.1	29.6	17,760
6	Total		\$3,900			\$101,010
7	Weighted Remaining Life					25.9 Years

Column (c) : Obtained from utility's books and records.
 Column (d) : Probable life from R2-30 IOWA survivor curve at age given.
 Column (e) : Column (d) – Column (b).
 Column (f) : Column (c) x Column (e).
 Line 7 : Line 6 [Column (f)/Column (c)].

Depreciation Accrual Rate Calculation:

Cost (\$)	Net Salvage (\$)	Depreciation Reserve (\$)	Depreciable Balance (\$)	Remaining Life (years)	Annual Accrual (\$)	Annual Accrual (%)
(a)	(b)	(c)	(d)	(e)	(f)	(g)
3,900	(195)	500	3,595	25.9	138.80	3.56

Columns (a), (c) : Utility's books and records.
 Column (b) : Net salvage rate (-5%) x Column (a).
 Column (d) : Column (a) – Column (b) – Column (c).
 Column (e) : Line 7 of remaining life calculation.
 Column (f) : Column (d)/Column (e).
 Column (g) : Column (f)/Column (a).

Example No. 3
Whole Life Method

Given: Cost (Mid-year Addition)

1995	\$800	Estimated Average Service Life	30
1998	\$1,200	Net Salvage	-5%
2000	\$600		
2003	\$700		
2004	\$600		

Depreciation Accrual Calculation:

Line No.	Year Installed	Original Cost (\$)	Net Salvage (\$)	Average Service Life (years)	Annual Accrual (\$)	Annual Depreciation Rate (%)
	(a)	(b)	(c)	(d)	(e)	(f)
1	1995	\$800	(\$40)	30	\$28.00	3.50%
2	1998	1,200	(60)	30	42.00	3.50%
3	2000	600	(30)	30	21.00	3.50%
4	2003	700	(35)	30	24.50	3.50%
5	2004	600	(30)	30	21.00	3.50%
6	Total	\$3,900	\$195		\$136.50	3.50%

Column (b) : Obtained from utility's books and records.
 Column (c) : Net salvage rate (-5%) x Column (b).
 Column (e) : [(Column (b) – Column (c))/Column (d)].
 Column (f) : Column (e)/Column(b).

Section 3

DESCRIPTION OF THE DOW SYSTEM

The County of Kauai Department of Water operates nine separate, unconnected water systems spread out along the island from Kekaha to Haena. The source of supply for the water systems is primarily groundwater pumped from 50 deepwell pumping stations and four tunnel sources.⁴ There is one surface water treatment plant⁵ which provides water to the Lihue area to supplement local groundwater supply from wells. The DOW system includes 19 booster pumping stations, 58 storage tanks, 75 control valve stations, and over 400+ miles of pipeline. Many of the water systems date back to the plantation era, and some pipelines are 80 to 100 years old.⁶

Figure 3-1 is a map showing the water systems served by the DOW. Please note that the Princeville water system located on the north shore of the island is served by a private water company, Princeville Utilities Company, Inc. The DOW purchases water from the Princeville Utilities Company that the DOW distributes to the Anini water system.

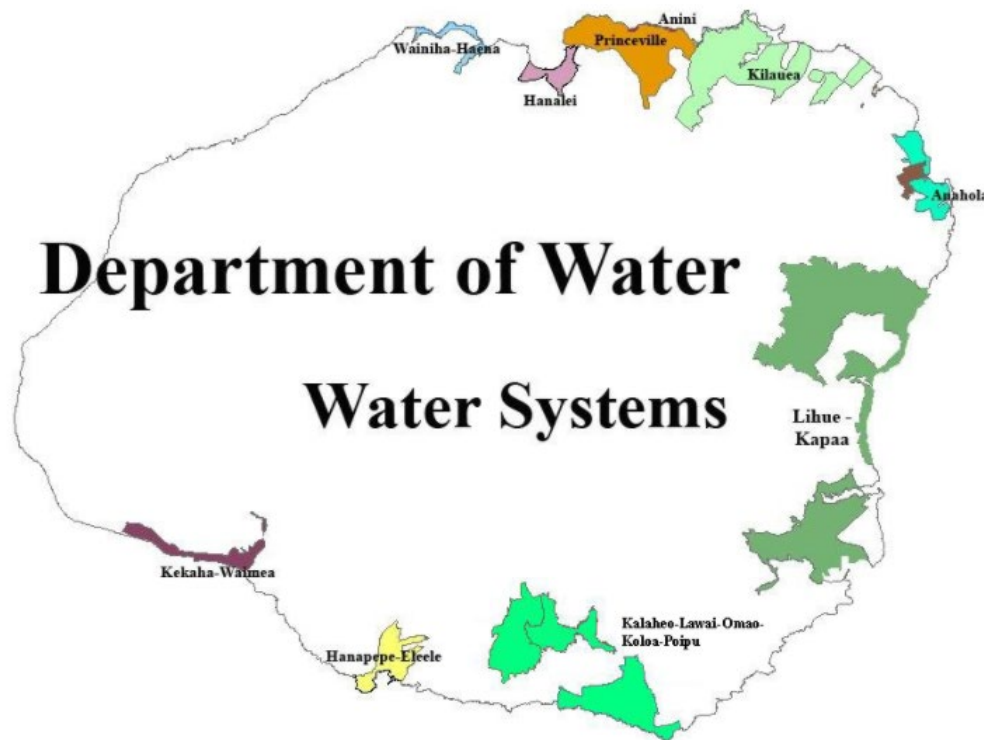


Figure 3-1. DOW Water Systems

⁴ DOW website, www.kauaiwater.org.

⁵ DOW has a 15-year capital lease agreement to purchase water from the Grove Farm Surface Water Treatment Plant, which is owned, operated, and maintained by Grove Farm Properties, Inc.

⁶ DOW website.

Section 4 ANALYSIS

Methodology

At the DOW's request, the recommended depreciation rates in this study were calculated using the straight-line, whole life method and unit depreciation accounting. The DOW currently uses unit depreciation accounting and the whole life method to calculate depreciation for General Plant, Capital Leases, and Intangible Plant; and group depreciation accounting, with remaining life rates for Utility Plant (Accounts 311-348) and Idled Plant.

As described in Section 2, Background on Depreciation, under unit depreciation accounting, the depreciation accrual is calculated on an individual unit basis for each asset in the utility's fixed asset schedule; therefore, the net book value of the asset is known at any time. The straight-line, whole life method is commonly used with unit depreciation accounting.

Under group depreciation, the depreciation rate is developed for the total plant account, based on the average service life or remaining life of the assets in the account. The depreciation accrual is calculated by applying the group depreciation rate to the total gross plant in the account. Remaining life depreciation rates are typically calculated based on group depreciation accounting.

The DOW's last depreciation study, performed in 2007 by R. W. Beck, Inc., recommended remaining life depreciation rates, using group depreciation, for all DOW plant accounts. The main advantage of the remaining life method is that it calculates the depreciation rate based on the net plant investment remaining to be recovered over the remaining life of the assets. As a result, the remaining life method automatically corrects for any over or under recovery of depreciation in past years over the remaining life of the assets. Since, at the time of the 2007 study, the DOW had not performed a depreciation study since 1966, the remaining life method was recommended as a systematic way to get the DOW's depreciation reserve in alignment with the age and estimated service life of the DOW's plant assets.

An advantage and disadvantage of group depreciation accounting is that since the depreciation rate is applied to the total original cost in the plant account, it is easy to calculate the depreciation accrual but it can also result in overstated depreciation expense if assets remain on the books that should be retired. Misaligned depreciation expense can also occur if there has been new investment in the account and the existing group depreciation rate has not been updated.

At this time, NewGen believes that the DOW is best served by switching to use unit depreciation accounting for all of its utility plant accounts for the following reasons:

- More control over accrual calculations by individual asset using DOW fixed asset records.
- Accumulated depreciation and net book value of individual assets can be determined at any time.
- Cannot over-depreciate individual assets, particularly older assets on the books that should be retired.
- Consistent depreciation method used for all plant accounts within the DOW and other County departments.

Plant Accounting Data

The first step in the depreciation study was to compile the depreciation database, consisting of the annual additions, retirements, and plant balances, by year for each depreciable plant account. The primary sources of data relied upon were:

- Historical plant data (additions, retirements, transfers and adjustments, and account balances) by plant account for fiscal years ending June 30, 1937 through 2020.
- Balances as of June 30, 2020 in the reserve for accumulated depreciation by plant account.
- Fixed asset schedule (Audit Schedule 34A) which provided a listing of plant in service at June 30, 2020 by account and date installed.
 - For General Plant, Capital Leases, and Intangible Plant, for which the DOW calculates annual depreciation by individual unit of property, the fixed asset schedule provided the original cost, estimated service life, annual depreciation, and accumulated depreciation by plant account and date installed.
 - For Utility Plant and Idle Property, for which the DOW calculates annual depreciation on a group basis by plant account, the fixed asset schedule provided only the original cost of property by plant account and date installed.
- Spreadsheet prepared by the DOW showing group depreciation expense calculations for Utility Plant and Idle Property by plant account based on plant in service as of June 30, 2020.
- Historical net salvage data was not available because the DOW does not track gross salvage and cost of removal for retired plant.

Following are some observations concerning DOW plant accounting data.

Retirement of Abandoned Utility Plant

The DOW's practice has been to net the original cost of abandoned plant against the cost of new construction projects instead of recording the cost of abandoned plant as a retirement by vintage year in the fixed asset record. This is done because DOW plant accounting staff said they often do not receive information from operations or engineering regarding the installation year for plant that is abandoned and retired in place.

Although this practice does not affect total plant in service, it can affect the depreciation accrual calculation when using unit depreciation accounting by understating the cost of newly constructed plant assets in DOW's fixed asset record and allowing older (often fully depreciated) assets to remain on the books. The result is lower depreciation expense under unit depreciation accounting than if the retired plant was recorded as older vintage plant.⁷

NewGen recommends that the DOW use the first in-first out ("FIFO") method to record plant retirements, i.e., retire the oldest vintage plant first, when the vintage of retired plant is not known. DOW plant accounting staff agrees with this recommendation.

⁷ Under group depreciation (currently used for Utility Plant accounts), the practice of netting abandoned plant against the cost of new plant additions does not affect the calculation of depreciation expense because the depreciation rate is applied to the total original cost for the account, which is the same whether the abandoned plant is recorded as a vintage retirement or netted against the cost of new plant.

With the concurrence of DOW plant accounting staff, NewGen adjusted the fixed asset data for Utility Plant accounts to record the cost of abandoned plant previously netted against the cost of new plant, as retirements of the oldest vintage plant based on the FIFO method. The adjustment for abandoned plant was incorporated into the analysis described below to establish depreciation reserve balances by individual asset for Utility Plant accounts.

Depreciation Reserve by Individual Asset for Utility Plant Accounts

Unit depreciation accounting requires the identification of original cost and accumulated depreciation data by individual asset. Under the straight-line, whole life depreciation method, the annual accrual is equal to the original cost of the asset divided by the estimated service life for the asset – provided that the accumulated depreciation does not exceed the original cost for the asset. Current DOW fixed asset records provide the total accumulated depreciation for each Utility Plant account, but not by individual asset.

To establish the accumulated depreciation amounts by individual asset, NewGen calculated the amount of accumulated depreciation for each asset based on the DOW existing average service lives applied to the original cost and age of each asset, and then allocated the actual book reserve for depreciation by account as of June 30, 2020 to the individual assets in the account based on the calculated accumulated depreciation. NewGen recommends that the DOW adopt the results of this analysis (shown in Appendix B) to establish the accumulated depreciation amounts by individual asset for the Utility Plant accounts on its books as of June 30, 2020.

Appendix B shows the detailed depreciation accrual calculations for all DOW plant accounts. The format of Appendix B is designed to replicate the DOW's fixed asset schedule using the recommended average service lives in this depreciation study. An electronic copy of Appendix B will be provided to the DOW.

General Plant Retirements

The DOW historical plant data show that zero retirements have been recorded in General Plant accounts since 2000, or earlier for some accounts.

For example, Account 392, Transportation Equipment, includes \$1.36 million of original cost for vehicles purchased from 2000 to 2012, which represents 39 percent of the total original cost in Account 392. It is likely that a large number of these vehicles are no longer in water utility service but have not been reported as retirements on the DOW books.

NewGen recommends that the DOW review the assets recorded in the General Plant accounts to determine if any assets can be retired from the books.

The DOW may also consider using vintage amortization accounting for its General Plant accounts. Under vintage amortization accounting, each vintage group is amortized over the average service life for the account and the assets are retired as a group at the end of the amortization period. (See Section 2, Background on Depreciation). However, for practical purposes, since the older assets on the books are fully depreciated, there is no effect on net plant in service or the calculation of the depreciation accrual using unit depreciation accounting if the older assets are retired or not.

Field Review

NewGen was not able to conduct an on-site visit to observe the DOW plant facilities due to COVID-19 travel restrictions. Information that NewGen would have collected from interviews with the DOW staff

during the site visit was instead obtained through data requests to the DOW and a telephone interview with the DOW operations, engineering, and planning staff knowledgeable about the plant facilities. This information is incorporated in the Account Narratives in Section 5.

In addition, Ms. Nancy Hughes, NewGen project manager for this depreciation study, was the project manager for the DOW's 2007 depreciation study when she worked for R. W. Beck, Inc. Ms. Hughes observed a representative sample of the DOW above ground and accessible plant facilities during the field review she performed for the 2007 depreciation study.

Life Analysis

The recommended average service lives were developed based on comparison depreciation statistics from other water utilities in Hawaii and the mainland, information obtained in interviews with DOW staff knowledgeable about the plant facilities, and NewGen's professional experience performing depreciation studies.

Although the DOW has plant records dating back 70 to 80 years for some plant accounts, there was insufficient retirement experience for NewGen to perform statistical life analyses.

NewGen obtained depreciation statistics for the Honolulu Board of Water Supply, the Department of Water Supply for the County of Maui, and the Department of Water Supply for the County of Hawaii. In addition, NewGen compiled depreciation statistics used by several water utilities and regulatory commissions on the mainland. Comparison water utility depreciation statistics are provided in the account narratives in Section 5 and Appendix A to this study.

Net Salvage Analysis

The DOW does not track net salvage costs when plant is retired; in effect assuming zero percent net salvage for plant upon retirement. Water utilities serving Honolulu, Maui and the Big Island also do not include net salvage in their depreciation rates. This is not unusual or unreasonable since it is common practice in the water utility industry to retire facilities in place. As shown in the comparison data provided in the account narratives in Section 5 and Appendix A, some mainland water utilities incorporate net salvage in their depreciation rates.

Theoretical Reserve

The theoretical reserve is an estimate of the accumulated depreciation reserve based on the recommended depreciation factors. Using the recommended average service lives developed in the depreciation study and applying these factors to the DOW's plant balances, we determined the theoretical amount of accrued depreciation for each plant account. A comparison of the actual book reserve and theoretical reserve as of June 30, 2020 is shown in Table 4-2.

As shown in Table 4-2, the DOW's total actual depreciation reserve is greater than the total theoretical reserve by \$26,073,760. The actual reserve ratio based on the DOW depreciable plant investment and accumulated depreciation is equal to 40.79%. In comparison, the theoretical reserve ratio is 33.28%.

**Table 4-2
Comparison of Actual and Theoretical Reserve**

Description	Original Cost at 06/30/2020	Actual Reserve		Theoretical Reserve		Difference
		Amount	Ratio	Amount	Ratio	
Idled Plant and Future Use	\$1,263,404	\$499,309	39.52%	\$503,179	39.83%	(\$3,870)
Source of Supply Plant	10,925,023	5,509,649	50.43%	5,243,650	48.00%	265,999
Pumping Plant	48,841,521	31,189,906	63.86%	27,592,582	56.49%	3,597,323
Water Treatment Plant	3,101,198	2,220,140	71.59%	2,079,529	67.06%	140,612
Transmission & Distribution Plant	248,076,489	84,235,453	33.96%	62,218,807	25.08%	22,016,646
Total Utility Plant	\$312,207,633	\$123,654,457	39.61%	\$97,637,747	31.27%	\$26,016,710
General Plant	24,112,127	9,032,868	37.46%	8,956,352	37.14%	76,516
Capital Leases	7,415,345	7,412,820	99.97%	7,412,242	99.96%	579
Intangible Plant – Computer Software	1,936,353	1,462,405	75.52%	1,482,449	76.56%	(20,044)
Land and Easements	1,343,146	0	0.00%	0	0.00%	0
Total Plant	\$347,014,605	\$141,562,550	40.79%	\$115,488,790	33.28%	\$26,073,760

Comparison of Actual and Theoretical Reserve by Plant Account

Schedule 3, provided at the end of Section 1, shows a comparison of the actual and theoretical depreciation reserve by plant account. Most of the General Plant accounts show minimal differences between the actual and theoretical reserve which is an indication that past depreciation accruals are generally in line with current estimates of average service lives based on the age of the plant. However, there are large differences between the actual and theoretical reserve for many Utility Plant accounts.

The following Utility Plant accounts exhibited the largest differences between the actual and theoretical depreciation reserves.

Account 325, Pumping Equipment

The actual reserve ratio for Account 325 is 83.40% and the theoretical reserve ratio is 73.12%; a difference of 10.29%. NewGen recommended no change to the existing 18-year average service life for this account. The actual depreciation reserve is higher than the theoretical reserve by \$3,431,284, likely due to the use of group depreciation accounting and a significant increase (64%) in original cost in the plant account since 2006 without adjusting the remaining life depreciation rate.

Account 342, Reservoirs, and Account 343, Mains

These two accounts are the DOW's largest accounts in terms of gross plant. The actual reserve balances for Accounts 342 and 343 are approximately 7% to 8% greater than their theoretical reserve balances (\$4,137,038 for Account 342 and \$13,971,065 for Account 343). These differences are largely due to the longer average service lives recommended in this depreciation study for Accounts 342 and 343, which reduced the theoretical reserve ratio.

Account 346, Meters

The actual depreciation reserve ratio for Account 346, Meters is 99.45%, i.e., the account is nearly fully depreciated. The theoretical reserve ratio is equal to 59.71%, a difference of approximately 40%. The actual book reserve is \$2,541,912 greater than the theoretical reserve. At the time of the 2007 depreciation study, the DOW planned to replace all of its existing meters with new AMR meters in 2008-2009. Under the remaining life method of depreciation used to calculate depreciation rates in the 2007 study, the remaining net investment in Account 346 was depreciated over a 2.5-year remaining life, which resulted in a high depreciation rate (11.84%) compared to a whole life depreciation rate of 5.00% (1/20 years). After the new meters were installed, the depreciation rate for Account 346 should have been adjusted to reflect the new plant investment, retirement of the old meters, and longer remaining life for the new meters. However, this was not done and the investment in new meters continued to be depreciated at the higher depreciation rate. As a result, the DOW's investment in meters is nearly fully depreciated and the actual accumulated depreciation reserve is much larger than the theoretical depreciation reserve.

Realigning the Book Depreciation Reserve

If the DOW wants to better align its actual book depreciation reserve with the theoretical reserve, there are two typical ways to do this. The DOW can amortize the difference between the actual book reserve and theoretical reserve over an established period of time (e.g., ten years) or the estimated average remaining life of the assets. This can be done for all or selected plant accounts. Since for most DOW plant accounts the actual reserve is greater than the theoretical reserve, the amortization amount would be recorded as a credit to annual depreciation expense.

Alternatively, the DOW can make a one-time adjustment to its financial statements to reduce the reserve for accumulated depreciation on its books by an amount equal to the difference between the actual and theoretical reserve amounts shown in Schedule 3 and summarized in Table 4-2 above. This can be done for all or selected plant accounts. DOW Plant Accounting staff prefer making a one-time adjustment to correct the book reserve. Assuming the DOW's rates for utility service are developed on a cash basis (and not on a utility basis involving net plant in service), adjusting the reserve for accumulated depreciation should not affect utility rates.

The largest difference between the actual and theoretical reserve (\$26,016,710) occurs for the Utility Plant accounts. The Utility Plant accounts are also the accounts affected by the change in depreciation methodology (group remaining life depreciation rates vs. unit depreciation accounting) since the DOW's last depreciation study. Therefore, it would be appropriate for the DOW to make a one-time adjustment to its financial statements to correct the book depreciation reserve for Utility Plant accounts to be equal to the theoretical reserve amounts shown in Schedule 3.

Note: If the DOW makes an adjustment to its book reserve for accumulated depreciation, it is important that the accumulated depreciation amounts by individual plant asset shown in the DOW's fixed asset record be adjusted accordingly. This is particularly important when using unit depreciation accounting.

Any adjustments to the actual book depreciation reserve should be reviewed and discussed with DOW management and the DOW's auditor before making any changes.

Assuming the DOW's rates for utility service are developed on the cash basis (rather than the utility basis), adjusting the reserve for accumulated depreciation for Utility Plant should have little or no effect on the DOW water rates.

Section 5 ACCOUNT NARRATIVES

Information within the following account narratives describes factors considered in the development of the average service life recommendations. The DOW does not track net salvage costs (nor do the comparison water utilities in Hawaii shown in the account narrative tables below). Therefore, the recommended net salvage rate is 0% for all plant accounts.

Source of Supply Plant

Account 311 – Structures and Improvements

Investment at June 30, 2020: \$2,402,563

	Average Service Life (Years)	Net Salvage
Existing	40	0%
Honolulu BWS	n/a	n/a
Maui DWS	50	0%
Hawaii DWS	50	0%
Mainland Range	30-60	-15% to 10%
Recommended	45	0%

Account 311 includes investments in buildings and improvements to land that are permanently established or for investments that do not correspond to the other source of supply plant accounts. Presently, no building investments are recorded in this account. Items recorded within this account include fences, roads and trails, bridges, yard improvements, and electrical cables and devices. Based on asset inventory records, chain link and barb wire fencing comprise approximately 50% of the total investment in this account. Investment in river crossing structures amount to another 25% and roads are 17% of this account.

Based on the life expectancy of the assets recorded in this account and comparison with average service lives for other water utilities, we recommend increasing the average service life for this account from 40 years to 45 years.

Account 313 – Supply Intakes

Investment at June 30, 2020: \$3,860

	Average Service Life (Years)	Net Salvage
Existing	50	0%
Honolulu BWS	100	0%
Maui DWS	n/a	n/a
Hawaii DWS	50	0%
Mainland Range	40-70	-5% to 10%
Recommended	50	0%

Account 313 is designated for source of supply plant investments associated with lakes, rivers, or other intakes. Investments recorded in this account are for small dams at the Hanapepe, Kuwaawaa, Waioli and Manoa Stream intakes.

All assets in this account were installed in the 1950's and past discussions with the DOW staff indicated that these assets are no longer in use. Total investment in the account is a nominal \$3,860, which has been fully depreciated. NewGen recommends that the existing assets recorded in Account 313 be retired if they are no longer in use.

For new plant investment in this account, we recommend continuing to use a 50-year average service life based on discussions with staff and comparison information from other water utilities.

Account 314 – Wells & Springs

Investment at June 30, 2020: \$8,462,198

	Average Service Life (Years)	Net Salvage
Existing	40	0%
Honolulu BWS	30	0%
Maui DWS	50	0%
Hawaii DWS	50	0%
Mainland Range	30-50	-10% to 10%
Recommended	40	0%

Most of the investment in Account 314 is related to the installation of wells, with less than one percent of the investment associated with fences, pipes, roads, landscaping, and yard improvements. As shown in the table below, most of the DOW's investment in Account 314 has occurred since 1980. The average age of the investment in Account 314 is 25 years (1995).

Wells & Springs

Years	Investment	% of Total
Prior to 1970	\$170,383	2%
1970-1979	\$874,842	10%
1980-1989	\$1,338,176	16%
1990-1999	\$3,063,957	36%
2000-2009	\$2,304,801	27%
2010-2020	\$710,039	8%
Total	\$8,462,198	100%

The DOW staff said that the estimated service life for wells is 30 to 50 years, which is also supported by the comparison data from other water utilities in Hawaii. The life of a well depends on the water level remaining relatively constant and staying in compliance with environmental regulations. According to the DOW staff, decreasing water levels in the aquifers due to drought and/or over pumping can affect the usability of the wells. In addition, wells may be inactive for a period of time for pump repairs and then return to service. NewGen recommends that investment in wells that the DOW has determined are “inactive indefinitely” be retired from the books.

We do not recommend a change to the existing 40-year average service life for this account based on discussions with the DOW staff and comparison data from other water utilities in Hawaii and the mainland.

Account 315 – Infiltration Galleries & Tunnels

Investment at June 30, 2020: \$56,401

	Average Service Life (Years)	Net Salvage
Existing	50	0%
Honolulu BWS	100	0%
Maui DWS	50	0%
Hawaii DWS	50	0%
Mainland Range	25-60	0% to 10%
Recommended	75	0%

This account includes investments in infiltration galleries and tunnels. Based on the asset inventory, investment in tunnels accounts for 76% of the total plant investment in this account. These investments correspond to the Akulikuli, Garlinghouse, Hanapepe, Kalihiwai, Makaleha, Moelepe, Moloaa and Waimea tunnels. The remaining investment in the account is for other items such as meters, pipes, trails, tanks, and valves associated with the tunnels.

Except for the investment in the Kokolau tunnel, which was transferred to an Idled Property account until compliance issues are resolved, the investment in Account 315 is fully depreciated.

All of the infiltration tunnels recorded in Account 315 are approximately 60 to 80 years old with half of the tunnels (Waimea, Garlinghouse, Hanapepe, Moloaa and Kalihiwai) out of service due to compliance standards and reliability issues. We recommend that the DOW retire these assets from the books if they are no longer in service.

The Kokolau tunnel was removed from Account 315 and placed into a different account (Account 101, Idled Property) until compliance issues are resolved. With the removal of the Kokolau tunnel from this account, the investment in Account 315 is fully depreciated.

The DOW staff indicated there are no plans to install any more infiltration tunnels. A 75-year average service life is recommended for any new investment in this account based on discussions with the DOW staff.

Pumping Plant

Account 321 – Structures & Improvements

Investment at June 30, 2020: \$17,374,067

	Average Service Life (Years)	Net Salvage
Existing	50	0%
Honolulu BWS	50	0%
Maui DWS	50	0%
Hawaii DWS	40	0%
Mainland Range	30-40	-15% to 5%
Recommended	50	0%

Account 321 includes investments in buildings and improvements to the land that are permanently established or investments that do not correspond to the other pumping plant accounts. Items recorded in the asset inventory for this account include buildings, fences, culverts, pipe, roads, bridges, retaining walls, and yard improvements. Principal investments in this account include buildings (53%) and land improvements (20%) of the total account investment.

We recommend no change to the existing 50-year average service life based on discussions with the DOW staff. The DOW staff indicated in the 2007 study that the DOW buildings are built with good quality and have survived major storms. Roads, yard improvements, and retaining walls are also expected to last the existing 50-year average service life. A 50-year average service life is also within the range of average service lives for water utilities in Hawaii.

Account 325 – Electric Pumping Equipment

Investment at June 30, 2020: \$31,467,454

	Average Service Life (Years)	Net Salvage
Existing	18	0%
Honolulu BWS	20	0%
Maui DWS	10	0%
Hawaii DWS	10	0%
Mainland Range	20-40	-10% to 5%
Recommended	18	0%

Account 325 is for investments related to the installation of electric pumping equipment, which includes booster pumps and well pumps. The DOW has 35 booster pumps located at 19 stations throughout the DOW water system.

In the 2007 depreciation study, the DOW staff said that approximately 80% of the pumps in the DOW system are above-ground pumps and 20% are submersible pumps. The DOW staff indicated that the above-ground pumps are generally in use for about 20 years until needing replacement. Motors for the above-ground pumps are refurbished at approximately 10 years. The submersible pumps and motors are replaced about every 10 years. The electrical components at the pumps are estimated to have the same average service life as the pumps. The remote recording devices generally have a shorter life of 10 to 15 years. The DOW's Water Plan 2020 included preventative measures to rehabilitate the pumps and facilities and some refurbishment work was completed under this program. The existing 18-year average service life was based on the weighted average service life of the assets in this account.

For the present depreciation study, the DOW staff said the existing 18-year was reasonable for electric pumping equipment. An 18-year average service life is also within the range of average service lives used by other water utilities in Hawaii and, thus, we recommend no change to the existing 18-year average service life.

Water Treatment Plant

Account 331 – Structures and Improvements

Investment at June 30, 2020: \$920,604

	Average Service Life (Years)	Net Salvage
Existing	40	0%
Honolulu BWS	30	0%
Maui DWS	20	0%
Hawaii DWS	40	0%
Mainland Range	30-50	-15% to 10%
Recommended	40	0%

Account 331 is used to record investment in buildings and improvements to the land that are permanently established or for investments that do not correspond to the other water treatment plant accounts. Items recorded for this account include buildings, roads, and yard improvements. Approximately 93% of the total investment in this account is for mixing buildings and chlorinator sheds.

No change is recommended to the average service life for this account. The existing 40-year life is at the high end of the range compared to services lives used by other Hawaiian water utilities and is in the middle of the range compared to mainland water utilities. Based on discussions with the DOW staff, a 40-year average service life is recommended for this account.

Account 332 – Water Treatment Equipment

Investment at June 30, 2020: \$2,180,594

	Average Service Life (Years)	Net Salvage
Existing	15	0%
Honolulu BWS	20	0%
Maui DWS	10-20	0%
Hawaii DWS	40	0%
Mainland Range	20-50	-20% to 5%
Recommended	18	0%

This account is designated for equipment and facilities used in the water treatment process. Items in this account include chlorination systems, filters, clear-well water basins, coagulation basins, compressors, foundations, meters, pipes, pumps, scales, electrical, tanks and valves. Based on the asset inventory,

chlorination systems represent approximately 35% of the total investment in this account and filters account for another 42% of the total investment.

Note: the surface water treatment plant in Lihue is operated under a capital lease agreement with Grove Farm Properties, Inc. and is recorded in a separate Capital Lease account (AUD332), which is discussed towards the end of the Account Narratives section of this report.

The largest asset in Account 332 consists of the granular activated carbon filters that were installed in 2002 at Wailua Homesteads Wells 1 and 2 to treat traces of mercury. Other treatment equipment consists primarily of chlorination facilities located at wells throughout the system. The DOW staff familiar with the equipment in this account recommended increasing the average service life from 15 years to 18 years and NewGen supports this increase in average service life.

Transmission & Distribution Plant

Account 342 – Distribution Reservoirs & Standpipes

Investment at June 30, 2020: \$55,366,459

	Average Service Life (Years)	Net Salvage
Existing	50	0%
Honolulu BWS	30	0%
Maui DWS	20-50	0%
Hawaii DWS	40	0%
Mainland Range	20-80	-10% to 10%
Recommended	60	0%

This account is designated for investment in distribution reservoirs and standpipes used for water storage.

According to data provided by the DOW Operations, the DOW system has 58 storage tanks, which include 45 concrete tanks, 11 steel tanks and a few small polyurethane tanks. As shown in the table below, substantial investment in Account 342 has occurred since 1990, with 40% of total plant investment occurring since 2010. The average age of investment in Account 342 is 17 years (2003).

Storage Tank Investment		
Years	Investment	% of Total
Prior to 1970	\$772,109	1%
1970-1979	\$1,740,263	3%
1980-1989	\$1,853,358	3%
1990-1999	\$12,523,703	23%
2000-2009	\$16,270,310	29%
2010-2020	\$22,206,715	40%
Total	\$55,366,459	100%

Based on NewGen’s experience and discussions with the DOW staff, the estimated average service life for concrete tanks is 75 years and 40 years for steel tanks. Approximately 80% of the DOW tanks are concrete tanks and 20% are steel tanks, resulting in a weighted average service life equal to 68 years. However, to be conservative, we recommend only increasing the average service life for Account 342 from 50 years to 60 years. This average service life is higher than the range of comparison average service lives used by other Hawaiian water utilities but is within the range for mainland water utilities.

Account 343 – Transmission & Distribution Mains

Investment at June 30, 2020: \$155,013,029

	Average Service Life (Years)	Net Salvage
Existing	63	0%
Honolulu BWS	50	0%
Maui DWS	20-50	0%
Hawaii DWS	40	0%
Mainland Range	45-100	-10% to 10%
Recommended	77	0%

This account is reserved for investments in transmission and distributions mains. Most of the investment in this account relates to the investment in pipe. Other assets in this account include flowmeters, manholes, valves, valve chambers, and yard improvements.

Ductile iron is the construction standard used by the DOW for all new pipe installations. The earliest installation of ductile iron pipe was in the 1980s. The DOW has not experienced any problems with this type of pipe. The DOW staff said that ductile pipe is now installed with polywrap to prevent corrosion. Manufacturers' estimates and comparison information for mainland water utilities indicates a life expectancy of 100 years for ductile iron. The DOW staff supported using a 100-year average service life for ductile iron pipe. Therefore, we recommend increasing the average service live for ductile iron pipe from 75 years (used in the 2007 depreciation study) to 100 years.

The DOW has experienced problems with asbestos cement (AC) pipe related to failing gaskets and couplings associated with this pipe which was first installed in the 1960's. A majority of the AC pipe in the system has been replaced. Disposal of AC pipe is difficult since it is considered hazardous waste material. Based on projected schedules for pipe replacement developed in connection with Water Plan 2020, the expected age of the AC pipe to be replaced, at the time of removal, was approximately 45 years. However, the DOW staff said replacement of AC pipe per Water Plan 2020 is behind schedule. Given the problems the DOW has experienced with AC pipe and its plan to replace most of the remaining AC pipe in the system, we continue to recommend a 45-year average service life for AC pipe.

The DOW has also experienced failure problems with PVC pipe, which was first installed in the late 1960's. According to staff, ultra-violet (UV) exposure can cause PVC pipes to become brittle and crack, which is a problem with the thinner Class 160 pipes that were used in earlier installations. The DOW has experienced fewer problems with thicker wall Class 200 and Class 900 PVC pipe. In the 2007 depreciation study, the DOW Staff indicated that the expected life for the thinner wall Class 160 pipe is approximately 40 years and 50 years for thicker classes of PVC pipe. However, there is uncertainty about how much UV exposure these pipes may have received prior to installation, which could shorten the life of these pipes. Comparison data for mainland water utilities indicates a 40- to 50-year average service life for PVC pipe. Given the problems experienced by the DOW with PVC pipe, we continue to recommend an average service life at the low end of this range, or 40 years for PVC pipe.

Other types of pipe material in the DOW water system comprise about 3% of the total pipe investment and include cast iron, galvanized steel, and concrete pipe. The DOW has not experienced significant problems with these types of pipes. Staff estimated the useful life to be approximately 50 years for

concrete pipe and 60 to 75 years for cast iron and galvanized steel pipe. We continue to recommend a 65-year average service life for these miscellaneous pipe-types.

The table below shows the composite weighted average service life for Account 343 based on the estimated amount of investment and life expectancy for different pipe types.

**Transmission & Distribution Mains
Weighted Average Service Life**

Type of Pipe	Plant Investment (%) ⁽¹⁾	Average Service Life (years)
Ductile Iron	52.3%	100
Asbestos Cement	26.4%	45
PVC	7.8%	40
Other Pipe ⁽²⁾	3.4%	65
Valves and Misc. Plant ⁽³⁾	10.1%	77
Total	100.0%	77

⁽¹⁾ Percentage based on 6/30/07 plant investment; more current data was not available from the DOW.

⁽²⁾ Other pipe includes cast iron, concrete, copper, and galvanized steel pipe.

⁽³⁾ Assumes the average service life for valves and miscellaneous plant is equal to the weighted average service life of the pipe investment.

We recommend an average service life of 77 years for Account 343, based on the weighted average service life of the pipe material in the DOW system. A 77-year average service life for Account 343 is higher than the comparison data for other water utilities in Hawaii; however, over half of the investment in Account 343 is ductile iron pipe which has a longer expected service life than other pipe types. The recommended 77-year average service life is within the range of comparison information from water utilities on the mainland.

The DOW plant records for Account 343 do not identify mains by type of pipe; therefore, under unit depreciation accounting, it is appropriate to use the 77-year weighted average service to calculate the individual depreciation accrual for assets where the type of pipe material is not known. If the type of pipe material is known for the asset, then it is appropriate to use the average service life for the type of pipe shown in the table above (rather than assume 77 years).

Account 345 – Services

Investment at June 30, 2020: \$20,885,861

	Average Service Life (Years)	Net Salvage
Existing	40	0%
Honolulu BWS	50	0%
Maui DWS	20	0%
Hawaii DWS	25	0%
Mainland Range	30-70	-30% to 20%
Recommended	40	0%

Investments in this plant account are associated with the installation of pipes that connect the distribution mains to the customer's property. All of the assets recorded within this account have been for pipes. Materials installed include asbestos cement, cast iron, copper, ductile iron, galvanized steel, and PVC pipe.

Two types of materials, polyvinyl chloride (PVC) and copper, are commonly used for service laterals in the DOW system. Most of the PVC service laterals were installed between the 1970s and mid-1990s. In 1995, the DOW adopted a standard specifying the use of copper pipe for service laterals. Staff reported there were problems with PVC for services. PVC pipe can become brittle if stored outside and exposed to UV light, although the effects of UV exposure are generally less with smaller diameter pipe. In addition, since PVC pipe is non-metal, it is often difficult to locate underground service lines at construction sites and in the process of trying to locate lines, crews end up digging into and breaking the line.

The DOW staff said there have been no major problems using copper service laterals. As the percentage of copper pipe investment in Account 345 increases, and if the DOW continues to experience no problems with copper service laterals, it may be appropriate to increase the average service life for this account. However, the DOW staff said 40 years was still a good average service life to use for service laterals. Therefore, we recommend no change to the existing 40-year average service life for Account 345.

Account 346 – Meters

Investment at June 30, 2020: \$5,365,764

	Average Service Life (Years)	Net Salvage
Existing	20	0%
Honolulu BWS	20	0%
Maui DWS	20	0%
Hawaii DWS	10	0%
Mainland Range	12-30	0% to 10%
Recommended	20	0%

The meters account is designated for investments in assets that record customer water consumption. Whether the meters are in use or are being held for future use, this account is designated exclusively for investments pertaining to the installation of meters.

The DOW installed new automatic meter reading (AMR) meters in 2007-2008. According to the manufacturer, the expected field life of the new AMR transmitters was 20 years, which was backed up by a 20-year warranty. The 2007 depreciation study recommended a 20-year average service life for Account 346. However, under the remaining life method of depreciation used to calculate depreciation rates in the 2007 study, the remaining net plant investment for the existing meters was depreciated over a 2.5-year remaining life which resulted in a high depreciation rate (11.84%) compared to a whole life depreciation rate of 5.00% (1/20 years). Use of the remaining life depreciation method helped to assure the DOW would depreciate the investment in the old meters by the time they were replaced with the new meters. However, once the new meters were installed, the depreciation rate for Account 346 should have been adjusted to reflect the new investment in AMR meters, retirement of the old meters, and the remaining life for the new meters. Doing so would likely have resulted in a lower annual depreciation rate for Account 346 than the existing 11.84% depreciation rate. As a result of the DOW continuing to apply the higher depreciation rate, Account 346 is nearly fully depreciated as of June 30, 2020.

During NewGen's interview with the DOW staff for the 2020 depreciation study, staff informed NewGen that the DOW plans to replace the register on approximately 22,000 existing AMR meters over the next five years to convert the meter reading function to cellular communications. The base unit of the AMR meter will remain in place. According to the DOW staff, the expected life of the base unit is 20 years, while the expected life of the register is equal to 10 years due to the battery life. Staff said the DOW's current policy is to expense the cost to replace registers; however, the cost of the register replacement program may be capitalized given the large number and total cost of registers to be replaced.

NewGen recommends no change to the existing 20-year average service life based on the manufacturer estimated life for AMR meters, input from the DOW staff, and comparison data for other Hawaiian and mainland water utilities.

Account 348 – Hydrants

Investment at June 30, 2020: \$11,445,376

	Average Service Life (Years)	Net Salvage
Existing	45	0%
Honolulu BWS	50	0%
Maui DWS	50	0%
Hawaii DWS	40	0%
Mainland Range	40-75	-20% to 5%
Recommended	45	0%

Assets associated with the installation of hydrants are recorded in this account, which includes hydrants, hydrant laterals, pipes, detector checks, and valves.

The DOW has replaced 98% of its older Greenberg hydrants. Replacement parts for the Greenberg hydrants were not available since the manufacturer is no longer in business. The DOW now uses bronze hydrants in areas along the coastline. The DOW staff estimated an average service life of 45 years for the hydrants, which is within the range of comparison data for other Hawaiian utilities. We recommend no change to the existing 45-year average service life for Account 348.

General Plant

Account 390 – Structures & Improvements

Investment at June 30, 2020: \$16,660,649

	Average Service Life (Years)	Net Salvage
Existing	various	0%
Honolulu BWS	50	0%
Maui DWS	40	0%
Hawaii DWS	40	0%
Mainland Range	40-75	0% to 10%
Recommended	various	0%

Account 390 is designated for plant investment that cannot be classified as structures and improvements under any of the other utility functions. Approximately 68% of the total investment in Account 390 is associated with the DOW's new Administration Building completed in 2017. Investment in the DOW Office Building, Operations Building, and Microbiological Laboratory building are also recorded in this account.

Examination of the DOW’s fixed asset schedule (Audit Schedule 34A) shows that various average service lives are used to calculate annual depreciation expenses depending on the type of plant investment. For example, investment in the new Administration Building is depreciated using 40 years for the building and sitework and 20 years for landscaping, sidewalks, roads, parking lots and fences. Renovations to the Operations Building in 2003 are depreciated over 48 years and carpeting installed in the conference room of the DOW Office Building in 2010 is depreciated over 13 years.

Because the DOW depreciates General Plant accounts on an item basis (as opposed to group depreciation), it can depreciate different assets recorded in Account 390 over different time periods based on the type of asset. The overall weighted average service life for Account 390 based on plant in service at June 30, 2020 is equal to 38.7 years, which is within the range of average service lives used by other water utilities in Hawaii and the mainland. NewGen recommends no change to the DOW’s existing average service lives for various types of plant.

Account 391.1 – Office Furniture & Equipment

Investment at June 30, 2020: \$ 506,559 (after transferring micro lab equipment to Account 395)

	Average Service Life (Years)	Net Salvage
Existing	10	0%
Honolulu BWS	20	0%
Maui DWS	20	0%
Hawaii DWS	5-10	0%
Mainland Range	10-25	0% to 5%
Recommended	15	0%

Account 391.1 is used to record investments in furniture and equipment used for various functions within the utility. Assets generally classified to this account are not permanently affixed to the building or structure and include desks, chairs, bookcases, shelves, drafting room equipment, cabinets, floor coverings, mechanical office equipment, safes, tables and other miscellaneous furniture and equipment.

The DOW also records the cost of microbiological laboratory (micro lab) equipment in Account 391.1. Laboratory equipment has different life characteristics than office furniture and equipment. NewGen recommends that the DOW establish a new plant account, Account 395 – Laboratory Equipment, and transfer the investment and corresponding accumulated depreciation in micro lab equipment to Account 395 – Laboratory Equipment. Micro lab equipment is easily identified by the Asset Location in the fixed asset schedule. NewGen’s depreciation analysis (provided in Appendix B and the summary schedules) shows the micro lab equipment separately in Account 395.

The 2007 depreciation study recommended a 20-year average service life for office furniture and equipment in Account 391.1 based on the premise that the DOW would transfer all micro lab investment to a newly established Account 395, Laboratory Equipment. According to the DOW’s fixed asset schedule (Audit Schedule 34A), Account 395 was never established, and the DOW continues to use a 10-year average service life for both furniture and office equipment and micro lab equipment.

During fiscal year 2016-2017, the DOW completed construction of the new Administration Building. Most of the investment in Account 391.1 is related to furniture and office equipment for the new Administration

Building (\$426,122). The existing 10-year average service life is too short for these assets which will last longer than 10 years.

We recommend a 15-year average service life for office furniture and equipment in Account 391.1 based on NewGen’s experience and the industry comparison data shown in the table above (range of 10-20 years for other Hawaiian water utilities and 10-25 years for mainland water utilities).

(If the DOW decides to keep micro lab equipment in Account 391.1, then we recommend a 10-year average service life for the micro lab equipment and a 15-year average service life for all other assets in Account 391.1).

Account 391.2 – Computer Hardware

Investment at June 30, 2020: \$1,067,848

	Average Service Life (Years)	Net Salvage
Existing	5	0%
Honolulu BWS	5-10	0%
Maui DWS	5	0%
Hawaii DWS	5	0%
Mainland Range	5-15	0% to 5%
Recommended	5	0%

Account 391.2 is reserved for investments in computers and electronics used for various functions within the utility. Assets recorded in this account include computer hard drives, printers, monitors, computer accessories, SCADA software, scanners, servers, switch modules and other miscellaneous electronic equipment.

The DOW staff indicated that the existing average service life for Account 391.2 is appropriate. We recommend no change to the average service life for this account.

Account 392 – Transportation Equipment

Investment at June 30, 2020: \$ 3,511,120

	Average Service Life (Years)	Net Salvage
Existing	7	0%
Hawaii Range	5-10	0%
Honolulu BWS	10	0%
Maui DWS	5	0%
Hawaii DWS	5	0%
Mainland Range	5-15	10% to 25%
Recommended	7	0%

The transportation equipment account is for investments in vehicles used in support of utility operations and includes passenger vehicles, trucks, vans, and trailers.

The DOW's policy is to replace transportation equipment after 7 years or 100,000 miles, whichever comes first. We recommend no change to the existing 7-year average service life for Account 392.

Account 393 – Stores Equipment

Investment at June 30, 2020: \$76,829

	Average Service Life (Years)	Net Salvage
Existing	20	0%
Honolulu BWS	20	0%
Maui DWS	20	0%
Hawaii DWS	10	0%
Mainland Range	15-30	0% to 5%
Recommended	20	0%

The stores equipment account is designated for investments in assets associated with the storage and management of materials and supplies. Items recorded in this account include storage bins, cabinets, handling units/truck, lockers, pallets, racks, and shelving.

The existing average service life for this account is 20 years, which staff indicated is reasonable. We recommend no change to the existing 20-year average service life for Account 393, which is within the range of average service lives used by other water utilities in Hawaii and the mainland.

Account 394 – Tools, Shop & Garage Equipment

Investment at June 30, 2020: \$603,254

	Average Service Life (Years)	Net Salvage
Existing	10	0%
Honolulu BWS	20	0%
Maui DWS	20	0%
Hawaii DWS	5	0%
Mainland Range	15-25	0% to 5%
Recommended	10	0%

The tools, shop and garage equipment account is designated for equipment used in utility operations for construction and repair work.

The existing average service life for this account is 10 years, which staff indicated is reasonable. We recommend the continued use of the existing 10-year average service life, which is within the range of average service lives used by other water utilities in Hawaii.

Account 395 – Laboratory Equipment

Investment at June 30, 2020: \$111,867 (transferred to Account 395 from Account 391.1)

	Average Service Life (Years)	Net Salvage
Existing	10	0%
Honolulu BWS	n/a	n/a
Maui DWS	20	0%
Hawaii DWS	10	0%
Mainland Range	10-25	0% to 5%
Recommended	10	0%

This account is designated for assets used for general laboratory purposes.

NewGen recommends that the DOW establish a new plant account, Account 395 – Laboratory Equipment, to record the cost of microbiological laboratory equipment which the DOW currently records in Account 391.1, Office Furniture and Equipment. As of June 30, 2020, the total cost of micro lab equipment recorded in Account 391.1 equaled \$111,867 and the corresponding reserve for accumulated depreciation equaled \$97,606. We recommend that the micro lab equipment currently recorded in Account 391.1, Office Furniture and Equipment, be transferred to Account 395.

We recommend no change at this time to the existing 10-year average service life for laboratory equipment recorded in Account 391.1 or transferred to Account 395 based on discussions with the DOW staff and comparison data from other water utilities.

In addition, NewGen encourages the DOW to review the asset inventory for micro lab equipment to determine if any assets on the books can be retired. The DOW’s fixed asset schedule (Audit Schedule 34A) shows \$58,729 of micro lab equipment installed in 1997 and 1998 that is still on the books. This equipment is 22 to 23 years old, which is more than twice the existing 10-year average service life the DOW uses to depreciate micro lab equipment. We recommend that the DOW plant accountants and operations staff jointly review the list of micro lab equipment assets on the books that are older than 10 years to determine if any of these assets should be retired. If the assets are still in service, it may be appropriate to increase the average service life for Account 395 from 10 years to 15 years.

Account 396 – Power-Operated Equipment

Investment at June 30, 2020: \$952,986

	Average Service Life (Years)	Net Salvage
Existing	7	0%
Honolulu BWS	13	0%
Maui DWS	10	0%
Hawaii DWS	10	0%
Mainland Range	10-25	0% to 25%
Recommended	10	0%

The power-operated equipment account is designated for equipment used in utility operations for construction and repair that cannot be classified under any of the other equipment accounts. Items recorded in this account include bobcats, backhoes, buckets, forklifts, generators, loaders, and trenchers.

The DOW has used a 7-year average service life to depreciate power-operated equipment purchased since 2016; prior to that, the DOW used a 10-year average service life to depreciate power-operated equipment. The type of equipment recorded in Account 396 generally has a longer average service life than vehicles recorded in Account 392, Transportations Equipment, which is depreciated over a 7-year average service life. In addition, the comparison depreciation statistics for other water utilities supports using a 10-year average service life for Account 396. DOW operations staff indicated during our interview with staff that a 10-year life was reasonable for Account 396. For the above reasons, NewGen recommends using a 10-year average service life for Account 396.

Account 397 – Communication Equipment

Investment at June 30, 2020: \$604,166

	Average Service Life (Years)	Net Salvage
Existing	10	0%
Honolulu BWS	10	0%
Maui DWS	10	0%
Hawaii DWS	10	0%
Mainland Range	5-25	0% to 10%
Recommended	10	0%

This account is designated for communication equipment used in utility operations. Items included in this account are office telephone systems and field radio equipment.

The largest investment recorded in Account 397 is the field radio system (\$351,000) which was installed in 1995 and is now fully depreciated. The DOW staff generally use cell phones instead of field radios except for police dispatch. (Cell phone costs are expensed.)

The DOW's telephone system (CISCO Voice over Internet Protocol (VoIP) system) was installed in 2012-2013; this plant investment (\$118,162) was depreciated over a 5-year average service life and is now fully depreciated. The DOW's earlier phone system was 10-15 years old when it was replaced in 2012-2013. Upgrades were made to the CISCO phone system in 2018-2019; the DOW is depreciating the CISCO upgrade investment over 10 years.

The current 10-year average service life the DOW is using to depreciate communications equipment is appropriate based on the DOW historical experience and comparison data for other Hawaiian water utilities. We recommend continuation of the existing 10-year average service life for Account 397.

Account 398 – Miscellaneous Equipment

Investment at June 30, 2020: \$16,849

	Average Service Life (Years)	Net Salvage
Existing	10	0%
Honolulu BWS	20	0%
Maui DWS	20	0%
Hawaii DWS	5	0%
Mainland Range	10-25	0% to 10%
Recommended	10	0%

Assets in this miscellaneous equipment account are for investments that do not correspond to the other equipment accounts. Items in this account include a refrigerator, automated external defibrillator (AED)

machine, and a golf cart. We recommend no change to the existing 10-year average service life for miscellaneous equipment, which is within the range of average service lives used by other water utilities.

Capital Leases

Account AUD332 – Surface Water Treatment Plant Capital Lease

Investment at June 30, 2020: \$7,181,455

	Average Service Life (Years)	Net Salvage
Existing	13.48	0%
Honolulu BWS	20	0%
Maui DWS	10-20	0%
Hawaii DWS	40	0%
Mainland Range	20-50	-20% to 5%
Recommended	13.48	0%

In 2004, the DOW entered into an agreement with a third-party developer, Grove Farm Properties, Inc., for the developer to build, operate and maintain a surface water treatment plant (SWTP) near Lihue with a capacity of 3.0 million gallons per day (MGD). The treatment plant was built to meet the water requirements of two real estate development projects in and around Lihue. Per the agreement, the DOW is required to purchase a minimum 2.0 MGD and also to provide the developer a credit towards its facility reserve charge. The term of the agreement is 15 years. At the end of the term, the DOW has the option of 1) accepting the SWTP at no cost, 2) extending the existing agreement for successive two-year periods thereafter, or 3) terminating all contractual agreements. The DOW began water purchases on January 1, 2006.

The Grove Farm SWTP agreement was recorded as a capital lease obligation and added to the DOW's plant account records in fiscal year 2006 and depreciated over the then-remaining term of the lease (13 years, 176 days, i.e., 13.48 years). The initial term of the capital lease agreement expired in 2019 and the DOW's capital lease investment in the SWTP is fully depreciated.

According to the DOW staff, discussions are ongoing between the DOW and the developer regarding the future ownership and operation of the Grove Farm SWTP. The average service life for future investment in the SWTP should be established by the DOW to reflect future agreements regarding ownership and operation of the Grove Farm SWTP.

Account CHL – Computer Hardware Capital Lease

Investment at June 30, 2020: \$233,890

	Average Service Life (Years)	Net Salvage
Existing	2-5	0%
Honolulu BWS	5-10	0%
Maui DWS	5	0%
Hawaii DWS	5	0%
Mainland Range	5-15	0% to 5%
Recommended	2-5	0%

Assets recorded in this account include servers, desktop computers, notebooks, and other computer hardware obtained under a lease agreement.

The DOW's fixed asset schedule (Audit Schedule 34A) shows capitalized lease assets recorded in 2013 through 2016, with 84% of the lease assets recorded in 2013. The estimated service life for the leased assets varies between 2 to 5 years, depending on the term of the lease. Most of the assets in this account are fully depreciated.

NewGen recommends no change to the existing average service lives for Account CHL, Computer Hardware Capital Lease.

Intangible Plant

Account 303.1 – Computer Software

Investment at June 30, 2020: \$1,936,353

	Average Service Life (Years)	Net Salvage
Existing	5	0%
Honolulu BWS	5-10	0%
Maui DWS	5	0%
Hawaii DWS	5	0%
Mainland Range	5-15	0% to 5%
Recommended	5	0%

Account 303.1 is reserved for investments in computer software and upgrades.

NewGen recommends continued use of the 5-year average service life for Account 303.1, Computer Software.

Idled Plant

Account 101 – Utility Plant Idle Property

Investment at June 30, 2020: \$1,257,948

Investment in the Kokolau tunnel was transferred to an idle plant account in 2000 until compliance issues are resolved. According to the DOW staff, when the Kokolau Tunnel was completed, it was determined that there was groundwater contamination. To use the tunnel, a surface water treatment plant would need to be constructed. It was not considered cost effective to do so, so the tunnel was never put into service.

The DOW is depreciating the investment in the idled Kokolau Tunnel over 50 years. NewGen does not recommend any change to this capital recovery period.

Appendix A
COMPARISON DEPRECIATION STATISTICS

Appendix B
DOW FIXED ASSET SCHEDULE
WITH RECOMMENDED DEPRECIATION ACCRUAL

Staff Reports

FISCAL REPORT: MONTHLY SUMMARY HIGHLIGHTS – MARCH 2021

I. BUDGET SUMMARY VS. ACTUAL (see attached report for details)

YEAR TO DATE (YTD) BUDGET & ACTUAL EXPENSES SUMMARY – AS OF MARCH 2021

	<u>BUDGET</u>	<u>vs</u>	<u>EXPENSED</u>
· Operating Expenses	\$25,416,645		\$17,075,285
· Debt Principal Payment	4,014,034		4,704,260
· Capital Projects	<u>37,839,942</u>		<u>6,230,839</u>
TOTAL	<u>\$67,270,621</u>		<u>\$28,010,384</u>

REVENUES: VARIANCE = “ACTUAL” LESS “BUDGET”; POSITIVE INDICATES HIGHER PERFORMANCE THAN EXPECTED.

- Total Revenue as of March 2021 was 9% below projection.
 - Water sales of \$18.8 million (“M”) was \$1.55M or 9% higher than projected.
 - Other Water Revenue - Receipts of \$1.74M includes Revenue from Public Fire Hydrants of \$1.63M and 111.76 thousand (“K”) from miscellaneous receipts decreased by 8%.
 - Capital Contributions: Contributions from Federal & State Grants – recorded \$600.85K from BAB Subsidy.
 - Investment Income & Net Increase in FV of Investments –\$453.67K.

OPERATING EXPENSES: VARIANCE = BUDGET LESS ACTUAL

EXPENSES: POSITIVE INDICATES LESS SPENDING THAN PLANNED. **REVISED YTD BUDGET COLUMNS INCLUDE PO ROLLOVER FROM FY ENDING 2020.**

- YTD Operating Expenses before depreciation and amortization was \$17.08M. Total spending was \$8.34M less than the total of (1.) the approved operating budget and (2.) FY 2020 PO rollovers. There is a positive variance of 33%.
 - Employee Related Expenses was \$7.76M with 8% positive variance.
 - Contracts & Services was \$3.6M with 63% positive variance.
 - Professional Services, Other Services – Billing, Communication, Insurance and Repairs and Maintenance for non-water systems are the main items contributing to the 63% positive variance.
 - Fuel & Utilities was \$1.88M with 18% positive variance.
 - Bulk Water Purchase was \$855.7K with a 37% positive variance.
 - Office & Operating Supplies was \$699.5K with 38% positive variance.
 - Training, Travel & Meeting Expenses – \$37.5K with 69% positive variance.
 - Debt Service – Interest Expense - \$2.2M with 3% positive variance.
 - Depreciation & Amortization (non-cash expenses) is \$5.4M with 1% positive variance.

NET OPERATING INCOME:

- Net Operating Income before depreciation and amortization - \$4.5M.
- Net Operating Income (loss) after depreciation & amortization was \$(887.1K)

NON-OPERATING PROCEEDS & DISBURSEMENTS

- SRF Loan Proceeds – None.
- FRC – Facility Reserve Charge –\$1.04M.
- YTD Debt Principal Payment is \$4.7M.

CAPITAL PROJECTS BUDGET: YTD DISBURSEMENTS = \$6,230,838.75

- Capital Projects: Water Utility Fund - \$6.2M.
- Capital Projects: FRC Fund – None
- Capital Projects: BAB Fund - \$43.3K
- Capital Projects: SRF Loan Fund – None

II. BALANCE SHEET: SEE ATTACHED.

Statement of Net Positions as of March 31, 2021.

III. FY 2020 – 2021 CERTIFICATION OF FUNDS YTD \$2,327,663.32

	REPORT TO MANAGER (with approved Budget)	MANAGER'S REPORT (New Budget Requests)
Water Utility Fund	\$822,220.44	\$1,519,150.00
FRC Fund	\$.00	\$.00
BAB Fund	\$.00	\$85,978.70
Total	\$822,220.44	\$1,605,128.70

IV. COMPARATIVE CHARTS:

METERED CONSUMPTION:

- March 2021 monthly metered consumption was 261.7 million gallons (mg); decreased by 26.2 mg or 9% as compared from the same month of FY 2020.
- Year to Date (YTD) metered consumption as of 3/31/21 was 2,635.8 mg with a YTD cumulative decrease of 254.1 mg or 9% as compared from the same month of FY 2020.

V. OTHER FISCAL ONGOING ACTIVITIES/INITIATIVES:

- Annual Proposed Operating & Capital Outlay Budgets – FY 2021-2022. Ongoing; referred to Finance Committee for discussion.
- Microsoft (MS) Dynamics Great Plains will be replaced with Cloud - Dynamics Business Central. Staff training is ongoing. The “Go live” was originally scheduled on 4/12/21 but it has been moved to the week of July 12th.
- The 2007 Depreciation Study Draft Report – ready for implementation immediately after board approval.

- New Beacon Meters: testing and validation - Ongoing. Scheduled onsite staff training was cancelled due to COVID travel restrictions.
- Develop Financial Policies for DOW – Statement of Qualifications were solicited for FY 2021. Procurement has been delayed due to COVID 19 pandemic and was pushed on the side due to three other ongoing IT initiatives; the Depreciation Study, MS Dynamics 365 Business Central and the ongoing Beacon Meters upgrade to Advanced Metering Infrastructure (AMI).
- Budget Program Solution – It will be addressed concurrently with the Financial Policies Development procurement.
- Five (5) years Water Rate Study terminated; DOW will restart with an updated consumer database. Foresee procurement beginning of FY 2022.
- FEMA update: DOW submitted a request for an additional 30 months' extension to complete two outstanding projects for FEMA grant funding reimbursement; the Makaleha tunnel and Mānoa Stream.

MY/ein



Department of Water, County of Kauai
 Monthly Budget Summary vs. Actual
 SUMMARY

March 3/31/2021

FY 2021

	Original Budget	Revised Budget	Actual	Variance	Revised YTD Budget	YTD Actual	*Variance	Variance %
I. OPERATING BUDGET								
Revenue								
Water Sales Total	\$1,916,124.00	\$1,916,124.00	\$1,877,234.71	(\$38,889.29)	\$17,245,116.00	\$18,794,981.95	\$1,549,865.95	9%
Miscellaneous Revenues Total	206,692.00	206,692.00	191,394.47	(15,297.53)	1,860,228.00	1,742,484.11	(117,743.89)	-6%
Non-Operating Revenues Total	524,542.00	524,542.00	114,128.76	(410,413.24)	4,720,878.00	1,054,524.86	(3,666,353.14)	-78%
Total Revenue Total	2,647,358.00	2,647,358.00	2,182,757.94	(464,600.06)	23,826,222.00	21,591,990.92	(2,234,231.08)	-9%
II. OPERATING EXPENSES								
Total Employee-Related Expenses	935,356.00	935,356.00	895,095.94	40,260.06	8,418,204.00	7,759,134.22	659,069.78	8%
Total Contracts & Services	597,969.00	597,969.00	320,471.63	277,497.37	9,819,208.46	3,633,568.31	6,185,640.15	63%
Total Fuel & Utilities	248,865.00	248,865.00	216,296.09	32,568.91	2,295,748.80	1,882,229.35	413,519.45	18%
Total Bulk Water Purchase	151,681.00	151,681.00	114,778.59	36,902.41	1,365,129.00	855,717.81	509,411.19	37%
Total Office & Operating Supplies	86,282.00	86,282.00	65,460.16	20,821.84	1,130,033.85	699,515.66	430,518.19	38%
Total Training, Travel & Meeting Expenses	13,260.00	13,260.00	2,032.13	11,227.87	119,340.00	37,478.42	81,861.58	69%
Total Interest Expense	252,109.00	252,109.00	245,293.44	6,815.56	2,268,981.00	2,207,640.96	61,340.04	3%
Total Operating Expenses	2,285,522.00	2,285,522.00	1,859,427.98	426,094.02	25,416,645.11	17,075,284.73	8,341,360.38	33%
Net Operating Income (Loss) Before Depreciation & Amortization	361,836.00	361,836.00	323,329.96	(38,506.04)	(1,590,423.11)	4,516,706.19	6,107,129.30	-384%
Total Depreciation & Amortization	604,388.00	604,388.00	605,011.00	(623.00)	5,439,492.00	5,403,815.65	35,676.35	1%
Net Operating Income (Loss)	(242,552.00)	(242,552.00)	(281,681.04)	(39,129.04)	(7,029,915.11)	(887,109.46)	6,071,452.95	-86%
Non Operating Proceeds								
FRC-Facility Reserve Charge	33,333.00	33,333.00	87,790.00	54,457.00	299,997.00	1,036,288.55	736,291.55	245%
Debt Principal Payment	430,045.00				4,014,034.00	4,704,259.70	(690,225.70)	-17%
Net Proceeds (Expenditures)	(639,264.00)	(209,219.00)	(193,891.04)	15,327.96	(10,743,952.11)	(4,555,080.61)	7,497,970.20	-70%
III. CAPITAL BUDGET								
Capital Projects	2,350,620.00	2,350,620.00	200,372.91	2,150,247.09	37,839,941.81	6,230,838.75	31,609,103.06	84%

Assets and Deferred Outflows

Current Assets

Cash	\$8,525,225.96
Equity interest in pooled investments	8,294,230.00

Receivables:

Accounts, net of allowance for doubtful accounts	1,256,948.62
Due from other funds	
Unbilled accounts	1,378,549.63
Grants and subsidies	772,885.21
Accrued interest	209,775.36

Total receivables	<u>3,618,158.82</u>
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Materials and supplies	1,089,731.90
Prepaid expenses	41,940.68

Total current asset	<u>21,569,287.36</u>
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Restricted Assets:

Facility reserve charge funds:

Cash	2,958,556.89
Equity interest in pool investments	
Accounts receivable and other	280,017.43

Total facility reserve charge funds	<u>3,238,574.32</u>
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Bond funds:

Cash	1,224,895.47
Equity interest in pooled investments	8,628,205.39
Accrued interest	35,865.67

Total bond funds	<u>9,888,966.53</u>
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Total restricted assets	<u>13,127,540.85</u>
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Equity Interest in Pooled Investment - Noncurrent

Investment - Non-Current	24,482,215.70
Investment - Reserves	9,300,000.00

Investment - Debt Service Reserve	
Total Equity Interest in Pooled Investment - Noncurrent	33,782,215.70

Utility Plant:

In service	346,893,352.96
Accumulated depreciation	(146,777,130.05)

Total utility plant	<u>200,116,222.91</u>
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Construction work in progress	22,050,261.04
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Total property, plant and equipment	<u>222,166,483.95</u>
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Total assets	290,645,527.86
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Deferred Outflow of Resources - Deferred Refunding Costs, net	8,788,814.82
Total assets and deferred outflows	299,434,342.68

*Allowance for doubtful accounts	(235,774.13)
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Liabilities and Net Position

Current Liabilities:

Accounts payable and accrued liabilities	3,605,369.46
Contracts payable, including retainages	626,258.61
Accrued Vacation And Compensatory Pay, current portion	519,021.36
Due to/Due From Other Funds	211.73
Customer overpayment	204,295.09
Customer deposits and advances	490,163.32
Current portion of long term debt	5,160,540.98
Current portion of capital lease obligation	0.03
Total current liabilities	10,605,860.58

Long-Term Debt	57,412,478.47
Capital Lease Obligation	
OPEB & Retirement Benefits	31,410,397.76
Accrued Vacation and Compensatory Pay	971,573.47
Deferred Inflow of Assets	555,205.00
Total liabilities and deferred inflows:	100,955,515.28

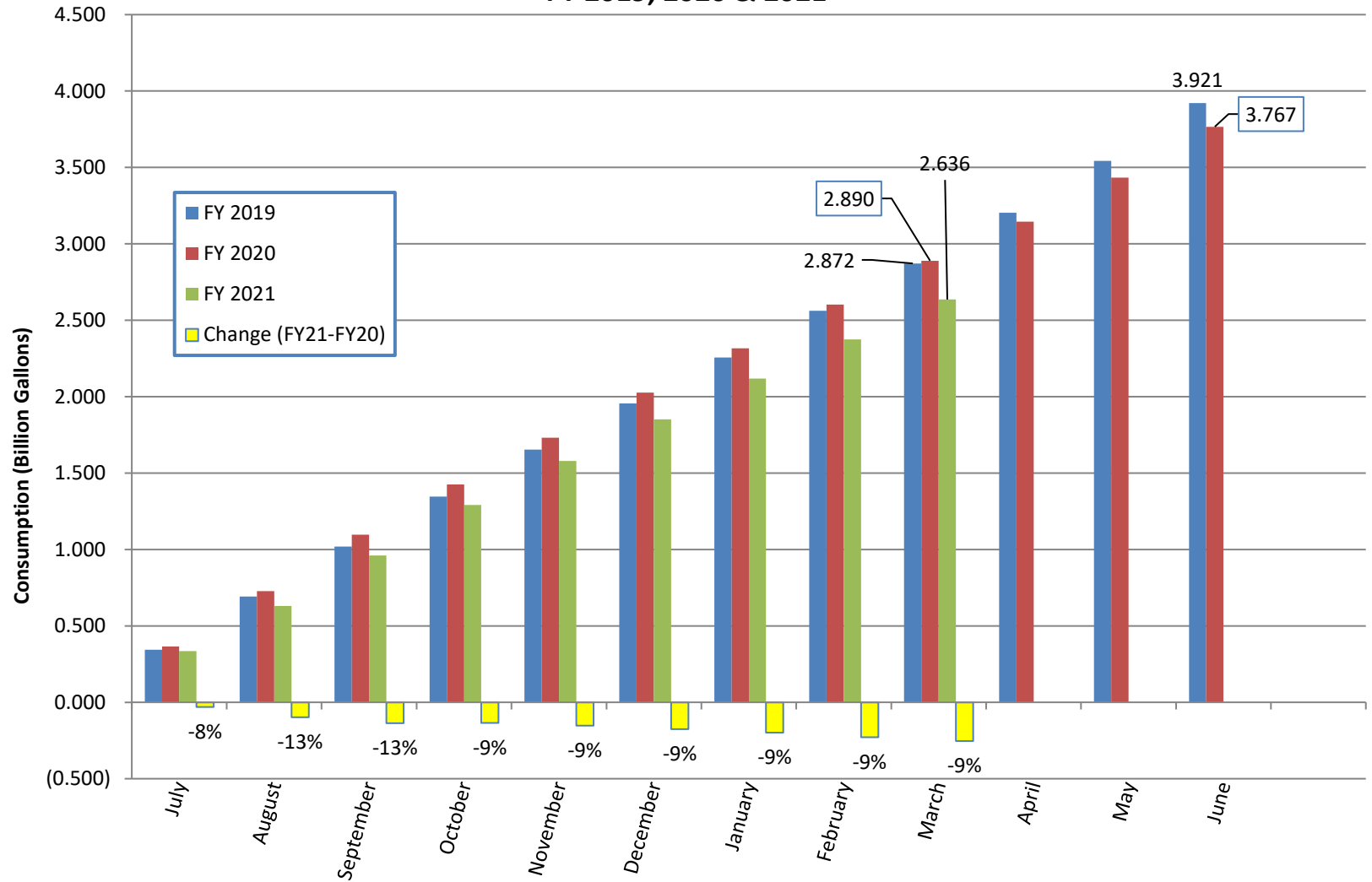
Net Position:

Water Utility Reserves	9,300,000.00
Restricted FRC	3,230,723.56
Restricted Build American Bonds	9,781,933.86
Invested in Capital Assets Net of Related Debt	159,566,037.21
Unrestricted	16,600,132.77

Total net position	198,478,827.40
Total liabilities, deferred inflows and net position:	299,434,342.68

FY 2020 - 2021 Certification of Funds					REPORTS TO MANAGER (RTM)				MANAGER'S REPORT (MR) - New or Additional Funds			
DATE	Contract #	Description	ACCOUNT #	CO/OE	W/U (10)	FRC (20)	BAB (30)	SUB-TOTAL	W/U (10)	FRC (20)	BAB (30)	SUB-TOTAL
7/23/2020	MOA	Kahiliholo Rd. Culvert Repair Project	10-40-00-604-999					-	44,100.00			44,100.00
7/23/2020	MOA	Reconstruction of WEKE Rd. & reinstallation of damaged water main and appurtunances	10-21-00-604-165					-	139,215.00			139,215.00
9/24/2020	701	Job No. 20-03 SCADA Contract	10-40-60-560-000		150,000.00			150,000.00	16,702.00			16,702.00
9/24/2020	702	Job No. 20-06, Wailua Homesteads Wells A&B	10-20-10-540-010		97,690.00			97,690.00				-
9/24/2020	703	Job No. 20-05 - Waimea Well B Pump Repl	10-40-00-604-999		84,124.62			84,124.62				-
9/24/2020	666	ITSP - IT Support	10-10-10-540-010					-	160,000.00			160,000.00
10/22/2020	639	Job No. 17-10, WP 2020 KW-07, Rehabilitate Paua Valley Tank #1	10-20-00-604-001					-	212,719.00			212,719.00
10/22/2020	639	Job No. 17-10, WP 2020 KW-07, Rehabilitate Paua Valley Tank #1	10-20-00-604-001					-	(212,719.00)			(212,719.00)
10/15/2020	427	Reinstatement of Contract Balance	30-20-00-605-116					-			40,978.70	40,978.70
11/10/2020	704	Furnishing & Delivery of Sewage Lift Station Control System	10-40-00-604-999		23,056.00			23,056.00				-
1/8/2021	704	CANCELLED: Furnishing & Delivery of Sewage Lift Station Control System	10-40-00-604-999		(23,056.00)			(23,056.00)				-
11/19/2020	639	4th Am.; contract # 639 Job No. 17-10, WP2020 Project	10-20-00-604-000					-	292,719.00			292,719.00
11/19/2020	427	10th Am; contract # 427 Job No. 02-14, WP 2020 WK+08 Kapaa Homesteads 325' Tanks.	30-20-00-605-116					-			45,000.00	45,000.00
12/17/2020	639	Job No. 17-10, WP 2020 KW-07, Rehabilitate Paua Valley Tank #1 (Rescind 10/22/20 and resubmitted	10-20-00-604-001					-	251,069.00			251,069.00
12/17/2020	N/A	MR 21-15; Salaries, supplemental budget.	various accounts					-	397,530.00			397,530.00
1/21/2020	637	4th Am. As Needed CM- Hanapepe WL	10-21-10-540-010					-	217,815.00			217,815.00
1/11/2021	627	MMIS	10-40-560-561-000		20,000.00			20,000.00				
2/5/2021	705	GS 2021-02, Furninshing and Delivery of One (1) 150 KVA Trailer Mounted Emergency Generator.	10-40-00-604-999		99,685.82			99,685.82				
2/28/2021	706	Furnishing & Delivery of Sewage Lift Station Control System	10-40-00-604-999		22,120.00			22,120.00				-
3/3/2021	707	GS 2021-03, Furnishing and Delivery of one compact track loader with accessories.	10-40-00-604-999		73,600.00			73,600.00				
3/5/2021	670	3rd of 5 years Contract _ CC&B Cloud Hosting and Support	10-30-20-561-000		250,000.00			250,000.00				
3/5/2021	651	Ashford & Wriston, LLP	10-01-0-540-010		25,000.00			25,000.00				-
								-				-
								-				-
								-				-
					822,220.44	-	-	822,220.44	1,519,150.00	-	85,978.70	1,605,128.70

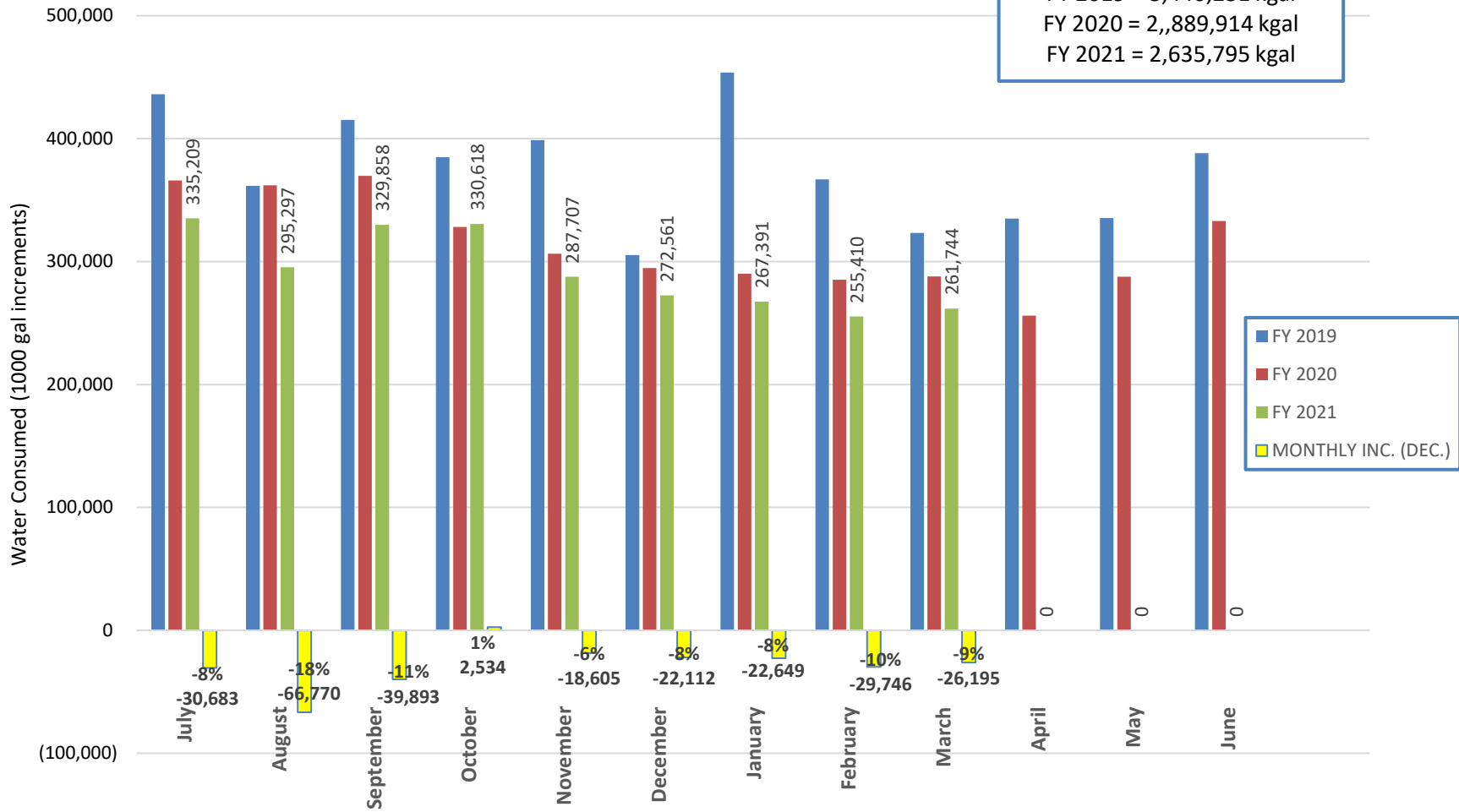
YTD CUMULATIVE WATER CONSUMPTION FY 2019, 2020 & 2021



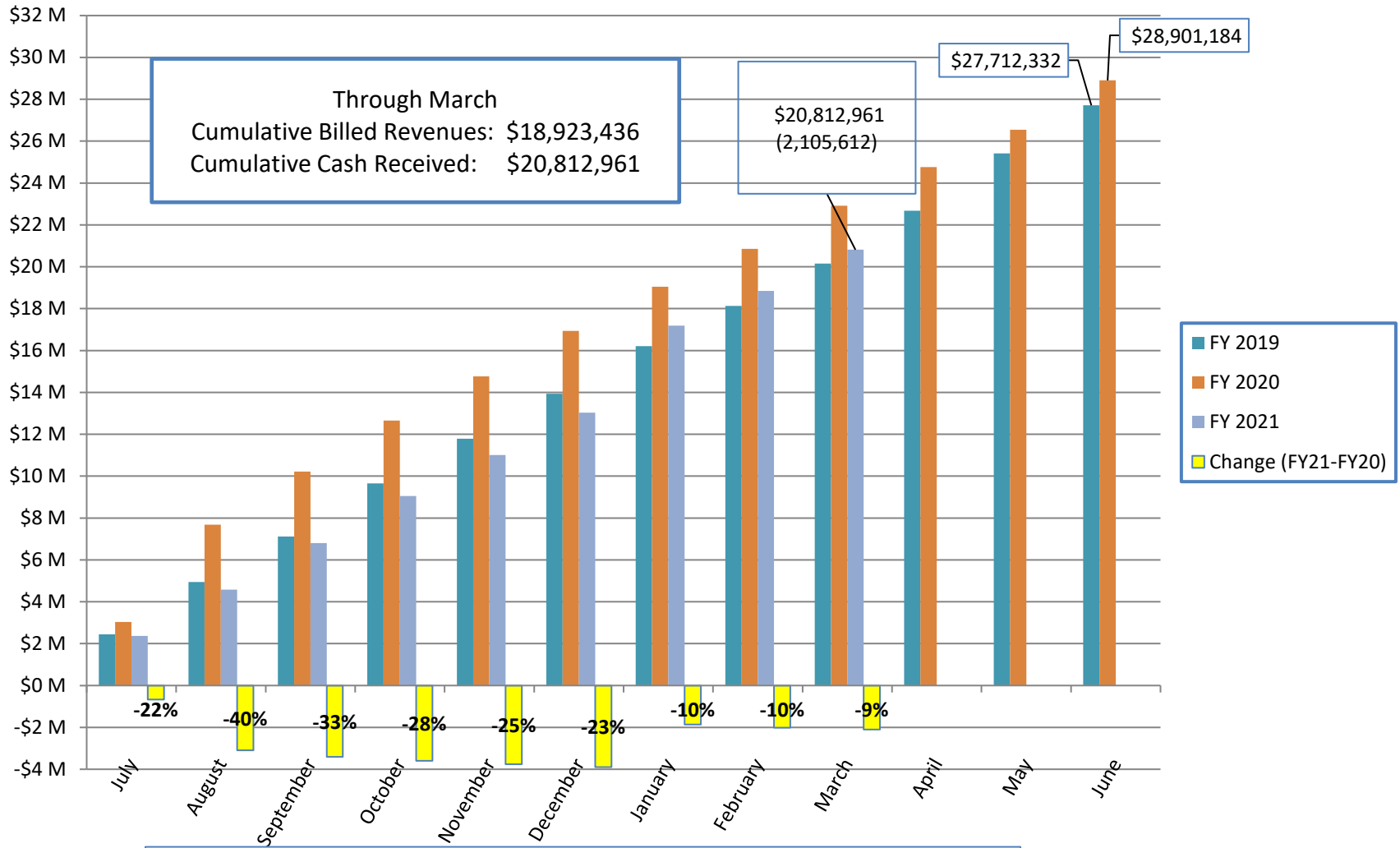
MONTHLY CONSUMPTION

FY 2019, 2020 & 2021

Total Through March
 FY 2019 = 3,446,231 kgal
 FY 2020 = 2,889,914 kgal
 FY 2021 = 2,635,795 kgal



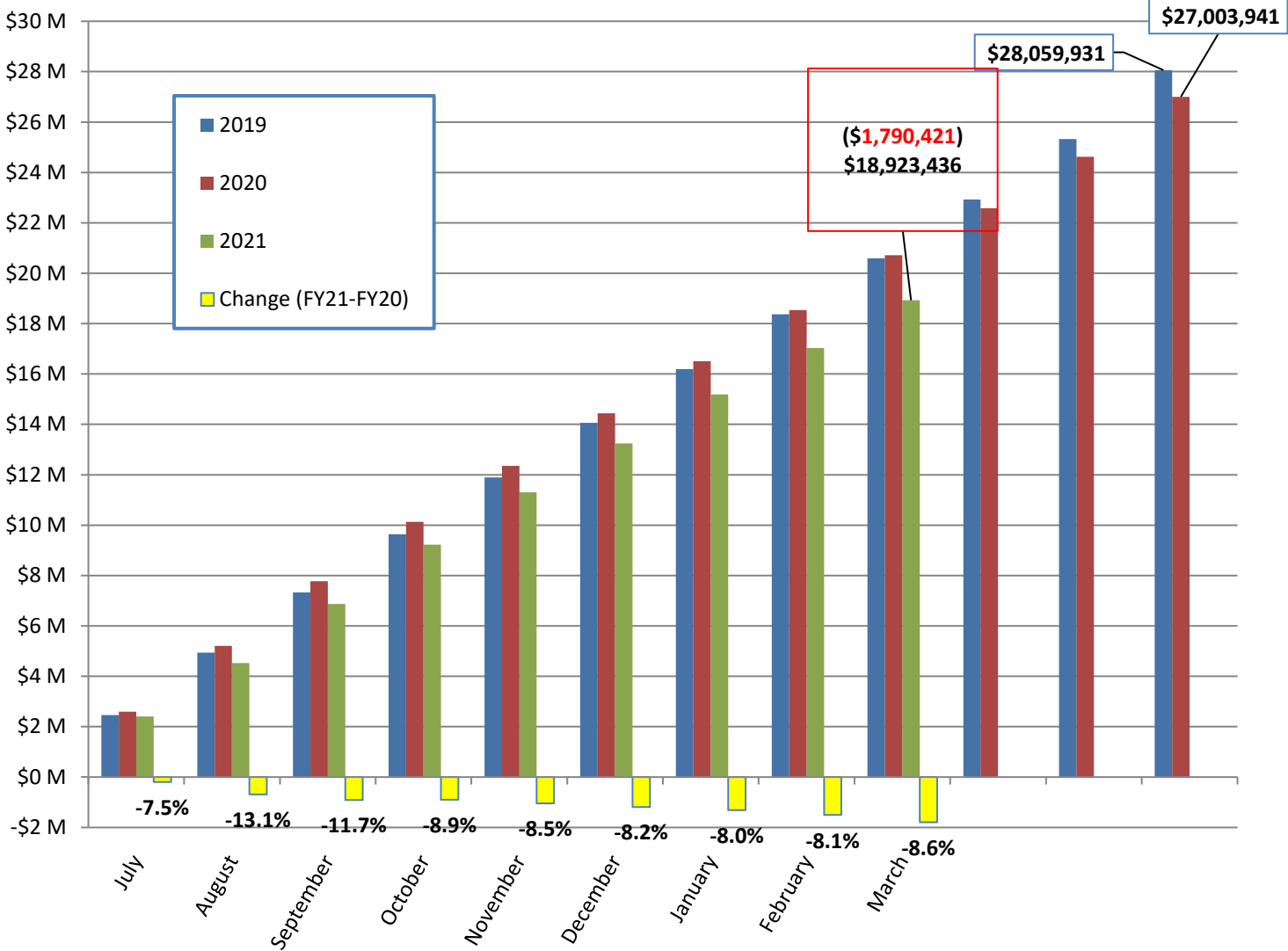
WU CUMULATIVE CASH RECEIPTS FY 2019, 2020 & 2021



Note: July '19-'20 receipts included a \$2.29 million state appropriation grant for the Hanapēpē

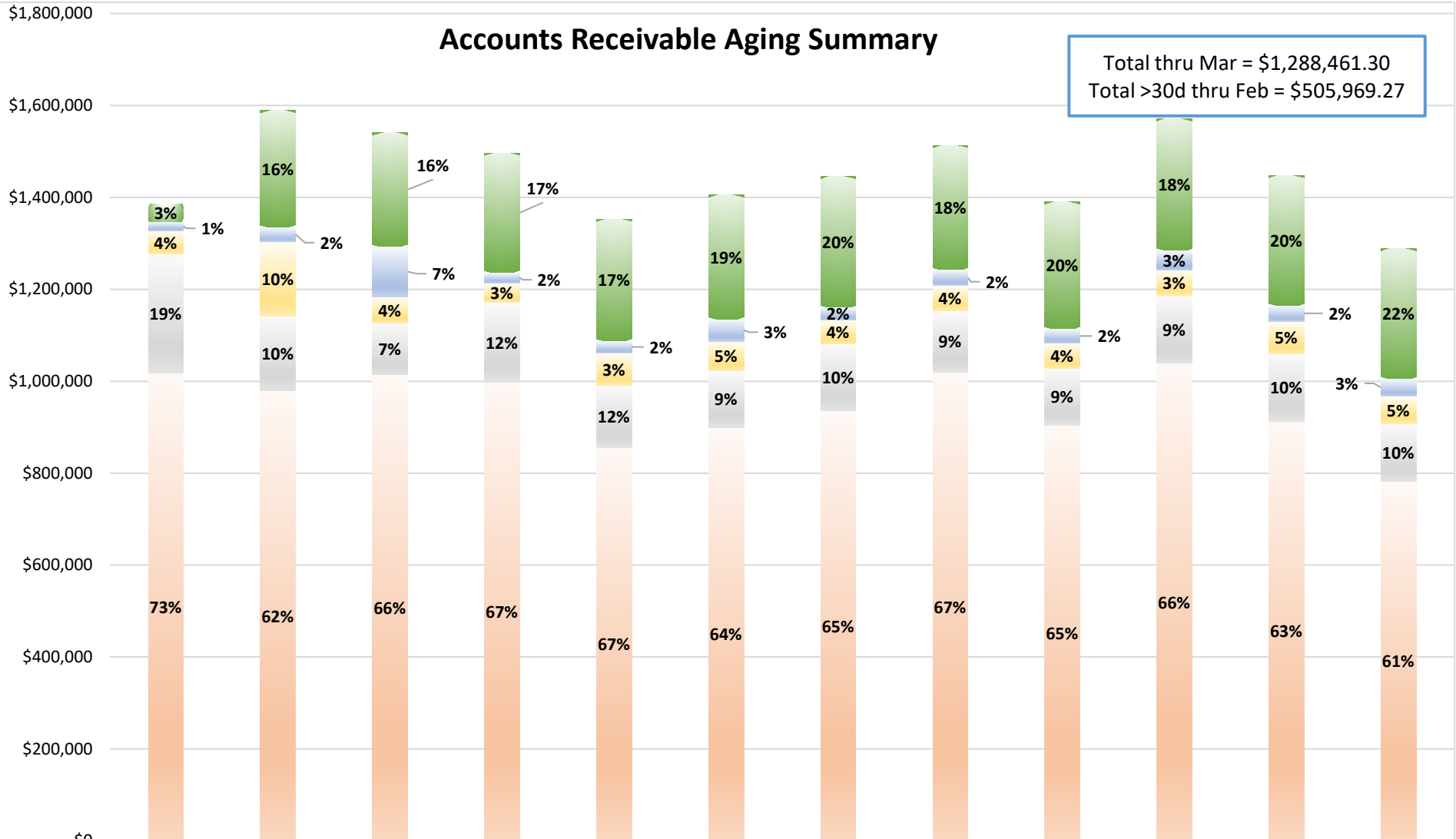
CUMULATIVE BILLED REVENUES

FY 2019, 2020 & 2021



Accounts Receivable Aging Summary

Total thru Mar = \$1,288,461.30
Total >30d thru Feb = \$505,969.27



	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21
121 days and over	\$38,823	\$253,755	\$247,167	\$259,985	\$265,097	\$269,845	\$284,230	\$270,064	\$275,630	\$285,894	\$282,561	\$282,746
91-120 days	\$20,048	\$31,926	\$109,466	\$22,617	\$26,278	\$48,399	\$27,822	\$34,480	\$31,783	\$43,603	\$34,412	\$38,586
61-90 days	\$50,533	\$160,892	\$57,756	\$42,403	\$70,981	\$63,689	\$51,326	\$54,366	\$54,399	\$54,665	\$70,380	\$59,276
31-60 days	\$257,987	\$163,476	\$112,070	\$174,030	\$133,850	\$123,235	\$145,805	\$134,340	\$123,236	\$147,762	\$147,068	\$125,361
0-30 days	\$1,018,686	\$978,907	\$1,013,854	\$997,485	\$856,561	\$900,032	\$935,900	\$1,019,504	\$904,886	\$1,038,902	\$912,997	\$782,492

DEPARTMENT OF WATER

County of Kaua'i

"Water has no Substitute – Conserve it!"

INFORMATION & EDUCATION SPECIALIST REPORT

April 22, 2021

Public Notices and Announcements

All news releases were published online via the Department's Facebook page and on the County of Kaua'i's website at www.kauai.gov/press-releases. Additionally, roadwork notices are emailed to the Department of Transportation (DOT) communications office.

Service Announcements:

<i>Date Issued</i>	<i>Water System & Affected Service Areas</i>	<i>Announcement</i>	<i>Effective Date & Times</i>	<i>Other Notices</i>
03/12/21 03/13/21	HANAIEI – All customers	Scheduled water conservation request due to planned power outage	Sat. March 13 9 a.m. - further notice Updated: March 13, notice lifted at 11:30 a.m.	BlackBoard CTY
03/13/21	WAINIHA-HAENA – All customers	Water conservation notice issued due to power outage	Sat. March 13 11 p.m. - further notice Updated: March 14, notice lifted at 4 p.m.	BlackBoard CTY
03/15/21	General Public Notice	Free Fix a Leak Week Kits available	March 15-19 8 a.m. – 4 p.m.	Scheduled radio announcements
03/21/21 PSA	KILAUEA – North Waiakalua Road	Emergency water service shutdown due to mainline break	March 21 12:30-4:30 p.m.	BlackBoard CTY
03/22/21	Hanapepe-Ele'ele Water Systems Improvements Project	Partial Road Closure on Hanapepe Road extended thru June 11	Road closure extended thru June 11 th . Hours: 7 a.m.-5:30 p.m., Mon-Fri, except holiday	Email notice to Hanapepe community contacts.
03/29/21	General Public Notice	Main lobby reopens for bill payments	Effective April 1 Hours: 8 a.m.-4 p.m. Mon-Fri, except holidays	Updated message on billing statement
03/29/21	KAPA'A – Ka'apuni Road	Emergency water service shutdown	March 29 11:30 a.m.-4:30 p.m. Updated: Water service restored at 1:45 p.m.	BlackBoard CTY
03/30/21	KAPA'A – no affected service	Emergency partial lane closure on Kuhio Highway due to mainline break and repairs.	March 30 11:30 a.m.-7:30 p.m. Extended: Lane reopened at approx. 12 a.m. on 3/31/21	Notice sent to radio media partners for on-air announcements.
04/07/21	HANAPEPE – Portion of Puolo Road	Scheduled water service shutdown to replace mainline valve.	April 13 8 a.m.-1 p.m.	BlackBoard CTY

PSA: Public Service Announcement

Public Relations Program

Community Outreach & Education

- PR will begin integrating in-person educational outreach presentations via small group settings. The in-person events will include social distancing and other guidelines to ensure attending staff and audience has the opportunity to follow healthy and safety guidelines. Topics of interest will include water conservation, Department services and water education through Project WET curriculum. PR is also reviewing participation in its annual calendar of events and locations for future planning purposes.
- PR staff met with local environmental and water-related agencies to discuss collaboration opportunities for its water conservation programs in fiscal year 2021-2022.

Upcoming Community Outreach & Educational Events

- April 16, 2021 – Water Conservation Education (Moloa'a)
- May 3-7, 2021 – National Drinking Water Week (online)

Project WET Hawaii

- Jonell Kaohelaulii submitted update to Project WET for Region 1 - Hawaii on April 5, 2021.
- The Department is seeking virtual options to host this year's Make a Splash with Project WET Festival. Initial research for content collaboration and internal

Miscellaneous

- Jenny Paleracio published the March 2021 edition of the employee newsletter, "As the Water Flows".

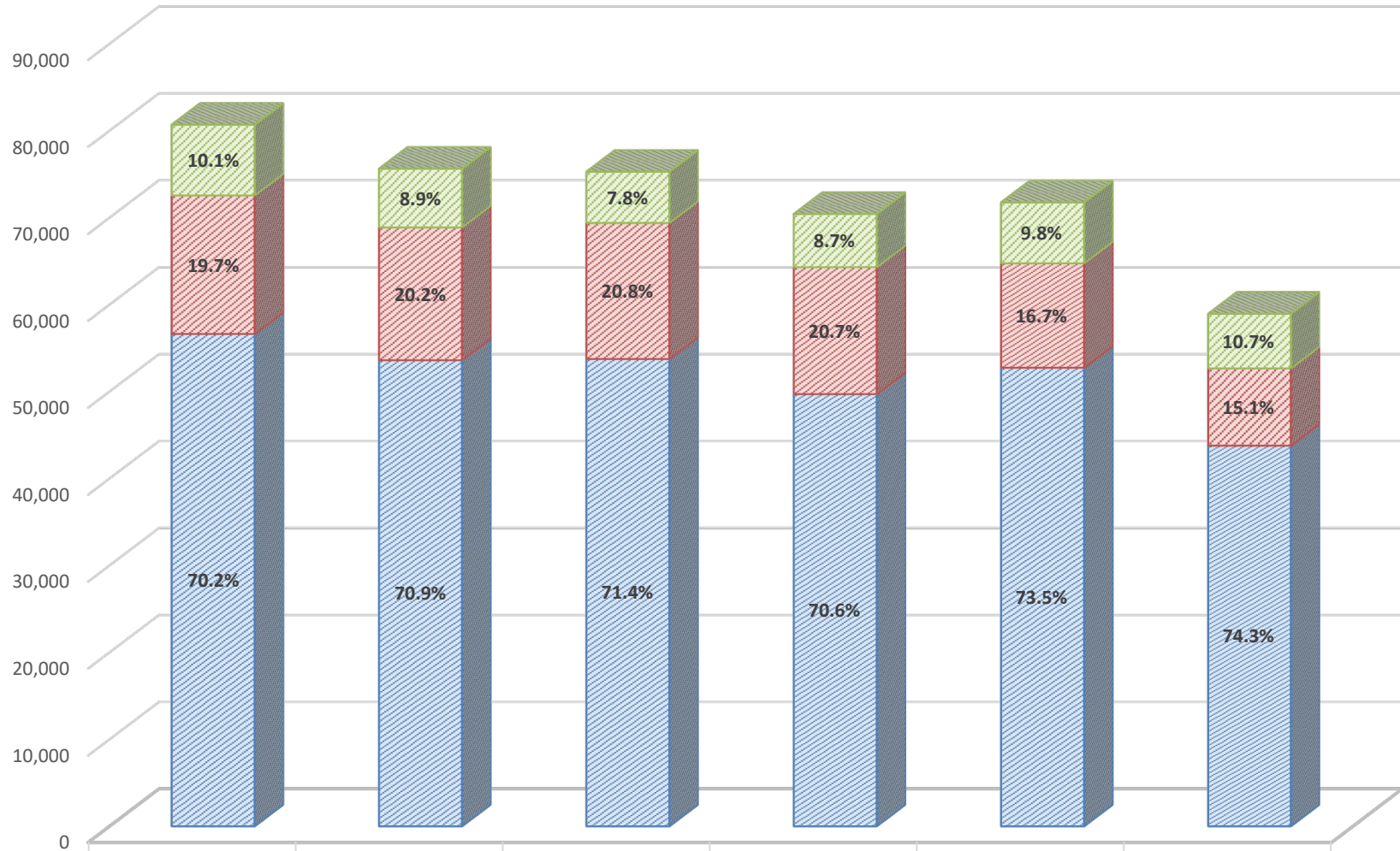
Operations Services Dashboard								
Month	Leak Repairs	Calls for Service	Meters Installed	Temporary Hydrant Meters	Work Orders Issued	Work Orders Closed	One Call Requests	Hydrants Hit
July								
August								
September								
October								
November	20	205	63	4	129	91	14	0
December	38	217	68	4	165	102	33	2
January	33	183	64	2	178	172	36	2
February	26	213	52	4	126	122	25	1
March	36	215	30	2	345	167	31	0
April								
May								
June								

Operations Contract Dashboard				
Open for Bid				
Type	Contract Number	Job Number	Title	Contractor/Vendor
Awaiting Board Approval				
Type	Contract Number	Job Number	Title	Contractor
Processing/Notice to Proceed				
Type	Contract Number	Job Number	Title	Contractor
Services	703		Waimea Well B CO# 1	Oasis Water Systems, Inc.
Equipment	706		Sewage Lift Station Control System	Xio, Inc.
Services	693		Koloa Well D CO# 3 - time extension only	Derrick's Well Drilling
Equipment	695		8 cy Dump Truck - Completed	HT&T Truck Center
Equipment	707		Compact Track Loader	Bacon Universal Co., Inc.
Equipment	699		Kapilimao NaOCl - time extension only	AqueoUSvets
Services	627		MMIS MPET 3rd Amendment	Four Winds Group

Highlights
<p>1. Estimated non-revenue water due to flushing and reported leaks for the month of March is 1,450,680 gallons</p> <p>2. Storm event on the week of March 8th damaged the A/C mainline on Awawa Road, Hanapepe due to a fallen monkeypod tree; Heavy rain and strong winds caused intermittent power failures and affected our remote sites in Eleele, Kalaheo, Kapaa, Kilauea, Equipment</p>

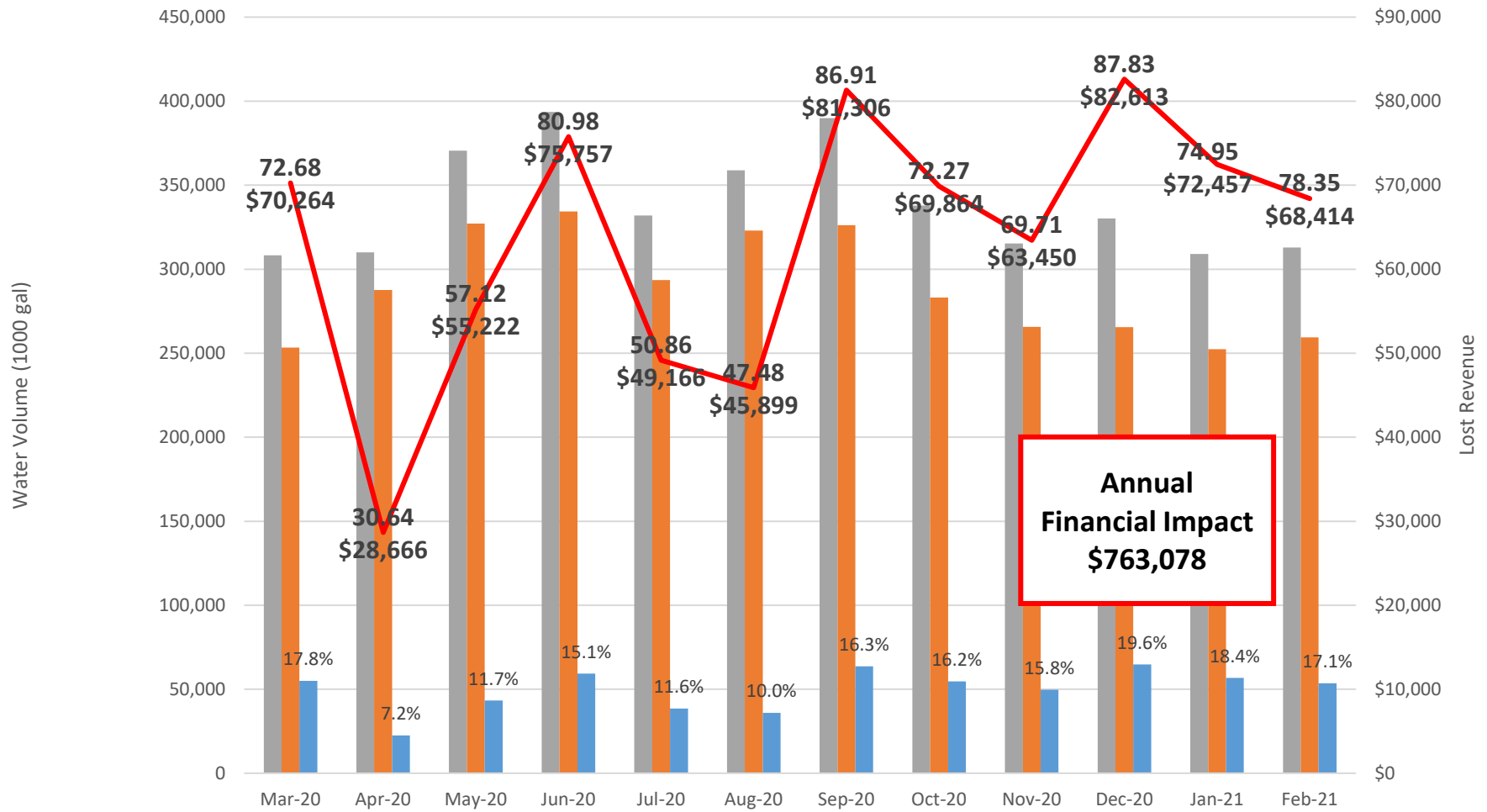
OPERATIONS PERSONNEL HOURS

▣ Regular Hours
 ▣ Time-off
 ▣ Overtime



	FY16	FY17	FY18	FY19	FY20	FY21
▣ Overtime	8,128	6,749	5,889	6,122	7,012	6,279
▣ Time-off	15,927	15,275	15,650	14,595	12,002	8,889
▣ Regular Hours	56,629	53,605	53,745	49,705	52,742	43,778

Monthly Water Audit March 2020 - February 2021



	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21
Produced	308,281	309,984	370,458	393,627	331,959	358,841	389,892	337,846	315,350	330,207	309,068	312,917
Customer Meter Read	253,258	287,536	327,214	334,303	293,457	322,898	326,223	283,136	265,663	265,514	252,328	259,343
Waterloss	55,023	22,448	43,244	59,324	38,502	35,943	63,669	54,710	49,687	64,693	56,740	53,574
Waterloss	\$70,264	\$28,666	\$55,222	\$75,757	\$49,166	\$45,899	\$81,306	\$69,864	\$63,450	\$82,613	\$72,457	\$68,414

DEPARTMENT OF WATER

County of Kaua'i

"Water has no Substitute – Conserve It!"

MANAGER’S UPDATE

April 22, 2021

Pursuant to Board Policy No. 3

CONTRACTS AWARDED/EXTENSION/AMENDMENTS:

None

WAIVER, RELEASE & INDEMNITY APPLICATIONS:

None

STAFF REPORTS - FY 20-21:

PERSONNEL MATTERS

April 22, 2021

Please reference attachment.

Pursuant to Board Policy No. 24

CONVEYANCE OF WATER FACILITIES \$430,529.86

Kulana Condominium; Association of Apartment Owners of Kulana; Cy Miyashiro; June Van Dahm; Kris Van Dahm	4-3-011:011; 4-3-003:027	N/A
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CUSTOMER CARE AND BILLING (CC&B) SYSTEM UPDATE:

None

I.T. INITIATIVES UPDATE:

- Fiber optic connectivity between County offices and DOW offices.

OTHER ITEMS OF INTEREST:

- County partnership satellite staging location County Baseyard - Hanalei
- Memorandum of Agreement with the County – Lihue Town Core
- Deputy Manager Update
- Kauai’s 2021 Coronavirus Rental and Utility Assistance Program

ADVISOR REPORT TO THE BOARD OF WATER SUPPLY UPDATE

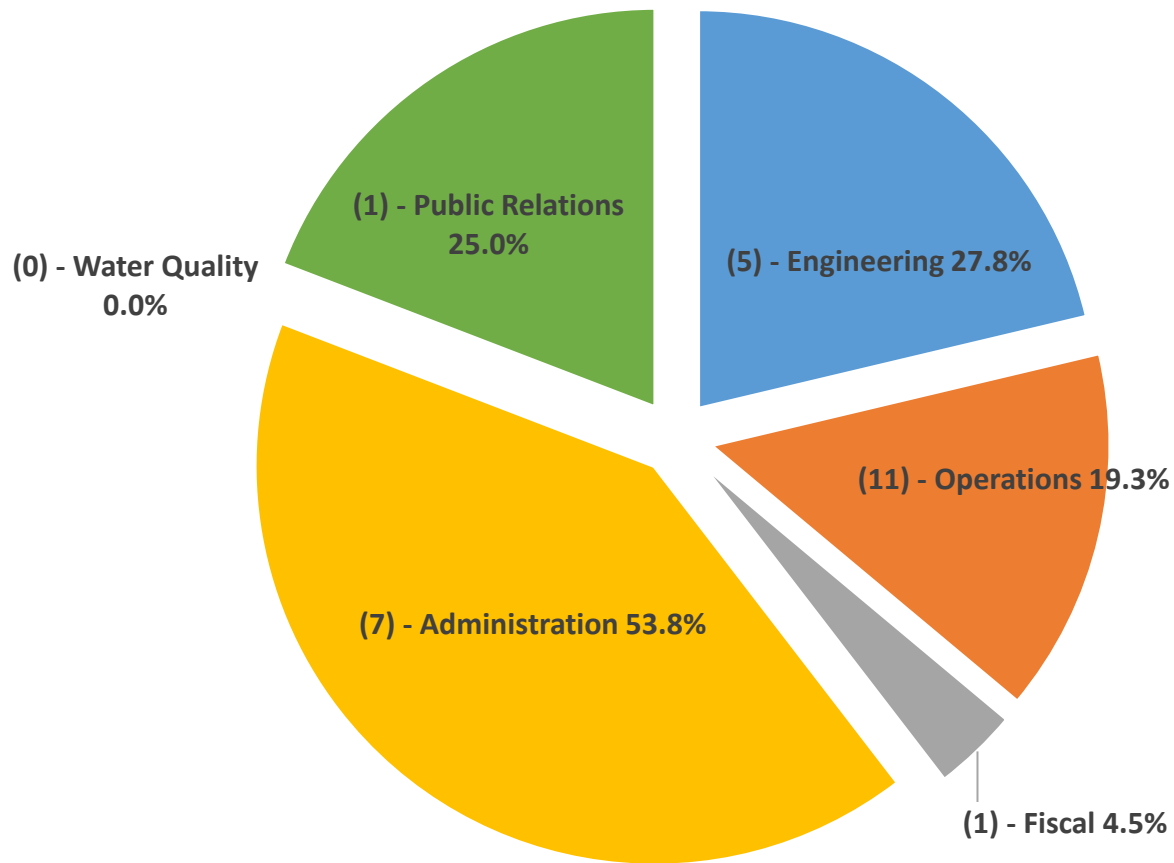
Period ending March 31, 2021

- Handled emails, calls and texts from staff
- Discussions with Acting MCE on various items
- Prepared for and participated in DOW Board Meeting

Attachment: Personnel Matters

Mgrrp/Manager’s Update (April 22, 2021):mja

Personnel Dashboard



Vacancies by Division

(# Vacancies), Division, Percent Vacant

Summary

Total Authorized = 117
Total Vacant = 25 (21%)
Actively Recruiting = 12

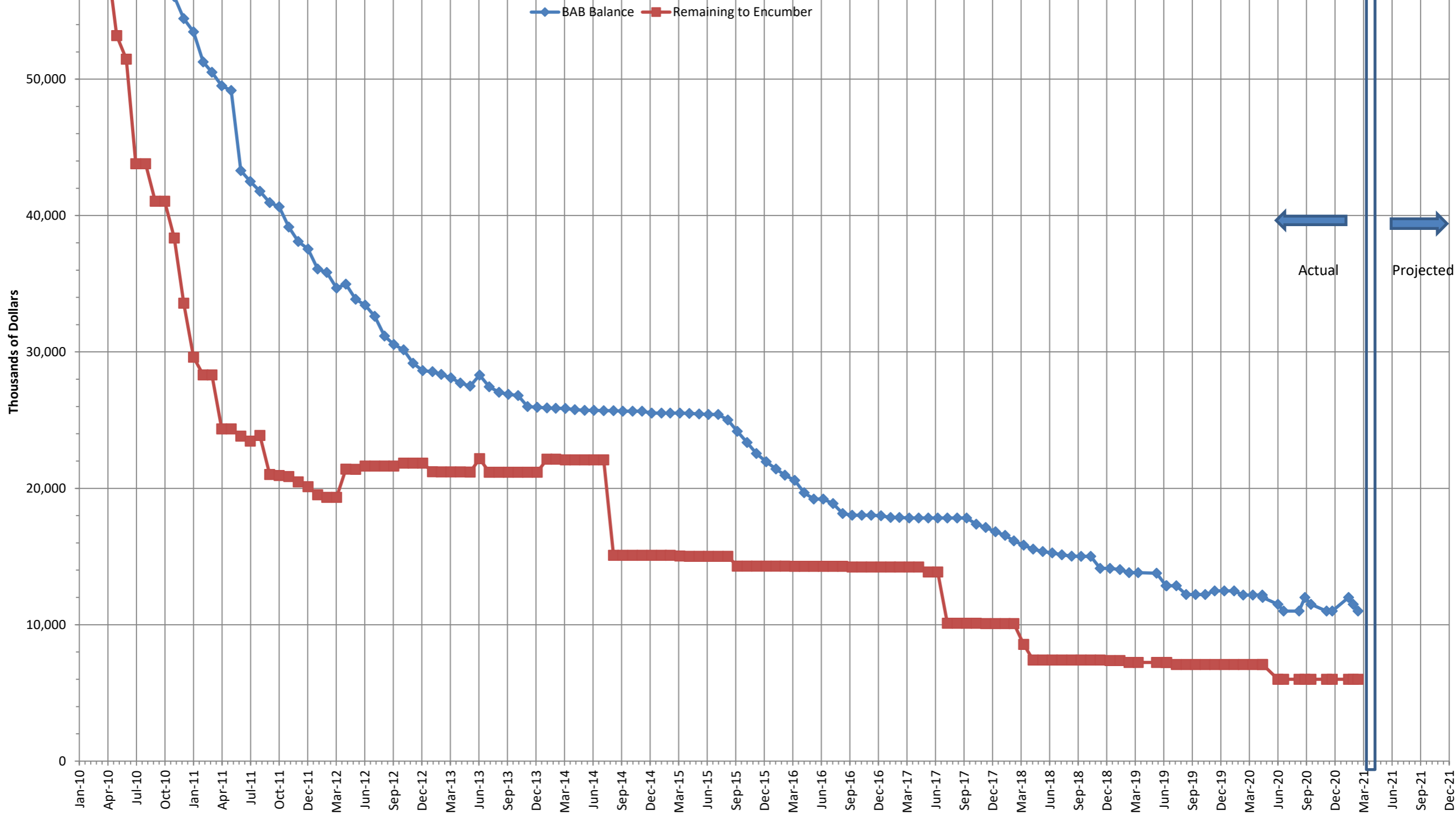
Highlights

1. Commission Support Clerk retires 3/31/2021 close of business.
2. Civil Engineer I in Water Resources & Planning starts 4/1/2021.
3. Civil Engineer III in Engineering Services starts 4/1/2021.
4. Customer Service Rep I in Billing starts 4/1/2021.
5. Waterworks IT Manager starts 4/1/2021.
6. Accountant II promoted to Accountant IV in Accounting Section effective 4/1/2021.

Quarterly Reports



2010 Bond Encumbrance and Spend Down Status (Dollars)



April 22, 2021

WATER QUALITY QUARTERLY REPORT

Summary:

Sampling:	-Microbiology: No coliform hits. No sampling violations. -Chemistry: Required Sampling completed. No MCL exceedances. No violations. Sampling ongoing.
Monitoring:	-Chlorides in Waimea-Kekaha System are holding. No saltwater intrusion observed. -pH at Wainiha is good. No changes made to Soda Ash injection levels. However, OPS is considering a change to NaOH. -Water color from SWTP remains good. Performing weekly checks at Lydgate Park.
Reporting:	-2020 Chemical Data submitted to SDWB. 2021 Chemical sampling has begun with scheduled sampling to June 2021 (due to Covid 19, Lab is limited to scheduling 4 months out). -Monthly Microbiological data submitted to SDWB. -Still in preproduction Compliance Monitoring Data Portal (CMDP).
Lab:	Certified until August 31, 2022.
Misc.:	-Chlorination Station for Moalepe Tunnel. Lab will work with engineering to move it forward. So far, a potential site has been identified which will not require tapping into the cross-country pipeline. It will probably be on back burner until Engineering has more time. -Wailua Homesteads GAC Evaluation Plan review completed. Excess testing removed. -TOC testing in Hanamaulu performed for black slime issue.

April 22, 2021

COUNTY ATTORNEY QUARTERLY REPORT

This report is submitted pursuant to Board Policy No. 25.

CLAIMS SETTLED: None; awaiting response from the Department on one pending claim.

Claimant(s)	Date of Loss	Filed with Office	Date Closed	Basis of Claim	Claim Amount	Settled Amount	Corrective Action Recommendation
Makai Water Service's, LLC	2/9/2021	3/30/2021		Property Damage: Claimant said DOW personnel were excavating area makai of Poipu Rd fronting pathway to Kiahuna Plantation to replace a fire hydrant accidentally damaged a 3-inch sewer force main. Repair was needed therefore Makai Water Service, LLC personnel performed repairs. Aqua Engineers was summoned to monitor wet well levels at Kauai Athletic Club sewer pump station while repairs were being done.	\$2,365.34		

QUARTERLY UPDATE

Period of January 1, 2021 to March 31, 2021

ENGINEERING DIVISION

Submitted by: Michael K. Hinazumi, P.E.

DEPARTMENT OF WATER

April 22, 2021

Executive Summary

Significant updates for this quarter include:

- **Water Resources and Planning Section**

- Subdivision-Land Use applications completed => 31 (decrease of 40%)
- Water Service Requests => 58 (decrease of 33%)
- Building Permit applications => 434 (decrease of 5%)*
*Building Permit applications increased 26% compared to the same period in FY19-20
- Backflow Devices Inspected and Tested => 1888 (increase of 14%)

- **Engineering Services Section**

- Overseeing 22 ongoing DOW Design project, including several multi-phased projects
- Private Project Reviews => 48 (increase of 78%)
- Kapaia Cane Haul Road 18-Inch Waterline (Job No. 16-02) => Pending SHPD approval
- Rehabilitate Paua Valley Tank No. 1 (Job No. 17-10) => Under project re-evaluation

- **Construction Management Section**

- Overseeing four (4) DOW projects in various phases of construction
- Completed and closed seven (7) private projects

Water Restriction Areas

Water System/Sub-System	Restrictions (5/8-inch water meter or number units per lot)	Inadequate Facilities	Comments
Upper Lawai	2	Storage	Administration Approved
Poipu	300	Storage	Board Approved (50% of new tank allowed for new development; 50% to make up storage deficit)
Wailua Homesteads	5	Storage	Administration Approved
Upper Wailua Homesteads	2	Storage	Administration Approved
Kapaa Homesteads	5	Source	Board Approved
Moloa'a	0	Source and Storage	Water Purchase Agreement
Kilauea-Kalihiwai	5	Source and Storage	Administration Approved
Aliomanu - Kukuna Road	0	Transmission	Administration Approved
Anini	1	Source and Storage	Water Purchase Agreement
Upper Wainiha Valley	1	Storage	Administration Approved
Wainiha - Haena	3	Storage	Administration Approved

Accomplishments

	January – March 2021
Subdivision Applications; Zoning / Land Use / Variance Permits; Zoning Amendments; ADU/ARU Clearance Applications	31
Water Service Requests	58
Building Permit Applications	434
Backflow Inspection Program – No. of Tested Devices	1888

Private Projects	January – March 2021
Design Approved	9
In Design Review	35
Preparing to enter Construction	17
In Construction	17
Closing	34
Completed	1

Water Plan 2020 Construction Project Status

WP 2020 NUMBER	JOB NO	PROJECT TITLE	% COMPLETE DEC 2020	% COMPLETE MAR 2021	ORIGINAL ESTIMATE TO COMPLETE	CURRENT ESTIMATE TO COMPLETE	CURRENT CONTRACT AMOUNT
HE-01	15-07	Kaumuali'i Highway 16" Main and Emergency Booster Pump Connection	87	87	Q3 2019	Q2 2021 (9 & 11)	\$10,998,182.59
HE-10	15-07	Hanapepe Road 6" Main Replacement					Combined with HE-01
WK-39&WK-08	02-14	Kapaa Well 4 Drainage line & Kapaa Well 4 Drill & Test	86	86	Q3 2019	Q4 2021 (9 & 11)	\$2,382,043.35
KW-07	17-10	Paua Valley Tank Repairs	4	4	Q2 2021	Q2 2022 (12)	\$2,264,750.00
PLH-35B	16-02	Kapaia Haul Cane Road 18" Transmission Line	7	7	Q3 2019	Q2 2022 (8)	\$4,127,545
						TOTAL =	\$19,772,520.94

- (1) Change order issued which extended project schedule.
- (2) Awaiting close out documents
- (3) Awaiting contract dispute resolution
- (4) Awaiting DPW road permit signoff
- (5) Contract closed out
- (6) Liquidated Damages being enforced
- (7) Awaiting Building Permit signoff
- (8) Project issued stop work order and is on hold due to SHPD, UOA issues
- (9) Redesign required additional time
- (10) Progress made but new change order amounts were substantial and reduced work completed to contract amount ratio.
- (11) Project issued stop work order due to COVID-19 but has since resumed
- (12) Project issued stop work order due to redesign needed

IDIQ Services

Contract Number	Company	Contract Amount	Number of Projects Assignments
637	RM Towill Inc.	\$1,059,069	1
690	Bowers & Kubota	\$700,000	2
700	Brown & Caldwell	\$150,000	1



IT STRATEGIC PLAN QUARTERLY UPDATE

January 2021 – March 2021

Update provided by: Jas Banwait

April 2021

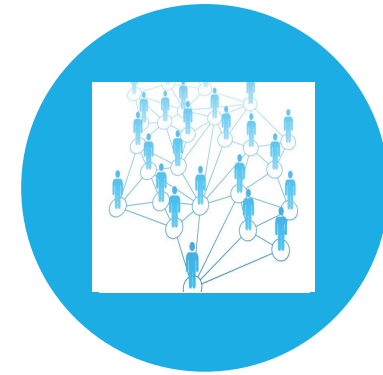
IT STRATEGIES



TECHNOLOGY



BUSINESS PROCESS
IMPROVEMENTS



ORGANIZATION

TECHNOLOGY

- Upgrade SCADA Network Upgrade
 - Estimated Q4 completion
- Upgrade Financial Information System
 - Dynamics365 upgrade in process, Estimated Q4 completion
- Core IT Infrastructure Upgrades
 - O365 Exchange Cloud Migration, Completed Q3
 - O365 SharePoint Cloud Migration, Estimated Q4 completion

BUSINESS PROCESS IMPROVEMENTS

- CC&B Process Evaluation
 - In process
- Improve Use of SharePoint
 - O365 SharePoint Cloud Migration, Estimated Q4 completion

ORGANIZATION



Jas Banwait,
IT Manager



Darrell Acob,
Computer Systems
Support Technician



Zyris Aldin,
Computer Systems
Support Technician



Vacant,
Information Technology
Specialist