

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of)
)
WAIKOLOA WATER CO., INC., dba WEST)
HAWAII WATER COMPANY)
)
For a General Rate Case and For Approval)
of Revisions to its Tariff)
_____)

DOCKET NO. **2017-0450**

APPLICATION
EXHIBITS WHWC 1 THROUGH 14;
EXHIBITS WHWC-T-100 though WHWC-T-301
VERIFICATION
and
CERTIFICATE OF SERVICE

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WAIKOLOA WATER CO., INC., dba WEST
HAWAII WATER COMPANY

FILED
2017 DEC 29 P 12: 03
PUBLIC UTILITIES
COMMISSION

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF HAWAII

In the Matter of the Application of) DOCKET NO. 2017-0450
)
WAIKOLOA WATER CO., INC., dba WEST)
HAWAII WATER COMPANY)
)
For a General Rate Case and For Approval)
of Revisions to its Tariff)
_____)

APPLICATION

WAIKOLOA WATER CO., INC., dba WEST HAWAII WATER COMPANY
(“WHWC” or “Applicant”) pursuant to Hawaii Revised Statutes (“HRS”) § 269-16, as amended,
and Hawaii Administrative Rules (“HAR”) Title 6, Chapter 61, hereby submits this application
(the “Application”) requesting that the Hawaii Public Utilities Commission (the “Commission”):

1. Determine this Application to be complete, pursuant to HRS § 269-16 and HAR § 6-61-88¹;
2. Conduct a public hearing on the island of Hawaii to consider this Application in accordance with HRS §§ 269-12 and 269-16, and HAR § 6-61-30;
3. Find that Applicant’s present rates for its customers are unjust and unreasonable, and will not allow Applicant to recover all of its reasonably incurred expenses, nor allow Applicant a reasonable opportunity to earn a fair return on its prudently incurred investments in utility property;

¹ Applicant’s annual revenues will be less than \$2,000,000 for the test year. Therefore, the requirements of HAR § 6-61-88 apply to this Application.

4. Approve, pursuant to HRS § 269-16, the water service rates and charges proposed by Applicant as set forth in Exhibit WHWC 5, and authorize Applicant to put into effect the proposed rates after the date of authorization by the Commission;

5. Waive the requirement under HAR § 6-61-75 for audited financial statements and accept Applicant's unaudited financial statements filed herein;

6. Approve the request to modify the terms of Applicant's tariff, as described in Section VI below;

7. Approve the request to replace Applicant's existing unit depreciation rates with group depreciation rates; and

8. Grant such other relief, including any interim rate increase, as may be just and reasonable under the circumstances.

In support of this Application, Applicant provides the following information:

I. COMMUNICATIONS REGARDING THIS APPLICATION

All pleading, correspondence and communications regarding this Application should be addressed as follows:

J. DOUGLAS ING
PAMELA J. LARSON
DAVID Y. NAKASHIMA
Watanabe Ing LLP
999 Bishop Street, Suite 1250
Honolulu, Hawaii 96813

II. DESCRIPTION AND BACKGROUND OF APPLICANT

Applicant is a Hawaii corporation with its principal place of business at 68-1845 Waikoloa Rd., Unit 116, Waikoloa, Hawaii 96738, and its legal offices at 1720 North First Street, San Jose, California 95112.

Applicant is a public utility that provides potable water service to residences, condominiums and commercial establishments within Waikoloa Village on the Island of Hawaii. WHWC's customers consist of approximately 2000 single family, 32 multi-family, 25 commercial and 8 public authority customers. Since its last rate filing, the County of Hawaii workforce project has grown in the Waikoloa Village area adding approximately 30 service connections per year since 2013. On average, WHWC distributed approximately 1.88 million gallons of water per day to its customers for the calendar year ending December 31, 2016.

Waikoloa Resort Utilities, Inc., dba West Hawaii Utility Company ("WHUC") and Waikoloa Sanitary Sewer Co., Inc., dba West Hawaii Sewer Company ("WHSC") are utilities that are affiliated with WHWC. WHWC, WHUC and WHSC are collectively referred to as the "Waikoloa Utilities". WHUC provides potable water service, sewage treatment service and irrigation water service to the Waikoloa Beach Report area, and WHSC provides wastewater service within the Waikoloa Village service area. In general, Applicant and WHUC jointly own, operate and maintain a potable water system that includes potable water wells, storage tanks, and transmission and distributions lines, pursuant to an Amended and Restated Water Sharing Agreement.

Applicant is wholly owned by Hawaii Water Service Company, Inc. ("Hawaii Water").² Hawaii Water is a public utility which holds a CPCN to provide potable water service in Ka'anapali, Maui, and a CPCN to provide wastewater collection and treatment service in Pukalani, Maui. Hawaii Water also owns all of the stock of Kona Water Service Company, Inc.

Hawaii Water is a wholly-owned subsidiary of California Water Service Group ("CWSG"), a holding company incorporated in Delaware. CWSG has provided high-quality water utility services through its subsidiaries since 1926. Besides Hawaii Water, CWSG's

operating subsidiaries include California Water Service Company (water service), New Mexico Water Service Company (water and wastewater services), Washington Water Service Company (water and wastewater services), CWS Utility Services, a non-regulated subsidiary, and HWS Utility Services LLC, a non-regulated subsidiary. CWSG is a public company traded on the New York Stock Exchange under the symbol “CWT.” CWSG’s audited financial statements are available on the SEC’s website.

III. DESCRIPTION OF RATE RELIEF REQUESTED

A. Rate Relief Requested

Applicant seeks the review and approval by the Commission of a 2018 test year (the “Test Year”)³ net overall revenue increase of \$728,105 for its water operations.⁴ (Exhibit WHWC 6, Line 7, column 2). This amounts to an approximate increase of 38.4% from the pro forma revenue amount of \$1,894,671 at present rates for the Test Year, as shown on Exhibit WHWC 6 (line 7, column 1), attached hereto and as further described in the testimony of Robert Stout (Exhibit WHWC-T-100). If approved, the proposed revenue increase will provide WHWC with a 7.75% rate of return on its prudently incurred system improvements, as shown on Exhibit WHWC 6 (line 30, column 3).

B. Justification for Rate Relief Requested

² See Decision and Order filed on August 20, 2008 in Docket No. 2008-0018.

³ Pursuant to HAR § 6-61-88(3)(A), because this Application is being filed in the last six months of 2017, the Test Year is calendar year 2018.

⁴ Applicant is in the process of analyzing the effects of changes to the federal income tax laws that are scheduled to become effective on January 1, 2018. Applicant will provide updates to its income tax expense and any other schedules that are affected by these changes by mid- February. Applicant does not wish to delay filing the Application until it can incorporate changes to the tax laws, since a delay in filing beyond December 31, 2017 would require Applicant to either revise all of its supporting schedules to use a later test year, or request a waiver of the test year requirement set forth in HAR § 6-61-88(3)(A), and would result in a delay in obtaining an increase in revenues.

Applicant's current rates do not now and will not in the foreseeable future produce sufficient revenues to allow it a reasonable opportunity to earn a fair rate of return on its prudently incurred investment. For calendar year 2017, on a pro forma basis, Applicant had revenues of approximately \$1,873,654 and a -21.59% rate of return for its water service. (See Exhibit WHWC 9). For the Test Year, Applicant projects revenues of approximately \$1,894,671 and a -22.17% rate of return at present rates. (See Exhibit WHWC 6).

Moreover, Applicant has made significant capital improvements and plans to make additional capital improvements in the Test Year. In Applicant's last general rate, the Commission approved the inclusion of the cost of Deep Well 7 ("DW-7") in rate base. However, because DW-7 was placed in service during the Test Year, and the Commission utilizes an average Test Year rate base, Applicant has only been able to earn a return on half of the cost of DW-7. Applicant's proposed rate increase will allow it to earn a return on the full cost of DW-7. In addition, Applicant and WHUC are in the process of constructing a new well, DW-8, which they expect to place in service during the Test Year. Since Applicant's last rate case, it has also completed or will complete a number of other capital improvements. These capital improvements are discussed in the testimony of Stephen Green. (Exhibits WHWC-T-300 and WHWC-T-301). Finally, Applicant's operating expenses have increased since its last rate case.

In sum, the instant rate case is designed to allow Applicant to earn a fair and reasonable return on its prudently incurred costs for utility assets providing water service to its customers.

IV. PRESENT AND PROPOSED RATES

The rates currently being charged by Applicant are set forth in Exhibit WHWC 4.

Applicant hereby respectfully requests that it be authorized to charge the rates set forth in Exhibit WHWC 5. All of the requested rates are greater than Applicant's current rates. In

addition to reflecting and passing through to customers increased costs to the Applicant, the increases reflect increases in Applicant's rate base and a rate of return of 7.75%, as discussed in Section III.A. of the Application.

Applicant's present and proposed rates, as well as the proposed percent increase in rates are as follows:

Monthly Water Fees Meter Charge by Meter Size (inches)	Present Rate	Proposed Rate			
		Phase 1		Phase 2	
5/8"	\$ 7.65	\$ 12.29	60.7%	\$ 14.67	19.4%
3/4"	\$ 7.65	\$ 12.29	60.7%	\$ 14.67	19.4%
1"	\$ 14.66	\$ 23.56	60.7%	\$ 28.12	19.4%
1 1/2"	\$ 25.72	\$ 41.33	60.7%	\$ 49.33	19.4%
2"	\$ 35.07	\$ 56.35	60.7%	\$ 67.26	19.4%
3"	\$ 70.14	\$ 112.70	60.7%	\$ 134.53	19.4%
4"	\$ 116.89	\$ 187.81	60.7%	\$ 224.20	19.4%
6"	\$ 233.77	\$ 375.61	60.7%	\$ 448.37	19.4%
8"	\$ 420.79	\$ 676.11	60.7%	\$ 807.08	19.4%
Private Water Service by Meter Size					
3"	\$ 70.14	\$ 112.70	60.7%	\$ 134.53	19.4%
4"	\$ 116.89	\$ 187.81	60.7%	\$ 224.20	19.4%
6"	\$ 233.77	\$ 375.61	60.7%	\$ 448.37	19.4%
8"	\$ 420.79	\$ 676.11	60.7%	\$ 807.08	19.4%
Quantity Charge					
per 1,000 gallons of water consumption	\$ 0.8349	\$ 1.3415	60.7%	\$ 1.6014	19.4%
Water Availability Charge					
per month per lot that can receive service but has not been applied for	\$ 2.00	\$ 2.00	0.0%	\$ 2.00	0.0%

Power Cost Charge (“PCC”)

The PCC for Applicant’s water service includes a pump efficiency factor of 5.63 kWh per thousand gallons. Applicant proposes to revise its pump efficiency factor to 5.5132 kWh per thousand gallons to reflect the most recent changes to the cost to pump water in the Waikoloa Water system.

V. FINANCIAL INFORMATION AND WAIVER REQUEST

In accordance with HAR §§ 6-61-86 and 6-61-88, Applicant hereby files and incorporates by reference the following exhibits:

- | | |
|----------------|---|
| Exhibit WHWC 1 | General Description of WHWC’s property and equipment |
| Exhibit WHWC 2 | Financial Statements |
| | <u>Schedules</u> |
| | A. Amount and kinds of stock authorized by articles of incorporation and amount outstanding. |
| | B. Terms of preference of preferred stock, whether cumulative or participate or on dividends of assets, or otherwise. |
| | C. Description of each security agreement, mortgage, and deed of trust on Applicant’s property. |
| | D. Unaudited Financial Statements for the year ended December 31, 2016. |
| | E. Unaudited Financial Statements for the six (6) months ended June, 2017. |
| | F. Amount of bonds authorized and issued. |
| | G. Each note outstanding. |
| | H. Other indebtedness. |

- I. Rate and amount of dividends paid during the five previous calendar years.
- J. The total earnings results for the total utility operations of Hawaii Water.
- K. Option elected by Applicant in computing deferred taxes, investment tax credit and depreciation deduction in determining its federal income tax payments, and whether Applicant has used the same method in calculating federal income taxes for the Test Year for ratemaking purposes.
- L. CWSG's last annual report to stockholders is available on its website, and is incorporated by reference⁵.
- M. CWSG's last proxy statement sent to stockholders is available on its website, and is incorporated by reference.
- N. The latest form 10(k), Annual Report filed with the Securities and Exchange Commission stockholders is available on CWSG's website, and is incorporated by reference.
- O. Statement regarding whether or not the increase reflects and passes through to customers only increased costs to the Applicant for the services or commodities furnished by them.

Exhibit WHWC 3	Property and Equipment, and Accumulated Depreciation
Exhibit WHWC 4	Present Rate Schedule
Exhibit WHWC 5	Proposed Rate Schedule
Exhibit WIWC 6	Rate of Return Summary at Present and Proposed Rates Pro Forma for the Test Year Ended December 31, 2018
Exhibit WHWC 6.1	Revenue Requirement Support
Exhibits WHWC 7 through 7.15	Rate Base Schedules
Exhibits WHWC 8 through 8.22	Revenue and Expense Schedules

⁵ <http://ir.calwatergroup.com/Investor-Relations/Financial-Reports/Annual-Reports>.

Exhibit WHWC 9	Results of Operations Pro Forma December 31, 2017 at present and proposed rates. Results of operation for calendar year 2015, 2016 and the test year are included on Exhibits WHWC Water 6 and 8.
Exhibit WHWC 10	Rate of Return
Exhibit WHWC 11	Phase-in Schedule
Exhibit WHWC 12	Rate Design
Exhibit WHWC 13	Rate Design Phase 1
Exhibit WHWC 14	Rate Design Phase 2

E. Testimonies and Supporting Exhibits

Exhibit WHWC-T-100	Testimony of Robert Stout	
Exhibit WHWC-T-101	Quote to Perform Audit of Financial Statement	
Exhibit WHWC-T-102	First Amendment and Restatement of Water Sharing Agreement	
Exhibit WHWC-T-103	Revised Tariff Pages (clean)	
Exhibit WHWC-T-104	Revised Tariff Pages (black-lined)	
Exhibit WHWC-T-105	WHWC Cost of Service Study	
Exhibit WHWC-T-200	Testimony of Anthony Carrasco	
Exhibit WHWC-T-201	Payroll Allocations (Confidential) ⁶	
Exhibit WHWC-T-300	Testimony of Stephen Green	
Exhibit WHWC-T-301	Capital Project Justifications	

F. Request for Waiver.

Pursuant to IAR § 6-61-92, Applicant respectfully requests that its unaudited financial statements (Exhibits WHWC 2, Schedules D and E) submitted with this Application be accepted

⁶ Exhibit WHWC-T-201 is confidential and will be provided once a Protective Order has been issued in this Docket.

in lieu of audited financial statements. Because Applicant is a small utility, requiring Applicant to file audited financial statements would result in a hardship. CWSG, Hawaii Water's 100% shareholder, has received an estimate of \$215,000 annually for its auditor, Deloitte & Touche, LLP, to conduct an independent audit of the Waikoloa Utilities. If the Commission orders the financial statements to be routinely audited, Applicant will need additional expense recovery in rates to support that effort. CWSG is regularly audited by Deloitte & Touche, LLP. A copy of CWSG's latest annual report showing audited financial statements is available on CWSG's website⁷, and is incorporated by reference.

VI. PROPOSED TARIFF CHANGES

Applicant also requests Commission approval of certain provisions of its tariff. The revisions are as follows:

1. Revisions of Rule XX, Section 6 of Applicant's tariff governing the amount of Contributions in Aid of Construction ("CIAC") payable for water service. Applicant's tariff currently provide that CIAC for water service is to be assessed at a rate \$4.62 per gallon of estimated water usage. WHWC proposes to revise this provision to provide that the amount of CIAC for water service will be determined based on a formula to determine an applicant's fair share of the cost of improvements required to serve its project. This is consistent with revisions to the tariff of Hawaii Water's other divisions, and with revisions that WHUC intends to propose in its rate case.

⁷<http://ir.calwatergroup.com/Investor-Relations/Financial-Reports/Annual-Reports>.

2. Removal of the service application form from Applicant's tariff.

The proposed tariff changes are described in and attached to the Testimony of Robert Stout. (Exhibits WHWC T-104 and WHWC-T-105).

VII. CONCLUSION

WHEREFORE, Applicant respectfully prays as follows:

1. That this Application be deemed a complete application, pursuant to HRS § 269-16 and HAR § 6-61-88;
2. That a public hearing be conducted on the island of Hawaii to consider this Application in accordance with HRS §§ 269-12 and 269-16, and HAR § 6-61-30;
3. That the Commission find that Applicant's present rates for its customers are unjust and unreasonable, and will not allow Applicant to recover all of its reasonably incurred expenses, nor allow Applicant to earn a fair return on its prudently incurred investments in utility property;
4. That the Commission approve, pursuant to HRS § 269-16, the rates proposed by Applicant as set forth in Exhibit WHWC 5 and authorize Applicant to put into effect the proposed rates after the date of authorization by the Commission;
5. That the Commission waive the requirement under HAR § 6-61-75 for audited financial statements and accept Applicant's unaudited financial statements filed herein;
6. That the Commission approve the request to modify the terms of Applicant's tariff as described in this Application;
7. That the Commission approve the request to replace Applicant's existing unit depreciation rates with group depreciation rates; and

8. That the Applicant be granted such other and further relief as may be just and reasonable under the circumstances, including any interim rate increase.

DATED: Honolulu, Hawaii, December 29, 2017.

A handwritten signature in black ink, appearing to read "J. Douglas Ing", written over a horizontal line.

J. DOUGLAS ING
PAMELA J. LARSON
DAVID Y. NAKASHIMA
Attorneys for Applicant
WAIKOLOA WATER CO., INC., dba WEST
HAWAII WATER COMPANY

West Hawaii Water Company

Property and Equipment

Waikoloa Water Company, Inc., doing business as West Hawaii Water Company (“WHWC”), provides potable water and irrigation water to the Waikoloa Village area (“The Village”) in South Kohala on the island of Hawaii. Since the company began operations in 1970, it has developed potable water wells, storage tanks, and transmission/distribution lines as needed to keep pace with the growth of the community. Facilities also include a non-potable irrigation well and transmission main (owned by Waikoloa Village Association) serving the Waikoloa Village golf course.

Potable Water System

WHWC operates a potable water system serving residential (condominium and single family), public authority and commercial developments within the Village. This system is part of an overall potable water system serving the entire Waikoloa area including Waikoloa Village, Waikoloa Highlands and Ranchlands, and the Waikoloa Beach Resort. The wells, transmission lines, and the majority of the storage facilities of the system are jointly operated and maintained by WHWC and West Hawaii Utility Company (“WHUC”) pursuant to a Water Sharing Agreement (Docket 96-0003).¹

¹ The Water Sharing Agreement was amended and restated in October 2017. A copy of the First Amended and Restated Water Sharing Agreement is attached as Exhibit WHWC-T-102.

Potable Water Wells

Potable water delivered to WHWC and WHUC service areas is pumped from seven deep wells located in two well fields at the 1200' elevation east of Waikoloa Village. These include:

Well	Total Depth	Horse Power	Capacity (GPM)	Owner
DW-1	1,350	700	1,400	WHUC
DW-2	1,309	450	1,000	WHUC
DW-3	1,285	450	1,000	WHWC/WHUC
DW-4	1,229	350	750	WHWC
DW-5	1,250	400	800	WHWC
DW-6	1,391	500	1,000	WHUC/WHWC
DW-7	1,346	500	1,250	WHUC/WHWC

An eighth potable water well (DW-8) is currently under development. Drilling and testing have been completed. The well will be outfitted and brought on line by the end of 2018. Well DW-8 will be owned by both WHUC and WHWC.

The operation of the wells is monitored and controlled via a telemetering system based at the utility base yard adjacent to Waikoloa Village. This telemetering system alerts utility personnel when outages occur and allows WHWC and WHUC to maintain peak avoidance contracts with Hawaii Electric Light Company ("HELCO"), minimizing total electric costs to operate the wells.

Potable Water Tanks

The WHWC/WHUC water system includes seven storage tanks as follows:

1. A 1.0 million gallon concrete tank owned by WHWC is located at the north well field (Tank 1200N-1),
2. A 1.0 million gallon glass lined steel tank owned by WHWC and WHUC is located at the north well field (Tank 1200N-2).

3. A 1.0 million gallon glass lined steel tank owned by WHUC is located at the south well field (Tank 1200S-1),
4. A 1.0 million gallon glass lined steel tank owned by WHWC and WHUC is located at the south well field (Tank 1200S-2), and
5. A 1.0 million gallon welded steel tank owned by WHUC is located above the Waikoloa Beach Resort at the 300' elevation (Tank 300-1).
6. A 2.5 million gallon pre-stressed concrete tank owned by WHUC located above the Waikoloa Beach Resort at the 300' elevation (Tank 300-2)
7. A 2.5 million gallon pre-stressed concrete tank owned by WHUC located above the Waikoloa Beach Resort at the 300' elevation. (Tank 330-3).

The system also includes a flow control tank located at an elevation of 900 feet. All of the potable water tanks are connected to the centralized telemetering system to facilitate monitoring of tank levels from the utility base yard.

Potable Water Transmission and Distribution Lines

WHWC and WHUC own and maintain approximately 11.8 miles of transmission water lines to deliver potable water from the potable water well fields to their respective service areas. Operation and maintenance costs associated with that portion of the transmission lines that serve both service areas are shared by the companies pursuant to the Water Sharing Agreement. WHUC is solely responsible for the operation and maintenance of the transmission and distribution lines below the Village delivering water to the Resort.

Within the Village, WHWC operates approximately 16.0 miles of distribution lines.

Irrigation System

Since 1970, WHWC has provided non-potable water to one golf course within the Waikoloa Village. This service is provided under a contractual agreement with the Waikoloa Village Association (“WVA”) (Notice Filings effective December 11, 1987, March 21, 1997 and June 22, 2001). The water delivered for this purpose is brackish ground water. The well is located at the 800’ elevation immediately west of Waikoloa Village and approximately 6 miles north of Waikoloa Beach Resort. The well currently delivers varying amounts of water, up to 1.0 MGD, to the main irrigation lake on the golf course. The golf course operator is responsible for pressurizing the golf course irrigation system.

A Third Amendment to the Irrigation Water Agreement executed December 1, 2004 relieves WHWC from the responsibilities of operating and maintaining the irrigation water well. Waikoloa Village Association pays a royalty fee to WHWC for all water used and is responsible for the operating and maintenance costs.

Waikoloa Water Co., Inc., dba West Hawaii Water Company
Amount and Kinds of Stock Authorized by
Articles of Incorporation and Amount Outstanding

<u>Description</u>	<u># of Shares Authorized</u>	<u># of Shares Issued</u>	<u>PAR Value Per Share</u>	<u>Total PAR Value</u>
Preferred Stock	None	None	N/A	N/A
Common Stock*	10	10	\$100.00	\$1,000.00

* All of the outstanding shares of Waikoloa Water Co., Inc., dba West Hawaii Water Company are owned by Hawaii Water Service Company, Inc.

**Application Filed December 2017
Exhibit WHWC 2, Schedule B
Preferred Stock
Witness: Stout**

**Waikoloa Water Co., Inc., dba West Hawaii Water Company
Terms of Preference of Preferred Stock, Whether Cumulative of
Participate or on Dividends of Assets, or Otherwise**

None

Waikoloa Water Co., Inc., dba West Hawaii Water Company
Description of Each Security Agreement, Mortgage, and Deed of Trust

None

**WEST HAWAII WATER COMPANY
 F.K.A. WAIKOLOA WATER COMPANY, INC.
 BALANCE SHEET
 DECEMBER 31, 2016**

<u>ACCOUNT NUMBER</u>	<u>ASSETS & OTHER DEBITS</u>	<u>BALANCE 12/31/16</u>
	<u>UTILITY PLANT</u>	
303.	Land	0
101.	Utility Plant in Service	15,343,367
105.	Construction Work in Progress	2,391,728
108.	Accum. Depreciation of Utility Plant in Service	<u>(7,054,250)</u>
	Total Utility Plant Less Reserves	10,680,845
	<u>OTHER PROPERTY & INVESTMENTS</u>	
121.	Nonutility Property	272,701
122.	Accum. Depreciation of Nonutility Plant	<u>(59,826)</u>
	Total Other Property & Investments	212,875
	<u>CURRENT & ACCRUED ASSETS</u>	
131.	Cash	0
141.	Customer Accounts Receivable	84,439
142.	Accounts Receivable Other	1,464
143.	Accum. Provision for Uncollectible Accts - Contra	(406)
145.	Accounts Receivable From Associated Companies	16,193,194
151.	Other Materials & Supplies	177
162.	Prepayments	(33,432)
173.	Accrued Utility Revenues	102,348
174.	Miscellaneous Other Assets	<u>0</u>
	Total Current & Accrued Assets	16,347,784
	<u>DEFERRED DEBITS</u>	
184.	Clearing Accounts	0
186.	Miscellaneous Deferred Debits	<u>225,154</u>
	Total Deferred Debits	225,154
	TOTAL ASSETS & OTHER DEBITS	<u>27,466,658</u>

**WEST HAWAII WATER COMPANY
 F.K.A. WAIKOLOA WATER COMPANY, INC.
 BALANCE SHEET
 DECEMBER 31, 2016**

<u>ACCOUNT NUMBER</u>	<u>EQUITY CAPITAL & LIABILITIES</u>	<u>BALANCE 12/31/16</u>
	<u>STOCKHOLDER'S EQUITY</u>	
201.	Common Stock	0
211.	Other Paid-In-Capital	0
215.	Unappropriated Retained Earnings	(2,844,095)
435.	Balance Transferred from Income	(192,987)
438.	Dividends Declared - Common Stock	0
	Total Stockholder's Equity/(Deficit)	(3,037,083)
	<u>LONG TERM DEBT</u>	
223.	Advances from Associated Companies	0
224.	Other Long Term Debt	0
	Total Long Term Debt	0
	<u>CURRENT & ACCRUED LIABILITIES</u>	
231.	Accounts Payable	179,230
233.	Accounts Payable to Associated Companies	23,592,461
234.	Notes Payable to Associated Companies	0
225.	Capitalized Lease Obligation	0
236.	Accrued Taxes Payable	126,476
239.	Matured Long Term Debt	0
241.	Other Liabilities	2,673
	Total Current & Accrued Liabilities	23,900,839
	<u>DEFERRED CREDITS</u>	
252.	Advances for Construction	48,160
253.	Other Deferred Credits	355,845
	Total Deferred Credits	404,005
	<u>OPERATING RESERVES</u>	
265.	Misc. Operating Reserves	0
	<u>CONTRIBUTIONS IN AID OF CONSTRUCTION</u>	
271.	Contributions in Aid of Construction	12,574,511
272.	Accum. Amortization of CIAC	(6,372,212)
	Total Contributions in Aid of Construction - Net	6,202,298
	<u>DEFERRED INCOME TAXES</u>	
283.	Accum. Deferred Income Taxes	(3,402)
	TOTAL LIABILITIES & OTHER CREDITS	27,466,658

WEST HAWAII WATER COMPANY
F.K.A. WAIKOLOA WATER COMPANY, INC.
INCOME STATEMENT
DECEMBER 31, 2016

ACCOUNT
NUMBER

CY 12/31/16

OPERATING REVENUES

WATER SALES:

460.	Unmetered Water Revenue	0
461.	Metered Water Revenue	1,786,732
462.	Fire Protection Revenue	47,689
465.	Sales to Irrigation Customers	29,836

OTHER WATER REVENUES:

471.	Miscellaneous Service Revenues	22,099
474.	Other Water Revenues - Unbilled Rev Adj	30,586

WASTEWATER SALES

521.	Flat Rate Revenues	0
522.	Measured Revenue	0
523.	Revenues from Public Authorities	0
524.	Revenues from Other Systems	0

OTHER WASTEWATER REVENUES

531.	Sale of Sludge	0
536.	Other Wastewater Revenues	0

RECLAIMED WATER SALES

540.	Flat Rate Reuse Revenues	0
541.	Measured Reuse Revenue	0
544.	Reuse Revenues from Other Systems	0

	Total Operating Revenues	<u>1,916,942</u>
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WEST HAWAII WATER COMPANY
F.K.A. WAIKOLOA WATER COMPANY, INC.
INCOME STATEMENT
DECEMBER 31, 2016

ACCOUNT
 NUMBER

CY 12/31/16

OPERATING EXPENSES - WATER

610.1	Purchased Water	1,659
615.1	Purchased Power	944,248
601.1	Source of Supply - Salaries & Wages	42,296
616.1	Source of Supply - Fuel for Power Production	0
618.1	Source of Supply - Chemicals	0
631.1	Source of Supply - Contractual Svc - Engr	0
642.1	Source of Supply - Equipment Rental	0
675.1	Source of Supply - Misc Expense	6,993
601.2	Source of Supply - Maint - Salaries & Wages	5,539
620.2	Source of Supply - Maint - Materials & Supplies	0
675.2	Source of Supply - Maint - Misc Expense	17,964
601.3	Water Treatment - Salaries & Wages	5,252
618.3	Water Treatment - Chemicals	12,257
620.3	Water Treatment - Materials & Supplies	0
631.3	Water Treatment - Contractual Svc - Engr	0
635.3	Water Treatment - Contractual Svc - Testing	0
636.3	Water Treatment - Contractual Svc - Other	0
642.3	Water Treatment - Rental of Equipment	0
675.3	Water Treatment - Misc Expense	2,271
601.4	Water Treatment - Maint - Salaries & Wages	0
620.4	Water Treatment - Maint - Materials & Supplies	0
675.4	Water Treatment - Maint - Misc Expense	98
601.5	Trans & Distrib - Salaries & Wages	16,559
635.5	Trans & Distrib - Contractual Svc - Testing	0
642.5	Trans & Distrib - Rental of Equipment	0
675.5	Trans & Distrib - Misc Expense	29,497
601.6	Trans & Distrib - Maint - Salaries & Wages	0
675.6	Trans & Distrib - Maint - Misc Expense	24,832
	Total Operating Expenses - Water	1,109,464

WEST HAWAII WATER COMPANY
F.K.A. WAIKOLOA WATER COMPANY, INC.
INCOME STATEMENT
DECEMBER 31, 2016

<u>ACCOUNT NUMBER</u>		<u>CY 12/31/16</u>
<u>OPERATING EXPENSES - WASTEWATER</u>		
715.3	Purchased Power	0
701.2	Collection - Maint - Salaries & Wages	0
720.2	Collection - Maint - Materials & Supplies	0
735.2	Collection - Maint - Contractual Svc - Testing	0
775.2	Collection - Maint - Miscellaneous Expense	0
701.3	Pumping - Salaries & Wages	0
716.3	Pumping - Fuel for Power Production	0
718.3	Pumping - Chemicals	0
731.3	Pumping - Contractual Svc - Engr	0
735.3	Pumping - Contractual Svc - Testing	0
742.3	Pumping - Rental of Equipment	0
775.3	Pumping - Miscellaneous Expense	0
701.4	Pumping - Maint - Salaries & Wages	0
775.4	Pumping - Maint - Misc Expense	0
701.5	Treat & Disposal - Salaries & Wages	0
710.5	Treat & Disposal - Purchased WW Treatment	0
711.5	Treat & Disposal - Sludge Removal Expense	0
718.5	Treat & Disposal - Chemicals	0
720.5	Treat & Disposal - Materials & Supplies	0
731.5	Treat & Disposal - Contractual Svc - Engr	0
735.5	Treat & Disposal - Contractual Svc - Testing	0
736.5	Treat & Disposal - Contractual Svc - Other	0
742.5	Treat & Disposal - Rental of Equipment	0
750.5	Treat & Disposal - Transportation Expenses	0
775.5	Treat & Disposal - Miscellaneous Expense	0
701.6	Treat & Disposal - Maint - Salaries & Wages	0
720.6	Treat & Disposal - Maint - Materials & Supplies	0
735.6	Treat & Disposal - Maint - Contractual Svc - Test	0
775.6	Treat & Disposal - Maint - Misc Expense	0
701.9	Reclaimed Wtr Treat - Salaries & Wages	0
718.9	Reclaimed Wtr Treat - Chemicals	0
720.9	Reclaimed Wtr Treat - Materials & Supplies	0
750.9	Reclaimed Wtr Treat - Transportation Expense	0
758.9	Reclaimed Wtr Treat - Insurance - Wrk Comp	0
701.10	Reclaimed Wtr Treat - Maint - Salaries & Wages	0
720.10	Reclaimed Wtr Treat - Maint - Mats & Supplies	0
720.11	Reclaimed Wtr Distr - Materials & Supplies	0
775.11	Reclaimed Wtr Distr - Miscellaneous Expense	12,038
	Total Operating Expenses - Wastewater	12,038
	Total Operating Expenses	<u>1,121,503</u>
	NET OPERATING INCOME / (LOSS)	795,439

WEST HAWAII WATER COMPANY
F.K.A. WAIKOLOA WATER COMPANY, INC.
INCOME STATEMENT
DECEMBER 31, 2016

<u>ACCOUNT NUMBER</u>		<u>CY 12/31/16</u>
<u>OTHER INCOME & EXPENSES:</u>		
403.	Depreciation Expense	123,929
407.	Amortization Expense	7,803
408.	Taxes Other Than Income	0
415.	Revenues - Jobbing & Contract Work	0
416.	Costs & Expenses - Jobbing & Contract Work	0
419.	Interest and Dividend Income	0
421.	Nonutility Income	3,060
426.	Miscellaneous Nonutility Expenses	4,367
427.	Interest Expense / (Income)	<u>(25,031)</u>
	Total Other Income & Expenses	114,129
<u>GENERAL & ADMINISTRATIVE EXPENSES:</u>		
601.7	Customer Accounts - Salaries & Wages	52,067
670.7	Customer Accounts - Bad Debt Expense	94
675.7	Customer Accounts - Misc Expense	2,759
601.8	Admin & General - Salaries & Wages	1,792
604.8	Admin & General - Empl Pensions & Benefits	178,922
620.8	Admin & General - Materials & Supplies	36
631.8	Admin & General - Contractual Svc - Engr	0
632.8	Admin & General - Contractual Svc - Acctg	0
633.8	Admin & General - Contractual Svc - Legal	1,247
636.8	Admin & General - Contractual Svc - Other	13,148
641.8	Admin & General - Building/Property Rental	6,410
657.8	Admin & General - Insurance - Gen Liab	39,759
658.8	Admin & General - Insurance - Worker's Comp	6,648
659.8	Admin & General - Insurance - Other	0
667.8	Admin & General - Regulatory Comm Expense	23,576
675.8	Admin & General - Misc Expense	<u>508,094</u>
	Total General & Administrative Expenses	<u>834,552</u>
	NET INCOME/(LOSS) BEFORE INCOME TAXES	(153,242)
409.	Income Tax Expense / (Benefit)	<u>39,745</u>
	NET INCOME/(LOSS)	<u>(192,987)</u>

WEST HAWAII WATER COMPANY
F.K.A. WAIKOLOA WATER COMPANY, INC.
BALANCE SHEET
June 30, 2017

<u>ACCOUNT NUMBER</u>	<u>ASSETS & OTHER DEBITS</u>	<u>BALANCE 06/30/2017</u>
	<u>UTILITY PLANT</u>	
303.	Land	0
101.	Utility Plant in Service	15,344,408
105.	Construction Work in Progress	2,549,374
108.	Accum. Depreciation of Utility Plant in Service	<u>(7,269,720)</u>
	Total Utility Plant Less Reserves	10,624,062
	<u>OTHER PROPERTY & INVESTMENTS</u>	
121.	Nonutility Property	272,701
122.	Accum. Depreciation of Nonutility Plant	<u>(63,267)</u>
	Total Other Property & Investments	209,434
	<u>CURRENT & ACCRUED ASSETS</u>	
131.	Cash	0
141.	Customer Accounts Receivable	74,143
142.	Accounts Receivable Other	2,845
143.	Accum. Provision for Uncollectible Accts - Contra	0
145.	Accounts Receivable From Associated Companies	17,106,155
151.	Other Materials & Supplies	11,710
162.	Prepayments	(17,702)
173.	Accrued Utility Revenues	103,500
174.	Miscellaneous Other Assets	<u>0</u>
	Total Current & Accrued Assets	17,280,652
	<u>DEFERRED DEBITS</u>	
184.	Clearing Accounts	0
186.	Miscellaneous Deferred Debits	<u>226,336</u>
	Total Deferred Debits	226,336
	TOTAL ASSETS & OTHER DEBITS	<u>28,340,483</u>

WEST HAWAII WATER COMPANY
F.K.A. WAIKOLOA WATER COMPANY, INC.
BALANCE SHEET
June 30, 2017

<u>ACCOUNT NUMBER</u>	<u>EQUITY CAPITAL & LIABILITIES</u>	<u>BALANCE 06/30/2017</u>
	<u>STOCKHOLDER'S EQUITY</u>	
201.	Common Stock	0
211.	Other Paid-In-Capital	0
215.	Unappropriated Retained Earnings	(3,140,204)
435.	Balance Transferred from Income	(127,568)
438.	Dividends Declared - Common Stock	<u>0</u>
	Total Stockholder's Equity/(Deficit)	(3,267,772)
	<u>LONG TERM DEBT</u>	
223.	Advances from Associated Companies	0
224.	Other Long Term Debt	<u>0</u>
	Total Long Term Debt	0
	<u>CURRENT & ACCRUED LIABILITIES</u>	
231.	Accounts Payable	183,056
233.	Accounts Payable to Associated Companies	24,835,158
234.	Notes Payable to Associated Companies	0
225.	Capitalized Lease Obligation	0
236.	Accrued Taxes Payable	128,182
239.	Matured Long Term Debt	0
241.	Other Liabilities	<u>969</u>
	Total Current & Accrued Liabilities	25,147,365
	<u>DEFERRED CREDITS</u>	
252.	Advances for Construction	48,160
253.	Other Deferred Credits	<u>365,374</u>
	Total Deferred Credits	413,534
	<u>OPERATING RESERVES</u>	
265.	Misc. Operating Reserves	0
	<u>CONTRIBUTIONS IN AID OF CONSTRUCTION</u>	
271.	Contributions in Aid of Construction	12,574,511
272.	Accum. Amortization of CIAC	<u>(6,523,753)</u>
	Total Contributions in Aid of Construction - Net	6,050,758
	<u>DEFERRED INCOME TAXES</u>	
283.	Accum. Deferred Income Taxes	(3,402)
	TOTAL LIABILITIES & OTHER CREDITS	<u>28,340,483</u>

WEST HAWAII WATER COMPANY
F.K.A. WAIKOLOA WATER COMPANY, INC.
INCOME STATEMENT
June 30, 2017

<u>ACCOUNT NUMBER</u>		<u>6/30/2017</u>
<u>OPERATING REVENUES</u>		
<u>WATER SALES:</u>		
460.	Unmetered Water Revenue	0
461.	Metered Water Revenue	920,409
462.	Fire Protection Revenue	23,845
465.	Sales to Irrigation Customers	16,418
<u>OTHER WATER REVENUES:</u>		
471.	Miscellaneous Service Revenues	13,864
474.	Other Water Revenues - Unbilled Rev Adj	1,152
<u>WASTEWATER SALES</u>		
521.	Flat Rate Revenues	0
522.	Measured Revenue	0
523.	Revenues from Public Authorities	0
524.	Revenues from Other Systems	0
<u>OTHER WASTEWATER REVENUES</u>		
531.	Sale of Sludge	0
536.	Other Wastewater Revenues	0
<u>RECLAIMED WATER SALES</u>		
540.	Flat Rate Reuse Revenues	0
541.	Measured Reuse Revenue	0
544.	Reuse Revenues from Other Systems	0
	Total Operating Revenues	975,688

WEST HAWAII WATER COMPANY
F.K.A. WAIKOLOA WATER COMPANY, INC.
INCOME STATEMENT
June 30, 2017

<u>ACCOUNT NUMBER</u>		<u>6/30/2017</u>
<u>OPERATING EXPENSES - WATER</u>		
610.1	Purchased Water	2,748
615.1	Purchased Power	553,917
601.1	Source of Supply - Salaries & Wages	19,429
616.1	Source of Supply - Fuel for Power Production	0
618.1	Source of Supply - Chemicals	0
631.1	Source of Supply - Contractual Svc - Engr	0
642.1	Source of Supply - Equipment Rental	0
675.1	Source of Supply - Misc Expense	4,057
601.2	Source of Supply - Maint - Salaries & Wages	4,440
620.2	Source of Supply - Maint - Materials & Supplies	0
675.2	Source of Supply - Maint - Misc Expense	19,368
601.3	Water Treatment - Salaries & Wages	2,355
618.3	Water Treatment - Chemicals	7,575
620.3	Water Treatment - Materials & Supplies	0
631.3	Water Treatment - Contractual Svc - Engr	0
635.3	Water Treatment - Contractual Svc - Testing	0
636.3	Water Treatment - Contractual Svc - Other	0
642.3	Water Treatment - Rental of Equipment	0
675.3	Water Treatment - Misc Expense	1,233
601.4	Water Treatment - Maint - Salaries & Wages	0
620.4	Water Treatment - Maint - Materials & Supplies	0
675.4	Water Treatment - Maint - Misc Expense	391
601.5	Trans & Distrib - Salaries & Wages	9,986
635.5	Trans & Distrib - Contractual Svc - Testing	0
642.5	Trans & Distrib - Rental of Equipment	0
675.5	Trans & Distrib - Misc Expense	23,228
601.6	Trans & Distrib - Maint - Salaries & Wages	0
675.6	Trans & Distrib - Maint - Misc Expense	13,052
	Total Operating Expenses - Water	661,778

WEST HAWAII WATER COMPANY
F.K.A. WAIKOLOA WATER COMPANY, INC.
INCOME STATEMENT
June 30, 2017

ACCOUNT NUMBER		6/30/2017
<u>OPERATING EXPENSES - WASTEWATER</u>		
715.3	Purchased Power	0
701.2	Collection - Maint - Salaries & Wages	0
720.2	Collection - Maint - Materials & Supplies	0
735.2	Collection - Maint - Contractual Svc - Testing	0
775.2	Collection - Maint - Miscellaneous Expense	0
701.3	Pumping - Salaries & Wages	0
716.3	Pumping - Fuel for Power Production	0
718.3	Pumping - Chemicals	0
731.3	Pumping - Contractual Svc - Engr	0
735.3	Pumping - Contractual Svc - Testing	0
742.3	Pumping - Rental of Equipment	0
775.3	Pumping - Miscellaneous Expense	0
701.4	Pumping - Maint - Salaries & Wages	0
775.4	Pumping - Maint - Misc Expense	0
701.5	Treat & Disposal - Salaries & Wages	0
710.5	Treat & Disposal - Purchased WW Treatment	0
711.5	Treat & Disposal - Sludge Removal Expense	0
718.5	Treat & Disposal - Chemicals	0
720.5	Treat & Disposal - Materials & Supplies	0
731.5	Treat & Disposal - Contractual Svc - Engr	0
735.5	Treat & Disposal - Contractual Svc - Testing	0
736.5	Treat & Disposal - Contractual Svc - Other	0
742.5	Treat & Disposal - Rental of Equipment	0
750.5	Treat & Disposal - Transportation Expenses	0
775.5	Treat & Disposal - Miscellaneous Expense	0
701.6	Treat & Disposal - Maint - Salaries & Wages	0
720.6	Treat & Disposal - Maint - Materials & Supplies	0
735.6	Treat & Disposal - Maint - Contractual Svc - Test	0
775.6	Treat & Disposal - Maint - Misc Expense	0
701.9	Reclaimed Wtr Treat - Salaries & Wages	0
718.9	Reclaimed Wtr Treat - Chemicals	0
720.9	Reclaimed Wtr Treat - Materials & Supplies	0
750.9	Reclaimed Wtr Treat - Transportation Expense	0
758.9	Reclaimed Wtr Treat - Insurance - Wrk Comp	0
701.10	Reclaimed Wtr Treat - Maint - Salaries & Wages	0
720.10	Reclaimed Wtr Treat - Maint - Mats & Supplies	0
720.11	Reclaimed Wtr Distr - Materials & Supplies	0
775.11	Reclaimed Wtr Distr - Miscellaneous Expense	5,035
	Total Operating Expenses - Wastewater	5,035
	Total Operating Expenses	666,813
	NET OPERATING INCOME / (LOSS)	308,874

WEST HAWAII WATER COMPANY
F.K.A. WAIKOLOA WATER COMPANY, INC.
INCOME STATEMENT
June 30, 2017

ACCOUNT NUMBER		6/30/2017
<u>OTHER INCOME & EXPENSES:</u>		
403.	Depreciation Expense	60,028
407.	Amortization Expense	3,902
408.	Taxes Other Than Income	72,566
415.	Revenues - Jobbing & Contract Work	0
416.	Costs & Expenses - Jobbing & Contract Work	0
419.	Interest and Dividend Income	0
421.	Nonutility Income	0
426.	Miscellaneous Nonutility Expenses	497
427.	Interest Expense / (Income)	<u>(16,174)</u>
	Total Other Income & Expenses	120,819
<u>GENERAL & ADMINISTRATIVE EXPENSES:</u>		
601.7	Customer Accounts - Salaries & Wages	24,503
670.7	Customer Accounts - Bad Debt Expense	(1,255)
675.7	Customer Accounts - Misc Expense	4,800
601.8	Admin & General - Salaries & Wages	1,091
604.8	Admin & General - Empl Pensions & Benefits	81,732
620.8	Admin & General - Materials & Supplies	6
631.8	Admin & General - Contractual Svc - Engr	0
632.8	Admin & General - Contractual Svc - Acctg	0
633.8	Admin & General - Contractual Svc - Legal	165
636.8	Admin & General - Contractual Svc - Other	4,366
641.8	Admin & General - Building/Property Rental	2,404
657.8	Admin & General - Insurance - Gen Liab	20,535
658.8	Admin & General - Insurance - Worker's Comp	3,374
659.8	Admin & General - Insurance - Other	0
667.8	Admin & General - Regulatory Comm Expense	12,084
675.8	Admin & General - Misc Expense	243,928
	Total General & Administrative Expenses	<u>397,734</u>
	NET INCOME/(LOSS) BEFORE INCOME TAXES	(209,678)
409.	Income Tax Expense / (Benefit)	<u>(82,110)</u>
	NET INCOME/(LOSS)	<u><u>(127,568)</u></u>

Application Filed December 2017
Exhibit WHWC 2, Schedule F
Amount of Bonds
Witness: Stout

Waikoloa Water Co., Inc., dba West Hawaii Water Company
Amount of Bonds Authorized and Issued

None

**Application Filed December 2017
Exhibit WHWC 2, Schedule G
Each Note Outstanding
Witness: Stout**

**Waikoloa Water Co., Inc., dba West Hawaii Water Company
Each Note Outstanding**

None

Application Filed December 2017
Exhibit WHWC 2, Schedule H
Other Indebtedness
Witness: Stout

Waikoloa Water Co., Inc., dba West Hawaii Water Company
Other Indebtedness

None

Waikoloa Water Co., Inc., dba West Hawaii Water Company
Rate and Amount of Dividends Paid during the Five
Previous Calendar Years*

<u>YEAR</u>	<u>AMOUNT</u>
2017**	\$513,919
2016	\$181,270
2015	\$0.00
2014	\$0.00
2013	\$1,428,203.88

*All dividends were paid by Hawaii Water to CWSG

**This amount is as of September 2017

**Waikoloa Water Co., Inc., dba West Hawaii Water Company
Earnings Results for WHSC**

The total earnings results for the total utility operations of Applicant. The earnings for WHSC are shown on Exhibits 6 and 8

Option Elected by WHSC In Computing Deferred Taxes, Investment Tax Credit and Depreciation Deduction in determining its Federal Income Tax Payments, and whether WHWC Has Used the Same Method In Calculating Federal Income Taxes for the Test Year for Ratemaking Purposes

Deferred taxes were based on accelerated depreciation for federal income tax purposes by the Economic Recovery Tax Act of 1981 and the Tax Reform Act of 1986. Under these statutes, state regulatory commissions calculate a provision for federal income taxes at book rates, and then allow the utility to record the tax difference between book and federal depreciation as an adjustment to rate base. For the test year, deferred taxes were estimated based on the recent recorded accruals and forecasted of the new plant in the test year. Details of deferred taxes are shown in Exhibits 7.10 through 7.13.

**Statement Regarding Whether or Not the Increase Reflects and Passes Through to
Customers Only Increased Costs to the Applicant for the Services or Commodities
Furnished by It**

Applicant's proposed increases does not reflect and pass through to customers only increased costs to the applicant for the services or commodities furnished by it.

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
1	103030 Intangible Plant				
2		Waikoloa Potable Water Master Plan	\$ 20,460	12/1/2013	\$ 6,138
3		Total	<u>\$ 20,460</u>		<u>\$ 6,138</u>
4	103110 Structures & Improvement - Supply Plant				
5		DW3-ACCESS ROAD,SITE & DRAINAGE	\$ 39,665	5/22/1997	\$ 19,442
6		DW3-CONTROL BUILDING (METAL)	\$ 17,617	5/22/1997	\$ 8,635
7		DW3-FENCE	\$ 4,014	5/22/1997	\$ 3,946
8		DW3-LIGHT FIXTURES	\$ 401	5/22/1997	\$ 401
9		DW4 ELEC UPGRADE-ENCLOSURE	\$ 5,358	3/1/1997	\$ 2,657
10		DW5 ELEC UPGRADE-ENCLOSURE	\$ 5,300	3/1/1997	\$ 2,628
11		GENERATOR ENGINE ROOF	\$ 3,776	10/1/1994	\$ 1,680
12		Security Fencing - Tank 900	\$ 14,666	8/22/2001	\$ 4,502
13		STRUCTURE-SOURCE	\$ 1,706	1/1/1974	\$ 1,467
14		Total	<u>\$ 92,505</u>		<u>\$ 45,358</u>
15	103210 Structures & Improvement - Pumping Plant				
16		Bump Gate	\$ 1,019	12/1/2010	\$ 207
17		DW 7 Site Work	\$ 95,178	12/1/2013	\$ 11,359
18		DW7 Electrical & Chlorination Bldng	\$ 142,642	12/1/2013	\$ 17,024
19		DW7 Electrical Work	\$ 386,237	12/1/2013	\$ 46,097
20		Pumphouse and Site Improvements	\$ 144,707	12/1/2013	\$ 14,860
21		In house labor	\$ 271	12/1/2011	\$ 48
22		Work Order Addition	\$ 278	12/1/2011	\$ 49
23		Well Gates, Apollo Solar	\$ 22,698	5/1/2016	\$ 883
24		Total	<u>\$ 793,028</u>		<u>\$ 90,527</u>
25	103310 Structures & Improvement - Treatment Plant				
26		STRUCTURE-TREATMENT	\$ 6,757	1/1/1974	\$ 5,811
27		Total	<u>\$ 6,757</u>		<u>\$ 5,811</u>
28	103410 Structures & Improvement - Transmission & Distribution Plant				
29		Chain Link Fence WHWC Portion	\$ 19,825	9/1/2010	\$ 4,185
30		DW7 Piping to Tank	\$ 99,642	12/1/2013	\$ 10,233
31		Emergency Shower-Baseyard	\$ 1,451	3/1/2015	\$ 88
32		Emergency Shower-Tank 1200S	\$ 1,445	3/1/2015	\$ 88
33		Total	<u>\$ 122,363</u>		<u>\$ 14,595</u>
34	103411 Structures & Improvement - Pavement				
35		Concrete Pavement WHWC Portion	\$ 17,450	9/1/2010	\$ 4,508
36		Total	<u>\$ 17,450</u>		<u>\$ 4,508</u>
37	103710 Structures & Improvement - General Plant				
38		Base Yard Lunch Room Air Conditioner (WHWC Share)	\$ 132	3/31/2001	\$ 132
39		Base Yard Lunch Room Rennovation (WHWC Share)	\$ 3,357	3/31/2001	\$ 1,766

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
40		Baseyard Library and file Storage Room Traile	\$ 6,753	5/12/2004	\$ 5,702
41		Baseyard Security Fencing	\$ 8,311	3/16/2005	\$ 4,899
42		Baseyard Storeroom Renovation (WHWC Share)	\$ 2,568	6/15/2006	\$ 1,766
43		Oil Containment Area	\$ 1,733	1/1/2001	\$ 1,733
44		Utility Baseyard Locker Room Addition (WHWC Share)	\$ 7,890	5/2/2005	\$ 3,068
45		Wood Shop Storage Shed Repairs	\$ 5,417	6/21/2003	\$ 2,443
46		Total	\$ 36,160		\$ 21,508
47	103240	Pumping Equipment			
48		Bowl Assembly	\$ 72,455	12/1/2009	\$ 9,510
49		Chart Recorder-DW#4	\$ 2,837	12/1/2014	\$ 148
50		DW #2 Fuel Handling System	\$ 7,492	1/1/2001	\$ 4,795
51		DW 4&5 ELEC UPGRADE-SPARE PARTS	\$ 2,558	3/1/1997	\$ 2,558
52		DW 7 Fuel Tank at Well Site	\$ 43,126	12/1/2013	\$ 3,322
53		DW#1 - Auto-Transformer	\$ 8,737	6/15/2000	\$ 8,737
54		DW#4 6" flow meter	\$ 3,947	3/1/2016	\$ 82
55		DW#6 Back-Up Generator	\$ 167,195	2/28/2007	\$ 110,161
56		DW#6 Chain Link Fence and Gate	\$ 10,285	2/28/2007	\$ 5,075
57		DW#6 Column Assembly	\$ 36,992	2/28/2007	\$ 7,285
58		DW#6 Discharge Head	\$ 89,841	2/28/2007	\$ 59,195
59		DW#6 Drilling and Casing	\$ 352,338	2/28/2007	\$ 69,387
60		DW#6 Electrical Work	\$ 321,832	2/28/2007	\$ 212,049
61		DW#6 Miscellaneous Equipment3	\$ 28,244	2/28/2007	\$ 18,610
62		DW#6 Pump Station and Control Bldg Equipment	\$ 16,481	2/28/2007	\$ 16,342
63		DW#6 Pump Station Building	\$ 74,281	2/28/2007	\$ 14,628
64		DW#6 Pumping Equipment	\$ 137,427	2/28/2007	\$ 136,269
65		DW#6 Site Work	\$ 169,906	2/28/2007	\$ 33,460
66		DW#6 Water system Piping	\$ 191,101	2/28/2007	\$ 37,634
67		DW#6 Water system Valves and Meters	\$ 29,288	2/28/2007	\$ 14,452
68		DW-1 Fuel Handling	\$ 11,617	6/27/2000	\$ 7,686
69		DW1 IMPROVMNT BACKUP POWER	\$ 14,330	5/31/1997	\$ 14,330
70		DW-1 Pump Replacement	\$ 133,395	12/1/2013	\$ 10,283
71		DW1&3 8" flapper valves	\$ 1,602	3/1/2016	\$ 33
72		DW-3 Pump Replacement	\$ 74,740	12/1/2013	\$ 5,761
73		DW3-ELECTRICAL PARTS	\$ 3,043	5/22/1997	\$ 3,043
74		DW3-ELECTRICAL SYSTEM	\$ 105,827	5/22/1997	\$ 105,827
75		DW3-PUMP CONTROL VALVES & METER	\$ 24,746	5/22/1997	\$ 24,329
76		DW3-SWITCHES,COMPRESSOR & VALVES	\$ 11,941	5/22/1997	\$ 11,941
77		DW3-WATER COLUMN & OIL TUBE/SHAFT	\$ 86,098	5/22/1997	\$ 84,648
78		DW4 & DW5 8" gate valve	\$ 4,099	3/1/2016	\$ 85
79		DW4 ELEC UPGRADE-ELEC WORK	\$ 27,678	3/1/1997	\$ 21,958
80		DW4 ELEC UPGRADE-EQUIPMENT	\$ 6,366	3/1/1997	\$ 5,050
81		DW4 REPLACE OIL TUBES/COLUMN	\$ 37,013	6/15/1999	\$ 37,013
82		DW4&5 6" flapper valves	\$ 1,480	3/1/2016	\$ 31
83		DW5 6" Flow Meter	\$ 3,782	3/1/2016	\$ 79
84		DW5 ELEC UPGRADE-ELEC WORK	\$ 24,485	3/1/1997	\$ 19,425
85		DW5 ELEC UPGRADE-EQUIPMENT	\$ 6,366	3/1/1997	\$ 5,050
86		DW5 Well Starter	\$ 10,955	12/1/2014	\$ 571
87		DW6 AB control module	\$ 1,658	12/1/2016	\$ 3
88		Waikoloa Deep Well #7 New Pump	\$ 238,135	12/1/2013	\$ 18,343
89		Waikoloa DW7 Emergency Generator	\$ 332,865	12/1/2013	\$ 25,638

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
90		Total	<u>\$ 2,928,583</u>		<u>\$ 1,164,827</u>
91	103241	System Control Computer Equipment			
92		DW7 SCADA Equipment	\$ 39,434	12/1/2013	\$ 3,037
93		SCADA WHWC Portion	\$ 17,972	9/1/2010	\$ 2,771
94		Total	<u>\$ 57,406</u>		<u>\$ 5,808</u>
95	103320	Treatment & Disposal Equipment			
96		Replace Gas Detectors Tank 1200N&S	\$ 4,467	12/1/2013	\$ 459
97		Tank 1200N 6" Chlorine Pump	\$ 2,015	3/1/2015	\$ 123
98		TREATMENT-EQUIPMENT	\$ 6,338	1/1/1974	\$ 6,338
99		Total	<u>\$ 12,820</u>		<u>\$ 6,920</u>
100	103431	A.C.			
101		Castle&Cooke-Dedicated Water Lines-Kikaha@Weh	\$ 380,360	1/1/2008	\$ 68,465
102		Clearly Waikoloa-Dedicated Water Facilities-K	\$ 698,582	1/1/2008	\$ 125,745
103		DISTRIBUTION MAIN	\$ 3,632,236	1/1/1974	\$ 3,123,723
104		DW3-PIPELINE-DUCTILE IRON	\$ 94,654	5/22/1997	\$ 53,036
105		Ho'oko Street Park	\$ 111,657	1/1/2008	\$ 20,098
106		KE KUMU WATER FACILITIES	\$ 49,784	4/1/1996	\$ 20,660
107		PANILOLO ESTATES EASEMENT/SYSTEM	\$ 266,785	1/1/1993	\$ 128,057
108		Pressure Reducing Valves	\$ 18,755	7/27/2004	\$ 18,755
109		SRIII-1-2-FACILITIES (2700.101)	\$ 74,528	10/30/1998	\$ 27,103
110		Sunset Ridge III Unit 2 41 Lots-Dedicated Wat	\$ 215,080	9/26/2005	\$ 48,452
111		SUNSET RIDGE III-1 (DEDICATED)	\$ 49,905	1/1/1998	\$ 18,964
112		Sunset Ridge PhII Incr2 Unit 2-a 17 Lots-Dedi	\$ 91,275	9/26/2005	\$ 20,562
113		Sunset Ridge PhII Unit 3 15 Lots-Dedicated Wa	\$ 163,406	9/26/2005	\$ 36,811
114		SUPPLY MAIN	\$ 27,377	1/1/1974	\$ 23,544
115		TRI WATER FACILITY S/R II-1	\$ 50,642	6/1/1995	\$ 21,860
116		TRI WATER FACILITY S/R II-2	\$ 18,358	3/1/1996	\$ 7,649
117		V.E. LOT 135-DEDICATED FACILITIES	\$ 42,985	9/28/1999	\$ 14,843
118		VILLAGE EST CROSS CONNECTION	\$ 58,770	12/1/1996	\$ 23,606
119		WATERLINE IMPROVEM'TS(VILL EST)	\$ 346,200	8/1/1994	\$ 155,213
120		WTR LINES (DEDICATED) KEK III	\$ 29,624	1/1/1997	\$ 11,849
121		Total	<u>\$ 6,420,961</u>		<u>\$ 3,968,994</u>
122	103435	Ductile Iron Pipe			
123		106' Ductile Iron Pipe 12" WHWC Portion	\$ 6,112	9/1/2010	\$ 1,290
124		117' Ductile Iron Pipe 16" WHWC Portion	\$ 11,901	9/1/2010	\$ 2,513
125		380' Ductile Iron Pipe 18" WHWC Portion	\$ 34,472	9/1/2010	\$ 7,277
126		DW5 Cross Connection Backflow	\$ 9,043	12/1/2014	\$ 628
127		Total	<u>\$ 61,527</u>		<u>\$ 11,708</u>
128	103450	Services			
129		SERVICES (LATERALS)	\$ 24,242	1/1/1974	\$ 24,242
130		Total	<u>\$ 24,242</u>		<u>\$ 24,242</u>

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
131	103460	Meters & Meter Boxes			
132		1" meter - post office #55592393	\$ 3,248	11/1/1999	\$ 3,248
133		2 METER-WHC QUARRY #55292371	\$ 6,454	7/8/1999	\$ 6,454
134		2 TURBO METER-PANILOLO II	\$ 798	9/1/1990	\$ 525
135		2" sr meter - Waikoloa Gardens	\$ 722	8/1/1992	\$ 441
136		2" turbo meter - Paniolo II	\$ 752	7/1/1990	\$ 498
137		3 TEMP METER-#152781	\$ 756	7/1/1990	\$ 505
138		3 TEMP METER-#1527889	\$ 799	12/1/1990	\$ 521
139		3" tem p meter #1299949	\$ 758	7/1/1990	\$ 502
140		3" temp meter - #1527889	\$ 809	12/1/1990	\$ 527
141		3" Temp meter #1214745	\$ 645	9/1/1988	\$ 457
142		3" temp meter-Waikoloa Villas - #1425327	\$ 1,000	1/1/1994	\$ 575
143		6 METERS- Highlands lot 125	\$ 6,276	10/1/1989	\$ 4,276
144		6 METERS-ELIMA LANI LOTS 113&114 , 1/1/1989	\$ 8,495	1/1/1989	\$ 5,947
145		6 ROCKWELL METER-DW4	\$ 3,397	4/1/1992	\$ 2,102
146		6" meters - fairway terr lots 108/109	\$ 16,224	1/1/1989	\$ 11,357
147		HO'OKO STREET PARK METER	\$ 1,367	2/4/1998	\$ 647
148		KEKUMU III 2X6 PERMANENT METER	\$ 8,091	3/4/1997	\$ 4,012
149		Meters - Dec '91	\$ 6,406	12/31/1991	\$ 4,008
150		Meters - Dec 92	\$ 5,051	12/31/1992	\$ 3,034
151		Meters - Dec 93	\$ 9,619	12/31/1993	\$ 5,537
152		METERS 1/98-6/98	\$ 3,476	6/30/1998	\$ 1,609
153		Meters 1996	\$ 9,351	12/1/1996	\$ 4,681
154		METERS 1997	\$ 9,112	12/31/1997	\$ 4,333
155		METERS 7/98-11/98	\$ 1,763	11/30/1998	\$ 798
156		METERS DEC '95	\$ 16,718	12/31/1995	\$ 8,787
157		Meters in Service 1/04 - 7/04	\$ 9,382	7/31/2004	\$ 7,805
158		Meters in Service 11/02-12/03	\$ 7,966	12/31/2003	\$ 6,939
159		METERS IN SERVICE 12/00-8/01	\$ 3,397	8/31/2001	\$ 3,397
160		METERS IN SERVICE 12/98-5/99	\$ 3,221	5/27/1999	\$ 3,221
161		METERS IN SERVICE 12/99-5/00	\$ 5,523	5/23/2000	\$ 5,523
162		METERS IN SERVICE 6/00-11/00	\$ 4,351	11/30/2000	\$ 4,351
163		Meters In Service 6/02-11/02	\$ 4,315	11/30/2002	\$ 4,073
164		Meters in service 6/99-11/99	\$ 2,901	11/29/1999	\$ 2,901
165		Meters in Service 7/01-11/01	\$ 4,091	11/30/2001	\$ 4,091
166		Meters In Service 8/04-12/07	\$ 42,176	1/1/2008	\$ 25,306
167		Meters in Servie 12/01-5/02	\$ 3,706	5/31/2002	\$ 3,622
168		METERS-DEC '74	\$ 1,341	12/31/1974	\$ 1,341
169		METERS-DEC '76	\$ 735	12/31/1976	\$ 735
170		METERS-DEC '77	\$ 1,199	12/31/1977	\$ 1,171
171		METERS-DEC '78	\$ 1,238	12/31/1978	\$ 1,178
172		METERS-DEC '79	\$ 593	12/31/1979	\$ 549
173		METERS-DEC '80	\$ 1,140	12/31/1980	\$ 1,027
174		METERS-DEC '81	\$ 641	12/31/1981	\$ 562
175		METERS-DEC '82	\$ 71	12/31/1982	\$ 61
176		METERS-DEC '84	\$ 255	1/1/1985	\$ 204
177		Meters-Dec 87	\$ 3,517	12/31/1987	\$ 2,553
178		METERS-DEC '89	\$ 12,574	12/1/1989	\$ 8,514
179		METERS-DEC '90	\$ 2,794	12/31/1990	\$ 1,818
180		METERS-DEC '94	\$ 20,425	12/31/1994	\$ 11,246
181		METERS-DEC'88	\$ 3,029	12/1/1988	\$ 2,127

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
182		METERS-MAR '75	\$ 816	3/1/1975	\$ 816
183		METER-WAIKOLOA HILLS	\$ 5,715	11/1/1987	\$ 4,167
184		Replacement Meters	\$ 4,257	12/31/2003	\$ 3,708
185		Replacement Meters	\$ 4,344	5/31/2002	\$ 4,246
186		Replacement Meters	\$ 1,492	11/30/2001	\$ 1,492
187		Replacement Meters 1/04 - 7/04	\$ 3,941	7/31/2004	\$ 1,911
188		REPLACEMENT METERS 1/98-2/98	\$ 2,088	2/15/1998	\$ 988
189		REPLACEMENT METERS 12/00-8/01	\$ 2,971	8/31/2001	\$ 2,971
190		REPLACEMENT METERS 2/99-5/99	\$ 923	5/19/1999	\$ 923
191		Replacement Meters 2002	\$ 2,208	11/30/2002	\$ 2,084
192		REPLACEMENT METERS 3/98-6/98	\$ 2,068	6/30/1998	\$ 957
193		REPLACEMENT METERS 5/00	\$ 1,990	5/5/2000	\$ 1,990
194		REPLACEMENT METERS 6/00-11/00	\$ 2,686	\$ 36,860	\$ 2,686
195		REPLACEMENT METERS 6/99-8/99	\$ 1,372	\$ 36,402	\$ 1,372
196		REPLACEMENT METERS 7/98-11/98	\$ 1,331	\$ 36,129	\$ 602
197		Replacement meters 7/99-11/99	\$ 1,593	\$ 36,473	\$ 1,593
198		Replacement Meters 8/04-12/07	\$ 16,723	\$ 39,448	\$ 10,033
199		REPLACEMENT MTRS 11/98-1/99	\$ 533	\$ 36,175	\$ 533
200		Temp mtr pool - Neptune 3" (#70066680,81)	\$ 1,379	\$ 36,461	\$ 1,379
201		TEMPORARY METER POOL	\$ 1,344	\$ 34,699	\$ 1,344
202		Total	<u>\$ 322,441</u>		<u>\$ 225,494</u>
203	103480	Hydrants			
204		6" Mueller Gate Valve @ Melia St	\$ 4,483	\$ 42,705	\$ 9
205		FENCE FOR PARKER #1	\$ 3,848	3/1/1989	\$ 3,848
206		Total	<u>\$ 8,331</u>		<u>\$ 3,857</u>
207	103420	Reservoirs & Tanks			
208		DISTRIBUTION RESERVOIR	\$ 329,725	1/1/1974	\$ 283,563
209		TANK 1200S-2	\$ 240,908	11/20/1997	\$ 131,538
210		Tank 900 8" Cla-val	\$ 22,400	12/1/2016	\$ 62
211		Tank 900 8" Gate Valves	\$ 7,867	5/1/2016	\$ 175
212		Tank 900 Reservoir Replacement-CEMENT	\$ 89,060	5/19/2005	\$ 20,656
213		Tank 900 Reservoir Replacement-PIPING	\$ 4,284	5/19/2005	\$ 993
214		Tank ladder gates-South tanks	\$ 3,783	3/1/2016	\$ 105
215		WHWC 1 Million Gallon Steel Bolted Tank	\$ 757,035	9/1/2010	\$ 155,613
216		Total	<u>\$ 1,455,062</u>		<u>\$ 592,706</u>
217	103421	Tank Painting			
218		Tank Painting	\$ 254,544	6/1/2011	\$ 35,520
219		Total	<u>\$ 254,544</u>		<u>\$ 35,520</u>
220	103150	Wells			
221		DW3 DRILLING-DONE IN 1992	\$ 412,101	5/22/1997	\$ 161,543
222		Imputed interest on DW3	\$ 82,194	10/3/1999	\$ 28,357
223		Waikoloa Deep Well #7 Outfitting	\$ 621,406	12/1/2013	\$ 44,577
224		WELLS-PARKER 4 & 5	\$ 220,431	1/1/1974	\$ 189,570

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
225		Total	<u>\$ 1,336,131</u>		<u>\$ 424,048</u>
226	103720	Office Furn & Equip			
227		FLAMMABLE LIQUID CABINET	\$ 639	7/1/1995	\$ 639
228		Safety Cabinet	\$ 226	7/3/2002	\$ 226
229		Steel Flat File Drawers for New Trailer Office	\$ 827	6/30/2004	\$ 827
230		Storage Container	\$ 539	4/16/2004	\$ 539
231		Total	<u>\$ 2,231</u>		<u>\$ 2,231</u>
232	103721	Electronic Equipment/Computers			
233		(2) Telemetry Field Computers	\$ 1,203	4/15/2004	\$ 1,203
234		2 Baseyard Computers	\$ 486	7/1/2002	\$ 486
235		2-Way Radio	\$ 107	4/22/2005	\$ 107
236		2-Way Radio for 2006 Chevy Silverado	\$ 372	11/8/2005	\$ 372
237		Baseyard Computer-Utility Operations Clerk	\$ 335	2/19/2003	\$ 335
238		Computer-Accounts Receivable Dept.	\$ 352	2/19/2002	\$ 352
239		Copy Machine	\$ 2,047	9/11/2001	\$ 2,047
240		Dell Precision 390 Computer-Util Cler-Acctng	\$ 432	10/18/2007	\$ 432
241		DW3-SCADA SYSTEM (TELEMETRY)	\$ 4,767	5/22/1997	\$ 4,767
242		EPSON PRINTER & STAND (1/3 SHARE)	\$ 668	12/10/1998	\$ 668
243		HP 5500 Color Jet (Color Laser Printer)	\$ 1,437	8/8/2003	\$ 1,437
244		Lexmark T630N Laser Printer	\$ 393	10/31/2004	\$ 393
245		NORSTAR PHONE SYSTEM-BASEYARD	\$ 1,842	4/12/1999	\$ 1,842
246		Software Windows Upgrade for Softwater Billin	\$ 754	4/2/2004	\$ 754
247		SOFTWATER SECURITY FEATURES	\$ 208	1/1/1999	\$ 208
248		Telemetry Field Computer	\$ 452	3/18/2004	\$ 452
249		Telemetry Hardware (Rugid Rug9D Computer)	\$ 4,883	10/15/2004	\$ 4,883
250		Two (2) Dodge Dakota Pickup Trucks (WHWC Shar	\$ 666	3/31/2001	\$ 666
251		Total	<u>\$ 21,402</u>		<u>\$ 21,402</u>
252	103730	Transportation Equipment			
253		1997 Dodge Dakota Pick-Up Truck	\$ 957	1/1/2003	\$ 957
254		2000 Jeep buyout lease #77512740510968	\$ 1,666	1/1/2006	\$ 1,666
255		Total	<u>\$ 2,623</u>		<u>\$ 2,623</u>
256	103750	Laboratory Equipment			
257		Chlorine Residual Analyzers (2)	\$ 9,434	4/2/2002	\$ 9,434
258		Incubator BOD Model 146E 115V	\$ 2,979	12/1/2011	\$ 757
259		Sealer WQTS2X 115V 2X Q-Tray	\$ 3,796	12/1/2011	\$ 965
260		WI600 Large Incubator 120V	\$ 1,755	12/1/2011	\$ 446
261		WI600 Large Incubator 120V	\$ 1,755	12/1/2011	\$ 446
262		Total	<u>\$ 19,720</u>		<u>\$ 12,048</u>
263	103770	Power Operated Equipment			
264		Catepillar Model 14E Grader	\$ 62,225	10/16/2006	\$ 62,225
265		Total	<u>\$ 62,225</u>		<u>\$ 62,225</u>

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
266	103780	Tools, Shop, Garage Equipment			
267		Band Saw	\$ 233	7/1/2003	\$ 233
268		COPPER PIPE SHUTOFF TOOL	\$ 615	6/1/1992	\$ 615
269		DICKSON PRESSURE RECORDER	\$ 536	6/29/1995	\$ 536
270		Portable Generator	\$ 208	5/23/2002	\$ 208
271		Radial Saw	\$ 114	4/3/2003	\$ 114
272		Spin Balancer (WHWC Share)	\$ 627	9/20/2006	\$ 627
273		Tapping & Drilling Equipment	\$ 4,833	4/15/2008	\$ 4,229
274		Tire Changer	\$ 989	8/8/2002	\$ 989
275		TOOLBOXES-2000 CHEVY S10 TRUCKS (3)	\$ 207	1/17/2000	\$ 207
276		Vibration Meter	\$ 1,256	6/3/2003	\$ 1,256
277		Total	<u>\$ 9,618</u>		<u>\$ 9,014</u>
278	103790	General Plant			
279		EMERG EYEWASH STNS (WWC SHARE)	\$ 2,169	10/1/1996	\$ 2,169
280		FIRE HYDRANT REACTION BLOCKS	\$ 10,613	7/31/1997	\$ 10,613
281		Total	<u>\$ 12,782</u>		<u>\$ 12,782</u>
282	HAWAII GENERAL OFFICE				
283		790 Leasehold Improvements	\$ 16,865	5/1/15	\$ 468
284		desks, conf table, chairs	\$ 3,060	3/1/10	\$ 1,877
285		2 Cubical Work Stations	\$ 5,650	12/1/10	\$ 2,825
286		Cherry Desk	\$ 855	12/1/10	\$ 427
287		Cherry Drawer	\$ 71	12/1/10	\$ 35
288		Cherry Credenza	\$ 509	12/1/10	\$ 255
289		Cherry Corner Unit	\$ 404	12/1/10	\$ 202
290		Regency Library	\$ 284	12/1/10	\$ 142
291		Chairs	\$ 2,037	12/1/10	\$ 1,018
292		Cherry Desk Shell 66"	\$ 429	12/1/10	\$ 214
293		24" x 71" Credenza Shells	\$ 793	12/1/10	\$ 397
294		Cherry Keyboard Drawer	\$ 71	12/1/10	\$ 35
295		Executive Chair	\$ 391	12/1/10	\$ 196
296		Desk Pedestal F/F	\$ 468	12/1/10	\$ 234
297		Cherry Shelf Unit	\$ 308	12/1/10	\$ 154
298		Cherry Storage Hutch	\$ 487	12/1/10	\$ 244
299		Cherry Credenza 66"	\$ 333	12/1/10	\$ 167
300		Regency Desk	\$ 709	12/1/10	\$ 355
301		2 Drawer Lateral File	\$ 988	12/1/10	\$ 494
302		3, 42" 4 Drawer Lateral File Cabinets	\$ 2,868	12/1/10	\$ 1,434
303		Cherry Desk Pedestal B/B/F	\$ 513	12/1/10	\$ 257
304		Regency Lateral File	\$ 567	12/1/10	\$ 284
305		Fireproof safe for Customer Service office.	\$ 2,386	12/1/11	\$ 1,046
306		Ricoh Aficio MP C3001	\$ 3,044	5/1/15	\$ 127
307		790 Office Furniture	\$ 631	5/1/15	\$ 26
308		Automated Electronic Defibrillators	\$ 7,161	12/1/10	\$ 7,161
309		License for Capture Now	\$ 237	12/1/10	\$ 237
310		Fujitsu Fi6140 scanner	\$ 1,666	12/1/10	\$ 1,666
311		Ricoh MP 4001SP Copier w/Finisher	\$ 10,686	12/1/10	\$ 10,686

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
312		Monitors	\$ 1,207	12/1/10	\$ 1,207
313		Mitel EP Dig 6 Line Model 8560 Telephone	\$ 8,102	12/1/10	\$ 8,102
314		ELECTRONICS [681]	\$ 744	12/1/11	\$ 744
315		8-way video conferencing system	\$ 37,185	12/1/11	\$ 37,185
316		Hewlett Packard laser printer	\$ 1,111	12/1/11	\$ 1,111
317		Desktop-HIWKLCS40	\$ 807	12/1/14	\$ 240
318		Desktop-HIWKLCS39	\$ 807	12/1/14	\$ 240
319		Desktop-HIWKLCS37	\$ 807	12/1/14	\$ 240
320		Desktop-HIWKLCS38	\$ 807	12/1/14	\$ 240
321		Desktop-HIWKCLS36	\$ 807	12/1/14	\$ 240
322		Desktop-HIWKLCS41	\$ 807	12/1/14	\$ 240
323		790 Server & Server room upgrade	\$ 17,650	5/1/15	\$ 4,202
324		Hawaii Business Unit Software	\$ 132,361	12/1/10	\$ 132,361
325		RMS Software	\$ 92,429	3/1/14	\$ 6,547
326		phone system with 8 phones	\$ 24,859	3/1/10	\$ 24,859
327		Miscellaneous Kitchen Equipment	\$ 981	12/1/10	\$ 398
328		laptop for CS Mgr	\$ 1,496	4/1/14	\$ 175
329		Total	<u>\$ 387,436</u>		<u>\$ 250,992</u>
330		HAWAII GENERAL OFFICE ALLOCATIONS		%	
331		700 - Kaanapali	\$ 84,174	21.73%	\$ 54,531
332		701 - Pukalani	\$ 26,623	6.87%	\$ 17,247
333		<u>721 - Waikoloa Water</u>	<u>\$ 49,713</u>	<u>12.83%</u>	<u>\$ 32,206</u>
334		722 - Waikoloa Sewer	\$ 38,813	10.02%	\$ 25,144
335		723 - Waikoloa Resort Water	\$ 51,423	13.27%	\$ 33,313
336		724 - Waikoloa Resort Sewer	\$ 70,422	18.18%	\$ 45,621
337		725 - Waikoloa Resort Irrigation	\$ 2,893	0.75%	\$ 1,874
338		726 - Kona Water	\$ 40,900	10.56%	\$ 26,497
339		727 - Kona Sewer	\$ 22,474	5.80%	\$ 14,560
340		BIG ISLAND			
341		(2)Replacement Op Computer Stations	\$ 2,081	12/1/13	\$ 916
342		Mobile office trailer	\$ 23,867	12/1/11	\$ 3,345
343		1996 Eagle Forklift	\$ 22,871	12/1/10	\$ 3,478
344		20' Container Shelving-Baseyard	\$ 931	6/1/15	\$ 37
345		20' Container Shelving-EMT	\$ 455	6/1/15	\$ 18
346		20' Container-Baseyard	\$ 10,373	6/1/15	\$ 411
347		20' Container-EMT	\$ 5,312	6/1/15	\$ 210
348		Storage Contr	\$ 3,187	12/1/10	\$ 1,293
349		Nissan Frontier	\$ 27,030	12/1/10	\$ 14,330
350		Nissan Titan	\$ 35,679	12/1/10	\$ 18,915
351		FORD XCAB	\$ 26,901	6/1/12	\$ 12,386
352		FORD XCAB	\$ 26,395	6/1/12	\$ 12,153
353		Ford F-150	\$ 30,500	9/1/12	\$ 12,541
354		Ford F-150	\$ 30,500	9/1/12	\$ 12,541
355		Ford F-150	\$ 30,500	9/1/12	\$ 12,541
356		FRONTIER	\$ 25,350	6/1/12	\$ 10,799
357		Ford Explorer	\$ 37,497	9/1/12	\$ 15,417
358		2014 Nissan Frontier. V214001	\$ 35,122	4/1/14	\$ 13,798

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
359		3 Ipad for Hawaii Island	\$ 2,542	9/1/13	\$ 1,211
360		Desk w Drawer	\$ 959	9/1/12	\$ 397
361		69"x43"x 18"	\$ 1,311	9/1/12	\$ 379
362		Diesel tank	\$ 725	12/1/11	\$ 92
363		GIS Software	\$ 7,621	12/1/11	\$ 7,621
364		Backflow Test Kit-Midwest 835	\$ 1,202	8/1/15	\$ 85
365		Big Island SCADA 2012	\$ 495,319	10/1/14	\$ 28,109
366		Book Case	\$ 298	9/1/12	\$ 123
367		Motorola Hardware	\$ 4,401	6/1/12	\$ 4,218
368		Work Order Addition	\$ 2,144	6/1/12	\$ 2,055
369		Misc. Wiring & Cables	\$ 544	6/1/12	\$ 521
370		Work Order Addition	\$ 747	6/1/12	\$ 716
371		1 desktops	\$ 1,133	4/1/13	\$ 607
372		1 desktops	\$ 1,133	4/1/13	\$ 607
373		Desktop-HIWKLOC56	\$ 1,572	12/1/14	\$ 468
374		Desktop-HIWKLOC57	\$ 1,613	12/1/14	\$ 480
375		dryer @ baseyard	\$ 503	4/1/17	\$ -
376		Exec Chair	\$ 351	9/1/12	\$ 145
377		Work Order Addition	\$ 51	9/1/13	\$ 24
378		Work Order Addition	\$ 182	9/1/12	\$ 168
379		Work Order Addition	\$ 13,813	6/1/12	\$ 13,519
380		EMT Laptop	\$ 4,509	3/1/14	\$ 1,825
381		Hand Helds	\$ 19,147	12/1/10	\$ 19,147
382		Desk Dock	\$ 2,793	12/1/10	\$ 2,793
383		Personnel Lift	\$ 5,844	6/1/12	\$ 1,786
384		Software	\$ 2,995	9/1/12	\$ 2,755
385		Hardware	\$ 8,824	9/1/12	\$ 8,118
386		Gradall lifting hook attachment	\$ 2,427	12/1/14	\$ 182
387		Forklift	\$ 27,625	12/1/10	\$ 14,119
388		HON chair	\$ 636	2/1/14	\$ 80
389		Hydro Jetter	\$ 5,941	12/1/10	\$ 3,644
390		Ice Maker-Manitowac ID-0452A	\$ 4,536	9/1/16	\$ 101
391		Ingersoll Needle/Chisel Scl	\$ 773	9/1/13	\$ 97
392		Internal labor	\$ 21,402	7/1/13	\$ 2,497
393		Knoll task chair	\$ 13,806	2/1/14	\$ 1,726
394		1 laptops	\$ 1,165	4/1/13	\$ 624
395		1 laptops	\$ 1,165	4/1/13	\$ 624
396		Laptop, EMT-HIWKOCLT02	\$ 1,631	11/1/16	\$ 39
397		Lateral File	\$ 525	9/1/12	\$ 218
398		Work Order Addition	\$ 1,447	12/1/11	\$ 209
399		Work Order Addition	\$ 4,571	12/1/11	\$ 638
400		Work Order Addition	\$ 16,749	6/1/11	\$ 16,749
401		New IP phone system	\$ 19,704	6/1/13	\$ 10,086
402		New Hydraulic Hammer	\$ 9,847	12/1/13	\$ 1,518
403		Office Furnishings	\$ 6,706	2/1/14	\$ 838
404		Office furniture & equip	\$ 4,134	9/1/12	\$ 1,640
405		Work Order Addition	\$ 47	9/1/12	\$ 19
406		Work Order Addition	\$ 90	9/1/12	\$ 26
407		Portable generator 3500w, EMT's	\$ 518	12/1/16	\$ 2
408		Power Quality Analyzer	\$ 8,416	3/1/15	\$ 772
409		Printer Cart	\$ 75	9/1/12	\$ 31
410		Projector-Dell 1610HD	\$ 626	12/1/16	\$ 7

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
411		Electrical Upgrade	\$ 8,770	12/1/11	\$ 1,269
412		Respirator supplied air system	\$ 4,239	12/1/16	\$ 18
413		Richo Copier	\$ 10,588	11/1/11	\$ 10,588
414		Richo Fax Module	\$ 1,045	11/1/11	\$ 1,045
415		RICOH MPC3004-Engineering office	\$ 8,282	12/1/16	\$ 99
416		Rplc computer w/laptop for Eng Mgr	\$ 1,478	10/1/14	\$ 475
417		SCADA iNET-II 900 Dual Gateway	\$ 22,377	3/1/16	\$ 466
418		SCADA radio data link	\$ 53,201	5/1/17	\$ 1,350
419		SCADA upgrade 2013	\$ 64,775	3/1/16	\$ 220
420		SCADAPack 32	\$ 10,539	3/1/16	\$ 199
421		Scaffolding	\$ 4,771	3/1/16	\$ 2
422		Work Order Addition	\$ 15	12/1/11	\$ 178
423		Tools & Equipment	\$ 994	6/1/13	\$ 18
424		Trailer, emergency compressor	\$ 426	3/1/16	\$ 86
425		Trailer, emergency generator EG6500	\$ 2,073	3/1/16	\$ 325
426		Trailer, emergency 6'x12' w/ramp	\$ 7,800	3/1/16	\$ 24,601
427		Work Order Addition	\$ 58,793	9/1/12	\$ 4,281
428		V208214, Ford F-150	\$ 6,817	12/1/10	\$ 5,662
429		V208216, Chevy Silverad	\$ 9,017	12/1/10	\$ 18,298
430		V208217, Chevy 3500	\$ 29,139	12/1/10	\$ 22,642
431		Visitor Chair	\$ 169	9/1/12	\$ 70
432		Total	<u>\$ 1,416,694</u>		<u>\$ 391,474</u>
433		BIG ISLAND ALLOCATIONS			
434		721 - Waikoloa Water	\$ 259,735	18.33%	\$ 71,772
435		722 - Waikoloa Sewer	\$ 197,136	13.92%	\$ 54,474
436		723 - Waikoloa Resort Water	\$ 271,103	19.14%	\$ 74,914
437		724 - Waikoloa Resort Sewer	\$ 359,850	25.40%	\$ 99,437
438		725 - Waikoloa Resort Irrigation	\$ 14,422	1.02%	\$ 3,985
439		726 - Kona Water	\$ 203,920	14.39%	\$ 56,349
440		727 - Kona Sewer	\$ 110,527	7.80%	\$ 30,542

WEST HAWAII WATER COMPANY
A subsidiary of Hawaii Water Service Company, Inc.
Waikoloa, Hawaii

WHWC Tariff No. 1
Fifth Revised Sheet 38
Cancels Fourth Revised Sheet 38

WATER RATE SCHEDULES

GENERAL USE RATES

Monthly Standby Charge

<u>Meter Size (inches)</u>		<u>Monthly Charge Per Installed Meter</u>
5/8 & 3/4	(Residential)	\$7.65
5/8 & 3/4	(Non-Residential)	\$7.65
1		\$14.66
1 ½		\$25.72
2		\$35.07
3		\$70.13
4		\$116.89
6		\$233.77
8		\$420.79

Monthly Water Consumption Charge

Rate per TG \$0.8349

Water Availability Charge

\$2.00 per month will be charged to the owner of each lot at which a service connection is possible but has not been applied for.

Private Fire Service Charges

For each connection for automatic fire sprinklers or other private fire protection, there shall be a charge per month based on the size of the connection as follows:

<u>Size of Service</u>	<u>Monthly Charge</u>
3 - inch	\$70.13
4 - inch	\$116.89
6 - inch	\$233.77
8 - inch	\$420.79

Issued: June 25, 2015

By: Paul Townsley, Vice President - Regulatory

Effective: June 30, 2015

WEST HAWAII WATER COMPANY
A subsidiary of Hawaii Water Service Company, Inc.
Waikoloa, Hawaii

WHWC Tariff No. 1
Fifth Revised Sheet 39
Cancels Fourth Revised Sheet 39

POWER COST CHARGE

All water use shall be subject to the imposition of a Power Cost Charge in addition to the Monthly Standby Charge and the Monthly Water Consumption Charge. The Power Cost Charge is assessed per 1,000 gallons. The amount of the Power Cost Charge shall be computed by multiplying the actual cost per kilowatt hour for the billing period by the pump efficiency factor of 5.63 kilowatt hours per thousand gallons, and then adding the associated Public Service Company tax of 5.885% and the Public Utility Commission fee of 0.50%.

Formula to be used:

Power Cost Charge Per Thousand Gallons =
Actual electrical cost per kwh
Times 5.63 kwh per thousand gallons
Times 1.06385

WATER RATE SCHEDULES

GENERAL USE RATES

Monthly Standby Charge

Meter Charge by Meter Size (inches)	Phase 1	Phase 2
	()	()
5/8" (Residential & Non-Residential)	\$ 12.29	\$ 14.67
3/4" (Residential & Non-Residential)	\$ 12.29	\$ 14.67
1"	\$ 23.56	\$ 28.12
1 1/2"	\$ 41.33	\$ 49.33
2"	\$ 56.35	\$ 67.26
3"	\$ 112.70	\$ 134.53
4"	\$ 187.81	\$ 224.20
6"	\$ 375.61	\$ 448.37
8"	\$ 676.11	\$ 807.08

Monthly Water Consumption Charge

Quantity Charge	Phase 1	Phase 2
	()	()
per 1,000 gallons of water consumption	\$ 1.3415	\$ 1.6014

Water Availability Charge

\$2.00 per month will be charged to the owner of each lot at which a service connection is possible but has not been applied for.

Private Fire Service Charges

For each connection for automatic fire sprinklers or other private fire protection, there shall be a charge per month based on the size of the connection as follows:

Private Water Service by Meter Size (inches)	Phase 1	Phase 2
	()	()
3"	\$ 112.70	\$ 134.53
4"	\$ 187.81	\$ 224.20
6"	\$ 375.61	\$ 448.37
8"	\$ 676.11	\$ 807.08

Issued:
 By: Paul Townsley, Vice President - Regulatory

Effective:

WEST HAWAII WATER COMPANY
A subsidiary of Hawaii Water Service Company, Inc.
Waikoloa, Hawaii

POWER COST CHARGE

All water use shall be subject to the imposition of a Power Cost Charge in addition to the Monthly Standby Charge and the Monthly Water Consumption Charge. The Power Cost Charge is assessed per 1,000 gallons. The amount of the Power Cost Charge shall be computed by multiplying the actual cost per kilowatt hour for the billing period by the pump efficiency factor of 5.5132 kilowatt hours per thousand gallons, and then adding the associated Public Service Company tax of 5.885% and the Public Utility Commission fee of 0.50%.

Formula to be used:

Power Cost Charge Per Thousand Gallons =
Actual electrical cost per kwh
Times 5.5132 kWh per thousand gallons
Times 1.06385

Issued:
By: Paul Townsley, Vice President - Regulatory

Effective:

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Revenue Requirements & Rate of Return Summary
 Test Year Ending December 31, 2018

Line No.	(1)	(2)	(3)	Change in Revenues
	Present Rates	Additional Amount	Test Year Proposed Rates 7.75%	
1				
2				
3				38.4%
4 Residential	\$ 729,615	\$ 669,799	\$ 1,399,414	
5 Non-Residential	\$ 87,850	\$ 80,648	\$ 168,497	
6 Power Cost Charge	\$ 1,077,206	\$ (22,341)	\$ 1,054,866	
7 Total Operating Revenues	<u>\$ 1,894,671</u>	<u>\$ 728,105</u>	<u>\$ 2,622,777</u>	
8 Labor Expenses	\$ 596,739	\$ -	\$ 596,739	
9 Fuel & Power	\$ 1,070,201	\$ -	\$ 1,070,201	
10 Chemicals	\$ 9,827	\$ -	\$ 9,827	
11 Materials & Supplies	\$ 75	\$ -	\$ 75	
12 Waste/Sludge Disposal	\$ -	\$ -	\$ -	
13 Affiliated Charges	\$ 123,028	\$ -	\$ 123,028	
14 Professional and Outside Services	\$ 12,476	\$ -	\$ 12,476	
15 Repairs & Maintenance	\$ 130,154	\$ -	\$ 130,154	
16 Rental Expenses	\$ 10,102	\$ -	\$ 10,102	
17 Insurance Expenses	\$ 11,856	\$ -	\$ 11,856	
18 Regulatory Expenses	\$ 69,167	\$ -	\$ 69,167	
19 General & Administrative Expenses	\$ 45,147	\$ -	\$ 45,147	
20 Customer Accounts Expenses	\$ 39,503	\$ -	\$ 39,503	
21 Total O&M Expenses	<u>\$ 2,118,275</u>	<u>\$ -</u>	<u>\$ 2,118,275</u>	
22 Taxes Other than Income Taxes	\$ 120,975	\$ 46,490	\$ 167,464	
23 Depreciation	\$ 114,068		\$ 114,068	
24 Amortization	\$ -		\$ -	
25 Income Taxes	\$ -	\$ 62,614	\$ 62,614	
26 Diff. due to changing factors		\$ (0)	\$ (0)	
27 Total Operating Expenses	<u>\$ 2,353,318</u>	<u>\$ 109,103</u>	<u>\$ 2,462,421</u>	
28 Operating Income	<u>\$ (458,646)</u>	<u>\$ 619,002</u>	<u>\$ 160,356</u>	
29 Average Rate Base	<u>\$ 2,069,112</u>	<u>\$ -</u>	<u>\$ 2,069,112</u>	
30 Return on Rate Base	<u>-22.17%</u>		<u>7.75%</u>	

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Revenue Requirements Support
 Test Year Ending December 31, 2018

Line No.				
1	Gross Revenue Factor			
2	Additional Revenue		1.000000	
3	Less:			
4	Bad Debts	0.000000		
5	PSCT	0.058850		
6	PUC Fee	0.005000		
7	Franchise	0.000000	0.063850	0.06385
8	Subject to Income Tax			
9	Less:		0.936150	
10	State Income Tax	-0.248139		-0.232295
11	Federal Income Tax	0.340000		0.318291
12		0.091861	0.085996	
13	Remaining for Net Income		0.850154	
14	Expense for each \$1 of Revenue		0.149846	
15	Factor for Moving Rate Base			
16	=	(1-Bad Debt%-Revenue Taxes-Income tax on Addl. Revenue)		
17			0.8501543230	
18	Revenue Factor		1.176257031	
19	<u>Additional Revenue Requirements</u>			
20	Proposed rate of return			7.75%
21	Multiply rate base @ present rates by the above proposed ROR			160,356
22	Subtract the net income @ present rates from the above net income			619,002
23	Divide the above difference by the moving rate base factor to			
24	determine the additional revenue requirements @ the proposed ROR			728,105
25	Multiply the add'l revenues by the bad debt factor			0
26	Multiply the add'l revenues by the revenue tax factor			46490
27	Multiply the add'l revenues by the inc tax on add'l revenue			62614
28	Total Expenses at Proposed Rates			2,462,421
29	Subtract total expense from total revenues @ proposed rates			160,356
30	Subtract NI before WC change from NI after WC change			0.0
31	Divide change in NI by desired rate of return			0.0
32	Calculate change in rate base			2,069,112
33	Test - Divide NI by rate base			7.75%

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Average Rate Base
 Test Year Ending December 31, 2018

Line No.	Description	At Dec. 31, 2017	At Dec. 31, 2018	Average
3	Plant In Service	\$ 15,333,842	\$ 17,185,407	\$ 16,259,625
4	Accumulated Depreciation Reserve	\$ 7,363,222	\$ 7,845,713	\$ 7,604,467
5	Net Plant-in-Service	\$ 7,970,620	\$ 9,339,694	\$ 8,655,157
6	Deduct:			
7	Net Contributions in Aid of Construction	\$ (6,228,213)	\$ (5,859,790)	\$ (6,044,002)
8	Customer Advances	\$ -	\$ -	\$ -
9	Customer Deposits	\$ -	\$ -	\$ -
10	Accumulated Deferred Taxes: Federal	\$ (90,826)	\$ (106,344)	\$ (98,585)
11	Accumulated Deferred Taxes: State	\$ (86,737)	\$ (94,656)	\$ (90,697)
12	Unamortized Hawaii Capital Goods Excise Tax Credit	\$ (52,642)	\$ (119,659)	\$ (86,151)
13	Net Salvage Adjustment	\$ -	\$ -	\$ (443,135)
14	subtotal	\$ (6,458,418)	\$ (6,180,449)	\$ (6,762,569)
15	Add:			
16	Working Capital	\$ 176,523	\$ 176,523	\$ 176,523
17	subtotal	\$ 176,523	\$ 176,523	\$ 176,523
18	Subtotal	\$ 1,688,725	\$ 3,335,768	
19	Rate Base at Proposed Rates			\$ 2,069,112

Waikoloa Water Co., Inc. Dbw West Hawaii Water Company
 Rate Base Support
 Test Year Ending December 31, 2018

Line
 No.

1 Rate Base @ Dec. 31, 2017

2	Description	Waikoloa Water Co., Inc. Dbw West Hawaii Water Company	Adjustments	
3	Plant In Service	\$ 15,333,842	\$ -	\$ 15,333,842
4	Accumulated Depreciation Reserve	\$ 7,363,222	\$ -	\$ 7,363,222
5	Net Plant-in-Service	\$ 7,970,620	\$ -	\$ 7,970,620
6	Deduct:			
7	Net Contributions in Aid of Construction	\$ (6,228,213)	\$ -	\$ (6,228,213)
8	Customer Advances	\$ -	\$ -	\$ -
9	Customer Deposits	\$ -	\$ -	\$ -
10	Accumulated Deferred Taxes: Federal	\$ (90,826)	\$ -	\$ (90,826)
11	Accumulated Deferred Taxes: State	\$ (86,737)	\$ -	\$ (86,737)
12	Unamortized Hawaii Capital Goods Excise Tax Credit	\$ (52,642)	\$ -	\$ (52,642)
13	subtotal	\$ (6,458,418)	\$ -	\$ (6,458,418)
14	Add:			
15	Working Capital	\$ 176,523	\$ -	\$ 176,523
16	subtotal	\$ 176,523	\$ -	\$ 176,523

17 Rate Base @ Dec. 31, 2018

18	Description	Waikoloa Water Co., Inc. Dbw West Hawaii Water Company	Adjustments	
19	Plant In Service	\$ 17,185,407	\$ -	\$ 17,185,407
20	Accumulated Depreciation Reserve	\$ 7,845,713	\$ -	\$ 7,845,713
21	Net Plant-in-Service	\$ 9,339,694	\$ -	\$ 9,339,694
22	Deduct:			
23	Net Contributions in Aid of Construction	\$ (5,859,790)	\$ -	\$ (5,859,790)
24	Customer Advances	\$ -	\$ -	\$ -
25	Customer Deposits	\$ -	\$ -	\$ -
26	Accumulated Deferred Taxes: Federal	\$ (106,344)	\$ -	\$ (106,344)
27	Accumulated Deferred Taxes: State	\$ (94,656)	\$ -	\$ (94,656)
28	Unamortized Hawaii Capital Goods Excise Tax Credit	\$ (119,659)	\$ -	\$ (119,659)
29	subtotal	\$ (6,180,449)	\$ -	\$ (6,180,449)
30	Add:			
31	Working Capital	\$ 176,523	\$ -	\$ 176,523
32	subtotal	\$ 176,523	\$ -	\$ 176,523

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Depreciation and Amortization of Intangibles
 Test Year Ending December 31, 2018

Line No.	Description	Actual Cost		Balance as of		Dep. Exp.		Retirements		Adjustments		Balance as of		Dep. Exp.		Retirements		Adjustments		Balance as of		Test Year		
		Dec. 31, 2016	Dec. 31, 2017	Dec. 31, 2016	Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Jan. 1, 2017 to Dec. 31, 2017	Dec. 31, 2018	Dec. 31, 2018	
1	Intangible	\$ 20,460	\$ 20,460	\$ -	\$ -	\$ 2,046	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,046	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,046	\$ -	\$ 2,046	\$ -
5	Land and land rights	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	Structures and Improvements	\$ 1,068,263	\$ 1,167,057	\$ 172,446	\$ 172,446	\$ 31,614	\$ 31,614	\$ -	\$ -	\$ -	\$ -	\$ 204,060	\$ -	\$ -	\$ 31,614	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 235,674	\$ -	\$ 235,674	\$ -
7	Pumping Equipment	\$ 3,146,009	\$ 3,678,986	\$ 1,312,972	\$ 1,312,972	\$ 142,137	\$ 142,137	\$ -	\$ -	\$ -	\$ -	\$ 1,455,109	\$ -	\$ -	\$ 142,137	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,597,245	\$ -	\$ 1,597,245	\$ -
8	Treatment Equipment	\$ 12,820	\$ 12,820	\$ 6,920	\$ 6,920	\$ 329	\$ 329	\$ -	\$ -	\$ -	\$ -	\$ 7,250	\$ -	\$ -	\$ 329	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,579	\$ -	\$ 7,579	\$ -
9	Transmission & Distribution Plant	\$ 6,837,503	\$ 6,871,984	\$ 4,234,295	\$ 4,234,295	\$ 131,268	\$ 131,268	\$ -	\$ -	\$ -	\$ -	\$ 4,365,564	\$ -	\$ -	\$ 133,498	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,499,061	\$ -	\$ 4,499,061	\$ -
10	Reservoirs	\$ 1,709,606	\$ 1,724,208	\$ 628,226	\$ 628,226	\$ 55,115	\$ 55,115	\$ -	\$ -	\$ -	\$ -	\$ 683,341	\$ -	\$ -	\$ 55,115	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 738,456	\$ -	\$ 738,456	\$ -
11	Wells	\$ 1,336,131	\$ 1,336,131	\$ 427,304	\$ 427,304	\$ 40,618	\$ 40,618	\$ -	\$ -	\$ -	\$ -	\$ 467,922	\$ -	\$ -	\$ 95,027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 562,949	\$ -	\$ 562,949	\$ -
12	Office Furniture and Equipment	\$ 23,634	\$ 23,634	\$ 23,634	\$ 23,634	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,634	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,634	\$ -	\$ 23,634	\$ -
13	Transportation	\$ 2,823	\$ 2,823	\$ 2,623	\$ 2,623	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,623	\$ -	\$ -	\$ (88)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,535	\$ -	\$ 2,535	\$ -
14	Tools and Laboratory Equipment	\$ 91,564	\$ 93,714	\$ 11,708	\$ 11,708	\$ 1,145	\$ 1,145	\$ -	\$ -	\$ -	\$ -	\$ 12,863	\$ -	\$ -	\$ 1,145	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,997	\$ -	\$ 13,997	\$ -
15	General Plant	\$ 12,782	\$ 12,782	\$ 12,782	\$ 12,782	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,782	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,782	\$ -	\$ 12,782	\$ -
16	Global Settlement	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
17	Hawaii Water GO Allocation	\$ 49,713	\$ 49,713	\$ 32,206	\$ 32,206	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 33,287	\$ -	\$ -	\$ 1,082	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34,369	\$ -	\$ 34,369	\$ -
18	Big Island Allocation	\$ 255,806	\$ 339,729	\$ 71,772	\$ 71,772	\$ 20,979	\$ 20,979	\$ -	\$ -	\$ -	\$ -	\$ 92,751	\$ -	\$ -	\$ 22,633	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 115,384	\$ -	\$ 115,384	\$ -
19	Total	\$ 14,566,914	\$ 15,333,842	\$ 6,935,899	\$ 6,935,899	\$ 425,333	\$ 425,333	\$ -	\$ -	\$ -	\$ -	\$ 7,363,222	\$ -	\$ -	\$ 482,491	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,845,713	\$ -	\$ 7,845,713	\$ -

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Depreciation Expense (Book)
 Test Year Ending December 31, 2018

Line No.	Description	Test Year Ending December 31, 2016		Test Year Ending December 31, 2017		Test Year Ending December 31, 2018	
		Acc. Dep.	Dep. Exp.	Acc. Dep.	Dep. Exp.	Acc. Dep.	Dep. Exp.
		Dec. 31, 2016	Jan. 1, 2017 to Dec. 31, 2017	Dec. 31, 2017	Jan. 1, 2018 to Dec. 31, 2018	Dec. 31, 2018	Dec. 31, 2018
3							
4	Intangible	\$ -	\$ 2,046	\$ 2,046	\$ -	\$ 2,046	\$ 2,046
5	Land and land rights	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	Structures and Improvements	\$ 172,446	\$ 28,253	\$ 200,698	\$ 28,253	\$ 228,951	\$ 228,951
7	Pumping Equipment	\$ 1,312,972	\$ 42,057	\$ 1,355,029	\$ 42,057	\$ 1,397,085	\$ 1,397,085
8	Treatment Equipment	\$ 6,920	\$ 329	\$ 7,250	\$ 329	\$ 7,579	\$ 7,579
9	Transmission & Distribution Plant	\$ 4,234,295	\$ (5,053)	\$ 4,229,243	\$ (2,823)	\$ 4,226,419	\$ 4,226,419
10	Reservoirs	\$ 628,226	\$ 13,562	\$ 641,788	\$ 13,562	\$ 655,350	\$ 655,350
11	Wells	\$ 427,304	\$ 27,317	\$ 454,621	\$ 81,726	\$ 536,347	\$ 536,347
12	Office Furniture and Equipment	\$ 23,634	\$ -	\$ 23,634	\$ -	\$ 23,634	\$ 23,634
13	Transportation	\$ 2,623	\$ -	\$ 2,623	\$ (88)	\$ 2,535	\$ 2,535
14	Tools and Laboratory Equipment	\$ 11,708	\$ 1,145	\$ 12,853	\$ 1,145	\$ 13,997	\$ 13,997
15	General Plant	\$ 12,782	\$ -	\$ 12,782	\$ -	\$ 12,782	\$ 12,782
16	Global Settlement	\$ -	\$ (73,807)	\$ (73,807)	\$ (73,807)	\$ (147,613)	\$ (147,613)
17	Hawaii Water GO Allocation	\$ 32,206	\$ 1,082	\$ 33,287	\$ 1,082	\$ 34,369	\$ 34,369
18	Big Island Allocation	\$ 71,772	\$ 20,979	\$ 92,751	\$ 22,633	\$ 115,384	\$ 115,384
19	Total	\$ 6,936,889	\$ 57,910	\$ 6,994,798	\$ 114,068	\$ 7,108,867	\$ 7,108,867

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Amortization of Contributions in Aid of Construction
 Test Year Ending December 31, 2018

Line No.	Description	Amount Received	Amortization Rate	Acc. Amort. Balance as of		Amortization Jan. 1, 2017 to Dec. 31, 2017	Adjustment Jan. 1, 2017 to Dec. 31, 2017	Acc. Amort. Balance as of		Amortization Jan. 1, 2018 to Dec. 31, 2018	Adjustment Jan. 1, 2018 to Dec. 31, 2018	Test Year Acc. Amort. Balance as of Dec. 31, 2018
				Dec. 31, 2016	Jan. 1, 2017			Dec. 31, 2017	Jan. 1, 2018			
4	Intangible	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5	Land and land rights	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	Structures and Improvements	\$ 121,989	2.76%	\$ 56,435	\$ 3,362	\$ 3,362	\$ -	\$ 59,797	\$ 3,362	\$ -	\$ -	\$ 63,159
7	Pumping Equipment	\$ 2,198,642	4.55%	\$ 1,256,320	\$ 100,080	\$ 100,080	\$ -	\$ 1,356,400	\$ 100,080	\$ -	\$ -	\$ 1,456,480
8	Treatment Equipment	\$ 6,338	20.00%	\$ 6,338	\$ -	\$ -	\$ -	\$ 6,338	\$ -	\$ -	\$ -	\$ 6,338
9	Transmission & Distribution Plant	\$ 6,626,208	2.06%	\$ 4,087,617	\$ 136,321	\$ 136,321	\$ -	\$ 4,223,938	\$ 136,321	\$ -	\$ -	\$ 4,360,259
10	Reservoirs	\$ 1,449,752	2.87%	\$ 595,912	\$ 41,553	\$ 41,553	\$ -	\$ 637,465	\$ 41,553	\$ -	\$ -	\$ 679,018
11	Wells	\$ 665,064	2.00%	\$ 363,101	\$ 13,301	\$ 13,301	\$ -	\$ 376,402	\$ 13,301	\$ -	\$ -	\$ 389,703
12	Office Furniture and Equipment	\$ 4,767	20.00%	\$ 4,767	\$ -	\$ -	\$ -	\$ 4,767	\$ -	\$ -	\$ -	\$ 4,767
13	Transportation	\$ -	3.33%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
14	Tools and Laboratory Equipment	\$ -	3.33%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
15	General Plant	\$ 10,613	6.67%	\$ 10,613	\$ -	\$ -	\$ -	\$ 10,613	\$ -	\$ -	\$ -	\$ 10,613
16	Global Settlement	\$ 2,214,195	3.33%	\$ 319,828	\$ 73,807	\$ 73,807	\$ -	\$ 393,635	\$ 73,807	\$ -	\$ -	\$ 467,441
17	Hawaii Water GO Allocation	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
18	Big Island Allocation	\$ -	0.00%	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Total	\$ 13,297,567		\$ 6,700,931	\$ 368,423	\$ 368,423	\$ -	\$ 7,069,354	\$ 368,423	\$ -	\$ -	\$ 7,437,777

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - Federal
 Test Year Ending December 31, 2018

Line No.	Description	Acc. Tax Dep. Balance as of Dec. 31, 2016	Dep. Exp.	Adjustments	Acc. Tax Dep. Balance as of Dec. 31, 2017	Dep. Exp.	Adjustments	Test Year Acc. Tax Dep. Balance as of Dec. 31, 2018
5	Intangible	\$ 3,274	\$ 818		\$ 4,092	\$ 818		\$ 4,910
6	Land and land rights	\$ -	\$ -		\$ -	\$ -		\$ -
7	Structures and Improvements	\$ 100,104	\$ 38,492		\$ 138,596	\$ 38,492		\$ 177,088
8	Pumping Equipment	\$ 170,800	\$ 61,404		\$ 232,204	\$ 61,404		\$ 293,608
9	Treatment Equipment	\$ 876	\$ 259		\$ 1,135	\$ 259		\$ 1,395
10	Transmission & Distribution Plant	\$ 171,382	\$ 6,175		\$ 177,557	\$ 7,454		\$ 185,012
11	Reservoirs	\$ 59,441	\$ 10,978		\$ 70,420	\$ 10,978		\$ 81,398
12	Wells	\$ 134,766	\$ 26,902		\$ 161,668	\$ 98,492		\$ 260,160
13	Office Furniture and Equipment	\$ 18,867	\$ -		\$ 18,867	\$ -		\$ 18,867
14	Transportation	\$ 2,623	\$ -		\$ 2,623	\$ -		\$ 2,623
15	Tools and Laboratory Equipment	\$ 90,186	\$ 1,226		\$ 91,412	\$ 985		\$ 92,397
16	General Plant	\$ 2,169	\$ -		\$ 2,169	\$ -		\$ 2,169
17	Global Settlement	\$ (442,839)	\$ (88,568)		\$ (531,407)	\$ (88,568)		\$ (619,975)
18	Hawaii Water GO Allocation	\$ 45,786	\$ 2,027		\$ 47,813	\$ 694		\$ 48,506
19	Big Island Allocation	\$ 196,078	\$ 34,512		\$ 230,590	\$ 36,619		\$ 267,209
20	Total	\$ 553,513	\$ 94,226	\$ -	\$ 647,739	\$ 167,628	\$ -	\$ 815,367
21	Accumulated Book Depreciation	\$ 235,957			\$ 293,867			\$ 407,936
22	ADIT Balance	\$ (80,878)			\$ (90,826)			\$ (106,344)

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - Federal (Detail)
 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation				
							2016	2017	2018	2016	2017	2018		
1	103030	Intangible Plant												
2		Waikoloa Potable Water Master Plan	\$ 20,450	12/1/2013	SL-25	25	\$ 818	\$ 818	\$ 818	\$ 818	\$ 818	\$ 818	\$ 4,092	\$ 4,910
3		Total	\$ 20,450				\$ 818	\$ 818	\$ 818	\$ 818	\$ 818	\$ 818	\$ 4,092	\$ 4,910
4	103110	Structures & Improvement - Supply Plant												
5		DW3-ACCESS ROAD, SITE & DRAINAGE	\$ 39,665	5/22/1997	SL-25	25	\$ 1,587	\$ 1,587	\$ 1,587	\$ 1,587	\$ 1,587	\$ 1,587	\$ 33,319	\$ 34,906
6		DW5-CONTROL BUILDING (METAL)	\$ 17,617	5/22/1997	SL-25	25	\$ 705	\$ 705	\$ 705	\$ 705	\$ 705	\$ 705	\$ 14,798	\$ 15,503
7		DW3-FENCE	\$ 4,014	5/22/1997	SL-25	25	\$ 161	\$ 161	\$ 161	\$ 161	\$ 161	\$ 161	\$ 3,372	\$ 3,532
8		DW3-LIGHT FIXTURES	\$ 401	5/22/1997	SL-25	25	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 16	\$ 337	\$ 353
9		DW4-ELEC UPGRADE-ENCLOSURE	\$ 5,358	3/1/1997	SL-25	25	\$ 214	\$ 214	\$ 214	\$ 214	\$ 214	\$ 214	\$ 4,287	\$ 4,501
10		DW5-ELEC UPGRADE-ENCLOSURE	\$ 5,300	3/1/1997	SL-25	25	\$ 212	\$ 212	\$ 212	\$ 212	\$ 212	\$ 212	\$ 4,240	\$ 4,454
11		GENERATOR ENGINE ROOF	\$ 3,776	10/1/1994	SL-25	25	\$ 151	\$ 151	\$ 151	\$ 151	\$ 151	\$ 151	\$ 3,474	\$ 3,776
12		Security Fencing - Tank 900	\$ 14,666	8/22/2001	SL-25	25	\$ 587	\$ 587	\$ 587	\$ 587	\$ 587	\$ 587	\$ 9,387	\$ 9,973
13		STRUCTURE-SOURCE	\$ 1,706	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,706	\$ 1,706
14		Total	\$ 92,505				\$ 3,632	\$ 3,632	\$ 3,632	\$ 3,632	\$ 3,632	\$ 3,632	\$ 76,083	\$ 79,715
15	103210	Structures & Improvement - Pumping Plant												
16		Bump Gate	\$ 1,019	12/1/2010	SL-25	25	\$ 41	\$ 41	\$ 41	\$ 41	\$ 41	\$ 41	\$ 285	\$ 326
17		DW 7 Site Work	\$ 95,178	12/1/2013	SL-25	25	\$ 3,807	\$ 3,807	\$ 3,807	\$ 3,807	\$ 3,807	\$ 3,807	\$ 15,229	\$ 19,036
18		DW7 Electrical & Chlorination Bldg	\$ 142,642	12/1/2013	SL-25	25	\$ 5,706	\$ 5,706	\$ 5,706	\$ 5,706	\$ 5,706	\$ 5,706	\$ 22,823	\$ 28,526
19		DW7 Electrical Work	\$ 386,237	12/1/2013	SL-25	25	\$ 15,449	\$ 15,449	\$ 15,449	\$ 15,449	\$ 15,449	\$ 15,449	\$ 61,798	\$ 77,247
20		Pumphouse and Site Improvements	\$ 144,707	12/1/2013	SL-25	25	\$ 5,788	\$ 5,788	\$ 5,788	\$ 5,788	\$ 5,788	\$ 5,788	\$ 23,153	\$ 28,941
21		In house labor	\$ 271	12/1/2011	SL-25	25	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 65	\$ 87
22		Work Order Addition	\$ 278	12/1/2011	SL-25	25	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 11	\$ 67	\$ 89
23		Well Gates, Apollo Solar	\$ 22,698	5/1/2016	SL-25	25	\$ 908	\$ 908	\$ 908	\$ 908	\$ 908	\$ 908	\$ 908	\$ 1,816
24		DW1 Electrical Building	\$ 88,794	9/30/2017	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,952
25		Total	\$ 691,822				\$ 31,721	\$ 31,721	\$ 31,721	\$ 31,721	\$ 31,721	\$ 31,721	\$ 124,327	\$ 160,000
26	103310	Structures & Improvement - Treatment Plant												
27		STRUCTURE-TREATMENT	\$ 6,757	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,757	\$ 6,757
28		Total	\$ 6,757				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,757	\$ 6,757
29	103410	Structures & Improvement - Transmission & Distribution Plant												
30		Chain Link Fence WHWC Portion	\$ 19,825	9/1/2010	SL-25	25	\$ 793	\$ 793	\$ 793	\$ 793	\$ 793	\$ 793	\$ 5,551	\$ 6,344
31		DW7 Piping to Tank	\$ 99,642	12/1/2013	SL-25	25	\$ 3,996	\$ 3,996	\$ 3,996	\$ 3,996	\$ 3,996	\$ 3,996	\$ 15,943	\$ 19,928
32		Emergency Shower-Baseyard	\$ 1,451	3/1/2015	SL-25	25	\$ 58	\$ 58	\$ 58	\$ 58	\$ 58	\$ 58	\$ 116	\$ 174
33		Emergency Shower-Tank 1200S	\$ 1,445	3/1/2015	SL-25	25	\$ 58	\$ 58	\$ 58	\$ 58	\$ 58	\$ 58	\$ 116	\$ 173
34		Total	\$ 122,363				\$ 4,895	\$ 4,895	\$ 4,895	\$ 4,895	\$ 4,895	\$ 4,895	\$ 21,725	\$ 26,620
35	103411	Structures & Improvement - Pavement												
36		Concrete Pavement WHWC Portion	\$ 17,450	9/1/2010	SL-25	25	\$ 698	\$ 698	\$ 698	\$ 698	\$ 698	\$ 698	\$ 4,886	\$ 5,584
37		Total	\$ 17,450				\$ 698	\$ 698	\$ 698	\$ 698	\$ 698	\$ 698	\$ 4,886	\$ 5,584
38	103710	Structures & Improvement - General Plant												
39		Base Yard Lunch Room Air Conditioner (WHWC Share)	\$ 132	3/31/2001	SL-25	25	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 5	\$ 84	\$ 90
40		Base Yard Lunch Room Renovation (WHWC Share)	\$ 3,357	3/31/2001	SL-25	25	\$ 134	\$ 134	\$ 134	\$ 134	\$ 134	\$ 134	\$ 2,148	\$ 2,417

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
Accumulated Deferred Income Taxes - Federal (Detail)
Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	Annual Amortization				Accumulated Depreciation				
				In Service Date	Tax Method	Tax Period	2016	2017	2018	2016	2017	2018
92		Rpr DW#3-WHWC Share	\$ 66,352	12/31/2007	SL-25	25	\$ 2,654	\$ 2,654	\$ 2,654	\$ 26,541	\$ 29,195	\$ 31,849
93		Replacement of Well #1 Starter	\$ 182,276	12/31/2017	SL-25	25	\$ -	\$ 7,291	\$ 7,291	\$ -	\$ 7,291	\$ 14,582
94		Well 1 Pump Replacement	\$ 150,656	12/31/2017	SL-25	25	\$ -	\$ 6,026	\$ 6,026	\$ -	\$ 6,026	\$ 12,053
95		PRV Stations 600 & 300 Design	\$ -	12/31/2017	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
96		Upgrade DW3 Motor Starter	\$ 125,656	12/31/2017	SL-25	25	\$ -	\$ 5,026	\$ 5,026	\$ -	\$ 5,026	\$ 10,052
97		Upgrade DW2 Starter	\$ 49,436	12/31/2017	SL-25	25	\$ -	\$ 1,977	\$ 1,977	\$ -	\$ 1,977	\$ 3,955
98		DW#4&5 Flap Valves	\$ 1,814	12/31/2017	SL-25	25	\$ -	\$ 73	\$ 73	\$ -	\$ 73	\$ 145
99		DW#5 Motor Refurbish	\$ 23,138	12/31/2017	SL-25	25	\$ -	\$ 926	\$ 926	\$ -	\$ 926	\$ 1,851
100		Total	\$ 3,621,580				\$ 123,544	\$ 144,853	\$ 144,853	\$ 1,167,193	\$ 1,312,056	\$ 1,456,919
101	103241	System Control Computer Equipment										
102		DW7 SCADA Equipment	\$ 39,434	12/1/2013	SL-25	25	\$ 1,577	\$ 1,577	\$ 1,577	\$ 6,309	\$ 7,887	\$ 9,464
103		SCADA WHWC Portion	\$ 17,972	9/1/2010	SL-25	25	\$ 719	\$ 719	\$ 719	\$ 5,032	\$ 5,751	\$ 6,470
104		Total	\$ 57,406				\$ 2,296	\$ 2,296	\$ 2,296	\$ 11,342	\$ 13,638	\$ 15,934
105	103320	Treatment & Disposal Equipment										
106		Replace Gas Detectors Tank 1200N&S	\$ 4,467	12/1/2013	SL-25	25	\$ 179	\$ 179	\$ 179	\$ 715	\$ 893	\$ 1,072
107		Tank 1200N 6" Chlorine Pump	\$ 2,015	3/1/2015	SL-25	25	\$ 81	\$ 81	\$ 81	\$ 161	\$ 242	\$ 322
108		TREATMENT-EQUIPMENT	\$ 6,338	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ 6,338	\$ 6,338	\$ 6,338
109		Total	\$ 12,820				\$ 259	\$ 259	\$ 259	\$ 7,214	\$ 7,473	\$ 7,733
110	103431	A.C.										
111		Castle&Cooke-Dedicated Water Lines-Kikaha@Wen	\$ 380,360	1/1/2008	SL-25	25	\$ 15,214	\$ 15,214	\$ 15,214	\$ 136,930	\$ 152,144	\$ 167,358
112		Clearly Waikoloa-Dedicated Water Facilities-K	\$ 698,582	1/1/2008	SL-25	25	\$ 27,943	\$ 27,943	\$ 27,943	\$ 251,490	\$ 279,433	\$ 307,376
113		DISTRIBUTION MAIN	\$ 3,632,236	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ 3,632,236	\$ 3,632,236	\$ 3,632,236
114		DW3-PIPELINE-DUCTILE IRON	\$ 94,654	5/22/1997	SL-25	25	\$ 3,786	\$ 3,786	\$ 3,786	\$ 75,723	\$ 79,509	\$ 83,295
115		Ho'oko Street Park	\$ 111,657	1/1/2008	SL-25	25	\$ 4,466	\$ 4,466	\$ 4,466	\$ 40,196	\$ 44,663	\$ 49,129
116		KE KUMU WATER FACILITIES	\$ 49,784	4/1/1986	SL-25	25	\$ 1,991	\$ 1,991	\$ 1,991	\$ 41,819	\$ 43,910	\$ 45,907
117		PANILO ESTATES EASEMENT/SYSTEM	\$ 266,785	1/1/1993	SL-25	25	\$ 10,671	\$ 10,671	\$ -	\$ 256,114	\$ 266,785	\$ 266,785
118		Pressure Reducing Valves	\$ 18,755	7/27/2004	SL-25	25	\$ 750	\$ 750	\$ 750	\$ 9,752	\$ 10,503	\$ 11,253
119		SRIH-1-2-FACILITIES (2700,101)	\$ 74,528	10/30/1998	SL-25	25	\$ 2,981	\$ 2,981	\$ 2,981	\$ 56,641	\$ 59,622	\$ 62,604
120		Sunset/Ridge III Unit 2 41 Lots-Dedicated Wat	\$ 215,080	9/26/2005	SL-25	25	\$ 8,603	\$ 8,603	\$ 8,603	\$ 103,238	\$ 111,942	\$ 120,445
121		SUNSET RIDGE III Unit 2-a 17 Lots-Dedi	\$ 49,905	1/1/1998	SL-25	25	\$ 1,996	\$ 1,996	\$ 1,996	\$ 37,928	\$ 39,924	\$ 41,920
122		Sunset/Ridge Phill Incr2 Unit 2-a 17 Lots-Dedi	\$ 91,275	9/26/2005	SL-25	25	\$ 3,651	\$ 3,651	\$ 3,651	\$ 43,812	\$ 47,463	\$ 51,114
123		Sunset/Ridge Phill Unit 3 15 Lots-Dedicated Wa	\$ 163,406	9/26/2005	SL-25	25	\$ 6,536	\$ 6,536	\$ 6,536	\$ 78,435	\$ 84,971	\$ 91,507
124		SUPPLY MAIN	\$ 27,377	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ 27,377	\$ 27,377	\$ 27,377
125		TRI WATER FACILITY SIR II-1	\$ 50,642	6/1/1995	SL-25	25	\$ 2,026	\$ 2,026	\$ 2,026	\$ 44,565	\$ 46,591	\$ 48,617
126		TRI WATER FACILITY SIR II-2	\$ 16,368	3/1/1996	SL-25	25	\$ 734	\$ 734	\$ 734	\$ 15,421	\$ 16,155	\$ 16,889
127		V.E. LOT 135-DEDICATED FACILITIES	\$ 42,985	9/28/1989	SL-25	25	\$ 1,719	\$ 1,719	\$ 1,719	\$ 30,949	\$ 32,669	\$ 34,388
128		VILLAGE EST CROSS CONNECTION	\$ 58,770	12/1/1996	SL-25	25	\$ 2,351	\$ 2,351	\$ 2,351	\$ 49,367	\$ 51,718	\$ 54,068
129		WATERLINE IMPROVEMENTS(VILLEST)	\$ 346,200	8/1/1994	SL-25	25	\$ 13,848	\$ 13,848	\$ 13,848	\$ 318,504	\$ 332,352	\$ 346,200
130		WTR LINES (DEDICATED) KEK III	\$ 29,624	1/1/1997	SL-25	25	\$ 1,185	\$ 1,185	\$ 1,185	\$ 23,699	\$ 24,884	\$ 26,069
131		Total	\$ 6,420,961				\$ 110,454	\$ 110,454	\$ 99,763	\$ 5,274,195	\$ 5,384,649	\$ 5,484,432
132	103435	Ductile Iron Pipe										
133		106' Ductile Iron Pipe 12" WHWC Portion	\$ 6,112	9/1/2010	SL-25	25	\$ 244	\$ 244	\$ 244	\$ 1,711	\$ 1,956	\$ 2,200
134		117' Ductile Iron Pipe 16" WHWC Portion	\$ 11,901	9/1/2010	SL-25	25	\$ 476	\$ 476	\$ 476	\$ 3,382	\$ 3,808	\$ 4,284
135		350' Ductile Iron Pipe 18" WHWC Portion	\$ 34,472	9/1/2010	SL-25	25	\$ 1,379	\$ 1,379	\$ 1,379	\$ 9,652	\$ 11,031	\$ 12,410
136		DW5 Cross Connection Backflow	\$ 9,043	12/1/2014	SL-25	25	\$ 362	\$ 362	\$ 362	\$ 1,085	\$ 1,447	\$ 1,809

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - Federal (Detail)
 First Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
186	METERS-DEC '84		\$ 265	1/1/1985	SL-25	25	\$ -	\$ -	\$ -	\$ 255	\$ 255	\$ 255
187	Meters-Dec 87		\$ 3,517	12/31/1987	SL-25	25	\$ -	\$ -	\$ -	\$ 3,517	\$ 3,517	\$ 3,517
188	METERS-DEC '89		\$ 12,574	12/1/1989	SL-25	25	\$ -	\$ -	\$ -	\$ 12,574	\$ 12,574	\$ 12,574
189	METERS-DEC '90		\$ 2,794	12/31/1990	SL-25	25	\$ -	\$ -	\$ -	\$ 2,794	\$ 2,794	\$ 2,794
190	METERS-DEC '94		\$ 20,425	12/31/1994	SL-25	25	\$ 817	\$ 817	\$ 817	\$ 19,608	\$ 19,608	\$ 20,425
191	METERS-DEC'88		\$ 3,029	12/1/1988	SL-25	25	\$ -	\$ -	\$ -	\$ 3,029	\$ 3,029	\$ 3,029
192	METERS-MAR '75		\$ 816	3/1/1975	SL-25	25	\$ -	\$ -	\$ -	\$ 816	\$ 816	\$ 816
193	METER-WAIKOLOA HILLS		\$ 5,715	11/1/1987	SL-25	25	\$ -	\$ -	\$ -	\$ 5,715	\$ 5,715	\$ 5,715
194	Replacement Meters		\$ 4,257	12/31/2003	SL-25	25	\$ 170	\$ 170	\$ 170	\$ 2,384	\$ 2,554	\$ 2,724
195	Replacement Meters		\$ 4,344	5/31/2002	SL-25	25	\$ 174	\$ 174	\$ 174	\$ 2,606	\$ 2,780	\$ 2,954
196	Replacement Meters		\$ 1,492	11/30/2001	SL-25	25	\$ 60	\$ 60	\$ 60	\$ 955	\$ 1,015	\$ 1,074
197	Replacement Meters 104 - 7/04		\$ 3,841	7/31/2004	SL-25	25	\$ 158	\$ 158	\$ 158	\$ 2,049	\$ 2,207	\$ 2,365
198	REPLACEMENT METERS 188-2/98		\$ 2,988	2/15/1998	SL-25	25	\$ 84	\$ 84	\$ 84	\$ 1,587	\$ 1,671	\$ 1,754
199	REPLACEMENT METERS 1200-9/01		\$ 2,971	9/31/2001	SL-25	25	\$ 119	\$ 119	\$ 119	\$ 1,902	\$ 2,021	\$ 2,139
200	REPLACEMENT METERS 2/99-5/99		\$ 923	5/19/1999	SL-25	25	\$ 37	\$ 37	\$ 37	\$ 664	\$ 701	\$ 738
201	Replacement Meters 2002		\$ 2,208	11/30/2002	SL-25	25	\$ 88	\$ 88	\$ 88	\$ 1,325	\$ 1,413	\$ 1,501
202	REPLACEMENT METERS 3/88-6/98		\$ 2,968	6/30/1998	SL-25	25	\$ 83	\$ 83	\$ 83	\$ 1,571	\$ 1,654	\$ 1,737
203	REPLACEMENT METERS 5/00		\$ 1,990	5/5/2000	SL-25	25	\$ 80	\$ 80	\$ 80	\$ 1,353	\$ 1,433	\$ 1,512
204	REPLACEMENT METERS 6/00-11/00		\$ 2,666	11/30/2000	SL-25	25	\$ 107	\$ 107	\$ 107	\$ 1,827	\$ 1,934	\$ 2,041
205	REPLACEMENT METERS 6/89-8/99		\$ 1,372	8/30/1999	SL-25	25	\$ 55	\$ 55	\$ 55	\$ 988	\$ 1,043	\$ 1,088
206	REPLACEMENT METERS 7/88-11/98		\$ 1,331	11/30/1998	SL-25	25	\$ 53	\$ 53	\$ 53	\$ 1,011	\$ 1,064	\$ 1,118
207	Replacement meters 7/99-11/99		\$ 1,553	11/9/1999	SL-25	25	\$ 64	\$ 64	\$ 64	\$ 1,147	\$ 1,211	\$ 1,274
208	REPLACEMENT MTRS 11/98-1/99		\$ 16,723	1/1/2008	SL-25	25	\$ 669	\$ 669	\$ 669	\$ 6,020	\$ 6,689	\$ 7,358
209	Replacement Meters 8/04-12/07		\$ 533	1/15/1999	SL-25	25	\$ 21	\$ 21	\$ 21	\$ 384	\$ 405	\$ 426
210	Temp mtr pool - Neptune 3" (#70066690,81)		\$ 1,379	10/28/1999	SL-25	25	\$ 55	\$ 55	\$ 55	\$ 993	\$ 1,046	\$ 1,104
211	TEMPORARY METER POOL		\$ 1,344	12/31/1994	SL-25	25	\$ 54	\$ 54	\$ 54	\$ 1,237	\$ 1,290	\$ 1,344
212	Water Loss Control Plan		\$ 34,481	12/31/2017	SL-25	25	\$ -	\$ 1,379	\$ 1,379	\$ -	\$ -	\$ 2,758
213	Water Loss Control Plan		\$ 41,589	7/1/2018	SL-25	25	\$ -	\$ -	\$ 1,664	\$ -	\$ -	\$ 1,664
214	Total		\$ 398,511				\$ 9,763	\$ 10,775	\$ 12,054	\$ 240,079	\$ 250,854	\$ 262,903
215	103480 Hydrants		\$ 4,463	12/1/2016	SL-25	25	\$ 179	\$ 179	\$ 179	\$ 179	\$ 359	\$ 538
216	6" Mueller Gate Valve @ Meilia St		\$ 3,848	3/1/1999	SL-25	25	\$ -	\$ -	\$ -	\$ 3,848	\$ 3,848	\$ 3,848
217	FENCE FOR PARKER #1		\$ 6,331				\$ 179	\$ 179	\$ 179	\$ 4,027	\$ 4,207	\$ 4,386
218	Total		\$ 14,662				\$ 358	\$ 358	\$ 358	\$ 4,027	\$ 4,207	\$ 4,386
219	103420 Reservoirs & Tanks		\$ 329,725	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ 329,725	\$ 329,725	\$ 329,725
220	DISTRIBUTION RESERVOIR		\$ 240,908	11/20/1997	SL-25	25	\$ 9,636	\$ 9,636	\$ 9,636	\$ 192,727	\$ 202,363	\$ 211,999
221	TANK 1200S-2		\$ 22,400	12/1/2016	SL-25	25	\$ 896	\$ 896	\$ 896	\$ 896	\$ 1,792	\$ 2,688
222	Tank 900 8" Cla-val		\$ 7,867	5/1/2016	SL-25	25	\$ 315	\$ 315	\$ 315	\$ 315	\$ 629	\$ 944
223	Tank 900 8" Gate Valves		\$ 89,060	5/19/2005	SL-25	25	\$ 3,562	\$ 3,562	\$ 3,562	\$ 42,748	\$ 48,311	\$ 49,873
224	Tank 900 Reservoir Replacement-CEMENT		\$ 4,284	5/19/2005	SL-25	25	\$ 171	\$ 171	\$ 171	\$ 2,056	\$ 2,228	\$ 2,398
225	Tank 900 Reservoir Replacement-PIPING		\$ 3,783	3/1/2016	SL-25	25	\$ 151	\$ 151	\$ 151	\$ 151	\$ 303	\$ 454
226	Tank ladder gates-South tanks		\$ 757,035	9/1/2010	SL-25	25	\$ 30,281	\$ 30,281	\$ 30,281	\$ 211,970	\$ 242,251	\$ 272,532
227	WHWC 1 Million Gallon Steel Boiled Tank		\$ 9,997	12/31/2017	SL-25	25	\$ -	\$ 400	\$ 400	\$ -	\$ 400	\$ 800
228	Replace (3) Cla-valvs at 1200N		\$ 1,465,060				\$ 45,013	\$ 45,413	\$ 45,413	\$ 780,598	\$ 826,002	\$ 871,415
229	Total		\$ 1,465,060				\$ 45,013	\$ 45,413	\$ 45,413	\$ 780,598	\$ 826,002	\$ 871,415
230	103421 Tank Painting		\$ 254,544	6/1/2011	SL-25	25	\$ 10,182	\$ 10,182	\$ 10,182	\$ 61,091	\$ 71,272	\$ 81,454
231	Tank Painting		\$ 4,604	12/31/2017	SL-25	25	\$ -	\$ 184	\$ 184	\$ -	\$ 184	\$ 368
232	Paint Tank 900		\$ -				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
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Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
233			<u>\$ 259,148</u>				<u>\$ 10,182</u>	<u>\$ 10,366</u>	<u>\$ 10,366</u>	<u>\$ 61,091</u>	<u>\$ 71,456</u>	<u>\$ 81,822</u>
234	103150	Wells										
235		DW3 DRILLING-DONE IN 1982	\$ 412,101	5/22/1987	SL-25	25	\$ 16,484	\$ 16,484	\$ 16,484	\$ 329,681	\$ 346,165	\$ 362,649
236		Imputed interest on DW3	\$ 82,194	10/31/1989	SL-25	25	\$ 3,288	\$ 3,288	\$ 3,288	\$ 59,180	\$ 62,467	\$ 65,755
237		Waikoloa Deep Well #7 Outfitting	\$ 621,406	12/1/2013	SL-25	25	\$ 24,856	\$ 24,856	\$ 24,856	\$ 99,425	\$ 124,281	\$ 149,137
238		WELLS-PARKER 4 & 5	\$ 220,431	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ 220,431	\$ 220,431	\$ 220,431
239		Waikoloa Deep Well #6	\$ 1,789,756	12/31/2018	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 71,590
240		Total	<u>\$ 3,125,887</u>				<u>\$ 44,528</u>	<u>\$ 44,528</u>	<u>\$ 116,218</u>	<u>\$ 708,716</u>	<u>\$ 753,344</u>	<u>\$ 869,562</u>
241	103720	Office Furn & Equip										
242		FLAMMABLE LIQUID CABINET	\$ 639	7/1/1995	MACRS 7	7	\$ -	\$ -	\$ -	\$ 639	\$ 639	\$ 639
243		Safety Cabinet	\$ 226	7/3/2002	MACRS 7	7	\$ -	\$ -	\$ -	\$ 226	\$ 226	\$ 226
244		Steel Flat File Drawers for New Trailer Office	\$ 827	6/30/2004	MACRS 7	7	\$ -	\$ -	\$ -	\$ 827	\$ 827	\$ 827
245		Storage Container	\$ 539	4/16/2004	MACRS 7	7	\$ -	\$ -	\$ -	\$ 539	\$ 539	\$ 539
246		Total	<u>\$ 2,231</u>				<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,231</u>	<u>\$ 2,231</u>	<u>\$ 2,231</u>
247	103721	Electronic Equipment/Computers										
248		(2) Telemetry Field Computers	\$ 1,203	4/15/2004	MACRS 5	5	\$ -	\$ -	\$ -	\$ 1,203	\$ 1,203	\$ 1,203
249		2 Baseyard Computers	\$ 486	7/12/2002	MACRS 5	5	\$ -	\$ -	\$ -	\$ 486	\$ 486	\$ 486
250		2-Way Radio	\$ 107	4/22/2005	MACRS 5	5	\$ -	\$ -	\$ -	\$ 107	\$ 107	\$ 107
251		2-Way Radio for 2006 Chevy Silverado	\$ 372	11/8/2005	MACRS 5	5	\$ -	\$ -	\$ -	\$ 372	\$ 372	\$ 372
252		Baseyard Computer-Utility Operations Clerk	\$ 335	2/19/2003	MACRS 5	5	\$ -	\$ -	\$ -	\$ 335	\$ 335	\$ 335
253		Computer-Accounts Receivable Dept.	\$ 352	2/19/2002	MACRS 5	5	\$ -	\$ -	\$ -	\$ 352	\$ 352	\$ 352
254		Copy Machine	\$ 2,047	9/11/2001	MACRS 5	5	\$ -	\$ -	\$ -	\$ 2,047	\$ 2,047	\$ 2,047
255		Dell Precision 380 Computer-Util Cler-Accting	\$ 432	10/18/2007	MACRS 5	5	\$ -	\$ -	\$ -	\$ 432	\$ 432	\$ 432
256		DW3-SCADA SYSTEM (TELEMETRY)	\$ 4,767	5/22/1997	MACRS 5	5	\$ -	\$ -	\$ -	\$ 4,767	\$ 4,767	\$ 4,767
257		EPSON PRINTER & STAND (1/3 SHARE)	\$ 668	12/10/1998	MACRS 5	5	\$ -	\$ -	\$ -	\$ 668	\$ 668	\$ 668
258		HP 5600 Color Jet (Color Laser Printer)	\$ 1,437	8/8/2003	MACRS 5	5	\$ -	\$ -	\$ -	\$ 1,437	\$ 1,437	\$ 1,437
259		Lexmark 1630N Laser Printer	\$ 393	10/31/2004	MACRS 5	5	\$ -	\$ -	\$ -	\$ 393	\$ 393	\$ 393
260		NORSTAR PHONE SYSTEM-BASEYARD	\$ 1,842	4/12/1999	MACRS 5	5	\$ -	\$ -	\$ -	\$ 1,842	\$ 1,842	\$ 1,842
261		Software Windows Upgrade for Softwater Billin	\$ 754	4/2/2004	MACRS 5	5	\$ -	\$ -	\$ -	\$ 754	\$ 754	\$ 754
262		SOFTWATER SECURITY FEATURES	\$ 208	1/11/1999	MACRS 5	5	\$ -	\$ -	\$ -	\$ 208	\$ 208	\$ 208
263		Telemetry Field Computer	\$ 452	3/18/2004	MACRS 5	5	\$ -	\$ -	\$ -	\$ 452	\$ 452	\$ 452
264		Telemetry Hardware (Rugid Rug3D Computer)	\$ 4,883	10/15/2004	MACRS 5	5	\$ -	\$ -	\$ -	\$ 4,883	\$ 4,883	\$ 4,883
265		Two (2) Dodge Dakota Pickup Trucks (WHWC Shar	\$ 666	3/31/2001	MACRS 5	5	\$ -	\$ -	\$ -	\$ 666	\$ 666	\$ 666
266		Total	<u>\$ 21,402</u>				<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 21,402</u>	<u>\$ 21,402</u>	<u>\$ 21,402</u>
267	103730	Transportation Equipment										
268		1997 Dodge Dakota Pick-Up Truck	\$ 957	1/12/2003	MACRS 5	5	\$ -	\$ -	\$ -	\$ 957	\$ 957	\$ 957
269		2000 Jeep buyout lease #77512/40510966	\$ 1,666	1/12/2006	MACRS 5	5	\$ -	\$ -	\$ -	\$ 1,666	\$ 1,666	\$ 1,666
270		Total	<u>\$ 2,623</u>				<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 2,623</u>	<u>\$ 2,623</u>	<u>\$ 2,623</u>
271	103750	Laboratory Equipment										
272		Chlorine Residual Analyzers (2)	\$ 9,434	4/2/2002	MACRS 7	7	\$ -	\$ -	\$ -	\$ 9,434	\$ 9,434	\$ 9,434
273		Incubator BOD Model 146E 115V	\$ 2,979	12/1/2011	MACRS 7	7	\$ 266	\$ 266	\$ 133	\$ 2,580	\$ 2,846	\$ 2,979
274		Sealer WQTS2X 115V 2X Q-Tray	\$ 3,796	12/1/2011	MACRS 7	7	\$ 339	\$ 339	\$ 169	\$ 3,288	\$ 3,627	\$ 3,796
275		WB600 Large Incubator 120V	\$ 1,755	12/1/2011	MACRS 7	7	\$ 157	\$ 157	\$ 78	\$ 1,520	\$ 1,677	\$ 1,755

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - Federal (Detail)
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Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
276	W1600	Large Incubator:120V	\$ 1,765	12/1/2011	MACRS 7	7	\$ 157	\$ 157	\$ 78	\$ 1,520	\$ 1,677	\$ 1,755
277			\$ 19,720				\$ 918	\$ 919	\$ 459	\$ 18,343	\$ 19,261	\$ 19,720
278	103770	Power Operated Equipment										
279		Caterpillar Model 14E Grader	\$ 62,225	10/15/2006	MACRS 7	7	\$ -	\$ -	\$ -	\$ 62,225	\$ 62,225	\$ 62,225
280			\$ 62,225				\$ -	\$ -	\$ -	\$ 62,225	\$ 62,225	\$ 62,225
103780		Tools, Shop, Garage Equipment										
281		Band Saw	\$ 233	7/1/2003	MACRS 7	7	\$ -	\$ -	\$ -	\$ 233	\$ 233	\$ 233
282		COPPER PIPE SHUTOFF TOOL	\$ 615	6/1/1982	MACRS 7	7	\$ -	\$ -	\$ -	\$ 615	\$ 615	\$ 615
283		DICKSON PRESSURE RECORDER	\$ 536	6/23/1995	MACRS 7	7	\$ -	\$ -	\$ -	\$ 536	\$ 536	\$ 536
284		Portable Generator	\$ 208	5/23/2002	MACRS 7	7	\$ -	\$ -	\$ -	\$ 208	\$ 208	\$ 208
285		Radial Saw	\$ 114	4/3/2003	MACRS 7	7	\$ -	\$ -	\$ -	\$ 114	\$ 114	\$ 114
286		Spin Balancer (WHWC Share)	\$ 627	9/20/2006	MACRS 7	7	\$ -	\$ -	\$ -	\$ 627	\$ 627	\$ 627
287		Tapping & Drilling Equipment	\$ 4,833	4/15/2008	MACRS 7	7	\$ -	\$ -	\$ -	\$ 4,833	\$ 4,833	\$ 4,833
288		Tire Changer	\$ 989	8/6/2002	MACRS 7	7	\$ -	\$ -	\$ -	\$ 989	\$ 989	\$ 989
289		TOOLBOXES-2000 CHEVY S10 TRUCKS (3)	\$ 207	1/17/2000	MACRS 7	7	\$ -	\$ -	\$ -	\$ 207	\$ 207	\$ 207
290		Vibration Meter	\$ 1,256	6/3/2003	MACRS 7	7	\$ -	\$ -	\$ -	\$ 1,256	\$ 1,256	\$ 1,256
291		1" drill and tap	\$ 585	5/1/2017	MACRS 7	7	\$ -	\$ 84	\$ 143	\$ -	\$ 84	\$ 227
292		3/4" drill and tap	\$ 456	5/1/2017	MACRS 7	7	\$ -	\$ 65	\$ 112	\$ -	\$ 65	\$ 177
293		Hydrant Adjustable Seat Wrench	\$ 1,109	12/31/2017	MACRS 7	7	\$ -	\$ 158	\$ 272	\$ -	\$ 158	\$ 430
294			\$ 11,768				\$ -	\$ 307	\$ 527	\$ 9,618	\$ 9,926	\$ 10,452
295		Total	\$ 11,768				\$ -	\$ 307	\$ 527	\$ 9,618	\$ 9,926	\$ 10,452
103790		General Plant										
296		EMERG EYEWASH STNS (MWC SHARE)	\$ 2,169	10/1/1986	MACRS 7	7	\$ -	\$ -	\$ -	\$ 2,169	\$ 2,169	\$ 2,169
297		FIRE HYDRANT REACTION BLOCKS	\$ 10,613	7/31/1997	MACRS 7	7	\$ -	\$ -	\$ -	\$ 10,613	\$ 10,613	\$ 10,613
298			\$ 12,782				\$ -	\$ -	\$ -	\$ 12,782	\$ 12,782	\$ 12,782
299		Total	\$ 12,782				\$ -	\$ -	\$ -	\$ 12,782	\$ 12,782	\$ 12,782
CONTRIBUTIONS IN AID OF CONSTRUCTION												
103110		Structures & Improvement - Supply Plant										
300		DW3 ACCESS ROAD, SITE & DRAINAGE	\$ (39,965)	5/22/1997	SL-25	25	\$ (1,587)	\$ (1,587)	\$ (1,587)	\$ (31,732)	\$ (33,319)	\$ (34,906)
301		DW3 CONTROL BUILDING	\$ (17,617)	5/22/1997	SL-25	25	\$ (705)	\$ (705)	\$ (705)	\$ (14,094)	\$ (14,798)	\$ (15,503)
302		DW3 FENCE	\$ (4,014)	5/22/1997	SL-25	25	\$ (161)	\$ (161)	\$ (161)	\$ (3,211)	\$ (3,372)	\$ (3,532)
303		DW3 LIGHT FIXTURES	\$ (401)	5/22/1997	SL-25	25	\$ (16)	\$ (16)	\$ (16)	\$ (321)	\$ (337)	\$ (353)
304		DW4 ELEC UPGRADE-ENCLOSURE	\$ (5,358)	3/1/1997	SL-25	25	\$ (214)	\$ (214)	\$ (214)	\$ (4,287)	\$ (4,501)	\$ (4,715)
305		DW4&5 ELEC UPGRADE-SPARE PARTS	\$ (2,556)	3/1/1997	SL-25	25	\$ (102)	\$ (102)	\$ (102)	\$ (2,047)	\$ (2,149)	\$ (2,251)
306		DW5 ELEC UPGRADE-ENCLOSURE	\$ (5,300)	3/1/1997	SL-25	25	\$ (212)	\$ (212)	\$ (212)	\$ (4,240)	\$ (4,452)	\$ (4,664)
307		ORIGINAL PLANT STRUCTURE	\$ (1,706)	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (1,706)	\$ (1,706)	\$ (1,706)
308			\$ (75,620)				\$ (2,957)	\$ (2,957)	\$ (2,957)	\$ (61,637)	\$ (64,634)	\$ (67,631)
309		Total	\$ (75,620)				\$ (2,957)	\$ (2,957)	\$ (2,957)	\$ (61,637)	\$ (64,634)	\$ (67,631)
103310		Structures & Improvement - Treatment Plant										
310		ORIGINAL PLANT-STRUCTURE-TREATMENT	\$ (6,757)	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (6,757)	\$ (6,757)	\$ (6,757)
311			\$ (6,757)				\$ -	\$ -	\$ -	\$ (6,757)	\$ (6,757)	\$ (6,757)
312		Total	\$ (6,757)				\$ -	\$ -	\$ -	\$ (6,757)	\$ (6,757)	\$ (6,757)
103410		Structures & Improvement - Transmission & Distribution Plant										
313		Chain Link Fence WHWC Portion CIAC	\$ (20,536)	9/1/2010	SL-25	25	\$ (821)	\$ (821)	\$ (821)	\$ (5,750)	\$ (6,571)	\$ (7,393)
314			\$ (20,536)				\$ (821)	\$ (821)	\$ (821)	\$ (5,750)	\$ (6,571)	\$ (7,393)
315		Total	\$ (20,536)				\$ (821)	\$ (821)	\$ (821)	\$ (5,750)	\$ (6,571)	\$ (7,393)

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - Federal (Detail)
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Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation				
							2016	2017	2018	2016	2017	2018		
363	103281	System Control Computer Equipment												
364		SCADA WHWC Portion CIAC	\$ (18,916)	9/1/2010	SL-25	25	\$ (745)	\$ (745)	\$ (745)	\$ (6,213)	\$ (5,957)	\$ (6,702)		
365		Total	\$ (18,916)				\$ (745)	\$ (745)	\$ (745)	\$ (6,213)	\$ (5,957)	\$ (6,702)		
366	103320	Treatment & Disposal Equipment												
367		ORIG PLANT-TREATMENT-EQUIPMENT	\$ (6,338)	1/1/1974	SL-25	25	-	-	-	\$ (6,338)	\$ (6,338)	\$ (6,338)		
368		Total	\$ (6,338)				-	-	-	\$ (6,338)	\$ (6,338)	\$ (6,338)		
369	103431	A.C.												
370		CIAC-Casite&Cookie-DedictWaterLines-Kikaha@Webhil	\$ (380,360)	1/1/2008	SL-25	25	\$ (15,214)	\$ (15,214)	\$ (15,214)	\$ (136,930)	\$ (152,144)	\$ (167,358)		
371		CIAC-Clearly Waikoloa-Dedicated Water Facit	\$ (699,582)	1/1/2008	SL-25	25	\$ (27,943)	\$ (27,943)	\$ (27,943)	\$ (251,480)	\$ (279,433)	\$ (307,376)		
372		CIAC-SRIIF-FEES-RELATED TO V.E. CONNECTION	\$ (34,605)	1/1/1998	SL-25	25	\$ (1,384)	\$ (1,384)	\$ (1,384)	\$ (24,916)	\$ (26,300)	\$ (27,664)		
373		CIAC-US P.O.-APPLIED TO VE CONN (INTERNAL BOO	\$ (7,780)	7/16/1999	SL-25	25	\$ (311)	\$ (311)	\$ (311)	\$ (5,602)	\$ (5,913)	\$ (6,224)		
374		CIAC-W,HI CONCRETE-APPLIED TO VE CONN (INTERN	\$ (6,547)	5/25/1999	SL-25	25	\$ (342)	\$ (342)	\$ (342)	\$ (6,154)	\$ (6,496)	\$ (6,838)		
375		DW3 PIPELINE-DCT IRON	\$ (94,654)	5/22/1997	SL-25	25	\$ (3,786)	\$ (3,786)	\$ (3,786)	\$ (75,723)	\$ (79,509)	\$ (83,295)		
376		HHA KEKUMU WTR FAC	\$ (48,784)	4/1/1996	SL-25	25	\$ (1,991)	\$ (1,991)	\$ (1,991)	\$ (41,818)	\$ (43,810)	\$ (45,801)		
377		Hoko Street Park-CIAC	\$ (111,657)	1/1/2008	SL-25	25	\$ (4,466)	\$ (4,466)	\$ (4,466)	\$ (40,195)	\$ (44,663)	\$ (49,129)		
378		KEKUMU III-FACILITIES	\$ (29,624)	1/1/1997	SL-25	25	\$ (1,165)	\$ (1,165)	\$ (1,165)	\$ (23,699)	\$ (24,884)	\$ (26,069)		
379		ORIG PLANT-DISTRIBUTION MAIN	\$ (3,632,236)	1/1/1974	SL-25	25	-	-	-	\$ (3,632,236)	\$ (3,632,236)	\$ (3,632,236)		
380		ORIG PLANT-SUPPLY MAIN	\$ (27,377)	1/1/1974	SL-25	25	-	-	-	\$ (27,377)	\$ (27,377)	\$ (27,377)		
381		PANILO ESTATES EASEMENT	\$ (266,785)	1/1/1993	SL-25	25	\$ (10,671)	\$ (10,671)	\$ (10,671)	\$ (256,114)	\$ (266,785)	\$ (277,456)		
382		SRII-1-2-FACILITIES	\$ (74,528)	10/30/1998	SL-25	25	\$ (2,961)	\$ (2,961)	\$ (2,961)	\$ (56,641)	\$ (59,622)	\$ (62,604)		
383		SUNSET RIDGE II-1 (DEDICATED)	\$ (49,905)	1/1/1998	SL-25	25	\$ (1,996)	\$ (1,996)	\$ (1,996)	\$ (37,928)	\$ (39,924)	\$ (41,920)		
384		Sunset Ridge PH2 Ine2 Unit2-A Dedicated Water	\$ (91,275)	9/28/2005	SL-25	25	\$ (3,651)	\$ (3,651)	\$ (3,651)	\$ (48,812)	\$ (47,463)	\$ (51,114)		
385		Sunset Ridge PH3 Unit 2 41 Lots-Dedicated Wat	\$ (215,080)	9/28/2005	SL-25	25	\$ (8,603)	\$ (8,603)	\$ (8,603)	\$ (103,238)	\$ (111,842)	\$ (120,445)		
386		Sunset Ridge PH3 Unit3 15 lots-Dedicated Wale	\$ (163,406)	9/28/2005	SL-25	25	\$ (6,536)	\$ (6,536)	\$ (6,536)	\$ (78,435)	\$ (84,971)	\$ (91,507)		
387		TRI WTR FAC-SIR II-2	\$ (50,642)	6/1/1995	SL-25	25	\$ (2,026)	\$ (2,026)	\$ (2,026)	\$ (44,565)	\$ (46,591)	\$ (48,617)		
388		TRI WTR FAC-SIR II-2	\$ (18,368)	3/1/1996	SL-25	25	\$ (734)	\$ (734)	\$ (734)	\$ (15,421)	\$ (16,155)	\$ (16,889)		
389		V.E. CONNECTION CIAC	\$ (7,937)	10/1/1999	SL-25	25	\$ (313)	\$ (313)	\$ (313)	\$ (6,643)	\$ (6,956)	\$ (7,270)		
390		V.E. LOT 135-DEDICATED CIAC	\$ (42,985)	9/28/1999	SL-25	25	\$ (1,719)	\$ (1,719)	\$ (1,719)	\$ (30,949)	\$ (32,669)	\$ (34,388)		
391		VILLAGE ESTATES (WATERLINE)	\$ (345,200)	8/1/1994	SL-25	25	\$ (13,848)	\$ (13,848)	\$ (13,848)	\$ (318,504)	\$ (332,352)	\$ (346,200)		
392		Total	\$ (6,402,207)				\$ (109,704)	\$ (109,704)	\$ (99,032)	\$ (5,257,390)	\$ (5,367,094)	\$ (5,466,126)		
393	103436	Ductile Iron Pipe												
394		106' Ductile Iron Pipe 12" WHWC CIAC	\$ (6,331)	9/1/2010	SL-25	25	\$ (253)	\$ (253)	\$ (253)	\$ (1,773)	\$ (2,026)	\$ (2,279)		
395		117' Ductile Iron Pipe 16" WHWC CIAC	\$ (12,328)	9/1/2010	SL-25	25	\$ (493)	\$ (493)	\$ (493)	\$ (3,452)	\$ (3,945)	\$ (4,438)		
396		350' Ductile Iron Pipe 18" WHWC CIAC	\$ (35,708)	9/1/2010	SL-25	25	\$ (1,428)	\$ (1,428)	\$ (1,428)	\$ (9,988)	\$ (11,426)	\$ (12,865)		
397		Total	\$ (54,366)				\$ (2,175)	\$ (2,175)	\$ (2,175)	\$ (15,223)	\$ (17,397)	\$ (19,572)		
398	103450	Services												
399		ORIG PLANT-SERVICE (LATERALS)	\$ (24,242)	1/1/1974	SL-25	25	-	-	-	\$ (24,242)	\$ (24,242)	\$ (24,242)		
400		Total	\$ (24,242)				-	-	-	\$ (24,242)	\$ (24,242)	\$ (24,242)		
401	103460	Meters & Meter Boxes												
402		1" meter - post office-Maryl CIAC 2700-103	\$ (3,248)	11/10/1999	SL-25	25	\$ (130)	\$ (130)	\$ (130)	\$ (2,338)	\$ (2,468)	\$ (2,598)		
403		2" meter - WHC quarry CIAC 2700-103	\$ (6,454)	7/18/1999	SL-25	25	\$ (258)	\$ (258)	\$ (258)	\$ (4,647)	\$ (4,905)	\$ (5,163)		

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - Federal (Detail)
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Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
404		CIAC-METERS IN SERVICE 12/98-5/99 2700.103	\$ (3,221)	5/27/1999	SL-25	25	\$ (129)	\$ (129)	\$ (129)	\$ (2,319)	\$ (2,448)	\$ (2,577)
405		CIAC-mETERS IN SERVICE 8/04-12/07	\$ (42,176)	1/1/2008	SL-25	25	\$ (1,687)	\$ (1,687)	\$ (1,687)	\$ (15,183)	\$ (16,870)	\$ (18,558)
406		HO OYO STREET PARK METER-CIAC 2700.088	\$ (1,367)	2/4/1998	SL-25	25	\$ (55)	\$ (55)	\$ (55)	\$ (1,039)	\$ (1,094)	\$ (1,149)
407		KEKUMU III METER 2700.083	\$ (6,091)	3/11/1987	SL-25	25	\$ (324)	\$ (324)	\$ (324)	\$ (6,473)	\$ (6,797)	\$ (7,120)
408		Meters in service 1/04-7/04	\$ (9,382)	7/31/2004	SL-25	25	\$ (375)	\$ (375)	\$ (375)	\$ (4,879)	\$ (5,254)	\$ (5,629)
409		METERS IN SERVICE 1/98-6/98 CIAC 2700.098	\$ (3,476)	6/30/1998	SL-25	25	\$ (139)	\$ (139)	\$ (139)	\$ (2,642)	\$ (2,781)	\$ (2,920)
410		Meters in Service 11/02-12/03	\$ (7,566)	12/31/2003	SL-25	25	\$ (319)	\$ (319)	\$ (319)	\$ (4,461)	\$ (4,780)	\$ (5,098)
411		METERS IN SERVICE 12/00-8/01	\$ (3,397)	8/31/2001	SL-25	25	\$ (136)	\$ (136)	\$ (136)	\$ (2,174)	\$ (2,310)	\$ (2,446)
412		Meters in Service 12/01-5/02	\$ (3,706)	5/31/2002	SL-25	25	\$ (148)	\$ (148)	\$ (148)	\$ (2,223)	\$ (2,372)	\$ (2,520)
413		METERS IN SERVICE 12/99-5/00 CIAC	\$ (5,523)	5/23/2000	SL-25	25	\$ (221)	\$ (221)	\$ (221)	\$ (3,756)	\$ (3,977)	\$ (4,198)
414		METERS IN SERVICE 6/00-1/00	\$ (4,351)	11/30/2000	SL-25	25	\$ (174)	\$ (174)	\$ (174)	\$ (2,959)	\$ (3,133)	\$ (3,307)
415		Meters in Service 6/02-11/02	\$ (4,315)	11/30/2002	SL-25	25	\$ (173)	\$ (173)	\$ (173)	\$ (2,589)	\$ (2,762)	\$ (2,934)
416		Meters in Service 6/99-11/99 CIAC 2700.103	\$ (2,901)	11/28/1999	SL-25	25	\$ (116)	\$ (116)	\$ (116)	\$ (2,089)	\$ (2,205)	\$ (2,321)
417		Meters in Service 7/01-11/01	\$ (4,091)	11/30/2001	SL-25	25	\$ (164)	\$ (164)	\$ (164)	\$ (2,618)	\$ (2,782)	\$ (2,945)
418		METERS IN SERVICE 7/98-11/98 CIAC 2700.098	\$ (1,763)	11/30/1998	SL-25	25	\$ (71)	\$ (71)	\$ (71)	\$ (1,340)	\$ (1,410)	\$ (1,481)
419		METERS IN SVC 1994 2700.065	\$ (12,670)	12/31/1994	SL-25	25	\$ (507)	\$ (507)	\$ (507)	\$ (11,656)	\$ (12,163)	\$ (12,670)
420		METERS IN SVC 1995 2700.067	\$ (9,207)	12/31/1995	SL-25	25	\$ (368)	\$ (368)	\$ (368)	\$ (6,102)	\$ (6,470)	\$ (6,839)
421		METERS IN SVC 1996 2700.069	\$ (3,237)	12/31/1996	SL-25	25	\$ (129)	\$ (129)	\$ (129)	\$ (2,719)	\$ (2,848)	\$ (2,978)
422		METERS IN SVC 1997 2700.070	\$ (4,852)	12/31/1997	SL-25	25	\$ (194)	\$ (194)	\$ (194)	\$ (3,882)	\$ (4,076)	\$ (4,270)
423		Total	\$ (145,395)				\$ (5,816)	\$ (5,816)	\$ (5,816)	\$ (90,087)	\$ (95,903)	\$ (101,719)
424	103420	Reservoirs & Tanks										
425		CIAC-SRIII-FEES-RELATED TO TANK 1200S-2	\$ (49,196)	1/1/1999	SL-25	25	\$ (1,968)	\$ (1,968)	\$ (1,968)	\$ (35,421)	\$ (37,388)	\$ (39,357)
426		CIAC-Tank 900 Reservoir Replacement-CEMENT	\$ (89,060)	5/19/2005	SL-25	25	\$ (3,562)	\$ (3,562)	\$ (3,562)	\$ (42,749)	\$ (46,311)	\$ (49,873)
427		CIAC-Tank 900 Reservoir Replacement-PIPING	\$ (4,284)	5/19/2005	SL-25	25	\$ (171)	\$ (171)	\$ (171)	\$ (2,056)	\$ (2,228)	\$ (2,399)
428		CIAC-Tank 900 Reservoir Replacement-VALVES	\$ (481)	5/19/2005	SL-25	25	\$ (19)	\$ (19)	\$ (19)	\$ (231)	\$ (250)	\$ (269)
429		CIAC-VE LOT 135-APPLIED TO Tnk 1200S2 (INTERN	\$ (44,362)	12/7/1998	SL-25	25	\$ (1,774)	\$ (1,774)	\$ (1,774)	\$ (33,709)	\$ (35,482)	\$ (37,256)
430		ORIG PLANT-DISTRIBUTION RESERVOIR	\$ (329,725)	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (329,725)	\$ (329,725)	\$ (329,725)
431		TANK 1200S-2-PARTIAL-1997 CIAC	\$ (149,471)	11/20/1997	SL-25	25	\$ (5,939)	\$ (5,939)	\$ (5,939)	\$ (118,777)	\$ (124,716)	\$ (130,655)
432		WHWC 1 Mil Gal Steel Bolted Tank CIAC	\$ (784,183)	9/4/2010	SL-25	25	\$ (31,367)	\$ (31,367)	\$ (31,367)	\$ (219,571)	\$ (250,938)	\$ (282,306)
433		Total	\$ (1,449,752)				\$ (44,801)	\$ (44,801)	\$ (44,801)	\$ (782,239)	\$ (827,039)	\$ (871,840)
434	103150	Wells										
435		Imputed Interest on DW3 CIAC	\$ (31,051)	10/3/1999	SL-25	25	\$ (1,242)	\$ (1,242)	\$ (1,242)	\$ (22,357)	\$ (23,599)	\$ (24,841)
436		ORIGINAL PLANT-DW4 DW5	\$ (221,913)	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (221,913)	\$ (221,913)	\$ (221,913)
437		WAIKOLOA WELL #3	\$ (412,101)	5/22/1997	SL-25	25	\$ (16,484)	\$ (16,484)	\$ (16,484)	\$ (328,681)	\$ (348,165)	\$ (362,649)
438		Total	\$ (665,064)				\$ (17,726)	\$ (17,726)	\$ (17,726)	\$ (573,950)	\$ (591,676)	\$ (609,402)
439	103721	Electronic Equipment/Computers										
440		DW3 SCADA SYSTEM	\$ (4,767)	5/22/1997	MACRS 7	7	\$ -	\$ -	\$ -	\$ (4,767)	\$ (4,767)	\$ (4,767)
441		Total	\$ (4,767)				\$ -	\$ -	\$ -	\$ (4,767)	\$ (4,767)	\$ (4,767)
442	103790	General Plant										
443		FIRE REACTION BLOCKS	\$ (10,613)	10/1/1999	MACRS 7	7	\$ -	\$ -	\$ -	\$ (10,613)	\$ (10,613)	\$ (10,613)
444		Total	\$ (10,613)				\$ -	\$ -	\$ -	\$ (10,613)	\$ (10,613)	\$ (10,613)
445		Global Settlement										
446		CASTLE & COOKE PHASE II	\$ (19,408)	10/1/2012	SL-25	25	\$ (776)	\$ (776)	\$ (776)	\$ (3,882)	\$ (4,656)	\$ (5,434)

Waikoloa Water Co., Inc. DBA West Hawaii Water Company
 Accumulated Deferred Income Taxes - Federal (Detail)
 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
447		COH WORKFORCE HOUSING PROJECT	\$ (832,849)	10/1/2012	SL-25	25	\$ (32,114)	\$ (32,114)	\$ (32,114)	\$ (160,570)	\$ (192,684)	\$ (224,798)
448		WAIKOLOA HEIGHTS	\$ (688,145)	10/1/2012	SL-25	25	\$ (27,526)	\$ (27,526)	\$ (27,526)	\$ (137,629)	\$ (165,155)	\$ (192,681)
449		TOWN REALTY	\$ (310,148)	10/1/2012	SL-25	25	\$ (12,406)	\$ (12,406)	\$ (12,406)	\$ (62,029)	\$ (74,435)	\$ (86,841)
450		VILLAGE ESTATES 2A2	\$ (116,119)	10/1/2012	SL-25	25	\$ (4,845)	\$ (4,845)	\$ (4,845)	\$ (23,224)	\$ (27,869)	\$ (32,513)
451		CLEARLY WAIKOLOA	\$ (74,019)	10/1/2012	SL-25	25	\$ (2,961)	\$ (2,961)	\$ (2,961)	\$ (14,804)	\$ (17,794)	\$ (20,725)
452		KINGDOM HALL	\$ (3,765)	10/1/2012	SL-25	25	\$ (151)	\$ (151)	\$ (151)	\$ (753)	\$ (904)	\$ (1,054)
453		METRIC HOLDING PROJECTED RESIDENTIAL CIAC	\$ (199,744)	10/1/2012	SL-25	25	\$ (7,990)	\$ (7,990)	\$ (7,990)	\$ (39,949)	\$ (47,939)	\$ (55,928)
454		Total	\$ (2,214,195)				\$ (88,568)	\$ (88,568)	\$ (88,568)	\$ (442,839)	\$ (531,407)	\$ (619,976)
455		HAWAII GENERAL OFFICE										
456		730 Leasehold Improvements	\$ 16,865	5/1/15	MACRS 7	7	\$ 4,130	\$ 2,950	\$ 2,106	\$ 6,540	\$ 9,490	\$ 11,596
457		desks, cont table, chair's	\$ 3,060	3/1/10	MACRS 7	7	\$ 273	\$ 136	\$ -	\$ 2,924	\$ 3,060	\$ 3,060
458		2 Cubical Work Stations	\$ 5,650	12/1/10	MACRS 7	7	\$ 505	\$ 252	\$ -	\$ 5,398	\$ 5,650	\$ 5,650
459		Cherry Desk	\$ 855	12/1/10	MACRS 7	7	\$ 76	\$ 38	\$ -	\$ 817	\$ 855	\$ 855
460		Cherry Drawer	\$ 71	12/1/10	MACRS 7	7	\$ 6	\$ 3	\$ -	\$ 67	\$ 71	\$ 71
461		Cherry Credenza	\$ 509	12/1/10	MACRS 7	7	\$ 45	\$ 23	\$ -	\$ 487	\$ 509	\$ 509
462		Cherry Corner Unit	\$ 404	12/1/10	MACRS 7	7	\$ 35	\$ 18	\$ -	\$ 385	\$ 404	\$ 404
463		Regency Library	\$ 284	12/1/10	MACRS 7	7	\$ 25	\$ 13	\$ -	\$ 271	\$ 284	\$ 284
464		Cherry Desk Shell 66"	\$ 2,037	12/1/10	MACRS 7	7	\$ 182	\$ 91	\$ -	\$ 1,946	\$ 2,037	\$ 2,037
465		24" x 71" Credenza Shells	\$ 429	12/1/10	MACRS 7	7	\$ 38	\$ 19	\$ -	\$ 410	\$ 429	\$ 429
466		Cherry Keyboard Drawer	\$ 793	12/1/10	MACRS 7	7	\$ 71	\$ 35	\$ -	\$ 758	\$ 793	\$ 793
467		Executive Chair	\$ 71	12/1/10	MACRS 7	7	\$ 6	\$ 3	\$ -	\$ 67	\$ 71	\$ 71
468		Desk Pedestal F/F	\$ 361	12/1/10	MACRS 7	7	\$ 35	\$ 17	\$ -	\$ 374	\$ 361	\$ 361
469		Cherry Shelf Unit	\$ 468	12/1/10	MACRS 7	7	\$ 42	\$ 21	\$ -	\$ 447	\$ 468	\$ 468
470		Cherry Storage Hutch	\$ 308	12/1/10	MACRS 7	7	\$ 27	\$ 14	\$ -	\$ 294	\$ 308	\$ 308
471		Cherry Credenza 66"	\$ 333	12/1/10	MACRS 7	7	\$ 30	\$ 15	\$ -	\$ 284	\$ 333	\$ 333
472		Regency Desk	\$ 709	12/1/10	MACRS 7	7	\$ 63	\$ 32	\$ -	\$ 678	\$ 709	\$ 709
473		2 Drawer Lateral File	\$ 988	12/1/10	MACRS 7	7	\$ 88	\$ 44	\$ -	\$ 943	\$ 988	\$ 988
474		3, 42" x 4 Drawer Lateral File Cabinets	\$ 2,869	12/1/10	MACRS 7	7	\$ 256	\$ 128	\$ -	\$ 2,740	\$ 2,869	\$ 2,869
475		Cherry Desk Pedestal B/B/F	\$ 513	12/1/10	MACRS 7	7	\$ 46	\$ 23	\$ -	\$ 490	\$ 513	\$ 513
476		Regency Lateral File	\$ 567	12/1/10	MACRS 7	7	\$ 51	\$ 25	\$ -	\$ 542	\$ 567	\$ 567
477		Fireproof safe for Customer Service office.	\$ 2,366	12/1/10	MACRS 7	5	\$ 213	\$ 213	\$ 108	\$ 2,067	\$ 2,280	\$ 2,366
478		Ricoh Aficio MP C3001	\$ 3,044	5/1/15	MACRS 5	5	\$ 974	\$ 585	\$ 351	\$ 1,583	\$ 2,168	\$ 2,518
479		790 Office Furniture	\$ 631	5/1/15	MACRS 7	7	\$ 154	\$ 110	\$ 79	\$ 245	\$ 355	\$ 434
480		Automated Electronic Defibrillators	\$ 7,161	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 7,161	\$ 7,161	\$ 7,161
481		License for Capture Now	\$ 237	12/1/10	MACRS 3	3	\$ -	\$ -	\$ -	\$ 237	\$ 237	\$ 237
482		Fujitsu F6140 scanner	\$ 1,666	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 1,666	\$ 1,666	\$ 1,666
483		Ricoh MP 400TSP Copier w/Finisher	\$ 10,686	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 10,686	\$ 10,686	\$ 10,686
484		Monitors	\$ 1,207	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 1,207	\$ 1,207	\$ 1,207
485		Mitel EP Dig 6 Line Model 8550 Telephone	\$ 8,102	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 8,102	\$ 8,102	\$ 8,102
486		ELECTRONICS (581)	\$ 744	12/1/11	MACRS 5	5	\$ 43	\$ -	\$ -	\$ 744	\$ 744	\$ 744
487		8-way video conferencing system	\$ 37,165	12/1/11	MACRS 5	5	\$ 2,142	\$ -	\$ -	\$ 37,185	\$ 37,185	\$ 37,185
488		Hewlett Packard laser printer	\$ 1,111	12/1/11	MACRS 5	5	\$ 64	\$ -	\$ -	\$ 1,111	\$ 1,111	\$ 1,111
489		Desktop-HIW/KLCS40	\$ 807	12/1/14	MACRS 5	5	\$ 155	\$ 93	\$ 93	\$ 574	\$ 667	\$ 760
490		Desktop-HIW/KLCS39	\$ 807	12/1/14	MACRS 5	5	\$ 155	\$ 93	\$ 93	\$ 574	\$ 667	\$ 760
491		Desktop-HIW/KLCS37	\$ 807	12/1/14	MACRS 5	5	\$ 155	\$ 93	\$ 93	\$ 574	\$ 667	\$ 760
492		Desktop-HIW/KLCS38	\$ 807	12/1/14	MACRS 5	5	\$ 155	\$ 93	\$ 93	\$ 574	\$ 667	\$ 760
493		Desktop-HIW/KLCS36	\$ 807	12/1/14	MACRS 5	5	\$ 155	\$ 93	\$ 93	\$ 574	\$ 667	\$ 760
494		Desktop-HIW/KLCS41	\$ 807	12/1/14	MACRS 5	5	\$ 155	\$ 93	\$ 93	\$ 574	\$ 667	\$ 760
495		790 Server & Server room upgrade	\$ 17,650	5/1/15	MACRS 5	5	\$ 5,848	\$ 3,389	\$ 2,033	\$ 9,178	\$ 12,567	\$ 14,600

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
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 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
497		Hawaii Business Unit Software	\$ 132,361	12/1/10	MACRS 3	3	\$ -	\$ -	\$ -	\$ 132,361	\$ 132,361	\$ 132,361
498		RMS Software	\$ 92,429	3/1/14	MACRS 3	3	\$ 13,669	\$ 6,849	\$ -	\$ 85,580	\$ 92,429	\$ 92,429
499		phone system with 8 phones	\$ 24,859	3/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 24,859	\$ 24,859	\$ 24,859
500		Miscellaneous Kitchen Equipment	\$ 981	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 981	\$ 981	\$ 981
501		laptop for CS Mgr	\$ 1,496	4/1/14	MACRS 5	5	\$ 287	\$ 172	\$ 172	\$ 1,065	\$ 1,238	\$ 1,410
502		Total	\$ 387,436				\$ 30,220	\$ 15,797	\$ 5,405	\$ 356,826	\$ 372,624	\$ 378,029
503		HAWAII GENERAL OFFICE ALLOCATIONS										
504		700 - Kaanapali	\$ 84,174	21.73%			\$ 6,566	\$ 3,432	\$ 1,174	\$ 77,524	\$ 80,956	\$ 82,131
505		701 - Pukalani	\$ 28,623	6.87%			\$ 2,077	\$ 1,086	\$ 371	\$ 24,519	\$ 26,605	\$ 25,976
506		721 - Waikoloa Water	\$ 49,713	12.83%			\$ 3,878	\$ 2,027	\$ 694	\$ 45,786	\$ 47,813	\$ 48,506
507		722 - Waikoloa Sewer	\$ 38,813	10.02%			\$ 3,027	\$ 1,563	\$ 542	\$ 35,746	\$ 37,329	\$ 37,870
508		723 - Waikoloa Resort Water	\$ 51,423	13.27%			\$ 4,011	\$ 2,097	\$ 717	\$ 47,360	\$ 49,457	\$ 50,174
509		724 - Waikoloa Resort Sewer	\$ 70,422	16.18%			\$ 5,493	\$ 2,871	\$ 963	\$ 64,858	\$ 67,730	\$ 68,712
510		725 - Waikoloa Resort Irrigation	\$ 2,893	0.76%			\$ 226	\$ 118	\$ 40	\$ 2,664	\$ 2,822	\$ 2,822
511		726 - Kona Water	\$ 40,900	10.56%			\$ 3,190	\$ 1,668	\$ 571	\$ 37,669	\$ 39,337	\$ 39,907
512		727 - Kona Sewer	\$ 22,474	5.80%			\$ 1,753	\$ 916	\$ 314	\$ 20,699	\$ 21,615	\$ 21,929

BIG ISLAND

513		(2)Replacement Op Computer Stations										
514		Mobile office trailer	\$ 2,081	12/1/13	MACRS 5	5	\$ 240	\$ 240	\$ 240	\$ 1,721	\$ 1,961	\$ 2,081
515		1996 Eagle Forklift	\$ 23,867	12/1/11	MACRS 5	5	\$ 1,375	\$ -	\$ -	\$ 23,867	\$ 23,867	\$ 23,867
517		20' Container Shelving-Baseyard	\$ 931	6/1/15	SL-25	25	\$ 37	\$ 37	\$ 37	\$ 74	\$ 112	\$ 149
518		20' Container Shelving-EMT	\$ 455	6/1/15	SL-25	25	\$ 18	\$ 18	\$ 18	\$ 36	\$ 55	\$ 73
519		20' Container-Baseyard	\$ 10,373	6/1/15	SL-25	25	\$ 415	\$ 415	\$ 415	\$ 830	\$ 1,245	\$ 1,660
520		20' Container-EMT	\$ 5,312	6/1/15	SL-25	25	\$ 212	\$ 212	\$ 212	\$ 425	\$ 637	\$ 850
521		Storage Cont	\$ 3,187	12/1/10	SL-25	25	\$ 127	\$ 127	\$ 127	\$ 892	\$ 1,020	\$ 1,147
522		Nissan Frontier	\$ 27,030	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 27,030	\$ 27,030	\$ 27,030
523		Nissan Titan	\$ 35,679	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 35,679	\$ 35,679	\$ 35,679
524		FORD XCAB	\$ 26,901	6/1/12	MACRS 5	5	\$ 3,099	\$ 1,549	\$ -	\$ 25,351	\$ 26,901	\$ 26,901
525		FORD XCAB	\$ 26,385	6/1/12	MACRS 5	5	\$ 3,041	\$ 1,520	\$ -	\$ 24,875	\$ 26,385	\$ 26,385
526		Ford F-150	\$ 30,500	9/1/12	MACRS 5	5	\$ 3,514	\$ 1,757	\$ -	\$ 28,743	\$ 30,500	\$ 30,500
527		Ford F-150	\$ 30,500	9/1/12	MACRS 5	5	\$ 3,514	\$ 1,757	\$ -	\$ 28,743	\$ 30,500	\$ 30,500
528		Ford F-150	\$ 30,500	9/1/12	MACRS 5	5	\$ 3,514	\$ 1,757	\$ -	\$ 28,743	\$ 30,500	\$ 30,500
529		FRONTIER	\$ 25,350	6/1/12	MACRS 5	5	\$ 2,970	\$ 1,480	\$ -	\$ 23,890	\$ 25,350	\$ 25,350
530		Ford Explorer	\$ 37,497	9/1/12	MACRS 5	5	\$ 4,320	\$ 2,160	\$ -	\$ 35,337	\$ 37,497	\$ 37,497
531		2014 Nissan Frontier, V214001	\$ 35,122	4/1/14	MACRS 5	5	\$ 6,743	\$ 4,046	\$ 4,046	\$ 25,007	\$ 28,053	\$ 33,099
532		3 iPad for Hawaii Island	\$ 2,542	9/1/13	MACRS 5	5	\$ 293	\$ 293	\$ 293	\$ 2,103	\$ 2,396	\$ 2,542
533		Desk w/Drawer	\$ 959	9/1/12	MACRS 7	7	\$ 86	\$ 86	\$ 86	\$ 745	\$ 831	\$ 916
534		69"x43"x 18"	\$ 1,311	9/1/12	MACRS 7	7	\$ 117	\$ 117	\$ 117	\$ 1,019	\$ 1,135	\$ 1,253
535		Diesel tank	\$ 725	12/1/11	MACRS 7	7	\$ 66	\$ 66	\$ 66	\$ 628	\$ 693	\$ 725
536		GIS Software	\$ 7,621	12/1/11	MACRS 5	5	\$ 439	\$ 231	\$ -	\$ 7,621	\$ 7,621	\$ 7,621
537		Backup Test Kit-Midwest 835	\$ 1,202	8/1/15	MACRS 5	5	\$ 385	\$ 231	\$ -	\$ 695	\$ 856	\$ 934
538		Big Island SCADA 2012	\$ 485,319	10/1/14	MACRS 5	5	\$ 95,101	\$ 57,061	\$ 57,061	\$ 352,867	\$ 409,728	\$ 466,788
539		Book Case	\$ 288	9/1/12	MACRS 7	7	\$ 27	\$ 27	\$ 27	\$ 231	\$ 258	\$ 284
540		Microbial Hardware	\$ 4,401	6/1/12	MACRS 5	5	\$ 507	\$ 254	\$ -	\$ 4,148	\$ 4,401	\$ 4,401
541		Work Order Addition	\$ 2,144	6/1/12	MACRS 5	5	\$ 247	\$ 124	\$ -	\$ 2,021	\$ 2,144	\$ 2,144
542		Misc. Wiring & Cables	\$ 544	6/1/12	MACRS 5	5	\$ 63	\$ 31	\$ -	\$ 513	\$ 544	\$ 544
543		Work Order Addition	\$ 747	6/1/12	MACRS 5	5	\$ 86	\$ 43	\$ -	\$ 704	\$ 747	\$ 747
544		1 desktops	\$ 1,133	4/1/13	MACRS 5	5	\$ 131	\$ 131	\$ 131	\$ 937	\$ 1,068	\$ 1,133

Maikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - Federal (Detail)
 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
545		1 desktops	\$ 1,133	4/1/13	MACRS 5	5	\$ 131	\$ 131	\$ 65	\$ 937	\$ 1,068	\$ 1,133
546		Desktop-HIWKLOC56	\$ 1,572	12/1/14	MACRS 5	5	\$ 302	\$ 181	\$ 181	\$ 1,119	\$ 1,301	\$ 1,482
547		Desktop-HIWKLOC57	\$ 1,613	12/1/14	MACRS 5	5	\$ 310	\$ 186	\$ 186	\$ 1,146	\$ 1,334	\$ 1,520
548		dryer @ baseyard	\$ 503	4/1/17	MACRS 5	5	\$ -	\$ 101	\$ 161	\$ -	\$ 101	\$ 261
549		Exec Chair	\$ 351	9/1/12	MACRS 7	7	\$ 31	\$ 31	\$ 31	\$ 273	\$ 304	\$ 335
550		Work Order Addition	\$ 51	9/1/12	MACRS 5	5	\$ 6	\$ 6	\$ 3	\$ 42	\$ 48	\$ 51
551		Work Order Addition	\$ 182	9/1/12	MACRS 5	5	\$ 21	\$ 11	\$ -	\$ 172	\$ 182	\$ 182
552		Work Order Addition	\$ 13,813	8/1/12	MACRS 5	5	\$ 1,591	\$ 796	\$ -	\$ 13,017	\$ 13,813	\$ 13,813
553		EMT Laptop	\$ 4,509	3/1/14	MACRS 5	5	\$ 966	\$ 519	\$ 519	\$ 3,210	\$ 3,730	\$ 4,249
554		Hand Helds	\$ 19,147	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 19,147	\$ 19,147	\$ 19,147
555		Desk Dock	\$ 2,793	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 2,793	\$ 2,793	\$ 2,793
556		Personnel Lift	\$ 5,844	8/1/12	MACRS 5	5	\$ 673	\$ 337	\$ -	\$ 5,507	\$ 5,844	\$ 5,844
557		Software	\$ 2,995	9/1/12	MACRS 5	5	\$ 345	\$ 173	\$ -	\$ 2,822	\$ 2,995	\$ 2,995
558		Hardware	\$ 8,824	9/1/12	MACRS 5	5	\$ 1,017	\$ 508	\$ -	\$ 8,316	\$ 8,824	\$ 8,824
559		Gradall lifting hook attachment	\$ 2,427	12/1/14	MACRS 5	5	\$ 466	\$ 280	\$ 280	\$ 1,728	\$ 2,008	\$ 2,287
560		Forklift	\$ 27,625	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 27,625	\$ 27,625	\$ 27,625
561		HON chair	\$ 636	2/1/14	MACRS 7	7	\$ 111	\$ 79	\$ 57	\$ 368	\$ 438	\$ 494
562		Hydro Jetter	\$ 5,941	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 5,941	\$ 5,941	\$ 5,941
563		Ice Maker-Mantowac ID-0452A	\$ 4,536	9/1/16	MACRS 5	5	\$ 907	\$ 1,451	\$ 871	\$ 907	\$ 2,359	\$ 3,230
564		Ingersoll Needle/Chisel Scl	\$ 773	9/1/13	MACRS 5	5	\$ 89	\$ 89	\$ 45	\$ 639	\$ 728	\$ 773
565		Internal labor	\$ 21,402	7/1/13	MACRS 5	5	\$ 2,465	\$ 1,224	\$ 1,233	\$ 17,703	\$ 20,169	\$ 21,402
566		Knoll task chair	\$ 13,805	2/1/14	MACRS 7	7	\$ 2,415	\$ 1,724	\$ 1,233	\$ 7,769	\$ 9,493	\$ 10,726
567		1 laptops	\$ 1,165	4/1/13	MACRS 5	5	\$ 134	\$ 134	\$ 67	\$ 964	\$ 1,098	\$ 1,165
568		1 laptops	\$ 1,165	4/1/13	MACRS 5	5	\$ 134	\$ 134	\$ 67	\$ 964	\$ 1,098	\$ 1,165
569		Laptop, EMT-HIWKOCLT02	\$ 1,631	11/1/16	MACRS 5	5	\$ 326	\$ 522	\$ 313	\$ 326	\$ 848	\$ 1,161
570		Lateral File	\$ 525	9/1/12	MACRS 5	5	\$ 60	\$ 30	\$ -	\$ 495	\$ 525	\$ 525
571		Work Order Addition	\$ 1,447	12/1/11	MACRS 5	5	\$ 83	\$ -	\$ -	\$ 1,447	\$ 1,447	\$ 1,447
572		Work Order Addition	\$ 4,571	12/1/11	MACRS 5	5	\$ 263	\$ -	\$ -	\$ 4,571	\$ 4,571	\$ 4,571
573		Work Order Addition	\$ 16,749	6/1/11	MACRS 5	5	\$ 965	\$ -	\$ -	\$ 16,749	\$ 16,749	\$ 16,749
574		New IP phone system	\$ 19,704	6/1/13	MACRS 5	5	\$ 2,270	\$ 2,270	\$ 1,135	\$ 16,299	\$ 18,569	\$ 19,704
575		New Hydraulic Hammer	\$ 9,847	12/1/13	MACRS 5	5	\$ 1,134	\$ 1,134	\$ 567	\$ 8,145	\$ 9,280	\$ 9,847
576		Office Furnishings	\$ 6,706	2/1/14	MACRS 7	7	\$ 1,173	\$ 838	\$ 589	\$ 3,773	\$ 4,611	\$ 5,210
577		Office furniture & equip	\$ 4,134	9/1/12	MACRS 7	7	\$ 369	\$ 369	\$ 369	\$ 3,212	\$ 3,581	\$ 3,950
578		Work Order Addition	\$ 47	9/1/12	MACRS 5	5	\$ 5	\$ 3	\$ -	\$ 45	\$ 47	\$ 47
579		Work Order Addition	\$ 90	9/1/12	MACRS 5	5	\$ 10	\$ 5	\$ -	\$ 85	\$ 90	\$ 90
580		Portable generator 3500w, EMT's	\$ 518	12/1/16	MACRS 5	5	\$ 104	\$ 166	\$ 99	\$ 104	\$ 269	\$ 369
581		Power Quality Analyzer	\$ 8,416	3/1/16	MACRS 5	5	\$ 2,693	\$ 1,616	\$ 970	\$ 4,377	\$ 5,993	\$ 6,962
582		Printer Car	\$ 75	9/1/12	MACRS 5	5	\$ 9	\$ 4	\$ -	\$ 71	\$ 75	\$ 75
583		Projector-Dell 1610HD	\$ 626	12/1/16	MACRS 5	5	\$ 125	\$ 200	\$ 120	\$ 125	\$ 326	\$ 446
584		Electrical Upgrade	\$ 8,770	12/1/11	MACRS 5	5	\$ 505	\$ -	\$ -	\$ 8,770	\$ 8,770	\$ 8,770
585		Respirator supplied air system	\$ 4,239	12/1/16	MACRS 5	5	\$ 648	\$ 1,356	\$ 814	\$ 848	\$ 2,204	\$ 3,018
586		Richo Copier	\$ 10,588	11/1/11	MACRS 5	5	\$ 610	\$ -	\$ -	\$ 10,588	\$ 10,588	\$ 10,588
587		Richo Fax Module	\$ 1,045	11/1/11	MACRS 5	5	\$ 60	\$ -	\$ -	\$ 1,045	\$ 1,045	\$ 1,045
588		RICOH MPC3004-Engineering office	\$ 8,282	10/1/16	MACRS 5	5	\$ 1,656	\$ 2,650	\$ 1,590	\$ 1,656	\$ 4,307	\$ 5,897
589		Rpic computer w/laptop for Eng Migr	\$ 1,478	10/1/14	MACRS 5	5	\$ 284	\$ 170	\$ 170	\$ 1,053	\$ 1,223	\$ 1,393
590		SCADA (NET-II 900 Dual Gateway	\$ 22,377	3/1/16	MACRS 5	5	\$ 4,475	\$ 7,161	\$ 4,296	\$ 4,475	\$ 11,636	\$ 15,932
591		SCADA radio data link	\$ 53,201	5/1/17	MACRS 5	5	\$ -	\$ 10,640	\$ 17,024	\$ -	\$ 10,640	\$ 27,664
592		SCADA upgrade 2013	\$ 53,201	3/1/16	MACRS 5	5	\$ 12,955	\$ 20,728	\$ 12,437	\$ 12,955	\$ 33,683	\$ 46,119
593		SCADAPack 32	\$ 10,539	3/1/16	MACRS 5	5	\$ 2,108	\$ 3,372	\$ 2,023	\$ 2,108	\$ 5,480	\$ 7,503
594		Scaffolding	\$ 4,771	3/1/16	MACRS 5	5	\$ 954	\$ 1,527	\$ 916	\$ 954	\$ 2,481	\$ 3,397
595		Work Order Addition	\$ 15	12/1/11	MACRS 5	5	\$ 1	\$ -	\$ -	\$ 15	\$ 15	\$ 15
596		Tools & Equipment	\$ 994	6/1/13	MACRS 5	5	\$ 114	\$ 114	\$ 57	\$ 822	\$ 937	\$ 994
597		Trailer, emergency compressor	\$ 426	3/1/16	SL-25	25	\$ 17	\$ 17	\$ 17	\$ 17	\$ 34	\$ 51

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - Federal (Detail)
 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
598		Trailer, emergency generator EG6500	\$ 2,073	3/1/16	SL-25	25	\$ 83	\$ 83	\$ 83	\$ 83	\$ 166	\$ 249
599		Trailer, emergency 6'X12' w/ramp	\$ 7,800	3/1/16	SL-25	25	\$ 312	\$ 312	\$ 312	\$ 312	\$ 624	\$ 936
600		Work Order Addition	\$ 58,793	9/1/12	MACRS 5	5	\$ 6,773	\$ 3,386	\$ -	\$ 55,406	\$ 58,793	\$ 58,793
601		V208214, Ford F-150	\$ 8,817	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 6,817	\$ 6,817	\$ 6,817
602		V208216, Chevy Silverad	\$ 9,017	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 9,017	\$ 9,017	\$ 9,017
603		V208217, Chevy 3500	\$ 29,139	12/1/10	MACRS 5	5	\$ -	\$ -	\$ -	\$ 29,139	\$ 29,139	\$ 29,139
604		V208222, '08 TOY 4 RUNNER	\$ 32,269	12/1/08	MACRS 5	5	\$ -	\$ -	\$ -	\$ 32,269	\$ 32,269	\$ 32,269
605		Visitor Chair	\$ 169	9/1/12	MACRS 7	7	\$ 15	\$ 15	\$ 15	\$ 131	\$ 146	\$ 161
606		SCADA Report Writer System	\$ 42,691	11/30/17	SL-25	25	\$ -	\$ 1,708	\$ 1,708	\$ -	\$ 1,708	\$ 3,415
607		Fuel Station	\$ 183,000	8/31/17	SL-25	25	\$ -	\$ 7,320	\$ 7,320	\$ -	\$ 7,320	\$ 14,640
608		Base Yard Security Cameras	\$ 10,014	10/31/17	MACRS 5	5	\$ -	\$ 2,003	\$ 2,003	\$ -	\$ 2,003	\$ 5,207
609		Big Island Radio Communication	\$ 50,000	9/30/17	MACRS 5	5	\$ -	\$ 10,000	\$ 10,000	\$ -	\$ 10,000	\$ 26,000
610		EMT Service Truck	\$ 77,492	9/30/17	MACRS 5	5	\$ -	\$ 15,498	\$ 15,498	\$ -	\$ 15,498	\$ 40,296
611		Handheld Meter Readers	\$ 8,673	10/31/17	MACRS 5	5	\$ -	\$ 1,735	\$ 2,775	\$ -	\$ 1,735	\$ 4,510
612		EMT Service Truck Tools	\$ 8,787	10/31/17	MACRS 5	5	\$ -	\$ 1,757	\$ 2,812	\$ -	\$ 1,757	\$ 4,569
613		Portable Air Compressor	\$ 21,139	6/30/17	MACRS 5	5	\$ -	\$ 4,228	\$ 6,784	\$ -	\$ 4,228	\$ 10,982
614		Socket fusion & welding prep kit	\$ 2,249	6/30/17	MACRS 5	5	\$ -	\$ 450	\$ 720	\$ -	\$ 450	\$ 1,169
615		Iron Handheld Meter Readers	\$ 26,765	7/1/18	MACRS 5	5	\$ -	\$ -	\$ 5,353	\$ -	\$ -	\$ 5,353
616		2018 Toyota 4Runner 4x4	\$ 42,925	7/1/18	MACRS 5	5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,585
617		2018 Toyota Tacoma TRD 4x4	\$ 40,602	7/1/18	MACRS 5	5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,120
618		Total	\$ 1,953,300				\$ 164,008	\$ 188,240	\$ 199,734	\$ 1,089,482	\$ 1,257,723	\$ 1,457,457
619		BIG ISLAND ALLOCATIONS										
620		721 - Waikoloa Water	\$ 369,650	18.33%			\$ 33,738	\$ 34,512	\$ 36,619	\$ 196,078	\$ 230,590	\$ 267,209
621		722 - Waikoloa Sewer	\$ 273,197	13.92%			\$ 25,605	\$ 26,194	\$ 27,793	\$ 148,820	\$ 175,014	\$ 202,808
622		723 - Waikoloa Resort Water	\$ 375,703	19.14%			\$ 35,213	\$ 36,022	\$ 38,222	\$ 204,660	\$ 240,682	\$ 278,904
623		724 - Waikoloa Resort Sewer	\$ 498,692	25.40%			\$ 46,740	\$ 47,814	\$ 50,734	\$ 271,656	\$ 319,470	\$ 370,204
624		725 - Waikoloa Resort Irrigation	\$ 19,987	1.02%			\$ 1,873	\$ 1,916	\$ 2,033	\$ 10,888	\$ 12,804	\$ 14,637
625		726 - Kona Water	\$ 282,599	14.39%			\$ 26,486	\$ 27,095	\$ 28,750	\$ 153,942	\$ 181,038	\$ 209,788
626		727 - Kona Sewer	\$ 153,172	7.80%			\$ 14,356	\$ 14,686	\$ 15,563	\$ 83,438	\$ 98,124	\$ 113,707

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - State
 Test Year Ending December 31, 2018

Line No.	Description	Acc. Tax Dep. Balance as of		Acc. Tax Dep. Balance as of		Test Year	
		Dec. 31, 2016	Dep. Exp.	Dec. 31, 2017	Dep. Exp.	Dec. 31, 2018	Dec. 31, 2018
1		\$ 3,143	\$ 786	\$ 3,928	\$ 786	\$ 4,714	\$ -
2		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3		\$ 162,945	\$ 40,131	\$ 203,075	\$ 40,131	\$ 243,206	\$ 243,206
4		\$ 1,126,389	\$ 140,558	\$ 1,266,947	\$ 140,558	\$ 1,407,506	\$ 1,407,506
5		\$ 841	\$ 249	\$ 1,090	\$ 249	\$ 1,339	\$ 1,339
6		\$ 164,527	\$ 5,928	\$ 170,455	\$ 7,156	\$ 177,611	\$ 177,611
7		\$ 57,064	\$ 10,539	\$ 67,603	\$ 10,539	\$ 78,142	\$ 78,142
8		\$ 129,375	\$ 25,826	\$ 155,201	\$ 94,552	\$ 249,754	\$ 249,754
9		\$ 18,113	\$ -	\$ 18,113	\$ -	\$ 18,113	\$ 18,113
10		\$ 2,518	\$ -	\$ 2,518	\$ -	\$ 2,518	\$ 2,518
11		\$ 86,579	\$ 1,177	\$ 87,756	\$ 946	\$ 88,701	\$ 88,701
12		\$ 2,082	\$ -	\$ 2,082	\$ -	\$ 2,082	\$ 2,082
13		\$ (425,125)	\$ (85,025)	\$ (510,150)	\$ (85,025)	\$ (595,176)	\$ (595,176)
14		\$ 43,954	\$ 1,946	\$ 45,900	\$ 666	\$ 46,566	\$ 46,566
15		\$ 188,235	\$ 33,131	\$ 221,366	\$ 35,154	\$ 256,520	\$ 256,520
20	Total	<u>\$1,560,639</u>	<u>\$175,246</u>	<u>\$1,735,885</u>	<u>\$245,712</u>	<u>\$1,981,596</u>	<u>\$0</u>
21	Accumulated Book Depreciation	\$ 235,957		\$293,867		\$407,936	
22	ADIT Balance	(\$79,680)		(\$86,737)		(\$94,656)	

Waikoloa Water Co. Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - State (Detail)
 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation										
							2016	2017	2018	2016	2017	2018								
1	103030	Intangible Plant																		
2		Waikoloa Potable Water Master Plan	\$ 19,642	12/1/2013	SL-25	25	\$ 786	\$ 786	\$ 786	\$	\$ 3,143	\$ 3,928	\$ 4,714							
3		Total	\$ 19,642				\$ 786	\$ 786	\$ 786	\$	\$ 3,143	\$ 3,928	\$ 4,714							
4	103110	Structures & Improvement - Supply Plant																		
5		DW3 ACCESS ROAD, SITE & DRAINAGE	\$ 36,079	5/22/1997	SL-25	25	\$ 1,523	\$ 1,523	\$ 1,523	\$	\$ 30,463	\$ 31,986	\$ 33,509							
6		DW3-CONTROL BUILDING (METAL)	\$ 16,912	5/22/1997	SL-25	25	\$ 676	\$ 676	\$ 676	\$	\$ 13,530	\$ 14,206	\$ 14,883							
7		DW3-FENCE	\$ 3,853	5/22/1997	SL-25	25	\$ 154	\$ 154	\$ 154	\$	\$ 3,063	\$ 3,237	\$ 3,391							
8		DW3-LIGHT FIXTURES	\$ 365	5/22/1997	SL-25	25	\$ 15	\$ 15	\$ 15	\$	\$ 308	\$ 324	\$ 339							
9		DW4 ELEC UPGRADE-ENCLOSURE	\$ 5,144	3/1/1997	SL-25	25	\$ 206	\$ 206	\$ 206	\$	\$ 4,115	\$ 4,321	\$ 4,527							
10		DW5 ELEC UPGRADE-ENCLOSURE	\$ 5,088	3/1/1997	SL-25	25	\$ 204	\$ 204	\$ 204	\$	\$ 4,071	\$ 4,274	\$ 4,478							
11		GENERATOR ENGINE ROOF	\$ 3,625	10/1/1994	SL-25	25	\$ 145	\$ 145	\$ 145	\$	\$ 3,335	\$ 3,480	\$ 3,625							
12		Security Fencing - Tank 900	\$ 14,080	8/22/2001	SL-25	25	\$ 563	\$ 563	\$ 563	\$	\$ 9,011	\$ 9,574	\$ 10,137							
13		STRUCTURE-SOURCE	\$ 1,638	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$	\$ 1,638	\$ 1,638	\$ 1,638							
14		Total	\$ 66,805				\$ 3,487	\$ 3,487	\$ 3,487	\$	\$ 69,553	\$ 73,040	\$ 75,527							
15	103210	Structures & Improvement - Pumping Plant																		
16		Bump Gate	\$ 978	12/1/2010	SL-25	25	\$ 39	\$ 39	\$ 39	\$	\$ 274	\$ 313	\$ 352							
17		DW 7 Site Work	\$ 91,371	12/1/2013	SL-25	25	\$ 3,655	\$ 3,655	\$ 3,655	\$	\$ 14,619	\$ 18,274	\$ 21,929							
18		DW7 Electrical & Chlorination Bldg	\$ 135,936	12/1/2013	SL-25	25	\$ 5,477	\$ 5,477	\$ 5,477	\$	\$ 21,910	\$ 27,387	\$ 32,665							
19		DW7 Electrical Work	\$ 370,787	12/1/2013	SL-25	25	\$ 14,831	\$ 14,831	\$ 14,831	\$	\$ 59,326	\$ 74,157	\$ 88,989							
20		Pumphouse and Site Improvements	\$ 138,918	12/1/2013	SL-25	25	\$ 5,557	\$ 5,557	\$ 5,557	\$	\$ 22,227	\$ 27,784	\$ 33,340							
21		In house labor	\$ 260	12/1/2011	SL-25	25	\$ 10	\$ 10	\$ 10	\$	\$ 62	\$ 73	\$ 83							
22		Work Order Addition	\$ 267	12/1/2011	SL-25	25	\$ 11	\$ 11	\$ 11	\$	\$ 64	\$ 75	\$ 85							
23		Well Gates, Apollo Solar	\$ 21,790	5/1/2016	SL-25	25	\$ 872	\$ 872	\$ 872	\$	\$ 872	\$ 1,743	\$ 2,615							
24		DW1 Electrical Building	\$ 94,842	9/30/2017	SL-25	25	\$ -	\$ 3,794	\$ 3,794	\$	\$ -	\$ 3,794	\$ 7,587							
25		Total	\$ 856,149				\$ 30,452	\$ 34,246	\$ 34,246	\$	\$ 119,354	\$ 153,600	\$ 187,846							
26	103310	Structures & Improvement - Treatment Plant																		
27		STRUCTURE-TREATMENT	\$ 6,487	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$	\$ 6,487	\$ 6,487	\$ 6,487							
28		Total	\$ 6,487				\$ -	\$ -	\$ -	\$	\$ 6,487	\$ 6,487	\$ 6,487							
29	103410	Structures & Improvement - Transmission & Distribution Plant																		
30		Chain Link Fence WHWC Portion	\$ 19,032	9/1/2010	SL-25	25	\$ 761	\$ 761	\$ 761	\$	\$ 5,329	\$ 6,090	\$ 6,851							
31		DW7 Piping to Tank	\$ 95,656	12/1/2013	SL-25	25	\$ 3,826	\$ 3,826	\$ 3,826	\$	\$ 15,305	\$ 19,131	\$ 22,958							
32		Emergency Shower-Baseyard	\$ 1,393	3/1/2015	SL-25	25	\$ 56	\$ 56	\$ 56	\$	\$ 111	\$ 167	\$ 223							
33		Emergency Shower-Tank 1200S	\$ 1,387	3/1/2015	SL-25	25	\$ 55	\$ 55	\$ 55	\$	\$ 111	\$ 166	\$ 222							
34		Total	\$ 117,469				\$ 4,699	\$ 4,699	\$ 4,699	\$	\$ 20,856	\$ 25,555	\$ 30,254							
35	103411	Structures & Improvement - Pavement																		
36		Concrete Pavement WHWC Portion	\$ 16,752	9/1/2010	SL-25	25	\$ 670	\$ 670	\$ 670	\$	\$ 4,691	\$ 5,361	\$ 6,031							
37		Total	\$ 16,752				\$ 670	\$ 670	\$ 670	\$	\$ 4,691	\$ 5,361	\$ 6,031							

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - State (Detail)
 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
103710 Structures & Improvements - General Plant												
38		Base Yard Lunch Room Air Conditioner (WHWC Share)	\$ 127	3/31/2001	SL-25	25	\$ 5	\$ 5	\$ 5	\$ 81	\$ 86	\$ 91
39		Base Yard Lunch Room Renovation (WHWC Share)	\$ 3,222	3/31/2001	SL-25	25	\$ 129	\$ 129	\$ 129	\$ 2,062	\$ 2,191	\$ 2,320
40		Base Yard Library and file Storage Room Trailer	\$ 6,483	5/12/2004	SL-25	25	\$ 259	\$ 259	\$ 259	\$ 3,371	\$ 3,630	\$ 3,890
41		Baseyard Security Fencing	\$ 7,978	3/16/2005	SL-25	25	\$ 319	\$ 319	\$ 319	\$ 3,830	\$ 4,149	\$ 4,468
42		Baseyard Storeroom Renovation (WHWC Share)	\$ 2,465	6/15/2006	SL-25	25	\$ 99	\$ 99	\$ 99	\$ 1,085	\$ 1,183	\$ 1,282
43		Oil Containment Area	\$ 1,564	1/1/2001	SL-25	25	\$ 67	\$ 67	\$ 67	\$ 1,065	\$ 1,131	\$ 1,198
44		Utility Baseyard Locker Room Addition (WHWC Share)	\$ 7,574	5/2/2005	SL-25	25	\$ 303	\$ 303	\$ 303	\$ 3,636	\$ 3,939	\$ 4,242
45		Wood Shop Storage Shed Repairs	\$ 5,201	6/21/2003	SL-25	25	\$ 208	\$ 208	\$ 208	\$ 2,912	\$ 3,120	\$ 3,328
46												
47		Total	\$ 34,714				\$ 1,389	\$ 1,389	\$ 1,389	\$ 18,041	\$ 19,430	\$ 20,818
103240 Pumping Equipment												
48		Bowl Assembly	\$ 69,556	12/1/2009	SL-25	25	\$ 2,782	\$ 2,782	\$ 2,782	\$ 22,258	\$ 25,040	\$ 27,823
49		Chart Recorder-DW#4	\$ 2,723	12/1/2014	SL-25	25	\$ 109	\$ 109	\$ 109	\$ 327	\$ 436	\$ 545
50		DW #2 Fuel Handling System	\$ 7,193	1/1/2001	SL-25	25	\$ 288	\$ 288	\$ 288	\$ 4,603	\$ 4,891	\$ 5,179
51		DW 4&5 ELEC UPGRADE-SPARE PARTS	\$ 2,456	3/1/1997	SL-25	25	\$ 98	\$ 98	\$ 98	\$ 1,965	\$ 2,063	\$ 2,161
52		DW 7 Fuel Tank at Well Site	\$ 41,401	12/1/2013	SL-25	25	\$ 1,556	\$ 1,556	\$ 1,556	\$ 6,624	\$ 8,280	\$ 9,936
53		DW#1 - Auto-Transformer	\$ 8,388	6/15/2000	SL-25	25	\$ 336	\$ 336	\$ 336	\$ 5,704	\$ 6,039	\$ 6,375
54		DW#4 6" flow meter	\$ 3,789	3/1/2016	SL-25	25	\$ 152	\$ 152	\$ 152	\$ 152	\$ 303	\$ 455
55		DW#6 Back-Up Generator	\$ 160,507	2/28/2007	SL-25	25	\$ 6,420	\$ 6,420	\$ 6,420	\$ 64,203	\$ 70,623	\$ 77,043
56		DW#6 Chain Link Fence and Gate	\$ 9,873	2/28/2007	SL-25	25	\$ 395	\$ 395	\$ 395	\$ 3,949	\$ 4,344	\$ 4,739
57		DW#6 Column Assembly	\$ 35,512	2/28/2007	SL-25	25	\$ 1,420	\$ 1,420	\$ 1,420	\$ 14,205	\$ 15,625	\$ 17,046
58		DW#6 Discharge Head	\$ 86,247	2/28/2007	SL-25	25	\$ 3,450	\$ 3,450	\$ 3,450	\$ 34,459	\$ 37,949	\$ 41,399
59		DW#6 Drilling and Casing	\$ 338,244	2/28/2007	SL-25	25	\$ 13,530	\$ 13,530	\$ 13,530	\$ 135,238	\$ 148,827	\$ 162,357
60		DW#6 Electrical Work	\$ 308,959	2/28/2007	SL-25	25	\$ 12,358	\$ 12,358	\$ 12,358	\$ 123,584	\$ 135,942	\$ 148,300
61		DW#6 Miscellaneous Equipment3	\$ 27,115	2/28/2007	SL-25	25	\$ 1,085	\$ 1,085	\$ 1,085	\$ 10,846	\$ 11,930	\$ 13,015
62		DW#6 Pump Station and Control Bldg Equipment	\$ 15,821	2/28/2007	SL-25	25	\$ 633	\$ 633	\$ 633	\$ 6,329	\$ 6,961	\$ 7,594
63		DW#6 Pump Station Building	\$ 71,310	2/28/2007	SL-25	25	\$ 2,852	\$ 2,852	\$ 2,852	\$ 28,524	\$ 31,376	\$ 34,229
64		DW#6 Pumping Equipment	\$ 131,930	2/28/2007	SL-25	25	\$ 5,277	\$ 5,277	\$ 5,277	\$ 52,772	\$ 58,049	\$ 63,326
65		DW#6 Site Work	\$ 163,110	2/28/2007	SL-25	25	\$ 6,524	\$ 6,524	\$ 6,524	\$ 65,244	\$ 71,765	\$ 78,293
66		DW#6 Water system Piping	\$ 183,456	2/28/2007	SL-25	25	\$ 7,338	\$ 7,338	\$ 7,338	\$ 73,383	\$ 80,721	\$ 88,059
67		DW#6 Water system Valves and Meters	\$ 28,117	2/28/2007	SL-25	25	\$ 1,125	\$ 1,125	\$ 1,125	\$ 11,247	\$ 12,371	\$ 13,496
68		DW-1 Fuel Handling	\$ 11,152	6/27/2000	SL-25	25	\$ 446	\$ 446	\$ 446	\$ 7,584	\$ 8,030	\$ 8,476
69		DW1 IMPROVMT BACKUP POWER	\$ 13,757	5/31/1997	SL-25	25	\$ 550	\$ 550	\$ 550	\$ 11,005	\$ 11,555	\$ 12,105
70		DW-1 Pump Replacement	\$ 128,060	12/1/2013	SL-25	25	\$ 5,122	\$ 5,122	\$ 5,122	\$ 20,490	\$ 25,612	\$ 30,734
71		DW1&3 8" flapper valves	\$ 1,538	3/1/2016	SL-25	25	\$ 62	\$ 62	\$ 62	\$ 62	\$ 123	\$ 185
72		DW3-ELECTRICAL PARTS	\$ 71,750	12/1/2013	SL-25	25	\$ 2,870	\$ 2,870	\$ 2,870	\$ 11,480	\$ 14,350	\$ 17,220
73		DW3-ELECTRICAL SYSTEM	\$ 2,921	5/22/1997	SL-25	25	\$ 117	\$ 117	\$ 117	\$ 2,337	\$ 2,454	\$ 2,570
74		DW3-PUMP CONTROL VALVES & METER	\$ 101,594	5/22/1997	SL-25	25	\$ 4,064	\$ 4,064	\$ 4,064	\$ 81,275	\$ 85,339	\$ 89,403
75		DW3-SWITCHES COMPRESSOR & VALVES	\$ 23,756	5/22/1997	SL-25	25	\$ 950	\$ 950	\$ 950	\$ 19,005	\$ 19,965	\$ 20,905
76		DW3-WATER COLUMN & OIL TUBE/SHAFT	\$ 82,654	5/22/1997	SL-25	25	\$ 459	\$ 459	\$ 459	\$ 9,171	\$ 9,630	\$ 10,088
77		DW4 & DW5 8" gate valve	\$ 3,935	3/1/2016	SL-25	25	\$ 157	\$ 157	\$ 157	\$ 157	\$ 315	\$ 472
78		DW4 ELEC UPGRADE-ELEC WORK	\$ 26,571	3/1/1997	SL-25	25	\$ 1,063	\$ 1,063	\$ 1,063	\$ 21,257	\$ 22,319	\$ 23,382
79		DW4 ELEC UPGRADE-EQUIPMENT	\$ 6,111	3/1/1997	SL-25	25	\$ 244	\$ 244	\$ 244	\$ 4,889	\$ 5,134	\$ 5,378
80		DW4 REPLACE OIL TUBES/COLUMN	\$ 35,533	6/15/1999	SL-25	25	\$ 1,421	\$ 1,421	\$ 1,421	\$ 25,584	\$ 27,005	\$ 28,426
81		DW4&5 6" flapper valves	\$ 1,421	3/1/2016	SL-25	25	\$ 57	\$ 57	\$ 57	\$ 57	\$ 114	\$ 170
82		DW5 6" Flow Meter	\$ 3,630	3/1/2016	SL-25	25	\$ 145	\$ 145	\$ 145	\$ 145	\$ 290	\$ 436
83		DW5 ELEC UPGRADE-ELEC WORK	\$ 23,506	3/1/1997	SL-25	25	\$ 940	\$ 940	\$ 940	\$ 18,805	\$ 19,745	\$ 20,685
84		DW5 ELEC UPGRADE-EQUIPMENT	\$ 6,111	3/1/1997	SL-25	25	\$ 244	\$ 244	\$ 244	\$ 4,889	\$ 5,134	\$ 5,378

Waikolua Water Co., Inc. Dba West Hawaii Water Company
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Line No.	Utility Account	Property Description	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
						2016	2017	2018	2016	2017	2018
87		DW5 Well Starter	12/1/2014	SL-25	25	\$ 421	\$ 421	\$ 421	\$ 1,262	\$ 1,683	\$ 2,103
88		DW6 AB control module	12/1/2016	SL-25	25	\$ 64	\$ 64	\$ 64	\$ 64	\$ 127	\$ 191
89		Waikolua Deep Well #7 New Pump	12/1/2013	SL-25	25	\$ 9,144	\$ 9,144	\$ 9,144	\$ 36,578	\$ 45,722	\$ 54,866
90		Waikolua DW7 Emergency Generator	12/1/2013	SL-25	25	\$ 12,782	\$ 12,782	\$ 12,782	\$ 51,128	\$ 63,910	\$ 76,682
91		Rpr DW#2-WHWC Share	12/31/2007	SL-25	25	\$ 3,597	\$ 3,597	\$ 3,597	\$ 35,968	\$ 39,565	\$ 43,162
92		Rpr DW#3-WHWC Share	12/31/2007	SL-25	25	\$ 2,548	\$ 2,548	\$ 2,548	\$ 25,479	\$ 28,027	\$ 30,575
93		Replacement of Well #1 Starter	12/31/2017	SL-25	25	\$ -	\$ 6,999	\$ 6,999	\$ -	\$ 6,999	\$ 13,999
94		Well 1 Pump Replacement	12/31/2017	SL-25	25	\$ -	\$ 5,785	\$ 5,785	\$ -	\$ 5,785	\$ 11,570
95		PRV Stations 600 & 300 Design	12/31/2017	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
96		Upgrade DW3 Motor Starter	12/31/2017	SL-25	25	\$ -	\$ 4,825	\$ 4,825	\$ -	\$ 4,825	\$ 9,650
97		Upgrade DW2 Starter	12/31/2017	SL-25	25	\$ -	\$ 1,898	\$ 1,898	\$ -	\$ 1,898	\$ 3,797
98		DW#4&5 Flap Valves	12/31/2017	SL-25	25	\$ -	\$ 70	\$ 70	\$ -	\$ 70	\$ 139
99		DW#5 Motor Refurbish	12/31/2017	SL-25	25	\$ -	\$ 888	\$ 888	\$ -	\$ 888	\$ 1,777
100		Total				\$ 118,602	\$ 139,069	\$ 139,069	\$ 1,120,505	\$ 1,258,574	\$ 1,398,643
101	103241	System Control Computer Equipment				\$ 1,514	\$ 1,514	\$ 1,514	\$ 6,057	\$ 7,571	\$ 9,086
102		DW7 SCADA Equipment	12/1/2013	SL-25	25	\$ -	\$ 690	\$ 690	\$ -	\$ 690	\$ 1,380
103		SCADA WHWC Portion	9/1/2010	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
104		Total				\$ 2,204	\$ 2,204	\$ 2,204	\$ 10,888	\$ 13,092	\$ 15,297
105	103320	Treatment & Disposal Equipment				\$ 172	\$ 172	\$ 172	\$ 686	\$ 858	\$ 1,029
106		Replace Gas Detectors Tank 1200N&S	12/1/2013	SL-25	25	\$ -	\$ 77	\$ 77	\$ -	\$ 77	\$ 154
107		Tank 1200N 6" Chlorine Pump	3/1/2015	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
108		TREATMENT-EQUIPMENT	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
109		Total				\$ 249	\$ 249	\$ 249	\$ 692	\$ 858	\$ 1,029
110	103431	A.C.				\$ 14,806	\$ 14,806	\$ 14,806	\$ 131,452	\$ 146,058	\$ 160,664
111		Castle6Cooke-Dedicated Water Lines-Kikaha@Weh	1/1/2008	SL-25	25	\$ 26,826	\$ 26,826	\$ 26,826	\$ 241,430	\$ 288,255	\$ 295,081
112		Clearly Waikolua-Dedicated Water Facilities-K	1/1/2008	SL-25	25	\$ -	\$ -	\$ -	\$ 3,486,947	\$ 3,486,947	\$ 3,486,947
113		DISTRIBUTION MAIN	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
114		DW3-PIPELINE-DUCTILE IRON	5/23/1997	SL-25	25	\$ 3,635	\$ 3,635	\$ 3,635	\$ 72,684	\$ 76,329	\$ 79,964
115		Hoko Street Park	1/1/2008	SL-25	25	\$ 4,288	\$ 4,288	\$ 4,288	\$ 38,588	\$ 42,876	\$ 47,164
116		KE KUMU WATER FACILITIES	4/1/1996	SL-25	25	\$ 1,912	\$ 1,912	\$ 1,912	\$ 40,146	\$ 42,058	\$ 43,969
117		PANILOLO ESTATES EASEMENT/SYSTEM	1/1/1993	SL-25	25	\$ 10,245	\$ 10,245	\$ 10,245	\$ 245,869	\$ 256,114	\$ 256,114
118		Pressure Reducing Valves	7/27/2004	SL-25	25	\$ 720	\$ 720	\$ 720	\$ 9,362	\$ 10,082	\$ 10,803
119		SR111-2-FACILITIES (2700.101)	10/30/1988	SL-25	25	\$ 2,862	\$ 2,862	\$ 2,862	\$ 54,376	\$ 57,238	\$ 60,099
120		Sunset Ridge III Unit 2 41 Lots-Dedicated Wat	9/26/2005	SL-25	25	\$ 8,259	\$ 8,259	\$ 8,259	\$ 99,109	\$ 107,368	\$ 115,627
121		SUNSET RIDGE III-1 (DEDICATED)	1/1/1998	SL-25	25	\$ 1,916	\$ 1,916	\$ 1,916	\$ 36,411	\$ 38,327	\$ 40,243
122		Sunset Ridge P-Hll Inor2 Unit 2-a 17 Lots-Dedi	9/26/2005	SL-25	25	\$ 3,505	\$ 3,505	\$ 3,505	\$ 42,059	\$ 45,564	\$ 49,069
123		Sunset Ridge P-Hll Unit 3 15 Lots-Dedicated Wa	9/26/2005	SL-25	25	\$ 6,275	\$ 6,275	\$ 6,275	\$ 75,237	\$ 81,572	\$ 87,847
124		SUPPLY MAIN	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
125		TRI WATER FACILITY S/R II-1	6/1/1995	SL-25	25	\$ 1,945	\$ 1,945	\$ 1,945	\$ 26,282	\$ 26,282	\$ 26,282
126		TRI WATER FACILITY S/R II-2	3/1/1996	SL-25	25	\$ 705	\$ 705	\$ 705	\$ 42,783	\$ 44,727	\$ 46,672
127		V.E. LOT 135-DEDICATED FACILITIES	9/28/1999	SL-25	25	\$ 1,651	\$ 1,651	\$ 1,651	\$ 14,804	\$ 15,509	\$ 16,214
128		VILLAGE EST CROSS CONNECTION	12/1/1996	SL-25	25	\$ 2,257	\$ 2,257	\$ 2,257	\$ 29,711	\$ 31,362	\$ 33,012
129		WATERLINE IMPROVEMTS(VILLEST)	8/1/1994	SL-25	25	\$ 13,284	\$ 13,284	\$ 13,284	\$ 47,382	\$ 49,649	\$ 51,906
130		WTR LINES (DEDICATED) KEK III	1/1/1997	SL-25	25	\$ 1,138	\$ 1,138	\$ 1,138	\$ 305,764	\$ 319,058	\$ 332,352
		Total				\$ 1,138	\$ 1,138	\$ 1,138	\$ 22,751	\$ 23,889	\$ 25,026

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - State (Detail)
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Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
131		Total	\$ 6,164,123				\$ 106,036	\$ 106,036	\$ 95,791	\$ 5,063,227	\$ 5,169,263	\$ 5,265,054
132	103435	Ductile Iron Pipe										
133		106' Ductile Iron Pipe 12" WHWC Portion	\$ 5,867	9/1/2010	SL-25	25	\$ 235	\$ 235	\$ 235	\$ 1,543	\$ 1,877	\$ 2,112
134		117' Ductile Iron Pipe 16" WHWC Portion	\$ 11,425	9/1/2010	SL-25	25	\$ 457	\$ 457	\$ 457	\$ 3,199	\$ 3,666	\$ 4,113
135		380' Ductile Iron Pipe 18" WHWC Portion	\$ 33,093	9/1/2010	SL-25	25	\$ 1,324	\$ 1,324	\$ 1,324	\$ 9,266	\$ 10,590	\$ 11,913
136		DW5 Cross Connection Backflow	\$ 8,681	12/1/2014	SL-25	25	\$ 347	\$ 347	\$ 347	\$ 1,042	\$ 1,389	\$ 1,736
137		Total	\$ 59,066				\$ 2,363	\$ 2,363	\$ 2,363	\$ 15,149	\$ 17,512	\$ 19,875
138	103450	Services										
139		SERVICES (LATERALS)	\$ 23,272	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ 23,272	\$ 23,272	\$ 23,272
140		Total	\$ 23,272				\$ -	\$ -	\$ -	\$ 23,272	\$ 23,272	\$ 23,272
141	103460	Meters & Meter Boxes										
142		1" meter - post office #55592393	\$ 3,118	11/1/1989	SL-25	25	\$ 125	\$ 125	\$ 125	\$ 2,245	\$ 2,369	\$ 2,494
143		2 METER-WHC QUARRY #55292371	\$ 6,196	7/8/1989	SL-25	25	\$ 248	\$ 248	\$ 248	\$ 4,461	\$ 4,709	\$ 4,957
144		2 TURBO METER-PANILOLO II	\$ 767	9/1/1990	SL-25	25	\$ -	\$ -	\$ -	\$ 767	\$ 767	\$ 767
145		2" sr meter - Waikoloa Gardens	\$ 693	8/1/1992	SL-25	25	\$ 28	\$ -	\$ -	\$ 693	\$ 693	\$ 693
146		2" turbo meter - Panolo II	\$ 722	7/1/1990	SL-25	25	\$ -	\$ -	\$ -	\$ 722	\$ 722	\$ 722
147		3 TEMP METER-#152781	\$ 726	7/1/1990	SL-25	25	\$ -	\$ -	\$ -	\$ 726	\$ 726	\$ 726
148		3 TEMP METER-#1527888	\$ 767	12/1/1990	SL-25	25	\$ -	\$ -	\$ -	\$ 767	\$ 767	\$ 767
149		3" temp p meter #1293949	\$ 727	7/1/1990	SL-25	25	\$ -	\$ -	\$ -	\$ 727	\$ 727	\$ 727
150		3" temp meter - #1527889	\$ 776	12/1/1990	SL-25	25	\$ -	\$ -	\$ -	\$ 776	\$ 776	\$ 776
151		3" Temp meter #1214745	\$ 619	9/1/1988	SL-25	25	\$ -	\$ -	\$ -	\$ 619	\$ 619	\$ 619
152		3" temp meter-Waikoloa Villas - #1425327	\$ 960	1/1/1994	SL-25	25	\$ 38	\$ 38	\$ 38	\$ 883	\$ 922	\$ 960
153		6 METERS- Highlands lot 125	\$ 6,025	10/1/1989	SL-25	25	\$ -	\$ -	\$ -	\$ 6,025	\$ 6,025	\$ 6,025
154		6 METERS-ELIWA LANI LOTS 113&114, 1/1/1989	\$ 8,155	1/1/1989	SL-25	25	\$ 130	\$ -	\$ -	\$ 8,155	\$ 8,155	\$ 8,155
155		6 ROCKWELL METER-DW4	\$ 3,261	4/1/1992	SL-25	25	\$ 130	\$ -	\$ -	\$ 3,261	\$ 3,261	\$ 3,261
156		6" meters - fairway terr lots 108/109	\$ 15,575	1/1/1989	SL-25	25	\$ -	\$ -	\$ -	\$ 15,575	\$ 15,575	\$ 15,575
157		HO'OKO STREET PARK METER	\$ 1,313	2/4/1988	SL-25	25	\$ 53	\$ 53	\$ 53	\$ 998	\$ 1,050	\$ 1,103
158		KEKUMU III 2X6 PERMANENT METER	\$ 7,768	3/4/1997	SL-25	25	\$ 311	\$ 311	\$ 311	\$ 6,214	\$ 6,525	\$ 6,835
159		Meters - Dec '91	\$ 6,149	12/31/1991	SL-25	25	\$ -	\$ -	\$ -	\$ 6,149	\$ 6,149	\$ 6,149
160		Meters - Dec 92	\$ 4,849	12/31/1992	SL-25	25	\$ 194	\$ -	\$ -	\$ 4,849	\$ 4,849	\$ 4,849
161		Meters - Dec 93	\$ 9,234	12/31/1993	SL-25	25	\$ 369	\$ 369	\$ 369	\$ 8,865	\$ 9,234	\$ 9,234
162		METERS 1998-9/98	\$ 3,337	6/30/1998	SL-25	25	\$ 133	\$ 133	\$ 133	\$ 2,536	\$ 2,669	\$ 2,803
163		Meters 1996	\$ 8,977	12/1/1996	SL-25	25	\$ 359	\$ 359	\$ 359	\$ 7,540	\$ 7,900	\$ 8,259
164		METERS 1997	\$ 8,747	12/31/1997	SL-25	25	\$ 350	\$ 350	\$ 350	\$ 6,998	\$ 7,348	\$ 7,698
165		METERS 7/98-11/98	\$ 1,692	11/30/1998	SL-25	25	\$ 68	\$ 68	\$ 68	\$ 1,266	\$ 1,354	\$ 1,422
166		METERS DEC '96	\$ 16,049	12/31/1996	SL-25	25	\$ 642	\$ 642	\$ 642	\$ 14,123	\$ 14,765	\$ 15,407
167		Meters in Service 1/04 - 7/04	\$ 9,007	7/31/2004	SL-25	25	\$ 360	\$ 360	\$ 360	\$ 4,683	\$ 5,044	\$ 5,404
168		Meters in Service 11/02-12/03	\$ 7,648	12/31/2003	SL-25	25	\$ 306	\$ 306	\$ 306	\$ 4,283	\$ 4,589	\$ 4,894
169		METERS IN SERVICE 12/00-8/01	\$ 3,261	8/31/2001	SL-25	25	\$ 130	\$ 130	\$ 130	\$ 2,097	\$ 2,217	\$ 2,348
170		METERS IN SERVICE 12/98-5/99	\$ 3,092	5/27/1999	SL-25	25	\$ 124	\$ 124	\$ 124	\$ 2,226	\$ 2,350	\$ 2,474
171		METERS IN SERVICE 12/99-5/00	\$ 5,302	5/23/2000	SL-25	25	\$ 212	\$ 212	\$ 212	\$ 3,606	\$ 3,818	\$ 4,030
172		METERS IN SERVICE 6/00-11/00	\$ 4,177	11/30/2000	SL-25	25	\$ 167	\$ 167	\$ 167	\$ 2,841	\$ 3,008	\$ 3,175
173		Meters in Service 6/02-11/02	\$ 4,142	11/30/2002	SL-25	25	\$ 166	\$ 166	\$ 166	\$ 2,485	\$ 2,651	\$ 2,817
174		Meters in Service 6/99-11/99	\$ 2,785	11/29/1999	SL-25	25	\$ 111	\$ 111	\$ 111	\$ 2,005	\$ 2,116	\$ 2,228
175		Meters in Service 7/01-11/01	\$ 3,827	11/30/2001	SL-25	25	\$ 157	\$ 157	\$ 157	\$ 2,513	\$ 2,671	\$ 2,828
176		Meters in Service 8/04-12/07	\$ 40,489	1/1/2008	SL-25	25	\$ 1,620	\$ 1,620	\$ 1,620	\$ 14,576	\$ 16,196	\$ 17,815

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
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Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization:			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
177		Meters in Service 12/01-5/02	\$ 3,557	5/31/2002	SL-25	25	\$ 142	\$ 142	\$ 142	\$ 2,134	\$ 2,277	\$ 2,419
178		METERS-DEC 74	\$ 1,287	12/31/1974	SL-25	25	\$ -	\$ -	\$ -	\$ 1,287	\$ 1,287	\$ 1,287
179		METERS-DEC 76	\$ 705	12/31/1976	SL-25	25	\$ -	\$ -	\$ -	\$ 705	\$ 705	\$ 705
180		METERS-DEC 77	\$ 1,151	12/31/1977	SL-25	25	\$ -	\$ -	\$ -	\$ 1,151	\$ 1,151	\$ 1,151
181		METERS-DEC 78	\$ 1,189	12/31/1978	SL-25	25	\$ -	\$ -	\$ -	\$ 1,189	\$ 1,189	\$ 1,189
182		METERS-DEC 79	\$ 569	12/31/1979	SL-25	25	\$ -	\$ -	\$ -	\$ 569	\$ 569	\$ 569
183		METERS-DEC 80	\$ 1,094	12/31/1980	SL-25	25	\$ -	\$ -	\$ -	\$ 1,094	\$ 1,094	\$ 1,094
184		METERS-DEC 81	\$ 616	12/31/1981	SL-25	25	\$ -	\$ -	\$ -	\$ 616	\$ 616	\$ 616
185		METERS-DEC 82	\$ 68	12/31/1982	SL-25	25	\$ -	\$ -	\$ -	\$ 68	\$ 68	\$ 68
186		Meters-Dec 87	\$ 245	1/1/1985	SL-25	25	\$ -	\$ -	\$ -	\$ 245	\$ 245	\$ 245
187		Meters-Dec 87	\$ 3,376	12/31/1987	SL-25	25	\$ -	\$ -	\$ -	\$ 3,376	\$ 3,376	\$ 3,376
188		METERS-DEC 89	\$ 12,071	12/1/1989	SL-25	25	\$ -	\$ -	\$ -	\$ 12,071	\$ 12,071	\$ 12,071
189		METERS-DEC 90	\$ 2,682	12/31/1990	SL-25	25	\$ -	\$ -	\$ -	\$ 2,682	\$ 2,682	\$ 2,682
190		METERS-DEC 94	\$ 19,608	12/31/1994	SL-25	25	\$ -	\$ -	\$ -	\$ 19,608	\$ 19,608	\$ 19,608
191		METERS-DEC 88	\$ 2,908	12/1/1988	SL-25	25	\$ 784	\$ 784	\$ 784	\$ 2,908	\$ 2,908	\$ 2,908
192		METERS-MAR '75	\$ 783	3/1/1975	SL-25	25	\$ -	\$ -	\$ -	\$ 783	\$ 783	\$ 783
193		METER-WAIKOLOA HILLS	\$ 5,486	11/1/1987	SL-25	25	\$ -	\$ -	\$ -	\$ 5,486	\$ 5,486	\$ 5,486
194		Replacement Meters	\$ 4,987	12/31/2003	SL-25	25	\$ 163	\$ 163	\$ 163	\$ 4,987	\$ 4,987	\$ 4,987
195		Replacement Meters	\$ 4,170	5/31/2002	SL-25	25	\$ 167	\$ 167	\$ 167	\$ 4,170	\$ 4,170	\$ 4,170
196		Replacement Meters	\$ 1,433	11/30/2001	SL-25	25	\$ 57	\$ 57	\$ 57	\$ 1,433	\$ 1,433	\$ 1,433
197		Replacement Meters 1704 - 7/04	\$ 3,783	7/31/2004	SL-25	25	\$ 151	\$ 151	\$ 151	\$ 3,783	\$ 3,783	\$ 3,783
198		REPLACEMENT METERS 1/98-2/98	\$ 2,005	2/15/1998	SL-25	25	\$ 80	\$ 80	\$ 80	\$ 2,005	\$ 2,005	\$ 2,005
199		REPLACEMENT METERS 12/00-8/01	\$ 2,852	8/31/2001	SL-25	25	\$ 114	\$ 114	\$ 114	\$ 2,852	\$ 2,852	\$ 2,852
200		REPLACEMENT METERS 2/99-5/99	\$ 886	5/19/1999	SL-25	25	\$ 35	\$ 35	\$ 35	\$ 886	\$ 886	\$ 886
201		Replacement Meters 2002	\$ 2,119	11/30/2002	SL-25	25	\$ 85	\$ 85	\$ 85	\$ 2,119	\$ 2,119	\$ 2,119
202		REPLACEMENT METERS 3/98-6/98	\$ 1,985	6/30/1998	SL-25	25	\$ 79	\$ 79	\$ 79	\$ 1,985	\$ 1,985	\$ 1,985
203		REPLACEMENT METERS 5/00	\$ 1,910	5/5/2000	SL-25	25	\$ 76	\$ 76	\$ 76	\$ 1,910	\$ 1,910	\$ 1,910
204		REPLACEMENT METERS 6/00-11/00	\$ 2,579	11/30/2000	SL-25	25	\$ 103	\$ 103	\$ 103	\$ 2,579	\$ 2,579	\$ 2,579
205		REPLACEMENT METERS 6/99-8/99	\$ 1,317	8/30/1999	SL-25	25	\$ 53	\$ 53	\$ 53	\$ 1,317	\$ 1,317	\$ 1,317
206		REPLACEMENT METERS 7/98-11/98	\$ 1,277	11/30/1998	SL-25	25	\$ 51	\$ 51	\$ 51	\$ 1,277	\$ 1,277	\$ 1,277
207		Replacement meters 7/99-11/99	\$ 1,529	11/9/1999	SL-25	25	\$ 61	\$ 61	\$ 61	\$ 1,529	\$ 1,529	\$ 1,529
208		Replacement Meters 8/04-12/07	\$ 16,054	1/1/2008	SL-25	25	\$ 642	\$ 642	\$ 642	\$ 16,054	\$ 16,054	\$ 16,054
209		REPLACEMENT MTRS 11/98-1/99	\$ 512	1/15/1999	SL-25	25	\$ 20	\$ 20	\$ 20	\$ 512	\$ 512	\$ 512
210		Temp mtr pool - Neptune 3" (#70066680.81)	\$ 1,324	10/28/1999	SL-25	25	\$ 53	\$ 53	\$ 53	\$ 1,324	\$ 1,324	\$ 1,324
211		TEMPORARY METER POOL	\$ 1,290	12/31/1994	SL-25	25	\$ 52	\$ 52	\$ 52	\$ 1,290	\$ 1,290	\$ 1,290
212		Water Loss Control Plan	\$ 33,102	12/31/2017	SL-25	25	\$ -	\$ -	\$ -	\$ 33,102	\$ 33,102	\$ 33,102
213		Water Loss Control Plan	\$ 39,925	7/1/2016	SL-25	25	\$ -	\$ -	\$ -	\$ 39,925	\$ 39,925	\$ 39,925
214		Total	\$ 382,971				\$ 9,372	\$ 10,344	\$ 11,572	\$ 230,476	\$ 240,820	\$ 252,392
215	103480	Hydrants	\$ 4,304				\$ 172	\$ 172	\$ 172	\$ 172	\$ 344	\$ 516
216		6" Mueller Gate Valve @ Meila St	\$ 3,694	12/1/2016	SL-25	25	\$ -	\$ -	\$ -	\$ 3,694	\$ 3,694	\$ 3,694
217		FENCE FOR PARKER #1	\$ 7,998	3/1/1989	SL-25	25	\$ 172	\$ 172	\$ 172	\$ 7,998	\$ 8,170	\$ 8,342
218		Total	\$ 12,306				\$ 172	\$ 172	\$ 172	\$ 172	\$ 344	\$ 516
219	103420	Reservoirs & Tanks	\$ 316,536				\$ -	\$ -	\$ -	\$ 316,536	\$ 316,536	\$ 316,536
220		DISTRIBUTION RESERVOIR	\$ 231,272	11/20/1987	SL-25	25	\$ 9,251	\$ 9,251	\$ 9,251	\$ 231,272	\$ 240,523	\$ 249,774
221		TANK 1200S-2	\$ 21,504	12/1/2016	SL-25	25	\$ 860	\$ 860	\$ 860	\$ 21,504	\$ 22,364	\$ 23,224
222		Tank 900 8" Cle-val	\$ 7,553	5/1/2016	SL-25	25	\$ 302	\$ 302	\$ 302	\$ 7,553	\$ 7,855	\$ 8,157
223		Tank 900 8" Gate Valves	\$ -				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
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Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
224		Tank 900 Reservoir Replacement-CEMENT	\$ 85,497	5/19/2005	SL-25	25	\$ 3,420	\$ 3,420	\$ 3,420	\$ 41,039	\$ 44,459	\$ 47,878
225		Tank 900 Reservoir Replacement-PIPING	\$ 4,113	5/19/2005	SL-25	25	\$ 165	\$ 165	\$ 165	\$ 1,974	\$ 2,139	\$ 2,303
226		Tank ladder gates-South tanks	\$ 3,632	3/1/2016	SL-25	25	\$ 145	\$ 145	\$ 145	\$ 145	\$ 291	\$ 436
227		WHWC 1 Million Gallon Steel Bolted Tank	\$ 726,753	9/1/2010	SL-25	25	\$ 29,070	\$ 29,070	\$ 29,070	\$ 203,481	\$ 232,561	\$ 261,631
228		Replace (3) Cleavals at 1200N	\$ 9,598	12/31/2017	SL-25	25	-	\$ 384	\$ 384	-	\$ 384	\$ 768
229		Total	\$ 1,406,457				\$ 43,213	\$ 43,597	\$ 43,597	\$ 749,365	\$ 792,962	\$ 836,559
230		103421 Tank Painting										
231		Tank Painting	\$ 244,362	6/1/2011	SL-25	25	\$ 9,774	\$ 9,774	\$ 9,774	\$ 58,647	\$ 68,421	\$ 78,196
232		Paint Tank 900	\$ 4,420	12/31/2017	SL-25	25	-	\$ 177	\$ 177	-	\$ 177	\$ 354
233		Total	\$ 248,782				\$ 9,774	\$ 9,951	\$ 9,951	\$ 58,647	\$ 68,598	\$ 78,550
234		103150 Wells										
235		DWS DRILLING-DONE IN 1992	\$ 395,617	5/22/1997	SL-25	25	\$ 15,825	\$ 15,825	\$ 15,825	\$ 316,493	\$ 332,318	\$ 348,143
236		Imputed interest on DW3	\$ 78,906	10/31/999	SL-25	25	\$ 3,156	\$ 3,156	\$ 3,156	\$ 56,812	\$ 59,969	\$ 63,125
237		Waikoloa Deep Well #7 Outfitting	\$ 596,549	12/1/2013	SL-25	25	\$ 23,862	\$ 23,862	\$ 23,862	\$ 95,448	\$ 119,310	\$ 143,172
238		WELLS-PARKER 4 & 5	\$ 211,613	1/1/1974	SL-25	25	-	-	-	\$ 211,613	\$ 211,613	\$ 211,613
239		Waikoloa Deep Well #6	\$ 1,718,166	12/31/2018	SL-25	25	-	-	-	-	-	\$ 68,727
240		Total	\$ 3,000,851				\$ 42,843	\$ 42,843	\$ 111,570	\$ 680,367	\$ 723,210	\$ 834,780
241		103720 Office Furn & Equip										
242		FLAMMABLE LIQUID CABINET	\$ 613	7/1/1995	MACRS 7	7	-	-	-	\$ 613	\$ 613	\$ 613
243		Safety Cabinet	\$ 217	7/3/2002	MACRS 7	7	-	-	-	\$ 217	\$ 217	\$ 217
244		Steel Flat File Drawers for New Trailer Office	\$ 794	6/30/2004	MACRS 7	7	-	-	-	\$ 794	\$ 794	\$ 794
245		Storage Container	\$ 518	4/16/2004	MACRS 7	7	-	-	-	\$ 518	\$ 518	\$ 518
246		Total	\$ 2,142				\$ -	\$ -	\$ -	\$ 2,142	\$ 2,142	\$ 2,142
247		103721 Electronic Equipment/Computers										
248		(2) Telemetry Field Computers	\$ 1,155	4/15/2004	MACRS 5	5	-	-	-	\$ 1,155	\$ 1,155	\$ 1,155
249		2 Baseyard Computers	\$ 467	7/1/2002	MACRS 5	5	-	-	-	\$ 467	\$ 467	\$ 467
250		2-Way Radio	\$ 102	4/22/2005	MACRS 5	5	-	-	-	\$ 102	\$ 102	\$ 102
251		2-Way Radio for 2006 Chevy Silverado	\$ 357	1/18/2005	MACRS 5	5	-	-	-	\$ 357	\$ 357	\$ 357
252		Baseyard Computer-Utility Operations Clerk	\$ 321	2/19/2003	MACRS 5	5	-	-	-	\$ 321	\$ 321	\$ 321
253		Computer-Accounts Receivable Dept.	\$ 338	2/19/2002	MACRS 5	5	-	-	-	\$ 338	\$ 338	\$ 338
254		Copy Machine	\$ 1,965	9/1/2001	MACRS 5	5	-	-	-	\$ 1,965	\$ 1,965	\$ 1,965
255		Dell Precision 390 Computer-Util Cler-Accting	\$ 414	10/18/2007	MACRS 5	5	-	-	-	\$ 414	\$ 414	\$ 414
256		DWS-SCADA SYSTEM (TELEMETRY)	\$ 4,576	5/22/1997	MACRS 5	5	-	-	-	\$ 4,576	\$ 4,576	\$ 4,576
257		EPSON PRINTER & STAND (1/3 SHARE)	\$ 642	8/8/2003	MACRS 5	5	-	-	-	\$ 642	\$ 642	\$ 642
258		HP 5500 Color Jet (Color Laser Printer)	\$ 1,380	10/31/2004	MACRS 5	5	-	-	-	\$ 1,380	\$ 1,380	\$ 1,380
259		Lexmark T630N Laser Printer	\$ 378	4/12/1999	MACRS 5	5	-	-	-	\$ 378	\$ 378	\$ 378
260		NORSTAR PHONE SYSTEM-BASEYARD	\$ 1,768	4/2/2004	MACRS 5	5	-	-	-	\$ 1,768	\$ 1,768	\$ 1,768
261		Software Windows Upgrade for Software Billin	\$ 724	4/2/2004	MACRS 5	5	-	-	-	\$ 724	\$ 724	\$ 724
262		SOFTWARE SECURITY FEATURES	\$ 200	1/1/1999	MACRS 5	5	-	-	-	\$ 200	\$ 200	\$ 200
263		Telemetry Field Computer	\$ 434	3/18/2004	MACRS 5	5	-	-	-	\$ 434	\$ 434	\$ 434
264		Telemetry Hardware (Rugic Rugged Computer)	\$ 4,688	10/15/2004	MACRS 5	5	-	-	-	\$ 4,688	\$ 4,688	\$ 4,688
265		Two (2) Dodge Dakota Pickup Trucks (WHWC Shar	\$ 640	3/31/2001	MACRS 5	5	-	-	-	\$ 640	\$ 640	\$ 640

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - State (Detail)
 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
266		Total	\$ 20,546				\$ -	\$ -	\$ -	\$ 20,546	\$ 20,546	\$ 20,546
267	103730	Transportation Equipment	\$									
268		1997 Dodge Dakota Pick-Up Truck	\$ 919	1/1/2003	MACRS 5	5	\$ -	\$ -	\$ -	\$ 919	\$ 919	\$ 919
269		2000 Jeep buyout lease #77512740510958	\$ 1,600	1/1/2006	MACRS 5	5	\$ -	\$ -	\$ -	\$ 1,600	\$ 1,600	\$ 1,600
270		Total	\$ 2,518				\$ -	\$ -	\$ -	\$ 2,518	\$ 2,518	\$ 2,518
271	103750	Laboratory Equipment	\$									
272		Chlorine Residual Analyzers (2)	\$ 9,057	4/2/2002	MACRS 7	7	\$ -	\$ -	\$ -	\$ 9,057	\$ 9,057	\$ 9,057
273		Incubator BOD Model 148E 115V	\$ 2,860	12/1/2011	MACRS 7	7	\$ 255	\$ 255	\$ -	\$ 2,477	\$ 2,732	\$ 2,860
274		Sealer WQTS2X 115V 2X Q-Tray	\$ 3,645	12/1/2011	MACRS 7	7	\$ 325	\$ 325	\$ 163	\$ 3,157	\$ 3,482	\$ 3,645
275		W1600 Large Incubator 120V	\$ 1,685	12/1/2011	MACRS 7	7	\$ 150	\$ 150	\$ 75	\$ 1,459	\$ 1,610	\$ 1,685
276		W1600 Large Incubator 120V	\$ 1,685	12/1/2011	MACRS 7	7	\$ 150	\$ 150	\$ 75	\$ 1,459	\$ 1,610	\$ 1,685
277		Total	\$ 18,931				\$ 881	\$ 882	\$ 440	\$ 17,609	\$ 18,491	\$ 18,931
278	103770	Power Operated Equipment	\$									
279		Catepillar Model 14E Grader	\$ 59,736	10/16/2006	MACRS 7	7	\$ -	\$ -	\$ -	\$ 59,736	\$ 59,736	\$ 59,736
280		Total	\$ 59,736				\$ -	\$ -	\$ -	\$ 59,736	\$ 59,736	\$ 59,736
281	103780	Tools, Shop, Garage Equipment	\$									
282		Band Saw	\$ 223	7/1/2003	MACRS 7	7	\$ -	\$ -	\$ -	\$ 223	\$ 223	\$ 223
283		COPPER PIPE SHUTOFF TOOL	\$ 590	6/1/1992	MACRS 7	7	\$ -	\$ -	\$ -	\$ 590	\$ 590	\$ 590
284		DICKSON PRESSURE RECORDER	\$ 515	6/23/1995	MACRS 7	7	\$ -	\$ -	\$ -	\$ 515	\$ 515	\$ 515
285		Portable Generator	\$ 200	5/23/2002	MACRS 7	7	\$ -	\$ -	\$ -	\$ 200	\$ 200	\$ 200
286		Radial Saw	\$ 110	4/3/2003	MACRS 7	7	\$ -	\$ -	\$ -	\$ 110	\$ 110	\$ 110
287		Spin Balancer (WHWC Share)	\$ 602	9/20/2006	MACRS 7	7	\$ -	\$ -	\$ -	\$ 602	\$ 602	\$ 602
288		Tapping & Drilling Equipment	\$ 4,640	4/15/2008	MACRS 7	7	\$ -	\$ -	\$ -	\$ 4,640	\$ 4,640	\$ 4,640
289		Tire Changer	\$ 950	8/8/2002	MACRS 7	7	\$ -	\$ -	\$ -	\$ 950	\$ 950	\$ 950
290		TOOLBOXES-2000 CHEVY S10 TRUCKS (3)	\$ 199	1/17/2000	MACRS 7	7	\$ -	\$ -	\$ -	\$ 199	\$ 199	\$ 199
291		Vibration Meter	\$ 1,206	6/3/2003	MACRS 7	7	\$ -	\$ -	\$ -	\$ 1,206	\$ 1,206	\$ 1,206
292		1" drill and tap	\$ 562	5/1/2017	MACRS 7	7	\$ -	\$ 80	\$ 136	\$ -	\$ 80	\$ 218
293		3/4" drill and tap	\$ 438	5/1/2017	MACRS 7	7	\$ -	\$ 63	\$ 107	\$ -	\$ 63	\$ 170
294		Hydrant Adjustable Seat Wrench	\$ 1,065	12/31/2017	MACRS 7	7	\$ -	\$ 152	\$ 261	\$ -	\$ -	\$ 413
295		Total	\$ 11,298				\$ -	\$ 295	\$ 506	\$ 9,234	\$ 9,529	\$ 10,034
296	103790	General Plant	\$									
297		EMERG EYEWASH STNS (WWC SHARE)	\$ 2,082	10/1/1996	MACRS 7	7	\$ -	\$ -	\$ -	\$ 2,082	\$ 2,082	\$ 2,082
298		FIRE HYDRANT REACTION BLOCKS	\$ 10,188	7/3/1/1997	MACRS 7	7	\$ -	\$ -	\$ -	\$ 10,188	\$ 10,188	\$ 10,188
299		Total	\$ 12,270				\$ -	\$ -	\$ -	\$ 12,270	\$ 12,270	\$ 12,270
300		CONTRIBUTIONS IN AID OF CONSTRUCTION	\$									
301	103110	Structures & Improvement - Supply Plant	\$									
302		DWG ACCESS ROAD, SITE & DRAINAGE	\$ (38,079)	5/22/1997	SL-25	25	\$ (1,523)	\$ (1,523)	\$ (1,523)	\$ (30,463)	\$ (31,986)	\$ (33,509)
303		DWG3 CONTROL BUILDING	\$ (16,912)	5/22/1997	SL-25	25	\$ (676)	\$ (676)	\$ (676)	\$ (13,530)	\$ (14,206)	\$ (14,883)

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - State (Detail)
 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
304		DW3 FENCE	\$ (3,653)	5/22/1997	SL-25	25	\$ (154)	\$ (154)	\$ (154)	\$ (3,083)	\$ (3,237)	\$ (3,391)
305		DW3 LIGHT FIXTURES	\$ (385)	5/22/1997	SL-25	25	\$ (15)	\$ (15)	\$ (15)	\$ (308)	\$ (324)	\$ (339)
306		DW4 ELEC UPGRADE-ENCLOSURE	\$ (5,144)	3/1/1997	SL-25	25	\$ (206)	\$ (206)	\$ (206)	\$ (4,115)	\$ (4,321)	\$ (4,527)
307		DW4&5 ELEC UPGRADE-SPARE PARTS	\$ (2,456)	3/1/1997	SL-25	25	\$ (98)	\$ (98)	\$ (98)	\$ (1,965)	\$ (2,063)	\$ (2,161)
308		DW5 ELEC UPGRADE-ENCLOSURE	\$ (5,088)	3/1/1997	SL-25	25	\$ (204)	\$ (204)	\$ (204)	\$ (4,071)	\$ (4,274)	\$ (4,478)
309		ORIGINAL PLANT STRUCTURE	\$ (1,638)	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (1,638)	\$ (1,638)	\$ (1,638)
310		Total	\$ (73,556)				\$ (2,877)	\$ (2,877)	\$ (2,877)	\$ (59,172)	\$ (62,049)	\$ (64,925)
311		103310 Structures & Improvement - Treatment Plant										
312		ORIGINAL PLANT-STRUCTURE-TREATMENT	\$ (6,487)	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (6,487)	\$ (6,487)	\$ (6,487)
313		Total	\$ (6,487)				\$ -	\$ -	\$ -	\$ (6,487)	\$ (6,487)	\$ (6,487)
314		103410 Structures & Improvement - Transmission & Distribution Plant										
315		Chain Link Fence WHWC Portion CIAC	\$ (19,714)	9/1/2010	SL-25	25	\$ (789)	\$ (789)	\$ (789)	\$ (5,520)	\$ (6,309)	\$ (7,097)
316		Total	\$ (19,714)				\$ (789)	\$ (789)	\$ (789)	\$ (5,520)	\$ (6,309)	\$ (7,097)
317		103411 Structures & Improvement - Pavement										
318		Concrete Pavement WHWC Portion CIAC	\$ (17,353)	6/1/2010	SL-25	25	\$ (694)	\$ (694)	\$ (694)	\$ (4,859)	\$ (5,553)	\$ (6,247)
319		Total	\$ (17,353)				\$ (694)	\$ (694)	\$ (694)	\$ (4,859)	\$ (5,553)	\$ (6,247)
320		103240 Pumping Equipment										
321		17th Fairway Villas	\$ (57,899)	2/28/2007	SL-25	25	\$ (2,316)	\$ (2,316)	\$ (2,316)	\$ (23,163)	\$ (25,475)	\$ (27,791)
322		17th Fairway Villas CIAC	\$ (13,952)	2/28/2007	SL-25	25	\$ (558)	\$ (558)	\$ (558)	\$ (5,581)	\$ (6,139)	\$ (6,697)
323		Castle & Cooke PH I	\$ (143,700)	2/28/2007	SL-25	25	\$ (5,748)	\$ (5,748)	\$ (5,748)	\$ (57,480)	\$ (63,228)	\$ (68,976)
324		Castle & Cooke PH II CIAC	\$ (131,930)	2/28/2007	SL-25	25	\$ (5,277)	\$ (5,277)	\$ (5,277)	\$ (52,772)	\$ (58,049)	\$ (63,326)
325		Castle & Cooke PH II CIAC	\$ (76,371)	2/28/2007	SL-25	25	\$ (3,055)	\$ (3,055)	\$ (3,055)	\$ (30,548)	\$ (33,603)	\$ (36,658)
326		Castle & Cooke PH II CIAC	\$ (71,310)	2/28/2007	SL-25	25	\$ (2,852)	\$ (2,852)	\$ (2,852)	\$ (28,524)	\$ (31,376)	\$ (34,229)
327		Castle & Cooke PH II CIAC	\$ (75,022)	2/28/2007	SL-25	25	\$ (3,001)	\$ (3,001)	\$ (3,001)	\$ (30,009)	\$ (33,009)	\$ (36,010)
328		Castle & Cooke PH II CIAC	\$ (16,825)	2/28/2007	SL-25	25	\$ (673)	\$ (673)	\$ (673)	\$ (6,730)	\$ (7,403)	\$ (8,076)
329		Castle & Cooke Unit 102 CIAC	\$ (2,298)	2/28/2007	SL-25	25	\$ (92)	\$ (92)	\$ (92)	\$ (919)	\$ (1,011)	\$ (1,103)
330		Castle & Cooke Unit 102 CIAC	\$ (138,986)	2/28/2007	SL-25	25	\$ (5,559)	\$ (5,559)	\$ (5,559)	\$ (55,594)	\$ (61,154)	\$ (66,713)
331		CIAC - VE LOT 135-APPLIED TO DW-1 FUEL HANDL	\$ (7,983)	1/13/2000	SL-25	25	\$ (319)	\$ (319)	\$ (319)	\$ (5,428)	\$ (5,748)	\$ (6,067)
332		CIAC-WHWC Share-DW#2 Emergency cost	\$ (89,921)	12/31/2007	SL-25	25	\$ (3,597)	\$ (3,597)	\$ (3,597)	\$ (35,968)	\$ (39,565)	\$ (43,162)
333		CIAC-WHWC Share-DW#3 Emergency cost	\$ (63,698)	12/31/2007	SL-25	25	\$ (2,546)	\$ (2,546)	\$ (2,546)	\$ (25,479)	\$ (28,027)	\$ (30,575)
334		COH Employee Housing	\$ (335,947)	2/28/2007	SL-25	25	\$ (13,438)	\$ (13,438)	\$ (13,438)	\$ (134,379)	\$ (147,817)	\$ (161,254)
335		COH PARK CIAC/DW4 OIL TUBES & COLUMN	\$ (29,928)	2/1/2000	SL-25	25	\$ (1,197)	\$ (1,197)	\$ (1,197)	\$ (20,351)	\$ (21,548)	\$ (22,745)
336		DW-1 IMPROVEMENT BACKUP POWER	\$ (13,757)	5/3/1997	SL-25	25	\$ (550)	\$ (550)	\$ (550)	\$ (11,005)	\$ (11,555)	\$ (12,106)
337		DW3 450HP MOTOR	\$ (19,267)	5/22/1997	SL-25	25	\$ (771)	\$ (771)	\$ (771)	\$ (15,413)	\$ (16,184)	\$ (16,955)
338		DW3 ELECTRICAL PARTS	\$ (2,921)	5/22/1997	SL-25	25	\$ (117)	\$ (117)	\$ (117)	\$ (2,337)	\$ (2,454)	\$ (2,570)
339		DW3 ELECTRICAL SYSTEM	\$ (101,594)	5/22/1997	SL-25	25	\$ (4,064)	\$ (4,064)	\$ (4,064)	\$ (81,275)	\$ (85,339)	\$ (89,403)
340		DW3 PUMP (CAPT LEASE-WHWC SHARE)	\$ (17,039)	5/22/1997	SL-25	25	\$ (652)	\$ (652)	\$ (652)	\$ (13,631)	\$ (14,313)	\$ (14,994)
341		DW3 PUMP CONTROL VALVES & METERS	\$ (24,035)	5/22/1997	SL-25	25	\$ (961)	\$ (961)	\$ (961)	\$ (19,228)	\$ (20,190)	\$ (21,151)
342		DW3 SPARE MOTOR BEARING	\$ (867)	5/22/1997	SL-25	25	\$ (35)	\$ (35)	\$ (35)	\$ (694)	\$ (728)	\$ (763)
343		DW3 SWITCHES,COMPRESSOR,VALVE	\$ (11,464)	5/22/1997	SL-25	25	\$ (459)	\$ (459)	\$ (459)	\$ (9,171)	\$ (9,630)	\$ (10,088)
344		DW3 WTR COLUMN/OIL TUBE/SHAFT	\$ (82,654)	5/22/1997	SL-25	25	\$ (3,306)	\$ (3,306)	\$ (3,306)	\$ (66,123)	\$ (69,430)	\$ (72,736)
345		DW4 ELEC UPGRADE-ELEC WORK	\$ (26,571)	3/1/1997	SL-25	25	\$ (1,063)	\$ (1,063)	\$ (1,063)	\$ (21,257)	\$ (22,319)	\$ (23,382)

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
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 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
345		DWA4 ELEC UPGRADE-EQUIP	\$ (6,111)	3/1/1997	SL-25	25	\$ (244)	\$ (244)	\$ (244)	\$ (4,889)	\$ (5,134)	\$ (5,378)
347		DWA4 REPLACE OIL TUBES-CIAC	\$ (4,193)	10/1/1999	SL-25	25	\$ (168)	\$ (168)	\$ (166)	\$ (3,019)	\$ (3,187)	\$ (3,354)
348		DW5 ELEC UPGRADE-ELEC WORK	\$ (23,506)	3/1/1997	SL-25	25	\$ (940)	\$ (940)	\$ (940)	\$ (18,805)	\$ (19,745)	\$ (20,685)
349		DW5 ELEC UPGRADE-EQUIPMENT	\$ (6,111)	3/1/1997	SL-25	25	\$ (244)	\$ (244)	\$ (244)	\$ (4,889)	\$ (5,134)	\$ (5,378)
350		Kihohana Kai PH 11 CIAC	\$ (105,211)	2/28/2007	SL-25	25	\$ (4,208)	\$ (4,208)	\$ (4,200)	\$ (42,085)	\$ (46,293)	\$ (50,501)
351		Kihohana Kai PH 11 CIAC	\$ (9,873)	2/28/2007	SL-25	25	\$ (395)	\$ (395)	\$ (395)	\$ (3,949)	\$ (4,344)	\$ (4,739)
352		Kihohana Kai PH 11 CIAC	\$ (7,327)	2/28/2007	SL-25	25	\$ (293)	\$ (293)	\$ (293)	\$ (2,931)	\$ (3,224)	\$ (3,517)
353		Paniolo Gardens CIAC	\$ (30,159)	2/28/2007	SL-25	25	\$ (1,206)	\$ (1,206)	\$ (1,206)	\$ (12,064)	\$ (13,270)	\$ (14,476)
354		Puu Meia Street CIAC	\$ (44,471)	2/28/2007	SL-25	25	\$ (1,779)	\$ (1,779)	\$ (1,779)	\$ (17,788)	\$ (19,567)	\$ (21,346)
355		Puu Meia Street CIAC	\$ (9,877)	2/28/2007	SL-25	25	\$ (395)	\$ (395)	\$ (395)	\$ (3,951)	\$ (4,346)	\$ (4,741)
356		Puu Meia Street CIAC	\$ (28,117)	2/28/2007	SL-25	25	\$ (1,125)	\$ (1,125)	\$ (1,125)	\$ (11,247)	\$ (12,371)	\$ (13,496)
357		Puu Meia Street CIAC	\$ (35,512)	2/28/2007	SL-25	25	\$ (1,420)	\$ (1,420)	\$ (1,420)	\$ (14,205)	\$ (15,625)	\$ (17,046)
358		The Pointe at Waikoloa CIAC	\$ (46,126)	2/28/2007	SL-25	25	\$ (1,845)	\$ (1,845)	\$ (1,845)	\$ (18,450)	\$ (20,295)	\$ (22,141)
359		Village Estates 2A2	\$ (107,946)	2/28/2007	SL-25	25	\$ (4,318)	\$ (4,318)	\$ (4,318)	\$ (43,178)	\$ (47,496)	\$ (51,814)
360		Village Estates 2A2 CIAC	\$ (19,788)	2/28/2007	SL-25	25	\$ (792)	\$ (792)	\$ (792)	\$ (7,915)	\$ (8,707)	\$ (9,498)
361		Waikoloa Heights CIAC	\$ (52,961)	2/28/2007	SL-25	25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
362			Total \$ (2,092,625)				\$ (61,611)	\$ (61,611)	\$ (61,611)	\$ (962,421)	\$ (1,044,031)	\$ (1,125,642)
363	103241	System Control Computer Equipment	\$ (17,871)	9/1/2010	SL-25	25	\$ (715)	\$ (715)	\$ (715)	\$ (5,004)	\$ (5,719)	\$ (6,434)
364		SCADA WHWC Portion CIAC	\$ -				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
365		Total	\$ (17,871)				\$ (715)	\$ (715)	\$ (715)	\$ (5,004)	\$ (5,719)	\$ (6,434)
366	103320	Treatment & Disposal Equipment	\$ (6,084)	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (6,084)	\$ (6,084)	\$ (6,084)
367		ORIG PLANT-TREATMENT-EQUIPMENT	\$ -				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
368		Total	\$ (6,084)				\$ -	\$ -	\$ -	\$ (6,084)	\$ (6,084)	\$ (6,084)
369	103431	A.C.	\$ (365,146)	1/1/2008	SL-25	25	\$ (14,606)	\$ (14,606)	\$ (14,606)	\$ (131,452)	\$ (146,058)	\$ (160,664)
370		CIAC-Castle&Cooke-Dedicated Water Lines-Kikaha@Wehili	\$ (670,639)	1/1/2008	SL-25	25	\$ (26,826)	\$ (26,826)	\$ (26,826)	\$ (241,430)	\$ (268,255)	\$ (295,081)
371		CIAC-Clearly Waikoloa-Dedicated Water Facit	\$ (33,221)	1/1/1999	SL-25	25	\$ (1,329)	\$ (1,329)	\$ (1,329)	\$ (23,919)	\$ (25,248)	\$ (26,577)
372		CIAC-SRIII-FEES-RELATED TO V.E. CONNECTION	\$ -				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
373		CIAC-US P.O.-APPLIED TO VE CONN (INTERNAL BOO	\$ (7,469)	7/16/1999	SL-25	25	\$ (299)	\$ (299)	\$ (299)	\$ (5,378)	\$ (5,676)	\$ (5,975)
374		CIAC-W.H.I CONCRETE-APPLIED TO VE CONN (INTERNAL	\$ (8,205)	5/25/1999	SL-25	25	\$ (328)	\$ (328)	\$ (328)	\$ (5,908)	\$ (6,236)	\$ (6,564)
375		DW3 PIPELINE-DCT IRON	\$ (90,868)	5/22/1997	SL-25	25	\$ (3,635)	\$ (3,635)	\$ (3,635)	\$ (72,694)	\$ (76,329)	\$ (79,964)
376		HHA KEKUMU WTR FAC	\$ (47,793)	4/1/1996	SL-25	25	\$ (1,912)	\$ (1,912)	\$ (1,912)	\$ (40,146)	\$ (42,058)	\$ (43,969)
377		Ho'oko Street Park-CIAC	\$ (107,190)	1/1/2008	SL-25	25	\$ (4,288)	\$ (4,288)	\$ (4,288)	\$ (36,588)	\$ (42,876)	\$ (47,164)
378		KEKUMU III-FACILITIES	\$ (28,439)	1/1/1997	SL-25	25	\$ (1,138)	\$ (1,138)	\$ (1,138)	\$ (22,751)	\$ (23,893)	\$ (25,026)
379		ORIG PLANT-DISTRIBUITION MAIN	\$ (3,486,947)	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (3,486,947)	\$ (3,486,947)	\$ (3,486,947)
380		ORIG PLANT-SUPPLY MAIN	\$ (26,282)	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (26,282)	\$ (26,282)	\$ (26,282)
381		PANILOLO ESTATES EASEMENT	\$ (255,114)	1/1/1993	SL-25	25	\$ (10,245)	\$ (10,245)	\$ (10,245)	\$ (245,869)	\$ (256,114)	\$ (256,114)
382		SRIII-1-2-FACILITIES	\$ (71,547)	10/30/1998	SL-25	25	\$ (2,862)	\$ (2,862)	\$ (2,862)	\$ (54,376)	\$ (57,238)	\$ (60,099)
383		SUNSET RIDGE III-1 (DEDICATED)	\$ (47,909)	1/1/1998	SL-25	25	\$ (1,916)	\$ (1,916)	\$ (1,916)	\$ (36,411)	\$ (38,327)	\$ (40,243)
384		Sunset Ridge PH2 Inc2 Unit2-A Dedicated Water	\$ (87,624)	9/26/2005	SL-25	25	\$ (3,505)	\$ (3,505)	\$ (3,505)	\$ (42,059)	\$ (45,564)	\$ (49,069)
385		Sunset Ridge PH3 Unit 2 41 Lots-Dedicated Wat	\$ (205,477)	9/26/2005	SL-25	25	\$ (8,259)	\$ (8,259)	\$ (8,259)	\$ (99,109)	\$ (107,368)	\$ (115,627)
386		Sunset Ridge PH3 Unit3 15 lots-Dedicated Wate	\$ (156,869)	9/26/2005	SL-25	25	\$ (6,275)	\$ (6,275)	\$ (6,275)	\$ (75,287)	\$ (81,572)	\$ (87,847)
387		TRI WTR FAC-SIR II-1	\$ (48,617)	6/1/1995	SL-25	25	\$ (1,945)	\$ (1,945)	\$ (1,945)	\$ (44,727)	\$ (47,672)	\$ (50,617)
388		TRI WTR FAC-SIR II-2	\$ (17,623)	3/1/1996	SL-25	25	\$ (705)	\$ (705)	\$ (705)	\$ (14,804)	\$ (15,509)	\$ (16,214)

Waikoba Water Co., Inc. Dba West Hawaii Water Company
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Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
389		V.E. CONNECTION CIAC	\$ (7,524)	10/17/1993	SL-25	25	\$ (301)	\$ (301)	\$ (301)	\$ (5,417)	\$ (5,716)	\$ (6,019)
390		V.E. LOT 135-DEDICATED CIAC	\$ (41,266)	9/28/1998	SL-25	25	\$ (1,861)	\$ (1,651)	\$ (1,651)	\$ (29,711)	\$ (31,362)	\$ (33,012)
391		VILLAGE ESTATES (WATERLINE)	\$ (332,352)	8/1/1994	SL-25	25	\$ (13,294)	\$ (13,294)	\$ (13,294)	\$ (305,764)	\$ (319,056)	\$ (332,352)
392		Total	\$ (6,146,118)				\$ (105,316)	\$ (105,316)	\$ (95,071)	\$ (5,047,595)	\$ (5,152,410)	\$ (5,247,481)
393	103435	Ductile Iron Pipe										
394		106' Ductile Iron Pipe 12" WHWC CIAC	\$ (6,078)	9/1/2010	SL-25	25	\$ (243)	\$ (243)	\$ (243)	\$ (1,702)	\$ (1,945)	\$ (2,188)
395		117' Ductile Iron Pipe 16" WHWC CIAC	\$ (1,835)	9/1/2010	SL-25	25	\$ (473)	\$ (473)	\$ (473)	\$ (3,314)	\$ (3,787)	\$ (4,260)
396		380' Ductile Iron Pipe 18" WHWC CIAC	\$ (34,279)	9/1/2010	SL-25	25	\$ (1,371)	\$ (1,371)	\$ (1,371)	\$ (9,598)	\$ (10,969)	\$ (12,341)
397		Total	\$ (52,192)				\$ (2,089)	\$ (2,089)	\$ (2,089)	\$ (14,614)	\$ (16,701)	\$ (18,789)
398	103450	Services										
399		ORIG PLANT-SERVICE (LATERALS)	\$ (23,272)	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (23,272)	\$ (23,272)	\$ (23,272)
400		Total	\$ (23,272)				\$ -	\$ -	\$ -	\$ (23,272)	\$ (23,272)	\$ (23,272)
401	103460	Meters & Meter Boxes										
402		1" meter - post office-Maryl CIAC 2700.103	\$ (3,118)	11/10/1999	SL-25	25	\$ (125)	\$ (125)	\$ (125)	\$ (2,245)	\$ (2,369)	\$ (2,494)
403		2" meter - WHC quarry CIAC 2700.103	\$ (6,196)	7/8/1999	SL-25	25	\$ (248)	\$ (248)	\$ (248)	\$ (4,461)	\$ (4,709)	\$ (4,957)
404		CIAC-METERS IN SERVICE 12/98-5/99 2700.103	\$ (3,092)	5/27/1998	SL-25	25	\$ (124)	\$ (124)	\$ (124)	\$ (2,226)	\$ (2,350)	\$ (2,474)
405		CIAC-METERS IN SERVICE 8/04-12/07	\$ (40,489)	1/1/2008	SL-25	25	\$ (1,620)	\$ (1,620)	\$ (1,620)	\$ (14,576)	\$ (16,196)	\$ (17,815)
406		HO OKO STREET PARK METER-CIAC 2700.098	\$ (1,313)	2/4/1998	SL-25	25	\$ (53)	\$ (53)	\$ (53)	\$ (998)	\$ (1,050)	\$ (1,103)
407		KEKUMU III METER 2700.083	\$ (7,768)	3/1/1997	SL-25	25	\$ (311)	\$ (311)	\$ (311)	\$ (6,214)	\$ (6,525)	\$ (6,835)
408		Meters in Service 10/4-7/04	\$ (9,007)	7/3/2004	SL-25	25	\$ (360)	\$ (360)	\$ (360)	\$ (4,683)	\$ (5,044)	\$ (5,404)
409		METERS IN SERVICE 1/98-6/98 CIAC 2700.098	\$ (3,337)	6/30/1998	SL-25	25	\$ (133)	\$ (133)	\$ (133)	\$ (2,536)	\$ (2,669)	\$ (2,803)
410		Meters in Service 11/02-12/03	\$ (7,648)	12/3/2003	SL-25	25	\$ (306)	\$ (306)	\$ (306)	\$ (4,283)	\$ (4,599)	\$ (4,914)
411		METERS IN SERVICE 12/00-8/01	\$ (3,261)	8/3/2001	SL-25	25	\$ (130)	\$ (130)	\$ (130)	\$ (2,087)	\$ (2,277)	\$ (2,467)
412		Meters in Service 12/01-5/02	\$ (3,557)	5/31/2002	SL-25	25	\$ (142)	\$ (142)	\$ (142)	\$ (2,134)	\$ (2,277)	\$ (2,419)
413		METERS IN SERVICE 12/99-5/00 CIAC	\$ (5,302)	5/23/2000	SL-25	25	\$ (212)	\$ (212)	\$ (212)	\$ (3,606)	\$ (3,818)	\$ (4,030)
414		METERS IN SERVICE 6/00-11/00	\$ (4,177)	11/30/2000	SL-25	25	\$ (167)	\$ (167)	\$ (167)	\$ (2,841)	\$ (3,008)	\$ (3,175)
415		Meters in Service 6/02-11/02	\$ (4,142)	11/30/2002	SL-25	25	\$ (166)	\$ (166)	\$ (166)	\$ (2,485)	\$ (2,651)	\$ (2,817)
416		Meters in Service 6/99-11/99 CIAC 2700.103	\$ (2,785)	11/29/1999	SL-25	25	\$ (111)	\$ (111)	\$ (111)	\$ (2,005)	\$ (2,116)	\$ (2,228)
417		Meters in Service 7/01-11/01	\$ (3,927)	11/30/2001	SL-25	25	\$ (157)	\$ (157)	\$ (157)	\$ (2,513)	\$ (2,671)	\$ (2,828)
418		METERS IN SERVICE 7/98-11/98 CIAC 2700.098	\$ (1,692)	11/30/1998	SL-25	25	\$ (68)	\$ (68)	\$ (68)	\$ (1,286)	\$ (1,354)	\$ (1,422)
419		METERS IN SVC 1994 2700.066	\$ (12,163)	12/31/1994	SL-25	25	\$ (487)	\$ (487)	\$ (487)	\$ (11,180)	\$ (11,676)	\$ (12,163)
420		METERS IN SVC 1995 2700.067	\$ (6,839)	12/31/1995	SL-25	25	\$ (354)	\$ (354)	\$ (354)	\$ (7,778)	\$ (8,132)	\$ (8,485)
421		METERS IN SVC 1996 2700.069	\$ (3,107)	12/31/1996	SL-25	25	\$ (124)	\$ (124)	\$ (124)	\$ (2,610)	\$ (2,734)	\$ (2,859)
422		METERS IN SVC 1997 2700.070	\$ (4,658)	12/31/1997	SL-25	25	\$ (186)	\$ (186)	\$ (186)	\$ (3,726)	\$ (3,913)	\$ (4,099)
423		Total	\$ (139,578)				\$ (5,583)	\$ (5,583)	\$ (5,583)	\$ (86,484)	\$ (92,067)	\$ (97,650)
424	103420	Reservoirs & Tanks										
425		CIAC-SRIII-FEES-RELATED TO TANK 1200S-2	\$ (47,228)	1/1/1999	SL-25	25	\$ (1,889)	\$ (1,889)	\$ (1,889)	\$ (34,004)	\$ (35,894)	\$ (37,783)
426		CIAC-Tank 900 Reservoir Replacement-CEMENT	\$ (85,497)	5/19/2005	SL-25	25	\$ (3,420)	\$ (3,420)	\$ (3,420)	\$ (41,039)	\$ (44,458)	\$ (47,878)
427		CIAC-Tank 900 Reservoir Replacement-PIPING	\$ (4,113)	5/19/2005	SL-25	25	\$ (165)	\$ (165)	\$ (165)	\$ (1,974)	\$ (2,139)	\$ (2,303)
428		CIAC-Tank 900 Reservoir Replacement-VALVES	\$ (462)	5/19/2005	SL-25	25	\$ (18)	\$ (18)	\$ (18)	\$ (222)	\$ (240)	\$ (259)
429		CIAC-VE LOT 135-APPLIED TO TANK 1200S2 (INTERN	\$ (42,578)	12/7/1998	SL-25	25	\$ (1,703)	\$ (1,703)	\$ (1,703)	\$ (32,359)	\$ (34,062)	\$ (35,765)
430		ORIG PLANT-DISTRIBUTION RESERVOIR	\$ (316,536)	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (316,536)	\$ (316,536)	\$ (316,536)
431		TANK 1200S-2-PARTIAL-1997 CIAC	\$ (142,532)	11/20/1997	SL-25	25	\$ (5,701)	\$ (5,701)	\$ (5,701)	\$ (114,026)	\$ (119,727)	\$ (125,428)

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
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Line No.	Utility Account	Property Description	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
						2016	2017	2018	2016	2017	2018
432		WHWC 1 Mil Gal Steel Bolted Tank CIAC	9/1/2010	SL-25	25	\$ (30,113)	\$ (30,113)	\$ (30,113)	\$ (210,788)	\$ (240,901)	\$ (271,014)
433		Total				\$ (43,009)	\$ (43,009)	\$ (43,009)	\$ (750,948)	\$ (793,957)	\$ (836,986)
434	103150	Wells									
435		Imputed interest on DW3 CIAC	10/31/1999	SL-25	25	\$ (1,192)	\$ (1,192)	\$ (1,192)	\$ (21,462)	\$ (22,655)	\$ (23,847)
436		ORIGINAL PLANT-DW4,DW5	1/1/1974	SL-25	25	\$ -	\$ -	\$ -	\$ (213,036)	\$ (213,036)	\$ (213,036)
437		WAIKOLOA WELL #3	5/22/1997	SL-25	25	\$ (15,825)	\$ (15,825)	\$ (15,825)	\$ (316,493)	\$ (332,318)	\$ (346,143)
438		Total				\$ (17,017)	\$ (17,017)	\$ (17,017)	\$ (550,992)	\$ (568,009)	\$ (585,026)
439	103721	Electronic Equipment/Computers									
440		DW3 SCADA SYSTEM	5/22/1997	MACRS 7	7	\$ -	\$ -	\$ -	\$ (4,576)	\$ (4,576)	\$ (4,576)
441		Total				\$ -	\$ -	\$ -	\$ (4,576)	\$ (4,576)	\$ (4,576)
442	103790	General Plant									
443		FIRE REACTION BLOCKS	10/11/1999	MACRS 7	7	\$ -	\$ -	\$ -	\$ (10,188)	\$ (10,188)	\$ (10,188)
444		Total				\$ -	\$ -	\$ -	\$ (10,188)	\$ (10,188)	\$ (10,188)
445		Global Settlement									
446		CASTLE & COOKE PHASE II	10/1/2012	SL-25	25	\$ (745)	\$ (745)	\$ (745)	\$ (3,726)	\$ (4,472)	\$ (5,217)
447		COH WORKFORCE HOUSING PROJECT	10/1/2012	SL-25	25	\$ (30,829)	\$ (30,829)	\$ (30,829)	\$ (154,147)	\$ (184,976)	\$ (215,806)
448		WAIKOLOA HEIGHTS	10/1/2012	SL-25	25	\$ (26,425)	\$ (26,425)	\$ (26,425)	\$ (132,124)	\$ (158,546)	\$ (184,973)
449		TOWN REALTY	10/1/2012	SL-25	25	\$ (11,910)	\$ (11,910)	\$ (11,910)	\$ (59,648)	\$ (71,456)	\$ (83,367)
450		VILLAGE ESTATES 2A2	10/1/2012	SL-25	25	\$ (4,459)	\$ (4,459)	\$ (4,459)	\$ (22,295)	\$ (26,754)	\$ (31,213)
451		CLEARLY WAIKOLOA	10/1/2012	SL-25	25	\$ (2,842)	\$ (2,842)	\$ (2,842)	\$ (14,212)	\$ (17,064)	\$ (19,896)
452		KINGDOM HALL	10/1/2012	SL-25	25	\$ (145)	\$ (145)	\$ (145)	\$ (723)	\$ (868)	\$ (1,012)
453		METRIC HOLDING PROJECTED RESIDENTIAL CIAC	10/1/2012	SL-25	25	\$ (7,670)	\$ (7,670)	\$ (7,670)	\$ (38,351)	\$ (46,021)	\$ (53,691)
454		Total				\$ (85,025)	\$ (85,025)	\$ (85,025)	\$ (425,125)	\$ (510,150)	\$ (585,176)
455		HAWAII GENERAL OFFICE									
456		790 Leasehold Improvements	5/1/2015	MACRS 7	7	\$ 3,965	\$ 2,832	\$ 2,022	\$ 6,279	\$ 9,110	\$ 11,133
457		desks, cont table, chairs	3/1/2010	MACRS 7	7	\$ 262	\$ 131	\$ -	\$ 2,807	\$ 2,938	\$ 2,938
458		2 Cubical Work Stations	12/1/2010	MACRS 7	7	\$ 484	\$ 242	\$ -	\$ 5,182	\$ 5,424	\$ 5,424
459		Cherry Desk	12/1/2010	MACRS 7	7	\$ 73	\$ 37	\$ -	\$ 784	\$ 821	\$ 821
460		Cherry Drawer	12/1/2010	MACRS 7	7	\$ 6	\$ 3	\$ -	\$ 65	\$ 68	\$ 68
461		Cherry Credenza	12/1/2010	MACRS 7	7	\$ 44	\$ 22	\$ -	\$ 467	\$ 489	\$ 489
462		Cherry Corner Unit	12/1/2010	MACRS 7	7	\$ 35	\$ 17	\$ -	\$ 371	\$ 388	\$ 388
463		Regency Library	12/1/2010	MACRS 7	7	\$ 24	\$ 12	\$ -	\$ 260	\$ 272	\$ 272
464		Chairs	12/1/2010	MACRS 7	7	\$ 175	\$ 87	\$ -	\$ 1,868	\$ 1,955	\$ 1,955
465		Cherry Desk Shell 66"	12/1/2010	MACRS 7	7	\$ 37	\$ 18	\$ -	\$ 393	\$ 412	\$ 412
466		24" x 71" Credenza Shells	12/1/2010	MACRS 7	7	\$ 68	\$ 34	\$ -	\$ 727	\$ 761	\$ 761
467		Cherry Keyboard Drawer	12/1/2010	MACRS 7	7	\$ 6	\$ 3	\$ -	\$ 65	\$ 68	\$ 68
468		Executive Chair	12/1/2010	MACRS 7	7	\$ 34	\$ 17	\$ -	\$ 359	\$ 376	\$ 376
469		Desk Pedestal F/F	12/1/2010	MACRS 7	7	\$ 40	\$ 20	\$ -	\$ 429	\$ 449	\$ 449
470		Cherry Shelf Unit	12/1/2010	MACRS 7	7	\$ 26	\$ 13	\$ -	\$ 282	\$ 295	\$ 295
471		Cherry Storage Hutch	12/1/2010	MACRS 7	7	\$ 42	\$ 21	\$ -	\$ 447	\$ 468	\$ 468

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
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 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
472		Cherry Credenza 66"	\$ 320	12/1/2010	MACRS 7	7	\$ 29	\$ 14	\$ -	\$ 306	\$ 320	\$ 320
473		Regency Desk	\$ 661	12/1/2010	MACRS 7	7	\$ 61	\$ 30	\$ -	\$ 651	\$ 681	\$ 681
474		2 Drawer Lateral File	\$ 948	12/1/2010	MACRS 7	7	\$ 85	\$ 42	\$ -	\$ 906	\$ 948	\$ 948
475		3, 42" 4 Drawer Lateral File Cabinets	\$ 2,754	12/1/2010	MACRS 7	7	\$ 246	\$ 123	\$ -	\$ 2,631	\$ 2,754	\$ 2,754
476		Cherry Desk Pedestal B/B/F	\$ 492	12/1/2010	MACRS 7	7	\$ 44	\$ 22	\$ -	\$ 471	\$ 492	\$ 492
477		Regency Lateral File	\$ 545	12/1/2010	MACRS 7	7	\$ 49	\$ 24	\$ -	\$ 520	\$ 545	\$ 545
478		Fireproof safe for Customer Service office.	\$ 2,291	12/1/2011	MACRS 7	5	\$ 204	\$ 205	\$ 102	\$ 1,984	\$ 2,189	\$ 2,291
479		Rich Afico MP C3001	\$ 2,923	5/1/2015	MACRS 5	5	\$ 935	\$ 561	\$ 337	\$ 1,520	\$ 2,081	\$ 2,418
480		790 Office Furniture	\$ 806	5/1/2015	MACRS 5	5	\$ 148	\$ 106	\$ 76	\$ 235	\$ 341	\$ 416
481		Automated Electronic Detritillators	\$ 6,875	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 6,875	\$ 6,875	\$ 6,875
482		License for Captura Now	\$ 227	12/1/2010	MACRS 3	3	\$ -	\$ -	\$ -	\$ 227	\$ 227	\$ 227
483		Fujitsu F6140 scanner	\$ 1,599	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 1,599	\$ 1,599	\$ 1,599
484		Rich MP 4001SP Copier w/Finisher	\$ 10,259	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 10,259	\$ 10,259	\$ 10,259
485		Monitors	\$ 1,159	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 1,159	\$ 1,159	\$ 1,159
486		Mile EP Dig 6 Line Model 8560 Telephone	\$ 7,778	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 7,778	\$ 7,778	\$ 7,778
487		ELECTRONICS [681]	\$ 714	12/1/2011	MACRS 5	5	\$ 41	\$ -	\$ -	\$ 714	\$ 714	\$ 714
488		8-way video conferencing system	\$ 35,698	12/1/2011	MACRS 5	5	\$ 2,056	\$ -	\$ -	\$ 35,698	\$ 35,698	\$ 35,698
489		Hewlett Packard laser printer	\$ 1,066	12/1/2011	MACRS 5	5	\$ 61	\$ -	\$ -	\$ 1,066	\$ 1,066	\$ 1,066
490		Desktop-HIWKLC340	\$ 774	12/1/2014	MACRS 5	5	\$ 149	\$ 89	\$ 89	\$ 551	\$ 640	\$ 730
491		Desktop-HIWKLC339	\$ 774	12/1/2014	MACRS 5	5	\$ 149	\$ 89	\$ 89	\$ 551	\$ 640	\$ 730
492		Desktop-HIWKLC337	\$ 774	12/1/2014	MACRS 5	5	\$ 149	\$ 89	\$ 89	\$ 551	\$ 640	\$ 730
493		Desktop-HIWKLC338	\$ 774	12/1/2014	MACRS 5	5	\$ 149	\$ 89	\$ 89	\$ 551	\$ 640	\$ 730
494		Desktop-HIWKLC336	\$ 774	12/1/2014	MACRS 5	5	\$ 149	\$ 89	\$ 89	\$ 551	\$ 640	\$ 730
495		Desktop-HIWKLC341	\$ 774	12/1/2014	MACRS 5	5	\$ 149	\$ 89	\$ 89	\$ 551	\$ 640	\$ 730
496		790 Server & Server room upgrade	\$ 16,944	5/1/2015	MACRS 5	5	\$ 5,422	\$ 3,253	\$ 1,952	\$ 8,811	\$ 12,064	\$ 14,016
497		Hawai Business Unit Software	\$ 127,067	12/1/2010	MACRS 3	3	\$ -	\$ -	\$ -	\$ 127,067	\$ 127,067	\$ 127,067
498		RMS Software	\$ 86,732	3/1/2014	MACRS 3	3	\$ 13,141	\$ 6,575	\$ -	\$ 82,157	\$ 86,732	\$ 86,732
499		phone system with 8 phones	\$ 23,864	3/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 23,864	\$ 23,864	\$ 23,864
500		Miscellaneous Kitchen Equipment	\$ 941	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 941	\$ 941	\$ 941
501		laptop for CS Mgr	\$ 1,435	4/1/2014	MACRS 5	5	\$ 276	\$ 165	\$ 165	\$ 1,023	\$ 1,188	\$ 1,353
502		Total	\$ 371,938				\$ 29,011	\$ 15,165	\$ 5,189	\$ 342,553	\$ 357,719	\$ 382,908
503		HAWAII GENERAL OFFICE ALLOCATIONS										
504		700 - Kaaanapali	\$ 80,808	21.73%			\$ 6,303	\$ 3,295	\$ 1,127	\$ 74,423	\$ 77,718	\$ 78,846
505		701 - Pukalani	\$ 25,558	6.87%			\$ 1,994	\$ 1,042	\$ 357	\$ 23,539	\$ 24,561	\$ 24,937
506		721 - Waikoloa Water	\$ 47,725	12.83%			\$ 3,723	\$ 1,946	\$ 668	\$ 43,954	\$ 45,900	\$ 46,566
507		722 - Waikoloa Sewer	\$ 37,260	10.02%			\$ 2,806	\$ 1,519	\$ 520	\$ 34,317	\$ 35,836	\$ 36,356
508		723 - Waikoloa Resort Water	\$ 49,366	13.27%			\$ 3,851	\$ 2,013	\$ 689	\$ 45,466	\$ 47,479	\$ 48,167
509		724 - Waikoloa Resort Sewer	\$ 67,605	18.18%			\$ 5,273	\$ 2,757	\$ 943	\$ 62,264	\$ 65,020	\$ 65,964
510		725 - Waikoloa Resort Irrigation	\$ 2,777	0.75%			\$ 217	\$ 113	\$ 39	\$ 2,557	\$ 2,671	\$ 2,709
511		726 - Kona Water	\$ 39,264	10.56%			\$ 3,063	\$ 1,601	\$ 548	\$ 36,162	\$ 37,763	\$ 38,311
512		727 - Kona Sewer	\$ 21,576	5.80%			\$ 1,663	\$ 880	\$ 301	\$ 19,871	\$ 20,751	\$ 21,052
513		BIG ISLAND										
514		(2)Replacement Op Computer Stations	\$ 1,998	12/1/2013	MACRS 5	5	\$ 230	\$ 230	\$ 230	\$ 1,652	\$ 1,883	\$ 1,998
515		Mobile office trailer	\$ 22,912	12/1/2011	MACRS 5	5	\$ 1,320	\$ -	\$ -	\$ 22,912	\$ 22,912	\$ 22,912
516		1996 Eagle Forklift	\$ 21,956	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 21,956	\$ 21,956	\$ 21,956
517		20' Container Shelving-Baseyard	\$ 894	6/1/2015	SL-25	25	\$ 36	\$ 36	\$ 36	\$ 72	\$ 107	\$ 143

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
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Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
518		20' Container Shelving-EMT	\$ 437	6/1/2015	SL-25	25	\$ 17	\$ 17	\$ 17	\$ 35	\$ 52	\$ 70
519		20' Container-Bastyard	\$ 9,958	6/1/2015	SL-25	25	\$ 398	\$ 398	\$ 398	\$ 797	\$ 1,195	\$ 1,593
520		20' Container-EMT	\$ 5,100	6/1/2015	SL-25	25	\$ 204	\$ 204	\$ 204	\$ 408	\$ 612	\$ 816
521		Storage Contr	\$ 3,060	12/1/2010	SL-25	25	\$ 122	\$ 122	\$ 122	\$ 657	\$ 979	\$ 1,102
522		Nissan Frontier	\$ 25,949	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 25,949	\$ 25,949	\$ 25,949
523		Nissan Titan	\$ 34,252	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 34,252	\$ 34,252	\$ 34,252
524		FORD XCAB	\$ 25,825	6/1/2012	MACRS 5	5	\$ 2,975	\$ 1,487	\$ -	\$ 24,337	\$ 25,825	\$ 25,825
525		FORD XCAB	\$ 25,338	6/1/2012	MACRS 5	5	\$ 2,919	\$ 1,450	\$ -	\$ 23,880	\$ 25,338	\$ 25,338
526		Ford F-150	\$ 29,280	9/1/2012	MACRS 5	5	\$ 3,373	\$ 1,687	\$ -	\$ 27,594	\$ 29,280	\$ 29,280
528		Ford F-150	\$ 29,280	9/1/2012	MACRS 5	5	\$ 3,373	\$ 1,687	\$ -	\$ 27,594	\$ 29,280	\$ 29,280
529		FRONTIER	\$ 24,336	9/1/2012	MACRS 5	5	\$ 2,803	\$ 1,402	\$ -	\$ 22,884	\$ 24,336	\$ 24,336
530		Ford Explorer	\$ 35,997	9/1/2012	MACRS 5	5	\$ 4,147	\$ 2,073	\$ -	\$ 33,924	\$ 35,997	\$ 35,997
531		2014 Nissan Frontier, V214001	\$ 33,717	4/1/2014	MACRS 5	5	\$ 6,474	\$ 3,884	\$ 3,884	\$ 24,006	\$ 27,891	\$ 31,775
532		3 Ipad for Hawaii Island	\$ 2,441	9/1/2013	MACRS 5	5	\$ 281	\$ 281	\$ 141	\$ 2,019	\$ 2,300	\$ 2,441
533		Desk w/ Drawer	\$ 821	9/1/2012	MACRS 7	7	\$ 82	\$ 82	\$ 82	\$ 715	\$ 797	\$ 860
534		69"x43"x 18"	\$ 1,259	9/1/2012	MACRS 7	7	\$ 112	\$ 112	\$ 112	\$ 978	\$ 1,090	\$ 1,202
535		Diesel tank	\$ 696	12/1/2011	MACRS 7	7	\$ 62	\$ 62	\$ 31	\$ 603	\$ 665	\$ 696
536		GIS Software	\$ 7,316	12/1/2011	MACRS 5	5	\$ 421	\$ -	\$ -	\$ 7,316	\$ 7,316	\$ 7,316
537		Backflow Test Kit-Midwest 635	\$ 1,154	8/1/2015	MACRS 5	5	\$ 389	\$ 222	\$ 133	\$ 600	\$ 821	\$ 954
538		Big Island SCADA 2012	\$ 475,506	10/1/2014	MACRS 5	5	\$ 91,297	\$ 54,778	\$ 54,778	\$ 338,560	\$ 393,338	\$ 448,117
539		Book Case	\$ 286	9/1/2012	MACRS 7	7	\$ 26	\$ 25	\$ 26	\$ 222	\$ 247	\$ 273
540		Motrolia Hardware	\$ 4,225	6/1/2012	MACRS 5	5	\$ 487	\$ 243	\$ -	\$ 3,982	\$ 4,225	\$ 4,225
541		Work Order Addition	\$ 2,059	6/1/2012	MACRS 5	5	\$ 237	\$ 119	\$ -	\$ 1,940	\$ 2,059	\$ 2,059
542		Misc: Wiring & Cables	\$ 522	6/1/2012	MACRS 5	5	\$ 60	\$ 30	\$ -	\$ 492	\$ 522	\$ 522
543		Work Order Addition	\$ 717	6/1/2012	MACRS 5	5	\$ 83	\$ 41	\$ -	\$ 676	\$ 717	\$ 717
544		1 desktops	\$ 1,088	4/1/2013	MACRS 5	5	\$ 125	\$ 125	\$ 63	\$ 900	\$ 1,025	\$ 1,088
545		1 desktops	\$ 1,088	4/1/2013	MACRS 5	5	\$ 125	\$ 125	\$ 63	\$ 900	\$ 1,025	\$ 1,088
546		Desktop-HWKLOC56	\$ 1,509	12/1/2014	MACRS 5	5	\$ 290	\$ 174	\$ 174	\$ 1,075	\$ 1,249	\$ 1,422
547		Desktop-HWKLOC57	\$ 1,549	12/1/2014	MACRS 5	5	\$ 297	\$ 178	\$ 178	\$ 1,103	\$ 1,281	\$ 1,459
548		dryer @ basyard	\$ 483	4/1/2017	MACRS 5	5	\$ -	\$ 97	\$ 154	\$ -	\$ 97	\$ 251
549		Exec Chair	\$ 337	9/1/2012	MACRS 7	7	\$ 30	\$ 30	\$ 30	\$ 262	\$ 292	\$ 322
550		Work Order Addition	\$ 49	9/1/2013	MACRS 5	5	\$ 6	\$ 6	\$ 3	\$ 40	\$ 46	\$ 49
551		Work Order Addition	\$ 175	9/1/2012	MACRS 5	5	\$ 20	\$ 10	\$ -	\$ 165	\$ 175	\$ 175
552		EMT Laptop	\$ 13,260	6/1/2012	MACRS 5	5	\$ 1,528	\$ 784	\$ -	\$ 12,496	\$ 13,260	\$ 13,260
553		Hand Helds	\$ 4,328	3/1/2014	MACRS 5	5	\$ 831	\$ 499	\$ 499	\$ 3,082	\$ 3,580	\$ 4,079
554		Desk Dock	\$ 18,382	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 18,382	\$ 18,382	\$ 18,382
555		Personnel Lift	\$ 2,681	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 2,681	\$ 2,681	\$ 2,681
556		Software	\$ 5,610	6/1/2012	MACRS 5	5	\$ 646	\$ 323	\$ -	\$ 5,287	\$ 5,610	\$ 5,610
557		Hardware	\$ 2,875	9/1/2012	MACRS 5	5	\$ 331	\$ 166	\$ -	\$ 2,710	\$ 2,875	\$ 2,875
558		Hardware	\$ 8,471	9/1/2012	MACRS 5	5	\$ 976	\$ 488	\$ -	\$ 7,983	\$ 8,471	\$ 8,471
559		Gradall lifting hook attachment	\$ 2,330	12/1/2014	MACRS 5	5	\$ 447	\$ 268	\$ 268	\$ 1,659	\$ 1,927	\$ 2,196
560		Forklift	\$ 26,520	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 26,520	\$ 26,520	\$ 26,520
561		HON chair	\$ 611	2/1/2014	MACRS 7	7	\$ 107	\$ 76	\$ 55	\$ 544	\$ 620	\$ 675
562		Hydro Jetter	\$ 5,703	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 5,703	\$ 5,703	\$ 5,703
563		Ice Maker-Manitowac ID-0452A	\$ 4,354	9/1/2016	MACRS 5	5	\$ 871	\$ 1,393	\$ 836	\$ 871	\$ 2,264	\$ 3,100
564		Ingersoll Needles/Chisel Sci	\$ 742	9/1/2013	MACRS 5	5	\$ 85	\$ 85	\$ 43	\$ 614	\$ 699	\$ 742
565		Internal labor	\$ 20,546	7/1/2013	MACRS 5	5	\$ 2,367	\$ 2,367	\$ 1,183	\$ 16,995	\$ 19,382	\$ 20,546
566		Knoll task chair	\$ 13,254	2/1/2014	MACRS 7	7	\$ 2,318	\$ 1,655	\$ 1,184	\$ 7,458	\$ 9,113	\$ 10,297
567		1 laptops	\$ 1,119	4/1/2013	MACRS 5	5	\$ 129	\$ 129	\$ 64	\$ 925	\$ 1,054	\$ 1,119
568		1 laptops	\$ 1,119	4/1/2013	MACRS 5	5	\$ 129	\$ 129	\$ 64	\$ 925	\$ 1,054	\$ 1,119

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
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 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
569		Laptop, EMT-HWKGCLT02	\$ 1,566	11/1/2016	MACRS 5	5	\$ 313	\$ 501	\$ 301	\$ 313	\$ 814	\$ 1,115
570		Lateral File	\$ 504	9/1/2012	MACRS 5	5	\$ 58	\$ 29	\$ -	\$ 475	\$ 504	\$ 504
571		Work Order Addition	\$ 1,389	12/1/2011	MACRS 5	5	\$ 80	\$ -	\$ -	\$ 1,389	\$ 1,389	\$ 1,389
572		Work Order Addition	\$ 4,388	12/1/2011	MACRS 5	5	\$ 253	\$ -	\$ -	\$ 4,388	\$ 4,388	\$ 4,388
573		Work Order Addition	\$ 16,079	6/1/2011	MACRS 5	5	\$ 926	\$ -	\$ -	\$ 16,079	\$ 16,079	\$ 16,079
574		New IP phone system	\$ 18,915	6/1/2013	MACRS 5	5	\$ 2,179	\$ 2,179	\$ 1,090	\$ 15,647	\$ 17,826	\$ 18,915
575		New Hydraulic Hammer	\$ 9,453	12/1/2013	MACRS 5	5	\$ 1,089	\$ 1,089	\$ 544	\$ 7,819	\$ 8,908	\$ 9,453
576		Office Furnishings	\$ 6,438	2/1/2014	MACRS 7	7	\$ 1,126	\$ 804	\$ 575	\$ 3,622	\$ 4,427	\$ 5,001
577		Office furniture & equip	\$ 3,969	9/1/2012	MACRS 7	7	\$ 354	\$ 354	\$ 354	\$ 3,083	\$ 3,437	\$ 3,792
578		Work Order Addition	\$ 45	9/1/2012	MACRS 5	5	\$ 5	\$ 3	\$ -	\$ 43	\$ 45	\$ 45
579		Work Order Addition	\$ 87	9/1/2012	MACRS 5	5	\$ 10	\$ 5	\$ -	\$ 82	\$ 87	\$ 87
580		Portable generator, 3500w, EMT's	\$ 497	12/1/2016	MACRS 5	5	\$ 99	\$ 159	\$ 95	\$ 99	\$ 239	\$ 364
581		Power Quality Analyzer	\$ 8,080	3/1/2015	MACRS 5	5	\$ 2,596	\$ 1,551	\$ 931	\$ 4,202	\$ 5,753	\$ 6,684
582		Printer Cart	\$ 72	9/1/2012	MACRS 5	5	\$ 8	\$ 4	\$ -	\$ 68	\$ 72	\$ 72
583		Projector-Dell 1510HD	\$ 601	12/1/2016	MACRS 5	5	\$ 120	\$ 192	\$ 115	\$ 120	\$ 313	\$ 428
584		Electrical Upgrade	\$ 8,419	12/1/2011	MACRS 5	5	\$ 485	\$ -	\$ -	\$ 8,419	\$ 8,419	\$ 8,419
585		Respirator supplied air system	\$ 4,069	12/1/2016	MACRS 5	5	\$ 814	\$ 1,302	\$ 781	\$ 814	\$ 2,116	\$ 2,897
586		Richo Copier	\$ 10,164	11/1/2011	MACRS 5	5	\$ 585	\$ -	\$ -	\$ 10,164	\$ 10,164	\$ 10,164
587		Richo Fax Module	\$ 1,003	11/1/2011	MACRS 5	5	\$ 58	\$ -	\$ -	\$ 1,003	\$ 1,003	\$ 1,003
588		RICOH MPC3004-Engineering office	\$ 7,951	12/1/2016	MACRS 5	5	\$ 1,590	\$ 2,544	\$ 1,527	\$ 1,590	\$ 4,134	\$ 5,661
589		Rpic computer, laptop for Eng Mgr	\$ 1,419	10/1/2014	MACRS 5	5	\$ 272	\$ 163	\$ 163	\$ 1,010	\$ 1,174	\$ 1,337
590		SCADA INET-II 900 Dual Gateway	\$ 21,482	3/1/2016	MACRS 5	5	\$ 4,296	\$ 6,874	\$ 4,125	\$ 4,296	\$ 11,171	\$ 15,235
591		SCADA radio data link	\$ 51,073	5/1/2017	MACRS 5	5	\$ -	\$ 10,215	\$ 16,343	\$ -	\$ 10,215	\$ 26,558
592		SCADA upgrade 2013	\$ 62,184	3/1/2016	MACRS 5	5	\$ 12,437	\$ 19,899	\$ 11,939	\$ 12,437	\$ 32,335	\$ 44,275
593		SCADAPack 32	\$ 10,117	3/1/2016	MACRS 5	5	\$ 2,023	\$ 3,237	\$ 1,942	\$ 2,023	\$ 5,261	\$ 7,203
594		Scaffolding	\$ 4,580	3/1/2016	MACRS 5	5	\$ 916	\$ 1,466	\$ 879	\$ 916	\$ 2,382	\$ 3,261
595		Work Order Addition	\$ 14	12/1/2011	MACRS 5	5	\$ 1	\$ -	\$ -	\$ 14	\$ 14	\$ 14
596		Tools & Equipment	\$ 954	6/1/2013	MACRS 5	5	\$ 110	\$ 110	\$ 55	\$ 789	\$ 899	\$ 954
597		Trailer, emergency compressor	\$ 409	3/1/2016	SL-25	25	\$ 16	\$ 16	\$ 16	\$ 16	\$ 33	\$ 49
598		Trailer, emergency generator ECG500	\$ 1,990	3/1/2016	SL-25	25	\$ 80	\$ 80	\$ 80	\$ 80	\$ 159	\$ 239
599		Trailer, emergency 6X12 w/ramp	\$ 7,488	3/1/2016	SL-25	25	\$ 300	\$ 300	\$ 300	\$ 300	\$ 599	\$ 899
600		Work Order Addition	\$ 56,441	9/1/2012	MACRS 5	5	\$ 6,502	\$ 3,251	\$ -	\$ 53,190	\$ 56,441	\$ 56,441
601		V208214, Ford F-150	\$ 6,545	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 6,545	\$ 6,545	\$ 6,545
602		V208216, Chevy Silverad	\$ 8,656	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 8,656	\$ 8,656	\$ 8,656
603		V208217, Chevy 3500	\$ 27,973	12/1/2010	MACRS 5	5	\$ -	\$ -	\$ -	\$ 27,973	\$ 27,973	\$ 27,973
604		V208222, '08 TOY 4 RUNNER	\$ 30,978	12/1/2008	MACRS 5	5	\$ -	\$ -	\$ -	\$ 30,978	\$ 30,978	\$ 30,978
605		Visitor Chair	\$ 162	9/1/2012	MACRS 7	7	\$ 14	\$ 14	\$ 14	\$ 126	\$ 140	\$ 155
606		SCADA Report Writer System	\$ 40,983	11/30/2017	SL-25	25	\$ -	\$ 1,639	\$ 1,639	\$ -	\$ 1,639	\$ 3,279
607		Fuel Station	\$ 175,680	8/31/2017	SL-25	25	\$ -	\$ 7,027	\$ 7,027	\$ -	\$ 7,027	\$ 14,054
608		Base Yard Security Cameras	\$ 9,613	10/31/2017	MACRS 5	5	\$ -	\$ 1,923	\$ 3,076	\$ -	\$ 1,923	\$ 4,999
609		Big Island Radio Communication	\$ 48,000	9/30/2017	MACRS 5	5	\$ -	\$ 9,600	\$ 15,360	\$ -	\$ 9,600	\$ 24,960
610		EMT Service Truck	\$ 74,393	9/30/2017	MACRS 5	5	\$ -	\$ 14,879	\$ 23,806	\$ -	\$ 14,879	\$ 38,684
611		Handheld Meter Readers	\$ 8,326	10/31/2017	MACRS 5	5	\$ -	\$ 1,665	\$ 2,864	\$ -	\$ 1,665	\$ 4,330
612		EMT Service Truck Tools	\$ 8,436	10/31/2017	MACRS 5	5	\$ -	\$ 1,667	\$ 2,699	\$ -	\$ 1,667	\$ 4,366
613		Portable Air Compressor	\$ 20,293	6/30/2017	MACRS 5	5	\$ -	\$ 4,059	\$ 6,494	\$ -	\$ 4,059	\$ 10,553
614		Socket fusion & welding prep kit	\$ 2,159	6/30/2017	MACRS 5	5	\$ -	\$ 432	\$ 691	\$ -	\$ 432	\$ 1,123
615		Itron Handheld Meter Readers	\$ 25,694	7/1/2018	MACRS 5	5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
616		2018 Toyota 4Runner 4x4	\$ 41,208	7/1/2018	MACRS 5	5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
617		2018 Toyota Tacoma TRD 4x4	\$ 36,978	7/1/2018	MACRS 5	5	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total							\$ 1,884,768	\$ 180,711	\$ 191,745	\$ 1,026,703	\$ 1,207,414	\$ 1,399,159

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Accumulated Deferred Income Taxes - State (Detail)
 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization			Accumulated Depreciation		
							2016	2017	2018	2016	2017	2018
BIG ISLAND ALLOCATIONS												
619		721 - Waikoloa Water	\$ 345,552	18.33%			\$ 32,387	\$ 33,131	\$ 35,154	\$ 188,235	\$ 221,366	\$ 256,520
620		722 - Waikoloa Sewer	\$ 262,269	13.92%			\$ 24,581	\$ 25,146	\$ 26,682	\$ 142,868	\$ 166,014	\$ 194,696
621		723 - Waikoloa Resort Water	\$ 360,675	19.14%			\$ 33,804	\$ 34,561	\$ 36,693	\$ 196,473	\$ 231,055	\$ 267,747
622		724 - Waikoloa Resort Sewer	\$ 478,744	25.40%			\$ 44,870	\$ 45,902	\$ 48,705	\$ 260,790	\$ 306,692	\$ 355,396
623		725 - Waikoloa Resort Irrigation	\$ 19,187	1.02%			\$ 1,798	\$ 1,840	\$ 1,952	\$ 10,452	\$ 12,292	\$ 14,244
624		726 - Kona Water	\$ 271,295	14.39%			\$ 25,427	\$ 26,072	\$ 27,600	\$ 147,785	\$ 173,786	\$ 201,396
625		727 - Kona Sewer	\$ 147,045	7.80%			\$ 13,782	\$ 14,099	\$ 14,959	\$ 80,101	\$ 94,199	\$ 109,159

Waikales Water Co., Inc. Doa West Hawaii Water Company
 Hawaii Capital Goods Excise Tax Credit
 Test Year Ending December 31, 2018

Line No.	Utility Account	Property Description	In Service Date	Federal Tax Cost	State Tax Cost	HCGECT	Amortization Period	Accumulated Amortization				Unamortized HCGECT							
								Annual Amortization	2016	2017	2018	2016	2017	2018	2018				
266		24749 Studs	4/2/2005	\$ 607	\$ 102	\$	4	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
267		24749 Studs	11/8/2005	\$ 372	\$ 353	\$	15	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
268		24749 Studs	2/18/2003	\$ 305	\$ 321	\$	13	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
269		24749 Studs	2/18/2002	\$ 352	\$ 338	\$	14	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
270		24749 Studs	9/1/2001	\$ 2,047	\$ 1,965	\$	82	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
271		24749 Studs	10/18/2007	\$ 432	\$ 414	\$	17	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
272		24749 Studs	5/22/1997	\$ 4,787	\$ 4,576	\$	191	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
273		24749 Studs	12/10/1998	\$ 669	\$ 642	\$	27	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
274		24749 Studs	6/8/2003	\$ 1,437	\$ 1,380	\$	57	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
275		24749 Studs	EPSON PRINTER & STAND (1/6 SHARE)	\$ 393	\$ 378	\$	16	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
276		24749 Studs	HP 5500 Color Jet Color Laser Printer	\$ 1,768	\$ 1,768	\$	74	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
277		24749 Studs	Lectrak T630N Laser Printer	\$ 754	\$ 724	\$	30	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
278		24749 Studs	NORSTAR PHONE SYSTEM-BASEVARO	\$ 422,204	\$ 422,204	\$	18	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
279		24749 Studs	Software Windows Upgrade for Softwater Billin	\$ 208	\$ 200	\$	8	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
280		24749 Studs	SOFTWATER SECURITY FEATURES	\$ 452	\$ 434	\$	8	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
281		24749 Studs	Telemetry Field Computer	\$ 4,883	\$ 4,698	\$	39	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
282		24749 Studs	Telemetry Hardware (Rugged Rugged Computer)	\$ 688	\$ 640	\$	27	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
283		24749 Studs	Two (2) Dodge Dakota Pickup Trucks (00/HWC Share)	\$ 21,402	\$ 20,546	\$	856	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
284		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
285		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
286		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
287		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
288		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
289		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
290		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
291		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
292		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
293		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
294		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
295		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
296		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
297		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
298		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
299		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
300		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
301		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
302		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
303		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
304		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
305		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
306		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$
307		24749 Studs		\$	\$	\$		\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$	\$

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Hawaii Capital Goods Excise Tax Credit
 Test Year Ending December 31, 2018

Line	Utility Account	Property Description	In Service Date	Federal Tax Credit %	Federal Tax	State Tax Cost	HOGETC	Amortization Period	Annual Amortization	Accumulated Amortization					Unamortized HOGETC			
										2015	2017	2018	2016	2017	2018	2016	2017	2018
824		723 - Waikoloa Resort Water	01/15/14	25.40%	\$ 435,773	\$ 350,232	\$ 15,038	36	\$ 2,679	\$ 1,732	\$ 2,952	\$ 1,716	\$ 7,610	\$ 9,402	\$ 11,067	\$ 2,870	\$ 4,392	\$ 5,961
825		724 - Waikoloa Resort Sewer	01/15/14	25.40%	\$ 493,592	\$ 418,244	\$ 19,146	36	\$ 3,323	\$ 2,362	\$ 2,710	\$ 2,188	\$ 10,381	\$ 12,400	\$ 14,680	\$ 3,419	\$ 5,117	\$ 6,804
826		725 - Waikoloa Resort Irrigation	01/15/14	1.00%	\$ 18,987	\$ 19,187	\$ 74	36	\$ 205	\$ 1,383	\$ 1,540	\$ 1,935	\$ 5,875	\$ 7,072	\$ 8,325	\$ 2,159	\$ 3,697	\$ 5,214
827		726 - Kona Water	01/15/14	4.35%	\$ 283,599	\$ 271,295	\$ 11,304	36	\$ 2,015	\$ 1,383	\$ 1,540	\$ 1,935	\$ 5,875	\$ 7,072	\$ 8,325	\$ 2,159	\$ 3,697	\$ 5,214
828		727 - Kona Sewer	01/15/14	7.80%	\$ 153,172	\$ 147,945	\$ 6,127	36	\$ 1,092	\$ 714	\$ 841	\$ 718	\$ 3,184	\$ 3,833	\$ 4,512	\$ 1,170	\$ 1,950	\$ 2,719
829		TOTALS			\$ 3,887,840	\$ 3,732,327	\$ 155,514		\$ 9,259	\$ 3,317	\$ 4,527	\$ 7,137	\$ 24,732	\$ 28,908	\$ 35,654	\$ 26,042	\$ 52,842	\$ 119,659

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
Working Cash
Test Year Ending December 31, 2018

Line No.		
1	Labor Expenses	\$ 596,739
2	Fuel & Power	\$ 1,070,201
3	Chemicals	\$ 9,827
4	Materials & Supplies	\$ 75
5	Waste/Sludge Disposal	\$ -
6	Affiliated Charges	\$ 123,028
7	Professional and Outside Services	\$ 12,476
8	Repairs & Maintenance	\$ 130,154
9	Rental Expenses	\$ 10,102
10	Insurance Expenses	\$ 11,856
11	Regulatory Expenses	\$ 69,167
12	General & Administrative Expenses	\$ 45,147
13	Customer Accounts Expenses	\$ 39,503
14	subtotal	\$ 2,118,275
15	Working Cash factor	<u>12</u>
16	Working Cash	<u>\$ 176,523</u>

Waikoloa Water Co., Inc. Dbw West Hawaii Water Company
 Historical Summary
 Test Year Ending December 31, 2018

Line No.		Test Year Ending December 31, 2018					Test Year	Test Year
		2013	2014	2015	2016	2017	Present Rates Jan 1, 2018 to Dec. 31, 2018	Proposed Rates Jan 1, 2018 to Dec. 31, 2018
3	Revenues							
4	Water							
5	Residential							
6	Single-family							
7	Fixed revenues	\$ 160,754	\$ 163,288	\$ 171,323	\$ 179,812	\$ 181,167	\$ 184,296	\$ 353,483
8	Quantity revenues	\$ 664,942	\$ 620,832	\$ 506,571	\$ 367,049	\$ 347,377	\$ 366,629	\$ 703,201
9	Power Cost Charge revenue	\$ 449,759	\$ 424,612	\$ 464,048	\$ 661,403	\$ 661,152	\$ 694,742	\$ 680,333
10	Multi-Family							
11	Fixed revenues	\$ 7,920	\$ 7,920	\$ 8,142	\$ 13,092	\$ 14,029	\$ 44,885	\$ 86,090
12	Quantity revenues	\$ 281,875	\$ 251,069	\$ 204,712	\$ 134,181	\$ 136,257	\$ 133,805	\$ 256,641
13	Power Cost Charge revenue	\$ 174,642	\$ 170,818	\$ 181,891	\$ 238,319	\$ 255,456	\$ 253,554	\$ 248,295
14	subtotal	\$ 1,719,891	\$ 1,638,539	\$ 1,536,687	\$ 1,593,856	\$ 1,595,438	\$ 1,677,911	\$ 2,328,042
15	Non-Residential							
16	Business							
17	Fixed revenues	\$ 9,264	\$ 8,855	\$ 7,287	\$ 6,687	\$ 10,109	\$ 14,608	\$ 28,019
18	Quantity revenues	\$ 84,359	\$ 81,183	\$ 69,410	\$ 62,191	\$ 67,734	\$ 32,357	\$ 62,060
19	Power Cost Charge revenue	\$ 36,414	\$ 37,424	\$ 36,898	\$ 62,946	\$ 65,648	\$ 61,314	\$ 60,042
20	Public Authority							
21	Fixed revenues	\$ 2,266	\$ 2,266	\$ 2,329	\$ 2,407	\$ 2,408	\$ 5,213	\$ 9,998
22	Quantity revenues	\$ 71,542	\$ 53,323	\$ 45,558	\$ 31,804	\$ 46,029	\$ 35,672	\$ 68,420
23	Power Cost Charge revenue	\$ 47,294	\$ 36,084	\$ 41,392	\$ 56,676	\$ 86,288	\$ 67,597	\$ 86,195
24	subtotal	\$ 251,138	\$ 219,135	\$ 202,873	\$ 222,712	\$ 278,216	\$ 216,761	\$ 294,735
25	Other Revenue							
26	Private Fire Protection	\$ 44,880	\$ 44,880	\$ 46,150	\$ 47,689	\$ 47,689	\$ -	\$ -
27	Miscellaneous Service	\$ 4,955	\$ 3,201	\$ 2,163	\$ 3,438	\$ 3,119	\$ -	\$ -
28	Other	\$ 18,139	\$ 15,199	\$ 16,983	\$ 18,661	\$ 24,609	\$ -	\$ -
29	Unbilled Revenue Adjustment	\$ (6,752)	\$ 21,493	\$ (35,142)	\$ 30,586	\$ 2,303	\$ -	\$ -
30	TOTAL REVENUES	\$ 2,032,242	\$ 1,942,448	\$ 1,769,714	\$ 1,916,942	\$ 1,951,375	\$ 1,894,671	\$ 2,622,777
31	Expenses							
32	Labor Expenses	\$ 679,254	\$ 615,150	\$ 666,316	\$ 579,923	\$ 555,263	\$ 596,739	\$ 596,739
33	Fuel & Power	\$ 1,419,080	\$ 1,256,760	\$ 1,052,017	\$ 1,007,882	\$ 1,082,306	\$ 1,070,201	\$ 1,070,201
34	Chemicals	\$ 7,861	\$ 6,098	\$ 7,616	\$ 8,489	\$ 11,986	\$ 9,827	\$ 9,827
35	Materials & Supplies	\$ 338	\$ -	\$ 24	\$ -	\$ -	\$ 75	\$ 75
36	Waste/Sludge Disposal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37	Affiliated Charges	\$ 109,748	\$ 128,898	\$ 141,804	\$ 117,252	\$ 123,485	\$ 123,028	\$ 123,028
38	Professional and Outside Services	\$ 20,617	\$ 18,758	\$ 7,604	\$ 17,418	\$ 10,564	\$ 12,476	\$ 12,476
39	Repairs & Maintenance	\$ 95,085	\$ 95,673	\$ 85,723	\$ 119,783	\$ 167,093	\$ 130,154	\$ 130,154
40	Rental Expenses	\$ 11,729	\$ 10,615	\$ 7,154	\$ 8,218	\$ 12,094	\$ 10,102	\$ 10,102
41	Insurance Expenses	\$ 5,696	\$ 4,029	\$ 4,136	\$ 5,223	\$ 325	\$ 11,856	\$ 11,856
42	Regulatory Expenses	\$ 60	\$ -	\$ 50,984	\$ 32,688	\$ 24,548	\$ 69,167	\$ 69,167
43	General & Administrative Expenses	\$ 65,944	\$ 47,282	\$ 45,140	\$ 35,901	\$ 47,578	\$ 45,147	\$ 45,147
44	Customer Accounts Expenses	\$ (5,373)	\$ 8,033	\$ 16,242	\$ 19,884	\$ 12,182	\$ 39,503	\$ 39,503
45	Taxes Other than Income Taxes	\$ 158,387	\$ 153,060	\$ 131,015	\$ 142,275	\$ 145,132	\$ 120,975	\$ 167,464
46	Depreciation	\$ 58,109	\$ 125,128	\$ 124,926	\$ 123,929	\$ 120,055	\$ 114,068	\$ 114,068
47	Amortization	\$ 650	\$ 7,803	\$ 7,803	\$ 7,803	\$ 7,803	\$ -	\$ -
48	Income Taxes	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 62,614
49	TOTAL EXPENSES	\$ 2,627,184	\$ 2,477,287	\$ 2,348,504	\$ 2,226,668	\$ 2,320,415	\$ 2,353,318	\$ 2,462,421
50	NET INCOME/(LOSS)	\$ (594,942)	\$ (534,840)	\$ (578,789)	\$ (309,727)	\$ (369,040)	\$ (458,646)	\$ 160,356

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Revenue Summary
 Test Year Ending December 31, 2018

Line No.		2013	2014	2015	2016	2017	Test Year Present Rates Jan 1, 2018 to Dec. 31, 2018	Test Year Proposed Rates Jan 1, 2018 to Dec. 31, 2018
1								
2	Water							
3	Residential							
4	Single-family							
5	Fixed Revenue	\$ 160,754	\$ 163,288	\$ 171,323	\$ 179,812	\$ 181,167	\$ 184,296	\$ 353,483
6	Metered Revenue	\$ 664,942	\$ 620,832	\$ 506,571	\$ 367,049	\$ 347,377	\$ 366,629	\$ 703,201
7	Power Cost Charge	\$ 449,759	\$ 424,612	\$ 464,048	\$ 661,403	\$ 661,152	\$ 694,742	\$ 680,333
8	subtotal	\$ 1,275,455	\$ 1,208,733	\$ 1,141,942	\$ 1,208,263	\$ 1,189,696	\$ 1,245,667	\$ 1,737,017
9	Multi-family							
10	Fixed Revenue	\$ 7,920	\$ 7,920	\$ 8,142	\$ 13,092	\$ 14,029	\$ 44,885	\$ 86,090
11	Metered Revenue	\$ 261,875	\$ 251,069	\$ 204,712	\$ 134,181	\$ 136,257	\$ 133,805	\$ 256,641
12	Power Cost Charge	\$ 174,642	\$ 170,818	\$ 181,891	\$ 238,319	\$ 255,456	\$ 253,554	\$ 248,295
13	subtotal	\$ 444,437	\$ 429,807	\$ 394,745	\$ 385,593	\$ 405,742	\$ 432,244	\$ 591,026
14	Non-Residential							
15	Business							
16	Fixed Revenue	\$ 9,264	\$ 8,855	\$ 7,287	\$ 6,687	\$ 10,109.16	\$ 14,608	\$ 28,019
17	Metered Revenue	\$ 84,359	\$ 81,183	\$ 69,410	\$ 62,191	\$ 67,734	\$ 32,357	\$ 62,060
18	Power Cost Charge	\$ 36,414	\$ 37,424	\$ 36,898	\$ 62,946	\$ 65,648	\$ 61,314	\$ 60,042
19	subtotal	\$ 130,037	\$ 127,463	\$ 113,594	\$ 131,824	\$ 143,491	\$ 108,279	\$ 150,121
20	Public Authority							
21	Fixed Revenue	\$ 2,266	\$ 2,266	\$ 2,329	\$ 2,407	\$ 2,408	\$ 5,213	\$ 9,998
22	Metered Revenue	\$ 71,542	\$ 53,323	\$ 45,558	\$ 31,804	\$ 46,029	\$ 35,672	\$ 68,420
23	Power Cost Charge	\$ 47,294	\$ 36,084	\$ 41,392	\$ 56,676	\$ 86,288	\$ 67,597	\$ 66,195
24	subtotal	\$ 121,102	\$ 91,672	\$ 89,279	\$ 90,887	\$ 134,725	\$ 108,482	\$ 144,613
25	Other Revenue							
26	Private Fire Protection	\$ 44,880	\$ 44,880	\$ 46,150	\$ 47,689	\$ 47,689	\$ -	\$ -
27	Miscellaneous Service	\$ 4,955	\$ 3,201	\$ 2,163	\$ 3,438	\$ 3,119	\$ -	\$ -
28	Other	\$ 18,139	\$ 15,199	\$ 16,983	\$ 18,661	\$ 24,609	\$ -	\$ -
29	Unbilled Revenue Adjustment	\$ (6,762)	\$ 21,493	\$ (35,142)	\$ 30,586	\$ 2,303	\$ -	\$ -
30	TOTAL	\$ 2,032,242	\$ 1,942,448	\$ 1,769,714	\$ 1,916,942	\$ 1,951,375	\$ 1,894,671	\$ 2,622,777

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Sales and Production
 Test Year Ending December 31, 2018

Line No.	Usage / Volumetric measurements	Test Year						
		2013	2014	2015	2016	2017	Present Rates	Proposed Rates
3	Consumption [TG]							
4	Single Family	412,819	367,240	395,992	445,172	421,732	439,129	439,129
5	Multi-Family	160,486	147,450	156,893	160,708	163,194	160,265	160,265
6	Business	33,417	33,056	31,811	42,510	41,944	38,755	38,755
7	Public Authority	43,771	31,316	34,959	38,092	55,128	42,726	42,726
8	Total Consumption	650,493	579,062	619,655	686,482	681,998	680,876	680,876
9	Sales Projection							
10	Single Family			28,752	49,180	-23,440		
11	Average (2015 - 2017)						18,164	
12	Production [TG]							
13	Waikoloa Deep Well #1 Pump	302,461	1,620	0	0	0	0	0
14	Waikoloa Deep Well #2 Pump	26,263	179,944	134,912	149,199	155,180	146,430	146,430
15	Waikoloa Deep Well #3 Pump	257,864	263,778	309,028	363,129	288,530	320,229	320,229
16	Waikoloa Deep Well #4 Pump	203,893	99,551	217,095	183,888	159,352	186,778	186,778
17	Waikoloa Deep Well #5 Pump	232,812	136,252	144,499	296,417	271,798	237,571	237,571
18	Waikoloa Deep Well #6 Pump	522,413	522,152	432,832	444,545	439,804	439,060	439,060
19	Waikoloa Deep Well #7 Pump	313,780	591,268	614,486	632,067	571,860	606,138	606,138
20	Total Production	1,859,486	1,794,565	1,852,852	2,069,245	1,886,524	1,936,207	1,936,207
21	Cost Sharing Allocations							
22	Waikoloa Village Sales [TG]	650,493	579,062	619,655	686,482	681,998	680,876	680,876
23	Waikoloa Resort Water Sales [TG]	1,060,531	1,056,110	1,086,570	1,216,602	1,055,276	1,119,483	1,119,483
24	Total Sales [TG]	1,711,024	1,635,172	1,706,225	1,903,084	1,737,274	1,800,358	1,800,358
25	Waikoloa Village Allocation	38.02%	35.41%	36.32%	36.07%	39.26%	37.82%	37.82%
26	Waikoloa Resort Allocation	61.98%	64.59%	63.68%	63.93%	60.74%	62.18%	62.18%

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Meter Count
 Test Year Ending December 31, 2018

Line No.		Test Year					Test Year	
		2013	2014	2015	2016	2017	Present Rates	Proposed Rates
1	Customer Count							
2	Water							
3	Residential							
4	Single-family							
5	5/8"	1,858	1,886	1,923	1,961	1,970	1,998	1,998
6	3/4"	0	0	0	0	0	0	0
7	1"	5	5	5	5	5	5	5
8	1.5"	0	0	0	0	0	0	0
9	2"	0	0	0	0	0	0	0
10	3"	1	1	0	0	0	0	0
11	4"	0	0	0	0	0	0	0
12	6"	0	0	0	0	0	0	0
13	8"	0	0	0	0	0	0	0
14	Subtotal Single-family	1,864	1,892	1,928	1,966	1,975	2,003	2,003
15	Customer Growth Projection							
16	5/8"		28	37	38	9		
17	Average growth per year (2015 - 2017)						28	
18	Multi-family							
19	5/8"	0	0	0	0	0	0	0
20	3/4"	0	0	0	0	0	0	0
21	1"	0	0	0	0	0	0	0
22	1.5"	0	0	0	0	0	0	0
23	2"	18	18	18	18	18	18	18
24	3"	1	1	1	1	1	1	1
25	4"	0	0	0	0	0	0	0
26	6"	13	13	13	13	13	13	13
26	8"	0	0	0	0	0	0	0
27	Subtotal Multi-family	32	32	32	32	32	32	32
28	Non-residential							
29	Business							
30	5/8"	8	7	7	8	7	7	7
31	3/4"	0	0	0	0	0	0	0
32	1"	3	3	3	3	3	3	3
33	1.5"	4	4	4	4	4	4	4
34	2"	7	7	7	7	7	7	7
35	3"	5	4	3	1	1	1	1
36	4"	0	0	0	0	0	0	0
37	6"	3	3	4	3	3	3	3
38	8"	0	0	0	0	0	0	0
39	Subtotal Business	30	28	28	26	25	25	25
40	Public Authority							
41	5/8"	0	0	0	0	0	0	0
42	3/4"	0	0	0	0	0	0	0
43	1"	3	3	3	3	3	3	3
44	1.5"	2	2	2	2	2	2	2
45	2"	1	1	1	1	1	1	1
46	3"	1	1	1	1	1	1	1
47	4"	0	0	0	0	0	0	0
48	6"	1	1	1	1	1	1	1
49	8"	0	0	0	0	0	0	0
50	Subtotal Public Authority	8	8	8	8	8	8	8
51	TOTAL Meters	<u>1,934</u>	<u>1,960</u>	<u>1,996</u>	<u>2,032</u>	<u>2,040</u>	<u>2,068</u>	<u>2,068</u>

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
Inflation Factors
Test Year Ending December 31, 2018

Inflation Year	Percentage	Notes
2013->2014	1.44%	
2014->2015	1.01%	
2015->2016	2.28%	
2016->2017	2.71%	(based on Department of Business, Economic Development and Tourism Forecast)
2017->2018	2.71%	(based on Department of Business, Economic Development and Tourism Forecast)

References:

2013 - 2016 data source:

http://data.bls.gov/pdq/SurveyOutputServlet?series_id=CUURA426SA0,CUUSA426SA0

2017 - 2018 data source: <http://dbedt.hawaii.gov/economic/qser/outlook-economy/>

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Four Factor Allocations
 Test Year Ending December 31, 2018

Line

No.		2012 - 2015	2016	2017	2018
1	Allocations from Big Island (Dept 720)				
2	Waikoloa Water (721)	19.17%	19.11%	18.33%	18.33%
3	Waikoloa Sewer (722)	15.14%	14.35%	13.92%	13.92%
4	Waikoloa Resort Water (723)	20.81%	18.66%	19.14%	19.14%
5	Waikoloa Resort Sewer (724)	21.51%	24.73%	25.40%	25.40%
6	Waikoloa Resort Irrigation (725)	0.94%	0.93%	1.02%	1.02%
7	Kona Water (726)	14.09%	12.59%	14.39%	14.39%
8	Kona Sewer (727)	8.34%	9.62%	7.80%	7.80%
		100.00%	100.00%	100.00%	100.00%
9	Allocations from Hawaii General Office (790)				
10	Ka'anapali (700)	23.67%	21.51%	21.73%	21.73%
11	Pukalani (701)	6.73%	6.69%	6.87%	6.87%
12	Waikoloa Water (721)	13.06%	13.46%	12.83%	12.83%
13	Waikoloa Sewer (722)	10.46%	10.37%	10.02%	10.02%
14	Waikoloa Resort Water (723)	14.43%	13.03%	13.27%	13.27%
15	Waikoloa Resort Sewer (724)	14.78%	17.74%	18.18%	18.18%
16	Waikoloa Resort Irrigation (725)	0.68%	0.69%	0.75%	0.75%
17	Kona Water (726)	10.15%	9.36%	10.56%	10.56%
18	Kona Sewer (727)	6.04%	7.14%	5.80%	5.80%
		100.00%	100.00%	100.00%	100.00%

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Labor Expense
 Test Year Ending December 31, 2018

Line No.		2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
3	Expenses						
4	Payroll:						
5	Operating Labor	\$ 333,318	\$ 316,035	\$ 301,534	\$ 284,310	\$ 278,847	\$ 318,497
6	Total Payroll	\$ 333,318	\$ 316,035	\$ 301,534	\$ 284,310	\$ 278,847	\$ 318,497
7	Employee Benefits						
8	Health Care Benefits (Medical and Dental)	\$ 154,976	\$ 149,767	\$ 185,657	\$ 130,963	\$ 122,655	\$ 126,777
9	Workers Compensation	\$ 13,444	\$ 11,124	\$ 9,046	\$ 19,892	\$ 1,671	\$ 9,013
10	Pension	\$ 138,697	\$ 108,267	\$ 141,570	\$ 118,150	\$ 114,969	\$ 109,646
11	Total Employee Benefits	\$ 307,117	\$ 269,159	\$ 336,273	\$ 269,006	\$ 239,296	\$ 245,436
12	Payroll Taxes						
13	FICA	\$ 31,899	\$ 27,131	\$ 25,871	\$ 26,006	\$ 30,698	\$ 31,157
14	FUTA	\$ 270	\$ 232	\$ 224	\$ 231	\$ 259	\$ 248
15	SUTA	\$ 6,650	\$ 2,594	\$ 2,414	\$ 370	\$ 6,163	\$ 1,401
16	Total payroll taxes	\$ 38,819	\$ 29,957	\$ 28,509	\$ 26,607	\$ 37,121	\$ 32,805

Waikoloa Water Co., Inc. Db a West Hawaii Water Company
 Fuel & Power
 Test Year Ending December 31, 2018

Line No.		2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
3	Expenses [\$]						
4							
5	Waikoloa Deep Well #1 Pump	\$ 728,358	\$ 83,149	\$ -	\$ -	\$ -	\$ -
6	Waikoloa Deep Well #2 Pump	\$ 68,505	\$ 343,444	\$ 234,679	\$ 209,325	\$ 233,897	\$ 216,572
7	Waikoloa Deep Well #3 Pump	\$ 489,756	\$ 498,192	\$ 469,438	\$ 480,618	\$ 390,767	\$ 415,579
8	Waikoloa Deep Well #4 Pump	\$ 444,291	\$ 218,766	\$ 379,869	\$ 269,920	\$ 254,293	\$ 296,881
9	Waikoloa Deep Well #5 Pump	\$ 422,165	\$ 308,551	\$ 199,771	\$ 417,912	\$ 416,845	\$ 345,625
10	Waikoloa Deep Well #6 Pump	\$ 988,150	\$ 986,818	\$ 686,040	\$ 589,082	\$ 639,998	\$ 632,284
11	Waikoloa Deep Well #7 Pump	\$ 575,752	\$ 1,091,150	\$ 911,689	\$ 813,283	\$ 806,500	\$ 912,744
12	Waikoloa Well #1 Aux	\$ 2,950	\$ 1,483	\$ 449	\$ 399	\$ 394	\$ 16
13	Waikoloa Well #2 Aux	\$ 3,971	\$ 3,951	\$ 2,993	\$ 2,911	\$ 3,097	\$ 2,084
14	Waikoloa Well #3 Aux	\$ 5,534	\$ 5,815	\$ 4,935	\$ 4,560	\$ 4,664	\$ 3,457
15	Waikoloa Well #6 Aux	\$ 2,752	\$ 2,703	\$ 2,349	\$ 2,341	\$ 2,255	\$ 1,534
16	Waikoloa Well #7 Aux	\$ 272	\$ 5,146	\$ 4,311	\$ 3,888	\$ 4,054	\$ 2,946
17	Allocated to WHUC	\$ (2,313,377)	\$ (2,292,407)	\$ (1,844,506)	\$ (1,786,358)	\$ (1,674,459)	\$ (1,759,522)
18	subtotal	\$ 1,419,080	\$ 1,256,760	\$ 1,052,017	\$ 1,007,882	\$ 1,082,306	\$ 1,070,201
19	Fuel for Power Production	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	Total Expense	\$ 1,419,080	\$ 1,256,760	\$ 1,052,017	\$ 1,007,882	\$ 1,082,306	\$ 1,070,201
21	Units of consumption [kWh]						
22							
23	Waikoloa Deep Well #1 Pump	2,000,000	16,000	0	0	0	0
24	Waikoloa Deep Well #2 Pump	154,200	943,200	779,100	816,000	864,600	819,900
25	Waikoloa Deep Well #3 Pump	1,383,300	1,360,800	1,629,900	1,934,400	1,155,600	1,573,300
26	Waikoloa Deep Well #4 Pump	1,264,600	589,000	1,333,200	1,087,800	950,800	1,123,933
27	Waikoloa Deep Well #5 Pump	1,180,800	864,800	698,400	1,666,600	1,560,400	1,308,467
28	Waikoloa Deep Well #6 Pump	2,897,400	2,749,800	2,371,200	2,358,300	2,451,600	2,393,700
29	Waikoloa Deep Well #7 Pump	1,459,800	3,168,900	3,322,200	3,853,400	3,190,800	3,455,467
30	Waikoloa Well #1 Aux	6,149	2,638	164	19	0	61
31	Waikoloa Well #2 Aux	8,590	8,474	7,435	8,012	8,220	7,889
32	Waikoloa Well #3 Aux	12,320	12,897	13,006	13,270	12,982	13,086
33	Waikoloa Well #6 Aux	5,682	5,531	5,572	6,192	5,662	5,809
34	Waikoloa Well #7 Aux	488	11,312	11,206	11,128	11,128	11,154
35	subtotal	10,373,329	9,733,352	10,171,383	11,755,121	10,211,792	10,712,765
36	Unit Cost, excludes line 17 [\$ / kWh]	\$ 0.3598	\$ 0.3646	\$ 0.2848	\$ 0.2377	\$ 0.2700	\$ 0.2641

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Power Cost Charge
 Test Year Ending December 31, 2018

Line
 No.

Line No.		TY Expense [\$]	TY Power Consumed [kWh]	3 Year Avg Production [TG]	Pump Efficiency [kWh / TG]	Electricity Unit Cost [\$ / kWh]
1						
2	Waikoloa Deep Well #1 Pump	0	0	0	#DIV/0!	#DIV/0!
3	Waikoloa Deep Well #2 Pump	216,572	819,900	146,430	5.5992	0.2641
4	Waikoloa Deep Well #3 Pump	415,579	1,573,300	320,229	4.9130	0.2641
5	Waikoloa Deep Well #4 Pump	296,881	1,123,933	186,778	6.0175	0.2641
6	Waikoloa Deep Well #5 Pump	345,625	1,308,467	237,571	5.5077	0.2641
7	Waikoloa Deep Well #6 Pump	632,284	2,393,700	439,060	5.4519	0.2641
	Waikoloa Deep Well #7 Pump	912,744	3,455,467	606,138	5.7008	0.2641
8	Total	2,819,686	10,674,767	1,936,207	5.5132	0.2641
9	Present Rate Calculation					
10	Revenue Tax Factor	6.385%				
11	Pump Efficiency Factor [kWh / TG]	5.6300				
12	Power Cost Charge [\$ / TG]	\$ 1.4871				
13	PCC Revenue	\$ 1,077,206				
14	Proposed Rate Calculation					
15	Revenue Tax Factor	6.385%				
16	Pump Efficiency Factor [kWh / TG]	5.5132				
17	Power Cost Charge [\$ / TG]	\$ 1.4563				
18	PCC Revenue	\$ 1,054,866				

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Chemicals
 Test Year Ending December 31, 2018

Line
 No.

1	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	Chemicals	7,861	6,098	7,616	8,489	11,986	\$ 9,364
3	subtotal	<u>\$7,861</u>	<u>\$ 6,098</u>	<u>\$ 7,616</u>	<u>\$ 8,489</u>	<u>\$ 11,986</u>	<u>\$ 9,364</u>
4	In 2018 Dollars						
5	Chemicals	\$ 8,691	\$ 6,646	\$ 8,217	\$ 8,955	\$ 12,311	\$ 9,827
6	Total	<u>\$ 8,691</u>	<u>\$ 6,646</u>	<u>\$ 8,217</u>	<u>\$ 8,955</u>	<u>\$ 12,311</u>	<u>\$ 9,827</u>

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Materials & Supplies
 Test Year Ending December 31, 2018

Line
 No.

1	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	Direct Charge to WHWC						
3	Treatment and Disposal	\$ 329	\$ -	\$ -	\$ -	\$ -	\$ -
4	Water Treatment and Water Quality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5	Transmission & Distribution	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	Collection	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
7	Pumping	\$ 9	\$ -	\$ 24	\$ -	\$ -	\$ 8
8	subtotal	\$ 338	\$ -	\$ 24	\$ -	\$ -	\$ 8
9	Allocated From Hawaii Water to WHWC						
10	Treatment and Disposal	\$ 1	\$ 28	\$ 128	\$ 28	\$ -	\$ 52
11	Water Treatment and Water Quality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
12	Transmission & Distribution	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
13	Collection	\$ (1)	\$ -	\$ -	\$ -	\$ -	\$ -
14	Pumping	\$ -	\$ 23	\$ 6	\$ -	\$ 26	\$ 11
15	subtotal	\$ 0	\$ 51	\$ 134	\$ 28	\$ 26	\$ 62
16	Direct and Allocated Professional & Outside Services						
17	Treatment and Disposal	\$ 330	\$ 28	\$ 128	\$ 28	\$ -	\$ 52
18	Water Treatment and Water Quality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
19	Transmission & Distribution	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
20	Collection	\$ (1)	\$ -	\$ -	\$ -	\$ -	\$ -
21	Pumping	\$ 9	\$ 23	\$ 30	\$ -	\$ 26	\$ 18
22	subtotal	\$ 338	\$ 51	\$ 157	\$ 28	\$ 26	\$ 70
23	In 2018 Dollars						
24	Treatment and Disposal	\$ 365	\$ 31	\$ 138	\$ 29	\$ -	\$ 56
25	Water Treatment and Water Quality	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
26	Transmission & Distribution	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27	Collection	\$ (1)	\$ -	\$ -	\$ -	\$ -	\$ -
28	Pumping	\$ 10	\$ 25	\$ 32	\$ -	\$ 26	\$ 19
29	Total	\$ 374	\$ 56	\$ 170	\$ 29	\$ 26	\$ 75

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Waste/Sludge Disposal
 Test Year Ending December 31, 2018

Line
 No.

1	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	Sludge Removal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
3	subtotal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4	In 2018 Dollars						
5	Sludge Removal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	Total	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Affiliated Charges
 Test Year Ending December 31, 2018

Line
 No.

1	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	PubCo	\$ 109,748	\$ 128,898	\$ 141,804	\$ 117,252	\$ 123,485	\$ 123,028
3	Total	<u>\$109,748</u>	<u>\$128,898</u>	<u>\$141,804</u>	<u>\$117,252</u>	<u>\$123,485</u>	<u>\$ 123,028</u>
4	Allocated to Hawaii Water Service Co						
5	PubCo	\$ 855,305	\$ 1,004,551	\$ 1,105,133	\$ 913,790	\$ 962,364	
	4-Factor						
6	Proposed PubCo Allocation Factor	12.83%	\$ 128,898	\$ 141,804	\$ 117,252	\$ 123,485	
7	Adjustment for Account 791000		\$ (7,309)	\$ (12,124)	\$ (1,332)	\$ -	
8	Proposed Allocation		\$ 121,589	\$ 129,680	\$ 115,920	\$ 123,485	\$ 123,028

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Professional and Outside Services
 Test Year Ending December 31, 2018

Line
 No.

1	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	Direct Charge to WHWC						
3	Legal Expense	\$ 6,440	\$ 6,101	\$ 1,730	\$ 1,247	\$ 331	\$ 1,103
4	Other Outside Services	\$ 9,737	\$ 3,460	\$ -	\$ 12,798	\$ 8,732	\$ 7,177
5	Training Consultants	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
6	subtotal	\$ 16,177	\$ 9,561	\$ 1,730	\$ 14,044	\$ 9,063	\$ 8,279
7	Allocated From Hawaii Water to WHWC						
8	Legal Expense	\$ 3,109	\$ 3,020	\$ 2,032	\$ 2,515	\$ 1,409	\$ 1,985
9	Other Outside Services	\$ 900	\$ 6,177	\$ 2,386	\$ 859	\$ 93	\$ 1,113
10	Training Consultants	\$ 431	\$ -	\$ -	\$ -	\$ -	\$ -
11	Auditors and Consultants	\$ -	\$ -	\$ 1,456	\$ -	\$ -	\$ 485
12	subtotal	\$ 4,439	\$ 9,197	\$ 5,874	\$ 3,374	\$ 1,501	\$ 3,583
13	Direct and Allocated Professional & Outside Services						
14	Legal Expense	\$ 9,549	\$ 9,121	\$ 3,762	\$ 3,762	\$ 1,740	\$ 3,088
15	Other Outside Services	\$ 10,636	\$ 9,637	\$ 2,386	\$ 13,656	\$ 8,825	\$ 8,289
16	Training Consultants	\$ 431	\$ -	\$ -	\$ -	\$ -	\$ -
17	Auditors and Consultants	\$ -	\$ -	\$ 1,456	\$ -	\$ -	\$ 485
18	subtotal	\$ 20,617	\$ 18,758	\$ 7,604	\$ 17,418	\$ 10,564	\$ 11,862
19	In 2018 Dollars						
20	Legal Expense	\$ 10,557	\$ 9,941	\$ 4,058	\$ 3,968	\$ 1,787	\$ 3,271
21	Other Outside Services	\$ 11,760	\$ 10,503	\$ 2,574	\$ 14,406	\$ 9,064	\$ 8,681
22	Training Consultants	\$ 477	\$ -	\$ -	\$ -	\$ -	\$ -
23	Auditors and Consultants	\$ -	\$ -	\$ 1,571	\$ -	\$ -	\$ 524
24	Total	\$ 22,794	\$ 20,444	\$ 8,204	\$ 18,374	\$ 10,851	\$ 12,476

Waikoloa Water Co., Inc. Db a West Hawaii Water Company
 Repairs & Maintenance
 Test Year Ending December 31, 2018

Line
 No.

1	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	Direct Charge to WHWC						
3	Source of Supply	\$ 1,873	\$ 14,266	\$ 12,692	\$ 16,708	\$ 36,619	\$ 22,006
4	Pumping	\$ 5,797	\$ 3,932	\$ 12,176	\$ 1,836	\$ 2,268	\$ 5,427
5	Treatment and Disposal	\$ 19,221	\$ 10,664	\$ 15,219	\$ 10,830	\$ 18,937	\$ 14,995
6	Transmission & Distribution	\$ 19,756	\$ 35,327	\$ 19,487	\$ 42,535	\$ 60,147	\$ 40,723
7	A&G	\$ 129	\$ 455	\$ 277	\$ 465	\$ -	\$ 247
8	Mileage	\$ 38,070	\$ 23,266	\$ 21,740	\$ 35,257	\$ 38,112	\$ 31,703
8	less chemicals	\$ (7,861)	\$ (6,098)	\$ (7,616)	\$ (8,489)	\$ (11,986)	\$ (9,364)
9	less materials & supplies	\$ (338)	\$ -	\$ (24)	\$ -	\$ -	\$ (8)
10	less waste disposal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
11	subtotal	\$ 76,646	\$ 81,813	\$ 73,952	\$ 99,142	\$ 144,097	\$ 105,730
12	Allocated From Hawaii Water to WHWC						
13	Source of Supply	\$ 78	\$ 516	\$ -	\$ -	\$ 56	\$ 19
14	Pumping	\$ 5,180	\$ 1,010	\$ 628	\$ 93	\$ 1,629	\$ 783
15	Treatment and Disposal	\$ 3,130	\$ 3,211	\$ 1,722	\$ 225	\$ 352	\$ 766
16	Transmission & Distribution	\$ 4,966	\$ 4,447	\$ 4,544	\$ 5,456	\$ 5,630	\$ 5,210
17	A&G	\$ 5,084	\$ 4,356	\$ 4,461	\$ 3,633	\$ 3,740	\$ 3,945
18	Mileage	\$ -	\$ 371	\$ 550	\$ 11,261	\$ 11,615	\$ 7,809
19	less materials & supplies	\$ (0)	\$ (51)	\$ (134)	\$ (28)	\$ (26)	\$ (62)
20	subtotal	\$ 18,439	\$ 13,541	\$ 11,355	\$ 9,408	\$ 11,407	\$ 10,723
21	Direct and Allocated Repairs & Maintenance						
22	Source of Supply	\$ 1,951	\$ 14,782	\$ 12,692	\$ 16,708	\$ 36,675	\$ 22,025
23	Pumping	\$ 10,978	\$ 4,942	\$ 12,804	\$ 1,929	\$ 3,897	\$ 6,210
24	Treatment and Disposal	\$ 22,351	\$ 13,876	\$ 16,941	\$ 11,055	\$ 19,289	\$ 15,762
25	Transmission & Distribution	\$ 24,722	\$ 39,774	\$ 24,031	\$ 47,991	\$ 65,777	\$ 45,933
26	A&G	\$ 5,213	\$ 4,810	\$ 4,738	\$ 4,099	\$ 3,740	\$ 4,192
27	Mileage	\$ 38,070	\$ 23,638	\$ 22,290	\$ 46,518	\$ 49,728	\$ 39,512
28	less chemicals	\$ (7,861)	\$ (6,098)	\$ (7,616)	\$ (8,489)	\$ (11,986)	\$ (9,364)
29	less materials & supplies	\$ (338)	\$ (51)	\$ (157)	\$ (28)	\$ (26)	\$ (70)
30	less waste disposal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
31	subtotal	\$ 95,085	\$ 95,673	\$ 85,723	\$ 119,783	\$ 167,093	\$ 124,200
32	In 2018 Dollars						
33	Source of Supply	\$ 2,157	\$ 16,111	\$ 13,694	\$ 17,625	\$ 37,668	\$ 22,995
34	Pumping	\$ 12,137	\$ 5,387	\$ 13,815	\$ 2,035	\$ 4,003	\$ 6,617
35	Treatment and Disposal	\$ 24,711	\$ 15,123	\$ 18,278	\$ 11,661	\$ 19,811	\$ 16,584
36	Transmission & Distribution	\$ 27,332	\$ 43,349	\$ 25,928	\$ 50,624	\$ 67,558	\$ 48,036
37	A&G	\$ 5,763	\$ 5,243	\$ 5,112	\$ 4,323	\$ 3,841	\$ 4,425
38	Mileage	\$ 42,090	\$ 25,762	\$ 24,049	\$ 49,071	\$ 51,074	\$ 41,398
39	less chemicals	\$ (8,691)	\$ (6,646)	\$ (8,217)	\$ (8,955)	\$ (12,311)	\$ (9,827)
40	less materials & supplies	\$ (374)	\$ (56)	\$ (170)	\$ (29)	\$ (26)	\$ (75)
41	less waste disposal	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
42	Total	\$ 105,126	\$ 104,271	\$ 92,489	\$ 126,355	\$ 171,617	\$ 130,154

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Rents
 Test Year Ending December 31, 2018

Line
 No.

1	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	Waikoloa Office and Baseyard	\$ 11,729	\$ 10,615	\$ 7,154	\$ 8,218	\$ 12,094	\$ 10,102
3	Total	<u>\$11,729</u>	<u>\$ 10,615</u>	<u>\$ 7,154</u>	<u>\$ 8,218</u>	<u>\$ 12,094</u>	<u>\$ 10,102</u>
4	Waikoloa General Office Rent Expense (2018)	\$ 59,500					
5	Waikoloa Baseyard Rent Expense (2018)	\$ 19,229					
6	4-Factor Allocation to WHWC (proposed)	12.83%					
7	Total ((4 + 5) x 6)	<u>\$ 10,102</u>					

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Insurance Expenses
 Test Year Ending December 31, 2018

Line
 No.

1	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2016 to Dec. 31, 2018	
2	Direct Charge to WHWC							
3	Liability Insurance - General, Auto, Umbrella, and etc	\$ 389	\$ 241	\$ -	\$ 1,141	\$ -		
4	subtotal	\$ 389	\$ 241	\$ -	\$ 1,141	\$ -	\$ -	
5	Allocated From Hawaii Water to WHWC							
6	Liability Insurance - General, Auto, Umbrella, and etc	\$ 5,307	\$ 3,788	\$ 4,136	\$ 4,082	\$ 325		
7	subtotal	\$ 5,307	\$ 3,788	\$ 4,136	\$ 4,082	\$ 325	\$ -	
8	Direct and Allocated Insurance							
9	Liability Insurance - General, Auto, Umbrella, and etc	\$ 5,696	\$ 4,029	\$ 4,136	\$ 5,223	\$ 325	\$ 11,856	
10	Total	\$ 5,696	\$ 4,029	\$ 4,136	\$ 5,223	\$ 325	\$ 11,856	
11	(1) Test year expense based on Marsh Insurance quotation and allocated to WHWC using a four-factor allocation methodology							
12	Total Company Ins. Quote	\$	2,905,487					
13	4-factor allocation to Hawaii		3.18%					
14	4-factor allocation to WHWC (proposed)		12.83%					
15	Total (12 x 13 x 14)	\$	11,856					

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Regulatory Expenses
 Test Year Ending December 31, 2018

Line No.	Description	Test Year
1		
2	<u>Description</u>	<u>Test Year</u>
3	PREPARATION AND FILING	
4	Rate case consulting	
5	Accounting	\$ -
6	Engineering	\$ -
7	Other	\$ -
8	Legal	\$ 16,500
9	Travel	\$ -
10	Other non-labor	\$ -
11	subtotal	\$ 16,500
12	DISCOVERY AND SETTLEMENT	
13	Rate case consulting	
14	Accounting	\$ -
15	Engineering	\$ -
16	Other	\$ -
17	Legal	\$ 130,000
18	Travel	\$ 7,500
19	Other non-labor	\$ -
20	subtotal	\$ 137,500
21	HEARINGS AND BRIEFING	
22	Rate case consulting	
23	Accounting	\$ -
24	Engineering	\$ -
25	Other	\$ -
26	Legal	\$ 20,000
27	Travel	\$ 5,000
28	Other non-labor	\$ -
29	subtotal	\$ 25,000
30	STUDIES	
31	Cost of Service	\$ 18,500
32	Depreciation	\$ 10,000
33	subtotal	\$ 28,500
34	Total	\$ 207,500
35	Amortization Period	3
36	Test Year expense (Ln30/Ln31)	\$ 69,167

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Regulatory Expenses
 Test Year Ending December 31, 2018

Line
 No.

1	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	Direct Charge to WHWC						
3	Regulatory Expense	\$ -	\$ -	\$ 47,789	\$ 23,576	\$ 24,169	\$ -
4	subtotal	\$ -	\$ -	\$ 47,789	\$ 23,576	\$ 24,169	\$ -
5	Allocated From Hawaii Water to WHWC						
6	Regulatory Expense	\$ 60	\$ -	\$ 3,196	\$ 9,112	\$ 380	
7	subtotal	\$ 60	\$ -	\$ 3,196	\$ 9,112	\$ 380	\$ -
8	Direct and Allocated Regulatory						
9	Regulatory Expense	\$ 60	\$ -	\$ 50,984	\$ 32,688	\$ 24,548	\$ 69,167
10	Total	\$ 60	\$ -	\$ 50,984	\$ 32,688	\$ 24,548	\$ 69,167

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 General & Administrative Expenses
 Test Year Ending December 31, 2018

Line No.	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	Direct Charge to WHWC						
3	Office Supplies	\$ 1,458	\$ 9,444	\$ 7,025	\$ 2,281	\$ 7,248	\$ 5,518
4	Misc G&A	\$ 4,884	\$ 4,957	\$ 4,643	\$ 5,339	\$ 4,041	\$ 4,674
5	subtotal	\$ 6,342	\$ 14,400	\$ 11,668	\$ 7,620	\$ 11,289	\$ 10,192
6	Allocated From Hawaii Water to WHWC						
7	Office Supplies	\$ 29,203	\$ 19,367	\$ 22,451	\$ 23,517	\$ 31,829	\$ 25,932
8	Misc G&A	\$ 30,398	\$ 13,515	\$ 11,021	\$ 4,764	\$ 4,460	\$ 6,748
9	subtotal	\$ 59,601	\$ 32,881	\$ 33,472	\$ 28,281	\$ 36,289	\$ 32,681
10	Direct and Allocated General & Administrative						
11	Office Supplies	\$ 30,662	\$ 28,810	\$ 29,476	\$ 25,799	\$ 39,076	\$ 31,450
12	Misc G&A	\$ 35,282	\$ 18,471	\$ 15,663	\$ 10,102	\$ 8,502	\$ 11,423
13	Total General & Administrative	\$ 65,944	\$ 47,282	\$ 45,140	\$ 35,901	\$ 47,578	\$ 42,873
14	In 2018 Dollars						
15	Office Supplies	\$ 33,899	\$ 31,400	\$ 31,803	\$ 27,214	\$ 40,134	\$ 33,051
16	Misc G&A	\$ 39,008	\$ 20,131	\$ 16,900	\$ 10,657	\$ 8,732	\$ 12,096
17	Total	\$ 72,907	\$ 51,531	\$ 48,703	\$ 37,871	\$ 48,866	\$ 45,147

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Customer Accounts Expenses
 Test Year Ending December 31, 2018

Line
 No.

1	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	Direct Charge to WHWC						
3	Customer Accounts Exp.	\$ (13,051)	\$ 3,566	\$ 3,111	\$ 244	\$ (2,509)	\$ 282
4	subtotal	<u>(\$13,051)</u>	<u>\$ 3,566</u>	<u>\$ 3,111</u>	<u>\$ 244</u>	<u>\$ (2,509)</u>	<u>\$ 282</u>
5	Allocated From Hawaii Water to WHWC						
6	Customer Accounts Exp.	\$ 7,678	\$ 4,467	\$ 13,131	\$ 19,640	\$ 14,691	\$ 15,820
7	subtotal	<u>\$ 7,678</u>	<u>\$ 4,467</u>	<u>\$ 13,131</u>	<u>\$ 19,640</u>	<u>\$ 14,691</u>	<u>\$ 15,820</u>
8	Direct and Allocated Customer Accounts						
9	Customer Accounts Exp.	\$ (5,373)	\$ 8,033	\$ 16,242	\$ 19,884	\$ 12,182	\$ 16,102
10	Total Customer Accounts	<u>\$ (5,373)</u>	<u>\$ 8,033</u>	<u>\$ 16,242</u>	<u>\$ 19,884</u>	<u>\$ 12,182</u>	<u>\$ 16,102</u>
11	In 2018 Dollars						
12	Customer Accounts Exp.	\$ (5,940)	\$ 8,755	\$ 17,523	\$ 20,975	\$ 12,512	\$ 17,003
13	Conservation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,500
14	Total	<u>\$ (5,940)</u>	<u>\$ 8,755</u>	<u>\$ 17,523</u>	<u>\$ 20,975</u>	<u>\$ 12,512</u>	<u>\$ 39,503</u>

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Taxes Other Than Income Taxes
 Test Year Ending December 31, 2018

Line No.		Revenues at Present Rates	Revenues at Proposed Rates	Tax Rates	Taxes at Present Rates	Taxes at Proposed Rates
3	<u>Revenue Taxes</u>					
5	Public Company Service Tax (Pursuant to HRS § 239)	\$ 1,894,671	\$ 2,622,777	5.885%	\$ 111,501	\$ 154,350
7	Public Utility Fee (Pursuant to HRS § 269-30)	\$ 1,894,671	\$ 2,622,777	0.500%	\$ 9,473	\$ 13,114
9	Total Revenue Taxes				<u>\$ 120,975</u>	<u>\$ 167,464</u>
10	Total Taxes Other Than Income Taxes				<u><u>\$ 120,975</u></u>	<u><u>\$ 167,464</u></u>

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Income Tax Expense
 Test Year Ending December 31, 2018

Line No.			At Present Rates	At Proposed Rates
1	Total Revenues		\$ 1,894,671	\$ 2,622,777
2	Total Operations & Maintenance Expenses		\$ 2,118,275	\$ 2,118,275
3	Depreciation		\$ 114,068	\$ 114,068
4	Amortization		\$ -	\$ -
5	Taxes Other than Income Taxes		\$ 120,975	\$ 167,464
6	Total Operating Expenses		\$ 2,353,318	\$ 2,399,807
7	Operating Income before Income Taxes		\$ (458,646)	\$ 222,970
8	Interest Expenses		\$ 25,139	\$ 25,139
9	State taxable Income		\$ (483,785)	\$ 197,831
		Less:		
10	State income Tax	Tax Rates		
11	less than \$25K	4.2150%	\$ -	\$ 1,054
12	Over \$25K, but less than \$100K	5.0945%	\$ -	\$ 3,821
13	Over \$100K	6.0150%	\$ -	\$ 5,885
14	Less Hawaii Capital Goods Excise Tax Credit		\$ -	\$ (7,137)
15	Federal taxable income		\$ (483,785)	\$ 194,208
16	Federal income tax			
17	less than \$50K	15.0%	\$ -	\$ 7,500
18	Over \$50K, but less than \$75K	25.0%	\$ -	\$ 6,250
19	Over \$75K, but less than \$100K	34.0%	\$ -	\$ 8,500
20	Over \$100K, but less than \$335K	39.0%	\$ -	\$ 36,741
21	Over \$335K	34.0%	\$ -	\$ -
22	Total Federal and State income taxes		\$ -	\$ 62,614
23	Effective Tax Rate		0.000%	31.650%
24	State		0.000%	1.831%
25	Federal		0.0000%	30.3752%

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Results of Operations for Recorded 2017 at Present and Proposed Rates
 Test Year Ending December 31, 2018

Line No.	(1)	(2)	(3)
1	Pro Forma for Year Ended December 31, 2017		
2	Present	Proposed	Proposed
3	Rates	Increase	Rates (7.75%)
4 Residential	\$ 678,830	\$ 692,485	\$ 1,371,315
5 Non-Residential	\$ 126,280	\$ 67,184	\$ 193,463
6 Power Cost Charge	\$ 1,068,544	\$ (75,355)	\$ 993,189
7 Total Operating Revenues	\$ 1,873,654	\$ 684,314	\$ 2,557,968
8 Labor Expenses	\$ 555,263	\$ -	\$ 555,263
9 Fuel & Power	\$ 1,082,306	\$ -	\$ 1,082,306
10 Chemicals	\$ 11,986	\$ -	\$ 11,986
11 Materials & Supplies	\$ -	\$ -	\$ -
12 Waste/Sludge Disposal	\$ -	\$ -	\$ -
13 Affiliated Charges	\$ 123,485	\$ -	\$ 123,485
14 Professional and Outside Services	\$ 10,564	\$ -	\$ 10,564
15 Repairs & Maintenance	\$ 167,093	\$ -	\$ 167,093
16 Rental Expenses	\$ 12,094	\$ -	\$ 12,094
17 Insurance Expenses	\$ 325	\$ -	\$ 325
18 Regulatory Expenses	\$ 24,548	\$ -	\$ 24,548
19 General & Administrative Expenses	\$ 47,578	\$ -	\$ 47,578
20 Customer Accounts Expenses	\$ 12,182	\$ -	\$ 12,182
21 Total O&M Expenses	\$ 2,047,425	\$ -	\$ 2,047,425
22 Taxes Other than Income Taxes	\$ 145,132	\$ -	\$ 145,132
23 Depreciation	\$ 120,055	\$ -	\$ 120,055
24 Amortization	\$ 7,803	\$ -	\$ 7,803
25 Income Taxes	\$ -	\$ 283,306	\$ 283,306
26 Diff. due to changing factors	\$ -	\$ -	\$ -
27 Total Operating Expenses	\$ 2,320,415	\$ 283,306	\$ 2,603,721
28 Operating Income	\$ (446,761)	\$ 401,008	\$ (45,754)
29 Average Rate Base	\$ 2,069,112	\$ -	\$ 2,069,112
30 Return on Rate Base	-21.59%		-2.21%

HAWAII WATER SERVICE COMPANY
PROJECTED RATE OF RETURN

Line
No.

	<i>PRO FORMA AVERAGE CAPITAL</i>			<i>RATE OF</i>	
	<i>AMOUNT</i>	<i>RATIO</i>	<i>EFF. RATE</i>	<i>RETURN</i>	
1					
2					
3					
4	<u><i>Estimated Average Rate of Return 2018</i></u>				
5	Long-Term Debt	\$ 972,483	47.0%	5.50%	2.59%
6	Common Stock	1,096,629	53.0%	9.75%	5.17%
7		2,069,112	100.00%		7.75%

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
Phase-in Schedule
Test Year Ending December 31, 2018

Line No.	<u>Revenue Requirement</u>	<u>Present Rates</u>	<u>Incremental</u>	<u>Proposed Rates</u>	<u>% Increase</u>
1					
2	No Phase-in	\$ 1,894,671	\$ 728,106	\$ 2,622,777	38.4%
3	Phase 1	\$ 1,894,671	\$ 473,668	\$ 2,368,339	25.0%
4	Phase 2	\$ 2,368,339	\$ 254,438	\$ 2,622,777	10.7%

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Rate Design
 Test Year Ending December 31, 2018

Line No.	Revenue Requirement	Split	Present	Incremental	Proposed Revenue Split	Proposed	+/- Rev Req	% Increase	
1	Fixed	30.5%	\$ 249,002	\$ 228,588	30.5%	\$ 477,590		91.8%	
2	Metered	69.5%	\$ 568,463	\$ 521,858	69.5%	\$ 1,090,322		91.8%	
3	PCC		\$ 1,077,206	\$ (22,341)		\$ 1,054,866	\$ 0	-2.1%	
4	Total		\$ 1,894,671	\$ 728,105		\$ 2,622,777		38.4%	
5	Fixed Revenue								
6	Current Ratio	Meter Size	Current Charge	Proposed Charge	Number of Services (Present)	Number of Services (Proposed)	Present Revenues	Proposed Revenues	% Increase
7		1.00 5/8"	\$ 7.65	\$ 14.87	2,005	2,005	\$ 184,059	\$ 353,028	91.8%
8		1.00 3/4"	\$ 7.65	\$ 14.87	0	0	\$ -	\$ -	91.8%
9		1.92 1"	\$ 14.66	\$ 28.12	11	11	\$ 1,935	\$ 3,712	91.8%
10		3.36 1 1/2"	\$ 25.72	\$ 49.33	6	6	\$ 1,852	\$ 3,552	91.8%
11		4.58 2"	\$ 35.07	\$ 67.26	26	26	\$ 10,942	\$ 20,987	91.8%
12		9.17 3"	\$ 70.14	\$ 134.53	3	3	\$ 2,525	\$ 4,843	91.8%
13		15.28 4"	\$ 116.89	\$ 224.20	0	0	\$ -	\$ -	91.8%
14		30.56 6"	\$ 233.77	\$ 448.37	17	17	\$ 47,689	\$ 91,468	91.8%
15		55.01 8"	\$ 420.79	\$ 807.08	0	0	\$ -	\$ -	91.8%
					2,068	2,068	\$ 249,002	\$ 477,590	

Metered Revenue	Present	Proposed	% Increase
17 Sales [TG]	\$ 680,876	\$ 680,876	
18 Quantity Rates	\$ 0.8349	\$ 1.6014	91.8%
19 Total Metered Revenue	\$ 568,463	\$ 1,090,322	
20 Power Cost Charge	Present	Proposed	% Increase
21 Sales [TG]	\$ 680,876	\$ 680,876	
22 PCC	\$ 1,4871	\$ 1,4563	-2.1%
23 Total PCC Revenue	\$ 1,077,206	\$ 1,054,866	

24 Bill Impact	Present	Proposed	Difference
25 Monthly Usage [TG]			
26 Meter Size	5/8"	27 5/8"	27
27 Meter Charge	\$ 7.65	\$ 14.87	\$ 7.02
28 Quantity Charge	\$ 22.91	\$ 43.94	\$ 21.03
29 PCC	\$ 40.81	\$ 39.96	\$ (0.85)
30 Total	\$ 71.37	\$ 98.57	\$ 27.21

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Rate Design Phase 1
 Test Year Ending December 31, 2018

Line No.	Revenue Requirement	Split	Present	Incremental	Proposed Revenue Split	Proposed	+/- Rev Req	% Increase	
1	Fixed	30.5%	\$ 249,002	\$ 151,085	30.5%	\$ 400,087		60.7%	
2	Metered	69.5%	\$ 568,463	\$ 344,923	69.5%	\$ 913,386		60.7%	
3	PCC		\$ 1,077,206	\$ (22,341)		\$ 1,054,865	\$0	-2.1%	
4	Total		\$ 1,894,671	\$ 473,668		\$ 2,368,339		25.0%	
5	Fixed Revenue								
6	Current Ratio	Meter Size	Current Charge	Proposed Charge	Number of Services (Present)	Number of Services (Proposed)	Present Revenues	Proposed Revenues	% Increase
7		1.00 5/8"	\$ 7.65	\$ 12.29	2,005	2,005	\$ 184,059	\$ 295,739	60.7%
8		1.00 3/4"	\$ 7.65	\$ 12.29	0	0	\$ -	\$ -	60.7%
9		1.92 1"	\$ 14.66	\$ 23.56	11	11	\$ 1,935	\$ 3,109	60.7%
10		3.36 1 1/2"	\$ 25.72	\$ 41.33	6	6	\$ 1,852	\$ 2,975	60.7%
11		4.58 2"	\$ 35.07	\$ 56.35	26	26	\$ 10,942	\$ 17,581	60.7%
12		9.17 3"	\$ 70.14	\$ 112.70	3	3	\$ 2,525	\$ 4,057	60.7%
13		15.28 4"	\$ 116.89	\$ 187.81	0	0	\$ -	\$ -	60.7%
14		30.56 6"	\$ 233.77	\$ 375.61	17	17	\$ 47,689	\$ 76,625	60.7%
15		55.01 8"	\$ 420.79	\$ 676.11	0	0	\$ -	\$ -	60.7%
					2,068	2,068	\$ 249,002	\$ 400,087	

Metered Revenue	Present	Proposed	% Increase
17 Sales [TG]	\$ 680,876	\$ 680,876	
18 Quantity Rates	\$ 0.8349	\$ 1.3415	60.7%
19 Total Metered Revenue	\$ 568,463	\$ 913,386	

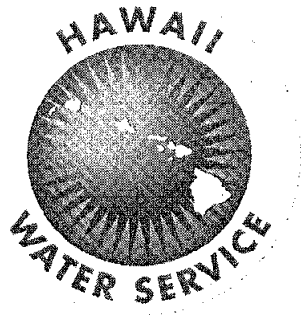
Power Cost Charge	Present	Proposed	% Increase
21 Sales [TG]	\$ 680,876	\$ 680,876	
22 PCC	\$ 1,4871	\$ 1,4563	-2.1%
23 Total PCC Revenue	\$ 1,077,206	\$ 1,054,866	

Bill Impact	Present	Proposed	Difference
24 Monthly Usage [TG]			
25 Meter Size	5/8"	27 5/8"	27
26 Meter Charge	\$ 7.65	\$ 12.29	\$ 4.64
27 Quantity Charge	\$ 22.91	\$ 36.81	\$ 13.90
28 PCC	\$ 40.81	\$ 39.96	\$ (0.85)
30 Total	\$ 71.37	\$ 89.06	\$ 17.70

Waikoloa Water Co., Inc. Dba West Hawaii Water Company
 Rate Design Phase 2
 Test Year Ending December 31, 2018

Line No.	Revenue Requirement	Split	Present	Incremental	Proposed Revenue Split	+/- Rev Req	% Increase		
1	Fixed	30.5%	\$ 400,087	\$ 77,502	\$ 477,590	\$ -	19.4%		
2	Metered	69.5%	\$ 913,386	\$ 176,935	\$ 1,090,322	\$ -	19.4%		
3	PCC		\$ 1,054,866	\$ -	\$ 1,054,866	\$ 0	0.0%		
4	Total		\$ 2,368,339	\$ 254,438	\$ 2,622,777	\$ 0	10.7%		
5	Fixed Revenue								
6	Current Ratio	Meter Size	Current Charge	Proposed Charge	Number of Services (Present)	Number of Services (Proposed)	Present Revenues	Proposed Revenues	% Increase
7		1.00 5/8"	\$ 12.29	\$ 14.67	2,005	2,005	\$ 295,739	\$ 353,028	19.4%
8		1.00 3/4"	\$ 12.29	\$ 14.67	0	0	\$ -	\$ -	19.4%
9		1.92 1"	\$ 23.56	\$ 28.12	11	11	\$ 3,109	\$ 3,712	19.4%
10		3.36 1 1/2"	\$ 41.33	\$ 49.33	6	6	\$ 2,975	\$ 3,552	19.4%
11		4.58 2"	\$ 56.35	\$ 67.26	26	26	\$ 17,581	\$ 20,987	19.4%
12		9.17 3"	\$ 112.70	\$ 134.53	3	3	\$ 4,057	\$ 4,843	19.4%
13		15.28 4"	\$ 187.81	\$ 224.20	0	0	\$ -	\$ -	19.4%
14		30.56 6"	\$ 375.61	\$ 448.37	17	17	\$ 76,625	\$ 91,468	19.4%
15		55.01 8"	\$ 676.11	\$ 807.08	0	0	\$ -	\$ -	19.4%
16	Metered Revenue				2,068	2,068	\$ 400,087	\$ 477,590	
17	Sales [TG]		\$ 680,876	\$ 680,876					
18	Quantity Rates		\$ 1,3415	\$ 1,6014					19.4%
19	Total Metered Revenue		\$ 913,386	\$ 1,090,322					
20	Power Cost Charge								
21	Sales [TG]		\$ 680,876	\$ 680,876					
22	PCC		\$ 1,4563	\$ 1,4563					0.0%
23	Total PCC Revenue		\$ 1,054,866	\$ 1,054,866					
24	Bill Impact								
25	Monthly Usage [TG]								
26	Meter Size	5/8"	27	5/8"	27				
27	Meter Charge	\$	12.29	\$	14.67	\$	2.38		
28	Quantity Charge	\$	36.81	\$	43.94	\$	7.13		
29	PCC	\$	39.96	\$	39.96	\$	-		
30	Total	\$	89.06	\$	98.57	\$	9.51		

Exhibit WHWC-T-100
Direct Testimony of Robert Stout



West Hawaii Water Company General Rate Case
Application Filed December 2017

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1 **WEST HAWAII WATER COMPANY GENERAL RATE CASE**
2 **DIRECT TESTIMONY OF ROBERT STOUT**

3
4 **Introduction**

5 **Q. Please state your name, position, and business address.**

6 A. My name is Robert Stout. I am the Accounting Manager of Hawaii Water Service
7 Company, Inc. (“Hawaii Water”). My business mailing address is PO Box 384809 Waikoloa,
8 Hawaii, 96738.

9
10 **Q. Please summarize your educational background and professional experience.**

11 A. I hold a Bachelor of Science Degree in Finance from California State University, Chico.
12 I spent 25 years in the hospitality industry, the final seven as Controller of a Hawaii Island
13 Resort. I have eight years with Hawaii Water and have served as the Accounting Manager since
14 January of 2013.

15
16 **Q. What is the purpose of your testimony in this proceeding?**

17 A. The purpose of my testimony in this proceeding is to explain the details of the revenue
18 requirement for West Hawaii Water Company (“WHWC”) for the test year beginning January 1,
19 2018 to December 31, 2018. Additionally, I will address sales and revenue estimates, estimates
20 of certain expenses, calculation of rate base, rate of return, recovery of capital project costs that
21 were excluded in the previous rate case, the amendment of the water sharing agreement between
22 WHWC and West Hawaii Utility Company (“WHUC”), proposed tariff revisions, the phase-in of
23 rates, the cost of service study, and the proposed rate design for WHWC.

24
25 **Q. Please summarize the financial exhibits supporting this application.**

26 A. Exhibit WHWC-2 Schedule D shows the 2016 balance sheet and income statement as of
27 December 31, 2016 as reported to the Hawaii Public Utilities Commission (the “Commission”)
28 in WHWC’s annual reports, and Exhibit WHWC-2 Schedule E, WHWC’s balance sheet and
29 income statement as of June 30, 2017. The other financial exhibits supporting the Application
30 are listed in Section V of the Application.

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Q. Please explain the use of Unaudited Financial Statements.

A. WHWC requests that the Commission waive the requirement to provide audited financial statements. The Commission granted this request in Hawaii Water’s most recent rate case for the Pukalani district, Docket No. 2015-0236. In the most recent general rate case filings for WHWC, WHUC and West Hawaii Sewer Company (“WHSC”) (collectively, the “Waikoloa Utilities”)¹ the same request was made and the waiver was granted. The estimated cost to hire a third party to perform an audit is at least \$215,000. This would be an undue burden to the ratepayers. A copy of an estimate for an independent audit of the Waikoloa Utilities from Deloitte & Touche, California Water Service Group’s (“CWSG”) auditor is attached as Exhibit WHWC-T-101. CWSG, Hawaii Water’s parent company, has audited financial statements, which include all of its subsidiaries. A copy of CWSG’s latest audited statement is included in CWSG’s Form 10K, which is located on CWSG’s website.²

Revenue Requirement

Q. Please describe the summary of earnings.

A. The summary of earnings exhibit for WHWC shows the revenue requirement and rate of return summary at present and proposed rates for the test year ending December 31, 2018. The exhibit shows all of the expense categories estimated in the work papers, the average rate base for the test year, and the rate of return at present and proposed rates. Most of the expenses and capital additions are described in detail in Mr. Carrasco’s and Mr. Green’s testimonies. My testimony addresses the calculation of the revenue requirement, test year revenue estimates, certain expense estimates, calculation of rate base, capital structure, and rate of return.

Q. What is the total revenue requirement that WHWC is requesting for the test year?

A. The following table summarizes revenue at present rates, incremental increases, and revenue requirements for WHWC in the test year beginning January 1, 2018 to December 31, 2018:

¹ See Docket Nos. 2011-0331 (WHUC), 2012-0147 (WHSC), and 2012-0148 (WHWC). The waiver was also granted for Kona Water Service Company, Inc. (“KWSC”) in Docket No. 2013-0375.
² <http://ir.calwatergroup.com/Investor-Relations/Financial-Reports/SEC-Filings>

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Revenue at Present Rates	Incremental	Revenue at Proposed Rates	% Increase	Exhibit Reference
\$ 1,894,671	\$ 728,105	\$ 2,622,777	38.4%	Exhibit WHWC 6

Table 101. Test year revenue requirements.

Details of revenue requirements can be found in the Exhibit listed in the table above.

Test Year Revenues

Q. Please describe how revenues were estimated at present and proposed rates.

A. Revenue for WHWC consists of three components: fixed revenue, metered revenue, and power cost charge (“PCC”) revenue. Fixed revenue at present rates is calculated using the currently adopted fixed rate, multiplied by the estimated customer count in the respective customer class for the test year. Metered revenue at present rates is calculated using the currently adopted quantity rate, multiplied by the estimated water consumption in the respective customer class for the test year. PCC revenue is calculated using WHWC’s PCC formula multiplied by the estimated water consumption in the respective customer class for the test year. The following table summarizes revenue at present rates by component for WHWC:

Fixed Revenue	Metered Revenue	PCC Revenue	Total	Exhibit Reference
\$ 249,002	\$ 568,463	\$ 1,077,206	\$ 1,894,671	Exhibit WHWC 8.1

Table 102. Revenue at present rates.

Details of revenue at present and proposed rates can be found in the Exhibit listed in the table above. Fixed revenue at proposed rates is calculated using proposed rates, multiplied by the estimated customer count for the test year. Metered revenue at proposed rates is calculated using proposed rates, multiplied by the estimated water consumption in the test year. Finally, PCC revenue is calculated using WHWC’s PCC formula multiplied by the estimated water consumption for the test year.

1 **Sales, Services, and Production**

2 **Q. Please discuss the Exhibit where recorded and forecasted customer counts are**
3 **shown.**

4 A. Exhibit WHWC 8.3 shows the recorded customer counts by customer class. The Exhibit
5 also shows the forecasted customer counts by customer class in the test year.

7 **Q. How were customer counts estimated for the test year?**

8 A. Generally, customer counts for the test year were estimated by using the actual 2017
9 customer count as of June 30, 2017. WHWC has observed steady customer counts in most
10 customer classes and believes the recorded 2017 customer counts are a reasonable forecast for
11 customer counts in the test year. The 2017 customer count will be updated when the recorded
12 2017 data is available and the test year forecast will be updated accordingly.

13 Test year customer counts are not solely based on recorded 2017 customer counts for
14 WHWC single-family. Growth in that customer class has been observed since 2013 due to the
15 Waikoloa Employee Housing project. It is expected that this customer class will continue to
16 grow through the test year. In order to estimate the growth for the test year, the average annual
17 growth from 2015 – 2017 was calculated and added to the recorded 2017 customer counts. The
18 following table summarizes customer counts by customer class for WHWC forecasted for the
19 test year:

20

Residential		Non-Residential		Total	Exhibit Reference
Single-family	Multi-family	Business	Public Authority		
2,003	32	25	8	2,068	Exhibit WHWC 8.3

21 **Table 103. Customer count.**

22
23 Details of customer counts can be found in the Exhibit listed in the table above.

24
25 **Q. How were water sales and billed sewer flows forecasted for the test year?**

26 A. “Water sales” is defined as water sold to customers measured in thousands of gallons
27 (“TG”). Water sales were estimated using a 3 year average of recorded data from 2015 to 2017.
28 Since only the first 6 months of 2017 were available when the application was prepared, the

1 2017 figures are annualized. These figures will be updated with data through the end of 2017
2 once it is available.

3 As explained above, growth was observed in the single-family customer class for
4 WHWC. Increased water sales are expected with the increase in customer counts. The increase
5 in sales for single-family customers was estimated by calculating the average annual increase in
6 sales from 2015 – 2017 and adding this amount to the recorded 2017 customer counts. The
7 following table summarizes water sales in TG by customer class WHWC forecasted for the test
8 year:

Residential		Non-Residential		Total	Exhibit Reference
Single-family	Multi-family	Business	Public Authority		
439,129	160,265	38,755	42,726	680,876	Exhibit WHWC 8.2

9
10 **Table 104. Water sales and billed sewer flows (TG).**

11

12 Details of water sales can be found in the Exhibit listed in the table above.

13

14 **Expense Estimates**

15 **Q. Which expense estimates are you testifying to in this proceeding?**

16 A. I am testifying on the expense allocation methodology, depreciation expenses, and
17 income taxes.

18

19 **4-factor Allocation**

20 **Q. Please explain which expenses are allocated from Hawaii Water to WHWC.**

21 A. Hawaii Water has several operating units and subsidiaries: Waikoloa Village Water and
22 Sewer, Waikoloa Resort Water, Sewer and Irrigation, Pukalani Wastewater, Ka'anapali Water,
23 and Kona Water and Sewer. Hawaii Water incurs certain expenses which apply to more than
24 one of its operating units, which are allocated among the various operating units. These
25 expenses include payroll, rent, insurance, and employee benefits. The details of these expenses
26 are discussed in the testimony of Anthony Carrasco (Exhibit WHWC-T-200).

27

28 **Q. Why must these expenses be allocated?**

1 A. When employees are engaged in directly supporting a specific operating unit, they charge
2 their time directly to the appropriate operating unit. For example, when Hawaii Water
3 employees perform work on the Ka'anapali water system, the employees charge their time
4 directly to the Ka'anapali operating unit (Dept. 700). However, certain other expenses benefit
5 more than one operating unit. These expenses must be allocated to the operating units to which
6 they apply.

7
8 **Q. Can you explain how charges for expense for the different ratemaking areas are**
9 **allocated?**

10 A. The payroll for the positions assigned to Hawaii Water's General Office department
11 (Dept. 790), as well as indirect expense charges, are allocated to the two operations departments
12 on Maui (Ka'anapali and Pukalani) and seven departments on the Big Island (Waikoloa Water,
13 Waikoloa Wastewater, Waikoloa Resort Water, Waikoloa Resort Wastewater, Waikoloa Resort
14 Irrigation, Kona Water, and Kona Wastewater) based on a 4-factor methodology. Payroll for the
15 positions dedicated to Hawaii Water's Maui operations (Dept. 710), as well as indirect labor and
16 expenses, are allocated between the two Maui departments as determined by the 4-factor method.
17 Similarly, the payroll for the positions dedicated to Hawaii Water's Big Island operations (Dept.
18 720), as well as indirect labor and expenses, are allocated between the seven Big Island
19 departments as determined by the 4-factor method. Finally, payroll for Hawaii Water's
20 Wastewater Administration (Dept. 796), as well as indirect expense charges, are allocated to
21 Hawaii Water's wastewater systems.

22 Additionally, there are charges allocated from California Water Service Company ("Cal
23 Water") to the four regulated subsidiaries it provides service to: Cal Water districts, Hawaii
24 Water, Washington Water Service Company, and New Mexico Water Service Company. These
25 charges are applied to Hawaii Water's General Office. Details of this allocation are included in
26 the direct testimony of Anthony Carrasco.

27
28 **Q. Please describe the 4-factor methodology and the rationale for using it.**

29 A. Hawaii Water uses an internal 4-factor methodology to allocate general operations costs
30 among its regulated utility companies. The four factors used to determine the allocation include

1 the number of customer equivalents, gross plant in service, direct operations & maintenance
 2 expenses, and direct gross payroll. Customer equivalents are used because of the correlation
 3 between the number of customers in a system, and the billing and service costs associated with
 4 those customers. This is also a good indicator of the size of the system. Plant in service is used
 5 because many general costs are related to the level of capital investment used in a system and
 6 there is a general relationship between the amount of this capital investment and the general
 7 costs allocated to effectively operate that infrastructure. Additionally, direct operation &
 8 maintenance expenses are also good indicators of the size of the system. Finally, direct gross
 9 payroll is used because it represents the number of employees working in the system that are
 10 served by various general office departments. These four factors can vary between systems, but
 11 by not equally weighting all four, individual systems are not penalized in their general allocation
 12 for any one factor that is higher than the other systems.

13
 14 **Q. Is Hawaii Water proposing to revise the 4 factor allocations to its operating units in**
 15 **this proceeding?**

16 A. Yes. As explained above, there are several factors that affect the allocation to Hawaii
 17 Water’s operating units. These factors change from time to time. In this proceeding, Hawaii
 18 Water revised the 4-factor allocations from its General Office, Maui Operation, and Wastewater
 19 Administration to its operating units. Hawaii Water used the same methodology it has used in
 20 the past to calculate the 4-factor allocation. The following table shows the test year 4-factor
 21 allocations to WHWC from Hawaii Water and Big Island operations, respectively³:

Hawaii Water GO (790)	Big Island (720)	Wastewater Admin. (796)	Exhibit Reference
12.83%	18.33%	0.00%	Exhibit WHWC 8.5

22
 23 **Table 105. 4-factor allocations.**

24
 25 **Q. Is the 4-factor methodology widely accepted in the water industry?**

26 A. Yes. Companies use a factor allocation when a more direct method is unavailable or
 27 would be impractical. The 4-factor methodology is a widely accepted technique used to

³ The 2017 4-factor allocations are used for the test year. The factors for 2018 will be used once they are available.

1 determine proper allocation of general costs to specific business units. This is the method used
2 by many state Public Utilities Commissions, and has been accepted by the Hawaii Public
3 Utilities Commission in the recent rate cases filed for Hawaii Water's Waikoloa Resort,
4 Waikoloa Village Water, Waikoloa Village Sewer, Kona, Ka'anapali Water, and Pukalani
5 Wastewater operating units.⁴

6

7 Depreciation Expense

8 **Q. How were the depreciable lives determined?**

9 A. WHWC is proposing to use group depreciation for the plant, property, and equipment.
10 For this application, AUS was retained to perform a detailed depreciation study of the Waikoloa
11 Utilities' plant, property, and equipment. The depreciation study for the Waikoloa water system
12 applies to both WHWC and WHUC. A copy of the depreciation study will be filed with
13 WHUC's general rate case application, and is incorporated in this application by reference.⁵

14

15 **Q. Why is group depreciation being proposed in this case?**

16 A. When numerous property units exist within a utility's operating property, the units are
17 typically grouped into similar depreciation categories as opposed to being depreciated on an
18 individual unit basis. This is known as group depreciation. While the items within a specific
19 group may serve the same or similar function, they typically do not have identical service lives.
20 Their useful lives are dispersed over a range of time. Some items may last longer than the
21 expected service life, while others may last less than the expected useful service life. The
22 application of group depreciation rates allows for uniform depreciation to groups of similar
23 property instead of performing extensive depreciation calculations on an item-by-item basis.
24 The proposal to use group depreciation is consistent with Hawaii Water's most recent rate cases
25 for the Ka'anapali water system and the Pukalani wastewater system, in which the Commission

⁴ See Decision and Order No. 32107 filed on May 23, 2014 in Docket No. 2011-0331 (the "WHUC D&O"); Decision and Order No. 32685 filed on February 19, 2015 in Docket No. 2012-0148 (the "WHWC D&O"); Decision and Order No. 32926 filed on June 22, 2015 in Docket No. 2012-0147 (the "WHSC D&O"); Decision and Order No. 32944 filed on June 29, 2015 in Docket No. 2013-0375; Decision and Order No. 33908 filed on September 12, 2016 in Docket No. 2015-0230 (the "Ka'anapali D&O"); and Proposed Decision and Order No. 34822 filed on September 15, 2017 in Docket No. 2015-0236 (the "Pukalani Proposed D&O").

⁵ See Exhibit WHUC-T-102 to the Application to be filed in Docket No. 2017-0350 concurrently with the Application in this docket. Hawaii Administrative Rules §6-61-76 allows for the incorporation by reference of documents required for an application.

1 approved the agreement between Hawaii Water and the Consumer Advocate to use group
2 depreciation.⁶

3
4 **Q. How was depreciation expense estimated?**

5 A. As discussed above, a group depreciation method is being proposed to calculate
6 depreciable lives of groups of assets. However, in general, depreciation expense is calculated by
7 multiplying the prior year's ending plant balance by the group depreciation rate. The following
8 table summarizes test year depreciation expense for WHWC:

9

Depreciation Expense	Depreciation Expense Exhibit Reference	Depreciation Group Detail Exhibit Reference
\$ 114,068	Exhibit WHWC 7.5	Exhibit WHWC 7.6

10 **Table 106. Depreciation Expense.**

11
12 Details of depreciation expense and depreciation groups can be found in the corresponding
13 Exhibit listed in the table above. Exhibit WHWC 7.7 shows detailed depreciation expense
14 calculations for Hawaii Water General Office and Big Island Operations.

15
16 Income Tax Expense

17 **Q. How were income taxes at present and proposed rates calculated?**

18 A. Federal income taxes at present and proposed rates were calculated using the 34%
19 corporate rate, net of the effective Hawaii State Income Tax rate since state income tax is a
20 deduction from federal tax. State income taxes at present and proposed rates are calculated using
21 the corporate Hawaii State Income Tax rate of 6.4%. State income tax expense was reduced by
22 the test year's amortized expense for the Hawaii Capital Goods Excise Tax Credit ("HCGETC").
23 Book depreciation was used as deductions for both federal and state income taxes. The
24 difference between book and federal tax depreciation is reflected in rate base as deferred taxes.
25 The following table summarizes test year income tax expense for WHWC:

26

<u>Income Tax Expense</u>	<u>Exhibit Reference</u>
---------------------------	--------------------------

⁶ See Ka'anapali D&O at 38-39; Pukalani Proposed D&O at 38-41.

\$ 62,614 Exhibit WHWC 8.22

Table 107. Income Tax Expense.

1
2
3 Details of income tax expense can be found in the Exhibit listed in the table above. Applicant is
4 in the process of analyzing the effects of changes to the federal income tax laws that are
5 scheduled to become effective on January 1, 2018. Applicant will provide updates to its income
6 tax expense and any other schedules that are affected by these changes by mid-February.
7
8

9 **Rate Base**

10 **Q. How was rate base estimated?**

11 A. An average rate base was used to calculate the test year revenue requirement.
12

13 **Q. What components make up the proposed rate base?**

14 A. Rate base consists of plant in service with deductions for accumulated depreciation
15 reserve, contributions in aid of construction (“CIAC”), deferred income taxes, unamortized
16 HCGETC, net salvage adjustment, additions for working capital, and a proration of Hawaii
17 Water General Office and Big Island Operations rate base.
18

19 **Q. How was plant in service estimated?**

20 A. Plant in service used recorded plant for the period ending December 31, 2016 as the
21 starting point. Utility plant acquired or constructed during the period from January 1, 2017
22 through December 31, 2017 was added and any assets removed from service during the same
23 period were deducted. Utility plant expected to be in service during the test year was added and
24 any expected retirements were deducted. The following table summarizes WHWC’s plant
25 balance as of December 31, 2016, December 31, 2017, and December 31, 2018:
26

Plant Balance 12/31/2016	Plant Balance 12/31/2017	Plant Balance 12/31/2018	Exhibit Reference
\$ 14,566,914	\$ 15,333,842	\$ 17,185,407	Exhibit WHWC 7.2

Table 107. Plant in Service.

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26

Details of plant in service for can be found in the Exhibit listed in the table above.

Plant additions from January 1, 2017 – December 31, 2018 for WHWC are summarized in the table below:

Plant Additions 2017	Plant Additions 2018	Exhibit Reference
\$ 766,927	\$ 1,851,565	Exhibit WHWC 7.3

Table 108. Plant Additions

Details of plant additions can be found in the Exhibit listed in the table above. Project justifications for projects greater than \$25,000 that have been completed since the WHWC’s last rate case, and that will be completed before Dccember 31, 2018 are discussed in Mr. Green’s direct testimony (Exhibit WHWC-T-300).

Q. How was accumulated depreciation reserve estimated?

A. Accumulated depreciation reserve used the recorded accumulated depreciation reserve balance as of December 31, 2016 as the starting point. Depreciation accruals were then added to this balance. The methodology for determining the depreciation accruals is discussed above. The following table summarizes WHWC’s accumulated depreciation reserves as of December 31, 2016, December 31, 2017, and December 31, 2018:

Reserve Balance 12/31/2016	Reserve Balance 12/31/2017	Reserve Balance 12/31/2018	Exhibit Reference
\$ 6,936,889	\$ 7,363,222	\$ 7,845,713	Exhibit WHWC 7.4

Table 109. Accumulated Depreciation Reserve.

Details of accumulated depreciation reserve can be found in the corresponding listed in the table above.

Q. What is the net salvage adjustment and why is it included in the rate base calculation?

1 A. The net salvage adjustment represents a reduction to rate base due to the collection of net
2 salvage through depreciation. The adjustment is calculated by taking the difference of
3 depreciation expense with net salvage and without net salvage. In the most recent rate cases for
4 Hawaii Water's Ka'anapali water and Pukalani wastewater divisions, Hawaii Water and the
5 Consumer Advocate agreed to use group depreciation on the condition that a net salvage
6 adjustment be included in the rate base calculation. This adjustment was approved by the
7 Commission in its decisions for the Ka'anapali and Pukalani rate cases.⁷ The same adjustment is
8 being proposed for WHWC in this case.

9
10 **Q. How were contributions in aid of construction estimated?**

11 A. CIAC was calculated using the latest recorded information for contributions as of
12 December 31, 2016. Contributions are amortized over periods that would estimate the useful
13 lives of the assets they were used to acquire. The following table shows the Exhibits where
14 details of contributions can be found for WHWC:

15

CIAC	CIAC Amortization
Exhibit WHWC 7.8	Exhibit WHWC 7.9

16 **Table 110. Contributions in Aid of Construction.**

17
18 **Q. How were deferred income taxes estimated?**

19 A. Deferred income taxes were based on accelerated depreciation for federal income tax
20 purposes by the Economic Recovery Act of 1981 and the Tax Reform Act of 1986. Under these
21 statutes, state regulatory commissions calculate provision for federal income taxes at book rates,
22 and then allow the utility to record the tax difference between book and federal and state
23 depreciation as adjustments to rate base. For the test year, deferred income taxes were estimated
24 based on the recent recorded accruals and forecasts of the new plant in the test year. The
25 following table shows the Exhibits where details of deferred income taxes can be found for
26 WHWC:

27

⁷ See Ka'anapali D&O at 38-39; Pukalani Proposed D&O at 38-41.

Deferred Income Taxes Exhibits

Exhibit WHWC 7.10 - 7.13

Table 111. Deferred Income Taxes.

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12

Q. How was working cash calculated?

A. The Commission has established a policy of providing utilities an allowance for working capital, also known as working cash, in the determination of rate base. For this proceeding, working cash was calculated using the 1/12th method, which is generally accepted by state regulatory commissions for determining working cash for smaller utilities. This method uses 1/12th of the annual operating expenses as a proxy for determining the amount of cash that is dedicated to utility service (paying bills prior to receiving customer revenues). The result is counted as an addition to rate base. The following table summarizes working cash for WHWC for the test year:

Working Cash	Exhibit Reference
\$ 176,523	Exhibit WHWC 7.15

Table 112. Working Cash.

13
14

Details of working cash for can be found in the Exhibit listed in the table above.

16

Rate of Return

17

Q. What capital structure is Applicant requesting in this case?

18

A. A capital structure of 47/53 debt to equity is being requested in this case. This is based on the overall capital structure that Hawaii Water’s affiliate, Cal Water, currently uses. Equity is calculated as 53% of the proposed average test year rate base. The proposed capital structure is shown in Exhibit WHWC 10.

22
23

Q. What rate of return is Applicant proposing and why?

24

A. WHWC is requesting a 7.75% rate of return (“ROR”) based on a 47%/53% debt/equity ratio. The requested ROR is the same as the ROR that was approved for the most recent rate cases of the Waikoloa Utilities, KWSC, Ka’anapali, and Pukalani.

25
26
27

1 Applicants are proposing a 5.5% cost of debt and a 9.75% return on equity. The 5.5%
2 cost of debt is the actual interest rate under the long term notes in the original principal amount
3 of \$9,069,804 and \$609,768 dated May 31, 2012 payable by WHUC and WHSC, respectively, to
4 CWSG.⁸ Therefore, the 5.5% cost of debt is an appropriate forecast for the current proceeding.

5 The requested ROE of 9.75% maintains the 7.75% ROR that was approved in the recent
6 rate cases described above. Investors in CWSG equity will expect the company and its
7 subsidiaries to make rational allocations of capital to meet the facilities needs of their service
8 areas. In CPUC Decision (D.) 12-07-009, the most recent proceeding approving a return on
9 equity ("ROE") for Hawaii Water's affiliate, Cal Water, Cal Water was allowed a 9.99% ROE
10 for the period 2012-2015.⁹ Cal Water has filed a cost of capital application in 2017. The
11 proceeding is still pending before the California Public Utilities Commission. WHWC believes
12 it would be reasonable to request a similar ROE as its affiliate, Cal Water (i.e. 9.99%).
13 However, WHWC is only requesting a ROE of 9.75% in order to maintain the 7.75% ROR that
14 was approved in the recent rate cases described above. WHWC plans to update the ROE and
15 capital structure for the current proceeding using the approved cost of capital for Cal Water as
16 the basis.

17
18 **Capital Project Costs**

19
20 Deep Well No. 7

21 **Q. Please describe the rate-making treatment of the cost of DW-7 that was approved in**
22 **WHWC's last rate case.**

23 A. In its last rate case, WHWC included its allocated share of the estimated cost of Deep
24 Well No. 7 ("DW-7") in plant in service for the test year. The estimated cost of DW-7 was
25 \$5,062,739.¹⁰ WHWC's allocated share of this cost was \$2,214,196, and WHUC's allocated

⁸ See Letter to the Commission dated April 26, 2013 in Docket No. 2008-0018.

⁹ This is still the current approved ROE for Cal Water.

¹⁰ Application filed on August 28, 2012 in Docket No. 2012-0148, Exhibit WHWC-T-205.

1 share of the cost was \$2,848,546.¹¹ The Consumer Advocate found there was a need for DW-
2 7.¹²

3
4 **Q. What was the final cost of DW-7?**

5 A. The final cost of DW-7 was \$4,900,821, which is slightly less than the estimated cost.
6 WHWC's allocated share of this cost was \$2,143,371, and WHUC's allocated share of the cost
7 was \$2,757,450.

8
9 **Q. Please describe the proposed rate-making treatment of DW-7 in this rate case.**

10 A. DW-7 was completed during the test year of WHWC's last rate case. Because the
11 Commission uses an average test year rate base, only half of WHWC's allocated share of the
12 cost of DW-7 was included in rate base in that rate case. Therefore, customers have benefitted
13 from a fully utilized well while only half of the cost has been included in rates. WHWC's entire
14 allocated share of the actual cost of DW-7 has been included in WHWC's plant in service in this
15 rate case.

16
17 **Amendment of Water Sharing Agreement**

18 **Q. Please describe the Water Sharing Agreement between WHUC and WHWC.**

19 A. WHWC and WHUC jointly own, operate and maintain the water system that provides
20 potable water to their respective service areas. In 1981, WHWC and WHUC entered a Water-
21 Sharing Agreement (the "WSA") that addressed the ownership of the two wells and related
22 transmission lines, reservoirs, and other equipment that existed at that time; the management of
23 the water system by WHWC; the sharing of water from the wells; the allocation of operating
24 costs; and the allocation of the costs of future wells and related facilities.¹³

25
26 **Q. Please describe the amendment of the Water Sharing Agreement.**

¹¹ Response to CA-IR-4 filed on August 8, 2013 in Docket No. 2011-0331. The cost of DW-7 was allocated in accordance with the terms of the Water Sharing Agreement between WHUC and WHWC.

¹² WHWC Stipulation at 32.

¹³ A copy of the WSA was filed in response to CA-IR-60 in WHWC's last rate case. See WHWC's Responses to the Division of Consumer Advocacy's Information Requests filed on February 14, 2013 in Docket No. 2012-0148.

1 A. WHWC and WHUC recently amended and restated the WSA in the First Amendment
2 and Restatement of Water Sharing Agreement dated October 5, 2017 (the “Amendment”). A
3 copy of the Amendment is attached as Exhibit WHWC-T-102.¹⁴ The Amendment is intended to
4 update the WSA to reflect the current ownership of the wells, tanks, and other equipment
5 comprising the water system; to amend the method of allocating operating costs; and to amend
6 the allocation of the cost of future additions to the water system. The main differences between
7 the original WSA and the Amendment relate to the allocation of operating costs and the
8 allocation of capital costs, as described below.

9 Operating Costs. Under the original WSA, operating costs were to be allocated based on
10 the proportionate share of water used by each party. The proportionate shares were estimated
11 based on the difference between the total amount of water introduced into the system and the
12 amount of water that flowed through the “WRU meter”. The difference between the two meter
13 readings was deemed to be the amount of water used by WHWC. The Amendment changes this
14 so that operating costs will be allocated to WHUC and WHWC based upon the proportionate
15 share of water consumed by each party’s customers as determined by customer meter data.
16 WHWC and WHUC believe that this method more fairly allocates the costs between WHWC
17 and WHUC, since it is based on the respective usage of each party.

18 Capital costs. Under the original WSA, the costs of the fifth and any additional wells
19 were to be paid as follows: 25% by WHUC; 25% by WHWC; and the remaining 50% allocated
20 in the same manner as operating costs. The Amendment changes this so that the capital costs
21 will be allocated based only on the proportionate share of water consumed by each party’s
22 customers, consistent with the changes to the allocation of operating costs. WHWC and WHUC
23 believe that this method more fairly allocates the costs between WHWC and WHUC since it
24 more accurately reflects the benefit received by each party from the improvements.

25
26 **Proposed Tariff Revisions**
27

¹⁴ WHUC and WHWC are “affiliates”, as defined in HRS §269-19.5(a). HRS §269-19.5(c) provides that certain agreements between a public utility and an affiliated interest are not valid or effective unless they are filed the Commission. However, HRS §269-19.5(h) states that “transactions between affiliated Hawaii based utilities shall be exempt from the provisions of this section”. WHWC and WHUC are affiliated Hawaii based utilities. Therefore, WHUC and WHWC understand that the Amendment is exempt from the requirements of §269-19.5.

1 **Q. Please describe the revisions WHWC is proposing to its tariff.**

2 A. As explained in more detail below, WHWC is requesting approval of the following
3 proposed revisions to its tariff: (a) replace its existing flat CIAC rate with a formula for
4 determining CIAC; and (b) remove the service application form from its tariff. Clean and black-
5 lined versions of the proposed revised tariff pages are attached as Exhibits WHWC-T-103 and
6 WHWC-T-104, respectively

7

8 **Q. Please describe the revisions WHWC proposes to its CIAC Tariff.**

9 A. WHWC proposes to revise Rule XX, Section 6 of its tariff regarding the amount of CIAC
10 payable for water service. WHWC's tariff currently provides that CIAC for water service is to
11 be assessed at a rate of \$4.62 per gallon of estimated water usage. WHWC proposes to revise its
12 tariff to provide that the amount of CIAC for water service will be determined based on a
13 formula to determine an applicant's fair share of the cost of improvements required to serve its
14 project. Hawaii Water would like to amend the CIAC provisions for all of its divisions so they
15 are substantially the same. The CIAC formula proposed by WHWC in this case is substantially
16 the same as the formulas in the tariffs of the other Hawaii Water divisions.¹⁵

17

18 **Q. Please describe the other proposed revision to WHWC's tariff.**

19 A. WHWC proposes to remove the service application form that is attached as Exhibit C to
20 its tariff. This form was created and used by WHWC before it was acquired by Hawaii Water.
21 WHWC would like the flexibility to create and utilize a more modern form of application, and to
22 revise the form as necessary. The Commission recently approved Hawaii Water's request to
23 remove the service application form from the tariff for its Pukalani division.¹⁶ Consistent with
24 the stipulation of Hawaii Water and the Consumer Advocate in that case, WHWC will post its
25 application form on the Hawaii Water website.¹⁷

26

¹⁵ See, e.g. Rule XI of Kona Water Service Company, Inc.'s Tariff No. 1.

¹⁶ See Pukalani Proposed D&O at 85-86.

¹⁷ See Stipulation of the Parties for Partial Settlement filed on July 21, 2017 in Docket No. 2015-0236 at 39-40.

1 **Phase-in of Rate Increases**

2 **Q. Are there any proposals for phase-in rate implementation?**

3 A. Yes. WHWC propose to phase-in rates. The proposed revenue increase for WHWC is
4 greater than 25%. Based on the Consumer Advocate's position that increases in rates greater
5 than 25% might constitute rate shock, and in order to reduce the burden to its customers and to
6 mitigate rate shock, WHWC proposes to phase-in the requested revenue increase over two years.
7 The proposed increase for the first phase revenue increase is 25% over present revenues. The
8 second year increase is the difference between the proposed increase and the total that was
9 implemented in the previous year. The following table summarizes the revenue phase-in for
10 WHWC:

11

First Phase Revenue Increase	Second Phase Revenue Increase	Total Revenue Increase	Exhibit Reference
\$ 473,668	\$ 254,438	\$ 728,106	Exhibit WHSC 11

12 **Table 113. Revenue Phase-in.**

13
14 Details of the revenue phase-in can be found in the Exhibit listed in the table above.

15 WHWC is proposing a revenue phase-in in order to mitigate rate shock. The phase-in
16 period is based on the revenue increase requested in this Application. If the adopted revenue
17 increase is less than requested in this Application but greater than 25%, WHWC requests that the
18 first year revenue increase be equal to 25% over present revenues and that the rest of the revenue
19 increase be phased-in equally until the revenue at proposed rates is fully phased in. WHWC's
20 proposal to phase in the revenue increase is not intended to preclude it from filing another rate
21 case before the proposed revenues in this case are fully phased-in. Finally, if the adopted
22 revenue increase is less than 25%, WHWC withdraws the phase-in proposal and requests that
23 revenues be increased in the test year with no phase-in.

24
25 **Rate Design and Cost of Service Studies**

26 **Q. Is WHWC proposing any changes to its rate designs in this proceeding?**

27 A. Yes. WHWC is proposing to revise the pump efficiency factor, as described in greater
28 detail below.

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Power Cost Charge

Q. Does WHWC propose to make any changes to the PCC?

A. Yes. WHWC proposes to revise the pump efficiency factor used in the PCC calculation. The following formula shows the methodology used to calculate the PCC:

Electricity cost per Thousand Gallons

$$= \text{previous month's unit cost of electricity} \left(\frac{\$}{kWh} \right) \\ \times \text{pump efficiency factor} \left(\frac{kWh}{TG} \right) \times \text{revenue tax factor}$$

where the pump efficiency factor is 5.63 kWh / TG. The revenue tax factor is 1.06385, which consists of the Public Service Company tax and Public Utility Commission fee. The pump efficiency factor is a function of the amount of energy consumed and the volume of water pumped from wells. WHWC proposes to update the pump efficiency factors to reflect the energy consumption and volume of water pumped from wells forecasted for the test year. The following table shows the proposed pump efficiency factors WHWC:

Pump Efficiency Factor (kWh / TG)	Exhibit Reference
5.5132	Exhibit WHWC 8.8

Table 114. Pump Efficiency Factors.

Details of the pump efficiency factor calculations can be found in the Exhibit listed in the table above. WHWC is not proposing to change the methodology used to calculate the PCC.

For the purposes of this proceeding, WHWC has included a calculation of estimated revenues resulting from the PCC, which is shown on the following table:

PCC Revenue	Exhibit Reference
\$ 1,054,866	Exhibit WHWC 8.8

Table 115. PCC Revenue.

1
2 Details of the PCC revenues can be found in the Exhibit listed in the table above. The PCC
3 revenues presented in this application are annualized and are meant to demonstrate how the PCC
4 works. The actual PCC passed through to customers would vary month to month depending on
5 the power consumed that month.

6
7 **Cost of Service Studies and Rate Designs**

8
9 **Q. Why did WHWC conduct a COSS for this proceeding?**

10 A. In WHWC's most recent rate case, the Commission ordered it to complete and file a Cost
11 of Service Study (the "COSS") with its next rate case application.¹⁸ In order to comply with the
12 Commission's order, WHWC retained Shambaugh Utility Consulting, LLC and EXP 1, LLC to
13 perform the COSS for the current application. The report and results of the COSS are attached
14 as Exhibit WHWC-T-105. The goal of a cost of service study is to allocate costs to customer
15 classes based on the demand they place on the system. Once the costs are allocated to the
16 customer classes, rates are designed to recover those costs.

17
18 **Q. What is the rate design proposal in this proceeding?**

19 A. WHWC proposes to maintain its existing rate designs. The cost of service analysis
20 shows that there is no cross subsidization between customer classes. As I will explain in greater
21 detail below, WHWC proposes to maintain its existing rate designs including the allocation of
22 revenues between flat rate and quantity revenue.

23
24 **Q. How were proposed rates calculated?**

25 A. The following discussions describe the procedures used to calculate proposed rates for
26 WHWC if there were no phase-in.

27 First, WHWC took the difference between the proposed revenue requirement and the
28 forecasted PCC revenue. This ensures that the revenue collected through meter charges and

¹⁸ See WHWC D&O at 83.

1 quantity rates excludes the cost of power. The amount of revenue to be collected through meter
2 charges and quantity rates is \$1,567,911:

$$3 \qquad \qquad \qquad \$2,622,777 - \$1,054,866 = \$1,567,911$$

4
5 where \$2,622,777 is the proposed revenue requirement and \$1,054,911 is PCC revenue.

6 Next, the revenue was allocated into two categories: flat rate revenue and quantity
7 revenue. The ratio between flat rate revenue and quantity revenue at present rates is
8 approximately 30.5%/69.5%. The industry guideline to collect revenues is 30%/70% flat rate
9 revenue and quantity revenue, respectively. In the current proceeding, WHWC proposes to
10 maintain the existing revenue split since it is in line with the industry guideline. The resulting
11 revenues to be collected through meter charges and quantity rates are \$477,590 and \$1,090,322,
12 respectively:

$$13 \qquad \qquad \qquad \$1,567,911 \times 30.5\% = \$477,590$$

14 \qquad \qquad \qquad \text{and}

$$15 \qquad \qquad \qquad \$1,567,911 - \$477,590 = \$1,090,322$$

16 Next, meter charges are calculated. Meter charges at present rates are increased by the
17 percentage increase that flat rate revenue is increasing. In this case, flat rate revenues are
18 increasing by approximately 92%.

19 Finally, quantity rates are calculated. The amount of revenue to be collected through
20 quantity rates, as calculated above, is divided by the projected sales for the test year. The
21 resulting rate is \$1.6014 per TG:

$$22 \qquad \qquad \qquad \frac{\$1,090,322}{680,876 \text{ TG}} = \$1.6014 / \text{TG}$$

23
24 Detailed calculations are shown in Exhibit WHWC 12.

1 **Q. How were phase-in rates calculated?**

2 A. As discussed above, a phase-in is proposed WHWC. In the first phase-in year, the
3 incremental revenue for year one from Exhibit WHWC 11 was added to revenue at present rates.
4 The same procedure described above was followed to calculate rates in the first year. In
5 subsequent years, the procedure was followed until year 2 when proposed rates would be fully
6 phased-in. Phase-in rates are calculated on Exhibits WHWC 13 – 14.

7

8 **Q. Does this conclude your testimony?**

9 A. Yes it does.

Deloitte

Deloitte & Touche LLP
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San Francisco, CA 94105-0935
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Tel: +1 415 783 4000
www.deloitte.com

December 4, 2017

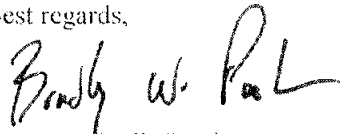
Mr. Thomas F. Smegal III
California Water Service Group
1720 North First Street
San Jose, CA 95112-4598

Dear Tom,

As a follow up to our conversation regarding a stand-alone audit for the Waikoloa District (Village and Resort) financial statements, our estimated fee is \$215,000 plus expenses. This fee estimate would be for the performance of the audits as of and for the year ended December 31, 2016 and as of and for the six-month period ended June 30, 2017. The estimated fees outlined herein are only an estimate for fees associated with performing the audit. This estimate does not contemplate requests for information or any procedures that would need to be performed in connection with any such request. Should Deloitte & Touche LLP agree to perform such procedures, fees for such procedures would be subject to the mutual agreement of the Company and Deloitte & Touche LLP, and subject to approval by the California Water Service Group's Audit Committee.

Please let me know if you require anything further on this audit fee quote and if you would like us to begin this engagement.

Best regards,



Partner - Audit Services
Deloitte & Touche LLP



FIRST AMENDMENT AND RESTATEMENT
OF WATER SHARING AGREEMENT

THIS FIRST AMENDMENT AND RESTATEMENT OF WATER SHARING AGREEMENT (the "Agreement") is made on October, 5, 2017 (the "Amendment Date") by and between WAIKOLOA WATER CO., INC., dba West Hawaii Water Company ("WHWC") and WAIKOLOA RESORT UTILITIES, INC., dba West Hawaii Utility Company ("WHUC") (collectively, the "Parties").

RECITALS:

- A. WHUC is a public utility authorized by the Hawaii Public Utilities Commission (the "HPUC") to provide water service to the Waikoloa Beach Resort area (the "Resort Area") at Anaehoomalu Bay, Waikoloa, District of South Kohala, Hawaii.
- B. WHWC is a public utility authorized by the HPUC to provide water service to the Waikoloa Village area ("Village Area") at Waikoloa, District of South Kohala, Hawaii.
- C. WHWC and WHUC entered into that certain Water Sharing Agreement dated January 1, 1981 (the "WSA") which sets forth certain agreements relating to the water system that serves the Resort Area and the Village Area.
- D. WHUC and WHWC wish to amend and restate the WSA in its entirety to better address the ownership and operation of the water system that services the Resort Area and the Village Area (such water system, including any additions or modifications, is referred to as the "Water System").

AGREEMENT

In consideration of the promises herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Parties here to agree as follows:



1. Date and Effect of this Amendment. This First Amendment and Restatement of Water Sharing Agreement amends and completely restates the original WSA as of the Amendment Date set out above.

2. Designation of WHWC as Manager. WHWC shall act as the manager of the Parties' rights hereunder, as an independent contractor to WHUC, with the following rights and obligations:

- a. Provide for the distribution of water to WHWC and WHUC and the allocation of the cost of the operation of the Water System pursuant to the terms of this Agreement.
- b. Plan for new explorations or new wells as required by law or by the needs of the Parties hereto.
- c. Prepare or cause to be prepared all accountings, statement or reports, and handle all billings, collections, accounts payable, accounts receivable, payroll or other administrative matters required by this Agreement.

WHWC shall not receive any fee for such service, but any out-of-pocket costs and expenses which it incurs in providing such service shall be treated as an operating cost under Section 6.a. and WHWC shall be reimbursed for such costs and expenses from such funds.

3. Term. The term of this Agreement shall be ten (10) years, commencing on the Amendment Date (the "Initial Term"), and shall be renewed automatically for one (1) additional period of ten (10) years, unless either party gives written notice of termination prior to expiration of the Initial Term, or unless earlier terminated as the parties shall mutually agree.

4. Existing Water System.

a. Wells and Tanks. WHWC and WHUC agree that the existing Water System includes the following wells and tanks, together with related pumps, meters, valves chlorinators, SCADA equipment, and other appurtenant equipment and facilities, which are owned by WHWC and/or WHUC as follows:



Well / Tank	Owner
DW-1	WHUC
DW-2	WHUC
DW-3	WHWC / WHUC
DW-4	WHWC
DW-5	WHWC
DW-6	WHUC / WHWC
DW-7	WHUC / WHWC
Tank 1200N-1	WHWC
Tank 1200N-2	WHWC/WHUC
Tank 1200S-1	WHUC
Tank 1200S-2	WHWC/WHWC
Tank 300-1	WHUC
Tank 300-2	WHUC
Tank 300-3	WHUC
Tank 900	WHWC / WHUC

b. Transmission System. The existing transmission system consists of:

(i) a main transmission line made up of a 14-inch and 16-inch connected main line running from the north well field past the Village Area and then Makai (downhill) for a distance of approximately 9 ½ miles to the 300 foot elevation level;

(ii) a 24-inch connected main line continuing Makai (downhill) from such 300 foot elevation level for a distance of approximately 1 ½ miles to the Resort Area;

(iii) a second 24-inch connected main line from the 300 foot elevation for 1.0 mile to the Resort Area;

(iv) a main transmission line made up of a 20-inch transmission line from the South Well Field for 1.3 miles to Waikoloa Village.

(v) various laterals, feeders, mains and other pipelines and equipment to service WHWC's and WHUC's customers in the Village Area and the Resort Area.

5. Sharing of Water. WHWC and WHUC shall each have the right to use such amounts of the water from the existing Water System and any future wells, as each shall require to service the customers in its respective area of service and for such other purposes as each



HAWAII WATER SERVICE COMPANY

party deems appropriate; provided however, that in the event of a shortage in the supply of such water, then each party shall have the right to use of fifty percent (50%) of the available water.

WHWC agrees that WHUC may use its water transmission system to carry WHUC's share of water to the Resort Area or to such reservoirs or other water facilities which WHUC may develop to service the Resort Area.

6. Allocation of Costs.

a. Shared Operation and Maintenance Costs. As used in this Agreement, "Shared Facilities" shall mean all of the existing and future facilities comprising the Water System, regardless of the ownership of such facilities, including, without limitation, existing and additional wells, well fields and well operating systems, tanks, pumps, SCADA equipment, control valves, and transmission lines, but excluding the WHWC Distribution System and the WHUC Distribution System, as described in Sections 6.b. and 6.c. below. As used in this Agreement, "Shared Costs" shall mean the cost of operation and maintenance of the Shared Facilities, including, without limitation, power and other energy source(s) to operate the pumps necessary to draw water from the wells; lubricating oils and chemicals; maintenance, operation and upkeep of Shared Facilities, labor, payroll, insurance and other costs which are incurred in the operations of the Shared Facilities. The Shared Costs shall be allocated between WHWC and WHUC as described in Section 6.d below.

b. WHWC Distribution Cost. As used in this Agreement, the "WHWC Distribution System" shall mean the laterals, feeder mains and other pipelines or equipment connected into the main transmission line that are used to service WHWC's customers in the Village Area. WHWC shall be solely responsible for payment of all costs of maintenance, upkeep and repair of the WHWC Distribution system, for any work done on the main



transmission line in connection with the installation or servicing of such laterals or mains, and for the cost of any additions or replacements to the WHWC Distribution System.

c. WHUC Distribution Cost. As used in this Agreement, the “WHUC Distribution System” shall mean the laterals, feeder mains and other pipelines or equipment connected into the main transmission line that are used to service WHUC’s customers in the Resort Area. WHUC shall be solely responsible for payment of all costs of maintenance, upkeep and repair of the WHUC Distribution System, for any work done on the main transmission line in connection with the installation or servicing of such laterals or mains, and for the cost of any additions or replacements to the WHUC Distribution System.

d. Shared Cost Allocation Formula. WRU and WHWC shall share the cost of the Shared Facilities based on the proportionate share of water consumed by each party’s customers, calculated monthly based on customer meter data. Therefore, each party’s share of the Shared Costs shall be equal to the percentage obtained by dividing the total of WHWC’s and WHUC’s consumption by that party’s consumption (the “Shared Cost Allocation Formula”). An illustration of the Shared Cost Allocation Formula is attached hereto as Exhibit A.

e. Contribution in Aid of Construction. Each party shall be entitled to collect contributions in aid of construction in accordance with the terms of its Tariff, as approved by the HPUC from time to time, and to keep as its own funds and not be required to account for or share with the other party any contributions in aid of construction which such party may receive from its customers.

7. Future Additions to Water System. WHUC and WHWC agree that the cost of any future Shared Facilities which may be required by either WHWC or WHUC to provide service to the Resort Area or the Village Area including, without limitation, the cost of planning,



design, permitting and construction of such facilities, shall be based on the Shared Cost Allocation Formula described in Section 6.d for the calendar year immediately preceding the year the improvement is placed in service. The Shared Allocation Formula shall apply to all Shared Facilities that will be placed in service after the Effective Date, and to the following projects: well DW-8; SCADA equipment; DW-1 electrical building; replacement of three (3) Cla-vals; and upgrade of DW-2 and DW-3 starters.

8. Default. If either party shall fail to make any payment required under this Agreement or to perform any of its obligations, it shall be in default under this Agreement. Upon such occurrence, the other party may institute an action to compel compliance with this Agreement or to seek damages for breach of this Agreement or any other remedy permitted by law. Any advance of funds made by one party on behalf of a defaulting party shall be repaid to such party by the defaulting party together with interest at either 12% per annum or the highest rate permitted by law, whichever is lower.

9. Indemnity. Each party hereby agrees to defend and hold harmless the other party from and against all costs, expenses, liabilities, damages, claims, demands, actions, suits and proceedings which may arise by virtue of (i) any acts or omissions of the indemnifying party (or, any of its agents, employees or representatives) outside of the scope or in the breach of the terms of this Agreement, and (ii) the performance by the indemnifying party (or its agents, employees or any of its representatives) of all or any part of the obligations of such party under this Agreement. The rights and obligations of each party under this section shall survive the termination of this Agreement.



10. No Third Party Beneficiaries. Nothing in this Agreement shall be deemed to create any right in any one not a party hereto, and this Agreement shall not be construed in any respect to be a contract in whole or in part for the benefit of anyone not a party hereto.

11. Definitions. As used herein, the term "water" shall be interpreted to mean potable water having, meeting or exceeding the standards adopted by the U.S. Environmental Protection Agency or the State Department of Health or the Department of Water Supply, County of Hawaii on a county-wide basis for potable water.

12. Miscellaneous.

a. Time. It is agreed that time is of the essence of this transaction.

b. Attorneys' Fees. If legal action be commenced to enforce or to declare the effect of any provisions of this Agreement, the court as part of its judgment shall award reasonable attorneys' fees and costs to the prevailing party.

c. No Waiver. The waiver by one party of the performance of any covenant, condition or promise shall not invalidate this Agreement nor shall it be considered a waiver by such party of any other covenant, condition or promise hereunder. The waiver by either or both parties of the time for performing any act shall not constitute a waiver of the time for performing any other act or identical act required to be performed at a later time. The exercise of any remedy provided by law and the provisions of this Agreement for any remedy shall not exclude other consistent remedies unless they are expressly excluded.

d. Construction. As used in this Agreement, the masculine, feminine or neuter gender and the singular or plural numbers shall each be deemed to include the other whenever the context so indicates. This Agreement shall be construed as a whole and in



accordance with its fair meaning, the captions being for convenience only and not intended to fully describe or define the provisions in the portions of the Agreement to which they pertain.

e. Merger. It is agreed that all understandings and agreements heretofore had between the parties respecting this transaction are merged in this Agreement, which fully and completely expresses the agreement of the parties, and that there are no representations, warranties, agreements except as specifically and expressly set forth herein.

f. Amendments. The terms of this Agreement may only be amended by a written instrument executed by WHWC and WHUC.

g. Invalidity of Provision. If any provision of this Agreement as applied to either party or to any circumstance shall be adjudged by a court of competent jurisdiction to be void or unenforceable for any reason, the same shall in no way affect (to the maximum extent permissible by law) any other provision of this Agreement, the application of any such provision under circumstances different from those adjudicated by the court, or the validity or enforceability of this Agreement as a whole.

h. Computation of Periods. All periods of time referred to in this Agreement shall include all Saturdays, Sundays and state or national holidays, unless the period of time specifies business days, provided that if the date or last date to perform any act or give any notice with respect to this Agreement shall fall on a Saturday, Sunday or state or national holiday, such act or notice may be timely performed or given on the next succeeding day which is not a Saturday, Sunday or state or national holiday.

i. Successors and Assigns. This Agreement shall be binding upon and inure to the benefit of the successors and assigns of the parties hereto.



j. Applicable Law. This Agreement shall be governed by the laws of the State of Hawai'i and applicable federal statutes and rules both as to interpretation and performance.

k. Notice. If a demand, request, approval, consent or notice (collectively a "notice") is given to either party by the other, the notice shall be in writing and delivered by hand or sent by registered or certified mail with return receipt requested, or sent by overnight or same day courier service at the party's respective address. Each notice shall be deemed to have been received or given on the earlier to occur of actual delivery or the date on which delivery is refused. Either party may, at any time, change its notice address by giving the other party written notice of the new address in the manner described herein.

l. Jurisdiction: Venue. The jurisdiction and venue for any and all arbitrations or lawsuits if any, shall be the County of Hawaii, State of Hawai'i.

m. Counterparts; Facsimile Copies. This Agreement may be executed in counterparts. Each counterpart shall be executed by one or more of the parties to this document and the several counterparts shall constitute one document to the same effect as though the signature of all the parties were upon the same document. Emailed or facsimile copies shall be deemed to be originals.

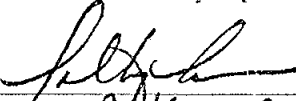


HAWAII WATER SERVICE COMPANY

IN WITNESS WHEREOF, the WHWC and WHUC have executed this

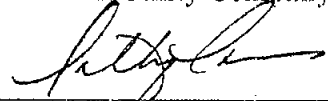
Agreement as of the day and year first above written.

WAIKOLOA WATER CO., INC., dba West
Hawaii Water Company

By 
Name: *Anthony Carrasco*
Title: *General Manager*

"WHWC"

WAIKOLOA RESORT UTILITIES, INC., dba
West Hawaii Utility Company

By 
Name: *Anthony Carrasco*
Title: *General Manager*

"WHUC"



Exhibit A

Shared Cost Allocation Formula:

Village WHWC % = Village WHWC Annual Consumption /
(Resort WHUC Annual Consumption + Village WHWC Annual Consumption)

Resort WHUC % = Resort WHUC Annual Consumption /
(Resort WHUC Annual Consumption + Village WHWC Annual Consumption)

Illustration based on 2016 Consumption:

WHWC Annual Consumption = 687,456 TG
WHUC Annual Consumption = 1,216,957 TG

Village WHWC ____% = 36.1%

687,456 TG/
(687,456 TG + 1,216,857 TG)

Resort WHUC ____% = 63.9%

1,216,957 TG/
(687,456 TG + 1,216,857 TG)

WHWC Tariff Revisions

CHECK LIST SHEET

<u>SHEET</u>	<u>REVISION</u>
Title	SECOND
1	ELEVENTH
2	EIGHTH
3	SECOND
4	SECOND
5	FOURTH
6	FOURTH
7	SECOND
8	SECOND
9	SECOND
10	THIRD
11	SIXTH
12	SECOND
13	THIRD
14	SECOND
15	THIRD
16	SECOND
17	SECOND
18	SECOND
19	THIRD
20	SECOND
21	SECOND
22	SECOND
23	SECOND
24	SECOND
25	SECOND
26	SECOND
27	SECOND
28	SECOND
29	SECOND
30	THIRD
31	FIFTH
31A	FIRST
31B	ORIGINAL
32	THIRD
33	THIRD
34	THIRD
35	THIRD

Issued:
By: Paul Townsley, Vice President - Regulatory

Effective:

WEST HAWAII WATER COMPANY
A subsidiary of Hawaii Water Service Company, Inc.
Waikoloa, Hawaii

Application Filed December 2017
Exhibit WHWC-T-103
WHWC@hawaii.gov (plan)
Eighth Revised Sheet 2
Cancels Seventh Revised Sheet 2

CHECK LIST SHEET (cont'd)

<u>SHEET</u>	<u>REVISION</u>
36	THIRD
37	THIRD
38	FIFTH
39	FIFTH
40	SECOND
41	SECOND
42	THIRD

Issued:
By: Paul Townsley, Vice President - Regulatory

Effective:

WEST HAWAII WATER COMPANY
A subsidiary of Hawaii Water Service Company, Inc.
Waikoloa, Hawaii

Cancels Second Revised Sheet 30

RULE XX
CONTRIBUTION IN AID OF CONSTRUCTION FEE
(FACILITIES CHARGES)

1. As a condition of receiving service or substantially increasing water consumption to new or substantially modified facilities, developer and commercial applicants shall be required to pay a contribution in aid of construction to the Company, which shall be non-refundable except as provided in this Rule.

2. Contribution in aid of construction payments are used by the Company for the purpose of expanding the capacity of the water system, including:

- (a) Construction of new wells or increasing the capacity of existing wells;
- (b) Construction of new reservoirs;
- (c) Construction of new primary transmission system or improvements to increase the capacity or efficiency of the existing primary transmission system;
- (d) Construction of water treatment facilities;
- (e) Related improvements intended to increase the capacity, efficiency or quality of the primary water system; and
- (f) Increased capacity or improved service of electrical systems required for Items 2a-e above.

3. New facilities shall mean premises or facilities that have not been connected to the Company's water system, but shall not include any new connections to single family lots if the lots were in existence as of January 1, 1988.

4. Substantially modified facilities shall mean premises or facilities to which any material change is made in the size of the premises or facilities, or in the character or extent of any commercial activities conducted at the premises or facilities, that results in an estimated increase in annual average water usage by the customer in excess of 300 gallons per day.

5. The contribution in aid of construction required as a condition of service to a new facility shall be payable only once for such facility, provided that an additional contribution in aid of construction may be required from developers or commercial customers for facilities that are substantially modified.

Issued:
By: Thomas Smegal, III, Vice President - Regulatory

Effective:

WEST HAWAII WATER COMPANY
 A subsidiary of Hawaii Water Service Company, Inc.
 Waikoloa, Hawaii

WHWC Tariff No. 1
 Fifth Revised Sheet 31
 Cancels Fourth Revised Sheet 31

6. The amount of the contribution in aid of construction shall be equal to an equivalent per gallon charge, calculated as follows:

(a) If the Company has no capacity available at the time a request for service or substantial modification is made, the contribution in aid of construction payment shall be based on the Company's good faith estimate, based on engineering and construction analyses, of the anticipated total cost to construct the next capacity addition, and is calculated as follow:

Estimated Daily Gallons for Proposed or Existing Development	X	Estimated Cost per Gallon of the Company's Next Capacity Addition	X	If CIAC is Based On Historical Costs: CPI in the year of payment / CPI for the base year (last capacity addition used in calculating CIAC)
--	---	---	---	--

(b) If the Company has capacity available at the time the request for service is made, the applicant shall pay a contribution in aid of construction payment as follows:

Estimated Daily Gallons for Proposed or Existing Development	X	Actual Cost per Gallon of the Company's Most Recent Capacity Addition	X	CPI in year of contribution payment / CPI for base year (last capacity addition used in calculating CIAC)
--	---	---	---	---

"CPI" shall mean the "Consumers Price Index for all urban Consumers, Honolulu, Hawaii, ALL ITEMS", as published by the Bureau of Labor Statistics, United States Department of Labor.

(c) Where the contribution in aid of construction is based on estimated construction costs, promptly following completion of construction, the Company shall deliver to the applicant a statement showing the actual costs of construction and a recalculation of the contribution in aid of construction based on actual construction costs. Any difference between the originally calculated and recalculated contribution in aid of construction shall be payable by the Company or the applicant, as applicable, within thirty (30) days of the date of the statement.

7. The contribution in aid of construction shall be calculated on the basis of the Company's estimate of (a) the consumer's annual average water consumption, in the case of new facilities, or (b) the customer's increased water consumption, above historical trends in the case of substantially modified facilities.

Issued:
 By: Paul Townsley, Vice President - Regulatory

Effective:

WEST HAWAII WATER COMPANY
A subsidiary of Hawaii Water Service Company, Inc.
Waikoloa, Hawaii

WHWC Tariff No. 1
First Revised Sheet 31A
Cancels Original Sheet 31A

8. The following guidelines are currently being used by the Company to estimate water consumption:

- (a) Single-family detached residences: 600 gpd.
- (b) Apartment/condominiums: 400 gpd.
- (c) Commercial uses: 220 gpd per 1,000 square feet plus estimated irrigation usage.
- (d) Other uses by estimates of consumption approved by the Company.
- (e) Estimates of consumption are to be made by the Company and, if by the customer, will require adequate justification for Company approval.

These guidelines are approximate and each development will be evaluated based on design and other factors that influence water usage.

9. Notwithstanding anything contained herein to the contrary, an additional contribution in aid of construction may be required from customers whose water consumption results in an increase in annual average water usage in excess of the greater of 300 gallons per day or 20% over the annual average water consumption that was initially utilized in calculating the contribution in aid of construction initially paid by a developer in the case of new or modified facilities pursuant to paragraph 6.

10. The contribution in aid of construction ("CIAC") for new facilities shall be estimated at the time that an applicant makes a request of the Company for a "will serve" letter. A subsequently issued "will serve" letter will only state the Company's ability and willingness to supply the applicant with the requested service, conditioned upon the applicant's execution of an Extension Agreement within a specified period of time, payment of the CIAC, and construction of or contribution to the cost of any special facilities required to serve the applicant that are not paid for with CIAC. The total CIAC fee to be paid will be dependent on the rate provided for in the Company's Rules and Regulations in effect at the time that final payment is tendered. CIAC shall be payable in full upon execution of an Extension Agreement. If the full CIAC is not paid upon execution of the Extension Agreement, the Extension Agreement and the "will serve" letter shall be null and void. Any Extension Agreement issued by the Company shall not be binding until payment is received.

11. The contribution in aid of construction for substantially modified facilities shall be payable (a) within thirty (30) days after the customer receives a building permit, or (b) as of the date upon which the customer increases water usage as a result of the modification if the customer fails to provide the company with prior written notice of the modification.

Issued:
By: Paul Townsley, Vice President - Regulatory

Effective:

WEST HAWAII WATER COMPANY
A subsidiary of Hawaii Water Service Company, Inc.
Waikoloa, Hawaii

WHWC Tariff No. 1
Original Sheet 31B

12. Any will-serve agreement entered into after June 30, 2015 shall automatically terminate if the applicant does not execute an Extension Agreement and satisfy all other conditions contained in the will-serve agreement within the time set forth in the will-serve agreement. In addition, any Extension Agreement entered into after June 30, 2015 shall automatically terminate if the applicant has not completed construction of the project for which service was requested within one year after the date of the Extension Agreement, or such longer or shorter time as may be set forth in the Extension Agreement. The Company may agree to extend this date if facilities constructed or to be constructed with the CIAC are not required by another user. In the event of such termination of either the will-serve agreement or the Extension Agreement: (a) the Company's commitment to reserve capacity for the applicant shall be null and void; and (b) if the applicant subsequently requests service for the same property, applicant will be required to sign a new will-serve agreement and a new Extension Agreement under which the contribution-in-aid of construction will be recalculated based on the cost of facilities required to serve applicant and applicant will receive a credit in the amount of the unreimbursed balance of the contribution in aid of construction previously paid. In the event of such termination, the Company shall have no obligation to reimburse the applicant for any contribution in aid of construction paid by the applicant. However, the Company will reimburse the applicant for all or a part of the contribution in aid of construction paid by the applicant if (i) such funds have not yet been used and are not required to complete construction of the facilities for which they were collected, or (ii) to the extent that the Company has received contributions in aid of construction from another applicant who will utilize the capacity originally reserved for the applicant.

13. In lieu of requiring an applicant to pay a contribution in aid of construction pursuant to this Rule, the Company may, in its discretion, allow an applicant to contribute or construct facilities that are required to serve the applicant's project pursuant to Rule XXI, System Extensions. Such facilities may include those described in Section 2 of this Rule. Further, in addition to requiring an applicant to pay a contribution in aid of construction pursuant to this Rule, the Company may require an applicant to construct or contribute to the cost of constructing special facilities that are required to serve the Applicant pursuant to Rule XXI to the extent that the cost of such facilities is not included in the contribution in aid of construction.

14. Section 12 of this Rule shall not apply to any applicant who has entered into a will-serve agreement before June 30, 2015. Section 6 of this Rule shall not apply to any applicant who has entered a will serve agreement before June 30, 2015, except to the extent that the terms of such agreement are consistent with the terms of Section 6; provided that, if full payment of the CIAC due under such will-serve agreement has not been paid and the will-serve agreement provides that final payment will be dependent on the rate in effect at the time of such payment, the total CIAC payable will be calculated in accordance with Section 6 above. In addition, Section 6 shall not apply to any residential units that are subject to the Memorandum of Understanding dated March 2, 1988 by between Transcontinental Development Company and the County of Hawaii.

Issued:
By: Paul Townsley, Vice President - Regulatory

Effective:

WHWC Tariff Revisions

WEST HAWAII WATER COMPANY
 A subsidiary of Hawaii Water Service Company, Inc.
 Waikoloa, Hawaii

WHWC Tariff No. 1
~~Tenth~~Eleventh Revised Sheet 1
 Cancels ~~Ninth~~Tenth Revised Sheet 1

CHECK LIST SHEET

<u>SHEET</u>	<u>REVISION</u>
Title	SECOND
1	TENTH <u>ELEVENTH</u>
2	SEVENTH <u>EIGHTH</u>
3	SECOND
4	SECOND
5	FOURTH
6	FOURTH
7	SECOND
8	SECOND
9	SECOND
10	THIRD
11	SIXTH
12	SECOND
13	THIRD
14	SECOND
15	THIRD
16	SECOND
17	SECOND
18	SECOND
19	THIRD
20	SECOND
21	SECOND
22	SECOND
23	SECOND
24	SECOND
25	SECOND
26	SECOND
27	SECOND
28	SECOND
29	SECOND
30	SECOND <u>THIRD</u>
31	FOURTH <u>FIFTH</u>
31A	<u>FIRST</u>
<u>31B</u>	ORIGINAL
32	THIRD
33	THIRD
34	THIRD
35	THIRD

Issued: June 25, 2015

Effective: June 30, 2015

By: Paul Townsley, Vice President - Regulatory

WEST HAWAII WATER COMPANY
A subsidiary of Hawaii Water Service Company, Inc.
Waikoloa, Hawaii

WHWC Tariff No. 1
~~Seventh~~Eighth Revised Sheet 2
Cancels ~~Sixth~~Seventh Revised Sheet
2

CHECK LIST SHEET (cont'd)

<u>SHEET</u>	<u>REVISION</u>
36	THIRD
37	THIRD
38	FIFTH
39	FIFTH
40	SECOND
41	SECOND
42	THIRD
43	SECOND

Issued: ~~June 25, 2015~~
By: Paul Townsley, Vice President - Regulatory

Effective: ~~June 30, 2015~~

WEST HAWAII WATER COMPANY
A subsidiary of Hawaii Water Service Company, Inc.
Waikoloa, Hawaii

WHWC Tariff No. 1
~~Second~~ Third Revised Sheet 30
Cancels ~~First~~ Second Revised Sheet 30

RULE XX
**CONTRIBUTION IN AID OF CONSTRUCTION FEE
(FACILITIES CHARGES)**

1. As a condition of receiving service or substantially increasing water consumption to new or substantially modified facilities, developer and commercial applicants shall be required to pay a ~~non-refundable~~ contribution in aid of construction to the Company, which shall be non-refundable except as provided in this Rule.

2. Contribution in aid of construction payments are used by the Company for the purpose of expanding the capacity of the water system, including:

- (a) Construction of new wells or increasing the capacity of existing wells;
- (b) Construction of new reservoirs;
- (c) Construction of new primary transmission system or improvements to increase the capacity or efficiency of the existing primary transmission system;
- (d) Construction of water treatment facilities;
- (e) Related improvements intended to increase the capacity, efficiency or quality of the primary water system; and
- (f) Increased capacity or improved service of electrical systems required for Items 2a-e above.

3. New facilities shall mean premises or facilities that have not been connected to the Company's water system, but shall not include any new connections to single family lots if the lots were in existence as of January 1, 1988.

4. Substantially modified facilities shall mean premises or facilities to which any material change is made in the size of the premises or facilities, or in the character or extent of any commercial activities conducted at the premises or facilities, that results in an estimated increase in annual average water usage by the customer in excess of 300 gallons per day.

5. The contribution in aid of construction required as a condition of service to a new facility shall be payable only once for such facility, provided that an additional contribution in aid of construction may be required from developers or commercial customers for facilities that are substantially modified.

WEST HAWAII WATER COMPANY
 A subsidiary of Hawaii Water Service Company, Inc.
 Waikoloa, Hawaii

WHWC Tariff No. 1
~~Fourth~~^{Fifth} Revised Sheet 31
 Cancels ~~Third~~^{Fourth} Revised Sheet
 31

6. The amount of the contribution in aid of construction shall be ~~four dollars and sixty-two cents (\$4.62)~~equal to an equivalent per gallon of estimated daily water usage charge, calculated as follows:

(a) If the Company has no capacity available at the time a request for service or substantial modification is made, the contribution in aid of construction payment shall be based on the Company's good faith estimate, based on engineering and construction analyses, of the anticipated total cost to construct the next capacity addition, and is calculated as follow:

<u>Estimated Daily Gallons for Proposed or Existing Development</u>	<u>X</u>	<u>Estimated Cost per Gallon of the Company's Next Capacity Addition</u>	<u>X</u>	<u>If CIAC is Based On Historical Costs: CPI in the year of payment / CPI for the base year (last capacity addition used in calculating CIAC)</u>
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(b) If the Company has capacity available at the time the request for service is made, the applicant shall pay a contribution in aid of construction payment as follows:

<u>Estimated Daily Gallons for Proposed or Existing Development</u>	<u>X</u>	<u>Actual Cost per Gallon of the Company's Most Recent Capacity Addition</u>	<u>X</u>	<u>CPI in year of contribution payment / CPI for base year (last capacity addition used in calculating CIAC)</u>
---	----------	--	----------	--

"CPI" shall mean the "Consumers Price Index for all urban Consumers, Honolulu, Hawaii, ALL ITEMS", as published by the Bureau of Labor Statistics, United States Department of Labor.

(c) Where the contribution in aid of construction is based on estimated construction costs, promptly following completion of construction, the Company shall deliver to the applicant a statement showing the actual costs of construction and a recalculation of the contribution in aid of construction based on actual construction costs. Any difference between the originally calculated and recalculated contribution in aid of construction shall be payable by the Company or the applicant, as applicable, within thirty (30) days of the date of the statement.

7. The contribution in aid of construction shall be calculated on the basis of the Company's estimate of (a) the consumer's annual average water consumption, in the case of new facilities, or (b) the customer's increased water consumption, above historical trends in the case of substantially modified facilities.

Issued:
By: Paul Townsley, Vice President - Regulatory

Effective:

WEST HAWAII WATER COMPANY
A subsidiary of Hawaii Water Service Company, Inc.
Waikoloa, Hawaii

WHWC Tariff No. 1
~~Original~~ First Revised Sheet 31A
~~Original~~ Sheet 31A

8. The following guidelines are currently being used by the Company to estimate water consumption:

- (a) Single-family detached residences: 600 gpd.
- (b) Apartment/condominiums: 400 gpd.
- (c) Commercial uses: 220 gpd per 1,000 square feet plus estimated irrigation usage.
- (d) Other uses by estimates of consumption approved by the Company.
- (e) Estimates of consumption are to be made by the Company and, if by the customer, will require adequate justification for Company approval.

These guidelines are approximate and each development will be evaluated based on design and other factors that influence water usage.

9. Notwithstanding anything contained herein to the contrary, an additional contribution in aid of construction may be required from customers whose water consumption results in an increase in annual average water usage in excess of the greater of 300 gallons per day or 20% over the annual average water consumption that was initially utilized in calculating the contribution in aid of construction initially paid by a developer in the case of new or modified facilities pursuant to paragraph 6.

10. The contribution in aid of construction ("CIAC") for new facilities shall be estimated at the time that an applicant makes a request of the Company for a "will serve" letter. A subsequently issued "will serve" letter will only state the Company's ability and willingness to supply the applicant with the requested service, conditioned upon the applicant's execution of an Extension Agreement within a specified period of time, payment of the CIAC, and construction of or contribution to the cost of any special facilities required to serve the applicant that are not paid for with CIAC. The total CIAC fee to be paid will be dependent on the rate provided for in the Company's Rules and Regulations in effect at the time that final payment is tendered. CIAC shall be payable in full upon execution of an Extension Agreement. If the full CIAC is not paid upon execution of the Extension Agreement, the Extension Agreement and the "will serve" letter shall be null and void. Any Extension Agreement issued by the Company shall not be binding until payment is received.

11. The contribution in aid of construction for substantially modified facilities shall be payable (a) within thirty (30) days after the customer receives a building permit, or (b) as of the date upon which the customer increases water usage as a result of the modification if the customer fails to provide the company with prior written notice of the modification.

Issued:
By: Paul Townsley, Vice President - Regulatory

Effective:

WEST HAWAII WATER COMPANY
A subsidiary of Hawaii Water Service Company, Inc.
Waikoloa, Hawaii

WHWC Tariff No. 1
Original Sheet 31B

12. Any will-serve agreement entered into after June 30, 2015 shall automatically terminate if the applicant does not execute an Extension Agreement and satisfy all other conditions contained in the will-serve agreement within the time set forth in the will-serve agreement. In addition, any Extension Agreement entered into after June 30, 2015 shall automatically terminate if the applicant has not completed construction of the project for which service was requested within one year after the date of the Extension Agreement, or such longer or shorter time as may be set forth in the Extension Agreement. The Company may agree to extend this date if facilities constructed or to be constructed with the CIAC are not required by another user. In the event of such termination of either the will-serve agreement or the Extension Agreement: (a) the Company's commitment to reserve capacity for the applicant shall be null and void; and (b) if the applicant subsequently requests service for the same property, applicant will be required to sign a new will-serve agreement and a new Extension Agreement under which the contribution-in-aid of construction will be recalculated based on the cost of facilities required to serve applicant and applicant will receive a credit in the amount of the unreimbursed balance of the contribution in aid of construction previously paid. In the event of such termination, the Company shall have no obligation to reimburse the applicant for any contribution in aid of construction paid by the applicant. However, the Company will reimburse the applicant for all or a part of the contribution in aid of construction paid by the applicant if (i) such funds have not yet been used and are not required to complete construction of the facilities for which they were collected, or (ii) to the extent that the Company has received contributions in aid of construction from another applicant who will utilize the capacity originally reserved for the applicant.

13. In lieu of requiring an applicant to pay a contribution in aid of construction pursuant to this Rule, the Company may, in its discretion, allow an applicant to contribute or construct facilities that are required to serve the applicant's project pursuant to Rule XXI, System Extensions. Such facilities may include those described in Section 2 of this Rule. Further, in addition to requiring an applicant to pay a contribution in aid of construction pursuant to this Rule, the Company may require an applicant to construct or contribute to the cost of constructing special facilities that are required to serve the Applicant pursuant to Rule XXI to the extent that the cost of such facilities is not included in the contribution in aid of construction.

14. Section 12 of this Rule shall not apply to any applicant who has entered into a will-serve agreement before June 30, 2015. Section 6 of this Rule shall not apply to any applicant who has entered a will serve agreement before June 30, 2015, except to the extent that the terms of such agreement are consistent with the terms of Section 6; provided that, if full payment of the CIAC due under such will-serve agreement has not been paid and the will-serve agreement provides that final payment will be dependent on the rate in effect at the time of such payment, the total CIAC payable will be calculated in accordance with Section 6 above. In addition, Section 6 shall not apply to any residential units that are subject to the Memorandum of Understanding dated March 2, 1988 by between Transcontinental Development Company and the County of Hawaii.

Issued:
By: Paul Townsley, Vice President - Regulatory

Effective:

WEST HAWAII WATER COMPANY
 A subsidiary of Hawaii Water Service Company, Inc.
 Waikoloa, Hawaii

WHWC Tariff No. 1
 Second Revised Sheet 43
 Cancels First Revised Sheet 43

NEW INSTALLATION _____ OWNER
 RECONNECTION _____ TENANT

WEST HAWAII WATER COMPANY				
LOT#:				
ACCT#:				
STREET ADDRESS:				
DATE OF APPLICATION:				
SERVICE FEE:	CURRENT RATE:	DEPOSIT:	CLASS:	PURPOSE:
DATE OF SERVICE:				
OWNER (1) / AGENT:				
OWNER (2):				

BILLING INFORMATION

APPLICANT'S NAME:			
ADDRESS:			
CITY / STATE:		ZIP	
SOCIAL SECURITY NO.:			
HOME/PRIMARY PHONE:	() () ()		
CELL/ALTERNATIVE PHONE:	() () ()		

THE UNDERSIGNED HEREBY APPLIED TO WEST HAWAII WATER COMPANY FOR WATER SERVICE AT THE ABOVE LOCATION AND IN CONSIDERATION OF THE INSTALLATION OF SUCH SERVICE AND METER, AGREES TO PAY ALL CHARGES INCURRED UPON SUCH LOCATION FOR SUCH WATER SERVICE AND TO ABIDE BY ALL RULES, REGULATIONS AND PROVISIONS PRESCRIBED BY WEST HAWAII WATER COMPANY AND AUTHORIZED BY THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII RELATING TO WATER SERVICE AND/OR RATES. THE UNDERSIGNED UNCONDITIONALLY GUARANTEES PAYMENT OF ALL CHARGES FOR WATER SERVICE DURING HIS/HER TENURE AS OWNER OF THE LOCATION DESCRIBED HEREIN, INCLUDING BUT NOT LIMITED TO, CHARGES INCURRED BY PRESENT AND FUTURE TENANTS OF THE OWNER OR OTHER PARTIES HAVING ACCESS TO SAID LOCATION.

BY SIGNING BELOW YOU ACKNOWLEDGE YOU HAVE READ, UNDERSTAND AND AGREE TO THE ABOVE TERMS.

(X) _____ (X) _____
 SIGN AND DATE TENANT SIGN AND DATE OWNER (1)

(X) _____ (X) _____
 SIGN AND DATE ACTING AGENT SIGN AND DATE OWNER (2)

EXHIBIT C

Issued: February 9, 2009
 By: Thomas Smegal, III, Vice President - Regulatory

Effective: August 20, 2008
 D&O (2008-0018, 8/20/08)

WEST HAWAII WATER COMPANY

2018 TEST YEAR
COST OF SERVICE STUDY

by

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December 15, 2017

**2018 TEST YEAR
COST OF SERVICE STUDY
WEST HAWAII WATER COMPANY**

Introduction

This report sets forth the procedures, findings, and results of a cost of service allocation study for the West Hawaii Water Company (the “Company”). The cost of service allocation study developed herein is based on the financial and operating parameters developed by the Company for use in a rate filing.

A discussion of the rationale employed for cost of service allocation studies, including a description of the allocations, together with the resulting tables and a general discussion of rate and tariff design follows.

General

The cost of service study utilizes the “Base – Extra Capacity Method” as set forth in the American Water Works Association M1 Manual of Water Supply Practices entitled “Principles of Water Rates, Fees, and Charges (Sixth Edition). This methodology identifies operating costs and allocates the Company’s annual revenue requirements to functional cost categories. The functional costs are briefly described as follows:

- Base costs include those costs which would generally be incurred if the water system were operated at a uniform rate year-round and customers received water on the same basis.
- Extra capacity costs include those costs related to peak rates of water use in excess of average requirements.
- Customer costs include those costs associated with connection and serving customers irrespective of the volume of water used or demand requirements imposed.

The costs of the water utility are first assigned to several functional cost categories through the use of allocation factors which are developed for each item of operating expense, rate base element, capital expenditure, and other costs. Once the cost of service has been determined by functional cost category, the next step is the allocation of such costs to the customer classifications.

Customer classifications, or equivalent customer groups, are the groupings of those customers who have similar service, consumption, and demand characteristics. The present study identifies and analyzes the following customer groups: residential, multi-family, non-residential and public authority.

The proper allocation of the cost of service requires that each customer group be charged with a portion of the base cost, the extra capacity cost and the customer cost in accordance with the respective needs and use of the service rendered. This is accomplished by allocating the functional costs to each customer group in the proportion that each respective group bears a responsibility for the costs relative to the total cost responsibility of all customers served by the system. The sum of all functional costs attributable to a customer group is the total cost of service to be recovered from that group.

The base, the extra capacity, and the customer costs, when summarized by customer groups, define the total cost of service to be recovered from each customer group. This summation also provides identity of the responsibility of each customer group for each of the functional costs which together constitute the total cost of service.

Annual Revenue Requirements

The initial step in the establishment of customer tariff rates for water utility service is the identification or development of an annual revenue requirement. The Company has provided their proposed 2018 test year annual revenue requirements to be filed with the Hawaii Public Utilities Commission as follows:

Operation & Maintenance Expense	\$1,995,282
Annual Depreciation Expense	114,033
Taxes Other Than Income Taxes	167,464
Public Company Allocation	123,028
Utility Operating Income	160,356
Income Taxes	62,614
Total Revenue Requirement	\$2,622,777

As subsequently discussed herein, this study results in the allocation of \$2,622,777 total annual revenue requirement set forth above to the various customer classes.

A comparison of the cost of service allocation results, the current revenue levels received from each customer class and proposed revenues will indicate the degree to which each customer class is meeting its cost responsibilities will be discussed later in this report. The results of that comparison are used to provide a guideline for use in the proposed rate design.

Water Production/System Delivery

A necessary step in a water cost of service allocation study is the development of the appropriate allocation factors for the functional cost elements. Therefore, it is necessary to determine the system-wide water production and delivery on average day, maximum day, and maximum hour bases.

The Company's Master Plan shows the system maximum day to average day ratio of 1.25 times. We find this ratio as reasonable and appropriate for use in the development of the functional cost allocations. This means that for costs allocated on a maximum day basis, 80 percent of the cost is assigned to the Base Cost function, while 20 percent of the cost is assigned to the Extra Capacity Cost – Maximum Day function.

The Company defines the maximum hour to average hour ratio of 3.00 times or 300 percent. This results in costs allocated on a maximum hour basis, 33.33 percent of the cost is assigned to Base Cost Function and 66.67 percent of the cost is assigned to the Extra Capacity Cost – Maximum Hour Function.

The system factor for transmission and distribution mains is 3.09 times based on the Master Plan. This results in the following factors for T&D mains functionalization: 32.36 percent for Base Cost Function, 8.09 percent for Extra Capacity – Maximum Day and 59.55 percent for Extra Capacity – Maximum Hour Cost function.

Application of Functional Cost Allocation Factors

These three factors allocate costs to the Base Cost function and the Extra Capacity Cost – Maximum Day and/or Maximum Hour functions. In addition to these three factors, several other functional cost allocation factors are utilized in the cost of service analysis. A number of these additional factors allocate costs only to one specific cost function – either Base Cost, Extra Capacity Cost – Maximum Hour, Customer Cost – Commercial, Customer Cost – Meters or Customer Cost – Services. An additional factor is used to allocate

purchase power costs to the base, maximum day and maximum hour functions in order to recognize the significant demand element in purchase power costs.

A supporting schedule to the cost of service analysis sets forth the description of the functional cost allocation factors and their application to the various revenue requirements is attached to this report and identified as Schedule No. 1, Pages 1 to 13.

Water Consumption Analysis

In order to develop the various factors needed to allocate functional costs to the customer groups and to allow for detailed rate design, a summary of customer group water usage by meter size and consumption level is required. Such a summary is known as a billing analysis or bill frequency distribution and contains billing and consumption data for an entire twelve-month period to account for the effects of any seasonal variation in consumption patterns. The water use data for the Test Year twelve months ended December 31, 2018 are as follows:

<u>Customer Group</u>	<u>Water Use</u> <u>1,000 Gallons</u>
Residential	439,129
Multi-Family	160,265
Non-Residential	38,755
Public Authority	42,726
Total	680,875

This information was provided by the Company and was utilized in the development of the customer group allocation factors. The application of these factors and the cost of service allocation for the water system are discussed in the following section.

Cost of Service Allocation

The Company's total cost of service is synonymous with its total annual revenue requirement. As developed herein this is the amount needed from all customers, in total, to permit the Company to meet all annual operating requirements. A cost of service allocation study allocates the total cost of service, that is, the revenue requirement among groups or classes of customers in accordance with recognized principles and generally accepted procedures in order to obtain an indication of the relative cost responsibilities of each such

class of customers. A cost of service allocation is one of a number of factors that may be considered in designing the rates and charges that produce the required revenues.

The allocation of the cost of service of the water system of the Company to the customer classifications of residential, multi-family, non-residential and public authority is set forth in Schedule 2 of this report.

The development of the factors used in the allocation of the functional costs to the customer groups is set forth on Schedule 1. Schedule 2 illustrates the estimated consumption as well as the non-coincident maximum day and maximum hour usage by customer group. The consumption data is based on the consumption levels discussed previously. Maximum daily and maximum hourly totals for customer groups are based on the application of customer group demand factors to the average consumption. These demand factors are conservative estimates based on a review of the system characteristics coupled with available information, experience of other studies, and professional judgement.

We performed a review of water use of the residential and non-Residential classes. Based upon this analysis and our extensive experience in performing water load analysis and fully allocated cost of service studies, we have selected the following maximum day and maximum hour class allocation factors:

Customer Class	Maximum Day/ Average Day	Maximum Hour/ Average Hour
Residential	1.60	3.00
Multi-Family	1.90	3.50
Non-Residential	1.75	3.50
Public Authority	1.75	3.50

The maximum day and the maximum hour demands experienced by a water utility system are a result of the interaction of the individual demands of the individual demands of each customer using the system at that time. The total of the estimated demands represents the non-coincident demand. That is, due to diversity between groups, the sum of the individual customer group's coincidental peak requirements are non-coincident to the system. The estimated demand factors used in these studies are considered reasonable for cost allocation purposes.

Schedule 2 sets forth a description of the allocation codes which designate the groups of percentage which are utilized to allocate the amount of a given cost element to the customer groups or classes.

Accordingly, the Company's proposed and filed 2018 annual revenue requirement was allocated to each customer class. The comparison of revenues at present rates, cost of service allocated revenue requirement and 2018 proposed rate design revenues by customer class is shown on Schedule 3. The results show that revenues by class from proposed rates compared with cost of service allocated revenues for all customer classes match very closely and there is no need for consideration of rate re-design based on cross-subsidization considerations.

Rate Design

Seldom, if ever, are rates exactly in line with the cost of service indications at any given time, nor is it usually possible to design rate structures which are in complete exact agreement with all aspects of a cost of service allocation study. Generally, minor differences will exist just as a matter of normal circumstances. Cost of service allocations are the products of analyses based in part on judgement and experience, and their results provide a substantial guide in the design of rates. Actual rate design, in addition to relying on the results of cost of service analyses, should also include consideration of policy matters, actual budget procedures, impact of rate changes, future planning, special customer characteristics, and judicial regulatory, and contract requirements. Management has the responsibility of adopting a proposed schedule of rates that are fair, just and reasonable.

As stated above, the revenue levels generated by customer class are very close and well-conform with the cost of service based allocation of revenues.

Conclusion

The studies discussed in this report have considered the Company's filed revenue requirement for Test Year 2018 and have used this requirement as the basis for developing a proposed schedule of rates and charges. The studies and recommendations set forth herein provide useful guides for the development of a system of equitable rates and charges. The rates as designed generate revenue from each class are a fraction of a percent different from the cost of service study.

Schedule 1 Page 1 of 13

West Hawaii Water Company
 Summary of Functional Cost Allocation Factors

Allocation Code	Description	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Meters	Customer Services	Check Total
20	Base Cost	100.00 %	0.00 %	0.00 %	0.00 %	0.00 %	100.00 %
21	Base/Ex C - Max Day	80.00 %	20.00 %	0.00 %	0.00 %	0.00 %	100.00 %
22	Base/Ex C - Max Hour	33.33 %	0.00 %	66.67 %	0.00 %	0.00 %	100.00 %
24	Meters	0.00 %	0.00 %	0.00 %	100.00 %	0.00 %	100.00 %
25	Services	0.00 %	0.00 %	0.00 %	0.00 %	100.00 %	100.00 %
27	Depreciated Plant	92.92 %	6.15 %	0.00 %	0.00 %	0.93 %	100.00 %
29	Total Plant in Service	95.20 %	4.23 %	0.00 %	0.00 %	0.58 %	100.01 %
33	Total Rate Base	72.28 %	21.78 %	1.56 %	(0.01) %	4.38 %	99.99 %
37	T&D Operation	32.36 %	8.09 %	59.55 %	0.00 %	0.00 %	100.00 %
38	T&D Maintenance	32.36 %	8.09 %	59.55 %	0.00 %	0.00 %	100.00 %
41	Pumping	32.36 %	8.09 %	59.55 %	0.00 %	0.00 %	100.00 %
43	Purchased Power	65.00 %	10.00 %	5.00 %	0.00 %	0.00 %	100.00 %
44	T&D Mains	32.36 %	8.09 %	59.55 %	0.00 %	0.00 %	100.00 %
45	Distribution Storage	10.00 %	15.00 %	75.00 %	0.00 %	0.00 %	100.00 %
46	Total O&M Expense	63.90 %	9.63 %	18.26 %	0.00 %	8.21 %	100.00 %
47	Admin. & Genl Expense	23.34 %	5.83 %	27.97 %	0.00 %	42.85 %	99.99 %
49	Labor Benefits	50.33 %	12.47 %	37.20 %	0.00 %	0.00 %	100.00 %
<u>System Factors:</u>							
	Max Day - Average Day	125 %	Base 80.00 %	Max Day 20.00 %			
	Max Hour - Average Hour	300 %	33.33 %		66.67 %		
	T&D Mains	309 %	32.36 %	8.09 %	59.55 %		

Transmission goes to base and maximum day. Distribution goes to base, maximum day and maximum hour. (M1 Manual)

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West Hawaii Water Company
 Test Period Ending December 31, 2018
 Allocation of Pro Forma Rate Base

Acct. No.	Description	Total Investment	Base Invest.	Extra Cap Max Day	Extra Cap Max Hour	Customer Meters	Customer Services	Code
Exhibit WHWC 7.2 Pro Forma Utility Plant in Service								
5	Intangible	20,460	\$ 20,460	\$ -	\$ -	\$ -	\$ -	20
6	Land and land rights	-	-	-	-	-	-	33
7	Structures and Improvements	1,167,057	933,646	233,411	-	-	-	21
8	Pumping Equipment	3,678,986	3,678,986	-	-	-	-	20
9	Treatment Equipment	12,820	12,820	-	-	-	-	20
10	Transmission & Distribution Plant	6,892,779	6,892,779	-	-	-	-	20
11	Reservoirs	1,724,208	1,724,208	-	-	-	-	20
12	Wells	2,231,009	1,784,807	446,202	-	-	-	21
13	Office Furniture and Equipment	23,634	18,907	4,727	-	-	-	21
14	Transportation	2,623	2,098	525	-	-	-	21
14	Tools and Laboratory Equipment	93,714	-	-	-	-	93,714	25
15	General Plant	12,782	10,226	2,556	-	-	-	21
16	Asset Retirement Obligation	-	-	-	-	-	-	47
17	Hawaii Water GO Allocation	49,713	49,713	-	-	-	-	20
18	Big Island Allocation	349,840	349,840	-	-	-	-	20
Total Plant in Service		16,259,624	15,478,490	687,421	-	-	93,714	
(Percent Code 29)		100.01 %	95.20 %	4.23 %	0.00 %	0.00 %	0.58 %	
Exhibit WHWC 7.5 Pro Forma Depreciation Reserve								
4	Intangible	(2,046)	\$ (2,046)	\$ -	\$ -	\$ -	\$ -	20
5	Land and land rights	-	0	0	0	0	0	33
6	Structures and Improvements	(219,867)	(175,894)	(43,973)	-	-	-	21
7	Pumping Equipment	(1,526,177)	(1,526,177)	-	-	-	-	20
8	Treatment Equipment	(7,415)	(7,415)	-	-	-	-	20
9	Transmission & Distribution Plant	(4,432,313)	(4,432,313)	-	-	-	-	20
10	Reservoirs	(710,899)	(710,899)	-	-	-	-	20
11	Wells	(515,436)	(412,348)	(103,087)	-	-	-	21
12	Office Furniture and Equipment	(23,634)	(18,907)	(4,727)	-	-	-	21
13	Transportation	(2,579)	(2,063)	(516)	-	-	-	21
14	Tools and Laboratory Equipment	(13,425)	-	-	-	-	(13,425)	25
15	General Plant	(12,782)	(10,226)	(2,556)	-	-	-	21
16	Global Settlement	-	-	-	-	-	-	20
17	Hawaii Water GO Allocation	(33,828)	(33,828)	-	-	-	-	20
18	Big Island Allocation	(104,068)	(104,068)	-	-	-	-	20
	Place Holder	-	-	-	-	-	-	20
	Place Holder	-	-	-	-	-	-	20
	Place Holder	-	-	-	-	-	-	20
Total Pro Forma Depr. Reserve		\$ (7,604,467)	\$ (7,436,184)	\$ (154,859)	\$ -	\$ -	\$ (13,425)	
Total Depreciation Reserve %		100.01 %	97.79 %	2.04 %	0.00 %	0.00 %	0.18 %	
Depreciated Plant		\$ 8,655,158	\$ 8,042,306	\$ 532,562	\$ -	\$ -	\$ 80,289	
(Percent Code 27)		100.00 %	92.92 %	6.15 %	0 %	0.00 %	0.93 %	

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West Hawaii Water Company

Test Period Ending December 31, 2018
 Allocation of Pro Forma Rate Base

Acct. No.	Description	Total Investment	Base Invest.	Extra Cap Max Day	Extra Cap Max Hour	Customer Meters	Customer Services	Code
Exhibit WHWC 7.16 Rate Base Additions								
16	Working Capital Construction Work in Progress	\$176,523	\$ 112,798	\$ 16,999	\$ 32,233	\$ -	\$ 14,483	46
Total Additions		\$ 176,523	\$ 112,798	\$ 16,999	\$ 32,233	\$ -	\$ 14,483	46
Rate Base Deductions								
CAC & CIAC Plant:								
Exhibit WHWC 7.8								
5	Intangible	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	20
6	Land and land rights	-	-	-	-	-	-	33
7	Structures and Improvements	(121,989)	(97,591)	(24,398)	-	-	-	21
8	Pumping Equipment	(2,198,642)	(2,198,642)	-	-	-	-	20
9	Treatment Equipment	(6,338)	(6,338)	-	-	-	-	20
10	Transmission & Distribution Plant	(6,626,208)	(6,626,208)	-	-	-	-	20
11	Reservoirs	(1,449,752)	(1,449,752)	-	-	-	-	20
12	Wells	(695,064)	(532,051)	(133,013)	-	-	-	21
13	Office Furniture and Equipment	(4,767)	(3,814)	(953)	-	-	-	21
14	Transportation	-	-	-	-	-	-	21
14	Tools and Laboratory Equipment	-	-	-	-	-	-	25
15	General Plant	(10,613)	(8,490)	(2,123)	-	-	-	21
16	Global Settlement	(2,214,195)	(2,214,195)	-	-	-	-	20
17	Hawaii Water GO Allocation	-	-	-	-	-	-	20
18	Big Island Allocation	-	-	-	-	-	-	20
	Place Holder	-	-	-	-	-	-	20
	Place Holder	-	0	0	0	0	0	20
	Place Holder	-	0	0	0	0	0	20
Total CIAC		\$ (13,297,958)	\$ (13,137,081)	\$ (160,487)	\$ -	\$ -	\$ -	
Exhibit WHWC 7.9								
5	Intangible	-	\$ -	\$ -	\$ -	\$ -	\$ -	20
6	Land and land rights	-	-	-	-	-	-	33
7	Structures and Improvements	61,478	49,182	12,296	-	-	-	21
8	Pumping Equipment	1,406,440	1,406,440	-	-	-	-	20
9	Treatment Equipment	6,338	6,338	-	-	-	-	20
10	Transmission & Distribution Plant	4,292,099	4,292,099	-	-	-	-	20
11	Reservoirs	658,242	658,242	-	-	-	-	20
12	Wells	383,053	306,442	76,611	-	-	-	21
13	Office Furniture and Equipment	4,767	3,814	953	-	-	-	21
14	Transportation	-	-	-	-	-	-	21
14	Tools and Laboratory Equipment	-	-	-	-	-	-	25
15	General Plant	10,613	8,490	2,123	-	-	-	21
16	Global Settlement	430,538	430,538	-	-	-	-	20
17	Hawaii Water GO Allocation	-	-	-	-	-	-	20
18	Big Island Allocation	-	-	-	-	-	-	20
	Place Holder	-	0	0	0	0	0	20
	Place Holder	-	0	0	0	0	0	20
	Place Holder	-	0	0	0	0	0	20
Total Accum. Depreciation		7,253,567	7,161,585	91,983	-	-	-	
Total CAC & CIAC		\$ (6,044,002)	\$ (5,975,496)	\$ (68,504)	\$ -	\$ -	\$ -	

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Federal and State Income Tax

Exhibit WHWC 7.10 ADIT Federal and State

Federal ADIT

5	Intangible	4,501	\$ 4,501	\$ -	\$ -	\$ -	\$ -	20
6	Land and land rights	-	-	-	-	-	-	33
7	Structures and Improvements	157,842	128,274	31,568	-	-	-	21
8	Pumping Equipment	262,906	262,906	-	-	-	-	20
9	Treatment Equipment	1,285	1,285	-	-	-	-	20
10	Transmission & Distribution Plant	181,285	181,285	-	-	-	-	20
11	Reservoirs	75,909	75,909	-	-	-	-	20
12	Wells	210,914	168,731	42,183	-	-	-	21
13	Office Furniture and Equipment	18,867	15,094	3,773	-	-	-	21
14	Transportation	2,623	2,098	525	-	-	-	21
14	Tools and Laboratory Equipment	91,905	-	-	-	-	91,905	25
15	General Plant	2,169	1,735	434	-	-	-	21
16	Global Settlement	(575,691)	(575,691)	-	-	-	-	20
17	Hawaii Water GO Allocation	48,160	48,160	-	-	-	-	20
18	Big Island Allocation	248,900	248,900	-	-	-	-	20
	Place Holder	-	0	0	0	0	0	20
	Place Holder	-	0	0	0	0	0	20
	Place Holder	-	0	0	0	0	0	20
20	Total Federal ADIT	\$ 731,553	\$ 561,167	\$ 78,483	\$ -	\$ -	\$ 91,899	
21	Accumulated Book Depreciation	\$ 350,902	326058	21580	0	0	3263	27
22	ADIT Balance	\$ (96,585)	-93853	-4170	0	0	-566	29

Exhibit WHWC 7.12 State ADIT

5	Intangible	4,321	\$ 4,321	\$ -	\$ -	\$ -	\$ -	20
6	Land and land rights	-	0	0	0	0	0	33
7	Structures and Improvements	223,141	178,512	44,628	-	-	-	21
8	Pumping Equipment	1,337,227	1,337,227	-	-	-	-	20
9	Treatment Equipment	1,215	1,215	-	-	-	-	20
10	Transmission & Distribution Plant	174,033	174,033	-	-	-	-	20
11	Reservoirs	72,873	72,873	-	-	-	-	20
12	Wells	202,478	161,982	40,496	-	-	-	21
13	Office Furniture and Equipment	18,113	14,490	3,623	-	-	-	21
14	Transportation	2,518	2,014	504	-	-	-	21
14	Tools and Laboratory Equipment	88,229	-	-	-	-	88,229	25
15	General Plant	2,082	1,869	416	-	-	-	21
16	Global Settlement	(552,563)	(552,663)	-	-	-	-	20
17	Hawaii Water GO Allocation	46,233	46,233	-	-	-	-	20
18	Big Island Allocation	238,943	238,943	-	-	-	-	20
	Place Holder	-	-	-	-	-	-	20
	Place Holder	-	0	0	0	0	0	20
	Place Holder	-	0	0	0	0	0	20
20	Total State ADIT	\$ 1,858,740	\$ 1,680,846	\$ 89,667	\$ -	\$ -	\$ 88,229	
21	Accumulated Book Depreciation	350,902	326058	21580	0	0	3263	27
22	ADIT Balance	\$ (90,696)	(86,343)	(3,836)	-	-	(518)	29
	Total Federal and State ADIT	\$ 2,590,293	\$ 2,242,013	\$ 168,150	\$ -	\$ -	\$ 180,128	
	Total Federal and State ADIT Balances	\$ (189,281)	\$ (180,196)	\$ (6,006)	\$ -	\$ -	\$ (1,084)	

Exhibit WHWC 7.14	Unamortized Hawaii General Excise Tax Credit	(86,151)	(82,016)	(3,644)	-	-	(491)	29
Exhibit WHWC 7.6	Net Salvage Adjustment	(443,135)	(421,855)	(18,730)	-	15	(2,560)	29
	Total Deductions	(6,762,569)	(6,659,563)	(96,884)	-	15	(4,135)	
	Total Pro Forma Rate Base	2,069,112	1,495,541	450,677	32,233	15	90,647	
	Rate Base %	99.99 %	72.28 %	21.78 %	1.56 %	(0.01) %	4.38 %	
	(Percent Code 33)							

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West Hawaii Water Company
 Test Period Ending December 31, 2018
 Allocation of Pro Forma Operation and Maintenance Expense

No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Meters	Customer Services	Code
Historic Operations & Maintenance Expense								
Pumping Taxes								
7030XX	Pumping Taxes	0	0	0	0	0	0	41
Total Pumping Taxes Operations		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Purchased Water								
7040XX	Purchased Water	0	0	0	0	0	0	43
Total Purchased Water Operations		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Purchasing Power								
7262XX	Purchased Power	1,070,201	909,671	107,020	53,510	0	0	43
Total Purchasing Power Operations		\$ 1,070,201	\$ 909,671	\$ 107,020	\$ 53,510	\$ -	\$ -	
Source of Supply Operations Expense								
701001	Source of Supply Wages	370	370	-	-	-	-	20
701000	Supervision & Engineering	-	-	-	-	-	-	20
702000	Operation Expense	-	-	-	-	-	-	20
702010	Contract Services - Engineering	-	-	-	-	-	-	20
703002	Miscellaneous - Other	334	334	-	-	-	-	20
703010	Allocation of Payroll	-	-	-	-	-	-	20
703020	Allocation of Transportation	-	-	-	-	-	-	20
703030	Allocation of Miscellaneous Entries	-	-	-	-	-	-	20
Total Source of Supply Operations		\$ 704	\$ 704	\$ -	\$ -	\$ -	\$ -	
Source of Supply Maintenance Expense								
708001	Source of Supply Maintenance Wages	-	-	-	-	-	-	20
708000	Supervision & Engineering	-	-	-	-	-	-	20
707000	Structures & Improvements	-	-	-	-	-	-	20
708000	Canal & Impound Reservoirs	-	-	-	-	-	-	20
709000	Lake, River, Other Intake	-	-	-	-	-	-	20
711000	Wells	22,661	22,661	-	-	-	-	20
712000	Supply Mains	-	-	-	-	-	-	20
Total Source of Supply Maintenance		\$ 22,661	\$ 22,661	\$ -	\$ -	\$ -	\$ -	
Water Treatment and Water Quality Oper. Exp.								
741001	Water Treatment Wages	19,563	15,651	3,913	-	-	-	21
741000	Supervision & Engineering	(5,723)	(4,578)	(1,145)	-	-	-	21
742000	Operation Labor & Expense	1	1	-	-	-	-	21
742001	Sampling at Wells	13	11	3	-	-	-	21
742002	Inorganic Laboratory Expense	144	115	29	-	-	-	21
742003	Organic Laboratory Expense	-	-	-	-	-	-	21
742004	Bacterial Laboratory Expense	1,109	867	222	-	-	-	21
742005	Laboratory Administration Expense	-	-	-	-	-	-	21
742006	Outside Lab Fees	6	5	1	-	-	-	21
743000	Miscellaneous	2,210	1,769	442	-	-	-	21
744000	Chemical & Filter Material	9,852	7,882	1,970	-	-	-	21
745000	Water Trmt Allocation In/Out	-	-	-	-	-	-	21
745010	Allocation of Payroll	-	-	-	-	-	-	21
745020	Allocation of Transportation	-	-	-	-	-	-	21
745030	Allocation of Miscellaneous Entries	-	-	-	-	-	-	21
Total Water Treatment and Water Quality Oper.		\$ 27,177	\$ 21,742	\$ 5,435	\$ -	\$ -	\$ -	

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Water Treatment and Water Quality Maint. Exp.							
746001	Water Treatment Maintenance Wages	\$ 11,848	9,479	2,370	-	-	21
746000	Supervision & Engineering	(6,407)	(5,126)	(1,281)	-	-	21
747000	Structures & Improvement	-	-	-	-	-	21
748000	Water Treatment Equipment	1,719	1,375	344	-	-	21
748003	Bacterial Laboratory Equipment	-	-	-	-	-	21
Total Water Treatment and Water Quality Maint. Exp.		\$ 7,161	\$ 5,728	\$ 1,433	\$ -	\$ -	\$ -
Treatment and Disposal							
746111	Treatment & Disposal Wages	\$ 11,259	9,007	2,252	-	-	21
746100	Supervision & Engineering	906	725	181	-	-	21
746110	Operations Expense	-	-	-	-	-	21
746200	Purchased Wastewater Treatment	-	-	-	-	-	21
746300	Sludge Removal Expense	33	26	7	-	-	21
746400	Chemicals	-	-	-	-	-	21
746500	Materials & Supplies	10	8	2	-	-	21
746600	Contractual Svcs - Engineering	-	-	-	-	-	21
746610	Contractual Svcs - Testing	-	-	-	-	-	21
746620	Contractual Svcs - Other	-	-	-	-	-	21
746700	Equipment Rental	-	-	-	-	-	21
746800	Transportation Expense	-	-	-	-	-	21
746900	Miscellaneous Expense	18	14	4	-	-	21
746000	Trmt & Disp Allocation In/Out	-	-	-	-	-	21
Total Treatment and Disposal		\$ 12,224	\$ 9,780	\$ 2,446	\$ -	\$ -	\$ -
Water Treatment and Disposal Maint. Exp							
766101	Treatment and Disposal Maintenance Wages	\$ -	-	-	-	-	21
766100	Maintenance Expense	-	-	-	-	-	21
766500	Materials & Supplies	46	37	9	-	-	21
766610	Contractual Svc - Testing	-	-	-	-	-	21
766900	Miscellaneous Expense	-	-	-	-	-	21
Total Water Treatment and Disposal Maint. Exp		46	37	9	-	-	-
Reclaimed Water Treatment							
747111	Reclaimed Water Treatment Wages	\$ 370	296	74	-	-	21
747100	Supervision & Engineering	0	-	-	-	-	21
747110	Operations Expense	0	-	-	-	-	21
747200	Chemicals	0	-	-	-	-	21
747500	Materials & Supplies	0	-	-	-	-	21
747610	Contractual Svcs - Testing	0	-	-	-	-	21
747620	Contractual Svcs - Other	0	-	-	-	-	21
747700	Equipment Rental	0	-	-	-	-	21
747800	Transportation Expense	0	-	-	-	-	21
747900	Miscellaneous Expense	0	-	-	-	-	21
Total Reclaimed Water Treatment		\$ 370	\$ 296	\$ 74	\$ -	\$ -	\$ -
Reclaimed Water Treatment Maint.							
767101	Reclaimed Water Trmt Maint Wages	0	-	-	-	-	21
767100	Maintenance Expense	0	-	-	-	-	21
767000	Materials & Supplies	0	-	-	-	-	21
767900	Contractual Svc - Testing	0	-	-	-	-	21
Total Reclaimed Water Treatment Maint.		0	-	0	0	0	0
Reclaimed Water Distribution							
757101	Reclaimed Water Distrib Wages	0	-	-	-	-	21
757100	Supervision & Engineering	0	-	-	-	-	21
757110	Operations Expense	0	-	-	-	-	21
757500	Materials & Supplies	0	-	-	-	-	21
757600	Contractual Svcs - Engineering	0	-	-	-	-	21
757620	Contractual Svcs - Other	0	-	-	-	-	21
757700	Equipment Rental	0	-	-	-	-	21
757800	Transportation Expense	0	-	-	-	-	21
757900	Reclaimed Water Dist Allocation In/Out	0	-	-	-	-	21
Total Reclaimed Water Distribution		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Reclaimed Water Distribution Maint.							
768101	Reclaimed Water Distrib Maint Wages	346	277	69	-	-	21
768100	Maintenance Expense	-	-	-	-	-	21
768500	Materials & Supplies	-	-	-	-	-	21
Total Reclaimed Water Distribution Maint.		\$ 346	\$ 277	\$ 69	\$ -	\$ -	\$ -
Transmission and Distribution - Operation Exp							
751001	Water Treatment Wages	\$ 34,834	\$ 11,272	\$ 2,818	\$ 20,743	\$ -	44
751000	Supervision & Engineering	906	293	73	539	-	44
752000	Storage Facilities	22	7	2	13	-	44
753100	Flushing	100	32	8	60	-	44
753200	Trans & Distrib Lines	11,884	3,846	961	7,077	-	44
753201	Sampling In System	-	-	-	-	-	44
753300	Cross Connection Control	2,677	856	217	1,594	-	44
753301	Cross Connection Control Wages	-	-	-	-	-	44
754100	Turn On's and Turn Off's	-	-	-	-	-	44
754200	Other Meter Expenses	615	199	50	366	-	44
755000	Customer Installation exp	-	-	-	-	-	44
756000	Miscellaneous	19,834	5,451	1,613	11,871	-	44
756010	Allocation of Payroll	-	-	-	-	-	44
756020	Allocation of Transportation	-	-	-	-	-	44
756030	Allocation of Miscellaneous Entries	-	-	-	-	-	44
Total Trans. & Dist. - Operation Expense		\$ 70,972	\$ 22,965	\$ 5,742	\$ 42,263	\$ -	\$ -
Trans. & Dist. - Maintenance Expense							
T & D Operation Expense (Percent Code 37)		100.00 %	32.38 %	8.08 %	58.55 %	0.00 %	0.00 %

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758001	Trans. & Dist. Maint. Wages	\$ 18,056	\$ 5,843	\$ 1,461	\$ 10,752	\$ -	\$ -	44
758000	Supervision & Engineering	-	-	-	-	-	-	44
759000	Structures & Improvements	-	-	-	-	-	-	44
760000	Reservoirs & Tanks	1,327	429	107	790	-	-	44
761000	Mains	4,726	1,529	382	2,814	-	-	44
763000	Services	1,437	465	116	856	-	-	44
764000	Meters	12,434	4,024	1,006	7,404	-	-	44
765000	Hydrants	4,351	1,408	352	2,591	-	-	44
Total Trans. & Dist. - Maintenance Expense		\$ 42,330	\$ 13,698	\$ 3,424	\$ 26,207	\$ -	\$ -	
Total T & D Maintenance % (Percent Code 38)		100.00 %	32.36 %	8.09 %	59.55 %	0.00 %	0.00 %	
Total Trans. and Dist. O&M		\$ 113,303	\$ 36,664	\$ 9,166	\$ 67,470	\$ -	\$ -	
Total Trans. and Dist. O&M %		100.00 %	32.36 %	8.09 %	59.55 %	0.00 %	0.00 %	

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West Hawaii Water Company
 Test Period Ending December 31, 2018
 Allocation of Pro Forma Operation and Maintenance Expense

Acct. No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Meters	Customer Services	Code
Historic Operations Expense (continued)								
Pumping								
721001	Pumping Wages	\$ 143,618	\$ 46,475	\$ 11,619	\$ 85,524	\$ -	\$ -	41
721000	Supervision & Engineering	(82,342)	(26,646)	(6,661)	(49,034)	-	-	41
722000	Power Prod Exp	-	-	-	-	-	-	41
723000	Fuel For Power Production	-	-	-	-	-	-	41
724000	Pumping Expense	7,243	2,344	586	4,313	-	-	41
725000	Miscellaneous	1,949	631	158	1,161	-	-	41
725010	Allocation of Payroll	-	-	-	-	-	-	41
725020	Allocation of Transportation	-	-	-	-	-	-	41
725030	Allocation of Miscellaneous Entries	-	-	-	-	-	-	41
726100	Fuel For Pumping	-	-	-	-	-	-	41
Total Pumping Operating Expense		\$ 70,469	\$ 22,804	\$ 5,702	\$ 41,964	\$ -	\$ -	41
729001	Pumping & Maintenance Wages	\$ 19,889	\$ 6,436	\$ 1,609	\$ 11,844	\$ -	\$ -	41
729000	Supervision & Engineering	(12,388)	(4,009)	(1,002)	(7,377)	-	-	41
730000	Structures & Improvements	618	200	50	368	-	-	41
732000	Pumping Equipment	2,233	723	181	1,330	-	-	41
733000	Other Pumping Plant	-	-	-	-	-	-	41
Total Pumping Maintenance Expense		\$ 10,352	\$ 3,350	\$ 838	\$ 6,165	\$ -	\$ -	41
Pumping for Wastewater								
727101	Pumping for Wastewater Wages	\$ 1,931	\$ 625	\$ 156	\$ 1,150	\$ -	\$ -	41
727100	Supervision & Engineering	-	-	-	-	-	-	41
727110	Operations Expenses	-	-	-	-	-	-	41
727300	Fuel For Power Production	-	-	-	-	-	-	41
727310	Contractual Svcs - Testing	-	-	-	-	-	-	41
727320	Equipment Rental	-	-	-	-	-	-	41
727900	Miscellaneous	385	124	31	229	-	-	41
728000	Pumping for Wastewater Allocation In/Out	-	-	-	-	-	-	41
Total Pumping for Wastewater Operations		\$ 2,315	\$ 749	\$ 187	\$ 1,379	\$ -	\$ -	41
728101	Pumping for Wastewater Wages	1,721	557	139	1,025	-	-	41
728100	Maintenance Expense	-	-	-	-	-	-	41
728500	Materials & Supplies	19	6	2	12	-	-	41
728510	Contractual Svc - Testing	-	-	-	-	-	-	41
728900	Miscellaneous Expense	8	3	1	5	-	-	41
Total Pumping for Wastewater Maintenance		\$ 1,749	\$ 566	\$ 142	\$ 1,042	\$ -	\$ -	41
Collection								
704101	Collection Wages	\$ 486	\$ 157	\$ 39	\$ 289	\$ -	\$ -	41
704100	Supervision & Engineering	-	-	-	-	-	-	41
704110	Operations Expense	-	-	-	-	-	-	41
704120	Chemicals	-	-	-	-	-	-	41
704900	Miscellaneous Expenses	95	31	8	57	-	-	41
Total Collection		\$ 581	\$ 188	47	346	0	\$ -	41
Collection Maint.								
713101	Collection Maint Wages	\$ 294	\$ 95	\$ 24	\$ 175	\$ -	\$ -	41
713100	Maintenance Expense	-	-	-	-	-	-	41
713000	Materials & Supplies	-	-	-	-	-	-	41
713900	Miscellaneous Expense	19	6	2	11	-	-	41
Total Collection Maint.		\$ 313	\$ 101	26	186	0	\$ -	41

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Customer Account Expenses								
771001	Customer Accounts Wages	\$ 57,883	\$ -	\$ -	\$ -	\$ -	\$ 57,883	25
771000	Supervision	-	-	-	-	-	-	25
772000	Meter Reading	6,057	-	-	-	-	6,057	25
773000	Laboratory Misc	-	-	-	-	-	-	25
773100	Office Salaries	-	-	-	-	-	-	25
773201	Collecting Expense	-	-	-	-	-	-	25
773202	Collection Agency Fees	53	-	-	-	-	53	25
773300	Postage	1,866	-	-	-	-	1,866	25
773400	Cust. Records - Supplies & Exp	1,602	-	-	-	-	1,602	25
773401	Cust. Records - Equip. Rentals	564	-	-	-	-	564	25
773402	Cust. Records - Equip. Maint.	-	-	-	-	-	-	25
773403	Cust. Records - Software Maint.	-	-	-	-	-	-	25
774100	Other Stationery & Print	-	-	-	-	-	-	25
774200	Telephone	-	-	-	-	-	-	25
774201	Telephone - General	198	-	-	-	-	198	25
774202	Telephone - Cellular	8,530	-	-	-	-	8,530	25
774203	Telephone - Telemeter	3,411	-	-	-	-	3,411	25
774204	Telephone - Leased Lines	259	-	-	-	-	259	25
774300	Other Utilities & Janitor	66	-	-	-	-	66	25
774400	Flat Rate Inspections	45	-	-	-	-	45	25
774500	Conservation Expense	22,500	-	-	-	-	22,500	25
774501	Conservation Wages	-	-	-	-	-	-	25
774600	Leak Adjustment Expense	-	-	-	-	-	-	25
775000	Uncollectible Accounts	317	-	-	-	-	317	25
776000	Cust Acct Allocation In/Out	-	-	-	-	-	-	25
776010	Allocation of Payroll	-	-	-	-	-	-	25
776020	Allocation of Transportation	-	-	-	-	-	-	25
776030	Allocation of Miscellaneous Entries	-	-	-	-	-	-	25
Total Customer Account Expense		\$ 103,352	\$ -	\$ -	\$ -	\$ -	\$ 103,351	
Subtotal, Operation & Maintenance Without Power, Chemicals, & Purchased Water								
		\$ 241,186	\$ 56,289	\$ 14,073	\$ 67,470	\$ -	\$ 103,351	
Subtotal O&M % (Percent Code 47)		99.99 %	23.34 %	5.83 %	27.97 %	0.00 %	42.85 %	
Office Expense								
791001	Administrative & General Wages	\$ 66,364	\$ 15,489	\$ 3,869	\$ 18,562	\$ -	\$ 28,437	47
791000	Admin & Gen Salary	87	20	5	24	-	37	47
792100	Employees Dues	881	206	51	246	-	378	47
792200	Postage	1,583	370	92	443	-	679	47
792300	Telephone	2,168	506	126	606	-	929	47
792301	Telephone - General	19	4	1	5	-	8	47
792302	Telephone - Cellular	50	12	3	14	-	21	47
792303	Telephone - Answering Service	213	51	13	61	1	92	47
792304	Telephone - Leasing Lines	228	53	13	64	-	98	47
792400	Stationery and Printing	34	8	2	10	-	15	47
792500	Office Supplies & Expense	1,351	315	79	378	-	579	47
792501	Office Supplies	1,483	346	86	415	-	635	47
792502	Temporary Labor	-	-	-	-	-	-	47
792505	Bank Fees	5,024	1,173	293	1,405	-	2,153	47
792600	Travel & Incidental Exp	8,313	1,940	485	2,325	-	3,562	47
792601	Travel - Meals	2,833	661	165	792	-	1,214	47
792602	Meals at CWS	142	33	8	40	-	61	47
792603	Training & Seminars	2,369	553	138	663	-	1,015	47
792604	Conferences	128	30	7	36	-	55	47
792605	Internal Projects	-	-	-	-	-	-	47
792606	Community Service	4	1	-	1	-	2	47
792700	G.O. Building Expense	6,061	1,415	353	1,695	-	2,597	47
Total Office Expense		\$ 99,336	\$ 23,186	\$ 5,789	\$ 27,785	\$ 1	\$ 42,567	47

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Injuries and Damages							
793000	Property Insurance	\$ -	\$ -	\$ -	\$ -	\$ -	48
794100	Compensation Insurance	9,013	4,536	1,124	3,353	-	48
794200	Occupational Sick Leave	-	-	-	-	-	48
794300	Safety Training	-	-	-	-	-	48
794400	Liability Insurance	11,856	5,967	1,478	4,410	-	48
Total Injury & Damages		\$ 20,869	\$ 10,503	\$ 2,602	\$ 7,763	\$ -	48
Empl Pension & Benefits							
795101	Savings Plan	\$ -	\$ -	\$ -	\$ -	\$ -	48
795102	Retirement Fund Expense	109,646	55,185	13,683	40,788	-	48
795103	Other Benefits	-	-	-	-	-	48
795104	Trasop Expenses	-	-	-	-	-	48
795200	Group Insurance	-	-	-	-	-	48
795201	Retiree Group Heal & Life Ins	-	-	-	-	-	48
795260	PBOP Amortization	-	-	-	-	-	48
795300	Employees Welfare Admin	-	-	-	-	-	48
795309	Employees Welfare Admin transferred In/Out	-	-	-	-	-	48
795400	Company Sponsored Benefits - Allocation In/Out	126,306	63,583	15,750	46,986	-	48
795501	Off-Duty Time - Sick Leave	-	-	-	-	-	48
795502	Disability Benefits - Recd	-	-	-	-	-	48
795504	Disability Benefits - Employer	471	237	58	175	-	48
795099	Off Duty Time - Allocations In/Out	-	-	-	-	-	48
795600	Off Duty Time - All Other	72,259	36,377	9,011	26,880	-	48
907100	Vacation	-	-	-	-	-	48
908000	Floating Holiday	-	-	-	-	-	48
Total Employee Benefits		\$ 308,681	\$ 155,367	\$ 38,488	\$ 114,826	\$ -	48
Outside Services Employed							
797000	Regulatory Commission Expense	\$ 69,167	\$ 34,812	\$ 8,625	\$ 25,730	\$ -	48
798100	Legal Expense	3,271	1,846	408	1,217	-	48
798200	Other Outside Services	8,681	4,369	1,083	3,229	-	48
798201	Training Consultants	-	-	-	-	-	48
798202	Auditors & Accountants	524	264	65	195	-	48
798203	Engineering Consultants	-	-	-	-	-	48
Total Outside Services		\$ 81,643	\$ 41,091	\$ 10,181	\$ 30,371	\$ -	48
Misc General Expenses							
796000	Franchise Requirements	\$ -	\$ -	\$ -	\$ -	\$ -	47
797001	PUC Reimbursement Fees	-	-	-	-	-	47
799100	Company Dues	1,501	350	88	420	643	47
799200	Institutional Advertising	105	24	6	29	45	47
799300	Fee Of Fiscal Agents	-	-	-	-	-	47
799400	General Corporate Expense	350	82	20	98	150	47
799500	Miscellaneous General Exp	24,578	5,736	1,433	6,874	10,532	47
799501	Moving Cost-Employee	585	137	34	164	251	47
799502	Merger Related Expenses	-	-	-	-	-	47
799503	Charitable contributions	-	-	-	-	-	47
799600	Accrued Payroll Distrib	-	-	-	-	-	47
799700	G&A Allocation In/Out	-	-	-	-	-	47
799710	Allocation of Payroll	-	-	-	-	-	47
799720	Allocation of Transportation	-	-	-	-	-	47
799730	Allocation of Miscellaneous Entries	-	-	-	-	-	47
Total Misc General Expense		\$ 27,118	\$ 6,329	\$ 1,581	\$ 7,585	\$ 11,621	47
Admin & General Maintenance							
805100	General Struct & Improv	3,284	766	191	918	1,407	47
805200	General Equipment	1,142	265	67	319	489	47
805300	Accrued Payroll Distribution	-	-	-	-	-	47
805410	Allocation of Payroll	-	-	-	-	-	47
805420	Allocation of Transportation	-	-	-	-	-	47
805430	Allocation of Miscellaneous Entries	-	-	-	-	-	47
Total Admin & General Maintenance		\$ 4,426	\$ 1,032	\$ 258	\$ 1,237	\$ 1,896	47
Rent							
8110XX	Rent Expense	10,102	2,358	589	2,826	4,329	47
Total Rent Operations		\$ 10,102	\$ 2,358	\$ 589	\$ 2,826	\$ 4,329	47
Total Admin. and General		\$ 542,073	\$ 237,508	\$ 58,899	\$ 188,567	\$ 1	\$ 56,084
Total Pro Forma O&M Expense		\$ 1,995,498	\$ 1,275,184	\$ 192,082	\$ 364,456	\$ 1	\$ 163,764
Total Pro Forma O&M Expense % (Percent Code 46)		100.00 %	63.90 %	9.63 %	18.26 %	0.00 %	8.21 %
Total Labor Expense		\$ 84,672	\$ 42,615	\$ 10,562	\$ 31,495	\$ -	-
Total Labor Expense %		99.99 %	50.32 %	12.47 %	37.20 %	0.00 %	0.00 %

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West Hawaii Water Company

Test Period Ending December 31, 2018
 Allocation of Pro Forma Depreciation Expense

Accl. No.	Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Meters	Customer Services	Code
Exhibit WHWC 7.6 Pro Forma Depreciation Expense								
103030	Intangibles	-	\$ -	\$ -	\$ -	\$ -	\$ -	20
103061	Land	-	-	-	-	-	-	20
103110	Structures & Improvement - Supply Plant	2,174	2,174	-	-	-	-	20
103210	Structures & Improvement - Pumping Plant	21,136	21,136	-	-	-	-	20
103310	Structures & Improvement - Treatment Plant	157	157	-	-	-	-	20
103410	Structures & Improvement - Transmission & Distrib	4,980	4,980	-	-	-	-	20
103411	Structures & Improvement - Pavement	2,183	2,183	-	-	-	-	20
103710	Structures & Improvement - General Plant	948	948	-	-	-	-	20
103240	Pumping Equipment	132,550	132,550	-	-	-	-	20
103241	System Control Computer Equipment	9,587	9,587	-	-	-	-	20
103320	Treatment & Disposal Equipment	329	329	-	-	-	-	20
103431	A.C.	111,083	111,083	-	-	-	-	20
103435	Ductile Iron Pipe	911	729	182	-	-	-	21
103450	Services	-	-	-	-	-	-	21
103460	Meters & Meter Boxes	21,360	-	-	-	21,360	-	24
103480	Hydrants	144	115	29	-	-	-	21
103420	Reservoirs & Tanks	31,792	25,434	6,358	-	-	-	21
103421	Tank Painting	23,323	18,658	4,665	-	-	-	21
103150	Wells	95,027	76,022	19,005	-	-	-	21
103720	Office Furn & Equip	-	-	-	-	-	-	21
103721	Electronic Equipment/Computers	-	-	-	-	-	-	21
103730	Transportation Equipment	(88)	(70)	(18)	-	-	-	21
103750	Laboratory Equipment	1,085	868	217	-	-	-	21
103770	Power Operated Equipment	-	-	-	-	-	-	21
103780	Tools, Shop, Garage Equipment	60	48	12	-	-	-	21
103790	General Plant	-	-	-	-	-	-	21
103925	Asset Retirement Obligation	-	-	-	-	-	-	47
Exhibit WHWC 7.4	Global Settlement	-	-	-	-	-	-	20
Exhibit WHWC 7.4	Hawaii Water GO Allocation	1,082	253	63	303	-	464	47
Exhibit WHWC 7.4	Big Island Allocation	22,633	5,283	1,320	6,330	-	9,688	47
Subtotal Depreciation Expense		\$ 482,466	\$ 412,467	\$ 31,833	\$ 6,633	\$ 21,360	\$ 10,162	
Exhibit WHWC 7.9								
4	Intangible	-	\$ -	\$ -	\$ -	\$ -	\$ -	20
5	Land and land rights	-	-	-	-	-	-	33
6	Structures and Improvements	(3,362)	(2,689)	(672)	-	-	-	21
7	Pumping Equipment	(100,080)	(100,080)	-	-	-	-	20
8	Treatment Equipment	-	-	-	-	-	-	20
9	Transmission & Distribution Plant	(136,321)	(136,321)	-	-	-	-	20
10	Reservoirs	(41,553)	(41,553)	-	-	-	-	20
11	Wells	(13,301)	(10,641)	(2,660)	-	-	-	21
12	Office Furniture and Equipment	-	-	-	-	-	-	21
13	Transportation	-	-	-	-	-	-	21
14	Tools and Laboratory Equipment	-	-	-	-	-	-	25
15	General Plant	-	-	-	-	-	-	21
16	Global Settlement	(73,807)	(73,807)	-	-	-	-	20
17	Hawaii Water GO Allocation	-	-	-	-	-	-	20
18	Big Island Allocation	-	-	-	-	-	-	20
	Place Holder	-	-	-	-	-	-	
	Place Holder	-	-	-	-	-	-	
	Place Holder	-	-	-	-	-	-	
Subtotal CIAC Depreciation Expense		\$ (368,423)	\$ (365,091)	\$ (3,332)	\$ -	\$ -	\$ -	
Pro Forma Depr. Exp.		\$ 114,033	\$ 47,376	\$ 28,501	\$ 6,633	\$ 21,360	\$ 10,162	
Depreciation Exp. %		100.00 %	41.55 %	24.99 %	5.82 %	18.73 %	8.91 %	

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Test Period Ending December 31, 2018
 Allocation of Pro Forma Revenue Requirement

Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Meters	Customer Services	Code
Pro Forma Revenue Requirement							
Operation & Maintenance Expenses	\$ 1,995,498	\$ 1,275,184	\$ 192,085	\$ 364,458	\$ 1	\$ 163,767	
Depecciation & Amortization Expenses	114,033	47,376	28,501	6,633	21,360	10,162	
Exhibit WHWC 8.21 Taxes Other Than Income Taxes	167,464	121047	36478	2616	-17	7339	33
799998 PubCo Allocation In/out	123,028	88925	26799	1923	-12	5393	33
Total Operating Expenses							
Before Income Taxes	\$ 2,400,023	\$ 1,532,532	\$ 283,863	\$ 375,630	\$ 21,332	\$ 186,661	
Exhibit WHWC 8.22 State Income Taxes	3,623	2,619	789	57	-	159	33
Exhibit WHWC 8.22 Federal Income Taxes	58,991	42,639	12,848	920	(6)	2,580	33
Utility Operating Income	\$ 160,356	\$ 115,916	\$ 34,930	\$ 2,502	\$ (16)	\$ 7,024	33
Total Revenue Requirement	\$ 2,622,777	\$ 1,693,706	\$ 332,430	\$ 379,109	\$ 21,310	\$ 196,434	
Total Revenue Requirement %	99.99 %	64.58 %	12.67 %	14.45 %	0.81 %	7.48 %	
Other Revenues							
Net Revenue Requirement	\$ 2,622,777	\$ 1,693,706	\$ 332,430	\$ 379,109	\$ 21,310	\$ 196,434	

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West Hawaii Water Company
 Test Period Ending December 31, 2018
 Development of Labor Allocator

Description	Total Cost	Base Cost	Extra Cap Max Day	Extra Cap Max Hour	Customer Meters	Customer Services	Code
Labor Expenses							
Supply	\$ 370	\$ 370	\$ -	\$ -	\$ -	\$ -	
Water Treatment	31,413	25,130	6,283	-	-	-	
T&D Operation	34,834	11,272	2,818	20,743	-	-	
T&D Maintenance	18,056	5,843	1,461	10,752	-	-	
Subtotal Above	84,672	42,615	10,562	31,495	-	-	
Code 48	100.00 %	50.33 %	12.47 %	37.20 %	0 %	0.00 %	
Benefits Labor	-	-	-	-	-	-	
Total Labor	84,672	42,615	10,562	31,495	-	-	
Percents	100.00 %	50.33 %	12.47 %	37.20 %	0 %	0.00 %	

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West Hawaii Water Company

Summary of Water Customer Class Allocation Factors

Allocation Code	Description	Residential	Multifamily	Non-Residential	Public Authority	Check Total
60	Base Cost	64.49 %	23.54 %	5.69 %	6.28 %	% 100.00 %
61	Maximum Day	56.19 %	30.75 %	6.23 %	6.85 %	% 100.02 %
62	Maximum Hour	60.65 %	25.32 %	6.66 %	7.37 %	% 100.00 %
64	Meters	67.92 %	27.33 %	1.71 %	3.06 %	% 100.02 %
65	Services	81.79 %	15.80 %	1.30 %	1.12 %	% 100.01 %

West Hawaii Water Company

Customer Class Allocation
 Water Pro Forma Net Revenue Requirement

	Total	Residential	Multifamily	Non-Residential	Public Authority	Allocation Code
Base Cost	\$ 1,693,494	\$ 1,092,134	\$ 398,648	\$ 96,359	\$ 106,351	60
Maximum Day	332,430	186,792	102,222	20,710	22,771	61
Maximum Hour	379,109	229,930	95,990	25,249	27,940	62
Meters	21,310	14,474	5,824	364	652	64
Services	196,434	160,663	31,036	2,554	2,200	65
Total	\$ 2,622,777	\$ 1,683,993	\$ 633,720	\$ 145,236	\$ 159,914	\$ -
	100.00 %	64.20 %	24.16 %	5.54 %	6.10 %	%

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West Hawaii Water Company
 Water Customer Class Allocation Factors

Customer Class	Annual Consumption			Maximum Day				Maximum Hour				Customer Costs		Meters		Services	
	(1) Thousand Gallons	(2) MGD	(3) %	(4) % of AvDay	(5) Amount MGD	(6) Excess (5)-(2)	(7) %	(8) % of AvDay	(9) Amount MGD	(10) Excess (9)-(5)	(11) %	(12) Bills	(13) %	(14) Equip Units	(15) %	(16) Equip Units	(17) %
Residential	439,129	1.203	64.49	160	1.925	0.722	56.19	300	3.609	1.694	60.65	24,036	97.09	2,010.5	67.92	2,008.0	81.79
Multifamily	160,265	0.439	23.54	190	0.834	0.395	30.75	350	1.537	0.703	25.32	384	1.55	809.0	27.33	388.0	15.80
Non-Residential	38,755	0.106	5.69	175	0.186	0.080	6.23	350	0.371	0.185	6.66	240	0.97	50.5	1.71	31.8	1.30
Public Authority	42,726	0.117	6.28	175	0.205	0.088	6.85	350	0.410	0.205	7.37	96	0.39	90.5	3.06	27.4	1.12
Grand Total	680,875	1.865	100.00		3.150	1.295	100.02		5.927	2.777	100.00	24,756	100.00	2,961	100.02	2,455.2	100.01
Allocation Code			60				61				62			64			65

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West Hawaii Water Company

Development of Equivalent Water Meters and Equivalent Services

Residential

<u>Meter Size</u>	<u>Number of Meters</u>	<u>Eq. Meter Ratio</u>	<u>Equiv. Meters</u>	<u>Eq. Svc Ratio</u>	<u>Equiv. Services</u>	<u>Number of Bills</u>
5/8"	1,998	1.0	1,998.0	1.0	1,998.0	23,976
3/4"	0	1.5	0.0	1.3	0.0	0
1"	5	2.5	12.5	2.0	10.0	60
Total	2,003		2,010.5		2,008.0	24,036

Multifamily

<u>Meter Size</u>	<u>Number of Meters</u>	<u>Eq. Meter Ratio</u>	<u>Equiv. Meters</u>	<u>Eq. Svc Ratio</u>	<u>Equiv. Services</u>	<u>Number of Bills</u>
2"	18	8.0	144.0	4.0	72.0	216
3"	1	15.0	15.0	4.0	4.0	12
6"	13	50.0	650.0	24.0	312.0	156
Total	32		809.0		388.0	384

Non-Residential

<u>Meter Size</u>	<u>Number of Meters</u>	<u>Eq. Meter Ratio</u>	<u>Equiv. Meters</u>	<u>Eq. Svc Ratio</u>	<u>Equiv. Services</u>	<u>Number of Bills</u>
5/8"	7	1.0	7.0	1.0	7.0	84
3/4"	0	1.5	0.0	1.3	0.0	0
1"	3	2.5	7.5	2.0	6.0	36
1 1/2"	4	5.0	20.0	2.7	10.8	48
2"	2	8.0	16.0	4.0	8.0	24
3"	1	15.0	15.0	4.0	4.0	12
6"	3	50.0	150.0	8.0	24.0	36
Total	20		50.5		31.8	240

Public Authority

<u>Meter Size</u>	<u>Number of Meters</u>	<u>Eq. Meter Ratio</u>	<u>Equiv. Meters</u>	<u>Eq. Svc Ratio</u>	<u>Equiv. Services</u>	<u>Number of Bills</u>
1"	3	2.5	7.5	2.0	6.0	36
1 1/2"	2	5.0	10.0	2.7	5.4	24
2"	1	8.0	8.0	4.0	4.0	12
3"	1	15.0	15.0	4.0	4.0	12
6"	1	50.0	50.0	8.0	8.0	12
Total	8		91		27	96

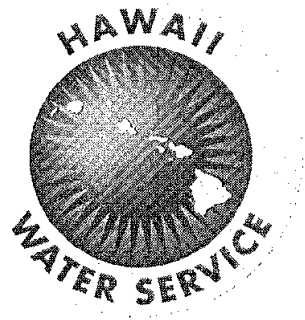
Grand Totals	2,063		2,961		2,455	24,756
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Schedule 3
 Page 1 of 1

West Hawaii Water Company
 Comparison Between Water Revenue from Existing Rates, the Indicated Cost of Service Revenues
 and Revenues at Proposed Rates

Class	Test Year Revenues at Present Rates	Percent	Indicated Cost of Service Revenues	Percent	At Proposed Rates	Percent
Residential	1,201,921	64.88%	1,683,907	64.20%	1,659,670	63.28%
Multifamily	433,282	23.39%	633,720	24.16%	649,931	24.78%
Non-Residential	108,530	5.86%	145,236	5.54%	149,090	5.68%
Public Authority	<u>108,759</u>	5.87%	<u>159,914</u>	6.10%	<u>164,086</u>	6.26%
Total Customer Class Revenue	<u>1,852,492</u>		<u>2,622,777</u>	100.00%	<u>2,622,777</u>	

Exhibit WHWC-T-200
Direct Testimony of Anthony Carrasco



West Hawaii Water Company General Rate Case
Application Filed December 2017

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1 WEST HAWAII WATER COMPANY GENERAL RATE CASE
2 DIRECT TESTIMONY OF ANTHONY CARRASCO
3

4 **Introduction**

5 **Q. Please state your name, position, and business address.**

6 A. My name is Anthony Carrasco. My business mailing address is PO Box 384809
7 Waikoloa, Hawaii, 96738. I am the General Manager of Hawaii Water Service Company, Inc.
8 (“Hawaii Water”).
9

10 **Q. Please summarize your educational background and professional experience.**

11 A. I have attended numerous courses in water treatment, water distribution and utility
12 management at the University of California, Sacramento. My Operators Certifications include:
13 Hawaii Department of Health Water Distribution Operator IV and Treatment Operator IV
14 certifications. I also have California State Water Resource Control Board Distribution Operator
15 V and Treatment Operator IV certifications.

16 I am a veteran who served in the United States Navy Seabees from January 1983 to 1986,
17 receiving an Honorable Discharge with an R-1 reenlistment rating. From 1986 to 1989, I worked
18 as a Construction Foreman for an underground utility construction company. I worked for
19 California Water Service Company (“Cal Water”) as an Operator from 1989 to 2000, a
20 Superintendent from 2000 to 2004, a District Manager from 2004 to 2016, and Director of Field
21 Operations in 2016.
22

23 **Q. What is the purpose of your testimony in this proceeding?**

24 A. The purpose of my testimony in this proceeding is to explain the details of the 2018 test
25 year expense estimates and inflation methodology for West Hawaii Water Company
26 (“WHWC”).
27

28 **Q. Please describe the general methodology in determining test year expense estimates.**

29 A. An average of the most recent three-year actual recorded expenses (2015-2017) was used
30 as the basis for most administrative, operational, and maintenance expenses in the test year.
31 Since recorded expense data for 2017 was only available through June at the time the application

1 was prepared, all 2017 expenses have been annualized. The annualized 2017 expenses will be
2 updated with actuals when recorded 2017 expenses become available.

3 A 3 year average from 2015 to 2017 is a reasonable starting point to forecast test year
4 expenses and reflects normal operations of the district. Payroll, employee benefits, rents,
5 insurance, and regulatory expenses have been estimated using different methodologies, as
6 described in more detail in my testimony.

7 In addition, certain expenses include both direct charges and allocated expenses. Hawaii
8 Water has nine business units, some of which are directly owned by Hawaii Water and some of
9 which are owned by subsidiaries of Hawaii Water. Each business unit is treated separately for
10 rate making purposes. For the most part, each business unit functions independently from one
11 another. However, there are several functions which are shared among the local business units to
12 maximize economies of scale. These functions include project engineering work, operations and
13 business management, and customer service management. Prior to 2013, expenses for Hawaii
14 Water were allocated to each business unit using the 4-factor allocation method and recorded as
15 an expense in each business unit under the corresponding expense category. Beginning in 2013,
16 certain expenses that were allocated to specific administrative, operational, and maintenance
17 accounts from Hawaii Water General Office (“Hawaii Water GO”), Big Island operations, and
18 Wastewater Administration were allocated as a single line item. For trending and analysis
19 purposes, expenses that were allocated to WHWC from Hawaii Water GO and Big Island from
20 2015 to 2017 are shown as separate line items and then added to expenses directly charged to
21 WHWC. An average of the sum of direct and allocated charges was used to determine test year
22 expenses.

23 Recorded expenses were adjusted with a Consumer Price Index (“CPI”) factor to account
24 for changes in prices of goods and services from the averaging period up to the test year. This
25 was done using a two-step process. First, the annual recorded expenses were adjusted to 2018
26 dollars using Honolulu CPI and then a 3 year average of the adjusted figures was calculated.
27 Published U.S. Department of Labor Bureau of Labor and Statistics data was used to adjust
28 recorded expenses.¹ Since federal CPI data is not available for neighbor islands, the best

¹ http://data.bls.gov/pdq/SurveyOutputServlet?series_id=CUURA426SA0,CUUSA426SA0

1 available data which was for Honolulu was used.² This is an appropriate index for Hawaii Island
2 and Maui operations. Details of inflation factors are shown on Exhibit WHWC 8.4.

3 The methodology of adjusting certain recorded expenses by CPI is reasonable for rate
4 making because it better represents forecasted costs during the test year. If a CPI factor was not
5 used to adjust recorded expenses, obsolete costs would be used to determine test year expenses
6 and there would not be a reasonable opportunity to recover forecasted expenses during the test
7 year. This is amplified since a phase-in period of the test year revenue requirement is proposed
8 for WHWC.

9 Estimated operating and maintenance expenses for the test year are described and
10 discussed below.

11
12 **Labor**

13 Hawaii Water's labor costs are shared among the various companies and systems
14 operated by Hawaii Water in Hawaii, and each system's share of the labor cost is based on a 4-
15 factor allocation methodology. The 4-factor allocation methodology is discussed in more detail
16 in the Direct Testimony of Robert Stout (Exhibit WHWC-T-100). Labor expense is based on the
17 cost of total labor, including wages, benefits and payroll taxes. The complete breakdown of
18 Hawaii Water's payroll expense as allocated by the proposed 4-factor percentages is shown on
19 Confidential Exhibit WHWC-T-201. As this exhibit contains employee names and payroll, this
20 exhibit will be submitted subject to protective order once a protective order has been issued.
21 Payroll for 2018 was calculated by escalating the estimated 2017 payroll by 2.7%, which is the
22 expected increase in payroll. In order to reflect actual operating costs, the estimated 2017
23 payroll figures will be updated with actual 2017 payroll figures once they become available.

24 WHWC plans to add 4 new employees in the test year consisting of two full time
25 positions and two part time positions. The full time positions are a Cross Connection Control
26 Specialist and Electrical Mechanical Technician. The Cross Connection Control Specialist will
27 support Big Island operations (720). The Electrical Mechanical Technician will support both Big
28 Island and Maui operations (790). The part time positions are Utility Worker and Customer
29 Service Representative. The Utility Worker will support Big Island operations and the Customer

² <http://dbedt.hawaii.gov/economic/library/faq/faq03/>

1 Service Representative will support Big Island and Maui operations. WHWC is also planning to
 2 create two foreman positions that support only the Waikoloa Utilities.³ Only internal candidates
 3 are being considered for the positions; the number of employees will not be increased as a result
 4 of the new positions. Allocated costs related to the additional positions are included in
 5 Applicants' labor expense. Details of the six positions are shown in confidential Exhibit
 6 WHWC-T-201.

7 Consistent with Hawaii Water's and its subsidiaries recent rate cases, WHWC accepts the
 8 Consumer Advocate's position that pension costs should be included in test year expenses, but
 9 401k employer matching expenses should be excluded.⁴ Although WHWC believes that 401k
 10 employer matching expenses are appropriate to be recovered in rates as a part of total
 11 compensation costs for its employees, consistent with Hawaii Water's acceptance of the
 12 Consumer Advocate's position in the recent rate cases for Hawaii Water and its subsidiaries,
 13 Applicants in this case are including pension costs and excluding 401k expenses. The total labor
 14 estimate for WHWC is summarized in the table below:

Payroll	Benefits	Taxes	Total	Exhibit Reference
\$ 318,497	\$ 245,436	\$ 32,805	\$ 596,739	Exhibit WHWC 8.6

Table 201. Labor Expense.

17
 18 Details of labor expense can be found in the Exhibit listed in the table above.

19 Benefits expense is based on a study conducted by the Milliman Group regarding
 20 estimates for Pension and Retiree Healthcare, and is exclusive of 401k. Active employee
 21 healthcare is based on actual healthcare premiums for Hawaii Water's employees. The portion
 22 allocated to WHWC is estimated using a 4-factor allocation method. The test year calculation is
 23 based on the 2017 figures for pension and benefits because 2018 figures were not available at the
 24 time it prepared its application. The calculation will be updated with 2018 figures once they are
 25 available.

³ The Waikoloa Utilities are WHWC, West Hawaii Utility Company ("WHUC") and West Hawaii Sewer Company (WHSC").

⁴ In re Hawaii Water Service Company, Inc., Docket No. 2009-0310. Hawaii Water's subsidiaries have also accepted this position in their recent rate cases. See, e.g., In re Kona Water Service Company, Inc., Docket No. 2013-0375.

1

2 **Fuel & Power**

3 Purchased power expense varies with the amount of water pumped from wells. This
 4 expense was estimated by calculating a unit cost [\$/ kWh] of power for the test year and
 5 multiplying it by the expected kWh usage in the test year. A unit cost for purchased power was
 6 calculated by taking the ratio of recorded power cost and recorded power use for each year. The
 7 unit cost for the test year was estimated by taking a three year average from 2015 to 2017 of the
 8 calculated unit cost. Projected power use for the test year was estimated by taking a three year
 9 average from 2015 to 2017 of recorded power use. Fuel for power production expense was
 10 estimated by taking a three year average of recorded fuel for production. The following table
 11 summarizes the projected unit cost of power, power consumption, power expense, and fuel for
 12 power production expense for the test year for WHWC:

13

Unit Cost [\$ / kWh]	Power Consumption [kWh]	Power Expense [\$]	Fuel for Power Production	Total Fuel & Power Expense	Exhibit Reference
\$ 0.2641	10,712,765	\$ 1,070,201	\$ -	\$ 1,070,201	Exhibit WHWC 8.7

14

Table 202. Fuel and Power Expense.

15

16 Details of fuel and power expense can be found in the Exhibit listed in the table above.

17

18 **Chemicals**

19 Chemicals are purchased for water operations to treat and disinfect water in the water
 20 distribution system. Chemical purchased include hypochlorite, sodium carbonate, and
 21 flocculants.

22 The test year chemical expense was estimated by taking a three year average from 2015 –
 23 2017 of CPI adjusted recorded expenses. The following table summarizes chemical expense for
 24 WHWC:

25

Chemical Expense	Exhibit Reference
\$ 9,827	Exhibit WHWC 8.9

26

Table 203. Chemical Expense.

1

2 Details of chemicals expense can be found in the Exhibit listed in the table above.

3

4 **Materials & Supplies**

5 Materials and supplies expense is grouped using the following categories: treatment &
6 disposal, water treatment & water quality, transmission & distribution, collection, and pumping.

7 The test year materials & supplies expense for WHWC is calculated by taking a three year
8 average from 2015 – 2017 of CPI adjusted recorded expenses. The following table summarizes
9 materials & supplies expense for WHWC:

10

Materials & Supplies Expense	Exhibit Reference
\$ 75	Exhibit WHWC 8.10

11

Table 204. Materials & Supplies Expense.

12

13 Details of materials & supplies expense can be found in the Exhibit listed in the table above.

14

15 **Waste Disposal**

16 Waste disposal expense consists of fees for the removal and disposal of dewatered
17 sludge. No waste disposal expense is anticipated for WHWC.

18

19 **Affiliated Charges**

20 California Water Service Group (“CWSG”) includes several subsidiaries which include
21 Hawaii Water, Cal Water, Washington Water Service Company (“WWSC”), and New Mexico
22 Water Service Company (“NMWSC”). CWSG’s expenses are allocated to its subsidiaries based
23 on relative proportions of work being performed. A large portion of the work resides in
24 Customer Support Services (“CSS”) of Cal Water. Within CSS, there are a number of
25 departments that provide support services for its subsidiaries. These include corporate
26 governance (CEO, CFO, Corporate Secretary, etc.), audit, accounting and finance, information
27 technology, human resources, and communications. These functions are provided centrally at
28 CSS because it is more cost effective to do so than to hire the specific expertise needed for each

1 particular subsidiary. This centralized service model has been shown in to be lower in cost to
2 customers than staffing up locally for all necessary back office expertise such as noted above.

3 CSS departments incur capital project and operating costs each month. These costs are
4 allocated to the appropriate business units each month to determine the business units' operating
5 results, plant in service, regulatory assets, regulatory liabilities, and other balance sheet accounts.
6 CSS department costs are allocated to business units using one of two methods: 1) direct charge
7 method or 2) pooled cost method.

8 The direct charge method is used whenever CSS employees are assigned to specific
9 business unit capital or operating projects. Using the direct charge method, CSS department
10 employees' direct labor, benefits, business travel, and/or any other costs incurred are charged
11 directly to business unit capital and expense projects each month. However, when it is not
12 possible to use the direct charge method, the pooled cost method is used. The direct charge
13 method cannot be used for services provided by CSS department employees that benefit two or
14 more business units. These indirect CSS department costs are allocated to business units using
15 the 4-factor allocation method.

16 Prior to 2013, the 4-factor cost (non-direct charged) affiliated expenses were allocated to
17 the respective business units on a department by department basis. Thus, there were allocations
18 from each of the shared functions departments previously mentioned. Beginning in 2013 a
19 department called Public Company ("Pubco") was created to accumulate the respective expenses
20 of the different CSS departments which are then allocated as a line item to the respective
21 business units. Thus, the Pubco department provides the line item detail visibility while Hawaii
22 Water receives one monthly expense entry. This is allocated to the individual business units
23 using the 4-factor allocation method.

24 The CSS departments' whose expenses are allocated through PubCo to the Group's
25 subsidiaries provide a direct benefit to the subsidiaries by reducing overall operating costs. The
26 centralized functions that are shared among the subsidiaries are shown on the table below:

27

1

Group Functions/Departments	Group's Corporate and/or Shared Service Function Responsibility
General Office	Corporate costs including BOD fees, property & liability insurance, audit fees, RSA, SEC, common stock fees, etc.
Treasurer, CFO	Establishes, maintains and enforces Corporate Financial Governance including strategy, policy, standards, practices and programs as well as Investor Relations, Internal and Management Reporting, Financial Planning and Forecasting, Corporate Policy for Treasury, Cash Management, Risk Management, Corp Borrowings, Stock, Pensions, Process Improvement, etc. All corporations must have a Treasurer.
Internal Audit	Establishes, maintains and enforces Corporate Audit Governance including audit policy and procedures, SOX Compliance and reporting, coordination of all external and 3rd party audit services for entire enterprise. Provides a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes.
Legal	Establishes, maintains and enforces various legal activities including budget, strategy, and case management for the entire enterprise.
Controller & Financial Reporting and Accounting shared services	Establishes, maintains and enforces External Financial Reporting Governance including Corporate Policy and Controls, Enterprise Accounting Operations, Corporate Consolidations, SEC Reporting, External Audit coordination, Payroll, etc.
CEO, President, COO	Sets and oversees the execution the Corporate vision and strategy, Corporate governance and plans, Investor Relations. Manages Corporate Directors, Subsidiary General Managers, etc. All corporations must have a President.
Corporate Secretary	Leads the Company's compliance efforts with respect to legislative and regulatory developments affecting corporate governance. Responsible for anticipating and addressing corporate governance/reputation risks, develops independent standards for the Board of Directors and their committees, develops Company's governance principles and policies. All corporations must have a Corporate Secretary.
Continuous Improvement	Supports the Continuous Improvement process for the entire enterprise.
IT Security and Compliance	Responsible for all IT cyber security, SOX compliance, Data Room configurations, and ensuring company is compliance with various standards such as NIST, PCI, etc.
IT Infrastructure	Responsible for all IT network architecture to ensure goal of 99.999% uptime of hardware, servers, phone lines, etc.
Finance	Supports the enforcement of Corporate Financial Governance, includes risk management, treasury, planning and analysis activities.
Management Development	Establishes, maintains and enforces Management Development governance including strategy, policy, standards, practices and programs for entire enterprise. Ensures the enterprise has active program that identifies or attracts, develops and retains resources for future key position within the enterprise.
IT Technical Support	Responsible for IT User trouble shooting, help desk, phones, websites, etc.
Human Resource Administration	Establishes, maintains and enforces Human Resource governance including policy, standards, practices and programs for entire enterprise.
IT Governance /Administration	Establishes, maintains and enforces IT Governance policy, standards, practices and programs for the entire enterprise.
Corp Communications	Establishes, maintains and enforces all Corporate Communication governance including policy, standards and procedures leading to the design, development and approval of content whether verbal, written or display material for entire enterprise.

2 In Hawaii Water's most recent case for its Ka'anapali and Pukalani districts, Hawaii
 3 Water and the Consumer Advocate agreed to remove incentive compensation as well as certain
 4 other expenses from account 791000 from the overall allocation of affiliated charges to the

1 district.⁵ While WHWC believes that incentive compensation is a part of a regular compensation
 2 package that retains talented individuals in a competitive market, this adjustment was applied to
 3 affiliated charges that are allocated to WHWC, consistent with the stipulation that the
 4 Commission adopted from the Ka'anapali and Pukalani cases.

5 The test year affiliated charges expense is based on a three year average from 2015 –
 6 2017 of the adjusted allocation. The following table summarizes affiliated charges expense for
 7 WHWC:
 8

Affiliated Charges Expense	Exhibit Reference
\$ 123,028	Exhibit WHWC 8.12

9 **Table 206. Affiliated Charges Expense.**

10
 11 Details of affiliated charges expense can be found in the Exhibit listed in the table above.
 12

13 Outside Services

14 Outside services expense is organized using the following categories: legal expense, other
 15 outside services, and training consultants. Outside services is comprised of technical fees, legal
 16 fees, and other consulting services. Outside services expense was estimated for the test year by
 17 taking a three year average from 2015 – 2017 of CPI adjusted recorded expenses. The following
 18 table summarizes outside services expense for WHWC:
 19

Outside Services Expense	Exhibit Reference
\$ 12,476	Exhibit WHWC 8.13

20 **Table 207. Outside Services Expense.**

21
 22 Details of outside services expense can be found in the Exhibit listed in the table above.
 23

⁵ Decision and Order No. 33908 filed on September 12, 2016 in Docket No. 2015-0230 at 32; Stipulation of the Parties for Full Settlement filed on July 22, 2016 in Docket No. 2015-0230 at 26 – 27. Proposed Decision and Order No. 34822 filed on September 15, 2017 in Docket No. 2015-0236 at 31-32.

1 **Repairs & Maintenance**

2 Repairs & maintenance expense is organized using the following categories: source of
3 supply, pumping, water treatment, transmission & distribution, other production & distribution,
4 and administrative & general. In Hawaii Water’s accounting system, certain expenses are
5 grouped with repairs and maintenance: chemicals, materials & supplies, waste disposal. These
6 amounts are deducted from the total repairs & maintenance expense so that these expenses are
7 not double counted. Repairs & maintenance expense is estimated for the test year by taking a
8 three year average from 2015 – 2017 of CPI adjusted recorded expenses. The following table
9 summarizes outside services expense for WHWC:

10

Repairs & Maintenance Expense	Exhibit Reference
\$ 130,154	Exhibit WHWC 8.14

11 **Table 208. Repairs & Maintenance Expense.**

12

13 Details of repairs & maintenance expense can be found in the Exhibit listed in the table above.

14

15 **Rents**

16 Rents expense consists of expenses related to existing leases. The actual amounts
17 payable under existing property leases for the administrative offices in the Waikoloa Highlands
18 Shopping Center in Waikoloa and the Waikoloa Base yard were allocated to WHWC. The
19 following table summarizes rents expense for WHWC:

20

Rents Expense	Exhibit Reference
\$ 10,102	Exhibit WHWC 8.15

21 **Table 209. Rents Expense.**

22

23 Details of rental expense can be found in the Exhibit listed in the table above.

24

1 **Insurance**

2 Insurance expense is estimated using costs allocated from Cal Water to Hawaii Water GO
3 Department 790. These costs are then allocated to the Hawaii business units using the 4-factor
4 methodology. The test year insurance expense is based on a quote from Marsh Insurance for
5 2016/17. The 2017/18 quote was not available when the application was prepared. The test year
6 insurance estimate will be revised once the 2017/18 figure is available. The following table
7 summarizes insurance expense for WHWC:
8

Insurance Expense	Exhibit Reference
\$ 11,856	Exhibit WHWC 8.16

Table 210. Insurance Expense.

9

10

11 Details of insurance expense can be found in the Exhibit listed in the table above.

12

13 **Regulatory**

14 Regulatory expense includes expected work and activities related to completing this rate
15 case. These functions include preparation & filing expense, discovery & settlement expense, and
16 hearings & briefing expense. Regulatory expense also includes the cost of the cost of service
17 studies and depreciation studies. The total rate case expense is estimated to be \$207,500. In
18 order to plan and make the best use of their resources, WHWC proposes a 3 year amortization
19 period for regulatory expenses and intends to file a general rate case every 3 years. The
20 following table summarizes rents expense for WHWC:
21

Regulatory Expense	Exhibit Reference
\$ 69,167	Exhibit WHWC 8.17

22

Table 211. Regulatory Expense.

23

24 Details of regulatory expense can be found in the Exhibit listed in the table above.

25

1 **General & Administrative**

2 General & administrative expense is organized using the following categories: office
3 expense and miscellaneous general & administrative expense. Office supplies expense consists
4 of expenses related to postage, telephone expenses, stationary & printing, bank fees, travel &
5 incidental expense, meals during travel, training & seminars, conferences, and internal projects.
6 Test year general & administrative expense was estimated by taking a three year average from
7 2015 – 2017 of CPI adjusted recorded expenses. The following table summarizes general &
8 administrative expense for WHWC:
9

General & Administrative Expense	Exhibit Reference
\$ 45,147	Exhibit WHWC 8.19

10 **Table 212. General & Administrative Expense.**

11
12 Details of general & administrative expense can be found in the Exhibit listed in the table above.
13

14 **Customer Accounts**

15 Customer accounts expenses includes customer records, other stationary & print,
16 telephone expenses, other utilities & janitor expense, and uncollectible accounts expense. The
17 test year customer accounts expense was estimated by taking a three year average from 2015 –
18 2017 of CPI adjusted recorded expenses.

19 WHWC is also proposing to include a conservation budget in customer accounts expense
20 in this case. Conservation expenses are designed to address efforts identified by the Hawaii
21 Water Service Conservation Master Plan completed in March 2017. The focus will be on the
22 items included for implementation over the next two to four years, as well as potential program
23 pilots. Specific costs may include items such as: cost-effectiveness analysis, customer
24 consumption analysis, public information development, and water loss program
25 development. Conservation expenses are designed to be inclusive of all expenses associated
26 with the conservation program. The following table summarizes customer accounts expense for
27 WHWC:
28

Customer Accounts Expense	Exhibit Reference
\$ 39,503	Exhibit WHWC 8.20

Table 213. Customer Accounts Expense.

1
2
3 Details of customer accounts expense for WHWC can be found in the Exhibit listed in the table
4 above.

5

6 **Q. Does this conclude your testimony?**

7 A. Yes, it does.

CONFIDENTIAL

Application Filed December 2017

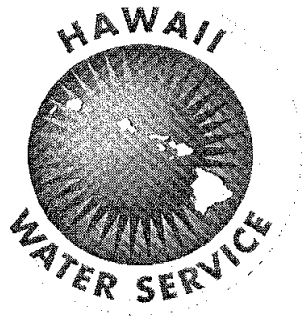
Exhibit WHWC-T-201

Payroll Allocations

Witness: Carrasco

**Exhibit WHWC-T-201 is Confidential and
will be provided when a Protective Order has
been issued in this Docket.**

Exhibit WHWC-T-300
Direct Testimony of Stephen Green



West Hawaii Water Company General Rate Case
Application Filed December 2017

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1 **WAIKOLOA GENERAL RATE CASE**
2 **DIRECT TESTIMONY OF STEPHEN GREEN**
3

4 **Introduction**

5 **Q. Please state your name, position, and business address.**

6 A. My name is Stephen Green. My business mailing address is PO Box 384809 Waikoloa,
7 Hawaii, 96738. I am the Engineering Manager of Hawaii Water Service Company, Inc.
8 (“Hawaii Water”). My responsibilities include overseeing capital projects of West Hawaii Water
9 Company (“WHWC”).

10
11 **Q. Please summarize your educational background, professional certifications, and**
12 **professional experience.**

13 A. I am a licensed professional engineer (Hawaii PE license #6009) with Hawaii Water, and
14 have over 30 years’ experience in design review, start-up, and operation of public drinking water
15 systems and wastewater collection and treatment systems. I have a Bachelor of Science degree
16 in Mechanical Engineering from the University of Hawaii. I have been employed for 25 years at
17 WHUC as Chief Engineer, and presently for 9 years at Hawaii Water as Engineering Manager.
18 WHUC was purchased by Hawaii Water in 2008. I’ve served 8 years on the Board of
19 Certification of Public Water System Operators for the Safe Drinking Water Branch, Department
20 of Health of Hawaii. I’ve been President of the Hawaii Society of Professional Engineers, Kona-
21 Kohala Chapter and Student Chapter President of the American Society of Mechanical
22 Engineers. I hold Drinking Water Distribution System Operator Grade 4 Certification (D4-79)
23 and Wastewater Treatment Plant Operator Grade 4 Certification (#515).

24
25 **Q. What is the purpose of your testimony in this proceeding?**

26 A. The purpose of my testimony in this proceeding is to support capital investment projects
27 that WHWC has completed since its last rate case and plans to complete in 2018. Additionally, I
28 will discuss the Waikoloa water loss control program.
29

1 **Capital Improvements**

2 **Q. Please describe the capital improvements that have been completed since the last**
3 **general rate case in the Waikoloa Village Water division.**

4 A. Exhibit WHWC-T-301 lists and describes the capital improvements for the Waikoloa
5 Village Water area with a cost of \$25,000 or more since 2013, all of which have been placed in
6 service or will be placed in service during the 2018 test year.

7
8 **Waikoloa Water Loss Control Plan**

9 **Q. Please discuss WHWC's water loss control program.**

10 A. In WHWC's last rate case, and Consumer Advocate and the Commission noted that
11 WHWC appeared to experience high levels of water loss, and the Commission concurred with
12 the Consumer Advocate's recommendation that WHWC continue to investigate the cause of the
13 Village water loss and take appropriate, corrective action. The Commission also ordered
14 WHWC to file with the commission a report that identified: (A) actual causes of water loss for
15 the Village water system; and (B) corrective action taken by WHWC.¹ In accordance with the
16 Commission's order, WHWC filed its Water Loss Report on September 15, 2015 in Docket No.
17 2012-0148, which included the 2015 Waikoloa Water Loss Control Plan (collectively, the "2015
18 Water Loss Report"). Since that time, WHWC conducted a water audit consistent with AWWA
19 Standard M-36 in 2014, with technical assistance from the Hawaii Commission on Water
20 Resources Management, updated the 2015 Water Loss Report, and completed AWWA M-36
21 water audits in 2015 and 2016. The water loss control plan and reports, as well as the initial
22 water loss capital projects that WHWC intends to implement in 2018, are described in more
23 detail in the project justifications attached as Exhibit WHWC-T-301 at 28 and 31.

24
25 **Q: DOES THIS CONCLUDE YOUR TESTIMONY?**

26 A: Yes, it does.

¹ Decision and Order No. 32685 filed on February 19, 2015 in Docket No. 2012-0148 at 83.

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Project Description: 721-Water Loss Control, Meter Replacement	32
Project Description: Waikoloa DW-8	34

Big Island Project Justifications

1
2
3 **For projects completed from 2013 through 2017**
4 **and projects planned to be in service in 2018**

1 water loss. On the wastewater side, the benefits include decreasing the likelihood of a sewer
2 overflow. The SCADA system helps reduce the number of after hour call outs, which can reduce
3 labor cost. Additionally, the SCADA system provides advanced warning of potential problems
4 so that corrective action can be implemented to increase operational reliability.

5
6 The existing SCADA system in Waikoloa was originally installed in 1991 and was expanded a
7 few years later. The Waikoloa SCADA system was a stand-alone system accessed through a
8 single Human-Machine-Interface (“HMI”) computer in the Engineer’s office in Waikoloa with
9 Remote Telemetry Units (“RTU”) linked by radio to the Waikoloa Engineering office. Kona
10 Water had a similar antiquated SCADA system that was based at the Kukio Wastewater
11 Treatment Plant using a different radio frequency than Waikoloa. Alarms and limited remote
12 access were only available through a telephone dialer. The system was inadequate and antiquated
13 and did not match Hawaii Water’s parent company’s SCADA technology. The new SCADA
14 system was integrated into a single SCADA system and allows remote access by Virtual Local
15 Area Network (“VLAN”) through the company secure intra-net allowing operators, managers,
16 and SCADA technicians’ access to both Waikoloa and Kona Water’s SCADA system through
17 their computer. This was accomplished by installing a radio network with a radio repeater that
18 reaches from Waikoloa to Kukio (about 18 miles). Programming of RTUs and HMIs and design
19 of wiring schematics were accomplished with in-house personnel, the Electro-Mechanical
20 Technician (“EMT”), and installation was completed by the EMT and outside electrical
21 contractors based on their lower rates. Replacements and new installations of the equipment
22 installed are shown in the table below.

23
24 The Big Island SCADA Upgrade in 2013 (Project 83857) was part of the scope of Project 68103.
25 The second project included the addition of 12 RTUs at the four Waikoloa Sewer pump stations,
26 Waikoloa Resort wastewater treatment plant, Waikoloa Village A-Plant, and Waikoloa Village
27 K-Plant.

1

WAIKOLOA
DISTRICT:

RTU	SCADAPACK32	WELL DW1
RTU	SCADAPACK32	WELL DW2
RTU	SCADAPACK32	WELL DW3
RTU	SCADAPACK32	WELL DW4
RTU	SCADAPACK32	WELL DW5
RTU	SCADAPACK32	WELL DW6
RTU	SCADAPACK32	WELL DW7
RTU	SCADAPACK32	WELL DW8
RTU	SCADAPACK32	TANK 1200S
RTU	SCADAPACK32	TANK 1200N
RTU	SCADAPACK32	TANK 300
RTU	SCADAPACK32	SPS1
RTU	SCADAPACK32	SPS2
RTU	SCADAPACK32	SPS3
RTU	SCADAPACK32	SPS4 (Napaka)
RTU	SCADAPACK32	SPS5 (Beach)
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL DW1
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL DW2
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL DW3
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL DW4
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL DW5
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL DW6
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL DW7
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL DW8
	MAPLE SYSTEMS	
HMI	HMI5100T	TANK 1200S
	MAPLE SYSTEMS	
HMI	HMI5100T	TANK 1200N
	MAPLE SYSTEMS	
HMI	HMI5100T	TANK 300
	MAPLE SYSTEMS	
HMI	HMI5100T	SPS1

HMI	MAPLE SYSTEMS HMI5100T	SPS2
HMI	MAPLE SYSTEMS HMI5100T	SPS3
HMI	MAPLE SYSTEMS HMI5100T	SPS4 (Napaka)
HMI	MAPLE SYSTEMS HMI5100T	SPS5 (Beach)
SCADA RADIO	MDS INET900II	WELL DW1
SCADA RADIO	MDS INET900II	WELL DW2
SCADA RADIO	MDS INET900II	WELL DW3
SCADA RADIO	MDS INET900II	WELL DW4
SCADA RADIO	MDS INET900II	WELL DW5
SCADA RADIO	MDS INET900II	WELL DW6
SCADA RADIO	MDS INET900II	WELL DW7
		WELL DW8
SCADA RADIO	MDS INET900II	(Master 1)
SCADA RADIO	MDS INET900II	TANK 1200S
SCADA RADIO	MDS INET900II	TANK 1200N
SCADA RADIO	MDS INET900II	TANK 300
SCADA RADIO	MDS INET900II	R-Plant (Master 2)
SCADA RADIO	MDS INET900II	SPS1
SCADA RADIO	MDS INET900II	SPS2
SCADA RADIO	MDS INET900II	SPS3
SCADA RADIO	MDS INET900II	SPS4 (Napaka)
SCADA RADIO	MDS INET900II	SPS5 (Beach)
SPT4	ASE SPT4	ENG OFFICE

KUKIO DISTRICT:

RTU	SCADAPACK	WELL IIR1
RTU	SCADAPACK	WELL HR2
RTU	SCADAPACK	WELL IIR3
RTU	SCADAPACK	WELL HR4
RTU	SCADAPACK	WELL HR5
RTU	SCADAPACK	TANK A
RTU	SCADAPACK	TANK B
RTU	SCADAPACK	TANK C
RTU	SCADAPACK	TANK 312
RTU	SCADAPACK	SPS1
RTU	SCADAPACK	SPS2
RTU	SCADAPACK	SPS3
RTU	SCADAPACK	SPS4

Application Filed December 2017
Exhibit WHWC-T-301
Project Justifications
Witness: Green

RTU	SCADAPACK	SPS5
RTU	SCADAPACK	SPS6
RTU	SCADAPACK	SPS7
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL HR1
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL HR2
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL HR3
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL HR4
	MAPLE SYSTEMS	
HMI	HMI5100T	WELL HR5
	MAPLE SYSTEMS	
HMI	HMI5100T	TANK A
	MAPLE SYSTEMS	
HMI	HMI5100T	TANK B
	MAPLE SYSTEMS	
HMI	HMI5100T	TANK C
	MAPLE SYSTEMS	
HMI	HMI5100T	TANK 312
	MAPLE SYSTEMS	
HMI	HMI5100T	SPS1
	MAPLE SYSTEMS	
HMI	HMI5100T	SPS2
	MAPLE SYSTEMS	
HMI	HMI5100T	SPS3
	MAPLE SYSTEMS	
HMI	HMI5100T	SPS4
	MAPLE SYSTEMS	
HMI	HMI5100T	SPS5
	MAPLE SYSTEMS	
HMI	HMI5100T	SPS6
	MAPLE SYSTEMS	
HMI	HMI5100T	SPS7
SCADA RADIO	MDS INET900II	WELL HR1
SCADA RADIO	MDS INET900II	WELL HR2
SCADA RADIO	MDS INET900II	WELL HR3
SCADA RADIO	MDS INET900II	WELL HR4
SCADA RADIO	MDS INET900II	WELL HR5
SCADA RADIO	MDS INET900II	TANK A
SCADA RADIO	MDS INET900II	TANK B
SCADA RADIO	MDS INET900II	TANK C (Master 3)
SCADA RADIO	MDS INET900II	TANK 312

SCADA RADIO	MDS INET900II	RO Plant (Master 4)
SCADA RADIO	MDS INET900II	SPS1
SCADA RADIO	MDS INET900II	SPS2
SCADA RADIO	MDS INET900II	SPS3
SCADA RADIO	MDS INET900II	SPS4
SCADA RADIO	MDS INET900II	SPS5
SCADA RADIO	MDS INET900II	SPS6
SCADA RADIO	MDS INET900II	SPS7

1
 2 Cost Breakdown of Projects 68103 and 83857:

Big Island SCADA upgrade 2012 (Project 68103)	\$308,926.21
Capitalized Interest	\$17,889.50
Overhead	\$71,138.52
Labor	\$68,582.67
Other	\$28,781.71
Total	\$495,318.67

3

Big Island SCADA upgrade 2013 (Project 83857)	\$58,277.64
Capitalized Interest	\$1,720.69
Overhead	\$6,015.70
Labor	\$25,944.95
Other	\$5,731.08
Total	\$97,690.06

4

Waikoloa GRC

Capital Project Justification

Project ID/WO: 00093652
Project Description: 4-door, 4x4 truck

Project 93652 replaces a 2008 Nissan Frontier 4x4 truck with a 2014 Nissan Frontier 4x4 truck. The 2008 Nissan Frontier has high mileage at 199,941 miles. It is still in the fleet as a floater vehicle, but used only when absolutely necessary.

The newer 2014 Nissan Frontier 4x4 truck is needed to service the Waikoloa water and wastewater systems. It is assigned to a Superintendent who is tasked with supervising both potable water and wastewater operations. For the water system, the truck is required for the Superintendent to supervise day to day operations of the wells, tanks, transmission and distribution system. It is also used for routine maintenance, customer meter reading, response to water main breaks, and service calls. For the wastewater system, the truck is required for the Superintendent to supervise day to day operations of the collection systems and treatment plants, routine maintenance, manhole inspection, and service calls.

Replacing the company's vehicles on a regular basis benefits the company's customers through increased safety and reliability of company employees, and keeping drivers on the road and able to perform their jobs.

Cost Breakdown:

4-door, 4x4 truck	\$35,121.71
Total	\$35,121.71

1 efficiency.

2

3 A competitive bid process was used to solicit bids for the EMT service body truck. Bids were
4 received from Orchid Isle Auto Center and Midpac Auto. Orchid Isle Auto Center was selected
5 based on cost. Purchase Order No. 5134 for \$48,318.90 was executed on April 13, 2017 for the
6 purchase of the 2017 Ford F-250 truck. The truck has been equipped with the specialized service
7 body by Knapheide Company in Tracy California. It is presently in transit to Hawaii for
8 anticipated delivery in December 2017 or January 2018.

9

10 Cost Breakdown:

EMT Service Truck	\$73,507.15
Overhead	\$1,224.21
Total	\$74,731.36

1 **Waikoloa GRC**

2 **Capital Project Justification**

3
4 **Project ID/WO:** 00111877

5 **Project Description:** 720-Itron Handheld Meter Readers
6

7 The Itron Handheld meter readers make the meter reading process more efficient and accurate by
8 implementing a semi-automation process. Currently, meter boxes are opened and meters are
9 read manually. The Itron Handheld units store the water use from a specific meter by using a
10 unique meter number. The data stored in the Itron Handheld meter readers is then downloaded
11 for integration into Hawaii Water's billing system.
12

13 This project replaces six (6) FC200 Itron Handheld meter readers and docking stations with
14 FS400 Itron Handheld meter readers and docking stations at Waikoloa Village office.

15 Replacement of old FC200 Itron Handhelds is required because the units are obsolete and they
16 are no longer supported by Itron. For example, replacement parts or repairs are no longer
17 available for the FC200 model. Currently, the batteries are not charging and one of the handheld
18 units does not turn on. The next best Itron handheld model is the FS300. However, this model is
19 not available for purchase and support, replacement, and repair will end in 2021. This project
20 improves efficiency by reducing the amount of time an operator spends reading meters, writing
21 on paper, and completing manual rereads. The project is expected to be placed in service in
22 2018. The estimated cost of the project is \$26,765.

1 **Waikoloa GRC**

2 **Capital Project Justification**

3
4 **Project ID/WO:** 00112029
5 **Project Description:** 720-2018 Toyota Tacoma TRD 4x4
6

7 This project replaces a 2006 Ford F-150 (220HDH-V208204) with a 2018 Toyota Tacoma TRD
8 4x4. The 2006 Ford F-150 has high mileage at 98,624 and requires body work and front end
9 repairs. These repairs are more expensive than the value of the vehicle. An additional problem
10 with the 2006 Ford F-150 is a knocking sound in the engine, which is indicative of a failing
11 motor.
12

13 The new 2018 Toyota Tacoma TRD 4x4 truck is necessary to service the Waikoloa water and
14 wastewater systems. For the water system, the truck is required for day to day operations, routine
15 maintenance, meter reading, water main breaks, and service calls. For the wastewater system, the
16 truck is required for day by day operations, routine maintenance, manhole inspections, and
17 service calls.
18

19 Replacing the company's vehicles on a regular basis benefits the company's customers through
20 increased safety and reliability of company employees, and keeping drivers on the road and able
21 to perform their jobs. This project is expected to be placed in service during 2018. The estimated
22 cost of the project is \$40,602.

1
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4 **Waikoloa GRC**

5 **Capital Project Justification**

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10 **Project ID/WO:** 0097976

11 **Project Description:** 720-Fuel Station

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30
Project 97976 is the design and construction of an above-ground gasoline and diesel fuel storage and dispensing system. It is proposed for installation at the centrally-located Waikoloa Resort Waste Water Reclamation Facility for the benefit of all Hawaii Water's Big Island Operations. Hawaii Water presently does not have gasoline and diesel fuel storage with pumps for filling of company vehicles or equipment. Currently, Hawaii Water Operators have to travel to retail stations in Waikoloa Village (gasoline only), Waikoloa Beach Resort (gasoline only), Waimea-Kamuela, Kawaihae, and Kailua-Kona for gasoline and diesel fuel. These retail fueling stations are all subject to running out of fuel, potentially for an extended time after a foreseeable natural disaster such as a hurricane. Having access to gasoline and diesel fuel is critical to day to day operations and fulfilling the responsibilities of supplying clean potable drinking water and providing quality treatment of wastewater.

Hawaii Water does not have the equipment and Department of Transportation HazMat certifications to transport fuel on the public roads. Without fuel storage capability, Hawaii Water is as vulnerable to quickly running out of fuel during an emergency. A self-sufficient fuel supply during an emergency would offer resiliency and allow Hawaii Water operations to continue for an extended amount of time during an emergency fuel shortage or supply interruption event on the Big Island.

The project involves engineering design, obtaining necessary permitting approvals and construction of the approved design. The project was awarded to Hawaii Petroleum Company, as they are the primary petroleum supply vendor for the diesel fuel at the various backup emergency generators for Hawaii Water. The facility under design will include a two-chamber ConVault aboveground storage tank with integral secondary containment, fill ports, fuel gages,

1 fuel dispenser pumps, hoses, nozzles, and protective traffic bollards around the tank. This
2 project is currently open and scheduled for completion in 2018. This project is expected to be
3 placed in service during 2018. The estimated cost of the project is \$183,000.

1 **Waikoloa GRC**

2 **Capital Project Justification**

3
4 **Project ID/WO:** 0083938

5 **Project Description:** 720-SCADA Radio Data Link

6
7 The SCADA system for Waikoloa and Kukio needs to be upgraded to match the standards of Cal
8 Water. An integral component of the SCADA system is the communication system. Part of the
9 current communication system does not meet security requirements and is vulnerable to cyber
10 security threats. This project entails enhancing the security requirements of the communication
11 system by replacing outdated parts of the existing communication systems with high-speed radio
12 data links. The existing A-Plant SCADA and monitoring communication connection is through
13 cell phone internet and will be replaced with a high speed radio data link.

14
15 This project also includes a data link to the Kukio WWTP and RO water treatment plant which
16 were on a non-secure DSL line which did not meet security requirements. These will be replaced
17 with company standard high-speed radio data links. This project is expected to be placed in
18 service during 2018. The estimated cost of this project is \$53,201.

1 **Waikoloa GRC**

2 **Capital Project Justification**

3
4 **Project ID/WO:** 0102600
5 **Project Description:** 720-Big Island Radio Communication
6

7
8 This project will upgrade existing radio system to a digital radio network. The existing analog
9 system is in need of repair and is unlicensed. Repairs to the existing system would be costly and
10 would require additional maintenance. Additionally, the existing radios are not compatible with
11 the radios recently purchased for Hawaii Water's Maui Operations.

12
13 Radio communication improves daily operational efficiency and the district's ability to
14 communicate while also not relying on another utility's networks. This radio system can also be
15 used in emergency situations where cell phone and other communication are lost. Examples
16 include hurricanes or other disasters. One of the issues Hawaii Water faces during a natural
17 disaster or island wide emergency is the failure of cellular service. It is vital to be able to
18 communicate during these emergencies not only intra-island but inter-island as well. In this
19 project, Hawaii Water will purchase (14) mobile 2-way radios, (5) handheld 2-way radios, and
20 (1) base station 2-way radio. The new digital radios are compatible with the radios recently
21 purchased for Hawaii Water's Maui Operations. This project is expected to be placed in service
22 during 2018. The estimated cost of this project is \$50,000.

1 **Waikoloa Water System Project Justifications**

2
3 **For projects completed from 2013 through 2017**
4 **and projects planned to be in service in 2018**

5
6 **Waikoloa Village and Resort Water Systems**

1 Cost Breakdown:
2

DW-3 Pump	\$61,747.78
Capitalized Interest	\$642.48
Overhead	\$12,349.56
Total	\$74,739.82

1 **Waikoloa GRC**

2 **Capital Project Justification**

3
4 **Project ID/WO:** 00087079
5 **Project Description:** DW-1 Pump Replacement
6

7 There are currently four wells in the North Well Field and three completed wells in the South
8 Well Field that obtain the source water for Waikoloa Village and Waikoloa Beach Resort.
9 Waikoloa Deep Well Number One (“DW-1”) (State Well No. 5745-03) is located in the North
10 Well field above Waikoloa Village at an approximate elevation of 1,196 feet. Waikoloa DW-1
11 was drilled in 1988 to a depth of 1,333 feet. It was put into service in 1989 with a 16-inch
12 diameter casing. Other wells in the North Well Field consist of DW-4, DW-5 and DW-7,
13 although at the time of Project 87079, DW-7 was not yet constructed. Waikoloa’s DW-1 had by
14 far the highest production capacity of the wells in the North Well Field at the time with a
15 capacity rating of 1,350 gallons per minute (GPM), compared with capacities of 800 GPM each
16 for DW-4 and DW-5 (DW-4 and DW-5 (casing diameters are each 12 inches). All wells in the
17 North Well Field (and South Well Field) draw water from the Waimea Aquifer.

18
19 Project 87079 consisted of replacing the pump at Waikoloa DW-1. When the pump within
20 Waikoloa DW-1 failed on July 24, 2012 (see the green line on the graph below for DW-1 pump
21 rate failing), well DW-3 in the South Well Field was already out of service (See Project 87077).
22 Having both DW-1 and DW-3 off line concurrently created an emergency water supply situation.
23 With both DW-1 and DW-3 offline, all the other operable Waikoloa system wells in the North
24 Well Field and South Well Field had to be run 24 hours a day, seven days a week in order to
25 meet water demand. Even then, Water Conservation Notices had to be submitted to the major
26 irrigation customers so as to ensure potable demands for drinking, cooking and sanitation
27 purposes were met. With all other operable wells running at capacity 24/7, the total electricity
28 costs were increased by not being able to run during times with lower rates.
29

1 While Beylik Well Drilling was already working on repairing Waikoloa DW-3, it was decided to
 2 issue an emergency no-bid purchase order to Water Resources International (WRI) to repair the
 3 failed pump within Waikoloa DW-1. The Notice to proceed was issued soon after pump failure
 4 to WRI on August 10, 2012. Using a specialized drilling rig, WRI pulled out all of the suspended
 5 piping in the well to reach the pump at the bottom. The pump that was removed had been
 6 installed one year previous and had failed catastrophically. The failed pump was purchased as a
 7 standby pump for DW-1 and was in storage for nearly a decade because the pump that failed in
 8 2011 had lasted nearly 20 years. WRI was able to locate a rush manufactured pump with a ready
 9 to air ship in one week. The new pump was attached to the string of suspended piping and
 10 reinstalled down the well. The new pump was put into service on September 12, 2012.
 11

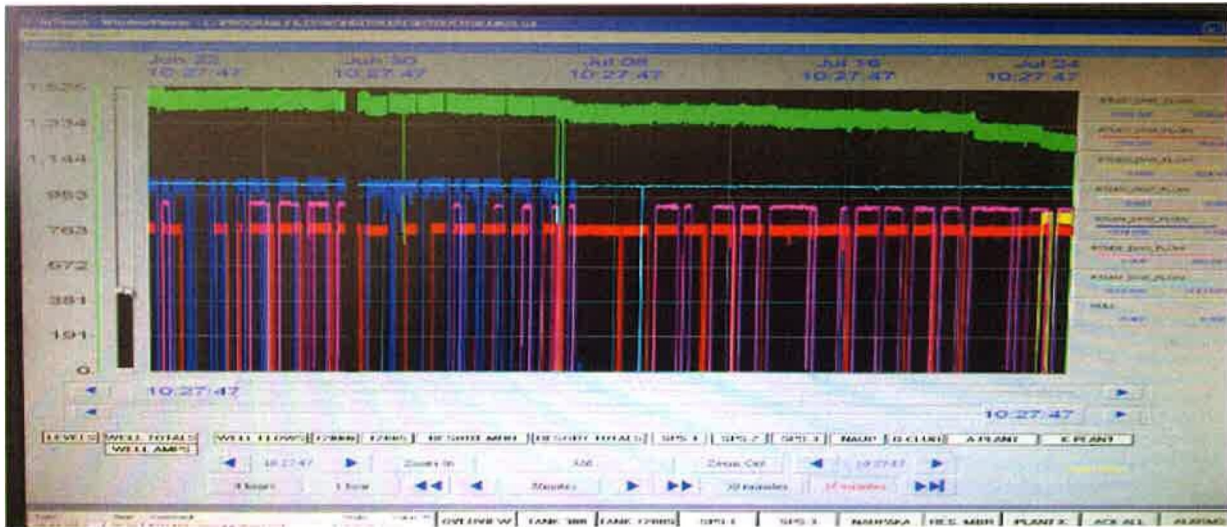


Figure 1. DW-1 Pump Rate Failure.

12
 13
 14
 15

Cost Breakdown:

DW-1 Pump	\$108,725.00
Capitalized Interest	\$2,925.45
Overhead	\$21,745.00
Total	\$133,395.45

1 **Waikoloa GRC**

2 **Capital Project Justification**

3
4 **Project ID/WO:** 00097171
5 **Project Description:** 721-Well 1 Pump Replacement
6

7 There are currently four wells in the North Well Field and three completed wells in the South
8 Well Field that obtain the source water for Waikoloa Village and Waikoloa Beach Resort.
9 Waikoloa DW-1 (State Well No. 5745-03) is located in the North Well field above Waikoloa
10 Village at an approximate elevation of 1,196 feet. Waikoloa DW-1 was drilled in 1988 to a depth
11 of 1,333 feet. It was put into service in 1989 with a 16-inch diameter casing. Other wells in the
12 North Well Field consist of DW-4, DW-5 and DW-7. Waikoloa's DW-1 had by far the highest
13 production capacity of the wells in the North Well Field at the time with a capacity rating of
14 1,350 gallons per minute (GPM), compared with capacities of 800 GPM each for DW-4 and
15 DW-5 (DW-4 and DW-5 casing diameters are 12 inches each). All wells in the North Well Field
16 (and South Well Field) draw water from the Waimea Aquifer.

17
18 Project 97171 consists of replacement of the pump in well DW-1. The DW-1 pump that failed in
19 2012 was replaced by a fast tracked manufactured pump (Project 87079) supplied by WRI and was
20 air freighted to the Big Island due to the emergency situation of having to issue the water
21 conservation notice. After installation the pump was put into service and the emergency water
22 conservation notice was lifted after one month. In February 2014, Well DW-1 was taken out of
23 service to install a new Motor Control Center (MCC). This work was done by in house personnel.
24 During the same period, the construction of the MCC/Electrical Building (Project 97172) was
25 contracted to Isemoto Contracting Co., Ltd. ("Isemoto"). After the building was completed, the
26 pump was put back into service on October 5, 2017, but the pump failed a few days later. The
27 failed pump is scheduled to be removed in December 2017. A special rig is
28

1 required to lift the approximately 1,200 feet long column pipe, oil tube and shafting which weighs
2 approximately 50 tons. A new pump will be purchased after the old pump is removed and
3 evaluated. This project is expected to be placed in service during 2018. The estimated cost of the
4 project is \$150,656.

1 **Waikoloa GRC**

2 **Capital Project Justification**

3
4 **Project ID/VO:** 00097172
5 **Project Description:** 721-DW1 Electrical Building
6

7 Project 97172 consisted of constructing a new building enclosure for the electrical controls of
8 Waikoloa DW-1. Waikoloa DW-1 is located on TMK 6-8-002-019-0000 in the north well field
9 at an approximate elevation of 1,200 feet. The electrical controls for this well are housed in a
10 nearby metal Motor Controls Cabinet. Although rated as weatherproof, this MCC has still
11 allowed dust and moisture to degrade the electrical components contained inside, causing
12 numerous failures and repairs totaling over \$100,000. Safety was also a major concern as there
13 have been numerous occasions when emergency work had to be performed on the medium
14 electrical voltage (4,160 volts) equipment while it was raining, placing operators at significant
15 safety risk.
16

17 In 2012, West Hawaii Water Company (“WHWC”) commissioned John Parazette Architect to
18 design a building over the MCC. A standard metal building using a package design by Butler
19 Manufacturing over a slab foundation was proposed to the Hawaii County Department of Public
20 Works Building Division in design plans dated February 22, 2012. The design was approved and
21 resulted in a Hawaii County Building Permit dated May 3, 2012. In May of 2016, WHWC
22 solicited a proposal from Isemoto to construct the building. A decision by WHWC to sole-source
23 award Isemoto was made in June 2016 based on the following factors: Isemoto is the only
24 licensed full-service contractor for Butler brand metal buildings on Hawaii, the County Building
25 Permit was applied by and paid for by Isemoto, and the County Building Permit names Isemoto
26 as the Builder. On September 30, 2016, WHWC executed a construction agreement contract with
27 Isemoto. Following receipt of Payment and Performance Bonds from
28

1 sureties backing Isemoto, construction of the slab foundation and building commenced in
2 October 2016. The building was completed and placed in service on January 2, 2017. The final
3 approved Occupancy Permit was received from the Hawaii County Department of Public Works
4 Building Division in September 2017. The estimated cost of the project is \$261,222.

1 **Waikoloa GRC**

2 **Capital Project Justification**

3
4 **Project ID/WO:** 00106180 and 106183

5 **Project Description:** 721-Water Loss Control, Meter box installation

6
7 Water Loss Control Program and Reports.

8
9 Hawaii Water is committed to water loss control as demonstrated by the development of
10 WHWC's Water Loss Report filed September 30, 2015 with the Hawaii Public Utilities
11 Commission in Docket No. 2012-0148 (the "2015 Water Loss Report"). Additionally, Hawaii
12 Water conducted water audits consistent with AWWA Standard M-36 in 2014, with technical
13 assistance from the Hawaii Commission on Water Resources Management. The technical
14 assistance included a training workshop on how to perform a water audit consistent with the
15 AWWA Standard M-36 audit and auditing of the 2014 M-36 water audit. The outcome of the
16 technical assistance was the "Waikoloa Water Audit Technical Assistance Outcome," which in
17 addition to the 2015 Water Loss Report is the blueprint to implement the AWWA M-36
18 program. In 2017, Hawaii Water updated the 2015 Water Loss Report (the "2017 Water Loss
19 Report"). Among other things, the 2017 Water Loss Report specifically updated Table 4, The
20 Action Plan for Implementation Water Loss Control Program, documented the Water Audit
21 Training, and documented the completion of AWWA M-36 water audits from 2015 and 2016.

22
23 The water audits focus on the data validation score, which measures the quality of the data in the
24 AWWA M-36 audit. Water loss control projects can have a high cost to implement and at some
25 point the cost to reduce water loss will exceed the benefit, which is why the focus of a water loss
26 program is to ensure the data in the AWWA M-36 is continually improved. The short term focus
27 of the water loss control program is to improve the data in the AWWA M-36 water loss audit and
28 implement easily obtainable projects such as meter replacement and meter calibration. The next
29 steps to implementing a water loss control program are to deliverer specific projects. Two
30 specific water loss projects that the Waikoloa Utilities intend to implement in 2018 are the

1 installation of meter boxes (Projects 00106180 and 106183) and meter replacement (Projects
2 00112042 and 11043).

3
4 Installation of meter boxes.

5
6 Because each well production flow meter should be calibrated annually, Hawaii Water
7 developed a project to measure the well flow downstream of the wells by installation of meter
8 boxes in stable hydraulic environments. The meter boxes will provide a safe, easy to access place
9 for installation of strap-on temporary water meters for the annual calibration test.

10
11 The AWWA M-36 Planning Matrix (2015 Water Loss Report, Table 1) is AWWA's M-36
12 Standard Water Loss Control Program. This specific project is from the 2017 Water Loss Report,
13 Table C, Action Plan for Implementation Water Loss Control Program. The project to calibrate
14 production flow meters was also recommended in the 2015 Waikoloa Water Loss Reduction
15 Report, Table 1, Action Plan for Implementation Water Loss Control Program, Item 1. The
16 estimated cost of each of the projects (i.e. for WHUC and WHWC) is \$34,481.

1 **Waikoloa GRC**

2 **Capital Project Justification**

3
4 **Project ID/WO:** 00112042 and 11043

5 **Project Description:** 721-Water Loss Control, Meter Replacement

6
7 Hawaii Water's water loss control program and reports are described in the discussion of
8 Projects 00106180 and 106183. This specific project is for meter replacements and is listed as
9 Item 1.3A in Table C of the 2017 Action Plan.

10
11 The AWWA Standards for meters are in the AWWA M-6 Manual. The AWWA Standard for the
12 intervals between replacement/testing/calibration meters is not established for meters due many
13 factors, such as to the variations in the physical and chemical characteristics of water throughout
14 the country as well as flow rates through the meters. Table 5-2 in the AWWA M-6 Manual
15 contains the states' public service commission regulations for periodic testing of water meters.
16 The table indicates Hawaii currently does not have a regulation for periodic testing. The testing
17 periods shown on the Manual for California and Illinois are shown as follows:

18
19 **Table A: Summary Table 5-2 in the AWWA M-6 Manual:**

Meter Size	Activity	California Years	Illinois Years
5/8"	Testing	20	6
3/4"	Testing	20	6
1"	Testing	15	4
1.5"	Testing	10	4
2"	Testing	10	4

20
21 For older meters (reference Table A California), meter replacement is more cost effective than
22 meter testing/rebuilding/calibration, because the age of the meters is considered beyond the
23 useful life. For meter testing, the Company must remove the meter, test the meter, rebuild the

1 meter, and calibrate the meter. This is compared to the cost of replacing the meter at an
2 approximate cost of \$100 for a new ¾-inch meter, \$190 for a new 1-inch meter, \$390 for a new
3 1½-inch meter, and \$560 for a new 2-inch meter. The new meters are much more reliable than a
4 rebuilds and come with a manufacturer's warranty. This project is expected to be placed in
5 service in 2018. The estimated cost of each project (i.e. for WHUC and WHWC) is \$41,589.

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Waikoloa GRC

Capital Project Justification

Project ID/WO: 024927

Project Description: Waikoloa DW-8

Waikoloa presently has seven wells, four in the Waikoloa North Well Field (DW-1, DW-4, DW-5, and DW-7) and three wells in the Waikoloa South Well Field (DW-2, DW-3, and DW-6). Both well fields supply water to both Waikoloa Village and Waikoloa Beach Resort.

Project 24927 consists of adding a fourth well, Waikoloa DW-8, in the South Well Field. In accordance with the 2002 State of Hawaii Water System Standards Section 111.08, water systems must meet several criteria in regards to pump capacity. Section 111.01 states that these standards of planning shall be viewed as the minimum limits in design criteria and that the water system shall be designed to meet the needs of the community for a reasonable number of years in the future. For the Island of Hawaii, Section 111.01 states that the Total Pump Capacity of a water system shall:

...meet average day demand with an operating time of 16 hours or meet maximum day demand with an operating time of 24 hours with larger pump unit on standby and not contributing to flow requirements.

The Waikoloa Potable Water Master Plan (“WPWMP”) dated October 2013 states that with the seven existing wells and the largest well out of service (DW-1), the continuous nominal pumping capacity is 8.424 million gallons per day (MGD). The pump capacity for all wells operating 16 hours is 6.82 MGD. The addition of DW-8 would coincide with changing the standby requirement of having enough pumping capacity to meet water demands with the largest well in each well field being out of service per the WPWMP (page 11). Therefore the safe capacity would still be 8.424 MGD with the largest pump on standby or out of service in each well field (North and South). As stated above this would be the minimum limit for providing reasonable water service to our customers.

1
2 As witnessed in 2017 in other water systems, even this minimum standard is no assurance that
3 water service will not be interrupted or curtailed by pump failures above and beyond the minimum
4 standard. The Hawaii County Department of Water Supply (“HCDWS”) has issued various
5 degrees of water conservation mandates for most of 2017 in their North Kona district. In June
6 2017 the HCDWS had 5 wells that were inoperative and had to issue emergency restrictions on
7 water use to only health and sanitation purposes. This was more severe than the 25% mandatory
8 restriction in place most of 2017 in the North Kona District. Another example of this is in Kohala
9 Ranch (a privately owned public water system). In 2017, Kohala Ranch had both of its wells fail at
10 the same time which meant they had no water source for their customers. These 2 examples show
11 the dire consequences of pump failures to public health and welfare, including loss of economic
12 value of landscaping that could not be irrigated, potential loss of other economic activity, and the
13 loss of confidence by the public in their public water system. It is prudent and wise for a public
14 water system to stay well ahead of the minimum standards in fulfilling its responsibility to protect
15 public health and welfare. A utility must also maintain operational reliability at all times.

16
17 The process of bringing a new water source on-line is long and expensive. First, a suitable site
18 must be identified. Next, agreements and easements from landowners need to be obtained prior to
19 the exploration for water. Permits from the Commission on Water Resource Management are
20 required. Exploratory drilling and final well development must be pursued. Well outfitting must be
21 designed and the site must be developed. Finally, approval must be obtained from the Safe
22 Drinking Water Branch stating that the water is safe for public consumption. This process takes
23 many years and must be undertaken in anticipation of development and growth.

24
25 Average water demand in the Waikoloa system was 5.09 MGD in 2013, 4.93 MGD in 2014, 5.09
26 MGD in 2015, and 5.59 MGD in 2016. Per the WPWMP, a growth rate of 3.5% was calculated
27 using actual data from 1993 to 2012 and used for growth projections (page 1). The maximum day
28 demand for 2016 is calculated to be 8.39 MGD using the maximum day demand factor of 1.5 from
29 the 2002 State of Hawaii Water Systems Standards Section 111.05. The WPWMP uses a
30 maximum day factor of 1.25 based on Waikoloa system operations. However, the company

1 believes that for prudent planning, and given the history of well failures that have occurred in the
2 past year in other water systems, the more conservative maximum day factor from the State of
3 Hawaii Water System Standards should be used. Water demand in the Waikoloa system for 2017
4 through October was 5.50 MGD. Therefore the maximum day demand for 2017 is calculated to be
5 8.25 MGD using the Hawaii Water system standards. The average demand in 2017 is expected to
6 be greater in 2017 than in 2016. Therefore, the maximum day demand is expected to be greater.
7 Additionally, recorded data demonstrates that the demand in the area is increasing. The criteria of
8 all wells meeting the average day demand over 16 hours can be met with 7 wells. However, the
9 company believes that the critical criteria to meet is the maximum day demand of 8.25 MGD
10 (2017) or 8.39 MGD (2016) with the largest well in each well field being off-line or out of service
11 and the remaining wells running 24 hours a day.

12
13 Without the development of DW-8, WHWC and WHUC expect the demand on the Waikoloa
14 Water system will be beyond safe capacity by the end of 2018. Using the 3.5 percent growth rate
15 and assuming that 5.50 MGD as the starting point for 2017, the demand will exceed the safe well
16 pumping capacity in 2018 using the 1.5 maximum day criteria. If the maximum day criteria of 1.25
17 is used, demand will exceed safe well pumping capacity in 2023. Given the long lead time of
18 getting water sources on-line, the addition DW-8 is not excess capacity, but rather is required to
19 meet expected demand and provide necessary reliability.

20
21 In 2009, Waikoloa DW-8 was drilled and flow tested; a well casing was also installed. Well
22 outfitting was designed by Tom Nance Water Resource Engineering and put out to bid in October
23 2017. Bids were received in December 2017 and the contract will be awarded to the lowest bidder.
24 Once the contract is awarded, work will be authorized to proceed. A requirement of the contract is
25 a 270 calendar day execution time. Therefore, the well is anticipated to be in service and pumping
26 before the end of 2018. The estimated cost of the project is \$4,732,300.

VERIFICATION OF PAUL TOWNSLEY

STATE OF California)
)
COUNTY Santa Clara) SS.

PAUL TOWNSLEY, being first duly sworn, deposes and says:

1. That he is the Vice President-Regulatory Matters of WAIKOLOA WATER CO., INC., dba WEST HAWAII WATER COMPANY ("WHWC") and is the duly appointed representative of WHWC in the above matter;
2. That he has read the foregoing Application and exhibits, and knows the contents thereof; and
3. That he is authorized by WHWC to verify, and he does verify, that the contents of the foregoing Application are true to the best of his knowledge, information, and belief.

FURTHER AFFIANT SAYETH NAUGHT.

DATED: Dec, 19th, 2017.


PAUL TOWNSLEY

Subscribed and sworn to before me
this 19 day of December 2017

Lina Jo Distefano
Notary Public, State of California
My commission expires: ~~1-27-2020~~ 01-21-2021



CERTIFICATE OF SERVICE

I hereby certify that on this date, copies of the foregoing document were duly served on the following, by having said copies delivered as set forth below:

DIVISION OF CONSUMER ADVOCACY
DEPARTMENT OF COMMERCE AND CONSUMER AFFAIRS
335 Merchant Street, Room 326
Honolulu, Hawaii 96813

3 COPIES VIA
HAND-DELIVERY

THE HONORABLE HARRY KIM
Mayor
County of Hawaii
25 Aupuni Street
Hilo, Hawaii 96720

1 COPY VIA
U.S. MAIL

DATED: Honolulu, Hawaii, December 29, 2017.



J. DOUGLAS ING
PAMELA J. LARSON
DAVID Y. NAKASHIMA
Attorneys for Applicant
WAIKOLOA WATER CO., INC., dba WEST
HAWAII WATER COMPANY