BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAI'I

In the Matter of the Application of	)	DOCKET NO. 2017-0449
	)	
WAIKOLOA SANITARY SEWER CO., INC., dba WEST HAWAII SEWER COMPANY	)	
	)	
For a General Rate Case and For Approval of Revisions to its Tariff	)	
	)	

APPLICATION

EXHIBITS WHSC 1 THROUGH 14;

EXHIBITS WHSC-T-100 though WHSC-T-306

VERIFICATION

and

CERTIFICATE OF SERVICE

FILED
2017 DEC 29 A 11:54
PUBLIC UTILITIES COMMISSION

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BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAI`I

In the Matter of the Application of WAIKOLOA SANITARY SEWER CO., INC., dba WEST HAWAII SEWER COMPANY For a General Rate Case and For Approval of Revisions to their Tariffs	)	DOCKET NO. 2017-0449

APPLICATION

WAIKOLOA SANITARY SEWER CO., INC., dba WEST HAWAII SEWER COMPANY ("WHSC" 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 § 6-61-88[1];

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 sewer service rates and charges proposed by Applicant as set forth in Exhibit WHSC 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;

8. Approve the request to modify certain reporting requirements, as described in Section VII below; and

9. 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 wastewater treatment service within the Waikoloa Village on the Island of Hawaii. Applicant's customers consist of approximately 300 single family, 1200 multi-family, 41 commercial, and 21 public authority customers. Since its last rate filing, the County of Hawaii workforce project has grown in the Waikoloa Village area adding approximately 24 service connections per year since 2013. WHSC owns and operates two wastewater treatment plants: the Waikoloa Auwaiakeakua Wastewater Treatment Plant (the "A-Plant") which treats wastewater from the service area located in the southern end of Waikoloa Village, and the Waikoloa Kamakoa Wastewater Treatment Plant (the "K-Plant"), which treats wastewater from several Hawaii County housing projects and the Waikoloa Elementary School in Waikoloa Village.

Waikoloa Resort Utilities, Inc., dba West Hawaii Utility Company ("WHUC") and Waikoloa Water Co., Inc., dba West Hawaii Water Company ("WHWC") are utilities that are affiliated with WHSC. WHSC, WHUC and WHWC 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 WHWC provides potable water service within the Waikoloa Village service area.

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

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

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 revenue increase of $714,059 for its sewer operations.[4] (Exhibit WHSC 6, Line 7, column 2). This amounts to an approximate increase of 41.5% from the pro forma revenue amount of $1,721,500 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 WHSC-T-100). If approved, the proposed revenue increase will provide WHSC with

[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.

a7.75% rate of return on its prudently incurred system improvements, as shown on Exhibit WHSC 6 (line 30, column 3).

B. Justification for Rate Relief Requested

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, WHSC had revenues of approximately $1,714,699 and a -3.06% rate of return for its sewer service. (See Exhibit WHSC 9). For the Test Year, WHSC projects revenues of approximately $1,721,500 and a 0.25% rate of return at present rates. (See Exhibit WHSC 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 certain costs of the K-Plant in rate base. However, Applicant's plant in service in that case did not include all of the K-Plant costs. In addition, because the K-Plant 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 K-Plant costs that were included in plant in service. In addition, in Applicant's last rate case, a portion of the cost of the A-Plant was excluded from plant in service. Applicant's proposed rate increase will allow it to earn a return on the full cost of the K-Plant and the A-Plant. 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 WHSC-T-300 and WHSC-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 sewer service to its customers.

IV. PRESENT AND PROPOSED RATES

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

Applicant hereby respectfully requests that it be authorized to charge the rates set forth in Exhibit WHSC 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 Sewer Fees	Present Rate	Proposed Rate			
		Phase 1		Phase 2	
Stand-by Charge					
Residential per month per dwelling unit	$ 62.04	$ 77.05	24.2%	$ 88.17	14.4%
Commercial per equivalent residential unit[5]	$ 62.04	$ 77.05	24.2%	$ 88.17	14.4%
Quantity Charge					
per 1000 gallons of domestic water consumption	$ 1.51	$ 2.1301	41.1%	$ 2.4374	14.4%

V. FINANCIAL INFORMATION AND WAIVER REQUEST

[5] Equivalent Residential (ER) units are dependent on a customer's meter size.

Meter Size		ER Units
3/4	inch	1
1	inch	2
1 1/2	inch	3
2	inch	5
4	or larger	17

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

Exhibit WHSC 1 — General Description of WHSC's property and equipment

Exhibit WHSC 2 — Financial Statements

Schedules

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. CWSG's last annual report to stockholders is available on its website, and is incorporated by reference[6].

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

[6] http://ir.calwatergroup.com/Investor-Relations/Financial-Reports/Annual-Reports

Exhibit WHSC 10	Rate of Return
Exhibit WHSC 11	Phase-in Schedule
Exhibit WHSC 12	Rate Design
Exhibit WHSC 13	Rate Design Phase 1
Exhibit WHSC 14	Rate Design Phase 2

E. Testimonies and Supporting Exhibits

Exhibit WHSC-T-100 Testimony of Robert Stout

Exhibit WHSC-T-101	Quote to Perform Audit of Financial Statement
Exhibit WHSC-T-102	Revised Tariff Pages (clean)
Exhibit WHSC-T-103	Revised Tariff Pages (black-lined)
Exhibit WHSC-T-104	WHSC Cost of Service Study

Exhibit WHSC-T-200 Testimony of Anthony Carrasco

Exhibit WHSC-T-201 Payroll Allocations (Confidential)[7]

Exhibit WHSC-T-300 Testimony of Stephen Green

Exhibit WHSC-T-301	Capital Project Justifications
Exhibit WHSC-T-302	Design Standards
Exhibit WHSC-T-303	A-Plant Design Flows and Committed Capacity (2013)
Exhibit WHSC-T-304	A-Plant Recorded Flows
Exhibit WHSC-T-305	K-Plant Recorded Flows
Exhibit WHSC-T-306	K-Plant Committed Capacity

F. Request for Waiver.

Pursuant to HAR § 6-61-92, Applicant respectfully requests that its unaudited financial statements (Exhibits WHSC 2, Schedules D and E) submitted with this Application be accepted in lieu of audited financial statements. Because Applicant is a small utility, requiring Applicant

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

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 Delloitte & Touche, LLP. A copy of CWSG's latest annual report showing audited financial statements is available on CWSG's website[8], 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. The addition of an exhibit to WHSC's tariff that illustrates that calculation of CIAC.

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 WHSC T-103 and WHSC-T-104).

VII. MODIFICATION OF REPORTING REQUIREMENTS.

In Applicant's last general rate case, the Commission ordered it to file quarterly energy use and efficiency reports with the Commission. Applicant requests that this reporting requirement be modified to require annual, rather than quarterly, reports. This request is discussed in more detail the Testimony of Robert Stout. (Exhibit WHSC-T-100).

[8]http://ir.calwatergroup.com/Investor-Relations/Financial-Reports/Annual-Reports.

VIII. 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 WHSC 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;

8. That the Commission approve the request to modify certain reporting requirements, as described in this Application; and

9. 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.

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

West Hawaii Sewer Company
Property and Equipment

Waikoloa Sanitary Sewer Company, Inc. doing business as West Hawaii Sewer Company ("WHSC" or the "Company"), provides sewer services in two distinct service areas in Waikoloa Village (the "Village"), South Kohala on the Island of Hawaii. The southernmost service area is served by the Auwaiakeakua Waste Water Treatment Plant or A-Plant and the northernmost service area is served by the Kamakoa Waste Water Treatment Plant or K-Plant.

A-Plant

Sewer collection systems, placed in service when the Company was first formed, collect wastewater from 16 separate condominium projects, five commercial customers, and two public authority customers and deliver it to the A-Plant located just west or makai of the Village area adjacent to Auwaiakeakua Gulch. The collection system is currently made up of approximately 24,000 lineal feet of gravity sewer line and 123 manholes.

The A-Plant currently has an average daily capacity of 530,000 gallons per day. The plant uses a Moving Bed Bio-Reactor (MBBR) treatment system. Raw wastewater entering the plant is first screened and de-gritted before going to the MBBR process. Each of two MBBR aeration tanks operate in parallel, treating the screened and de-gritted wastewater. The treated MBBR aeration tank effluent then goes through a Dissolved Air Flotation (DAF) process to remove biosolids from the effluent. There are two DAF units, one normally operating and the second on standby, which allows one unit to be offline for maintenance as needed. The DAF effluent is then disinfected and disposed of via a reuse irrigation system and infiltration pits on the A-Plant site. The biosolids are separated as "float" by the DAF process. The float is then pumped to the solids handling system for stabilization and dewatering.

Sludge float from the DAF process is pumped to a 2-stage aerobic digester process where it is stabilized. The stabilized sludge from the aerobic digester process is dewatered by one of two centrifuges (one operating and one standby). The dewatered sludge cake from the centrifuge discharges to a roll-off bin and is then transported to the County Sanitary Landfill for disposal. Power to operate the facility is provided by an overhead powerline drop from Hawaii Electric Light Company (HELCO) with an onsite backup diesel-powered electricity generator for emergency resiliency.

K-Plant

The existing K-Plant is located below Waikoloa Village adjacent to the Kamakoa Gulch and currently provides service to 174 single family residences in Paniolo Estates, three multifamily projects, the Waikoloa Elementary & Middle School, and approximately 89 single family homes in the 94 lot Kamakoa Workforce County Housing Project. Wastewater is collected through sanitary sewer lines and 112 manholes located within the development area and is transported to the K-Plant by gravity through the sewer pipes and sewer manhole system

Similar to the A-Plant, the K-Plant uses a MBBR treatment system. This treatment system received its Approval to Construct by the Department of Health Wastewater Branch on June 12, 2012. It has been in service since June 2013. The current Phase 1 configuration of the K-Plant has a daily capacity of 200,000 gallons per day. Raw wastewater entering the plant is first screened before entering the MBBR process. Unlike the A-Plant, there is only one wastewater treatment train at the K-Plant. The treated MBBR aeration basin effluent then goes through a DAF process to remove biosolids from the effluent. There are two DAF units, one normally operating and the second on standby, which allows one unit to be offline for maintenance as needed. The DAF effluent is then disposed of via a leachfield gallery on the K-Plant site. The biosolids are separated as "float" by the DAF process. The float is then pumped to the solids handling system for stabilization and dewatering.

Sludge float from the DAF process is pumped to anaerobic digester process where it is minimally stabilized. The sludge from the aerobic digester process is dewatered by

roll-off Detainer bins. The dewatered sludge cake in the roll-off Detainer is then transported to the County Sanitary Landfill for disposal. Power to operate the facility is provided by an overhead powerline drop from Hawaii Electric Light Company (HELCO) with an onsite backup diesel-powered electricity generator for emergency resiliency

Application Filed December 2017
Exhibit WHSC 2, Schedule A
Amount and Kinds of Stock
Witness: Stout

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

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

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

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

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

None

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

None

WEST HAWAII SEWER COMPANY
F.K.A. WAIKOLOA SANITARY SEWER COMPANY, INC.
BALANCE SHEET
DECEMBER 31, 2016

ACCOUNT NUMBER	ASSETS & OTHER DEBITS	BALANCE 12/31/16
	UTILITY PLANT	
303.	Land	0
101.	Utility Plant in Service	16,347,098
105.	Construction Work in Progress	13,267
108.	Accum. Depreciation of Utility Plant in Service	(4,684,802)
	Total Utility Plant Less Reserves	11,675,563
	OTHER PROPERTY & INVESTMENTS	
121.	Nonutility Property	872
122.	Accum. Depreciation of Nonutility Plant	0
	Total Other Property & Investments	872
	CURRENT & ACCRUED ASSETS	
131.	Cash	0
141.	Customer Accounts Receivable	137,611
142.	Accounts Receivable Other	0
143.	Accum. Provision for Uncollectible Accts - Contra	0
145.	Accounts Receivable From Associated Companies	49,628
151.	Other Materials & Supplies	1,210
162.	Prepayments	(11,921)
173.	Accrued Utility Revenues	104,056
174.	Miscellaneous Other Assets	0
	Total Current & Accrued Assets	280,585
	DEFERRED DEBITS	
184.	Clearing Accounts	0
186.	Miscellaneous Deferred Debits	50,688
	Total Deferred Debits	50,688
	TOTAL ASSETS & OTHER DEBITS	**12,007,709**

WEST HAWAII SEWER COMPANY
F.K.A. WAIKOLOA SANITARY SEWER COMPANY, INC.
BALANCE SHEET
DECEMBER 31, 2016

ACCOUNT NUMBER	EQUITY CAPITAL & LIABILITIES	BALANCE 12/31/16
	STOCKHOLDER'S EQUITY	
201.	Common Stock	(609,768)
211.	Other Paid-In-Capital	0
215.	Unappropriated Retained Earnings	(5,211,350)
435.	Balance Transferred from Income	(239,851)
438.	Dividends Declared - Common Stock	0
	Total Stockholder's Equity/(Deficit)	(6,060,969)
	LONG TERM DEBT	
223.	Advances from Associated Companies	609,768
224.	Other Long Term Debt	0
	Total Long Term Debt	609,768
	CURRENT & ACCRUED LIABILITIES	
231.	Accounts Payable	10,268
233.	Accounts Payable to Associated Companies	13,126,828
234.	Notes Payable to Associated Companies	0
225.	Capitalized Lease Obligation	0
236.	Accrued Taxes Payable	98,032
239.	Matured Long Term Debt	0
241.	Other Liabilities	0
	Total Current & Accrued Liabilities	13,235,128
	DEFERRED CREDITS	
252.	Advances for Construction	0
253.	Other Deferred Credits	0
	Total Deferred Credits	0
	OPERATING RESERVES	
265.	Misc. Operating Reserves	0
	CONTRIBUTIONS IN AID OF CONSTRUCTION	
271.	Contributions in Aid of Construction	5,980,398
272.	Accum. Amortization of CIAC	(1,756,616)
	Total Contributions in Aid of Construction - Net	4,223,782
	DEFERRED INCOME TAXES	
283.	Accum. Deferred Income Taxes	0
	TOTAL LIABILITIES & OTHER CREDITS	**12,007,709**

WEST HAWAII SEWER COMPANY
F.K.A. WAIKOLOA SANITARY SEWER 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	0
462.	Fire Protection Revenue	0
465.	Sales to Irrigation Customers	0
	OTHER WATER REVENUES:	
471.	Miscellaneous Service Revenues	1,694
474.	Other Water Revenues - Unbilled Rev Adj	0
	WASTEWATER SALES	
521.	Flat Rate Revenues	982,131
522.	Measured Revenue	483,874
523.	Revenues from Public Authorities	0
524.	Revenues from Other Systems	0
	OTHER WASTEWATER REVENUES	
531.	Sale of Sludge	0
536.	Other Wastewater Revenues	30,458
	RECLAIMED WATER SALES	
540.	Flat Rate Reuse Revenues	0
541.	Measured Reuse Revenue	0
544.	Reuse Revenues from Other Systems	0
	Total Operating Revenues	1,498,157

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

ACCOUNT NUMBER		CY 12/31/16
	OPERATING EXPENSES - WATER	
610.1	Purchased Water	0
615.1	Purchased Power	0
601.1	Source of Supply - Salaries & Wages	0
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	0
601.2	Source of Supply - Maint - Salaries & Wages	0
620.2	Source of Supply - Maint - Materials & Supplies	0
675.2	Source of Supply - Maint - Misc Expense	0
601.3	Water Treatment - Salaries & Wages	0
618.3	Water Treatment - Chemicals	0
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	0
601.4	Water Treatment - Maint - Salaries & Wages	0
620.4	Water Treatment - Maint - Materials & Supplies	0
675.4	Water Treatment - Maint - Misc Expense	0
601.5	Trans & Distrib - Salaries & Wages	0
635.5	Trans & Distrib - Contractual Svc - Testing	0
642.5	Trans & Distrib - Rental of Equipment	0
675.5	Trans & Distrib - Misc Expense	0
601.6	Trans & Distrib - Maint - Salaries & Wages	0
675.6	Trans & Distrib - Maint - Misc Expense	0
	Total Operating Expenses - Water	0

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

ACCOUNT NUMBER		CY 12/31/16
	OPERATING EXPENSES - WASTEWATER	
715.3	Purchased Power	197,837
701.2	Collection - Maint - Salaries & Wages	13,859
720.2	Collection - Maint - Materials & Supplies	257
735.2	Collection - Maint - Contractual Svc - Testing	0
775.2	Collection - Maint - Miscellaneous Expense	427
		0
701.3	Pumping - Salaries & Wages	703
716.3	Pumping - Fuel for Power Production	1,009
718.3	Pumping - Chemicals	0
731.3	Pumping - Contractual Svc - Engr	0
735.3	Pumping - Contractual Svc - Testing	3,547
742.3	Pumping - Rental of Equipment	0
775.3	Pumping - Miscellaneous Expense	160
701.4	Pumping - Maint - Salaries & Wages	0
775.4	Pumping - Maint - Misc Expense	2,059
701.5	Treat & Disposal - Salaries & Wages	229,365
710.5	Treat & Disposal - Purchased WW Treatment	0
711.5	Treat & Disposal - Sludge Removal Expense	26,716
718.5	Treat & Disposal - Chemicals	32,683
720.5	Treat & Disposal - Materials & Supplies	24,070
731.5	Treat & Disposal - Contractual Svc - Engr	0
735.5	Treat & Disposal - Contractual Svc - Testing	0
736.5	Treat & Disposal - Contractual Svc - Other	1,122
742.5	Treat & Disposal - Rental of Equipment	0
750.5	Treat & Disposal - Transportation Expenses	3,505
775.5	Treat & Disposal - Miscellaneous Expense	36,630
701.6	Treat & Dipsosal - Maint - Salaries & Wages	0
720.6	Treat & Dipsosal - Maint - Materials & Supplies	16,605
735.6	Treat & Dipsosal - Maint - Contractual Svc - Test	0
775.6	Treat & Dipsosal - Maint - Misc Expense	98
701.9	Reclaimed Wtr Treat - Salaries & Wages	1,254
718.9	Reclaimed Wtr Treat - Chemicals	0
720.9	Reclaimed Wtr Treat - Materials & Supplies	0
750.9	Reclaimed Wtr Treat - Transportation Expense	261
758.9	Reclaimed Wtr Treat - Insurance - Wrk Comp	0
701.10	Reclaimed Wtr Treat - Maint - Salaries & Wages	0
720.10	Reclaimed Wtr Treat - Maint - Matls & Supplies	0
720.11	Reclaimed Wtr Distr - Materials & Supplies	0
775.11	Reclaimed Wtr Distr - Miscellaneous Expense	0
	Total Operating Expenses - Wastewater	592,164
	Total Operating Expenses	592,164
	NET OPERATING INCOME / (LOSS)	**905,992**

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

ACCOUNT NUMBER		CY 12/31/16
	OTHER INCOME & EXPENSES;	
403.	Depreciation Expense	429,498
407.	Amortization Expense	0
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	2,013
426.	Miscellaneous Nonutility Expenses	1,323
427.	Interest Expense / (Income)	33,523
	Total Other Income & Expenses	466,357
	GENERAL & ADMINISTRATIVE EXPENSES:	
601.7	Customer Accounts - Salaries & Wages	8,755
670.7	Customer Accounts - Bad Debt Expense	(806)
675.7	Customer Accounts - Misc Expense	0
601.8	Admin & General - Salaries & Wages	0
604.8	Admin & General - Empl Pensions & Benefits	198,784
620.8	Admin & General - Materials & Supplies	232
631.8	Admin & General - Contractual Svc - Engr	0
632.8	Admin & General - Contractual Svc - Acctg	0
633.8	Admin & General - Contractual Svc - Legal	0
636.8	Admin & General - Contractual Svc - Other	1,315
641.8	Admin & General - Building/Property Rental	6,410
657.8	Admin & General - Insurance - Gen Liab	44,642
658.8	Admin & General - Insurance - Worker's Comp	5,965
659.8	Admin & General - Insurance - Other	0
667.8	Admin & General - Regulatory Comm Expense	14,146
675.8	Admin & General - Misc Expense	409,482
	Total General & Administrative Expenses	688,924
	NET INCOME/(LOSS) BEFORE INCOME TAXES	**(249,289)**
409.	Income Tax Expense / (Benefit)	(9,438)
	NET INCOME/(LOSS)	**(239,851)**

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

ACCOUNT NUMBER	ASSETS & OTHER DEBITS	BALANCE 06/30/2017
	UTILITY PLANT	
303.	Land	0
101.	Utility Plant in Service	16,373,638
105.	Construction Work in Progress	34,739
108.	Accum. Depreciation of Utility Plant in Service	(4,922,407)
	Total Utility Plant Less Reserves	11,485,970
	OTHER PROPERTY & INVESTMENTS	
121.	Nonutility Property	0
122.	Accum. Depreciation of Nonutility Plant	0
	Total Other Property & Investments	0
	CURRENT & ACCRUED ASSETS	
131.	Cash	0
141.	Customer Accounts Receivable	89,371
142.	Accounts Receivable Other	613
143.	Accum. Provision for Uncollectible Accts - Contra	(108)
145.	Accounts Receivable From Associated Companies	48,022
151.	Other Materials & Supplies	1,210
162.	Prepayments	(6,608)
173.	Accrued Utility Revenues	102,923
174.	Miscellaneous Other Assets	0
	Total Current & Accrued Assets	235,421
	DEFERRED DEBITS	
184.	Clearing Accounts	0
186.	Miscellaneous Deferred Debits	43,616
	Total Deferred Debits	43,616
	TOTAL ASSETS & OTHER DEBITS	**11,765,007**

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

ACCOUNT NUMBER	EQUITY CAPITAL & LIABILITIES	BALANCE 06/30/2017
	STOCKHOLDER'S EQUITY	
201.	Common Stock	(609,768)
211.	Other Paid-In-Capital	0
215.	Unappropriated Retained Earnings	(5,579,363)
435.	Balance Transferred from Income	(66,860)
438.	Dividends Declared - Common Stock	0
	Total Stockholder's Equity/(Deficit)	(6,255,991)
	LONG TERM DEBT	
223.	Advances from Associated Companies	609,768
224.	Other Long Term Debt	0
	Total Long Term Debt	609,768
	CURRENT & ACCRUED LIABILITIES	
231.	Accounts Payable	10,706
233.	Accounts Payable to Associated Companies	13,090,558
234.	Notes Payable to Associated Companies	0
225.	Capitalized Lease Obligation	0
236.	Accrued Taxes Payable	106,323
239.	Matured Long Term Debt	0
241.	Other Liabilities	0
	Total Current & Accrued Liabilities	13,207,587
	DEFERRED CREDITS	
252.	Advances for Construction	0
253.	Other Deferred Credits	0
	Total Deferred Credits	0
	OPERATING RESERVES	
265.	Misc. Operating Reserves	0
	CONTRIBUTIONS IN AID OF CONSTRUCTION	
271.	Contributions in Aid of Construction	5,980,398
272.	Accum. Amortization of CIAC	(1,776,755)
	Total Contributions in Aid of Construction - Net	4,203,643
	DEFERRED INCOME TAXES	
283.	Accum. Deferred Income Taxes	0
	TOTAL LIABILITIES & OTHER CREDITS	**11,765,007**

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

ACCOUNT NUMBER		6/30/2017
	OPERATING REVENUES	
	WATER SALES:	
460.	Unmetered Water Revenue	0
461.	Metered Water Revenue	0
462.	Fire Protection Revenue	0
465.	Sales to Irrigation Customers	0
	OTHER WATER REVENUES:	
471.	Miscellaneous Service Revenues	1,488
474.	Other Water Revenues - Unbilled Rev Adj	0
	WASTEWATER SALES	
521.	Flat Rate Revenues	578,939
522.	Measured Revenue	278,411
523.	Revenues from Public Authorities	0
524.	Revenues from Other Systems	0
	OTHER WASTEWATER REVENUES	
531.	Sale of Sludge	0
536.	Other Wastewater Revenues	(1,134)
	RECLAIMED WATER SALES	
540.	Flat Rate Reuse Revenues	0
541.	Measured Reuse Revenue	0
544.	Reuse Revenues from Other Systems	0
	Total Operating Revenues	857,704

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

ACCOUNT NUMBER		6/30/2017
	OPERATING EXPENSES - WATER	
610.1	Purchased Water	0
615.1	Purchased Power	0
601.1	Source of Supply - Salaries & Wages	0
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	0
601.2	Source of Supply - Maint - Salaries & Wages	0
620.2	Source of Supply - Maint - Materials & Supplies	0
675.2	Source of Supply - Maint - Misc Expense	0
601.3	Water Treatment - Salaries & Wages	0
618.3	Water Treatment - Chemicals	0
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	0
601.4	Water Treatment - Maint - Salaries & Wages	0
620.4	Water Treatment - Maint - Materials & Supplies	0
675.4	Water Treatment - Maint - Misc Expense	0
601.5	Trans & Distrib - Salaries & Wages	0
635.5	Trans & Distrib - Contractual Svc - Testing	0
642.5	Trans & Distrib - Rental of Equipment	0
675.5	Trans & Distrib - Misc Expense	0
601.6	Trans & Distrib - Maint - Salaries & Wages	0
675.6	Trans & Distrib - Maint - Misc Expense	0
	Total Operating Expenses - Water	0

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

ACCOUNT NUMBER		6/30/2017
	OPERATING EXPENSES - WASTEWATER	
715.3	Purchased Power	93,033
701.2	Collection - Maint - Salaries & Wages	8,791
720.2	Collection - Maint - Materials & Supplies	129
735.2	Collection - Maint - Contractual Svc - Testing	0
775.2	Collection - Maint - Miscellaneous Expense	845
		0
701.3	Pumping - Salaries & Wages	1,341
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	7,820
742.3	Pumping - Rental of Equipment	0
775.3	Pumping - Miscellaneous Expense	590
701.4	Pumping - Maint - Salaries & Wages	0
775.4	Pumping - Maint - Misc Expense	0
701.5	Treat & Disposal - Salaries & Wages	121,794
710.5	Treat & Disposal - Purchased WW Treatment	0
711.5	Treat & Disposal - Sludge Removal Expense	15,794
718.5	Treat & Disposal - Chemicals	10,519
720.5	Treat & Disposal - Materials & Supplies	14,687
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	1,476
775.5	Treat & Disposal - Miscellaneous Expense	33,119
701.6	Treat & Dipsosal - Maint - Salaries & Wages	0
720.6	Treat & Dipsosal - Maint - Materials & Supplies	0
735.6	Treat & Dipsosal - Maint - Contractual Svc - Test	0
775.6	Treat & Dipsosal - Maint - Misc Expense	391
701.9	Reclaimed Wtr Treat - Salaries & Wages	564
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 - Matls & Supplies	0
720.11	Reclaimed Wtr Distr - Materials & Supplies	0
775.11	Reclaimed Wtr Distr - Miscellaneous Expense	0
	Total Operating Expenses - Wastewater	310,892
	Total Operating Expenses	310,892
	NET OPERATING INCOME / (LOSS)	***546,812***

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

ACCOUNT NUMBER		6/30/2017
	OTHER INCOME & EXPENSES:	
403.	Depreciation Expense	217,466
407.	Amortization Expense	0
408.	Taxes Other Than Income	67,805
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	0
427.	Interest Expense / (Income)	16,701
	Total Other Income & Expenses	301,973
	GENERAL & ADMINISTRATIVE EXPENSES:	
601.7	Customer Accounts - Salaries & Wages	4,081
670.7	Customer Accounts - Bad Debt Expense	236
675.7	Customer Accounts - Misc Expense	0
601.8	Admin & General - Salaries & Wages	1
604.8	Admin & General - Empl Pensions & Benefits	105,101
620.8	Admin & General - Materials & Supplies	1,520
631.8	Admin & General - Contractual Svc - Engr	0
632.8	Admin & General - Contractual Svc - Acctg	0
633.8	Admin & General - Contractual Svc - Legal	0
636.8	Admin & General - Contractual Svc - Other	0
641.8	Admin & General - Building/Property Rental	4,807
657.8	Admin & General - Insurance - Gen Liab	26,406
658.8	Admin & General - Insurance - Worker's Comp	4,381
659.8	Admin & General - Insurance - Other	0
667.8	Admin & General - Regulatory Comm Expense	7,293
675.8	Admin & General - Misc Expense	200,907
	Total General & Administrative Expenses	354,734
	NET INCOME/(LOSS) BEFORE INCOME TAXES	**(109,895)**
409.	Income Tax Expense / (Benefit)	(43,035)
	NET INCOME/(LOSS)	**(66,860)**

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

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

None

Waikoloa Sanitary Sewer Co., Inc., dba West Hawaii Sewer Company.
Each Note Outstanding

Type	Promissory note with its holding company, California Water Service Group, to finance capital improvements.	
Amount		$609,768
Interest Rate		5.50%
Term		10 years
Agreement Date		5/31/2012
Due Date		5/31/2022
Monthly Payment		$2,794.77

Waikoloa Sanitary Sewer Co., Inc., dba West Hawaii Sewer Company.
Other Indebtedness

None

Application Filed December 2017
Exhibit WHSC 2, Schedule I
Earnings Results for WHWC
Witness: Stout

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

YEAR	AMOUNT
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

Application Filed December 2017
Exhibit WHSC 2, Schedule J
Earnings Results for WHWC
Witness: Stout

Waikoloa Sanitary Sewer Co., Inc., dba West Hawaii Sewer 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

Application Filed December 2017
Exhibit WHSC 2, Schedule K
Option Elected by WHWC
Witness: Stout

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 tine 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.

Application Filed December 2017
Exhibit WHSC 2, Schedule O
Statement of Increase
Witness: Stout

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	**103540**	**Structures & Improvement - Transmission & Distribution Plant**			
2		FENCING-VILLAGE STP	$ 3,796	3/31/1989	$ 3,796
3		A-PLANT FENCING	$ 693	1/1/1999	$ 624
4		Sludge Dewatering Unit-Fence	$ 1,353	5/15/2000	$ 1,127
5		A/Plant Trailer	$ 29,221	12/31/2004	$ 29,221
6		A/Plant Reuse System Phase III - Electrical I	$ 19,286	3/31/2004	$ 16,477
7		A-Plant Waterline Replacement	$ 16,949	2/7/2003	$ 11,794
8		Sludge Dewatering Unit-Pad	$ 15,185	4/12/2000	$ 7,267
9		K-PLANT ACCESS ROAD IMPROVEMENT	$ 23,876	12/31/2000	$ 23,876
10		A/Plant Resue System Phase III - Pump & Pipin	$ 6,792	3/31/2004	$ 5,803
11		A/Plant Aeration Piping Upgrade - Programming	$ 3,160	4/30/2004	$ 3,160
12		K-PLANT POTABLE WATER SUPPLY	$ 9,616	12/31/2000	$ 7,720
13		A/Plant Aeration Piping Upgrade - Piping	$ 18,126	4/30/2004	$ 15,384
14		2 Reinforced Concrete MBBR Tanks	$ 2,551,115	9/1/2010	$ 678,982
15		2 Steel Digester Tanks	$ 515,910	9/1/2010	$ 155,237
16		Buildings and Decks	$ 1,453,052	9/1/2010	$ 374,752
17		K Plant Dewatering Tank Slab	$ 28,440	12/1/2013	$ 3,397
18		K Plant Treatment Facility	$ 1,061,837	12/1/2013	$ 126,830
19		K Plant Electrical Work	$ 121,896	12/1/2013	$ 14,474
20		K Plant Inlet Screen	$ 11,208	12/1/2013	$ 1,339
21		K Plant Sitework	$ 296,301	12/1/2013	$ 35,392
22		K Plant Design & Eng	$ 2,559,773	12/1/2013	$ 303,954
23		K Plant Control Bldg	$ 9,198	12/1/2013	$ 1,099
24		Emergency Shower-APlant	$ 3,608	3/1/2015	$ 251
25		A-Plant curb 6"x6"	$ 4,080	9/1/2016	$ 79
26		K-Plant DAF curb 6"x6"	$ 3,042	9/1/2016	$ 76
27		K-Plant slab&curb 4'5"x6'	$ 1,981	9/1/2016	$ 50
28		K-Plant slab&curb 4'5"x6'	$ 1,981	9/1/2016	$ 50
29		KPlant Design-Brown&Caldwell	$ 169,545	10/1/2014	$ 20,251
30		KPlant Construction	$ 130,578	10/1/2014	$ 15,597
31		KPlant Project Mgt-Yarne&Assoc	$ 381,106	10/1/2014	$ 45,521
32		KPlant Headworks Access	$ 39,678	10/1/2014	$ 4,739
33		KPlant Construction	$ 72,505	10/1/2014	$ 8,660
34		KPlant Paddle Guards	$ 4,344	10/1/2014	$ 519
35		Total	$ 9,569,231		$ 1,917,496
36	**103701**	**Pumping Equipment**			
37		Sludge Feed Pump-Aplant	$ 8,181	12/1/2014	$ 659
38		Total	$ 8,181		$ 659
39	**103801**	**Treatment & Disposal Equipment**			
40		A-PLANT ABJ EQUIPMENT	$ 162,449	1/1/1999	$ 127,134
41		A-PLANT TANK-INFRASTRUCTURE	$ 7,885	1/1/1999	$ 7,885
42		COMPOSITE SAMPLER-K PLANT	$ 4,685	4/12/2000	$ 4,685
43		200 GALLON SKID SPRAYER	$ 2,860	7/5/2001	$ 2,860
44		Aqua-Jet Aerator	$ 6,918	5/1/2003	$ 6,918
45		Lister Hawkpower Diesel Generator	$ 1,500	12/31/2007	$ 1,361
46		VILLAGE STP EXPANSION	$ 502,179	8/1/1990	$ 265,318

Line No.	Utility Account	Property Description		Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
47		KAMAKOA WRP EXPANSION-LAGOON		$ -	9/1/1994	$ -
48		K-Plant composite sampler		$ 7,208	9/30/1995	$ 7,208
49		K-PLANT UPGRADE CHLORINE FEEDER		$ -	7/1/1997	$ -
50		A-PLANT UNDERGROUND PIPING		$ 14,021	1/1/1999	$ 7,210
51		K-PLANT ELECTRIC SAMPLER & MTR		$ 9,128	7/1/1997	$ 9,128
52		KAMAKOA STP		$ 476,936	4/30/1992	$ 235,472
53		UTILITY PLANT DONATED		$ 1,319	10/31/1978	$ 1,008
54		TREATMENT PLANT-ORIGINAL		$ 27,009	1/1/1974	$ 23,227
55		VILLAGE STP-EXPANSION PHASE II		$ 261,932	3/1/1992	$ 130,093
56		ADDITIONAL VILLAGE STP		$ 9,319	1/1/1993	$ 4,473
57		K-Plant 12" Valve/labor		$ 2,051	1/1/1995	$ 921
58		Kamakoe WRP expansion - addt'l		$ -	1/1/1995	$ -
59		K-plant baffle		$ -	1/1/1996	$ -
60		K-PLANT RECIRCULATION PUMP		$ -	7/1/1997	$ -
61		A-PLANT TANK STRUCTURE		$ 207,435	1/1/1999	$ 106,680
62		A-PLANT BLOWER NO.3		$ 42,731	2/17/1999	$ 42,731
63		A-PLANT ELECTRICAL		$ 36,593	5/28/1999	$ 32,288
64		PALLET LIFTER		$ 2,080	1/25/2000	$ 2,080
65		Sludge Dewatering Unit-Elect		$ 1,040	4/12/2000	$ 1,040
66		A-Plant Effluent Reuse System - Pump & Piping		$ 17,492	2/25/2002	$ 17,394
67		A-Plant Effluent Reuse System - Electrical Ch		$ 11,772	2/25/2002	$ 11,706
68		A-Plant Reuse Syst PhIII-Piping		$ 23,506	8/31/2008	$ 13,129
69		(1) Aqua-Jet Aerator		$ 4,537	4/16/2004	$ 4,537
70		K-PLANT CONTREAT TANK CONVERSION		$ 1,135	7/1/1997	$ 1,135
71		K-PLANT CHLORINE CONTACT BASIN		$ 8,003	7/1/1997	$ 8,003
72		A-Plant Effluent Reuse System - Concrete Pump		$ 3,182	2/25/2002	$ 945
73		K-PLANT REBUILD GENERATOR		$ 44,012	7/1/1997	$ 44,012
74		KAMAKOA WRP EXPANSION-ADDITIONAL		$ -	10/1/1994	$ -
75		Marathon Magnamite Generator		$ 10,689	2/1/2001	$ 10,689
76		SHELTER FOR ISCO SAMPLER		$ 2,005	12/31/1981	$ 2,005
77		VILLAGE STP-ELECTRICAL		$ 2,418	12/31/1992	$ 1,162
78		Blower System		$ 164,154	9/1/2010	$ 42,337
79		Electrical Controls		$ 560,489	9/1/2010	$ 157,449
80		Sludge Dewatering System		$ 1,130,023	9/1/2010	$ 306,915
81		K Plant Flocculant Sys Design Work		$ 7,034	12/1/2013	$ 840
82		Replacement Sludge Gate Actuator		$ 2,420	12/1/2013	$ 282
83		Gearboxes - APlant		$ 1,532	12/1/2014	$ 141
84		APlant emergency stop button		$ 1,146	12/1/2014	$ 99
85		A-Plant air compressor		$ 2,633	3/1/2016	$ 132
86		2" valves for A-Plant digester blower		$ 4,877	11/1/2016	$ 149
87		A-Plant flow meter controls		$ 2,021	11/1/2016	$ 34
88		A-plant pH sensors		$ 16,836	12/1/2016	$ 748
89			Total	$ 3,809,193		$ 1,643,561
90	**103600**	**Collection Sewers Force**				
91		SEWER LINES(DEDICATED)SCHULER		$ 147,285	5/14/1993	$ 69,715
92		SWR LINES (DEDICTD) KEK I&II		$ 34,888	4/4/1996	$ 14,479
93		SWR LINES (DEDICATED) KEKUMU III		$ 75,132	1/1/1997	$ 30,053
94			Total	$ 257,305		$ 114,246

Line No.	Utility Account	Property Description		Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
95	**103610**	**Collection Sewers Gravity**				
96		Castle&Cooke DedicSwrLines-Kikaha@Wehilani		$ 344,985	1/1/2008	$ 62,097
97		SEWER TRANSMISSION LINE		$ 871,886	1/1/1974	$ 749,822
98		K Plant Water Lines		$ 8,400	12/1/2013	$ 1,003
99		K Plant SCH80 Sump Filtrate Piping		$ 14,120	12/1/2013	$ 1,686
100		K Plant Sewer Lines		$ 99,540	12/1/2013	$ 11,890
101		K-plant 3' manhole riser		$ 2,589	3/1/2015	$ 180
102		Pua Melia 12' of 8" PVC sewer pipe		$ 55,728	6/1/2016	$ 1,548
103		P.V.C. - 8" [559]		$ 450	6/1/2016	$ 13
104			Total	$ 1,397,700		$ 828,239
105	**103550**	**Power Generation Equipment**				
106		K Plant Emergency Generator		$ 315,912	12/1/2013	$ 37,734
107		Shindaiwa Generator Lease Buy-out		$ 10,200	2/1/2014	$ 1,360
108			Total	$ 326,112		$ 39,094
109	**103700**	**Receiving Wells**				
110		Wet Well		$ 24,727	9/1/2010	$ 5,215
111			Total	$ 24,727		$ 5,215
112	**103810**	**Plant Sewers**				
113		K Plant Effluent Sewer Manhole		$ 36,649	12/1/2013	$ 4,377
114			Total	$ 36,649		$ 4,377
115	**103890**	**Other Equipment**				
116		SEWR LINES JETTER/WASHER EQP #177		$ 5,144	4/17/1996	$ 5,144
117		K Plant HELCO Primary Ducts		$ 420,498	12/1/2013	$ 17,025
118		K Plant NEMA 3R Equip.		$ 93,536	12/1/2013	$ 11,172
119			Total	$ 519,179		$ 33,341
120	**103930**	**Tools, Shop, & Garage Equipment**				
121		A-Plant safety cabinet		$ 872	12/1/2016	$ 44
122			Total	$ 872		$ 44
123	**103940**	**Laboratory Equipment**				
124		Ohaus MB25 Moisture Analyzer		$ 1,320	12/1/2014	$ 121
125		KPlant Refrigerated Sampler		$ 5,919	10/1/2014	$ 707
126			Total	$ 7,239		$ 828
127	**103950**	**Power Operated Equipment**				
128		KPlant Shindaiwa Generator 70KVA		$ 19,531	10/1/2014	$ 2,333

Line No.	Utility Account	Property Description		Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
129			Total	$ 19,531		$ 2,333
130	**103965**	**Transportation Equipment**				
131		2006 Ford Ranger		$ 4,960	12/1/2011	$ 2,549
132		Jetting/Vacuum Truck/Pukalani		$ 328,447	7/1/2013	$ 40,143
133		Jetting/Vacuum Truck/Pukalani		$ 6,577	7/1/2013	$ 804
134			Total	$ 339,984		$ 43,497
135	**103975**	**Stores Equipment**				
136		KPlant safety cabinets 42x49		$ 1,795	3/1/2016	$ 90
137			Total	$ 1,795		$ 90
138	**103980**	**General Plant**				
139		Shower/eye wash station		$ 818	1/25/1991	$ 425
140		K-PLANT PORTABLE RESTROOM		$ 2,216	7/1/1997	$ 2,216
141		PH METER		$ 281	3/3/1998	$ 281
142		A-PLANT TELEMETRY SOFTWARE		$ 2,644	1/1/1999	$ 2,644
143		Dell Computer		$ 290	7/6/2000	$ 290
144		Base Yard Lunch Room Rennovations (WHSC Share		$ 3,356	3/31/2001	$ 1,765
145		DO Meter		$ 849	4/29/2003	$ 849
146		2 Baseyard Computers		$ 486	7/1/2002	$ 486
147		Radial Saw		$ 257	4/3/2003	$ 257
148		Software Windows Upgrade for Softwater Billin		$ 558	4/2/2004	$ 558
149		Lexmark T630N Laser Printer		$ 306	12/31/2004	$ 306
150		Spin Balancer (WHSC Share)		$ 749	9/20/2006	$ 749
151		Computer - Accounts Receivable Dept.		$ 352	2/19/2002	$ 352
152		Portable Generator		$ 208	5/23/2002	$ 208
153		Band Saw		$ 524	7/1/2003	$ 524
154		A/Plant Sludge Trailer		$ 2,117	8/12/2004	$ 2,117
155		2-Way Radio		$ 250	4/22/2005	$ 250
156		2000 Jeep buy-out lease 77512740510968		$ 1,666	1/1/2006	$ 1,666
157		Dell Precision 390 Computer-Util Clerk-Acctng		$ 432	10/18/2007	$ 432
158		Two (2) Dodge Dakota Pickup Trucks (WHSC Shar		$ 1,333	3/31/2001	$ 1,333
159		Safety Cabinet		$ 226	7/3/2002	$ 226
160		(2) Telemetry Field Computers		$ 890	4/15/2004	$ 890
161		Tommy Lift Gate for Aplant Truck		$ 2,651	8/25/2006	$ 2,651
162		Chlorine gas detector		$ 1,209	1/25/1991	$ 627
163		PH METER		$ 281	3/3/1998	$ 281
164		PENTIUM COMPUTERS (2) (1/3 SHARE)		$ 760	12/12/1998	$ 760
165		SOFTWATER SECURITY FEATURES		$ 208	1/1/1999	$ 208
166		NORSTAR PHONE SYSTEM-BASEYARD		$ 1,842	4/12/1999	$ 1,842
167		TOOLBOXES-2000 CHEVY S10 TRUCKS (3)		$ 207	1/17/2000	$ 207
168		Oil Containment Area		$ 1,733	1/1/2001	$ 1,733
169		Copy Machine		$ 2,047	9/11/2001	$ 2,047
170		2-Way Radio for Aplant Truck		$ 510	12/31/2006	$ 510
171		Tire Changer		$ 989	8/8/2002	$ 989
172		Baseyard Computer-Utility Operations Clerk		$ 335	2/19/2003	$ 335
173		Telemetry Field Computer		$ 452	3/18/2004	$ 452

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
174		Baseyard Library and File Storage Room Traile	$ 4,986	5/12/2004	$ 4,210
175		(3) Chevy S10 Trucks-WHSC Share of Lease Buyo	$ 9,168	12/31/2004	$ 9,168
176		Digital DO Meter	$ 851	7/25/2002	$ 851
177		A/Plant-Drexelbrook Level Transmitter System	$ 2,001	12/29/2004	$ 2,001
178		A-Plant Radio/Atenna	$ 716	2/20/2003	$ 716
179		Wood Shop Storage Shed Repairs	$ 12,210	6/21/2003	$ 5,505
180		HP 5500 Color Jet (Color Laser Printer)	$ 940	8/8/2003	$ 940
181		Storage Container	$ 1,206	4/16/2004	$ 1,206
182		Steel Flat File Drawers for New Trailer Offic	$ 587	6/30/2004	$ 587
183		EPSON PRINTER & STAND (1/3 SHARE)	$ 668	12/10/1998	$ 668
184		Utility Baseyard Locker Room Addition (WHSC S	$ 15,132	5/2/2005	$ 5,884
185		2-Way Radio for 2006 Chevy Silverado	$ 372	11/8/2005	$ 372
186		Baseyard Storeroom Renovation (WHSC Share)	$ 3,003	6/15/2006	$ 1,059
187		Composite Sampler	$ 5,413	3/12/2007	$ 5,323
188		DO Meter	$ 885	3/11/2003	$ 885
189		Baseyard Security Fencing	$ 18,996	3/16/2005	$ 11,198
190		Total	$ 111,166		$ 82,041
191	**HAWAII GENERAL OFFICE**				
192		790 Leasehold Improvements	$ 16,865	5/1/15	$ 468
193		desks, conf table, chairs	$ 3,060	3/1/10	$ 1,877
194		2 Cubical Work Stations	$ 5,650	12/1/10	$ 2,825
195		Cherry Desk	$ 855	12/1/10	$ 427
196		Cherry Drawer	$ 71	12/1/10	$ 35
197		Cherry Credenza	$ 509	12/1/10	$ 255
198		Cherry Corner Unit	$ 404	12/1/10	$ 202
199		Regency Library	$ 284	12/1/10	$ 142
200		Chairs	$ 2,037	12/1/10	$ 1,018
201		Cherry Desk Shell 66'	$ 429	12/1/10	$ 214
202		24" x 71" Credenza Shells	$ 793	12/1/10	$ 397
203		Cherry Keyboard Drawer	$ 71	12/1/10	$ 35
204		Executive Chair	$ 391	12/1/10	$ 196
205		Desk Pedestal F/F	$ 468	12/1/10	$ 234
206		Cherry Shelf Unit	$ 308	12/1/10	$ 154
207		Cherry Storage Hutch	$ 487	12/1/10	$ 244
208		Cherry Credenza 66"	$ 333	12/1/10	$ 167
209		Regency Desk	$ 709	12/1/10	$ 355
210		2 Drawer Lateral File	$ 988	12/1/10	$ 494
211		3, 42" 4 Drawer Lateral File Cabinets	$ 2,868	12/1/10	$ 1,434
212		Cherry Desk Pedestal B/B/F	$ 513	12/1/10	$ 257
213		Regency Lateral File	$ 567	12/1/10	$ 284
214		Fireproof safe for Customer Service office.	$ 2,386	12/1/11	$ 1,046
215		Ricoh Aficio MP C3001	$ 3,044	5/1/15	$ 127
216		790 Office Furniture	$ 631	5/1/15	$ 26
217		Automated Electronic Defibrillators	$ 7,161	12/1/10	$ 7,161
218		License for Capture Now	$ 237	12/1/10	$ 237
219		Fujitsu Fi6140 scanner	$ 1,666	12/1/10	$ 1,666
220		Ricoh MP 4001SP Copier w/Finisher	$ 10,686	12/1/10	$ 10,686
221		Monitors	$ 1,207	12/1/10	$ 1,207

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
222		Mitel EP Dig 6 Line Model 8560 Telephone	$ 8,102	12/1/10	$ 8,102
223		ELECTRONICS [681]	$ 744	12/1/11	$ 744
224		8-way video conferencing system	$ 37,185	12/1/11	$ 37,185
225		Hewlett Packard laser printer	$ 1,111	12/1/11	$ 1,111
226		Desktop-HIWKLCS40	$ 807	12/1/14	$ 240
227		Desktop-HIWKLCS39	$ 807	12/1/14	$ 240
228		Desktop-HIWKLCS37	$ 807	12/1/14	$ 240
229		Desktop-HIWKLCS38	$ 807	12/1/14	$ 240
230		Desktop-HIWKCLS36	$ 807	12/1/14	$ 240
231		Desktop-HIWKLCS41	$ 807	12/1/14	$ 240
232		790 Server & Server room upgrade	$ 17,650	5/1/15	$ 4,202
233		Hawaii Business Unit Software	$ 132,361	12/1/10	$ 132,361
234		RMS Software	$ 92,429	3/1/14	$ 6,547
235		phone system with 8 phones	$ 24,859	3/1/10	$ 24,859
236		Miscellaneous Kitchen Equipment	$ 981	12/1/10	$ 398
237		laptop for CS Mgr	$ 1,496	4/1/14	$ 175
238		Total	$ 387,436		$ 250,992
239		HAWAII GENERAL OFFICE ALLOCATIONS		%	
240		700 - Kaanapali	$ 84,174	21.73%	$ 54,531
241		701 - Pukalani	$ 26,623	6.87%	$ 17,247
242		721 - Waikoloa Water	$ 49,713	12.83%	$ 32,206
243		722 - Waikoloa Sewer	$ 38,813	10.02%	$ 25,144
244		723 - Waikoloa Resort Water	$ 51,423	13.27%	$ 33,313
245		724 - Waikoloa Resort Sewer	$ 70,422	18.18%	$ 45,621
246		725 - Waikoloa Resort Irrigation	$ 2,893	0.75%	$ 1,874
247		726 - Kona Water	$ 40,900	10.56%	$ 26,497
248		727 - Kona Sewer	$ 22,474	5.80%	$ 14,560
249	**BIG ISLAND**				
250		(2)Replacement Op Computer Stations	$ 2,081	12/1/13	$ 916
251		Mobile office trailer	$ 23,867	12/1/11	$ 3,345
252		1996 Eagle Forklift	$ 22,871	12/1/10	$ 3,478
253		20' Container Shelving-Baseyard	$ 931	6/1/15	$ 37
254		20' Container Shelving-EMT	$ 455	6/1/15	$ 18
255		20' Container-Baseyard	$ 10,373	6/1/15	$ 411
256		20' Container-EMT	$ 5,312	6/1/15	$ 210
257		Storage Contr	$ 3,187	12/1/10	$ 1,293
258		Nissan Frontier	$ 27,030	12/1/10	$ 14,330
259		Nissan Titan	$ 35,679	12/1/10	$ 18,915
260		FORD XCAB	$ 26,901	6/1/12	$ 12,386
261		FORD XCAB	$ 26,395	6/1/12	$ 12,153
262		Ford F-150	$ 30,500	9/1/12	$ 12,541
263		Ford F-150	$ 30,500	9/1/12	$ 12,541
264		Ford F-150	$ 30,500	9/1/12	$ 12,541
265		FRONTIER	$ 25,350	6/1/12	$ 10,799
266		Ford Explorer	$ 37,497	9/1/12	$ 15,417
267		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
268		3 Ipad for Hawaii Island	$ 2,542	9/1/13	$ 1,211
269		Desk w Drawer	$ 959	9/1/12	$ 397
270		69"x43"x 18"	$ 1,311	9/1/12	$ 379
271		Diesel tank	$ 725	12/1/11	$ 92
272		GIS Software	$ 7,621	12/1/11	$ 7,621
273		Backflow Test Kit-Midwest 835	$ 1,202	8/1/15	$ 85
274		Big Island SCADA 2012	$ 495,319	10/1/14	$ 28,109
275		Book Case	$ 298	9/1/12	$ 123
276		Motorola Hardware	$ 4,401	6/1/12	$ 4,218
277		Work Order Addition	$ 2,144	6/1/12	$ 2,055
278		Misc. Wiring & Cables	$ 544	6/1/12	$ 521
279		Work Order Addition	$ 747	6/1/12	$ 716
280		1 desktops	$ 1,133	4/1/13	$ 607
281		1 desktops	$ 1,133	4/1/13	$ 607
282		Desktop-HIWKLOC56	$ 1,572	12/1/14	$ 468
283		Desktop-HIWKLOC57	$ 1,613	12/1/14	$ 480
284		dryer @ baseyard	$ 503	4/1/17	$ -
285		Exec Chair	$ 351	9/1/12	$ 145
286		Work Order Addition	$ 51	9/1/13	$ 24
287		Work Order Addition	$ 182	9/1/12	$ 168
288		Work Order Addition	$ 13,813	6/1/12	$ 13,519
289		EMT Laptop	$ 4,509	3/1/14	$ 1,825
290		Hand Helds	$ 19,147	12/1/10	$ 19,147
291		Desk Dock	$ 2,793	12/1/10	$ 2,793
292		Personnel Lift	$ 5,844	6/1/12	$ 1,786
293		Software	$ 2,995	9/1/12	$ 2,755
294		Hardware	$ 8,824	9/1/12	$ 8,118
295		Gradall lifting hook attachment	$ 2,427	12/1/14	$ 182
296		Forklift	$ 27,625	12/1/10	$ 14,119
297		HON chair	$ 636	2/1/14	$ 80
298		Hydro Jetter	$ 5,941	12/1/10	$ 3,644
299		Ice Maker-Manitowac ID-0452A	$ 4,536	9/1/16	$ 101
300		Ingersoll Needle/Chisel Scl	$ 773	9/1/13	$ 97
301		Internal labor	$ 21,402	7/1/13	$ 2,497
302		Knoll task chair	$ 13,806	2/1/14	$ 1,726
303		1 laptops	$ 1,165	4/1/13	$ 624
304		1 laptops	$ 1,165	4/1/13	$ 624
305		Laptop, EMT-HIWKOCLT02	$ 1,631	11/1/16	$ 39
306		Lateral File	$ 525	9/1/12	$ 218
307		Work Order Addition	$ 1,447	12/1/11	$ 209
308		Work Order Addition	$ 4,571	12/1/11	$ 638
309		Work Order Addition	$ 16,749	6/1/11	$ 16,749
310		New IP phone system	$ 19,704	6/1/13	$ 10,086
311		New Hydraulic Hammer	$ 9,847	12/1/13	$ 1,518
312		Office Furnishings	$ 6,706	2/1/14	$ 838
313		Office furniture & equip	$ 4,134	9/1/12	$ 1,640
314		Work Order Addition	$ 47	9/1/12	$ 19
315		Work Order Addition	$ 90	9/1/12	$ 26
316		Portable generator 3500w, EMT's	$ 518	12/1/16	$ 2
317		Power Quality Analyzer	$ 8,416	3/1/15	$ 772
318		Printer Cart	$ 75	9/1/12	$ 31

Line No.	Utility Account	Property Description	Plant in Service	In Service Date	Accumulated Depreciation 12/31/2016
319		Projector-Dell 1610HD	$ 626	12/1/16	$ 7
320		Electrical Upgrade	$ 8,770	12/1/11	$ 1,269
321		Respirator supplied air system	$ 4,239	12/1/16	$ 18
322		Richo Copier	$ 10,588	11/1/11	$ 10,588
323		Richo Fax Module	$ 1,045	11/1/11	$ 1,045
324		RICOH MPC3004-Engineering office	$ 8,282	12/1/16	$ 99
325		Rplc computer w/laptop for Eng Mgr	$ 1,478	10/1/14	$ 475
326		SCADA iNET-II 900 Dual Gateway	$ 22,377	3/1/16	$ 466
327		SCADA upgrade 2013	$ 64,775	3/1/16	$ 1,350
328		SCADAPack 32	$ 10,539	3/1/16	$ 220
329		Scaffolding	$ 4,771	3/1/16	$ 199
330		Work Order Addition	$ 15	12/1/11	$ 2
331		Tools & Equipment	$ 994	6/1/13	$ 178
332		Trailer, emergency compressor	$ 426	3/1/16	$ 18
333		Trailer, emergency generator EG6500	$ 2,073	3/1/16	$ 86
334		Trailer, emergency 6'x12' w/ramp	$ 7,800	3/1/16	$ 325
335		Work Order Addition	$ 58,793	9/1/12	$ 24,601
336		V208214, Ford F-150	$ 6,817	12/1/10	$ 4,281
337		V208216, Chevy Silverad	$ 9,017	12/1/10	$ 5,662
338		V208217, Chevy 3500	$ 29,139	12/1/10	$ 18,298
339		V208222, '08 TOY 4 RUNNER	$ 32,269	12/1/08	$ 22,642
297		Visitor Chair	$ 169	9/1/12	$ 70
298		Total	$ 1,395,763		$ 391,474
299		BIG ISLAND ALLOCATIONS			
300		721 - Waikoloa Water	$ 255,898	18.33%	$ 71,772
301		722 - Waikoloa Sewer	$ 194,223	13.92%	$ 54,474
302		723 - Waikoloa Resort Water	$ 267,098	19.14%	$ 74,914
303		724 - Waikoloa Resort Sewer	$ 354,534	25.40%	$ 99,437
304		725 - Waikoloa Resort Irrigation	$ 14,209	1.02%	$ 3,985
305		726 - Kona Water	$ 200,907	14.39%	$ 56,349
306		727 - Kona Sewer	$ 108,894	7.80%	$ 30,542
307	**WASTEWATER ADMINISTRATION**				
308		IPad 3 - WW Mgr.	$ 810	9/1/2013	$ 106
309		Total	$ 810		$ 106
310		WASTEWATER ADMINISTRATION ALLOCATIONS			
311		701 - Pukalani	$ 139	17.22%	$ 18
312		722 - Waikoloa Sewer	$ 199	24.52%	$ 26
313		724 - Waikoloa Resort Sewer	$ 366	45.16%	$ 48
314		727 - Kona Sewer	$ 106	13.10%	$ 14

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

WHSC Tariff No. 1
Eighth Revised Sheet 30
Cancels Seventh Revised Sheet 30

WEST HAWAII SEWER COMPANY
SEWER RATE SCHEDULES

GENERAL USE RATES

MONTHLY STAND-BY CHARGES:

	First Phase (8 /20/15)	Second Phase (8/20/16)
Residential -- Condo/Hotel (per living unit)	$49.36	$62.04
Commercial (per Equivalent Residential unit[1])	$49.36	$62.04

MONTHLY SEWER QUANTITY CHARGE:

In addition to the Monthly Stand-By Charge, there shall be the following monthly sewer quantity charge (sewer fee) per 1,000 gallons of metered water provided to the customer by West Hawaii Water Company per month:

	First Phase (8/20/15)	Second Phase (8/20/16)
Per 1,000 gallons of metered water per month	$1.05	$1.51

[1] Equivalent Residential (ER) units are dependent on a customer's meter size.

Meter Size		ER Units
3/4	inch	1
1	inch	2
1 1/2	inch	3
2	inch	5
4	or larger	17

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

WHSC Tariff No. 1
Original Sheet 30A

POWER COST CHARGE:

In addition to the Monthly Stand-by charge and the Monthly Water Consumption Charge, there shall be a Power Cost Charge per 1,000 gallons of metered water provided by West Hawaii Water Company per month. The amount of the Power Cost Charge shall be computed as follows:

Electric Power Cost Per Thousand Gallons ("TG") =
Previous Month's Electricity Cost
Divided by Previous Month's Total Metered TG of Water to the Company's customers
Times 1.06385 (Public Service Company Tax and PUC Fee)

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

WHSC Tariff No. 1
Ninth Revised Sheet 30
Cancels Eighth Revised Sheet 30

WEST HAWAII SEWER COMPANY
SEWER RATE SCHEDULES

GENERAL USE RATES

MONTHLY STAND-BY CHARGES:

	First Phase ( )	Second Phase ( )
Residential -- Condo/Hotel (per living unit)	$77.05	$88.17
Commercial (per Equivalent Residential unit[1])	$77.05	$88.17

MONTHLY SEWER QUANTITY CHARGE:

In addition to the Monthly Stand-By Charge, there shall be the following monthly sewer quantity charge (sewer fee) per 1,000 gallons of metered water provided to the customer by West Hawaii Water Company per month:

	First Phase ( )	Second Phase ( )
Per 1,000 gallons of metered water per month	$2.1301	$2.4374

[1] Equivalent Residential (ER) units are dependent on a customer's meter size.

Meter Size	ER Units
3/4 inch	1
1 inch	2
1 1/2 inch	3
2 inch	5
4 or larger	17

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

WHSC Tariff No. 1
First Revised Sheet 30A
Cancels Original Sheet 30A

POWER COST CHARGE:

In addition to the Monthly Stand-by charge and the Monthly Water Consumption Charge, there shall be a Power Cost Charge per 1,000 gallons of metered water provided by West Hawaii Water Company per month. The amount of the Power Cost Charge shall be computed as follows:

Electric Power Cost Per Thousand Gallons ("TG") =
Previous Month's Electricity Cost
Divided by Previous Month's Total Metered TG of Water to the Company's customers
Times 1.06385 (Public Service Company Tax and PUC Fee)

Application Filed December 2017
Exhibit WHSC 6
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Revenue Requirements & Rate of Return Summary
Test Year Ending December 31, 2018

Line No.		(1) Present Rates	(2) Additional Amount	(3) Test Year Proposed Rates 7.75%	Change in Revenues 41.5%
4	Residential	$ 1,440,886	$ 664,607	$ 2,105,494	
5	Non-Residenital	$ 95,026	$ 49,452	$ 144,477	
6	Power Cost Charge	$ 185,588	$ -	$ 185,588	
7	Total Operating Revenues	$ 1,721,500	$ 714,059	$ 2,435,559	
8	Labor Expenses	$ 575,337	$ -	$ 575,337	
9	Fuel & Power	$ 174,449	$ -	$ 174,449	
10	Chemicals	$ 28,908	$ -	$ 28,908	
11	Materials & Supplies	$ 32,218	$ -	$ 32,218	
12	Waste/Sludge Disposal	$ 28,941	$ -	$ 28,941	
13	Affiliated Charges	$ 96,052	$ -	$ 96,052	
14	Professional and Outside Services	$ 3,966	$ -	$ 3,966	
15	Repairs & Maintenace	$ 116,824	$ -	$ 116,824	
16	Rental Expenses	$ 7,887	$ -	$ 7,887	
17	Insurance Expenses	$ 9,256	$ -	$ 9,256	
18	Regulatory Expenses	$ 69,167	$ -	$ 69,167	
19	General & Administrative Expenses	$ 37,494	$ -	$ 37,494	
20	Customer Accounts Expenses	$ 12,748	$ -	$ 12,748	
21	Total O&M Expenses	$ 1,193,248	$ -	$ 1,193,248	
22	Taxes Other than Income Taxes	$ 109,918	$ 45,593	$ 155,510	
23	Depreciation	$ 403,084		$ 403,084	
24	Amortization	$ -		$ -	
25	Income Taxes	$ -	$ 219,092	$ 219,092	
26	Diff. due to changing factors		$ (0)	$ (0)	
27	Total Operating Expenses	$ 1,706,250	$ 264,685	$ 1,970,935	
28	Operating Income	$ 15,250	$ 449,374	$ 464,624	
29	Average Rate Base	$ 5,995,147	$ -	$ 5,995,147	
30	Return on Rate Base	0.25%		7.75%	

Application Filed December 2017
Exhibit WHSC 6.1
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer 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	-0.012246		-0.011464
11	Federal Income Tax	0.340000		0.318291
12		0.327754	0.306827	
13	Remaining for Net Income		0.629323	
14	Expense for each $1 of Revenue		0.370677	
15	Factor for Moving Rate Base			
16	= (1-Bad Debt%-Revenue Taxes-Income tax on Addl. Revenue)			
17		0.6293234546		
18	Revenue Factor	1.589007994		
19	Additional Revenue Requirements			
20	*Proposed rate of return*			7.75%
21	Multiply rate base @ present rates by the above proposed ROR			464,624
22	Subtract the net income @ present rates from the above net income			449,374
23	Divide the above difference by the moving rate base factor to			
24	determine the additional revenue requirements @ the proposed ROR			714,059
25	Multiply the add'l revenues by the bad debt factor			0
26	Multiply the add'l revenues by the revenue tax factor			45593
27	Multiply the add'l revenues by the inc tax on add'l revenue			219092
28	Total Expenses at Proposed Rates			1,970,935
29	Subtract total expense from total revenues @ proposed rates			464,624
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			5,995,147
33	Test - Divide NI by rate base			7.75%

Application Filed December 2017
Exhibit WHSC 7
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Average Rate Base
Test Year Ending December 31, 2018

Line No.	Description	At Dec. 31, 2017	At Dec. 31, 2018	Average
1				
2				
3	Plant In Service	$ 16,887,045	$ 16,960,591	$ 16,923,818
4	Accumulated Depreciation Reserve	$ 5,719,218	$ 6,311,309	$ 6,015,263
5	Net Plant-in-Service	$ 11,167,827	$ 10,649,282	$ 10,908,554
6	Deduct:			
7	Net Contributions in Aid of Construction	$ (4,681,504)	$ (4,492,498)	$ (4,587,001)
8	Customer Advances	$ -	$ -	$ -
9	Customer Deposits	$ -	$ -	$ -
10	Accumulated Deferred Taxes: Federal	$ 45,980	$ 44,153	$ 45,066
11	Accumulated Deferred Taxes: State	$ 17,466	$ 18,148	$ 17,807
12	Unamortized Hawaii Capital Goods Excise Tax Credit	$ (264,999)	$ (252,353)	$ (258,676)
13	Net Salvage Adjustment	$ -	$ -	$ (230,040)
14	subtotal	$ (4,883,058)	$ (4,682,550)	$ (5,012,844)
15	Add:			
16	Working Capital	$ 99,437	$ 99,437	$ 99,437
17	subtotal	$ 99,437	$ 99,437	$ 99,437
18	Subtotal	$ 6,384,206	$ 6,066,169	
19	Rate Base at Proposed Rates			**$ 5,995,147**

Application Filed December 2017
Exhibit WHSC 7.1
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Rate Base Support
Test Year Ending December 31, 2018

Line No.							
1	Rate Base @ Dec. 31, 2017						
2	Description	Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company		Adjustments			
3	Plant In Service	$	16,887,045	$	-	$	16,887,045
4	Accumulated Depreciation Reserve	$	5,719,218	$	-	$	5,719,218
5	Net Plant-in-Service	$	11,167,827	$	-	$	11,167,827
6	Deduct:						
7	Net Contributions in Aid of Construction	$	(4,681,504)	$	-	$	(4,681,504)
8	Customer Advances	$	-	$	-	$	-
9	Customer Deposits	$	-	$	-	$	-
10	Accumulated Deferred Taxes: Federal	$	45,980	$	-	$	45,980
11	Accumulated Deferred Taxes: State	$	17,466	$	-	$	17,466
12	Unamortized Hawaii Capital Goods Excise Tax Credit	$	(264,999)	$	-	$	(264,999)
13	subtotal	$	(4,883,058)	$	-	$	(4,883,058)
14	Add:						
15	Working Capital	$	99,437	$	-	$	99,437
16	subtotal	$	99,437	$	-	$	99,437
17	Rate Base @ Dec. 31, 2018						
18	Description	Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company		Adjustments			
19	Plant In Service	$	16,960,591	$	-	$	16,960,591
20	Accumulated Depreciation Reserve	$	6,311,309	$	-	$	6,311,309
21	Net Plant-in-Service	$	10,649,282	$	-	$	10,649,282
22	Deduct:						
23	Net Contributions in Aid of Construction	$	(4,492,498)	$	-	$	(4,492,498)
24	Customer Advances	$	-	$	-	$	-
25	Customer Deposits	$	-	$	-	$	-
26	Accumulated Deferred Taxes: Federal	$	44,153	$	-	$	44,153
27	Accumulated Deferred Taxes: State	$	18,148	$	-	$	18,148
28	Unamortized Hawaii Capital Goods Excise Tax Credit	$	(252,353)	$	-	$	(252,353)
29	subtotal	$	(4,682,550)	$	-	$	(4,682,550)
30	Add:						
31	Working Capital	$	99,437	$	-	$	99,437
32	subtotal	$	99,437	$	-	$	99,437

Application Filed December 2017
Exhibit WHSC 7.2
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Plant In Service
Test Year Ending December 31, 2018

Line No.	Description	Balance as of Dec. 31, 2016	Additions Jan. 1, 2017 to Dec. 31, 2017	Retirements Jan. 1, 2017 to Dec. 31, 2017	Adjustments Jan. 1, 2017 to Dec. 31, 2017	Balance as of Dec. 31, 2017	Additions Jan. 1, 2018 to Dec. 31, 2018	Retirements Jan. 1, 2018 to Dec. 31, 2018	Adjustments Jan. 1, 2018 to Dec. 31, 2018	Test Year Balance as of Dec. 31, 2018
1										
2										
3	Description									
4										
5	Intangible	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	Land and land rights	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
7	Structures and Improvements	$ 9,569,231	$ 111,723	$ -	$ -	$ 9,680,954	$ -	$ -	$ -	$ 9,680,954
8	Pumping Equipment	$ 8,181	$ -	$ -	$ -	$ 8,181	$ -	$ -	$ -	$ 8,181
9	Treatment Equipment	$ 3,809,193	$ 23,950	$ -	$ -	$ 3,833,143	$ 58,198	$ -	$ -	$ 3,891,341
10	Transmission & Distribution Plant	$ 2,174,183	$ 7,110	$ -	$ -	$ 2,181,293	$ -	$ -	$ -	$ 2,181,293
11	Source of Supply	$ 61,376	$ -	$ -	$ -	$ 61,376	$ -	$ -	$ -	$ 61,376
12	Power Generation Equipment	$ 326,112	$ -	$ -	$ -	$ 326,112	$ -	$ -	$ -	$ 326,112
13	Transportation	$ 339,984	$ -	$ -	$ -	$ 339,984	$ -	$ -	$ -	$ 339,984
14	Tools and Laboratory Equipment	$ 29,437	$ 15,808	$ -	$ -	$ 45,245	$ -	$ -	$ -	$ 45,245
15	General Plant	$ 111,166	$ 2,728	$ -	$ -	$ 113,894	$ -	$ -	$ -	$ 113,894
16	Hawaii Water GO Allocation	$ 38,813	$ -	$ -	$ -	$ 38,813	$ -	$ -	$ -	$ 38,813
17	Big Island Allocation	$ 194,153	$ 63,697	$ -	$ -	$ 257,850	$ 15,347	$ -	$ -	$ 273,197
18	Wastewater Administration	$ 199	$ -	$ -	$ -	$ 199	$ -	$ -	$ -	$ 199
19	Total	$ 16,662,029	$ 225,015	$ -	$ -	$ 16,887,045	$ 73,546	$ -	$ -	$ 16,960,591

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Plant Additions (1/1/17 to 12/31/18)
Test Year Ending December 31, 2018

Line No.		Pumps	T&D / Services	Land	Power Generation Equipment	Structures	Treatment Equip	Source of Supply	Transportation	Tools	Office Equipment	General Plant	Total
1	Breakdown of Capital Additions:												
2	Projects closed to plant 1/1/2017 to 12/31/2017:												
3	APlant road repave. 5000 sq. ft.	$ -	$ -	$ -	$ -	$ 25,667	$ -	$ -	$ -	$ -	$ -	$ -	$ 25,667
4	A-Plant 1.5" Water Line Replacement	$ -	$ 7,110	$ -	$ -	$ -	$ -	$ -	$ -		$ -	$ -	$ 7,110
5	A-Plant Security Cameras	$ -	$ -	$ -	$ -	$ 10,010	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,010
6	K-Plant Security Cameras	$ -	$ -	$ -	$ -	$ 10,010	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,010
7	A-Plant Effluent Pits Fence	$ -	$ -	$ -	$ -	$ 66,037	$ -	$ -	$ -	$ -	$ -	$ -	$ 66,037
8	K-Plant Screw Press Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	Aplant PLC	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,050	$ -	$ -	$ 5,050
10	KPlant absorption bed#2 design	$ -	$ -	$ -	$ -	$ -	$ 4,284	$ -	$ -	$ -	$ -	$ -	$ 4,284
11	Aplant Pneumatic Gate Valves	$ -	$ -	$ -	$ -	$ -	$ 18,530	$ -	$ -	$ -	$ -	$ -	$ 18,530
12	Kplant 20' Storage Container	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 6,060	$ -	$ -	$ 6,060
13	Kplant Shed	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 4,698	$ -	$ -	$ 4,698
14	Kplant Level Transducers	$ -	$ -	$ -	$ -	$ -	$ 1,136	$ -	$ -	$ -	$ -	$ -	$ 1,136
15	Aplant Desktop	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,364	$ 1,364
16	Kplant Desktop	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,365	$ 1,365
17	Total	$ -	$ 7,110	$ -	$ -	$ 111,723	$ 23,950	$ -	$ -	$ 15,808	$ -	$ 2,728	$ 161,319
18	Projects closed to plant 1/1/2018 to 12/31/2018:												
19	K-Plant Headworks	$ -	$ -	$ -	$ -	$ -	$ 38,830	$ -	$ -	$ -	$ -	$ -	$ 38,830
20	A-Plant Headworks	$ -	$ -	$ -	$ -	$ -	$ 16,154	$ -	$ -	$ -	$ -	$ -	$ 16,154
21	A-Plant Centrifuge Motor	$ -	$ -	$ -	$ -	$ -	$ 3,214	$ -	$ -	$ -	$ -	$ -	$ 3,214
22	Total	$ -	$ -	$ -	$ -	$ -	$ 58,198	$ -	$ -	$ -	$ -	$ -	$ 58,198
23	**Big Island Capital Projects (720)**												
24	Projects closed to plant 1/1/2017 to 12/31/2017:												
25	dryer @ baseyard	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 503	$ -	$ 503
26	SCADA radio data link	$ 53,201	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 53,201
27	SCADA Report Writer System	$ 42,691	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 42,691
28	Fuel Station	$ -	$ -	$ -	$ -	$ 183,000	$ -	$ -	$ -	$ -	$ -	$ -	$ 183,000
29	Base Yard Security Cameras	$ -	$ -	$ -	$ -	$ 10,014	$ -	$ -	$ -	$ -	$ -	$ -	$ 10,014
30	Big Island Radio Communication	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 50,000	$ -	$ -	$ 50,000
31	EMT Service Truck	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 77,492	$ -	$ -	$ -	$ 77,492
32	Handheld Meter Readers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,673	$ -	$ -	$ 8,673
33	EMT Service Truck Tools	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,787	$ -	$ -	$ 8,787
34	Portable Air Compressor	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 21,139	$ -	$ -	$ 21,139
35	Socket fusion & welding prep kit	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 2,249	$ -	$ -	$ 2,249
36	Total	$ 95,891	$ -	$ -	$ -	$ 193,014	$ -	$ -	$ 77,492	$ 90,848	$ 503	$ -	$ 457,748
37	WHSC Allocation												$ 63,697
38	Projects closed to plant 1/1/2018 to 12/31/2018:												
39	Itron Handheld Meter Readers	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 26,765	$ -	$ -	$ 26,765
40	2018 Toyota 4Runner 4x4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 42,925	$ -	$ -	$ -	$ 42,925
41	2018 Toyota Tacoma TRD 4x4	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 40,602	$ -	$ -	$ -	$ 40,602
42	Total	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 83,527	$ 26,765	$ -	$ -	$ 110,292
43	WHSC Allocation												$ 15,347

Application Filed December 2017
Exhibit WHSC 7.4
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Accumulated Depreciation and Amortization of Intangibles
Test Year Ending December 31, 2018

Line No.	Description	Actual Cost Depr Base Dec. 31, 2016	Depr Base Dec. 31, 2017	Balance as of Dec. 31, 2016	Dep. Exp. Jan. 1, 2017 to Dec. 31, 2017	Retirements Jan. 1, 2017 to Dec. 31, 2017	Adjustments Jan. 1, 2017 to Dec. 31, 2017	Balance as of Dec. 31, 2017	Dep. Exp. Jan. 1, 2018 to Dec. 31, 2018	Retirements Jan. 1, 2018 to Dec. 31, 2018	Adjustments Jan. 1, 2018 to Dec. 31, 2018	Test Year Balance as of Dec. 31, 2018
1												
2												
3												
4												
5	Intangible	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	Land and land rights	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
7	Structures and Improvements	$ 9,569,231	$ 9,680,954	$ 2,466,806	$ 221,694	$ -	$ -	$ 2,688,500	$ 221,694	$ -	$ -	$ 2,910,194
8	Pumping Equipment	$ 8,181	$ 8,181	$ 5,874	$ 128	$ -	$ -	$ 6,002	$ 128	$ -	$ -	$ 6,131
9	Treatment Equipment	$ 3,809,193	$ 3,833,143	$ 1,402,595	$ 176,325	$ -	$ -	$ 1,578,919	$ 179,002	$ -	$ -	$ 1,757,921
10	Transmission & Distribution Plant	$ 2,174,183	$ 2,181,293	$ 975,826	$ 83,403	$ -	$ -	$ 1,059,229	$ 83,403	$ -	$ -	$ 1,142,633
11	Source of Supply	$ 61,376	$ 61,376	$ 9,592	$ 2,220	$ -	$ -	$ 11,812	$ 2,220	$ -	$ -	$ 14,033
12	Power Generation Equipment	$ 326,112	$ 326,112	$ 39,094	$ 10,794	$ -	$ -	$ 49,888	$ 10,794	$ -	$ -	$ 60,682
13	Transportation	$ 339,984	$ 339,984	$ 43,497	$ 52,120	$ -	$ -	$ 95,616	$ 52,120	$ -	$ -	$ 147,736
14	Tools and Laboratory Equipment	$ 29,437	$ 45,245	$ 26,091	$ 1,170	$ -	$ -	$ 27,261	$ 1,170	$ -	$ -	$ 28,431
15	General Plant	$ 111,166	$ 113,894	$ 82,041	$ 23,496	$ -	$ -	$ 105,538	$ 23,496	$ -	$ -	$ 129,034
16	Hawaii Water GO Allocation	$ 38,813	$ 38,813	$ 25,144	$ 844	$ -	$ -	$ 25,989	$ 844	$ -	$ -	$ 26,833
17	Big Island Allocation	$ 194,153	$ 257,850	$ 54,474	$ 15,922	$ -	$ -	$ 70,397	$ 17,178	$ -	$ -	$ 87,575
18	Wastewater Administration	$ 199	$ 199	$ 26	$ 40	$ -	$ -	$ 66	$ 40	$ -	$ -	$ 105
19	Total	$ 16,662,029	$ 16,887,045	$ 5,131,060	$ 588,158	$ -	$ -	$ 5,719,218	$ 592,091	$ -	$ -	$ 6,311,309

Application Filed December 2017
Exhibit WHSC 7.5
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Depreciation Expense (Book)
Test Year Ending December 31, 2018

Line No.						Test Year
1		Acc. Dep.	Dep. Exp.	Acc. Dep.	Dep. Exp.	Acc. Dep.
2		Dec. 31, 2016	Jan. 1, 2017 to Dec. 31, 2017	Dec. 31, 2017	Jan. 1, 2018 to Dec. 31, 2018	Dec. 31, 2018
3	Description					
4						
5	Intangible	$ -	$ -	$ -	$ -	$ -
6	Land and land rights	$ -	$ -	$ -	$ -	$ -
7	Structures and Improvements	$ 2,466,806	$ 89,271	$ 2,556,078	$ 89,271	$ 2,645,349
8	Pumping Equipment	$ 5,874	$ 128	$ 6,002	$ 128	$ 6,131
9	Treatment Equipment	$ 1,402,595	$ 149,224	$ 1,551,819	$ 151,901	$ 1,703,720
10	Transmission & Distribution Plant	$ 975,826	$ 53,920	$ 1,029,746	$ 53,920	$ 1,083,666
11	Source of Supply	$ 9,592	$ 2,220	$ 11,812	$ 2,220	$ 14,033
12	Power Generation Equipment	$ 39,094	$ 10,794	$ 49,888	$ 10,794	$ 60,682
13	Transportation	$ 43,497	$ 52,120	$ 95,616	$ 52,120	$ 147,736
14	Tools and Laboratory Equipment	$ 26,091	$ 1,170	$ 27,261	$ 1,170	$ 28,431
15	General Plant	$ 82,041	$ 23,496	$ 105,538	$ 23,496	$ 129,034
16	Hawaii Water GO Allocation	$ 25,144	$ 844	$ 25,989	$ 844	$ 26,833
17	Big Island Allocation	$ 54,474	$ 15,922	$ 70,397	$ 17,178	$ 87,575
18	Wastewater Administration	$ 26	$ 40	$ 66	$ 40	$ 105
19	Total	$ 5,131,060	$ 399,151	$ 5,530,212	$ 403,084	$ 5,933,296

Application Filed December 2017
Exhibit WHSC 7-8
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Accumulated Depreciation and Depreciation Expense Detail

Test Year Ending December 31, 2018

Line No.	Account	Description	Plant Balance (12/31/2016)	Accumulated Depreciation Reserve (12/31/2016)	2017 Additions	2017 Retirements	Plant Balance (12/31/2017)	Present Rate	Proposed Rate	Depreciation Expense (Present Rate)	Depreciation Expense (Proposed Rate)	Accumulated Depreciation Reserve (12/31/2017)	2018 Additions	2018 Retirements	Plant Balance (12/31/2018)	Depreciation Expense (Present Rate)	Depreciation Expense (Proposed Rate)	Accumulated Depreciation Reserve (12/31/2018)
1		**Depreciable Plant**																
2		**Structures and Improvements**																
3	103540	Structures & Improvement - Transmission & Distribution Plant	$ 9,569,231	$ 2,466,806	$ 111,723	$ -	$ 9,680,954	3.33%	2.29%	$ 322,850	$ 221,694	$ 2,688,500	$ -	$ -	$ 9,680,954	$ 322,850	$ 221,694	$ 2,910,194
4		Total Structures and Improvements	$ 9,569,231	$ 2,466,806	$ 111,723	$ -	$ 9,680,954			$ 322,850	$ 221,694	$ 2,688,500	$ -	$ -	$ 9,680,954	$ 322,850	$ 221,694	$ 2,910,194
5		**Pumping Equipment**																
6	103701	Pumping Equipment	$ 8,181	$ 5,874	$ -	$ -	$ 8,181	3.33%	1.57%	$ 273	$ 128	$ 6,002	$ -	$ -	$ 8,181	$ 273	$ 128	$ 6,131
7		Total Pumping Equipment	$ 8,181	$ 5,874	$ -	$ -	$ 8,181			$ 273	$ 128	$ 6,002	$ -	$ -	$ 8,181	$ 273	$ 128	$ 6,131
8		**Treatment Equipment**																
9	103801	Treatment & Disposal Equipment	$ 3,809,193	$ 1,402,595	$ 23,950	$ -	$ 3,833,143	2.94%	4.60%	$ 112,744	$ 176,325	$ 1,578,919	$ 58,198	$ -	$ 3,891,341	$ 114,456	$ 179,002	$ 1,757,921
10		Total Treatment Equipment	$ 3,809,193	$ 1,402,595	$ 23,950	$ -	$ 3,833,143			$ 112,744	$ 176,325	$ 1,578,919	$ 58,198	$ -	$ 3,891,341	$ 114,456	$ 179,002	$ 1,757,921
11		**Transmission & Distribution Plant**																
12	103600	Collection Sewers Force	$ 257,305	$ 114,246	$ -	$ -	$ 257,305	2.00%	2.66%	$ 5,146	$ 6,844	$ 121,091	$ -	$ -	$ 257,305	$ 5,146	$ 6,844	$ 127,935
13	103610	Collection Sewers Gravity	$ 1,397,700	$ 828,239	$ -	$ -	$ 1,397,700	2.17%	2.42%	$ 30,365	$ 33,824	$ 862,063	$ -	$ -	$ 1,397,700	$ 30,365	$ 33,824	$ 895,886
14	103690	Other Equipment	$ 519,179	$ 33,341	$ 7,110	$ -	$ 526,288	3.54%	8.12%	$ 18,643	$ 42,735	$ 76,076	$ -	$ -	$ 526,288	$ 18,643	$ 42,735	$ 118,810
15		Total Transmission & Distribution Plant	$ 2,174,183	$ 975,826	$ 7,110	$ -	$ 2,181,293			$ 54,154	$ 83,403	$ 1,059,229	$ -	$ -	$ 2,181,293	$ 54,154	$ 83,403	$ 1,142,633
16		**Power Generation Equipment**																
17	103550	Power Generation Equipment	$ 326,112	$ 39,094	$ -	$ -	$ 326,112	3.33%	3.31%	$ 10,870	$ 10,794	$ 49,888	$ -	$ -	$ 326,112	$ 10,870	$ 10,794	$ 60,682
18		Total Power Generation Equipment	$ 326,112	$ 39,094	$ -	$ -	$ 326,112			$ 10,870	$ 10,794	$ 49,888	$ -	$ -	$ 326,112	$ 10,870	$ 10,794	$ 60,682
19		**Source of Supply**																
20	103700	Receiving Wells	$ 24,727.27	$ 5,215	$ -	$ -	$ 24,727	3.33%	3.51%	$ 825	$ 868	$ 6,083	$ -	$ -	$ 24,727	$ 825	$ 868	$ 6,951
21	103810	Plant Sewers	$ 36,649	$ 4,377	$ -	$ -	$ 36,649	3.33%	3.69%	$ 1,222	$ 1,352	$ 5,730	$ -	$ -	$ 36,649	$ 1,222	$ 1,352	$ 7,082
22		Total Source of Supply	$ 61,376	$ 9,592	$ -	$ -	$ 61,376			$ 2,046	$ 2,220	$ 11,812	$ -	$ -	$ 61,376	$ 2,046	$ 2,220	$ 14,033
23		**Transportation**																
24	103985	Transportation Equipment	$ 339,984	$ 43,497	$ -	$ -	$ 339,984	3.45%	15.33%	$ 11,746	$ 52,120	$ 95,616	$ -	$ -	$ 339,984	$ 11,746	$ 52,120	$ 147,736
25		Total Transportation	$ 339,984	$ 43,497	$ -	$ -	$ 339,984			$ 11,746	$ 52,120	$ 95,616	$ -	$ -	$ 339,984	$ 11,746	$ 52,120	$ 147,736
26		**Tools and Laboratory Equipment**																
27	103930	Tools, Shop, & Garage Equipment	$ 872	$ 44	$ -	$ -	$ 872	60.00%	7.02%	$ 523	$ 61	$ 105	$ -	$ -	$ 872	$ 523	$ 61	$ 166
28	103940	Laboratory Equipment	$ 7,239	$ 6,040	$ 5,050	$ -	$ 12,289	3.34%	3.58%	$ 410	$ 440	$ 6,480	$ -	$ -	$ 12,289	$ 410	$ 440	$ 6,920
29	103950	Power Operated Equipment	$ 19,531	$ 19,531	$ -	$ -	$ 19,531	0.00%	-1.07%	$ -	$ -	$ 19,531	$ -	$ -	$ 19,531	$ -	$ -	$ 19,531
30	103975	Stores Equipment	$ 1,795	$ 476	$ 10,758	$ -	$ 12,553	3.34%	5.33%	$ 419	$ 659	$ 1,145	$ -	$ -	$ 12,553	$ 419	$ 659	$ 1,814
31		Total Tools and Laboratory Equipment	$ 29,437	$ 26,091	$ 15,808	$ -	$ 45,245			$ 1,352	$ 1,170	$ 27,261	$ -	$ -	$ 45,245	$ 1,352	$ 1,170	$ 28,431
32		**General Plant**																
33	103980	General Plant	$ 111,166	$ 82,041	$ 2,728	$ -	$ 113,894	2.69%	20.63%	$ 3,068	$ 23,495	$ 105,538	$ -	$ -	$ 113,894	$ 3,068	$ 23,495	$ 129,034
34		Total General Plant	$ 111,166	$ 82,041	$ 2,728	$ -	$ 113,894			$ 3,068	$ 23,495	$ 105,538	$ -	$ -	$ 113,894	$ 3,068	$ 23,495	$ 129,034
35		**Total WHSC Plant**	$ 16,428,865	$ 5,051,416	$ 161,319	$ -	$ 16,590,184			$ 519,103	$ 571,351	$ 5,622,767	$ 58,198	$ -	$ 16,648,382	$ 520,815	$ 574,028	$ 6,196,795

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Accumulated Depreciation and Depreciation Expense Detail (Hawaii Water Big Island WW Admin)
Test Year Ending December 31, 2018

Line No	Description	In Service	Useful Life in Mos	Plant Balance (12/31/2016)	Accumulated Depreciation Reserve (12/31/2016)	2017 Additions	2017 Retirements	Plant Balance (12/31/2017)	Present Rate	Depreciation Expense	Accumulated Depreciation Reserve (12/31/2017)	2018 Additions	2018 Retirements	Plant Balance (12/31/2018)	Depreciation Expense	Accumulated Depreciation Reserve (12/31/2018)
1	HAWAII GENERAL OFFICE															
2	790 Leasehold Improvements	5/1/2015	720	$ 16,865	$ 468	$ -	$ -	$ 16,865	1.67%	$ 281	$ 749	$ -	$ -	$ 16,865	$ 281	$ 1,031
3	desks, conf table, chairs	3/1/2010	120	$ 3,060	$ 1,877	$ -	$ -	$ 3,060	10.00%	$ 306	$ 2,183	$ -	$ -	$ 3,060	$ 306	$ 2,489
4	2 Cubical Work Stations	12/1/2010	120	$ 5,650	$ 2,825	$ -	$ -	$ 5,650	10.00%	$ 565	$ 3,390	$ -	$ -	$ 5,650	$ 565	$ 3,955
5	Cherry Desk	12/1/2010	120	$ 855	$ 427	$ -	$ -	$ 855	10.00%	$ 85	$ 513	$ -	$ -	$ 855	$ 85	$ 598
6	Cherry Drawer	12/1/2010	120	$ 71	$ 35	$ -	$ -	$ 71	10.00%	$ 7	$ 42	$ -	$ -	$ 71	$ 7	$ 49
7	Cherry Credenza	12/1/2010	120	$ 509	$ 255	$ -	$ -	$ 509	10.00%	$ 51	$ 306	$ -	$ -	$ 509	$ 51	$ 356
8	Cherry Corner Unit	12/1/2010	120	$ 404	$ 202	$ -	$ -	$ 404	10.00%	$ 40	$ 242	$ -	$ -	$ 404	$ 40	$ 283
9	Regency Library	12/1/2010	120	$ 284	$ 142	$ -	$ -	$ 284	10.00%	$ 28	$ 170	$ -	$ -	$ 284	$ 28	$ 199
10	Chairs	12/1/2010	120	$ 2,037	$ 1,018	$ -	$ -	$ 2,037	10.00%	$ 204	$ 1,222	$ -	$ -	$ 2,037	$ 204	$ 1,426
11	Cherry Desk Shell 66"	12/1/2010	120	$ 429	$ 214	$ -	$ -	$ 429	10.00%	$ 43	$ 257	$ -	$ -	$ 429	$ 43	$ 300
12	24" x 71" Credenza Shells	12/1/2010	120	$ 793	$ 397	$ -	$ -	$ 793	10.00%	$ 79	$ 476	$ -	$ -	$ 793	$ 79	$ 555
13	Cherry Keyboard Drawer	12/1/2010	120	$ 71	$ 35	$ -	$ -	$ 71	10.00%	$ 7	$ 42	$ -	$ -	$ 71	$ 7	$ 49
14	Executive Chair	12/1/2010	120	$ 391	$ 196	$ -	$ -	$ 391	10.00%	$ 39	$ 235	$ -	$ -	$ 391	$ 39	$ 274
15	Desk Pedestal F/F	12/1/2010	120	$ 468	$ 234	$ -	$ -	$ 468	10.00%	$ 47	$ 281	$ -	$ -	$ 468	$ 47	$ 328
16	Cherry Shelf Unit	12/1/2010	120	$ 308	$ 154	$ -	$ -	$ 308	10.00%	$ 31	$ 185	$ -	$ -	$ 308	$ 31	$ 215
17	Cherry Storage Hutch	12/1/2010	120	$ 487	$ 244	$ -	$ -	$ 487	10.00%	$ 49	$ 293	$ -	$ -	$ 487	$ 49	$ 341
18	Cherry Credenza 66"	12/1/2010	120	$ 333	$ 167	$ -	$ -	$ 333	10.00%	$ 33	$ 200	$ -	$ -	$ 333	$ 33	$ 233
19	Regency Desk	12/1/2010	120	$ 709	$ 355	$ -	$ -	$ 709	10.00%	$ 71	$ 425	$ -	$ -	$ 709	$ 71	$ 497
20	2 Drawer Lateral File	12/1/2010	120	$ 988	$ 494	$ -	$ -	$ 988	10.00%	$ 99	$ 592	$ -	$ -	$ 988	$ 99	$ 691
21	3, 42" 4 Drawer Lateral File Cabinets	12/1/2010	120	$ 2,868	$ 1,434	$ -	$ -	$ 2,868	10.00%	$ 287	$ 1,721	$ -	$ -	$ 2,868	$ 287	$ 2,008
22	Cherry Desk Pedestal B/B/F	12/1/2010	120	$ 513	$ 257	$ -	$ -	$ 513	10.00%	$ 51	$ 308	$ -	$ -	$ 513	$ 51	$ 359
23	Regency Lateral File	12/1/2010	120	$ 567	$ 284	$ -	$ -	$ 567	10.00%	$ 57	$ 341	$ -	$ -	$ 567	$ 57	$ 397
24	Fireproof safe for Customer Service office.	12/1/2011	120	$ 2,386	$ 1,046	$ -	$ -	$ 2,386	10.00%	$ 239	$ 1,284	$ -	$ -	$ 2,386	$ 239	$ 1,523
25	Ricoh Aficio MP C3001	5/1/2015	480	$ 3,044	$ 127	$ -	$ -	$ 3,044	2.50%	$ 76	$ 203	$ -	$ -	$ 3,044	$ 76	$ 279
26	790 Office Furniture	5/1/2015	480	$ 631	$ 26	$ -	$ -	$ 631	2.50%	$ 16	$ 42	$ -	$ -	$ 631	$ 16	$ 58
27	Automated Electronic Defibrillators	12/1/2010	60	$ 7,161	$ 7,161	$ -	$ -	$ 7,161	20.00%	$ -	$ 7,161	$ -	$ -	$ 7,161	$ -	$ 7,161
28	License for Capture Now	12/1/2010	60	$ 237	$ 237	$ -	$ -	$ 237	20.00%	$ -	$ 237	$ -	$ -	$ 237	$ -	$ 237
29	Fujitsu Fi6140 scanner	12/1/2010	60	$ 1,666	$ 1,666	$ -	$ -	$ 1,666	20.00%	$ -	$ 1,666	$ -	$ -	$ 1,666	$ -	$ 1,666
30	Ricoh MP 4001SP Copier w/Finisher	12/1/2010	60	$ 10,686	$ 10,686	$ -	$ -	$ 10,686	20.00%	$ -	$ 10,686	$ -	$ -	$ 10,686	$ -	$ 10,686
31	Monitors	12/1/2010	60	$ 1,207	$ 1,207	$ -	$ -	$ 1,207	20.00%	$ -	$ 1,207	$ -	$ -	$ 1,207	$ -	$ 1,207
32	Mitel EP Dig 8 Line Model 8560 Telephone	12/1/2010	60	$ 8,102	$ 8,102	$ -	$ -	$ 8,102	20.00%	$ -	$ 8,102	$ -	$ -	$ 8,102	$ -	$ 8,102
33	ELECTRONICS [581]	12/1/2011	60	$ 744	$ 744	$ -	$ -	$ 744	20.00%	$ -	$ 744	$ -	$ -	$ 744	$ -	$ 744
34	8-way video conferencing system	12/1/2011	60	$ 37,185	$ 37,185	$ -	$ -	$ 37,185	20.00%	$ -	$ 37,185	$ -	$ -	$ 37,185	$ -	$ 37,185
35	Hewlett Packard laser printer	12/1/2011	60	$ 1,111	$ 1,111	$ -	$ -	$ 1,111	20.00%	$ -	$ 1,111	$ -	$ -	$ 1,111	$ -	$ 1,111
36	Desktop-HIWKLCS40	12/1/2014	84	$ 807	$ 240	$ -	$ -	$ 807	14.29%	$ 115	$ 355	$ -	$ -	$ 807	$ 115	$ 470
37	Desktop-HIWKLCS39	12/1/2014	84	$ 807	$ 240	$ -	$ -	$ 807	14.29%	$ 115	$ 355	$ -	$ -	$ 807	$ 115	$ 470
38	Desktop-HIWKLCS37	12/1/2014	84	$ 807	$ 240	$ -	$ -	$ 807	14.29%	$ 115	$ 355	$ -	$ -	$ 807	$ 115	$ 470
39	Desktop-HIWKLCS38	12/1/2014	84	$ 807	$ 240	$ -	$ -	$ 807	14.29%	$ 115	$ 355	$ -	$ -	$ 807	$ 115	$ 470
40	Desktop-HIWKCLS36	12/1/2014	84	$ 807	$ 240	$ -	$ -	$ 807	14.29%	$ 115	$ 355	$ -	$ -	$ 807	$ 115	$ 470
41	Desktop-HIWKLCS41	12/1/2014	84	$ 807	$ 240	$ -	$ -	$ 807	14.29%	$ 115	$ 355	$ -	$ -	$ 807	$ 115	$ 470
42	790 Server & Server room upgrade	5/1/2015	84	$ 17,650	$ 4,202	$ -	$ -	$ 17,650	14.29%	$ 2,521	$ 6,724	$ -	$ -	$ 17,650	$ 2,521	$ 9,245
43	Hawaii Business Unit Software	12/1/2010	60	$ 132,361	$ 132,361	$ -	$ -	$ 132,361	20.00%	$ -	$ 132,361	$ -	$ -	$ 132,361	$ -	$ 132,361
44	RMS Software	3/1/2014	480	$ 92,429	$ 6,547	$ -	$ -	$ 92,429	2.50%	$ 2,311	$ 8,858	$ -	$ -	$ 92,429	$ 2,311	$ 11,169
45	phone system with 8 phones	3/1/2010	60	$ 24,859	$ 24,859	$ -	$ -	$ 24,859	20.00%	$ -	$ 24,859	$ -	$ -	$ 24,859	$ -	$ 24,859
46	Miscellaneous Kitchen Equipment	12/1/2010	180	$ 981	$ 398	$ -	$ -	$ 981	6.67%	$ 65	$ 463	$ -	$ -	$ 981	$ 65	$ 529
47	laptop for CS Mgr	4/1/2014	360	$ 1,496	$ 175	$ -	$ -	$ 1,496	3.33%	$ 50	$ 225	$ -	$ -	$ 1,496	$ 50	$ 274
48	Total			$ 387,436	$ 250,992	$ -	$ -	$ 387,436		$ 8,430	$ 259,422	$ -	$ -	$ 387,436	$ 8,430	$ 267,852
49	HAWAII GENERAL OFFICE ALLOCATIONS															
50	700 - Kaanapali		21.73%	$ 84,174	$ 54,531	$ -	$ -	$ 84,174		$ 1,831	$ 56,362	$ -	$ -	$ 84,174	$ 1,831	$ 58,194
51	701 - Pukalani		6.87%	$ 26,623	$ 17,247	$ -	$ -	$ 26,623		$ 579	$ 17,826	$ -	$ -	$ 26,623	$ 579	$ 18,405
52	721 - Waikoloa Water		12.83%	$ 49,713	$ 32,206	$ -	$ -	$ 49,713		$ 1,082	$ 33,287	$ -	$ -	$ 49,713	$ 1,082	$ 34,369
53	722 - Waikoloa Sewer		10.02%	$ 38,813	$ 25,144	$ -	$ -	$ 38,813		$ 844	$ 25,989	$ -	$ -	$ 38,813	$ 844	$ 26,833
54	723 - Waikoloa Resort Water		13.27%	$ 51,423	$ 33,313	$ -	$ -	$ 51,423		$ 1,119	$ 34,432	$ -	$ -	$ 51,423	$ 1,119	$ 35,551
55	724 - Waikoloa Resort Sewer		18.18%	$ 70,422	$ 45,621	$ -	$ -	$ 70,422		$ 1,532	$ 47,154	$ -	$ -	$ 70,422	$ 1,532	$ 48,686
56	725 - Waikoloa Resort Irrigation		0.75%	$ 2,893	$ 1,874	$ -	$ -	$ 2,893		$ 63	$ 1,937	$ -	$ -	$ 2,893	$ 63	$ 2,000
57	726 - Kona Water		10.56%	$ 40,900	$ 26,497	$ -	$ -	$ 40,900		$ 890	$ 27,386	$ -	$ -	$ 40,900	$ 890	$ 28,276
58	727 - Kona Sewer		5.80%	$ 22,474	$ 14,560	$ -	$ -	$ 22,474		$ 489	$ 15,049	$ -	$ -	$ 22,474	$ 489	$ 15,538
59	Total			$ 387,436	$ 250,992	$ -	$ -	$ 387,436		$ 8,430	$ 259,422	$ -	$ -	$ 387,436	$ 8,430	$ 267,852

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Accumulated Depreciation and Depreciation Expense Detail (Hawaii Water, Big Island, WW Admin)
Test Year Ending December 31, 2018

Line No	Description	In Service	Useful Life in Mos	Plant Balance (12/31/2016)	Accumulated Depreciation Reserve (12/31/2016)	2017 Additions	2017 Retirements	Plant Balance (12/31/2017)	Present Rate	Depreciation Expense	Accumulated Depreciation Reserve (12/31/2017)	2018 Additions	2018 Retirements	Plant Balance (12/31/2018)	Depreciation Expense	Accumulated Depreciation Reserve (12/31/2018)
60	*BIG ISLAND*															
61	(2)Replacement Op Computer Stations	12/1/2013	84	$ 2,081	$ 916	$ -	$ -	$ 2,081	14.29%	$ 297	$ 1,214	$ -	$ -	$ 2,081	$ 297	$ 1,511
62	Mobile office trailer	12/1/2011	480	$ 23,867	$ 3,345	$ -	$ -	$ 23,867	2.50%	$ 597	$ 3,942	$ -	$ -	$ 23,867	$ 597	$ 4,539
63	1996 Eagle Forklift	12/1/2010	480	$ 22,871	$ 3,478	$ -	$ -	$ 22,871	2.50%	$ 572	$ 4,050	$ -	$ -	$ 22,871	$ 572	$ 4,622
64	20' Container Shelving-Baseyard	6/1/2015	480	$ 931	$ 37	$ -	$ -	$ 931	2.50%	$ 23	$ 60	$ -	$ -	$ 931	$ 23	$ 83
65	20' Container Shelving-EMT	6/1/2015	480	$ 455	$ 18	$ -	$ -	$ 455	2.50%	$ 11	$ 29	$ -	$ -	$ 455	$ 11	$ 41
66	20' Container-Baseyard	6/1/2015	480	$ 10,373	$ 411	$ -	$ -	$ 10,373	2.50%	$ 259	$ 670	$ -	$ -	$ 10,373	$ 259	$ 929
67	20' Container-EMT	6/1/2015	480	$ 5,312	$ 210	$ -	$ -	$ 5,312	2.50%	$ 133	$ 343	$ -	$ -	$ 5,312	$ 133	$ 476
68	Storage Contr	12/1/2010	180	$ 3,187	$ 1,293	$ -	$ -	$ 3,187	6.67%	$ 212	$ 1,505	$ -	$ -	$ 3,187	$ 212	$ 1,718
69	Nissan Frontier	12/1/2010	120	$ 27,030	$ 14,330	$ -	$ -	$ 27,030	10.00%	$ 2,703	$ 17,033	$ -	$ -	$ 27,030	$ 2,703	$ 19,736
70	Nissan Titan	12/1/2010	120	$ 35,679	$ 18,915	$ -	$ -	$ 35,679	10.00%	$ 3,568	$ 22,483	$ -	$ -	$ 35,679	$ 3,568	$ 26,051
71	FORD XCAB	6/1/2012	120	$ 26,901	$ 12,386	$ -	$ -	$ 26,901	10.00%	$ 2,690	$ 15,076	$ -	$ -	$ 26,901	$ 2,690	$ 17,766
72	FORD XCAB	6/1/2012	120	$ 26,395	$ 12,153	$ -	$ -	$ 26,395	10.00%	$ 2,640	$ 14,792	$ -	$ -	$ 26,395	$ 2,640	$ 17,432
73	Ford F-150	9/1/2012	120	$ 30,500	$ 12,541	$ -	$ -	$ 30,500	10.00%	$ 3,050	$ 15,591	$ -	$ -	$ 30,500	$ 3,050	$ 18,641
74	Ford F-150	9/1/2012	120	$ 30,500	$ 12,541	$ -	$ -	$ 30,500	10.00%	$ 3,050	$ 15,591	$ -	$ -	$ 30,500	$ 3,050	$ 18,641
75	Ford F-150	9/1/2012	120	$ 30,500	$ 12,541	$ -	$ -	$ 30,500	10.00%	$ 3,050	$ 15,591	$ -	$ -	$ 30,500	$ 3,050	$ 18,641
76	FRONTIER	6/1/2012	120	$ 25,350	$ 10,799	$ -	$ -	$ 25,350	10.00%	$ 2,535	$ 13,334	$ -	$ -	$ 25,350	$ 2,535	$ 15,869
77	Ford Explorer	9/1/2012	120	$ 37,497	$ 15,417	$ -	$ -	$ 37,497	10.00%	$ 3,750	$ 19,167	$ -	$ -	$ 37,497	$ 3,750	$ 22,917
78	2014 Nissan Frontier, V214001	4/1/2014	84	$ 35,122	$ 13,756	$ -	$ -	$ 35,122	14.29%	$ 5,017	$ 18,773	$ -	$ -	$ 35,122	$ 5,017	$ 23,833
79	3 Ipad for Hawaii Island	9/1/2013	84	$ 2,542	$ 1,211	$ -	$ -	$ 2,542	14.29%	$ 363	$ 1,574	$ -	$ -	$ 2,542	$ 363	$ 1,937
80	Desk w Drawer	9/1/2012	120	$ 959	$ 397	$ -	$ -	$ 959	10.00%	$ 96	$ 493	$ -	$ -	$ 959	$ 96	$ 589
81	69"x43"x 18"	9/1/2012	180	$ 1,311	$ 379	$ -	$ -	$ 1,311	6.67%	$ 87	$ 466	$ -	$ -	$ 1,311	$ 87	$ 553
82	Diesel tank	12/1/2011	480	$ 725	$ 92	$ -	$ -	$ 725	2.50%	$ 18	$ 110	$ -	$ -	$ 725	$ 18	$ 128
83	GIS Software	12/1/2011	60	$ 7,621	$ 7,621	$ -	$ -	$ 7,621	20.00%	$ -	$ 7,621	$ -	$ -	$ 7,621	$ -	$ 7,621
84	Backflow Test Kit-Midwest 835	8/1/2015	240	$ 1,202	$ 85	$ -	$ -	$ 1,202	5.00%	$ 60	$ 145	$ -	$ -	$ 1,202	$ 60	$ 205
85	Big Island SCADA 2012	10/1/2014	480	$ 495,319	$ 28,109	$ -	$ -	$ 495,319	2.50%	$ 12,383	$ 40,491	$ -	$ -	$ 495,319	$ 12,383	$ 52,874
86	Book Case	9/1/2012	120	$ 298	$ 123	$ -	$ -	$ 298	10.00%	$ 30	$ 153	$ -	$ -	$ 298	$ 30	$ 183
87	Motorola Hardware	6/1/2012	60	$ 4,401	$ 4,218	$ -	$ -	$ 4,401	20.00%	$ 880	$ 5,098	$ -	$ -	$ 4,401	$ -	$ 5,098
88	Work Order Addition	6/1/2012	60	$ 2,144	$ 2,055	$ -	$ -	$ 2,144	20.00%	$ 429	$ 2,484	$ -	$ -	$ 2,144	$ -	$ 2,484
89	Misc. Wiring & Cables	6/1/2012	60	$ 544	$ 521	$ -	$ -	$ 544	20.00%	$ 109	$ 630	$ -	$ -	$ 544	$ -	$ 630
90	Work Order Addition	6/1/2012	60	$ 747	$ 715	$ -	$ -	$ 747	20.00%	$ 149	$ 865	$ -	$ -	$ 747	$ -	$ 865
91	1 desktops	4/1/2013	84	$ 1,133	$ 607	$ -	$ -	$ 1,133	14.29%	$ 162	$ 769	$ -	$ -	$ 1,133	$ 162	$ 931
92	1 desktops	4/1/2013	84	$ 1,133	$ 607	$ -	$ -	$ 1,133	14.29%	$ 162	$ 769	$ -	$ -	$ 1,133	$ 162	$ 931
93	Desktop-HIWKLOC56	12/1/2014	84	$ 1,572	$ 466	$ -	$ -	$ 1,572	14.29%	$ 225	$ 693	$ -	$ -	$ 1,572	$ 225	$ 917
94	Desktop-HIWKLOC57	12/1/2014	84	$ 1,613	$ 480	$ -	$ -	$ 1,613	14.29%	$ 230	$ 710	$ -	$ -	$ 1,613	$ 230	$ 941
95	dryer @ baseyard	4/1/2017	84	$ -	$ -	$ 503	$ -	$ 503	14.29%	$ 72	$ 72	$ -	$ -	$ 503	$ 72	$ 144
96	Exec Chair	9/1/2012	120	$ 351	$ 145	$ -	$ -	$ 351	10.00%	$ 35	$ 180	$ -	$ -	$ 351	$ 35	$ 216
97	Work Order Addition	9/1/2013	84	$ 51	$ 24	$ -	$ -	$ 51	14.29%	$ 7	$ 31	$ -	$ -	$ 51	$ 7	$ 39
98	Work Order Addition	9/1/2012	60	$ 182	$ 168	$ -	$ -	$ 182	20.00%	$ 36	$ 204	$ -	$ -	$ 182	$ -	$ 204
99	Work Order Addition	6/1/2012	60	$ 13,813	$ 13,519	$ -	$ -	$ 13,813	20.00%	$ 2,763	$ 16,281	$ -	$ -	$ 13,813	$ -	$ 16,281
100	EMT Laptop	3/1/2014	84	$ 4,509	$ 1,825	$ -	$ -	$ 4,509	14.29%	$ 644	$ 2,469	$ -	$ -	$ 4,509	$ 644	$ 3,113
101	Hand Helds	12/1/2010	60	$ 19,147	$ 19,147	$ -	$ -	$ 19,147	20.00%	$ -	$ 19,147	$ -	$ -	$ 19,147	$ -	$ 19,147
102	Desk Dock	12/1/2010	60	$ 2,793	$ 2,793	$ -	$ -	$ 2,793	20.00%	$ -	$ 2,793	$ -	$ -	$ 2,793	$ -	$ 2,793
103	Personnel Lift	6/1/2012	180	$ 5,844	$ 1,786	$ -	$ -	$ 5,844	6.67%	$ 390	$ 2,175	$ -	$ -	$ 5,844	$ 390	$ 2,565
104	Software	9/1/2012	60	$ 2,995	$ 2,755	$ -	$ -	$ 2,995	20.00%	$ 599	$ 3,354	$ -	$ -	$ 2,995	$ -	$ 3,354
105	Hardware	9/1/2012	60	$ 8,824	$ 8,116	$ -	$ -	$ 8,824	20.00%	$ 1,765	$ 9,883	$ -	$ -	$ 8,824	$ -	$ 9,883
106	Gradall lifting hook attachment	12/1/2014	360	$ 2,427	$ 182	$ -	$ -	$ 2,427	3.33%	$ 81	$ 263	$ -	$ -	$ 2,427	$ 81	$ 344
107	Forklift	12/1/2010	120	$ 27,625	$ 14,119	$ -	$ -	$ 27,625	10.00%	$ 2,762	$ 16,882	$ -	$ -	$ 27,625	$ 2,762	$ 19,644
108	HON chair	2/1/2014	360	$ 636	$ 80	$ -	$ -	$ 636	3.33%	$ 21	$ 101	$ -	$ -	$ 636	$ 21	$ 122
109	Hydro Jetter	12/1/2010	120	$ 5,941	$ 3,644	$ -	$ -	$ 5,941	10.00%	$ 594	$ 4,238	$ -	$ -	$ 5,941	$ 594	$ 4,832
110	Ice Maker-Manitowac ID-0452A	9/1/2016	180	$ 4,536	$ 101	$ -	$ -	$ 4,536	6.67%	$ 302	$ 403	$ -	$ -	$ 4,536	$ 302	$ 706
111	Ingersoll Needle/Chisel Scl	9/1/2013	360	$ 773	$ 97	$ -	$ -	$ 773	3.33%	$ 26	$ 122	$ -	$ -	$ 773	$ 26	$ 148
112	Internal labor	7/1/2013	360	$ 21,402	$ 2,457	$ -	$ -	$ 21,402	3.33%	$ 713	$ 3,210	$ -	$ -	$ 21,402	$ 713	$ 3,924
113	Knoll task chair	2/1/2014	360	$ 13,806	$ 1,726	$ -	$ -	$ 13,806	3.33%	$ 460	$ 2,186	$ -	$ -	$ 13,806	$ 460	$ 2,646
114	1 laptops	4/1/2013	84	$ 1,165	$ 624	$ -	$ -	$ 1,165	14.29%	$ 166	$ 791	$ -	$ -	$ 1,165	$ 166	$ 957
115	1 laptops	4/1/2013	84	$ 1,165	$ 624	$ -	$ -	$ 1,165	14.29%	$ 166	$ 791	$ -	$ -	$ 1,165	$ 166	$ 957
116	Laptop, EMT-HIWKOCLT02	11/1/2015	84	$ 1,631	$ 39	$ -	$ -	$ 1,631	14.29%	$ 233	$ 272	$ -	$ -	$ 1,631	$ 233	$ 505
117	Lateral File	9/1/2012	120	$ 525	$ 218	$ -	$ -	$ 525	10.00%	$ 52	$ 270	$ -	$ -	$ 525	$ 52	$ 323
118	Work Order Addition	12/1/2011	480	$ 1,447	$ 209	$ -	$ -	$ 1,447	2.50%	$ 36	$ 245	$ -	$ -	$ 1,447	$ 36	$ 282
119	Work Order Addition	12/1/2011	480	$ 4,571	$ 638	$ -	$ -	$ 4,571	2.50%	$ 114	$ 752	$ -	$ -	$ 4,571	$ 114	$ 866
120	Work Order Addition	6/1/2011	60	$ 16,749	$ 16,749	$ -	$ -	$ 16,749	20.00%	$ -	$ 16,749	$ -	$ -	$ 16,749	$ -	$ 16,749
121	New IP phone system	6/1/2013	84	$ 19,704	$ 10,086	$ -	$ -	$ 19,704	14.29%	$ 2,815	$ 12,901	$ -	$ -	$ 19,704	$ 2,815	$ 15,716
122	New Hydraulic Hammer	12/1/2013	240	$ 9,847	$ 1,518	$ -	$ -	$ 9,847	5.00%	$ 492	$ 2,010	$ -	$ -	$ 9,847	$ 492	$ 2,503
123	Office Furnishings	2/1/2014	360	$ 6,706	$ 838	$ -	$ -	$ 6,706	3.33%	$ 224	$ 1,062	$ -	$ -	$ 6,706	$ 224	$ 1,285
124	Office furniture & equip	9/1/2012	120	$ 4,134	$ 1,640	$ -	$ -	$ 4,134	10.00%	$ 413	$ 2,053	$ -	$ -	$ 4,134	$ 413	$ 2,465
125	Work Order Addition	9/1/2012	120	$ 47	$ 19	$ -	$ -	$ 47	10.00%	$ 5	$ 24	$ -	$ -	$ 47	$ 5	$ 29
126	Work Order Addition	9/1/2012	180	$ 90	$ 26	$ -	$ -	$ 90	6.67%	$ 6	$ 32	$ -	$ -	$ 90	$ 6	$ 38
127	Portable generator 3500w, EMT's	12/1/2016	240	$ 518	$ 2	$ -	$ -	$ 518	5.00%	$ 26	$ 28	$ -	$ -	$ 518	$ 26	$ 54
128	Power Quality Analyzer	3/1/2015	240	$ 8,416	$ 772	$ -	$ -	$ 8,416	5.00%	$ 421	$ 1,192	$ -	$ -	$ 8,416	$ 421	$ 1,613

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Accumulated Depreciation and Depreciation Expense Detail (Hawaii Water, Big Island, WW Admin)
Test Year Ending December 31, 2018

Line No	Description	In Service	Useful Life in Mos	Plant Balance (12/31/2016)	Accumulated Depreciation Reserve (12/31/2016)	2017 Additions	2017 Retirements	Plant Balance (12/31/2017)	Present Rate	Depreciation Expense	Accumulated Depreciation Reserve (12/31/2017)	2018 Additions	2018 Retirements	Plant Balance (12/31/2018)	Depreciation Expense	Accumulated Depreciation Reserve (12/31/2018)
129	Printer Cart	9/1/2012	120	$ 75	$ 31	$ -	$ -	$ 75	10.00%	$ 8	$ 39	$ -	$ -	$ 75	$ 8	$ 46
130	Projector-Dell 1610HD	12/1/2016	84	$ 626	$ 7	$ -	$ -	$ 626	14.29%	$ 89	$ 97	$ -	$ -	$ 626	$ 89	$ 186
131	Electrical Upgrade	12/1/2011	480	$ 8,770	$ 1,269	$ -	$ -	$ 8,770	2.50%	$ 219	$ 1,488	$ -	$ -	$ 8,770	$ 219	$ 1,707
132	Respirator supplied air system	12/1/2016	240	$ 4,239	$ 18	$ -	$ -	$ 4,239	5.00%	$ 212	$ 230	$ -	$ -	$ 4,239	$ 212	$ 442
133	Richo Copier	11/1/2011	60	$ 10,588	$ 10,588	$ -	$ -	$ 10,588	20.00%	$ -	$ 10,588	$ -	$ -	$ 10,588	$ -	$ 10,588
134	Richo Fax Module	11/1/2011	60	$ 1,045	$ 1,045	$ -	$ -	$ 1,045	20.00%	$ -	$ 1,045	$ -	$ -	$ 1,045	$ -	$ 1,045
135	RICOH MPC3004-Engineering office	12/1/2016	84	$ 8,282	$ 99	$ -	$ -	$ 8,282	14.29%	$ 1,183	$ 1,282	$ -	$ -	$ 8,282	$ 1,183	$ 2,465
136	Rplc computer w/laptop for Eng Mgr	10/1/2014	84	$ 1,478	$ 475	$ -	$ -	$ 1,478	14.29%	$ 211	$ 686	$ -	$ -	$ 1,478	$ 211	$ 898
137	*SCADA iNET-II 900 Dual Gateway*	3/1/2016	480	$ 22,377	$ 466	$ -	$ -	$ 22,377	2.50%	$ 559	$ 1,026	$ -	$ -	$ 22,377	$ 559	$ 1,585
138	SCADA radio data link	5/1/2017	480	$ -	$ -	$ 53,201	$ -	$ 53,201	2.50%	$ 1,330	$ 1,330	$ -	$ -	$ 53,201	$ 1,330	$ 2,660
139	SCADA upgrade 2013	3/1/2016	480	$ 64,775	$ 1,350	$ -	$ -	$ 64,775	2.50%	$ 1,619	$ 2,969	$ -	$ -	$ 64,775	$ 1,619	$ 4,588
140	SCADAPack 32	3/1/2016	480	$ 10,539	$ 220	$ -	$ -	$ 10,539	2.50%	$ 263	$ 483	$ -	$ -	$ 10,539	$ 263	$ 747
141	Scaffolding	3/1/2016	240	$ 4,771	$ 199	$ -	$ -	$ 4,771	5.00%	$ 239	$ 437	$ -	$ -	$ 4,771	$ 239	$ 676
142	Work Order Addition	12/1/2011	480	$ 15	$ 2	$ -	$ -	$ 15	2.50%	$ 0	$ 2	$ -	$ -	$ 15	$ 0	$ 3
143	Tools & Equipment	6/1/2013	240	$ 994	$ 178	$ -	$ -	$ 994	5.00%	$ 50	$ 228	$ -	$ -	$ 994	$ 50	$ 277
144	Trailer, emergency compressor	3/1/2016	240	$ 426	$ 18	$ -	$ -	$ 426	5.00%	$ 21	$ 39	$ -	$ -	$ 426	$ 21	$ 60
145	*Trailer, emergency generator EG6500*	3/1/2016	240	$ 2,073	$ 86	$ -	$ -	$ 2,073	5.00%	$ 104	$ 190	$ -	$ -	$ 2,073	$ 104	$ 294
146	Trailer, emergency 6'x12' w/ramp	3/1/2016	240	$ 7,800	$ 325	$ -	$ -	$ 7,800	5.00%	$ 390	$ 715	$ -	$ -	$ 7,800	$ 390	$ 1,105
147	Work Order Addition	9/1/2012	120	$ 58,793	$ 24,601	$ -	$ -	$ 58,793	10.00%	$ 5,879	$ 30,481	$ -	$ -	$ 58,793	$ 5,879	$ 36,360
148	V208214: Ford F-150	12/1/2010	120	$ 6,817	$ 4,281	$ -	$ -	$ 6,817	10.00%	$ 682	$ 4,963	$ -	$ -	$ 6,817	$ 682	$ 5,645
149	V208216: Chevy Silverad	12/1/2010	120	$ 9,017	$ 5,662	$ -	$ -	$ 9,017	10.00%	$ 902	$ 6,564	$ -	$ -	$ 9,017	$ 902	$ 7,465
150	V208217: Chevy 3500	12/1/2010	120	$ 29,139	$ 18,298	$ -	$ -	$ 29,139	10.00%	$ 2,914	$ 21,212	$ -	$ -	$ 29,139	$ 2,914	$ 24,126
151	V208222: '08 TOY 4 RUNNER	12/1/2008	120	$ 32,269	$ 22,642	$ -	$ -	$ 32,269	10.00%	$ 3,227	$ 25,869	$ -	$ -	$ 32,269	$ 3,227	$ 29,096
152	Visitor Chair	9/1/2012	120	$ 169	$ 70	$ -	$ -	$ 169	10.00%	$ 17	$ 87	$ -	$ -	$ 169	$ 17	$ 104
153	SCADA Report Writer System	11/30/2017	480	$ -	$ -	$ 42,691	$ -	$ 42,691	2.50%	$ 1,067	$ 1,067	$ -	$ -	$ 42,691	$ 1,067	$ 2,135
154	Fuel Station	8/31/2017	360	$ -	$ -	$ 183,000	$ -	$ 183,000	3.33%	$ 6,100	$ 6,100	$ -	$ -	$ 183,000	$ 6,100	$ 12,200
155	Base Yard Security Cameras	10/31/2017	120	$ -	$ -	$ 10,014	$ -	$ 10,014	10.00%	$ 1,001	$ 1,001	$ -	$ -	$ 10,014	$ 1,001	$ 2,003
156	Big Island Radio Communication	9/30/2017	120	$ -	$ -	$ 50,000	$ -	$ 50,000	10.00%	$ 5,000	$ 5,000	$ -	$ -	$ 50,000	$ 5,000	$ 10,000
157	EMT Service Truck	9/30/2017	84	$ -	$ -	$ 77,492	$ -	$ 77,492	14.29%	$ 11,070	$ 11,070	$ -	$ -	$ 77,492	$ 11,070	$ 22,141
158	Handheld Meter Readers	10/31/2017	120	$ -	$ -	$ 8,673	$ -	$ 8,673	10.00%	$ 867	$ 867	$ -	$ -	$ 8,673	$ 867	$ 1,735
159	EMT Service Truck Tools	10/31/2017	120	$ -	$ -	$ 8,787	$ -	$ 8,787	10.00%	$ 879	$ 879	$ -	$ -	$ 8,787	$ 879	$ 1,757
160	Portable Air Compressor	6/30/2017	120	$ -	$ -	$ 21,139	$ -	$ 21,139	10.00%	$ 2,114	$ 2,114	$ -	$ -	$ 21,139	$ 2,114	$ 4,228
161	Socket fusion & welding prep kit	6/30/2017	120	$ -	$ -	$ 2,249	$ -	$ 2,249	10.00%	$ 225	$ 225	$ -	$ -	$ 2,249	$ 225	$ 450
162	Itron Handheld Meter Readers	7/1/2018	84	$ -	$ -	$ -	$ -	$ -	14.29%	$ -	$ -	$ 26,765	$ -	$ 26,765	$ 3,824	$ 3,824
163	2018 Toyota 4Runner 4x4	7/1/2018	84	$ -	$ -	$ -	$ -	$ -	14.29%	$ -	$ -	$ 42,925	$ -	$ 42,925	$ 6,132	$ 6,132
164	2018 Toyota Tacoma TRD 4x4	7/1/2018	84	$ -	$ -	$ -	$ -	$ -	14.29%	$ -	$ -	$ 40,602	$ -	$ 40,602	$ 5,800	$ 5,800
165	Total			$ 1,395,260	$ 391,474	$ 457,748	$ -	$ 1,853,008		$ 114,425	$ 505,899	$ 110,292	$ -	$ 1,963,300	$ 123,451	$ 629,349
166	*BIG ISLAND ALLOCATIONS*															
167	721 - Waikoloa Water		18.33%	$ 255,806	$ 71,772	$ 83,923	$ -	$ 339,729		$ 20,979	$ 92,751	$ 20,221	$ -	$ 359,950	$ 22,633	$ 115,384
168	722 - Waikoloa Sewer		13.92%	$ 194,153	$ 64,474	$ 63,697	$ -	$ 257,850		$ 15,922	$ 70,397	$ 15,347	$ -	$ 273,197	$ 17,178	$ 87,575
169	723 - Waikoloa Resort Water		19.14%	$ 267,001	$ 74,914	$ 87,596	$ -	$ 354,598		$ 21,897	$ 96,810	$ 21,106	$ -	$ 375,703	$ 23,624	$ 120,434
170	724 - Waikoloa Resort Sewer		25.40%	$ 354,406	$ 99,437	$ 116,271	$ -	$ 470,677		$ 29,065	$ 128,502	$ 28,015	$ -	$ 498,692	$ 31,357	$ 159,859
171	725 - Waikoloa Resort Irrigation		1.02%	$ 14,204	$ 3,985	$ 4,660	$ -	$ 18,864		$ 1,155	$ 5,150	$ 1,123	$ -	$ 19,987	$ 1,257	$ 6,407
172	726 - Kona Water		14.39%	$ 200,835	$ 56,349	$ 65,889	$ -	$ 266,724		$ 16,470	$ 72,820	$ 15,876	$ -	$ 282,599	$ 17,770	$ 90,589
173	727 - Kona Sewer		7.80%	$ 108,855	$ 30,542	$ 35,712	$ -	$ 144,567		$ 8,927	$ 39,469	$ 8,605	$ -	$ 153,172	$ 9,631	$ 49,100
174	Total			$ 1,395,260	$ 391,474	$ 457,748	$ -	$ 1,853,008		$ 114,425	$ 505,899	$ 110,292	$ -	$ 1,963,300	$ 123,451	$ 629,349
175	WASTEWATER ADMINISTRATION															
176	IPad 3 - WW Mgr.	9/1/2013	60	$ 810	$ 106	$ -	$ -	$ 810	20.00%	$ 162	$ 268	$ -	$ -	$ 810	$ 162	$ 430
177	Total			$ 810	$ 106	$ -	$ -	$ 810		$ 162	$ 268	$ -	$ -	$ 810	$ 162	$ 430
178	WASTEWATER ADMINISTRATION ALLOCATIONS															
179	701 - Pukalani		17.22%	$ 139	$ 18	$ -	$ -	$ 139		$ 25	$ 46	$ -	$ -	$ 139	$ 28	$ 74
180	722 - Waikoloa Sewer		24.52%	$ 199	$ 26	$ -	$ -	$ 199		$ 40	$ 66	$ -	$ -	$ 199	$ 40	$ 105
181	724 - Waikoloa Resort Sewer		45.16%	$ 366	$ 48	$ -	$ -	$ 366		$ 73	$ 121	$ -	$ -	$ 366	$ 73	$ 194
182	727 - Kona Sewer		13.10%	$ 106	$ 14	$ -	$ -	$ 106		$ 21	$ 35	$ -	$ -	$ 106	$ 21	$ 56
				$ 810	$ 106	$ -	$ -	$ 810		$ 162	$ 268	$ -	$ -	$ 810	$ 162	$ 430

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Contributions in Aid of Construction
Test Year Ending December 31, 2018

Line No.	Description	Balance as of Dec. 31, 2016	Additions Jan. 1, 2017 to Dec. 31, 2017 CIAC	Adjustments Jan. 1, 2017 to Dec. 31, 2017	Balance as of Dec. 31, 2017	Additions Jan. 1, 2018 to Dec. 31, 2018 CIAC	Adjustments Jan. 1, 2018 to Dec. 31, 2018	Test Year Balance as of Dec. 31, 2018
1								
2								
3								
4								
5	Intangible	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	Land and land rights	$ -	$ -	$ -	$ -	$ -	$ -	$ -
7	Structures and Improvements	$ (3,972,674)	$ -	$ -	$ (3,972,674)	$ -	$ -	$ (3,972,674)
8	Pumping Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	Treatment Equipment	$ (1,355,025)	$ -	$ -	$ (1,355,025)	$ -	$ -	$ (1,355,025)
10	Transmission & Distribution Plant	$ (1,474,176)	$ -	$ -	$ (1,474,176)	$ -	$ -	$ (1,474,176)
11	Source of Supply	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	Power Generation Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	Transportation	$ -	$ -	$ -	$ -	$ -	$ -	$ -
14	Tools and Laboratory Equipment	$ -	$ -	$ -	$ -	$ -	$ -	$ -
15	Global Settlement	$ -	$ -	$ -	$ -	$ -	$ -	$ -
16	Hawaii Water GO Allocation	$ -	$ -	$ -	$ -	$ -	$ -	$ -
17	Big Island Allocation	$ -	$ -	$ -	$ -	$ -	$ -	$ -
18	Wastewater Administration	$ -	$ -	$ -	$ -	$ -	$ -	$ -
19	Total	$ (6,801,874)	$ -	$ -	$ (6,801,874)	$ -	$ -	$ (6,801,874)

Application Filed December 2017
Exhibit WHSC 7.9
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Amortization of Contributions in Aid of Construction
Test Year Ending December 31, 2018

Line No.	Description	Amount Received	Estimated Useful Life	Acc. Amort. Balance as of Dec. 31, 2016	Amortization Jan. 1, 2017 to Dec. 31, 2017	Adjustment Jan. 1, 2017 to Dec. 31, 2017	Acc. Amort. Balance as of Dec. 31, 2017	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
5	Intangible	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	Land and land rights	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
7	Structures and Improvements	$ 3,972,674	3.33%	$ 432,849	$ 132,422	$ -	$ 565,272	$ 132,422	$ -	$ 697,694
8	Pumping Equipment	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
9	Treatment Equipment	$ 1,355,025	2.00%	$ 572,348	$ 27,100	$ -	$ 599,449	$ 27,100	$ -	$ 626,549
10	Transmission & Distribution Plant	$ 1,474,176	2.00%	$ 926,166	$ 29,484	$ -	$ 955,649	$ 29,484	$ -	$ 985,133
11	Source of Supply	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	Power Generation Equipment	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	Transportation	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
14	Tools and Laboratory Equipment	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
15	Global Settlement	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
16	Hawaii Water GO Allocation	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
17	Big Island Allocation	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
18	Wastewater Administration	$ -	0	$ -	$ -	$ -	$ -	$ -	$ -	$ -
19	Total	$ 6,801,874		$ 1,931,363	$ 189,006	$ -	$ 2,120,370	$ 189,006	$ -	$ 2,309,376

Application Filed December 2017
Exhibit WHSC 7.10
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer 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	$ -	$ -		$ -	$ -		$ -
6	Land and land rights	$ -	$ -		$ -	$ -		$ -
7	Structures and Improvements	$ 1,317,099	$ 228,179		$ 1,545,278	$ 228,179		$ 1,773,458
8	Pumping Equipment	$ 2,291	$ 327		$ 2,618	$ 327		$ 2,945
9	Treatment Equipment	$ 950,450	$ 77,250		$ 1,027,700	$ 80,072		$ 1,107,771
10	Transmission & Distribution Plant	$ 108,550	$ 28,285		$ 136,835	$ 28,285		$ 165,120
11	Source of Supply	$ 12,788	$ 2,455		$ 15,243	$ 2,455		$ 17,698
12	Power Generation Equipment	$ 51,770	$ 13,044		$ 64,814	$ 13,044		$ 77,859
13	Transportation	$ 282,092	$ 38,595		$ 320,687	$ 19,297		$ 339,984
14	Tools and Laboratory Equipment	$ 6,798	$ 4,598		$ 11,396	$ 5,766		$ 17,161
15	General Plant	$ 107,156	$ 1,677		$ 108,833	$ 2,002		$ 110,835
16	Hawaii Water GO Allocation	$ 36,088	$ 1,454		$ 37,542	$ 542		$ 38,084
17	Big Island Allocation	$ 148,820	$ 26,194		$ 175,014	$ 27,793		$ 202,808
18	Wastewater Administration	$ 164	$ 23		$ 187	$ 11		$ 199
19	Total	$ 3,024,067	$ 422,081	$ -	$ 3,446,148	$ 407,774	$ -	$ 3,853,922
20	Accumulated Book Depreciation	$ 3,199,697			$ 3,598,848			$ 4,001,932
21	ADIT Balance	$ 53,649			$ 45,980			$ 44,153

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
1	**103540**	**Structures & Improvement - Transmission & Distribution Plant**										
2		FENCING-VILLAGE STP	$ 3,796	3/31/1989	SL-25	25	$ -	$ -	$ -	$ 3,796	$ 3,796	$ 3,796
3		A-PLANT FENCING	$ 693	1/1/1999	SL-25	25	$ 28	$ 28	$ 28	$ 499	$ 527	$ 554
4		Sludge Dewatering Unit-Fence	$ 1,353	5/15/2000	SL-25	25	$ 54	$ 54	$ 54	$ 920	$ 974	$ 1,028
5		A/Plant Trailer	$ 29,221	12/31/2004	SL-25	25	$ 1,169	$ 1,169	$ 1,169	$ 15,195	$ 16,364	$ 17,533
6		A/Plant Reuse System Phase III - Electrical I	$ 19,286	3/31/2004	SL-25	25	$ 771	$ 771	$ 771	$ 10,029	$ 10,800	$ 11,572
7		A-Plant Waterline Replacement	$ 16,949	2/7/2003	SL-25	25	$ 678	$ 678	$ 678	$ 9,492	$ 10,170	$ 10,848
8		Sludge Dewatering Unit-Pad	$ 15,185	4/12/2000	SL-25	25	$ 607	$ 607	$ 607	$ 10,326	$ 10,933	$ 11,540
9		K-PLANT ACCESS ROAD IMPROVEMENT	$ 23,876	12/31/2000	SL-25	25	$ 955	$ 955	$ 955	$ 16,236	$ 17,191	$ 18,146
10		A/Plant Resue System Phase III - Pump & Pipin	$ 6,792	3/31/2004	SL-25	25	$ 272	$ 272	$ 272	$ 3,532	$ 3,804	$ 4,075
11		A/Plant Aeration Piping Upgrade - Programming	$ 3,160	4/30/2004	SL-25	25	$ 126	$ 126	$ 126	$ 1,643	$ 1,770	$ 1,895
12		K-PLANT POTABLE WATER SUPPLY	$ 9,616	12/31/2000	SL-25	25	$ 385	$ 385	$ 385	$ 6,539	$ 6,924	$ 7,309
13		A/Plant Aeration Piping Upgrade - Piping	$ 18,126	4/30/2004	SL-25	25	$ 725	$ 725	$ 725	$ 9,426	$ 10,151	$ 10,876
14		2 Reinforced Concrete MBBR Tanks	$ 2,551,115	9/1/2010	SL-25	25	$ 102,045	$ 102,045	$ 102,045	$ 714,312	$ 816,357	$ 918,401
15		2 Steel Digester Tanks	$ 515,910	9/1/2010	SL-25	25	$ 20,636	$ 20,636	$ 20,636	$ 144,455	$ 165,091	$ 185,728
16		Buildings and Decks	$ 1,453,052	9/1/2010	SL-25	25	$ 58,122	$ 58,122	$ 58,122	$ 406,855	$ 464,977	$ 523,099
17		K Plant Dewatering Tank Slab	$ 28,440	12/1/2013	SL-25	25	$ 1,138	$ 1,138	$ 1,138	$ 4,550	$ 5,688	$ 6,826
18		K Plant Treatment Facility	$ 1,061,837	12/1/2013	SL-25	25	$ 42,473	$ 42,473	$ 42,473	$ 169,894	$ 212,367	$ 254,841
19		K Plant Electrical Work	$ 121,896	12/1/2013	SL-25	25	$ 4,876	$ 4,876	$ 4,876	$ 19,503	$ 24,379	$ 29,255
20		K Plant Inlet Screen	$ 11,208	12/1/2013	SL-25	25	$ 448	$ 448	$ 448	$ 1,793	$ 2,242	$ 2,690
21		K Plant Sitework	$ 296,301	12/1/2013	SL-25	25	$ 11,852	$ 11,852	$ 11,852	$ 47,408	$ 59,260	$ 71,112
22		K Plant Design & Eng	$ 2,559,773	12/1/2013	SL-25	25	$ 102,391	$ 102,391	$ 102,391	$ 409,564	$ 511,955	$ 614,346
23		K Plant Control Bldg	$ 9,198	12/1/2013	SL-25	25	$ 368	$ 368	$ 368	$ 1,472	$ 1,840	$ 2,208
24		Emergency Shower-APlant	$ 3,608	3/1/2015	SL-25	25	$ 144	$ 144	$ 144	$ 289	$ 433	$ 577
25		A-Plant curb 6"x6"	$ 4,080	9/1/2016	SL-25	25	$ 163	$ 163	$ 163	$ 163	$ 326	$ 490
26		K-Plant DAF curb 6"x6"	$ 3,042	9/1/2016	SL-25	25	$ 122	$ 122	$ 122	$ 122	$ 243	$ 365
27		K-Plant slab&curb 4'5"x6'	$ 1,981	9/1/2016	SL-25	25	$ 79	$ 79	$ 79	$ 79	$ 158	$ 238
28		K-Plant slab&curb 4'5"x6'	$ 1,981	9/1/2016	SL-25	25	$ 79	$ 79	$ 79	$ 79	$ 158	$ 238
29		KPlant Design-Brown&Caldwell	$ 169,545	10/1/2014	SL-25	25	$ 6,782	$ 6,782	$ 6,782	$ 20,345	$ 27,127	$ 33,909
30		KPlant Construction	$ 130,578	10/1/2014	SL-25	25	$ 5,223	$ 5,223	$ 5,223	$ 15,669	$ 20,892	$ 26,116
31		KPlant Project Mgt-Yarne&Assoc	$ 381,106	10/1/2014	SL-25	25	$ 15,244	$ 15,244	$ 15,244	$ 45,733	$ 60,977	$ 76,221
32		KPlant Headworks Access	$ 39,678	10/1/2014	SL-25	25	$ 1,587	$ 1,587	$ 1,587	$ 4,761	$ 6,348	$ 7,936
33		KPlant Construction	$ 72,505	10/1/2014	SL-25	25	$ 2,900	$ 2,900	$ 2,900	$ 8,701	$ 11,601	$ 14,501
34		KPlant Paddle Guards	$ 4,344	10/1/2014	SL-25	25	$ 174	$ 174	$ 174	$ 521	$ 695	$ 869
35		APlant road repave, 5000 sq. ft.	$ 25,667	5/1/2017	SL-25	25	$ -	$ 1,027	$ 1,027	$ -	$ 1,027	$ 2,053
36		A-Plant Security Cameras	$ 10,010	10/31/2017	SL-25	25	$ -	$ 400	$ 400	$ -	$ 400	$ 801
37		K-Plant Security Cameras	$ 10,010	10/31/2017	SL-25	25	$ -	$ 400	$ 400	$ -	$ 400	$ 801
38		A-Plant Effluent Pits Fence	$ 66,037	12/31/2017	SL-25	25	$ -	$ 2,641	$ 2,641	$ -	$ 2,641	$ 5,283
39		Total	$ 9,680,954				$ 382,617	$ 387,086	$ 387,086	$ 2,103,900	$ 2,490,986	$ 2,878,073
40	**103701**	**Pumping Equipment**										
41		Sludge Feed Pump-Aplant	$ 8,181	12/1/2014	SL-25	25	$ 327	$ 327	$ 327	$ 2,291	$ 2,618	$ 2,945
42		Total	$ 8,181				$ 327	$ 327	$ 327	$ 2,291	$ 2,618	$ 2,945
43	**103801**	**Treatment & Disposal Equipment**										
44		A-PLANT ABJ EQUIPMENT	$ 162,449	1/1/1999	SL-25	25	$ 6,498	$ 6,498	$ 6,498	$ 116,963	$ 123,461	$ 129,959
45		A-PLANT TANK-INFRASTRUCTURE	$ 7,885	1/1/1999	SL-25	25	$ 315	$ 315	$ 315	$ 5,677	$ 5,993	$ 6,308
46		COMPOSITE SAMPLER-K PLANT	$ 4,685	4/12/2000	SL-25	25	$ 187	$ 187	$ 187	$ 3,185	$ 3,373	$ 3,560
47		200 GALLON SKID SPRAYER	$ 2,860	7/5/2001	SL-25	25	$ 114	$ 114	$ 114	$ 1,831	$ 1,945	$ 2,060
48		Aqua-Jet Aerator	$ 6,918	5/1/2003	SL-25	25	$ 277	$ 277	$ 277	$ 3,874	$ 4,151	$ 4,427

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
49		Lister Hawkpower Diesel Generator	$ 1,500	12/31/2007	SL-25	25	$ 60	$ 60	$ 60	$ 600	$ 660	$ 720
50		VILLAGE STP EXPANSION	$ 502,179	8/1/1990	SL-25	25	$ -	$ -	$ -	$ 502,179	$ 502,179	$ 502,179
51		KAMAKOA WRP EXPANSION-LAGOON	$ -	9/1/1994	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
52		K-Plant composite sampler	$ 7,208	9/30/1995	SL-25	25	$ 288	$ 288	$ 288	$ 6,343	$ 6,631	$ 6,920
53		K-PLANT UPGRADE CHLORINE FEEDER	$ -	7/1/1997	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
54		A-PLANT UNDERGROUND PIPING	$ 14,021	1/1/1999	SL-25	25	$ 561	$ 561	$ 561	$ 10,095	$ 10,656	$ 11,216
55		K-PLANT ELECTRIC SAMPLER & MTR	$ 9,128	7/1/1997	SL-25	25	$ 365	$ 365	$ 365	$ 7,302	$ 7,667	$ 8,032
56		KAMAKOA STP	$ 476,936	4/30/1992	SL-25	25	$ 19,077	$ -	$ -	$ 476,936	$ 476,936	$ 476,936
57		UTILITY PLANT DONATED	$ 1,319	10/31/1978	SL-25	25	$ -	$ -	$ -	$ 1,319	$ 1,319	$ 1,319
58		TREATMENT PLANT-ORIGINAL	$ 27,009	1/1/1974	SL-25	25	$ -	$ -	$ -	$ 27,009	$ 27,009	$ 27,009
59		VILLAGE STP-EXPANSION PHASE II	$ 261,932	3/1/1992	SL-25	25	$ 10,477	$ -	$ -	$ 261,932	$ 261,932	$ 261,932
60		ADDITIONAL VILLAGE STP	$ 9,319	1/1/1993	SL-25	25	$ 373	$ 373	$ -	$ 8,947	$ 9,319	$ 9,319
61		K-Plant 12" Valve/labor	$ 2,051	1/1/1995	SL-25	25	$ 82	$ 82	$ 82	$ 1,805	$ 1,887	$ 1,969
62		Kamakoe WRP expansion - addt'l	$ -	1/1/1995	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
63		K-plant baffle	$ -	1/1/1996	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
64		K-PLANT RECIRCULATION PUMP	$ -	7/1/1997	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
65		A-PLANT TANK STRUCTURE	$ 207,435	1/1/1999	SL-25	25	$ 8,297	$ 8,297	$ 8,297	$ 149,353	$ 157,650	$ 165,948
66		A-PLANT BLOWER NO.3	$ 42,731	2/17/1999	SL-25	25	$ 1,709	$ 1,709	$ 1,709	$ 30,766	$ 32,475	$ 34,185
67		A-PLANT ELECTRICAL	$ 36,593	5/28/1999	SL-25	25	$ 1,464	$ 1,464	$ 1,464	$ 26,347	$ 27,810	$ 29,274
68		PALLET LIFTER	$ 2,080	1/25/2000	SL-25	25	$ 83	$ 83	$ 83	$ 1,414	$ 1,498	$ 1,581
69		Sludge Dewatering Unit-Elect	$ 1,040	4/12/2000	SL-25	25	$ 42	$ 42	$ 42	$ 707	$ 749	$ 790
70		A-Plant Effluent Reuse System - Pump & Piping	$ 17,492	2/25/2002	SL-25	25	$ 700	$ 700	$ 700	$ 10,495	$ 11,195	$ 11,895
71		A-Plant Effluent Reuse System - Electrical Ch	$ 11,772	2/25/2002	SL-25	25	$ 471	$ 471	$ 471	$ 7,063	$ 7,534	$ 8,005
72		A-Plant Reuse Syst Phill-Piping	$ 23,508	8/31/2008	SL-25	25	$ 940	$ 940	$ 940	$ 8,462	$ 9,403	$ 10,343
73		(1) Aqua-Jet Aerator	$ 4,537	4/16/2004	SL-25	25	$ 181	$ 181	$ 181	$ 2,359	$ 2,541	$ 2,722
74		K-PLANT CONTREAT TANK CONVERSION	$ 1,135	7/1/1997	SL-25	25	$ 45	$ 45	$ 45	$ 908	$ 953	$ 999
75		K-PLANT CHLORINE CONTACT BASIN	$ 8,003	7/1/1997	SL-25	25	$ 320	$ 320	$ 320	$ 6,402	$ 6,722	$ 7,042
76		A-Plant Effluent Reuse System - Concrete Pump	$ 3,182	2/25/2002	SL-25	25	$ 127	$ 127	$ 127	$ 1,909	$ 2,036	$ 2,163
77		K-PLANT REBUILD GENERATOR	$ 44,012	7/1/1997	SL-25	25	$ 1,760	$ 1,760	$ 1,760	$ 35,209	$ 36,970	$ 38,730
78		KAMAKOA WRP EXPANSION-ADDITIONAL	$ -	10/1/1994	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
79		Marathon Magnamite Generator	$ 10,689	2/1/2001	SL-25	25	$ 428	$ 428	$ 428	$ 6,841	$ 7,269	$ 7,696
80		SHELTER FOR ISCO SAMPLER	$ 2,005	12/31/1981	SL-25	25	$ -	$ -	$ -	$ 2,005	$ 2,005	$ 2,005
81		VILLAGE STP-ELECTRICAL	$ 2,418	12/31/1992	SL-25	25	$ 97	$ -	$ -	$ 2,418	$ 2,418	$ 2,418
82		Blower System	$ 164,154	9/1/2010	SL-25	25	$ 6,566	$ 6,566	$ 6,566	$ 45,963	$ 52,529	$ 59,096
83		Electrical Controls	$ 560,489	9/1/2010	SL-25	25	$ 22,420	$ 22,420	$ 22,420	$ 156,937	$ 179,356	$ 201,776
84		Sludge Dewatering System	$ 1,130,023	9/1/2010	SL-25	25	$ 45,201	$ 45,201	$ 45,201	$ 316,406	$ 361,607	$ 406,808
85		K Plant Flocculant Sys Design Work	$ 7,034	12/1/2013	SL-25	25	$ 281	$ 281	$ 281	$ 1,126	$ 1,407	$ 1,688
86		Replacement Sludge Gate Actuator	$ 2,420	12/1/2013	SL-25	25	$ 97	$ 97	$ 97	$ 387	$ 484	$ 581
87		Gearboxes - APlant	$ 1,532	12/1/2014	SL-25	25	$ 61	$ 61	$ 61	$ 184	$ 245	$ 306
88		APlant emergency stop button	$ 1,146	12/1/2014	SL-25	25	$ 46	$ 46	$ 46	$ 138	$ 183	$ 229
89		A-Plant air compressor	$ 2,633	3/1/2016	SL-25	25	$ 105	$ 105	$ 105	$ 105	$ 211	$ 316
90		2" valves for A-Plant digester blower	$ 4,877	11/1/2016	SL-25	25	$ 195	$ 195	$ 195	$ 195	$ 390	$ 585
91		A-Plant flow meter controls	$ 2,021	11/1/2016	SL-25	25	$ 81	$ 81	$ 81	$ 81	$ 162	$ 242
92		A-plant pH sensors	$ 16,836	12/1/2016	SL-25	25	$ 673	$ 673	$ 673	$ 673	$ 1,347	$ 2,020
93		K-Plant Screw Press Design	$ -	12/31/2017	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
94		KPlant absorption bed#2 design	$ 4,284	10/31/2017	SL-25	25	$ -	$ 171	$ 171	$ -	$ 171	$ 343
95		Aplant Pneumatic Gate Valves	$ 18,530	10/31/2017	SL-25	25	$ -	$ 741	$ 741	$ -	$ 741	$ 1,482
96		Kplant Level Transducers	$ 1,136	10/31/2017	SL-25	25	$ -	$ 45	$ 45	$ -	$ 45	$ 91
97		K-Plant Headworks	$ 38,830	7/1/2018	SL-25	25	$ -	$ -	$ 1,553	$ -	$ -	$ 1,553
98		A-Plant Headworks	$ 16,154	7/1/2018	SL-25	25	$ -	$ -	$ 646	$ -	$ -	$ 646
99		A-Plant Centrifuge Motor	$ 3,214	7/1/2018	SL-25	25	$ -	$ -	$ 129	$ -	$ -	$ 129
100		Total	$ 3,891,341				$ 131,067	$ 102,374	$ 104,329	$ 2,250,852	$ 2,353,226	$ 2,457,555

Line No.	Utility Account	Property Description		Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
101	**103600**	**Collection Sewers Force**											
102		SEWER LINES(DEDICATED)SCHULER		$ 147,285	5/14/1993	SL-25	25	$ 5,891	$ 5,891	$ -	$ 141,394	$ 147,285	$ 147,285
103		SWR LINES (DEDICTD) KEK I&II		$ 34,888	4/4/1996	SL-25	25	$ 1,396	$ 1,396	$ 1,396	$ 29,306	$ 30,701	$ 32,097
104		SWR LINES (DEDICATED) KEKUMU III		$ 75,132	1/1/1997	SL-25	25	$ 3,005	$ 3,005	$ 3,005	$ 60,106	$ 63,111	$ 66,116
105			Total	$ 257,305				$ 10,292	$ 10,292	$ 4,401	$ 230,805	$ 241,097	$ 245,498
106	**103610**	**Collection Sewers Gravity**											
107		Castle&Cooke DedicSwrLines-Kikaha@Wehilani		$ 344,985	1/1/2008	SL-25	25	$ 13,799	$ 13,799	$ 13,799	$ 124,195	$ 137,994	$ 151,793
108		SEWER TRANSMISSION LINE		$ 871,886	1/1/1974	SL-25	25	$ -	$ -	$ -	$ 871,886	$ 871,886	$ 871,886
109		K Plant Water Lines		$ 8,400	12/1/2013	SL-25	25	$ 336	$ 336	$ 336	$ 1,344	$ 1,680	$ 2,016
110		K Plant SCH80 Sump Filtrate Piping		$ 14,120	12/1/2013	SL-25	25	$ 565	$ 565	$ 565	$ 2,259	$ 2,824	$ 3,389
111		K Plant Sewer Lines		$ 99,540	12/1/2013	SL-25	25	$ 3,982	$ 3,982	$ 3,982	$ 15,926	$ 19,908	$ 23,890
112		K-plant 3' manhole riser		$ 2,589	3/1/2015	SL-25	25	$ 104	$ 104	$ 104	$ 207	$ 311	$ 414
113		Pua Melia 12' of 8" PVC sewer pipe		$ 55,728	6/1/2016	SL-25	25	$ 2,229	$ 2,229	$ 2,229	$ 2,229	$ 4,458	$ 6,687
114		P.V.C. - 8" [559]		$ 450	6/1/2016	SL-25	25	$ 18	$ 18	$ 18	$ 18	$ 36	$ 54
115			Total	$ 1,397,700				$ 21,033	$ 21,033	$ 21,033	$ 1,018,065	$ 1,039,097	$ 1,060,130
116	**103550**	**Power Generation Equipment**											
117		K Plant Emergency Generator		$ 315,912	12/1/2013	SL-25	25	$ 12,636	$ 12,636	$ 12,636	$ 50,546	$ 63,182	$ 75,819
118		Shindaiwa Generator Lease Buy-out		$ 10,200	2/1/2014	SL-25	25	$ 408	$ 408	$ 408	$ 1,224	$ 1,632	$ 2,040
119			Total	$ 326,112				$ 13,044	$ 13,044	$ 13,044	$ 51,770	$ 64,814	$ 77,859
120	**103700**	**Receiving Wells**											
121		Wet Well		$ 24,727	9/1/2010	SL-25	25	$ 989	$ 989	$ 989	$ 6,924	$ 7,913	$ 8,902
122			Total	$ 24,727				$ 989	$ 989	$ 989	$ 6,924	$ 7,913	$ 8,902
123	**103810**	**Plant Sewers**											
124		K Plant Effluent Sewer Manhole		$ 36,649	12/1/2013	SL-25	25	$ 1,466	$ 1,466	$ 1,466	$ 5,864	$ 7,330	$ 8,796
125			Total	$ 36,649				$ 1,466	$ 1,466	$ 1,466	$ 5,864	$ 7,330	$ 8,796
126	**103890**	**Other Equipment**											
127		SEWR LINES JETTER/WASHER EQP #177		$ 5,144	4/17/1996	SL-25	25	$ 206	$ 206	$ 206	$ 4,321	$ 4,527	$ 4,732
128		K Plant HELCO Primary Ducts		$ 420,498	12/1/2013	SL-25	25	$ 16,820	$ 16,820	$ 16,820	$ 67,280	$ 84,100	$ 100,920
129		K Plant NEMA 3R Equip.		$ 93,536	12/1/2013	SL-25	25	$ 3,741	$ 3,741	$ 3,741	$ 14,966	$ 18,707	$ 22,449
130		A-Plant 1.5" Water Line Replacement		$ 7,110	12/31/2017	SL-25	25	$ -	$ 284	$ 284	$ -	$ 284	$ 569
131			Total	$ 526,288				$ 20,767	$ 21,052	$ 21,052	$ 86,567	$ 107,618	$ 128,670
132	**103930**	**Tools, Shop, & Garage Equipment**											
133		A-Plant safety cabinet		$ 872	12/1/2016	MACRS 7	7	$ 125	$ 214	$ 153	$ 125	$ 338	$ 491
134			Total	$ 872				$ 125	$ 214	$ 153	$ 125	$ 338	$ 491
135	**103940**	**Laboratory Equipment**											
136		Ohaus MB25 Moisture Analyzer		$ 1,320	12/1/2014	MACRS 7	7	$ 231	$ 165	$ 118	$ 743	$ 908	$ 1,026
137		KPlant Refrigerated Sampler		$ 5,919	10/1/2014	MACRS 7	7	$ 1,035	$ 739	$ 529	$ 3,331	$ 4,070	$ 4,598

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138		Aplant PLC		$ 5,050	10/31/2017	MACRS 7	7	$ -	$ 722	$ 1,237	$ -	$ 722	$ 1,958
138			Total	$ 12,289				$ 1,266	$ 1,626	$ 1,883	$ 4,073	$ 5,699	$ 7,582
139	103950	**Power Operated Equipment**											
140		KPlant Shindaiwa Generator 70KVA		$ 19,531	10/1/2014	SL-25	25	$ 781	$ 781	$ 781	$ 2,344	$ 3,125	$ 3,906
141			Total	$ 19,531				$ 781	$ 781	$ 781	$ 2,344	$ 3,125	$ 3,906
142	103965	**Transportation Equipment**											
143		2006 Ford Ranger		$ 4,960	12/1/2011	MACRS 5	5	$ 286	$ -	$ -	$ 4,960	$ 4,960	$ 4,960
144		Jetting/Vacuum Truck/Pukalani		$ 328,447	7/1/2013	MACRS 5	5	$ 37,837	$ 37,837	$ 18,919	$ 271,691	$ 309,528	$ 328,447
145		Jetting/Vacuum Truck/Pukalani		$ 6,577	7/1/2013	MACRS 5	5	$ 758	$ 758	$ 379	$ 5,440	$ 6,198	$ 6,577
146			Total	$ 339,984				$ 38,880	$ 38,595	$ 19,297	$ 282,092	$ 320,687	$ 339,984
147	103975	**Stores Equipment**											
148		KPlant safety cabinets 42x49		$ 1,795	3/1/2016	MACRS 7	7	$ 257	$ 440	$ 314	$ 257	$ 696	$ 1,010
149		Kplant 20' Storage Container		$ 6,060	8/31/2017	MACRS 7	7	$ -	$ 866	$ 1,484	$ -	$ 866	$ 2,350
150		Kplant Shed		$ 4,698	11/30/2017	MACRS 7	7	$ -	$ 671	$ 1,151	$ -	$ 671	$ 1,822
151			Total	$ 12,553				$ 257	$ 1,977	$ 2,949	$ 257	$ 2,233	$ 5,182
152	103980	**General Plant**											
153		Shower/eye wash station		$ 818	1/25/1991	MACRS 7	7	$ -	$ -	$ -	$ 818	$ 818	$ 818
154		K-PLANT PORTABLE RESTROOM		$ 2,216	7/1/1997	MACRS 7	7	$ -	$ -	$ -	$ 2,216	$ 2,216	$ 2,216
155		PH METER		$ 281	3/3/1998	MACRS 7	7	$ -	$ -	$ -	$ 281	$ 281	$ 281
156		A-PLANT TELEMETRY SOFTWARE		$ 2,644	1/1/1999	MACRS 3	3	$ -	$ -	$ -	$ 2,644	$ 2,644	$ 2,644
157		Dell Computer		$ 290	7/6/2000	MACRS 5	5	$ -	$ -	$ -	$ 290	$ 290	$ 290
158		Base Yard Lunch Room Rennovations (WHSC Share		$ 3,356	3/31/2001	MACRS 5	5	$ -	$ -	$ -	$ 3,356	$ 3,356	$ 3,356
159		DO Meter		$ 849	4/29/2003	MACRS 7	7	$ -	$ -	$ -	$ 849	$ 849	$ 849
160		2 Baseyard Computers		$ 486	7/1/2002	MACRS 5	5	$ -	$ -	$ -	$ 486	$ 486	$ 486
161		Radial Saw		$ 257	4/3/2003	MACRS 7	7	$ -	$ -	$ -	$ 257	$ 257	$ 257
162		Software Windows Upgrade for Softwater Billin		$ 558	4/2/2004	MACRS 3	3	$ -	$ -	$ -	$ 558	$ 558	$ 558
163		Lexmark T630N Laser Printer		$ 306	12/31/2004	MACRS 5	5	$ -	$ -	$ -	$ 306	$ 306	$ 306
164		Spin Balancer (WHSC Share)		$ 749	9/20/2006	MACRS 7	7	$ -	$ -	$ -	$ 749	$ 749	$ 749
165		Computer - Accounts Receivable Dept.		$ 352	2/19/2002	MACRS 5	5	$ -	$ -	$ -	$ 352	$ 352	$ 352
166		Portable Generator		$ 208	5/23/2002	SL-25	25	$ 8	$ 8	$ 8	$ 125	$ 133	$ 142
167		Band Saw		$ 524	7/1/2003	MACRS 7	7	$ -	$ -	$ -	$ 524	$ 524	$ 524
168		A/Plant Sludge Trailer		$ 2,117	8/12/2004	MACRS 7	7	$ -	$ -	$ -	$ 2,117	$ 2,117	$ 2,117
169		2-Way Radio		$ 250	4/22/2005	MACRS 7	7	$ -	$ -	$ -	$ 250	$ 250	$ 250
170		2000 Jeep buy-out lease 77512740510968		$ 1,666	1/1/2006	MACRS 5	5	$ -	$ -	$ -	$ 1,666	$ 1,666	$ 1,666
171		Dell Precision 390 Computer-Util Clerk-Acctng		$ 432	10/18/2007	MACRS 5	5	$ -	$ -	$ -	$ 432	$ 432	$ 432
172		Two (2) Dodge Dakota Pickup Trucks (WHSC Shar		$ 1,333	3/31/2001	MACRS 5	5	$ -	$ -	$ -	$ 1,333	$ 1,333	$ 1,333
173		Safety Cabinet		$ 226	7/3/2002	MACRS 7	7	$ -	$ -	$ -	$ 226	$ 226	$ 226
174		(2) Telemetry Field Computers		$ 890	4/15/2004	MACRS 5	5	$ -	$ -	$ -	$ 890	$ 890	$ 890
175		Tommy Lift Gate for Aplant Truck		$ 2,651	8/25/2006	MACRS 5	5	$ -	$ -	$ -	$ 2,651	$ 2,651	$ 2,651
176		Chlorine gas detector		$ 1,209	1/25/1991	MACRS 7	7	$ -	$ -	$ -	$ 1,209	$ 1,209	$ 1,209
177		PH METER		$ 281	3/3/1998	MACRS 7	7	$ -	$ -	$ -	$ 281	$ 281	$ 281
178		PENTIUM COMPUTERS (2) (1/3 SHARE)		$ 760	12/12/1998	MACRS 5	5	$ -	$ -	$ -	$ 760	$ 760	$ 760
179		SOFTWATER SECURITY FEATURES		$ 208	1/1/1999	MACRS 3	3	$ -	$ -	$ -	$ 208	$ 208	$ 208
180		NORSTAR PHONE SYSTEM-BASEYARD		$ 1,842	4/12/1999	MACRS 7	7	$ -	$ -	$ -	$ 1,842	$ 1,842	$ 1,842
181		TOOLBOXES-2000 CHEVY S10 TRUCKS (3)		$ 207	1/17/2000	MACRS 7	7	$ -	$ -	$ -	$ 207	$ 207	$ 207

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
182		Oil Containment Area	$ 1,733	1/1/2001	MACRS 7	7	$ -	$ -	$ -	$ 1,733	$ 1,733	$ 1,733
183		Copy Machine	$ 2,047	9/11/2001	MACRS 5	5	$ -	$ -	$ -	$ 2,047	$ 2,047	$ 2,047
184		2-Way Radio for Aplant Truck	$ 510	12/31/2006	MACRS 7	7	$ -	$ -	$ -	$ 510	$ 510	$ 510
185		Tire Changer	$ 989	8/8/2002	MACRS 7	7	$ -	$ -	$ -	$ 989	$ 989	$ 989
186		Baseyard Computer-Utility Operations Clerk	$ 335	2/19/2003	MACRS 5	5	$ -	$ -	$ -	$ 335	$ 335	$ 335
187		Telemetry Field Computer	$ 452	3/18/2004	MACRS 5	5	$ -	$ -	$ -	$ 452	$ 452	$ 452
188		Baseyard Library and File Storage Room Traile	$ 4,986	5/12/2004	MACRS 7	7	$ -	$ -	$ -	$ 4,986	$ 4,986	$ 4,986
189		(3) Chevy S10 Trucks-WHSC Share of Lease Buyo	$ 9,168	12/31/2004	MACRS 5	5	$ -	$ -	$ -	$ 9,168	$ 9,168	$ 9,168
190		Digital DO Meter	$ 851	7/25/2002	MACRS 7	7	$ -	$ -	$ -	$ 851	$ 851	$ 851
191		A/Plant-Drexelbrook Level Transmitter System	$ 2,001	12/29/2004	MACRS 7	7	$ -	$ -	$ -	$ 2,001	$ 2,001	$ 2,001
192		A-Plant Radio/Atenna	$ 716	2/20/2003	MACRS 7	7	$ -	$ -	$ -	$ 716	$ 716	$ 716
193		Wood Shop Storage Shed Repairs	$ 12,210	6/21/2003	MACRS 7	7	$ -	$ -	$ -	$ 12,210	$ 12,210	$ 12,210
194		HP 5500 Color Jet (Color Laser Printer)	$ 940	8/8/2003	MACRS 5	5	$ -	$ -	$ -	$ 940	$ 940	$ 940
195		Storage Container	$ 1,206	4/16/2004	MACRS 7	7	$ -	$ -	$ -	$ 1,206	$ 1,206	$ 1,206
196		Steel Flat File Drawers for New Trailer Offic	$ 587	6/30/2004	MACRS 7	7	$ -	$ -	$ -	$ 587	$ 587	$ 587
197		EPSON PRINTER & STAND (1/3 SHARE)	$ 668	12/10/1998	MACRS 5	5	$ -	$ -	$ -	$ 668	$ 668	$ 668
198		Utility Baseyard Locker Room Addition (WHSC S	$ 15,132	5/2/2005	MACRS 7	7	$ -	$ -	$ -	$ 15,132	$ 15,132	$ 15,132
199		2-Way Radio for 2006 Chevy Silverado	$ 372	11/8/2005	MACRS 7	7	$ -	$ -	$ -	$ 372	$ 372	$ 372
200		Baseyard Storeroom Renovation (WHSC Share)	$ 3,003	6/15/2006	MACRS 7	7	$ -	$ -	$ -	$ 3,003	$ 3,003	$ 3,003
201		Composite Sampler	$ 5,413	3/12/2007	MACRS 7	7	$ -	$ -	$ -	$ 5,413	$ 5,413	$ 5,413
202		DO Meter	$ 885	3/11/2003	MACRS 7	7	$ -	$ -	$ -	$ 885	$ 885	$ 885
203		Baseyard Security Fencing	$ 18,996	3/16/2005	MACRS 15	15	$ 1,121	$ 1,123	$ 1,121	$ 15,070	$ 16,192	$ 17,313
204		Aplant Desktop	$ 1,364	12/31/2017	MACRS 5	5	$ -	$ 273	$ 436	$ -	$ 273	$ 709
205		Kplant Desktop	$ 1,365	12/31/2017	MACRS 5	5	$ -	$ 273	$ 437	$ -	$ 273	$ 710
206		Total	$ 113,894				$ 1,129	$ 1,677	$ 2,002	$ 107,156	$ 108,833	$ 110,835
207		**CONTRIBUTIONS IN AID OF CONSTRUCTION**										
208	**103540**	**Structures & Improvement - Transmission & Distribution Plant**										
209		17th Fairway Villas CIAC	$ (62,803)	9/1/2010	SL-25	25	$ (2,512)	$ (2,512)	$ (2,512)	$ (17,585)	$ (20,097)	$ (22,609)
210		Castle & Cooke Unit 102 CIAC	$ (88,498)	9/1/2010	SL-25	25	$ (3,540)	$ (3,540)	$ (3,540)	$ (24,780)	$ (28,319)	$ (31,859)
211		Makana Kai CIAC Castle & Cooke	$ (16,792)	9/1/2010	SL-25	25	$ (672)	$ (672)	$ (672)	$ (4,702)	$ (5,373)	$ (6,045)
212		Na Puu Nani Phase 1 CIAC Castle & Cooke	$ (125,606)	9/1/2010	SL-25	25	$ (5,024)	$ (5,024)	$ (5,024)	$ (35,170)	$ (40,194)	$ (45,218)
213		Na Puu Nani Phase 2 CIAC Castle & Cooke	$ (276,653)	9/1/2010	SL-25	25	$ (11,066)	$ (11,066)	$ (11,066)	$ (77,463)	$ (88,529)	$ (99,595)
214		Paniolo Gardens CIAC	$ (27,186)	9/1/2010	SL-25	25	$ (1,087)	$ (1,087)	$ (1,087)	$ (7,612)	$ (8,699)	$ (9,787)
215		Puu Melia St. CIAC	$ (106,343)	9/1/2010	SL-25	25	$ (4,254)	$ (4,254)	$ (4,254)	$ (29,776)	$ (34,030)	$ (38,284)
216		The Pointe At Waikoloa CIAC	$ (41,578)	9/1/2010	SL-25	25	$ (1,663)	$ (1,663)	$ (1,663)	$ (11,642)	$ (13,305)	$ (14,968)
217		COH WORKFORCE HOUSING PROJECT	$ (389,434)	10/1/2012	SL-25	25	$ (15,577)	$ (15,577)	$ (15,577)	$ (77,887)	$ (93,464)	$ (109,041)
218		WAIKOLOA HEIGHTS	$ (443,269)	10/1/2012	SL-25	25	$ (17,731)	$ (17,731)	$ (17,731)	$ (88,654)	$ (106,385)	$ (124,115)
219		WAIKOLOA HEIGHTS IMPUTED INTEREST - JANUARY 1994 TO DECEMBER 31, 2010	$ (710,256)	10/1/2012	SL-25	25	$ (28,410)	$ (28,410)	$ (28,410)	$ (142,051)	$ (170,461)	$ (198,872)
220		WAIKOLOA HIGHLANDS (FUTURE WATER CIAC)	$ (1,684,257)	5/1/2013	SL-25	25	$ (67,370)	$ (67,370)	$ (67,370)	$ (269,481)	$ (336,851)	$ (404,222)
221		Total	$ (3,972,674)				$ (158,907)	$ (158,907)	$ (158,907)	$ (786,801)	$ (945,708)	$ (1,104,615)
222	**103600**	**Collection Sewers Force**										
223		KE KUMU I & II-DEDICATED	$ (34,888)	4/1/1996	SL-25	25	$ (1,396)	$ (1,396)	$ (1,396)	$ (29,306)	$ (30,701)	$ (32,097)
224		KE KUMU III DEDICATED	$ (75,132)	1/1/1997	SL-25	25	$ (3,005)	$ (3,005)	$ (3,005)	$ (60,106)	$ (63,111)	$ (66,116)
225		PANIOLO ESTATES-DEDICATED	$ (147,285)	5/14/1993	SL-25	25	$ (5,891)	$ (5,891)	$ -	$ (141,394)	$ (147,285)	$ (147,285)
226		Total	$ (257,305)				$ (10,292)	$ (10,292)	$ (4,401)	$ (230,805)	$ (241,097)	$ (245,498)
227	**103610**	**Collection Sewers Gravity**										

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
228		SEWER LINES-ORIGINAL PLANT	$ (871,886)	1/1/1974	SL-25	25	$ -	$ -	$ -	$ (871,886)	$ (871,886)	$ (871,886)
229		Castle&Cooke DedicSwrLines-Kikaha@Wehilani	$ (344,985)	1/1/2008	SL-25	25	$ (13,799)	$ (13,799)	$ (13,799)	$ (124,195)	$ (137,994)	$ (151,793)
230		Total	$ (1,216,871)				$ (13,799)	$ (13,799)	$ (13,799)	$ (996,081)	$ (1,009,880)	$ (1,023,680)
231	103801	**Treatment & Disposal Equipment**										
232		FAIRWAY TERRACE FEES	$ (86,842)	1/1/1990	SL-25	25	$ -	$ -	$ -	$ (86,842)	$ (86,842)	$ (86,842)
233		ORIGINAL UTILITY PLANT	$ (1,319)	10/1/1978	SL-25	25	$ -	$ -	$ -	$ (1,319)	$ (1,319)	$ (1,319)
234		KE KUMU III FEES	$ (7,444)	1/1/1997	SL-25	25	$ (298)	$ (298)	$ (298)	$ (5,955)	$ (6,253)	$ (6,550)
235		WAIKOLOA HILLS FEES	$ (11,910)	1/1/1990	SL-25	25	$ -	$ -	$ -	$ (11,910)	$ (11,910)	$ (11,910)
236		STP A-PLANT-ORIGINAL	$ (27,009)	1/1/1974	SL-25	25	$ -	$ -	$ -	$ (27,009)	$ (27,009)	$ (27,009)
237		VILLAS	$ (11,600)	1/1/1979	SL-25	25	$ -	$ -	$ -	$ (11,600)	$ (11,600)	$ (11,600)
238		PANIOLO ESTATES PH-1 FEES	$ (43,917)	7/1/1992	SL-25	25	$ (1,757)	$ -	$ -	$ (43,917)	$ (43,917)	$ (43,917)
239		KE KUMU II FEES	$ (9,677)	10/1/1995	SL-25	25	$ (387)	$ (387)	$ (387)	$ (8,515)	$ (8,903)	$ (9,290)
240		PANIOLO CLUB	$ (4,466)	1/1/1980	SL-25	25	$ -	$ -	$ -	$ (4,466)	$ (4,466)	$ (4,466)
241		FIRE STATION FEES	$ (10,150)	11/1/1997	SL-25	25	$ (406)	$ (406)	$ (406)	$ (8,120)	$ (8,526)	$ (8,932)
242		US P.O.-APPLIED TO PLANT ABJ	$ (6,844)	6/18/1999	SL-25	25	$ (274)	$ (274)	$ (274)	$ (4,928)	$ (5,201)	$ (5,475)
243		WAIKOLOA GREENS FEES	$ (97,759)	8/1/1991	SL-25	25	$ -	$ -	$ -	$ (97,759)	$ (97,759)	$ (97,759)
244		WAIKOLOA FAIRWAYS FEES	$ (50,616)	12/1/1991	SL-25	25	$ -	$ -	$ -	$ (50,616)	$ (50,616)	$ (50,616)
245		VILLAGES @ WAIKOLOA ELIMA LANI FEES	$ (46,895)	1/1/1992	SL-25	25	$ (1,876)	$ -	$ -	$ (46,895)	$ (46,895)	$ (46,895)
246		REFRIGERATOR SHELTER-ORIGINAL PLANT	$ (2,005)	12/31/1981	SL-25	25	$ -	$ -	$ -	$ (2,005)	$ (2,005)	$ (2,005)
247		WAIKOLOA ELEMENTARY SCHOOL FEES	$ (97,232)	9/1/1994	SL-25	25	$ (3,889)	$ (3,889)	$ (3,889)	$ (89,453)	$ (93,343)	$ (97,232)
248		KE KUMU I FEES	$ (17,865)	9/1/1994	SL-25	25	$ (715)	$ (715)	$ (715)	$ (16,435)	$ (17,150)	$ (17,865)
249		SEWER TRANSMISSION LINE	$ (87,644)	1/1/1974	SL-25	25	$ -	$ -	$ -	$ (87,644)	$ (87,644)	$ (87,644)
250		PANIOLO CLUB	$ (53,158)	1/1/1980	SL-25	25	$ -	$ -	$ -	$ (53,158)	$ (53,158)	$ (53,158)
251		FIARWAY TERRACE	$ (7,290)	1/1/1990	SL-25	25	$ -	$ -	$ -	$ (7,290)	$ (7,290)	$ (7,290)
252		WAIKOLOA HILLS	$ (48,416)	1/1/1990	SL-25	25	$ -	$ -	$ -	$ (48,416)	$ (48,416)	$ (48,416)
253		WAIKOLOA GREENS	$ (30,984)	8/1/1991	SL-25	25	$ -	$ -	$ -	$ (30,984)	$ (30,984)	$ (30,984)
254		WAIKOLOA FAIRWAYS	$ (28,705)	12/1/1991	SL-25	25	$ -	$ -	$ -	$ (28,705)	$ (28,705)	$ (28,705)
255		VILLAGES AT WAIKOLOA ELIMA LANI	$ (26,883)	1/1/1992	SL-25	25	$ (1,075)	$ -	$ -	$ (26,883)	$ (26,883)	$ (26,883)
256		PANIOLO ESTATES PH I	$ (59,518)	7/1/1992	SL-25	25	$ (2,381)	$ -	$ -	$ (59,518)	$ (59,518)	$ (59,518)
257		SEWER LINES (DEDCIATED) SCHULER	$ (21,654)	5/14/1993	SL-25	25	$ (866)	$ (866)	$ -	$ (20,788)	$ (21,654)	$ (21,654)
258		WAIKOLOA ELEMENTARY SCHOOL	$ (82,455)	9/1/1994	SL-25	25	$ (3,298)	$ (3,298)	$ (3,298)	$ (75,859)	$ (79,157)	$ (82,455)
259		KE KUMU I	$ (44,663)	9/1/1994	SL-25	25	$ (1,787)	$ (1,787)	$ (1,787)	$ (41,090)	$ (42,876)	$ (44,663)
260		KE KUMU II	$ (34,356)	10/1/1995	SL-25	25	$ (1,374)	$ (1,374)	$ (1,374)	$ (30,233)	$ (31,608)	$ (32,982)
261		WAIKOLOA HEIGHTS	$ (295,750)	1/1/1994	SL-25	25	$ (11,830)	$ (11,830)	$ (11,830)	$ (272,090)	$ (283,920)	$ (295,750)
262		Total	$ (1,355,025)				$ (32,212)	$ (25,124)	$ (24,257)	$ (1,300,402)	$ (1,325,526)	$ (1,349,783)
263	**HAWAII GENERAL OFFICE**											
264		790 Leasehold Improvements	$ 16,865	5/1/15	MACRS 7	7	$ 4,130	$ 2,950	$ 2,106	$ 6,540	$ 9,490	$ 11,596
265		desks, conf table, chairs	$ 3,060	3/1/10	MACRS 7	7	$ 273	$ 136	$ -	$ 2,924	$ 3,060	$ 3,060
266		2 Cubical Work Stations	$ 5,650	12/1/10	MACRS 7	7	$ 505	$ 252	$ -	$ 5,398	$ 5,650	$ 5,650
267		Cherry Desk	$ 855	12/1/10	MACRS 7	7	$ 76	$ 38	$ -	$ 817	$ 855	$ 855
268		Cherry Drawer	$ 71	12/1/10	MACRS 7	7	$ 6	$ 3	$ -	$ 67	$ 71	$ 71
269		Cherry Credenza	$ 509	12/1/10	MACRS 7	7	$ 45	$ 23	$ -	$ 487	$ 509	$ 509
270		Cherry Corner Unit	$ 404	12/1/10	MACRS 7	7	$ 36	$ 18	$ -	$ 386	$ 404	$ 404
271		Regency Library	$ 284	12/1/10	MACRS 7	7	$ 25	$ 13	$ -	$ 271	$ 284	$ 284
272		Chairs	$ 2,037	12/1/10	MACRS 7	7	$ 182	$ 91	$ -	$ 1,946	$ 2,037	$ 2,037
273		Cherry Desk Shell 66'	$ 429	12/1/10	MACRS 7	7	$ 38	$ 19	$ -	$ 410	$ 429	$ 429
274		24" x 71" Credenza Shells	$ 793	12/1/10	MACRS 7	7	$ 71	$ 35	$ -	$ 758	$ 793	$ 793

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
275		Cherry Keyboard Drawer	$ 71	12/1/10	MACRS 7	7	$ 6	$ 3	$ -	$ 67	$ 71	$ 71
276		Executive Chair	$ 391	12/1/10	MACRS 7	7	$ 35	$ 17	$ -	$ 374	$ 391	$ 391
277		Desk Pedestal F/F	$ 468	12/1/10	MACRS 7	7	$ 42	$ 21	$ -	$ 447	$ 468	$ 468
278		Cherry Shelf Unit	$ 308	12/1/10	MACRS 7	7	$ 27	$ 14	$ -	$ 294	$ 308	$ 308
279		Cherry Storage Hutch	$ 487	12/1/10	MACRS 7	7	$ 44	$ 22	$ -	$ 466	$ 487	$ 487
280		Cherry Credenza 66"	$ 333	12/1/10	MACRS 7	7	$ 30	$ 15	$ -	$ 319	$ 333	$ 333
281		Regency Desk	$ 709	12/1/10	MACRS 7	7	$ 63	$ 32	$ -	$ 678	$ 709	$ 709
282		2 Drawer Lateral File	$ 988	12/1/10	MACRS 7	7	$ 88	$ 44	$ -	$ 943	$ 988	$ 988
283		3, 42" 4 Drawer Lateral File Cabinets	$ 2,868	12/1/10	MACRS 7	7	$ 256	$ 128	$ -	$ 2,740	$ 2,868	$ 2,868
284		Cherry Desk Pedestal B/B/F	$ 513	12/1/10	MACRS 7	7	$ 46	$ 23	$ -	$ 490	$ 513	$ 513
285		Regency Lateral File	$ 567	12/1/10	MACRS 7	7	$ 51	$ 25	$ -	$ 542	$ 567	$ 567
286		Fireproof safe for Customer Service office.	$ 2,386	12/1/11	MACRS 7	7	$ 213	$ 213	$ 106	$ 2,067	$ 2,280	$ 2,386
287		Ricoh Aficio MP C3001	$ 3,044	5/1/15	MACRS 5	5	$ 974	$ 585	$ 351	$ 1,583	$ 2,168	$ 2,518
288		790 Office Furniture	$ 631	5/1/15	MACRS 7	7	$ 154	$ 110	$ 79	$ 245	$ 355	$ 434
289		Automated Electronic Defibrillators	$ 7,161	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 7,161	$ 7,161	$ 7,161
290		License for Capture Now	$ 237	12/1/10	MACRS 3	3	$ -	$ -	$ -	$ 237	$ 237	$ 237
291		Fujitsu Fi6140 scanner	$ 1,666	12/1/10	MACRS 5	5	$ 149	$ 74	$ -	$ 1,687	$ 1,761	$ 1,761
292		Ricoh MP 4001SP Copier w/Finisher	$ 10,686	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 10,686	$ 10,686	$ 10,686
293		Monitors	$ 1,207	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 1,207	$ 1,207	$ 1,207
294		Mitel EP Dig 6 Line Model 8560 Telephone	$ 8,102	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 8,102	$ 8,102	$ 8,102
295		ELECTRONICS [681]	$ 744	12/1/11	MACRS 5	5	$ 43	$ -	$ -	$ 744	$ 744	$ 744
296		8-way video conferencing system	$ 37,185	12/1/11	MACRS 5	5	$ 2,142	$ -	$ -	$ 37,185	$ 37,185	$ 37,185
297		Hewlett Packard laser printer	$ 1,111	12/1/11	MACRS 5	5	$ 64	$ -	$ -	$ 1,111	$ 1,111	$ 1,111
298		Desktop-HIWKLCS40	$ 807	12/1/14	MACRS 5	5	$ 155	$ 93	$ 93	$ 574	$ 667	$ 760
299		Desktop-HIWKLCS39	$ 807	12/1/14	MACRS 5	5	$ 155	$ 93	$ 93	$ 574	$ 667	$ 760
300		Desktop-HIWKLCS37	$ 807	12/1/14	MACRS 5	5	$ 155	$ 93	$ 93	$ 574	$ 667	$ 760
301		Desktop-HIWKLCS38	$ 807	12/1/14	MACRS 5	5	$ 155	$ 93	$ 93	$ 574	$ 667	$ 760
302		Desktop-HIWKCLS36	$ 807	12/1/14	MACRS 5	5	$ 155	$ 93	$ 93	$ 574	$ 667	$ 760
303		Desktop-HIWKLCS41	$ 807	12/1/14	MACRS 5	5	$ 155	$ 93	$ 93	$ 574	$ 667	$ 760
304		790 Server & Server room upgrade	$ 17,650	5/1/15	MACRS 5	5	$ 3,389	$ 2,033	$ 2,033	$ 12,567	$ 14,600	$ 16,633
305		Hawaii Business Unit Software	$ 132,361	12/1/10	MACRS 3	3	$ -	$ -	$ -	$ 132,361	$ 132,361	$ 132,361
306		RMS Software	$ 92,429	3/1/14	MACRS 3	3	$ 13,689	$ 6,849	$ -	$ 85,580	$ 92,429	$ 92,429
307		phone system with 8 phones	$ 24,859	3/1/10	MACRS 5	5	$ -	$ -	$ -	$ 24,859	$ 24,859	$ 24,859
308		Miscellaneous Kitchen Equipment	$ 981	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 981	$ 981	$ 981
309		*laptop for CS Mgr*	$ 1,496	4/1/14	MACRS 5	5	$ 287	$ 172	$ 172	$ 1,065	$ 1,238	$ 1,410
310		Total	$ 387,436				$ 28,110	$ 14,516	$ 5,405	$ 360,236	$ 374,752	$ 380,158
311		HAWAII GENERAL OFFICE ALLOCATIONS		%								
312		700 - Kaanapali	$ 84,174	21.73%			$ 6,107	$ 3,154	$ 1,174	$ 78,265	$ 81,419	$ 82,593
313		701 - Pukalani	$ 26,623	6.87%			$ 1,932	$ 997	$ 371	$ 24,754	$ 25,751	$ 26,123
314		721 - Waikoloa Water	$ 49,713	12.83%			$ 3,607	$ 1,863	$ 694	$ 46,223	$ 48,086	$ 48,780
315		722 - Waikoloa Sewer	$ 38,813	10.02%			$ 2,816	$ 1,454	$ 542	$ 36,088	$ 37,542	$ 38,084
316		723 - Waikoloa Resort Water	$ 51,423	13.27%			$ 3,731	$ 1,927	$ 717	$ 47,813	$ 49,739	$ 50,457
317		724 - Waikoloa Resort Sewer	$ 70,422	18.18%			$ 5,109	$ 2,639	$ 983	$ 65,478	$ 68,117	$ 69,099
318		725 - Waikoloa Resort Irrigation	$ 2,893	0.75%			$ 210	$ 108	$ 40	$ 2,689	$ 2,798	$ 2,838
319		726 - Kona Water	$ 40,900	10.56%			$ 2,967	$ 1,532	$ 571	$ 38,029	$ 39,562	$ 40,132
320		727 - Kona Sewer	$ 22,474	5.80%			$ 1,631	$ 842	$ 314	$ 20,897	$ 21,739	$ 22,052
321	**BIG ISLAND**											
322		(2)Replacement Op Computer Stations	$ 2,081	12/1/13	MACRS 5	5	$ 240	$ 240	$ 120	$ 1,721	$ 1,961	$ 2,081

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
323		Mobile office trailer	$ 23,867	12/1/11	MACRS 5	5	$ 1,375	$ -	$ -	$ 23,867	$ 23,867	$ 23,867
324		1996 Eagle Forklift	$ 22,871	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 22,871	$ 22,871	$ 22,871
325		20' Container Shelving-Baseyard	$ 931	6/1/15	SL-25	25	$ 37	$ 37	$ 37	$ 74	$ 112	$ 149
326		20' Container Shelving-EMT	$ 455	6/1/15	SL-25	25	$ 18	$ 18	$ 18	$ 36	$ 55	$ 73
327		20' Container-Baseyard	$ 10,373	6/1/15	SL-25	25	$ 415	$ 415	$ 415	$ 830	$ 1,245	$ 1,660
328		20' Container-EMT	$ 5,312	6/1/15	SL-25	25	$ 212	$ 212	$ 212	$ 425	$ 637	$ 850
329		Storage Contr	$ 3,187	12/1/10	SL-25	25	$ 127	$ 127	$ 127	$ 892	$ 1,020	$ 1,147
330		Nissan Frontier	$ 27,030	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 27,030	$ 27,030	$ 27,030
331		Nissan Titan	$ 35,679	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 35,679	$ 35,679	$ 35,679
332		FORD XCAB	$ 26,901	6/1/12	MACRS 5	5	$ 3,099	$ 1,549	$ -	$ 25,351	$ 26,901	$ 26,901
333		FORD XCAB	$ 26,395	6/1/12	MACRS 5	5	$ 3,041	$ 1,520	$ -	$ 24,875	$ 26,395	$ 26,395
334		Ford F-150	$ 30,500	9/1/12	MACRS 5	5	$ 3,514	$ 1,757	$ -	$ 28,743	$ 30,500	$ 30,500
335		Ford F-150	$ 30,500	9/1/12	MACRS 5	5	$ 3,514	$ 1,757	$ -	$ 28,743	$ 30,500	$ 30,500
336		Ford F-150	$ 30,500	9/1/12	MACRS 5	5	$ 3,514	$ 1,757	$ -	$ 28,743	$ 30,500	$ 30,500
337		FRONTIER	$ 25,350	6/1/12	MACRS 5	5	$ 2,920	$ 1,460	$ -	$ 23,890	$ 25,350	$ 25,350
338		Ford Explorer	$ 37,497	9/1/12	MACRS 5	5	$ 4,320	$ 2,160	$ -	$ 35,337	$ 37,497	$ 37,497
339		2014 Nissan Frontier. V214001	$ 35,122	4/1/14	MACRS 5	5	$ 6,743	$ 4,046	$ 4,046	$ 25,007	$ 29,053	$ 33,099
340		3 Ipad for Hawaii Island	$ 2,542	9/1/13	MACRS 5	5	$ 293	$ 293	$ 146	$ 2,103	$ 2,396	$ 2,542
341		Desk w Drawer	$ 959	9/1/12	MACRS 7	7	$ 86	$ 86	$ 86	$ 745	$ 831	$ 916
342		69"x43"x 18"	$ 1,311	9/1/12	MACRS 7	7	$ 117	$ 117	$ 117	$ 1,019	$ 1,135	$ 1,253
343		Diesel tank	$ 725	12/1/11	MACRS 7	7	$ 65	$ 65	$ 32	$ 628	$ 693	$ 725
344		GIS Software	$ 7,521	12/1/11	MACRS 5	5	$ 439	$ -	$ -	$ 7,621	$ 7,621	$ 7,621
345		Backflow Test Kit-Midwest 835	$ 1,202	8/1/15	MACRS 5	5	$ 385	$ 231	$ 138	$ 625	$ 856	$ 994
346		Big Island SCADA 2012	$ 495,319	10/1/14	MACRS 5	5	$ 95,101	$ 57,061	$ 57,061	$ 352,667	$ 409,728	$ 466,788
347		Book Case	$ 298	9/1/12	MACRS 7	7	$ 27	$ 27	$ 27	$ 231	$ 258	$ 284
348		Motorola Hardware	$ 4,401	6/1/12	MACRS 5	5	$ 507	$ 254	$ -	$ 4,148	$ 4,401	$ 4,401
349		Work Order Addition	$ 2,144	6/1/12	MACRS 5	5	$ 247	$ 124	$ -	$ 2,021	$ 2,144	$ 2,144
350		Misc. Wiring & Cables	$ 544	6/1/12	MACRS 5	5	$ 63	$ 31	$ -	$ 513	$ 544	$ 544
351		Work Order Addition	$ 747	6/1/12	MACRS 5	5	$ 86	$ 43	$ -	$ 704	$ 747	$ 747
352		1 desktops	$ 1,133	4/1/13	MACRS 5	5	$ 131	$ 131	$ 65	$ 937	$ 1,068	$ 1,133
353		1 desktops	$ 1,133	4/1/13	MACRS 5	5	$ 131	$ 131	$ 65	$ 937	$ 1,068	$ 1,133
354		Desktop-HIWKLOC56	$ 1,572	12/1/14	MACRS 5	5	$ 302	$ 181	$ 181	$ 1,119	$ 1,301	$ 1,482
355		Desktop-HIWKLOC57	$ 1,613	12/1/14	MACRS 5	5	$ 310	$ 186	$ 186	$ 1,148	$ 1,334	$ 1,520
356		dryer @ baseyard	$ 503	4/1/17	MACRS 5	5	$ -	$ 101	$ 161	$ -	$ 101	$ 261
357		Exec Chair	$ 351	9/1/12	MACRS 7	7	$ 31	$ 31	$ 31	$ 273	$ 304	$ 335
358		Work Order Addition	$ 51	9/1/13	MACRS 5	5	$ 6	$ 6	$ 3	$ 42	$ 48	$ 51
359		Work Order Addition	$ 182	9/1/12	MACRS 5	5	$ 21	$ 11	$ -	$ 172	$ 182	$ 182
360		Work Order Addition	$ 13,813	6/1/12	MACRS 5	5	$ 1,591	$ 796	$ -	$ 13,017	$ 13,813	$ 13,813
361		EMT Laptop	$ 4,509	3/1/14	MACRS 5	5	$ 866	$ 519	$ 519	$ 3,210	$ 3,730	$ 4,249
362		Hand Helds	$ 19,147	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 19,147	$ 19,147	$ 19,147
363		Desk Dock	$ 2,793	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 2,793	$ 2,793	$ 2,793
364		Personnel Lift	$ 5,844	6/1/12	MACRS 5	5	$ 673	$ 337	$ -	$ 5,507	$ 5,844	$ 5,844
365		Software	$ 2,995	9/1/12	MACRS 5	5	$ 345	$ 173	$ -	$ 2,822	$ 2,995	$ 2,995
366		Hardware	$ 8,824	9/1/12	MACRS 5	5	$ 1,017	$ 508	$ -	$ 8,316	$ 8,824	$ 8,824
367		Gradall lifting hook attachment	$ 2,427	12/1/14	MACRS 5	5	$ 486	$ 280	$ 280	$ 1,728	$ 2,008	$ 2,287
368		Forklift	$ 27,625	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 27,625	$ 27,625	$ 27,625
369		HON chair	$ 636	2/1/14	MACRS 7	7	$ 111	$ 79	$ 57	$ 358	$ 438	$ 494
370		Hydro Jetter	$ 5,941	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 5,941	$ 5,941	$ 5,941
371		Ice Maker-Manitowac ID-0452A	$ 4,536	9/1/16	MACRS 5	5	$ 907	$ 1,451	$ 871	$ 907	$ 2,359	$ 3,230
372		Ingersoll Needle/Chisel Scl	$ 773	9/1/13	MACRS 5	5	$ 89	$ 89	$ 45	$ 639	$ 728	$ 773
373		Internal labor	$ 21,402	7/1/13	MACRS 5	5	$ 2,465	$ 2,465	$ 1,233	$ 17,703	$ 20,169	$ 21,402
374		Knoll task chair	$ 13,806	2/1/14	MACRS 7	7	$ 2,415	$ 1,724	$ 1,233	$ 7,769	$ 9,493	$ 10,726
375		1 laptops	$ 1,165	4/1/13	MACRS 5	5	$ 134	$ 134	$ 67	$ 964	$ 1,098	$ 1,165

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
376		1 laptops	$ 1,165	4/1/13	MACRS 5	5	$ 134	$ 134	$ 67	$ 964	$ 1,098	$ 1,165
377		Laptop. EMT-HIWKOCLT02	$ 1,631	11/1/16	MACRS 5	5	$ 326	$ 522	$ 313	$ 326	$ 848	$ 1,161
378		Lateral File	$ 525	9/1/12	MACRS 5	5	$ 60	$ 30	$ -	$ 495	$ 525	$ 525
379		Work Order Addition	$ 1,447	12/1/11	MACRS 5	5	$ 83	$ -	$ -	$ 1,447	$ 1,447	$ 1,447
380		Work Order Addition	$ 4,571	12/1/11	MACRS 5	5	$ 263	$ -	$ -	$ 4,571	$ 4,571	$ 4,571
381		Work Order Addition	$ 16,749	6/1/11	MACRS 5	5	$ 965	$ -	$ -	$ 16,749	$ 16,749	$ 16,749
382		New IP phone system	$ 19,704	6/1/13	MACRS 5	5	$ 2,270	$ 2,270	$ 1,135	$ 16,299	$ 18,569	$ 19,704
383		New Hydraulic Hammer	$ 9,847	12/1/13	MACRS 5	5	$ 1,134	$ 1,134	$ 567	$ 8,145	$ 9,280	$ 9,847
384		Office Furnishings	$ 6,706	2/1/14	MACRS 7	7	$ 1,173	$ 838	$ 599	$ 3,773	$ 4,611	$ 5,210
385		Office furniture & equip	$ 4,134	9/1/12	MACRS 7	7	$ 369	$ 369	$ 369	$ 3,212	$ 3,581	$ 3,950
386		Work Order Addition	$ 47	9/1/12	MACRS 5	5	$ 5	$ 3	$ -	$ 45	$ 47	$ 47
387		Work Order Addition	$ 90	9/1/12	MACRS 5	5	$ 10	$ 5	$ -	$ 85	$ 90	$ 90
388		Portable generator 3500w, EMT's	$ 518	12/1/16	MACRS 5	5	$ 104	$ 166	$ 99	$ 104	$ 269	$ 369
389		Power Quality Analyzer	$ 8,416	3/1/15	MACRS 5	5	$ 2,693	$ 1,616	$ 970	$ 4,377	$ 5,993	$ 6,962
390		Printer Cart	$ 75	9/1/12	MACRS 5	5	$ 9	$ 4	$ -	$ 71	$ 75	$ 75
391		Projector-Dell 1610HD	$ 626	12/1/16	MACRS 5	5	$ 125	$ 200	$ 120	$ 125	$ 326	$ 446
392		Electrical Upgrade	$ 8,770	12/1/11	MACRS 5	5	$ 505	$ -	$ -	$ 8,770	$ 8,770	$ 8,770
393		Respirator supplied air system	$ 4,239	12/1/16	MACRS 5	5	$ 848	$ 1,356	$ 814	$ 848	$ 2,204	$ 3,018
394		Richo Copier	$ 10,588	11/1/11	MACRS 5	5	$ 610	$ -	$ -	$ 10,588	$ 10,588	$ 10,588
395		Richo Fax Module	$ 1,045	11/1/11	MACRS 5	5	$ 60	$ -	$ -	$ 1,045	$ 1,045	$ 1,045
396		RICOH MPC3004-Engineering office	$ 8,282	12/1/16	MACRS 5	5	$ 1,656	$ 2,650	$ 1,590	$ 1,656	$ 4,307	$ 5,897
397		Rplc computer w/laptop for Eng Mgr	$ 1,478	10/1/14	MACRS 5	5	$ 284	$ 170	$ 170	$ 1,053	$ 1,223	$ 1,393
398		SCADA iNET-II 900 Dual Gateway	$ 22,377	3/1/16	MACRS 5	5	$ 4,475	$ 7,161	$ 4,296	$ 4,475	$ 11,636	$ 15,932
399		SCADA radio data link	$ 53,201	5/1/17	MACRS 5	5	$ -	$ 10,640	$ 17,024	$ -	$ 10,640	$ 27,664
400		SCADA upgrade 2013	$ 64,775	3/1/16	MACRS 5	5	$ 12,955	$ 20,728	$ 12,437	$ 12,955	$ 33,683	$ 46,119
401		SCADAPack 32	$ 10,539	3/1/16	MACRS 5	5	$ 2,108	$ 3,372	$ 2,023	$ 2,108	$ 5,480	$ 7,503
402		Scaffolding	$ 4,771	3/1/16	MACRS 5	5	$ 954	$ 1,527	$ 916	$ 954	$ 2,481	$ 3,397
403		Work Order Addition	$ 15	12/1/11	MACRS 5	5	$ 1	$ -	$ -	$ 15	$ 15	$ 15
404		Tools & Equipment	$ 994	6/1/13	MACRS 5	5	$ 114	$ 114	$ 57	$ 822	$ 937	$ 994
405		Trailer. emergency compressor	$ 426	3/1/16	SL-25	25	$ 17	$ 17	$ 17	$ 17	$ 34	$ 51
406		Trailer. emergency generator EG6500	$ 2,073	3/1/16	SL-25	25	$ 83	$ 83	$ 83	$ 83	$ 166	$ 249
407		Trailer. emergency 6'x12' w/ramp	$ 7,800	3/1/16	SL-25	25	$ 312	$ 312	$ 312	$ 312	$ 624	$ 936
408		Work Order Addition	$ 58,793	9/1/12	MACRS 5	5	$ 6,773	$ 3,386	$ -	$ 55,406	$ 58,793	$ 58,793
409		V208214, Ford F-150	$ 6,817	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 6,817	$ 6,817	$ 6,817
410		V208216, Chevy Silverad	$ 9,017	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 9,017	$ 9,017	$ 9,017
411		V208217, Chevy 3500	$ 29,139	12/1/10	MACRS 5	5	$ -	$ -	$ -	$ 29,139	$ 29,139	$ 29,139
412		V208222, '08 TOY 4 RUNNER	$ 32,269	12/1/08	MACRS 5	5	$ -	$ -	$ -	$ 32,269	$ 32,269	$ 32,269
413		Visitor Chair	$ 169	9/1/12	MACRS 7	7	$ 15	$ 15	$ 15	$ 131	$ 146	$ 161
414		SCADA Report Writer System	$ 42,691	11/30/17	SL-25	25	$ -	$ 1,708	$ 1,708	$ -	$ 1,708	$ 3,415
415		Fuel Station	$ 183,000	8/31/17	SL-25	25	$ -	$ 7,320	$ 7,320	$ -	$ 7,320	$ 14,640
416		Base Yard Security Cameras	$ 10,014	10/31/17	MACRS 5	5	$ -	$ 2,003	$ 3,204	$ -	$ 2,003	$ 5,207
417		Big Island Radio Communication	$ 50,000	9/30/17	MACRS 5	5	$ -	$ 10,000	$ 16,000	$ -	$ 10,000	$ 26,000
418		EMT Service Truck	$ 77,492	9/30/17	MACRS 5	5	$ -	$ 15,498	$ 24,798	$ -	$ 15,498	$ 40,296
419		Handheld Meter Readers	$ 8,673	10/31/17	MACRS 5	5	$ -	$ 1,735	$ 2,775	$ -	$ 1,735	$ 4,510
420		EMT Service Truck Tools	$ 8,787	10/31/17	MACRS 5	5	$ -	$ 1,757	$ 2,812	$ -	$ 1,757	$ 4,569
421		Portable Air Compressor	$ 21,139	6/30/17	MACRS 5	5	$ -	$ 4,228	$ 6,764	$ -	$ 4,228	$ 10,992
422		Socket fusion & welding prep kit	$ 2,249	6/30/17	MACRS 5	5	$ -	$ 450	$ 720	$ -	$ 450	$ 1,169
423		Itron Handheld Meter Readers	$ 26,765	7/1/18	MACRS 5	5	$ -	$ -	$ 5,353	$ -	$ -	$ 5,353
424		2018 Toyota 4Runner 4x4	$ 42,925	7/1/18	MACRS 5	5	$ -	$ -	$ 8,585	$ -	$ -	$ 8,585
425		2018 Toyota Tacoma TRD 4x4	$ 40,602	7/1/18	MACRS 5	5	$ -	$ -	$ 8,120	$ -	$ -	$ 8,120
426		Total	$ 1,963,300				$ 184,009	$ 188,240	$ 199,734	$ 1,069,482	$ 1,257,723	$ 1,457,457

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
427		BIG ISLAND ALLOCATIONS										
428		721 - Waikoloa Water	$ 359,950	18.33%			$ 33,736	$ 34,512	$ 36,619	$ 196,078	$ 230,590	$ 267,209
429		722 - Waikoloa Sewer	$ 273,197	13.92%			$ 25,605	$ 26,194	$ 27,793	$ 148,820	$ 175,014	$ 202,808
430		723 - Waikoloa Resort Water	$ 375,703	19.14%			$ 35,213	$ 36,022	$ 38,222	$ 204,660	$ 240,682	$ 278,904
431		724 - Waikoloa Resort Sewer	$ 498,692	25.40%			$ 46,740	$ 47,814	$ 50,734	$ 271,656	$ 319,470	$ 370,204
432		725 - Waikoloa Resort Irrigation	$ 19,987	1.02%			$ 1,873	$ 1,916	$ 2,033	$ 10,888	$ 12,804	$ 14,837
433		726 - Kona Water	$ 282,599	14.39%			$ 26,486	$ 27,095	$ 28,750	$ 153,942	$ 181,038	$ 209,788
434		727 - Kona Sewer	$ 153,172	7.80%			$ 14,356	$ 14,686	$ 15,583	$ 83,438	$ 98,124	$ 113,707
435	**WASTEWATER ADMINISTRATION**											
436		IPad 3 - WW Mgr.	$ 810	9/1/2013	MACRS 5	5	$ 93	$ 93	$ 47	$ 670	$ 763	$ 810
437		Total	$ 810				$ 93	$ 93	$ 47	$ 670	$ 763	$ 810
438		WASTEWATER ADMINISTRATION ALLOCATIONS										
439		701 - Pukalani	$ 139	17.22%			$ 16	$ 16	$ 8	$ 115	$ 131	$ 139
440		722 - Waikoloa Sewer	$ 199	24.52%			$ 23	$ 23	$ 11	$ 164	$ 187	$ 199
441		724 - Waikoloa Resort Sewer	$ 366	45.16%			$ 42	$ 42	$ 21	$ 303	$ 345	$ 366
442		727 - Kona Sewer	$ 106	13.10%			$ 12	$ 12	$ 6	$ 88	$ 100	$ 106

Application Filed December 2017
Exhibit WHSC 7.12
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Accumulated Deferred Income Taxes - State
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	$ -	$ -		$ -	$ -		$ -
6	Land and land rights	$ -	$ -		$ -	$ -		$ -
7	Structures and Improvements	$ 1,264,415	$ 219,052		$ 1,483,467	$ 219,052		$ 1,702,519
8	Pumping Equipment	$ 2,199	$ 314		$ 2,513	$ 314		$ 2,827
9	Treatment Equipment	$ 912,432	$ 74,160		$ 986,592	$ 76,869		$ 1,063,461
10	Transmission & Distribution Plant	$ 104,208	$ 27,153		$ 131,362	$ 27,153		$ 158,515
11	Source of Supply	$ 12,276	$ 2,357		$ 14,633	$ 2,357		$ 16,990
12	Power Generation Equipment	$ 49,699	$ 12,523		$ 62,222	$ 12,523		$ 74,745
13	Transportation	$ 270,809	$ 37,051		$ 307,859	$ 18,525		$ 326,385
14	Tools and Laboratory Equipment	$ 6,526	$ 4,414		$ 10,940	$ 5,535		$ 16,475
15	General Plant	$ 102,870	$ 1,610		$ 104,480	$ 1,922		$ 106,402
16	Hawaii Water GO Allocation	$ 34,644	$ 1,396		$ 36,040	$ 520		$ 36,560
17	Big Island Allocation	$ 142,868	$ 25,321		$ 168,189	$ 26,961		$ 195,150
18	Wastewater Administration	$ 158	$ 22		$ 180	$ 11		$ 191
19	Total	$2,903,104	$405,373	$0	$3,308,477	$391,742	$0	$3,700,219
20	Accumulated Book Depreciation	$ 3,199,697			$3,598,848			$4,001,932
21	ADIT Balance	$17,840			$17,466			$18,148

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
1	**103540**	**Structures & Improvement - Transmission & Distribution Plant**										
2		FENCING-VILLAGE STP	$ 3,644	3/31/1989	SL-25	25	$ -	$ -	$ -	$ 3,644	$ 3,644	$ 3,644
3		A-PLANT FENCING	$ 665	1/1/1999	SL-25	25	$ 27	$ 27	$ 27	$ 479	$ 506	$ 532
4		Sludge Dewatering Unit-Fence	$ 1,299	5/15/2000	SL-25	25	$ 52	$ 52	$ 52	$ 883	$ 935	$ 987
5		A/Plant Trailer	$ 28,052	12/31/2004	SL-25	25	$ 1,122	$ 1,122	$ 1,122	$ 14,587	$ 15,709	$ 16,831
6		A/Plant Reuse System Phase III - Electrical I	$ 18,515	3/31/2004	SL-25	25	$ 741	$ 741	$ 741	$ 9,628	$ 10,368	$ 11,109
7		A-Plant Waterline Replacement	$ 16,271	2/7/2003	SL-25	25	$ 651	$ 651	$ 651	$ 9,112	$ 9,763	$ 10,414
8		Sludge Dewatering Unit-Pad	$ 14,577	4/12/2000	SL-25	25	$ 583	$ 583	$ 583	$ 9,913	$ 10,496	$ 11,079
9		K-PLANT ACCESS ROAD IMPROVEMENT	$ 22,921	12/31/2000	SL-25	25	$ 917	$ 917	$ 917	$ 15,586	$ 16,503	$ 17,420
10		A/Plant Resue System Phase III - Pump & Pipin	$ 6,520	3/31/2004	SL-25	25	$ 261	$ 261	$ 261	$ 3,391	$ 3,651	$ 3,912
11		A/Plant Aeration Piping Upgrade - Programming	$ 3,034	4/30/2004	SL-25	25	$ 121	$ 121	$ 121	$ 1,578	$ 1,699	$ 1,820
12		K-PLANT POTABLE WATER SUPPLY	$ 9,232	12/31/2000	SL-25	25	$ 369	$ 369	$ 369	$ 6,278	$ 6,647	$ 7,016
13		A/Plant Aeration Piping Upgrade - Piping	$ 17,401	4/30/2004	SL-25	25	$ 696	$ 696	$ 696	$ 9,049	$ 9,745	$ 10,441
14		2 Reinforced Concrete MBBR Tanks	$ 2,449,071	9/1/2010	SL-25	25	$ 97,963	$ 97,963	$ 97,963	$ 685,740	$ 783,703	$ 881,665
15		2 Steel Digester Tanks	$ 495,274	9/1/2010	SL-25	25	$ 19,811	$ 19,811	$ 19,811	$ 138,677	$ 158,488	$ 178,299
16		Buildings and Decks	$ 1,394,930	9/1/2010	SL-25	25	$ 55,797	$ 55,797	$ 55,797	$ 390,580	$ 446,378	$ 502,175
17		K Plant Dewatering Tank Slab	$ 27,302	12/1/2013	SL-25	25	$ 1,092	$ 1,092	$ 1,092	$ 4,368	$ 5,460	$ 6,553
18		K Plant Treatment Facility	$ 1,019,364	12/1/2013	SL-25	25	$ 40,775	$ 40,775	$ 40,775	$ 163,098	$ 203,873	$ 244,647
19		K Plant Electrical Work	$ 117,020	12/1/2013	SL-25	25	$ 4,681	$ 4,681	$ 4,681	$ 18,723	$ 23,404	$ 28,085
20		K Plant Inlet Screen	$ 10,760	12/1/2013	SL-25	25	$ 430	$ 430	$ 430	$ 1,722	$ 2,152	$ 2,582
21		K Plant Sitework	$ 284,449	12/1/2013	SL-25	25	$ 11,378	$ 11,378	$ 11,378	$ 45,512	$ 56,890	$ 68,268
22		K Plant Design & Eng	$ 2,457,383	12/1/2013	SL-25	25	$ 98,295	$ 98,295	$ 98,295	$ 393,181	$ 491,477	$ 589,772
23		K Plant Control Bldg	$ 8,830	12/1/2013	SL-25	25	$ 353	$ 353	$ 353	$ 1,413	$ 1,766	$ 2,119
24		Emergency Shower-APlant	$ 3,464	3/1/2015	SL-25	25	$ 139	$ 139	$ 139	$ 277	$ 416	$ 554
25		A-Plant curb 6"x6"	$ 3,917	9/1/2016	SL-25	25	$ 157	$ 157	$ 157	$ 157	$ 313	$ 470
26		K-Plant DAF curb 6'x6"	$ 2,921	9/1/2016	SL-25	25	$ 117	$ 117	$ 117	$ 117	$ 234	$ 350
27		K-Plant slab&curb 4'5"x6'	$ 1,902	9/1/2016	SL-25	25	$ 76	$ 76	$ 76	$ 76	$ 152	$ 228
28		K-Plant slab&curb 4'5"x6'	$ 1,902	9/1/2016	SL-25	25	$ 76	$ 76	$ 76	$ 76	$ 152	$ 228
29		KPlant Design-Brown&Caldwell	$ 162,764	10/1/2014	SL-25	25	$ 6,511	$ 6,511	$ 6,511	$ 19,532	$ 26,042	$ 32,553
30		KPlant Construction	$ 125,355	10/1/2014	SL-25	25	$ 5,014	$ 5,014	$ 5,014	$ 15,043	$ 20,057	$ 25,071
31		KPlant Project Mgt-Yarne&Assoc	$ 365,861	10/1/2014	SL-25	25	$ 14,634	$ 14,634	$ 14,634	$ 43,903	$ 58,538	$ 73,172
32		KPlant Headworks Access	$ 38,091	10/1/2014	SL-25	25	$ 1,524	$ 1,524	$ 1,524	$ 4,571	$ 6,095	$ 7,618
33		KPlant Construction	$ 69,604	10/1/2014	SL-25	25	$ 2,784	$ 2,784	$ 2,784	$ 8,353	$ 11,137	$ 13,921
34		KPlant Paddle Guards	$ 4,170	10/1/2014	SL-25	25	$ 167	$ 167	$ 167	$ 500	$ 667	$ 834
35		APlant road repave, 5000 sq. ft.	$ 24,641	5/1/2017	SL-25	25	$ -	$ 986	$ 986	$ -	$ 986	$ 1,971
36		A-Plant Security Cameras	$ 9,609	10/31/2017	SL-25	25	$ -	$ 384	$ 384	$ -	$ 384	$ 769
37		K-Plant Security Cameras	$ 9,609	10/31/2017	SL-25	25	$ -	$ 384	$ 384	$ -	$ 384	$ 769
38		A-Plant Effluent Pits Fence	$ 63,395	12/31/2017	SL-25	25	$ -	$ 2,536	$ 2,536	$ -	$ 2,536	$ 5,072
39		Total	$ 9,293,716				$ 367,313	$ 371,603	$ 371,603	$ 2,019,744	$ 2,391,347	$ 2,762,950
40	**103701**	**Pumping Equipment**										
41		Sludge Feed Pump-Aplant	$ 7,854	12/1/2014	SL-25	25	$ 314	$ 314	$ 314	$ 2,199	$ 2,513	$ 2,827
42		Total	$ 7,854				$ 314	$ 314	$ 314	$ 2,199	$ 2,513	$ 2,827
43	**103801**	**Treatment & Disposal Equipment**										
44		A-PLANT ABJ EQUIPMENT	$ 155,951	1/1/1999	SL-25	25	$ 6,238	$ 6,238	$ 6,238	$ 112,285	$ 118,523	$ 124,761
45		A-PLANT TANK-INFRASTRUCTURE	$ 7,569	1/1/1999	SL-25	25	$ 303	$ 303	$ 303	$ 5,450	$ 5,753	$ 6,056
46		COMPOSITE SAMPLER-K PLANT	$ 4,497	4/12/2000	SL-25	25	$ 180	$ 180	$ 180	$ 3,058	$ 3,238	$ 3,418
47		200 GALLON SKID SPRAYER	$ 2,746	7/5/2001	SL-25	25	$ 110	$ 110	$ 110	$ 1,757	$ 1,867	$ 1,977
48		Aqua-Jet Aerator	$ 6,641	5/1/2003	SL-25	25	$ 266	$ 266	$ 266	$ 3,719	$ 3,985	$ 4,250
49		Lister Hawkpower Diesel Generator	$ 1,440	12/31/2007	SL-25	25	$ 58	$ 58	$ 58	$ 576	$ 634	$ 691
50		VILLAGE STP EXPANSION	$ 482,092	8/1/1990	SL-25	25	$ -	$ -	$ -	$ 482,092	$ 482,092	$ 482,092
51		KAMAKOA WRP EXPANSION-LAGOON	$ -	9/1/1994	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
52		K-Plant composite sampler	$ 6,920	9/30/1995	SL-25	25	$ 277	$ 277	$ 277	$ 6,089	$ 6,366	$ 6,643
53		K-PLANT UPGRADE CHLORINE FEEDER	$ -	7/1/1997	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
54		A-PLANT UNDERGROUND PIPING	$ 13,460	1/1/1999	SL-25	25	$ 538	$ 538	$ 538	$ 9,691	$ 10,229	$ 10,768
55		K-PLANT ELECTRIC SAMPLER & MTR	$ 8,762	7/1/1997	SL-25	25	$ 350	$ 350	$ 350	$ 7,010	$ 7,360	$ 7,711
56		KAMAKOA STP	$ 457,859	4/30/1992	SL-25	25	$ 18,314	$ -	$ -	$ 457,859	$ 457,859	$ 457,859
57		UTILITY PLANT DONATED	$ 1,266	10/31/1978	SL-25	25	$ -	$ -	$ -	$ 1,266	$ 1,266	$ 1,266
58		TREATMENT PLANT-ORIGINAL	$ 25,928	1/1/1974	SL-25	25	$ -	$ -	$ -	$ 25,928	$ 25,928	$ 25,928
59		VILLAGE STP-EXPANSION PHASE II	$ 251,455	3/1/1992	SL-25	25	$ 10,058	$ -	$ -	$ 251,455	$ 251,455	$ 251,455
60		ADDITIONAL VILLAGE STP	$ 8,947	1/1/1993	SL-25	25	$ 358	$ 358	$ -	$ 8,589	$ 8,947	$ 8,947
61		K-Plant 12" Valve/labor	$ 1,969	1/1/1995	SL-25	25	$ 79	$ 79	$ 79	$ 1,733	$ 1,812	$ 1,891
62		Kamakoe WRP expansion - addt'l	$ -	1/1/1995	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
63		K-plant baffle	$ -	1/1/1996	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
64		K-PLANT RECIRCULATION PUMP	$ -	7/1/1997	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
65		A-PLANT TANK STRUCTURE	$ 199,137	1/1/1999	SL-25	25	$ 7,965	$ 7,965	$ 7,965	$ 143,379	$ 151,344	$ 159,310
66		A-PLANT BLOWER NO.3	$ 41,022	2/17/1999	SL-25	25	$ 1,641	$ 1,641	$ 1,641	$ 29,535	$ 31,176	$ 32,817
67		A-PLANT ELECTRICAL	$ 35,129	5/28/1999	SL-25	25	$ 1,405	$ 1,405	$ 1,405	$ 25,293	$ 26,698	$ 28,103
68		PALLET LIFTER	$ 1,997	1/25/2000	SL-25	25	$ 80	$ 80	$ 80	$ 1,358	$ 1,438	$ 1,518
69		Sludge Dewatering Unit-Elect	$ 998	4/12/2000	SL-25	25	$ 40	$ 40	$ 40	$ 679	$ 719	$ 759
70		A-Plant Effluent Reuse System - Pump & Piping	$ 16,792	2/25/2002	SL-25	25	$ 672	$ 672	$ 672	$ 10,075	$ 10,747	$ 11,419
71		A-Plant Effluent Reuse System - Electrical Ch	$ 11,301	2/25/2002	SL-25	25	$ 452	$ 452	$ 452	$ 6,781	$ 7,233	$ 7,685
72		A-Plant Reuse Syst PhIII-Piping	$ 22,566	8/31/2008	SL-25	25	$ 903	$ 903	$ 903	$ 8,124	$ 9,026	$ 9,929
73		(1) Aqua-Jet Aerator	$ 4,355	4/16/2004	SL-25	25	$ 174	$ 174	$ 174	$ 2,265	$ 2,439	$ 2,613
74		K-PLANT CONTREAT TANK CONVERSION	$ 1,090	7/1/1997	SL-25	25	$ 44	$ 44	$ 44	$ 872	$ 915	$ 959
75		K-PLANT CHLORINE CONTACT BASIN	$ 7,682	7/1/1997	SL-25	25	$ 307	$ 307	$ 307	$ 6,146	$ 6,453	$ 6,761
76		A-Plant Effluent Reuse System - Concrete Pump	$ 3,054	2/25/2002	SL-25	25	$ 122	$ 122	$ 122	$ 1,833	$ 1,955	$ 2,077
77		K-PLANT REBUILD GENERATOR	$ 42,251	7/1/1997	SL-25	25	$ 1,690	$ 1,690	$ 1,690	$ 33,801	$ 35,491	$ 37,181
78		KAMAKOA WRP EXPANSION-ADDITIONAL	$ -	10/1/1994	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
79		Marathon Magnamite Generator	$ 10,262	2/1/2001	SL-25	25	$ 410	$ 410	$ 410	$ 6,567	$ 6,978	$ 7,388
80		SHELTER FOR ISCO SAMPLER	$ 1,925	12/31/1981	SL-25	25	$ -	$ -	$ -	$ 1,925	$ 1,925	$ 1,925
81		VILLAGE STP-ELECTRICAL	$ 2,321	12/31/1992	SL-25	25	$ 93	$ -	$ -	$ 2,321	$ 2,321	$ 2,321
82		Blower System	$ 157,588	9/1/2010	SL-25	25	$ 6,304	$ 6,304	$ 6,304	$ 44,125	$ 50,428	$ 56,732
83		Electrical Controls	$ 538,069	9/1/2010	SL-25	25	$ 21,523	$ 21,523	$ 21,523	$ 150,659	$ 172,182	$ 193,705
84		Sludge Dewatering System	$ 1,084,822	9/1/2010	SL-25	25	$ 43,393	$ 43,393	$ 43,393	$ 303,750	$ 347,143	$ 390,536
85		K Plant Flocculant Sys Design Work	$ 6,753	12/1/2013	SL-25	25	$ 270	$ 270	$ 270	$ 1,080	$ 1,351	$ 1,621
86		Replacement Sludge Gate Actuator	$ 2,323	12/1/2013	SL-25	25	$ 93	$ 93	$ 93	$ 372	$ 465	$ 558
87		Gearboxes - APlant	$ 1,471	12/1/2014	SL-25	25	$ 59	$ 59	$ 59	$ 177	$ 235	$ 294
88		APlant emergency stop button	$ 1,100	12/1/2014	SL-25	25	$ 44	$ 44	$ 44	$ 132	$ 176	$ 220
89		A-Plant air compressor	$ 2,528	3/1/2016	SL-25	25	$ 101	$ 101	$ 101	$ 101	$ 202	$ 303
90		2" valves for A-Plant digester blower	$ 4,682	11/1/2016	SL-25	25	$ 187	$ 187	$ 187	$ 187	$ 375	$ 562
91		A-Plant flow meter controls	$ 1,940	11/1/2016	SL-25	25	$ 78	$ 78	$ 78	$ 78	$ 155	$ 233
92		A-plant pH sensors	$ 16,163	12/1/2016	SL-25	25	$ 647	$ 647	$ 647	$ 647	$ 1,293	$ 1,940
93		K-Plant Screw Press Design	$ -	12/31/2017	SL-25	25	$ -	$ -	$ -	$ -	$ -	$ -
94		KPlant absorption bed#2 design	$ 4,113	10/31/2017	SL-25	25	$ -	$ 165	$ 165	$ -	$ 165	$ 329
95		Aplant Pneumatic Gate Valves	$ 17,789	10/31/2017	SL-25	25	$ -	$ 712	$ 712	$ -	$ 712	$ 1,423
96		Kplant Level Transducers	$ 1,091	10/31/2017	SL-25	25	$ -	$ 44	$ 44	$ -	$ 44	$ 87
97		K-Plant Headworks	$ 37,277	7/1/2018	SL-25	25	$ -	$ -	$ 1,491	$ -	$ -	$ 1,491
98		A-Plant Headworks	$ 15,508	7/1/2018	SL-25	25	$ -	$ -	$ 620	$ -	$ -	$ 620
99		A-Plant Centrifuge Motor	$ 3,085	7/1/2018	SL-25	25	$ -	$ -	$ 123	$ -	$ -	$ 123
100		Total	$ 3,735,687				$ 125,825	$ 98,279	$ 100,156	$ 2,160,818	$ 2,259,097	$ 2,359,253
101	**103600**	**Collection Sewers Force**										
102		SEWER LINES(DEDICATED)SCHULER	$ 141,394	5/14/1993	SL-25	25	$ 5,656	$ 5,656	$ -	$ 135,738	$ 141,394	$ 141,394
103		SWR LINES (DEDICTD) KEK I&II	$ 33,492	4/4/1996	SL-25	25	$ 1,340	$ 1,340	$ 1,340	$ 28,133	$ 29,473	$ 30,813
104		SWR LINES (DEDICATED) KEKUMU III	$ 72,127	1/1/1997	SL-25	25	$ 2,885	$ 2,885	$ 2,885	$ 57,701	$ 60,586	$ 63,472

Line No.	Utility Account	Property Description		Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	2017	2018	Accumulated Depreciation 2016	2017	2018
105			Total	$ 247,012				$ 9,880	$ 9,880	$ 4,225	$ 221,573	$ 231,453	$ 235,678
106	**103610**	**Collection Sewers Gravity**											
107		Castle&Cooke DedicSwrLines-Kikaha@Wehilani		$ 331,186	1/1/2008	SL-25	25	$ 13,247	$ 13,247	$ 13,247	$ 119,227	$ 132,474	$ 145,722
108		SEWER TRANSMISSION LINE		$ 837,011	1/1/1974	SL-25	25	$ -	$ -	$ -	$ 837,011	$ 837,011	$ 837,011
109		K Plant Water Lines		$ 8,064	12/1/2013	SL-25	25	$ 323	$ 323	$ 323	$ 1,290	$ 1,613	$ 1,935
110		K Plant SCH80 Sump Filtrate Piping		$ 13,556	12/1/2013	SL-25	25	$ 542	$ 542	$ 542	$ 2,169	$ 2,711	$ 3,253
111		K Plant Sewer Lines		$ 95,558	12/1/2013	SL-25	25	$ 3,822	$ 3,822	$ 3,822	$ 15,289	$ 19,112	$ 22,934
112		K-plant 3' manhole riser		$ 2,486	3/1/2015	SL-25	25	$ 99	$ 99	$ 99	$ 199	$ 298	$ 398
113		Pua Melia 12' of 8" PVC sewer pipe		$ 53,499	6/1/2016	SL-25	25	$ 2,140	$ 2,140	$ 2,140	$ 2,140	$ 4,280	$ 6,420
114		P.V.C. - 8" [559]		$ 432	6/1/2016	SL-25	25	$ 17	$ 17	$ 17	$ 17	$ 35	$ 52
115			Total	$ 1,341,792				$ 20,191	$ 20,191	$ 20,191	$ 977,342	$ 997,534	$ 1,017,725
116	**103550**	**Power Generation Equipment**											
117		K Plant Emergency Generator		$ 303,276	12/1/2013	SL-25	25	$ 12,131	$ 12,131	$ 12,131	$ 48,524	$ 60,655	$ 72,786
118		Shindaiwa Generator Lease Buy-out		$ 9,792	2/1/2014	SL-25	25	$ 392	$ 392	$ 392	$ 1,175	$ 1,567	$ 1,958
119			Total	$ 313,068				$ 12,523	$ 12,523	$ 12,523	$ 49,699	$ 62,222	$ 74,745
120	**103700**	**Receiving Wells**											
121		Wet Well		$ 23,738	9/1/2010	SL-25	25	$ 950	$ 950	$ 950	$ 6,647	$ 7,596	$ 8,546
122			Total	$ 23,738				$ 950	$ 950	$ 950	$ 6,647	$ 7,596	$ 8,546
123	**103810**	**Plant Sewers**											
124		K Plant Effluent Sewer Manhole		$ 35,183	12/1/2013	SL-25	25	$ 1,407	$ 1,407	$ 1,407	$ 5,629	$ 7,037	$ 8,444
125			Total	$ 35,183				$ 1,407	$ 1,407	$ 1,407	$ 5,629	$ 7,037	$ 8,444
126	**103890**	**Other Equipment**											
127		SEWR LINES JETTER/WASHER EQP #177		$ 4,938	4/17/1996	SL-25	25	$ 198	$ 198	$ 198	$ 4,148	$ 4,346	$ 4,543
128		K Plant HELCO Primary Ducts		$ 403,678	12/1/2013	SL-25	25	$ 16,147	$ 16,147	$ 16,147	$ 64,589	$ 80,736	$ 96,883
129		K Plant NEMA 3R Equip.		$ 89,795	12/1/2013	SL-25	25	$ 3,592	$ 3,592	$ 3,592	$ 14,367	$ 17,959	$ 21,551
130		A-Plant 1.5" Water Line Replacement		$ 6,825	12/31/2017	SL-25	25	$ -	$ 273	$ 273	$ -	$ 273	$ 546
131			Total	$ 505,237				$ 19,936	$ 20,209	$ 20,209	$ 83,104	$ 103,313	$ 123,523
132	**103930**	**Tools, Shop, & Garage Equipment**											
133		A-Plant safety cabinet		$ 837	12/1/2016	MACRS 7	7	$ 120	$ 205	$ 146	$ 120	$ 325	$ 471
134			Total	$ 837				$ 120	$ 205	$ 146	$ 120	$ 325	$ 471
135	**103940**	**Laboratory Equipment**											
136		Ohaus MB25 Moisture Analyzer		$ 1,267	12/1/2014	MACRS 7	7	$ 222	$ 158	$ 113	$ 713	$ 871	$ 984
137		KPlant Refrigerated Sampler		$ 5,682	10/1/2014	MACRS 7	7	$ 994	$ 710	$ 507	$ 3,197	$ 3,907	$ 4,415
138		Aplant PLC		$ 4,848	10/31/2017	MACRS 7	7	$ -	$ 693	$ 1,187	$ -	$ 693	$ 1,880
139			Total	$ 11,797				$ 1,215	$ 1,561	$ 1,808	$ 3,910	$ 5,471	$ 7,279
140	**103950**	**Power Operated Equipment**											
141		KPlant Shindaiwa Generator 70KVA		$ 18,750	10/1/2014	SL-25	25	$ 750	$ 750	$ 750	$ 2,250	$ 3,000	$ 3,750
142			Total	$ 18,750				$ 750	$ 750	$ 750	$ 2,250	$ 3,000	$ 3,750

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
143	**103965**	**Transportation Equipment**										
144		2006 Ford Ranger	$ 4,762	12/1/2011	MACRS 5	5	$ 274	$ -	$ -	$ 4,762	$ 4,762	$ 4,762
145		Jetting/Vacuum Truck/Pukalani	$ 315,309	7/1/2013	MACRS 5	5	$ 36,324	$ 36,324	$ 18,162	$ 260,824	$ 297,147	$ 315,309
146		Jetting/Vacuum Truck/Pukalani	$ 6,314	7/1/2013	MACRS 5	5	$ 727	$ 727	$ 364	$ 5,223	$ 5,950	$ 6,314
147		Total	$ 326,385				$ 37,325	$ 37,051	$ 18,525	$ 270,809	$ 307,859	$ 326,385
148	**103975**	**Stores Equipment**										
149		KPlant safety cabinets 42x49	$ 1,723	3/1/2016	MACRS 7	7	$ 246	$ 422	$ 301	$ 246	$ 668	$ 970
150		Kplant 20' Storage Container	$ 5,818	8/31/2017	MACRS 7	7	$ -	$ 831	$ 1,425	$ -	$ 831	$ 2,256
151		Kplant Shed	$ 4,510	11/30/2017	MACRS 7	7	$ -	$ 644	$ 1,105	$ -	$ 644	$ 1,749
152		Total	$ 12,051				$ 246	$ 1,898	$ 2,831	$ 246	$ 2,144	$ 4,975
153	**103980**	**General Plant**										
154		Shower/eye wash station	$ 785	1/25/1991	MACRS 7	7	$ -	$ -	$ -	$ 785	$ 785	$ 785
155		K-PLANT PORTABLE RESTROOM	$ 2,128	7/1/1997	MACRS 7	7	$ -	$ -	$ -	$ 2,128	$ 2,128	$ 2,128
156		PH METER	$ 270	3/3/1998	MACRS 7	7	$ -	$ -	$ -	$ 270	$ 270	$ 270
157		A-PLANT TELEMETRY SOFTWARE	$ 2,539	1/1/1999	MACRS 3	3	$ -	$ -	$ -	$ 2,539	$ 2,539	$ 2,539
158		Dell Computer	$ 278	7/6/2000	MACRS 5	5	$ -	$ -	$ -	$ 278	$ 278	$ 278
159		Base Yard Lunch Room Rennovations (WHSC Share	$ 3,222	3/31/2001	MACRS 5	5	$ -	$ -	$ -	$ 3,222	$ 3,222	$ 3,222
160		DO Meter	$ 815	4/29/2003	MACRS 7	7	$ -	$ -	$ -	$ 815	$ 815	$ 815
161		2 Baseyard Computers	$ 467	7/1/2002	MACRS 5	5	$ -	$ -	$ -	$ 467	$ 467	$ 467
162		Radial Saw	$ 247	4/3/2003	MACRS 7	7	$ -	$ -	$ -	$ 247	$ 247	$ 247
163		Software Windows Upgrade for Softwater Billin	$ 535	4/2/2004	MACRS 3	3	$ -	$ -	$ -	$ 535	$ 535	$ 535
164		Lexmark T630N Laser Printer	$ 294	12/31/2004	MACRS 5	5	$ -	$ -	$ -	$ 294	$ 294	$ 294
165		Spin Balancer (WHSC Share)	$ 719	9/20/2006	MACRS 7	7	$ -	$ -	$ -	$ 719	$ 719	$ 719
166		Computer - Accounts Receivable Dept.	$ 338	2/19/2002	MACRS 5	5	$ -	$ -	$ -	$ 338	$ 338	$ 338
167		Portable Generator	$ 200	5/23/2002	SL-25	25	$ 8	$ 8	$ 8	$ 120	$ 128	$ 136
168		Band Saw	$ 503	7/1/2003	MACRS 7	7	$ -	$ -	$ -	$ 503	$ 503	$ 503
169		A/Plant Sludge Trailer	$ 2,032	8/12/2004	MACRS 7	7	$ -	$ -	$ -	$ 2,032	$ 2,032	$ 2,032
170		2-Way Radio	$ 240	4/22/2005	MACRS 7	7	$ -	$ -	$ -	$ 240	$ 240	$ 240
171		2000 Jeep buy-out lease 77512740510968	$ 1,600	1/1/2006	MACRS 5	5	$ -	$ -	$ -	$ 1,600	$ 1,600	$ 1,600
172		Dell Precision 390 Computer-Util Clerk-Acctng	$ 414	10/18/2007	MACRS 5	5	$ -	$ -	$ -	$ 414	$ 414	$ 414
173		Two (2) Dodge Dakota Pickup Trucks (WHSC Shar	$ 1,280	3/31/2001	MACRS 5	5	$ -	$ -	$ -	$ 1,280	$ 1,280	$ 1,280
174		Safety Cabinet	$ 217	7/3/2002	MACRS 7	7	$ -	$ -	$ -	$ 217	$ 217	$ 217
175		(2) Telemetry Field Computers	$ 854	4/15/2004	MACRS 5	5	$ -	$ -	$ -	$ 854	$ 854	$ 854
176		Tommy Lift Gate for Aplant Truck	$ 2,545	8/25/2006	MACRS 5	5	$ -	$ -	$ -	$ 2,545	$ 2,545	$ 2,545
177		Chlorine gas detector	$ 1,161	1/25/1991	MACRS 7	7	$ -	$ -	$ -	$ 1,161	$ 1,161	$ 1,161
178		PH METER	$ 270	3/3/1998	MACRS 7	7	$ -	$ -	$ -	$ 270	$ 270	$ 270
179		PENTIUM COMPUTERS (2) (1/3 SHARE)	$ 730	12/12/1998	MACRS 5	5	$ -	$ -	$ -	$ 730	$ 730	$ 730
180		SOFTWATER SECURITY FEATURES	$ 200	1/1/1999	MACRS 3	3	$ -	$ -	$ -	$ 200	$ 200	$ 200
181		NORSTAR PHONE SYSTEM-BASEYARD	$ 1,768	4/12/1999	MACRS 7	7	$ -	$ -	$ -	$ 1,768	$ 1,768	$ 1,768
182		TOOLBOXES-2000 CHEVY S10 TRUCKS (3)	$ 199	1/17/2000	MACRS 7	7	$ -	$ -	$ -	$ 199	$ 199	$ 199
183		Oil Containment Area	$ 1,664	1/1/2001	MACRS 7	7	$ -	$ -	$ -	$ 1,664	$ 1,664	$ 1,664
184		Copy Machine	$ 1,965	9/11/2001	MACRS 5	5	$ -	$ -	$ -	$ 1,965	$ 1,965	$ 1,965
185		2-Way Radio for Aplant Truck	$ 490	12/31/2006	MACRS 7	7	$ -	$ -	$ -	$ 490	$ 490	$ 490
186		Tire Changer	$ 950	8/8/2002	MACRS 7	7	$ -	$ -	$ -	$ 950	$ 950	$ 950
187		Baseyard Computer-Utility Operations Clerk	$ 321	2/19/2003	MACRS 5	5	$ -	$ -	$ -	$ 321	$ 321	$ 321
188		Telemetry Field Computer	$ 434	3/18/2004	MACRS 5	5	$ -	$ -	$ -	$ 434	$ 434	$ 434
189		Baseyard Library and File Storage Room Traile	$ 4,787	5/12/2004	MACRS 7	7	$ -	$ -	$ -	$ 4,787	$ 4,787	$ 4,787
190		(3) Chevy S10 Trucks-WHSC Share of Lease Buyo	$ 8,802	12/31/2004	MACRS 5	5	$ -	$ -	$ -	$ 8,802	$ 8,802	$ 8,802
191		Digital DO Meter	$ 817	7/25/2002	MACRS 7	7	$ -	$ -	$ -	$ 817	$ 817	$ 817
192		A/Plant-Drexelbrook Level Transmitter System	$ 1,921	12/29/2004	MACRS 7	7	$ -	$ -	$ -	$ 1,921	$ 1,921	$ 1,921
193		A-Plant Radio/Atenna	$ 687	2/20/2003	MACRS 7	7	$ -	$ -	$ -	$ 687	$ 687	$ 687
194		Wood Shop Storage Shed Repairs	$ 11,722	6/21/2003	MACRS 7	7	$ -	$ -	$ -	$ 11,722	$ 11,722	$ 11,722

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
195		HP 5500 Color Jet (Color Laser Printer)	$ 902	8/8/2003	MACRS 5	5	$ -	$ -	$ -	$ 902	$ 902	$ 902
196		Storage Container	$ 1,158	4/16/2004	MACRS 7	7	$ -	$ -	$ -	$ 1,158	$ 1,158	$ 1,158
197		Steel Flat File Drawers for New Trailer Offic	$ 564	6/30/2004	MACRS 7	7	$ -	$ -	$ -	$ 564	$ 564	$ 564
198		EPSON PRINTER & STAND (1/3 SHARE)	$ 642	12/10/1998	MACRS 5	5	$ -	$ -	$ -	$ 642	$ 642	$ 642
199		Utility Baseyard Locker Room Addition (WHSC S	$ 14,526	5/2/2005	MACRS 7	7	$ -	$ -	$ -	$ 14,526	$ 14,526	$ 14,526
200		2-Way Radio for 2006 Chevy Silverado	$ 357	11/8/2005	MACRS 7	7	$ -	$ -	$ -	$ 357	$ 357	$ 357
201		Baseyard Storeroom Renovation (WHSC Share)	$ 2,883	6/15/2006	MACRS 7	7	$ -	$ -	$ -	$ 2,883	$ 2,883	$ 2,883
202		Composite Sampler	$ 5,197	3/12/2007	MACRS 7	7	$ -	$ -	$ -	$ 5,197	$ 5,197	$ 5,197
203		DO Meter	$ 850	3/11/2003	MACRS 7	7	$ -	$ -	$ -	$ 850	$ 850	$ 850
204		Baseyard Security Fencing	$ 18,236	3/16/2005	MACRS 15	15	$ 1,076	$ 1,078	$ 1,076	$ 14,467	$ 15,545	$ 16,620
205		Aplant Desktop	$ 1,309	12/31/2017	MACRS 5	5	$ -	$ 262	$ 419	$ -	$ 262	$ 681
206		Kplant Desktop	$ 1,310	12/31/2017	MACRS 5	5	$ -	$ 262	$ 419	$ -	$ 262	$ 681
207		Total	$ 109,338				$ 1,084	$ 1,610	$ 1,922	$ 102,870	$ 104,480	$ 106,402
208		**CONTRIBUTIONS IN AID OF CONSTRUCTION**										
209	**103540**	**Structures & Improvement - Transmission & Distribution Plant**										
210		17th Fairway Villas CIAC	$ (60,291)	9/1/2010	SL-25	25	$ (2,412)	$ (2,412)	$ (2,412)	$ (16,881)	$ (19,293)	$ (21,705)
211		Castle & Cooke Unit 102 CIAC	$ (84,958)	9/1/2010	SL-25	25	$ (3,398)	$ (3,398)	$ (3,398)	$ (23,788)	$ (27,187)	$ (30,585)
212		Makana Kai CIAC Castle & Cooke	$ (16,120)	9/1/2010	SL-25	25	$ (645)	$ (645)	$ (645)	$ (4,514)	$ (5,158)	$ (5,803)
213		Na Puu Nani Phase 1 CIAC Castle & Cooke	$ (120,582)	9/1/2010	SL-25	25	$ (4,823)	$ (4,823)	$ (4,823)	$ (33,763)	$ (38,586)	$ (43,409)
214		Na Puu Nani Phase 2 CIAC Castle & Cooke	$ (265,586)	9/1/2010	SL-25	25	$ (10,623)	$ (10,623)	$ (10,623)	$ (74,364)	$ (84,988)	$ (95,611)
215		Paniolo Gardens CIAC	$ (26,098)	9/1/2010	SL-25	25	$ (1,044)	$ (1,044)	$ (1,044)	$ (7,307)	$ (8,351)	$ (9,395)
216		Puu Melia St. CIAC	$ (102,090)	9/1/2010	SL-25	25	$ (4,084)	$ (4,084)	$ (4,084)	$ (28,585)	$ (32,669)	$ (36,752)
217		The Pointe At Waikoloa CIAC	$ (39,915)	9/1/2010	SL-25	25	$ (1,597)	$ (1,597)	$ (1,597)	$ (11,176)	$ (12,773)	$ (14,369)
218		COH WORKFORCE HOUSING PROJECT	$ (373,856)	10/1/2012	SL-25	25	$ (14,954)	$ (14,954)	$ (14,954)	$ (74,771)	$ (89,726)	$ (104,680)
219		WAIKOLOA HEIGHTS	$ (425,538)	10/1/2012	SL-25	25	$ (17,022)	$ (17,022)	$ (17,022)	$ (85,108)	$ (102,129)	$ (119,151)
220		WAIKOLOA HEIGHTS IMPUTED INTEREST - JANUARY 1994 TO DECEMBER 31, 2010	$ (681,846)	10/1/2012	SL-25	25	$ (27,274)	$ (27,274)	$ (27,274)	$ (136,369)	$ (163,643)	$ (190,917)
219		WAIKOLOA HIGHLANDS (FUTURE WATER CIAC)	$ (1,616,887)	5/1/2013	SL-25	25	$ (64,675)	$ (64,675)	$ (64,675)	$ (258,702)	$ (323,377)	$ (388,053)
221		Total	$ (3,813,767)				$ (152,551)	$ (152,551)	$ (152,551)	$ (755,329)	$ (907,880)	$ (1,060,430)
222	**103600**	**Collection Sewers Force**										
223		KE KUMU I & II-DEDICATED	$ (33,492)	4/1/1996	SL-25	25	$ (1,340)	$ (1,340)	$ (1,340)	$ (26,133)	$ (29,473)	$ (30,813)
224		KE KUMU III DEDICATED	$ (72,127)	1/1/1997	SL-25	25	$ (2,885)	$ (2,885)	$ (2,885)	$ (57,701)	$ (60,586)	$ (63,472)
225		PANIOLO ESTATES-DEDICATED	$ (141,394)	5/14/1993	SL-25	25	$ (5,656)	$ (5,656)	$ -	$ (135,738)	$ (141,394)	$ (141,394)
226		Total	$ (247,012)				$ (9,880)	$ (9,880)	$ (4,225)	$ (221,573)	$ (231,453)	$ (235,678)
227	**103610**	**Collection Sewers Gravity**										
228		SEWER LINES-ORIGINAL PLANT	$ (837,011)	1/1/1974	SL-25	25	$ -	$ -	$ -	$ (837,011)	$ (837,011)	$ (837,011)
229		Castle&Cooke DedicSwrLines-Kikaha@Wehilani	$ (331,186)	1/1/2008	SL-25	25	$ (13,247)	$ (13,247)	$ (13,247)	$ (119,227)	$ (132,474)	$ (145,722)
230		Total	$ (1,168,196)				$ (13,247)	$ (13,247)	$ (13,247)	$ (956,238)	$ (969,485)	$ (982,733)
231	**103801**	***Treatment & Disposal Equipment***										
232		FAIRWAY TERRACE FEES	$ (83,368)	1/1/1990	SL-25	25	$ -	$ -	$ -	$ (83,368)	$ (83,368)	$ (83,368)
233		ORIGINAL UTILITY PLANT	$ (1,266)	10/1/1978	SL-25	25	$ -	$ -	$ -	$ (1,266)	$ (1,266)	$ (1,266)
234		KE KUMU III FEES	$ (7,146)	1/1/1997	SL-25	25	$ (286)	$ (286)	$ (286)	$ (5,717)	$ (6,003)	$ (6,288)
235		WAIKOLOA HILLS FEES	$ (11,433)	1/1/1990	SL-25	25	$ -	$ -	$ -	$ (11,433)	$ (11,433)	$ (11,433)
236		STP A-PLANT-ORIGINAL	$ (25,928)	1/1/1974	SL-25	25	$ -	$ -	$ -	$ (25,928)	$ (25,928)	$ (25,928)
237		VILLAS	$ (11,136)	1/1/1979	SL-25	25	$ -	$ -	$ -	$ (11,136)	$ (11,136)	$ (11,136)
238		PANIOLO ESTATES PH-1 FEES	$ (42,161)	7/1/1992	SL-25	25	$ (1,686)	$ -	$ -	$ (42,161)	$ (42,161)	$ (42,161)
239		KE KUMU II FEES	$ (9,290)	10/1/1995	SL-25	25	$ (372)	$ (372)	$ (372)	$ (8,175)	$ (8,546)	$ (8,918)
240		PANIOLO CLUB	$ (4,288)	1/1/1980	SL-25	25	$ -	$ -	$ -	$ (4,288)	$ (4,288)	$ (4,288)

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
241		FIRE STATION FEES	$ (9,744)	11/1/1997	SL-25	25	$ (390)	$ (390)	$ (390)	$ (7,795)	$ (8,185)	$ (8,575)
242		US P O.-APPLIED TO PLANT ABJ	$ (6,570)	6/19/1999	SL-25	25	$ (263)	$ (263)	$ (263)	$ (4,731)	$ (4,993)	$ (5,256)
243		WAIKOLOA GREENS FEES	$ (93,849)	8/1/1991	SL-25	25	$ -	$ -	$ -	$ (93,849)	$ (93,849)	$ (93,849)
244		WAIKOLOA FAIRWAYS FEES	$ (48,592)	12/1/1991	SL-25	25	$ -	$ -	$ -	$ (48,592)	$ (48,592)	$ (48,592)
245		VILLAGES @ WAIKOLOA ELIMA LANI FEES	$ (45,019)	1/1/1992	SL-25	25	$ (1,801)	$ -	$ -	$ (45,019)	$ (45,019)	$ (45,019)
246		REFRIGERATOR SHELTER-ORIGINAL PLANT	$ (1,925)	12/31/1981	SL-25	25	$ -	$ -	$ -	$ (1,925)	$ (1,925)	$ (1,925)
247		WAIKOLOA ELEMENTARY SCHOOL FEES	$ (93,343)	9/1/1994	SL-25	25	$ (3,734)	$ (3,734)	$ (3,734)	$ (85,875)	$ (89,609)	$ (93,343)
248		KE KUMU I FEES	$ (17,150)	9/1/1994	SL-25	25	$ (686)	$ (686)	$ (686)	$ (15,778)	$ (16,464)	$ (17,150)
249		SEWER TRANSMISSION LINE	$ (84,138)	1/1/1974	SL-25	25	$ -	$ -	$ -	$ (84,138)	$ (84,138)	$ (84,138)
250		PANIOLO CLUB	$ (51,032)	1/1/1980	SL-25	25	$ -	$ -	$ -	$ (51,032)	$ (51,032)	$ (51,032)
251		FIARWAY TERRACE	$ (6,998)	1/1/1990	SL-25	25	$ -	$ -	$ -	$ (6,998)	$ (6,998)	$ (6,998)
252		WAIKOLOA HILLS	$ (46,479)	1/1/1990	SL-25	25	$ -	$ -	$ -	$ (46,479)	$ (46,479)	$ (46,479)
253		WAIKOLOA GREENS	$ (29,745)	8/1/1991	SL-25	25	$ -	$ -	$ -	$ (29,745)	$ (29,745)	$ (29,745)
254		WAIKOLOA FAIRWAYS	$ (27,557)	12/1/1991	SL-25	25	$ -	$ -	$ -	$ (27,557)	$ (27,557)	$ (27,557)
255		VILLAGES AT WAIKOLOA ELIMA LANI	$ (25,808)	1/1/1992	SL-25	25	$ (1,032)	$ -	$ -	$ (25,808)	$ (25,808)	$ (25,808)
256		PANIOLO ESTATES PH I	$ (57,137)	7/1/1992	SL-25	25	$ (2,285)	$ -	$ -	$ (57,137)	$ (57,137)	$ (57,137)
257		SEWER LINES (DEDCIATED) SCHULER	$ (20,788)	5/14/1993	SL-25	25	$ (832)	$ (832)	$ -	$ (19,956)	$ (20,788)	$ (20,788)
258		WAIKOLOA ELEMENTARY SCHOOL	$ (79,157)	9/1/1994	SL-25	25	$ (3,166)	$ (3,166)	$ (3,166)	$ (72,824)	$ (75,991)	$ (79,157)
259		KE KUMU I	$ (42,876)	9/1/1994	SL-25	25	$ (1,715)	$ (1,715)	$ (1,715)	$ (39,446)	$ (41,161)	$ (42,876)
260		KE KUMU II	$ (32,982)	10/1/1995	SL-25	25	$ (1,319)	$ (1,319)	$ (1,319)	$ (29,024)	$ (30,343)	$ (31,662)
261		WAIKOLOA HEIGHTS	$ (283,920)	1/1/1994	SL-25	25	$ (11,357)	$ (11,357)	$ (11,357)	$ (261,206)	$ (272,563)	$ (283,920)
262		Total	$ (1,300,824)				$ (30,924)	$ (24,119)	$ (23,287)	$ (1,248,386)	$ (1,272,505)	$ (1,295,792)
263		**HAWAII GENERAL OFFICE**										
264		790 Leasehold Improvements	$ 16,190	5/1/2015	MACRS 7	7	$ 3,965	$ 2,832	$ 2,022	$ 6,279	$ 9,110	$ 11,133
265		desks. conf table, chairs	$ 2,938	3/1/2010	MACRS 7	7	$ 262	$ 131	$ -	$ 2,807	$ 2,938	$ 2,938
266		2 Cubical Work Stations	$ 5,424	12/1/2010	MACRS 7	7	$ 484	$ 242	$ -	$ 5,182	$ 5,424	$ 5,424
267		Cherry Desk	$ 821	12/1/2010	MACRS 7	7	$ 73	$ 37	$ -	$ 784	$ 821	$ 821
268		Cherry Drawer	$ 68	12/1/2010	MACRS 7	7	$ 6	$ 3	$ -	$ 65	$ 68	$ 68
269		Cherry Credenza	$ 489	12/1/2010	MACRS 7	7	$ 44	$ 22	$ -	$ 467	$ 489	$ 489
270		Cherry Corner Unit	$ 388	12/1/2010	MACRS 7	7	$ 35	$ 17	$ -	$ 371	$ 388	$ 388
271		Regency Library	$ 272	12/1/2010	MACRS 7	7	$ 24	$ 12	$ -	$ 260	$ 272	$ 272
272		Chairs	$ 1,955	12/1/2010	MACRS 7	7	$ 175	$ 87	$ -	$ 1,868	$ 1,955	$ 1,955
273		Cherry Desk Shell 66'	$ 412	12/1/2010	MACRS 7	7	$ 37	$ 18	$ -	$ 393	$ 412	$ 412
274		24" x 71" Credenza Shells	$ 761	12/1/2010	MACRS 7	7	$ 68	$ 34	$ -	$ 727	$ 761	$ 761
275		Cherry Keyboard Drawer	$ 68	12/1/2010	MACRS 7	7	$ 6	$ 3	$ -	$ 65	$ 68	$ 68
276		Executive Chair	$ 376	12/1/2010	MACRS 7	7	$ 34	$ 17	$ -	$ 359	$ 376	$ 376
277		Desk Pedestal F/F	$ 449	12/1/2010	MACRS 7	7	$ 40	$ 20	$ -	$ 429	$ 449	$ 449
278		Cherry Shelf Unit	$ 295	12/1/2010	MACRS 7	7	$ 26	$ 13	$ -	$ 282	$ 295	$ 295
279		Cherry Storage Hutch	$ 468	12/1/2010	MACRS 7	7	$ 42	$ 21	$ -	$ 447	$ 468	$ 468
280		Cherry Credenza 66"	$ 320	12/1/2010	MACRS 7	7	$ 29	$ 14	$ -	$ 306	$ 320	$ 320
281		Regency Desk	$ 681	12/1/2010	MACRS 7	7	$ 61	$ 30	$ -	$ 651	$ 681	$ 681
282		2 Drawer Lateral File	$ 948	12/1/2010	MACRS 7	7	$ 85	$ 42	$ -	$ 906	$ 948	$ 948
283		3, 42" 4 Drawer Lateral File Cabinets	$ 2,754	12/1/2010	MACRS 7	7	$ 246	$ 123	$ -	$ 2,631	$ 2,754	$ 2,754
284		Cherry Desk Pedestal B/B/F	$ 492	12/1/2010	MACRS 7	7	$ 44	$ 22	$ -	$ 471	$ 492	$ 492
285		Regency Lateral File	$ 545	12/1/2010	MACRS 7	7	$ 49	$ 24	$ -	$ 520	$ 545	$ 545
286		Fireproof safe for Customer Service office.	$ 2,291	12/1/2011	MACRS 7	7	$ 204	$ 205	$ 102	$ 1,984	$ 2,189	$ 2,291
287		Ricoh Aficio MP C3001	$ 2,923	5/1/2015	MACRS 5	5	$ 935	$ 561	$ 337	$ 1,520	$ 2,081	$ 2,418
288		790 Office Furniture	$ 606	5/1/2015	MACRS 7	7	$ 148	$ 106	$ 76	$ 235	$ 341	$ 416
289		Automated Electronic Defibrillators	$ 6,875	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 6,875	$ 6,875	$ 6,875
290		License for Capture Now	$ 227	12/1/2010	MACRS 3	3	$ -	$ -	$ -	$ 227	$ 227	$ 227
291		Fujitsu Fi6140 scanner	$ 1,599	12/1/2010	MACRS 5	5	$ 143	$ 71	$ -	$ 1,619	$ 1,691	$ 1,691
292		Ricoh MP 4001SP Copier w/Finisher	$ 10,259	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 10,259	$ 10,259	$ 10,259

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	2017	2018	Accumulated Depreciation 2016	2017	2018
293		Monitors	$ 1,159	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 1,159	$ 1,159	$ 1,159
294		Mitel EP Dig 6 Line Model 8560 Telephone	$ 7,778	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 7,778	$ 7,778	$ 7,778
295		ELECTRONICS [681]	$ 714	12/1/2011	MACRS 5	5	$ 41	$ -	$ -	$ 714	$ 714	$ 714
296		8-way video conferencing system	$ 35,698	12/1/2011	MACRS 5	5	$ 2,056	$ -	$ -	$ 35,698	$ 35,698	$ 35,698
297		Hewlett Packard laser printer	$ 1,066	12/1/2011	MACRS 5	5	$ 61	$ -	$ -	$ 1,066	$ 1,066	$ 1,066
298		Desktop-HIWKLCS40	$ 774	12/1/2014	MACRS 5	5	$ 149	$ 89	$ 89	$ 551	$ 640	$ 730
299		Desktop-HIWKLCS39	$ 774	12/1/2014	MACRS 5	5	$ 149	$ 89	$ 89	$ 551	$ 640	$ 730
300		Desktop-HIWKLCS37	$ 774	12/1/2014	MACRS 5	5	$ 149	$ 89	$ 89	$ 551	$ 640	$ 730
301		Desktop-HIWKLCS38	$ 774	12/1/2014	MACRS 5	5	$ 149	$ 89	$ 89	$ 551	$ 640	$ 730
302		Desktop-HIWKCLS36	$ 774	12/1/2014	MACRS 5	5	$ 149	$ 89	$ 89	$ 551	$ 640	$ 730
303		Desktop-HIWKLCS41	$ 774	12/1/2014	MACRS 5	5	$ 149	$ 89	$ 89	$ 551	$ 640	$ 730
304		790 Server & Server room upgrade	$ 16,944	5/1/2015	MACRS 5	5	$ 3,253	$ 1,952	$ 1,952	$ 12,064	$ 14,016	$ 15,968
305		Hawaii Business Unit Software	$ 127,067	12/1/2010	MACRS 3	3	$ -	$ -	$ -	$ 127,067	$ 127,067	$ 127,067
306		RMS Software	$ 88,732	3/1/2014	MACRS 3	3	$ 13,141	$ 6,575	$ -	$ 82,157	$ 88,732	$ 88,732
307		phone system with 8 phones	$ 23,864	3/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 23,864	$ 23,864	$ 23,864
308		Miscellaneous Kitchen Equipment	$ 941	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 941	$ 941	$ 941
309		laptop for CS Mgr	$ 1,436	4/1/2014	MACRS 5	5	$ 276	$ 165	$ 165	$ 1,023	$ 1,188	$ 1,353
310		Total	$ 371,938				$ 26,985	$ 13,935	$ 5,189	$ 345,827	$ 359,762	$ 364,951
311		HAWAII GENERAL OFFICE ALLOCATIONS		%								
312		700 - Kaanapali	$ 80,808	21.73%			$ 5,863	$ 3,028	$ 1,127	$ 75,134	$ 78,162	$ 79,289
313		701 - Pukalani	$ 25,558	6.87%			$ 1,854	$ 958	$ 357	$ 23,764	$ 24,721	$ 25,078
314		721 - Waikoloa Water	$ 47,725	12.83%			$ 3,463	$ 1,788	$ 666	$ 44,374	$ 46,162	$ 46,828
315		722 - Waikoloa Sewer	$ 37,260	10.02%			$ 2,703	$ 1,396	$ 520	$ 34,644	$ 36,040	$ 36,560
316		723 - Waikoloa Resort Water	$ 49,366	13.27%			$ 3,582	$ 1,850	$ 689	$ 45,900	$ 47,750	$ 48,439
317		724 - Waikoloa Resort Sewer	$ 67,605	18.18%			$ 4,905	$ 2,533	$ 943	$ 62,859	$ 65,392	$ 66,335
318		725 - Waikoloa Resort Irrigation	$ 2,777	0.75%			$ 201	$ 104	$ 39	$ 2,582	$ 2,686	$ 2,725
319		726 - Kona Water	$ 39,264	10.56%			$ 2,849	$ 1,471	$ 548	$ 36,508	$ 37,979	$ 38,527
320		727 - Kona Sewer	$ 21,576	5.80%			$ 1,565	$ 808	$ 301	$ 20,061	$ 20,869	$ 21,170
321	**BIG ISLAND**											
322		(2)Replacement Op Computer Stations	$ 1,998	12/1/2013	MACRS 5	5	$ 230	$ 230	$ 115	$ 1,652	$ 1,883	$ 1,998
323		Mobile office trailer	$ 22,912	12/1/2011	MACRS 5	5	$ 1,320	$ -	$ -	$ 22,912	$ 22,912	$ 22,912
324		1996 Eagle Forklift	$ 21,956	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 21,956	$ 21,956	$ 21,956
325		20' Container Shelving-Baseyard	$ 894	6/1/2015	SL-25	25	$ 36	$ 36	$ 36	$ 72	$ 107	$ 143
326		20' Container Shelving-EMT	$ 437	6/1/2015	SL-25	25	$ 17	$ 17	$ 17	$ 35	$ 52	$ 70
327		20' Container-Baseyard	$ 9,958	6/1/2015	SL-25	25	$ 398	$ 398	$ 398	$ 797	$ 1,195	$ 1,593
328		20' Container-EMT	$ 5,100	6/1/2015	SL-25	25	$ 204	$ 204	$ 204	$ 408	$ 612	$ 816
329		Storage Contr	$ 3,060	12/1/2010	SL-25	25	$ 122	$ 122	$ 122	$ 857	$ 979	$ 1,102
330		Nissan Frontier	$ 25,949	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 25,949	$ 25,949	$ 25,949
331		Nissan Titan	$ 34,252	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 34,252	$ 34,252	$ 34,252
332		FORD XCAB	$ 25,825	6/1/2012	MACRS 5	5	$ 2,975	$ 1,487	$ -	$ 24,337	$ 25,825	$ 25,825
333		FORD XCAB	$ 25,339	6/1/2012	MACRS 5	5	$ 2,919	$ 1,460	$ -	$ 23,880	$ 25,339	$ 25,339
334		Ford F-150	$ 29,280	9/1/2012	MACRS 5	5	$ 3,373	$ 1,687	$ -	$ 27,594	$ 29,280	$ 29,280
335		Ford F-150	$ 29,280	9/1/2012	MACRS 5	5	$ 3,373	$ 1,687	$ -	$ 27,594	$ 29,280	$ 29,280
336		Ford F-150	$ 29,280	9/1/2012	MACRS 5	5	$ 3,373	$ 1,687	$ -	$ 27,594	$ 29,280	$ 29,280
337		FRONTIER	$ 24,336	6/1/2012	MACRS 5	5	$ 2,803	$ 1,402	$ -	$ 22,934	$ 24,336	$ 24,336
338		Ford Explorer	$ 35,997	9/1/2012	MACRS 5	5	$ 4,147	$ 2,073	$ -	$ 33,924	$ 35,997	$ 35,997
339		2014 Nissan Frontier, V214001	$ 33,717	4/1/2014	MACRS 5	5	$ 6,474	$ 3,884	$ 3,884	$ 24,006	$ 27,891	$ 31,775
340		3 Ipad for Hawaii Island	$ 2,441	9/1/2013	MACRS 5	5	$ 281	$ 281	$ 141	$ 2,019	$ 2,300	$ 2,441
341		Desk w Drawer	$ 921	9/1/2012	MACRS 7	7	$ 82	$ 82	$ 82	$ 715	$ 797	$ 880
342		69"x43"x 18"	$ 1,259	9/1/2012	MACRS 7	7	$ 112	$ 112	$ 112	$ 978	$ 1,090	$ 1,202
343		Diesel tank	$ 696	12/1/2011	MACRS 7	7	$ 62	$ 62	$ 31	$ 603	$ 665	$ 696

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
344		GIS Software	$ 7,316	12/1/2011	MACRS 5	5	$ 421	$ -	$ -	$ 7,316	$ 7,316	$ 7,316
345		Backflow Test Kit-Midwest 835	$ 1,154	8/1/2015	MACRS 5	5	$ 369	$ 222	$ 133	$ 600	$ 821	$ 954
346		Big Island SCADA 2012	$ 475,506	10/1/2014	MACRS 5	5	$ 91,297	$ 54,778	$ 54,778	$ 338,560	$ 393,338	$ 448,117
347		Book Case	$ 286	9/1/2012	MACRS 7	7	$ 26	$ 25	$ 26	$ 222	$ 247	$ 273
348		Motorola Hardware	$ 4,225	6/1/2012	MACRS 5	5	$ 487	$ 243	$ -	$ 3,982	$ 4,225	$ 4,225
349		Work Order Addition	$ 2,059	6/1/2012	MACRS 5	5	$ 237	$ 119	$ -	$ 1,940	$ 2,059	$ 2,059
350		Misc. Wiring & Cables	$ 522	6/1/2012	MACRS 5	5	$ 60	$ 30	$ -	$ 492	$ 522	$ 522
351		Work Order Addition	$ 717	6/1/2012	MACRS 5	5	$ 83	$ 41	$ -	$ 676	$ 717	$ 717
352		1 desktops	$ 1,088	4/1/2013	MACRS 5	5	$ 125	$ 125	$ 63	$ 900	$ 1,025	$ 1,088
353		1 desktops	$ 1,088	4/1/2013	MACRS 5	5	$ 125	$ 125	$ 63	$ 900	$ 1,025	$ 1,088
354		Desktop-HIWKLOC56	$ 1,509	12/1/2014	MACRS 5	5	$ 290	$ 174	$ 174	$ 1,075	$ 1,249	$ 1,422
355		Desktop-HIWKLOC57	$ 1,549	12/1/2014	MACRS 5	5	$ 297	$ 178	$ 178	$ 1,103	$ 1,281	$ 1,459
356		dryer @ baseyard	$ 483	4/1/2017	MACRS 5	5	$ -	$ 97	$ 154	$ -	$ 97	$ 251
357		Exec Chair	$ 337	9/1/2012	MACRS 7	7	$ 30	$ 30	$ 30	$ 262	$ 292	$ 322
358		Work Order Addition	$ 49	9/1/2013	MACRS 5	5	$ 6	$ 6	$ 3	$ 40	$ 45	$ 49
359		Work Order Addition	$ 175	9/1/2012	MACRS 5	5	$ 20	$ 10	$ -	$ 165	$ 175	$ 175
360		Work Order Addition	$ 13,260	6/1/2012	MACRS 5	5	$ 1,528	$ 764	$ -	$ 12,496	$ 13,260	$ 13,260
361		EMT Laptop	$ 4,328	3/1/2014	MACRS 5	5	$ 831	$ 499	$ 499	$ 3,082	$ 3,580	$ 4,079
362		Hand Helds	$ 18,382	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 18,382	$ 18,382	$ 18,382
363		Desk Dock	$ 2,681	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 2,681	$ 2,681	$ 2,681
364		Personnel Lift	$ 5,610	6/1/2012	MACRS 5	5	$ 646	$ 323	$ -	$ 5,287	$ 5,610	$ 5,610
365		Software	$ 2,875	9/1/2012	MACRS 5	5	$ 331	$ 166	$ -	$ 2,710	$ 2,875	$ 2,875
366		Hardware	$ 8,471	9/1/2012	MACRS 5	5	$ 976	$ 488	$ -	$ 7,983	$ 8,471	$ 8,471
367		Gradall lifting hook attachment	$ 2,330	12/1/2014	MACRS 5	5	$ 447	$ 268	$ 268	$ 1,659	$ 1,927	$ 2,196
368		Forklift	$ 26,520	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 26,520	$ 26,520	$ 26,520
369		HON chair	$ 611	2/1/2014	MACRS 7	7	$ 107	$ 76	$ 55	$ 344	$ 420	$ 475
370		Hydro Jetter	$ 5,703	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 5,703	$ 5,703	$ 5,703
371		Ice Maker-Manitowac ID-0452A	$ 4,354	9/1/2016	MACRS 5	5	$ 871	$ 1,393	$ 836	$ 871	$ 2,264	$ 3,100
372		Ingersoll Needle/Chisel Scl	$ 742	9/1/2013	MACRS 5	5	$ 85	$ 85	$ 43	$ 614	$ 699	$ 742
373		Internal labor	$ 20,546	7/1/2013	MACRS 5	5	$ 2,367	$ 2,367	$ 1,183	$ 16,995	$ 19,362	$ 20,546
374		Knoll task chair	$ 13,254	2/1/2014	MACRS 7	7	$ 2,318	$ 1,655	$ 1,184	$ 7,458	$ 9,113	$ 10,297
375		1 laptops	$ 1,119	4/1/2013	MACRS 5	5	$ 129	$ 129	$ 64	$ 925	$ 1,054	$ 1,119
376		1 laptops	$ 1,119	4/1/2013	MACRS 5	5	$ 129	$ 129	$ 64	$ 925	$ 1,054	$ 1,119
377		Laptop, EMT-HIWKOCLT02	$ 1,566	11/1/2016	MACRS 5	5	$ 313	$ 501	$ 301	$ 313	$ 814	$ 1,115
378		Lateral File	$ 504	9/1/2012	MACRS 5	5	$ 58	$ 29	$ -	$ 475	$ 504	$ 504
379		Work Order Addition	$ 1,389	12/1/2011	MACRS 5	5	$ 80	$ -	$ -	$ 1,389	$ 1,389	$ 1,389
380		Work Order Addition	$ 4,388	12/1/2011	MACRS 5	5	$ 253	$ -	$ -	$ 4,388	$ 4,388	$ 4,388
381		Work Order Addition	$ 16,079	6/1/2011	MACRS 5	5	$ 926	$ -	$ -	$ 16,079	$ 16,079	$ 16,079
382		New IP phone system	$ 18,915	6/1/2013	MACRS 5	5	$ 2,179	$ 2,179	$ 1,090	$ 15,647	$ 17,826	$ 18,915
383		New Hydraulic Hammer	$ 9,453	12/1/2013	MACRS 5	5	$ 1,089	$ 1,089	$ 544	$ 7,819	$ 8,908	$ 9,453
384		Office Furnishings	$ 6,438	2/1/2014	MACRS 7	7	$ 1,126	$ 804	$ 575	$ 3,622	$ 4,427	$ 5,001
385		Office furniture & equip	$ 3,969	9/1/2012	MACRS 7	7	$ 354	$ 354	$ 354	$ 3,083	$ 3,437	$ 3,792
386		Work Order Addition	$ 45	9/1/2012	MACRS 5	5	$ 5	$ 3	$ -	$ 43	$ 45	$ 45
387		Work Order Addition	$ 87	9/1/2012	MACRS 5	5	$ 10	$ 5	$ -	$ 82	$ 87	$ 87
388		Portable generator 3500w, EMT's	$ 497	12/1/2016	MACRS 5	5	$ 99	$ 159	$ 95	$ 99	$ 259	$ 354
389		Power Quality Analyzer	$ 8,080	3/1/2015	MACRS 5	5	$ 2,586	$ 1,551	$ 931	$ 4,202	$ 5,753	$ 6,684
390		Printer Cart	$ 72	9/1/2012	MACRS 5	5	$ 8	$ 4	$ -	$ 68	$ 72	$ 72
391		Projector-Dell 1610HD	$ 601	12/1/2016	MACRS 5	5	$ 120	$ 192	$ 115	$ 120	$ 313	$ 428
392		Electrical Upgrade	$ 8,419	12/1/2011	MACRS 5	5	$ 485	$ -	$ -	$ 8,419	$ 8,419	$ 8,419
393		Respirator supplied air system	$ 4,069	12/1/2016	MACRS 5	5	$ 814	$ 1,302	$ 781	$ 814	$ 2,116	$ 2,897
394		Richo Copier	$ 10,164	11/1/2011	MACRS 5	5	$ 585	$ -	$ -	$ 10,164	$ 10,164	$ 10,164
395		Richo Fax Module	$ 1,003	11/1/2011	MACRS 5	5	$ 58	$ -	$ -	$ 1,003	$ 1,003	$ 1,003
396		RICOH MPC3004-Engineering office	$ 7,951	12/1/2016	MACRS 5	5	$ 1,590	$ 2,544	$ 1,527	$ 1,590	$ 4,134	$ 5,661
397		Rplc computer w/laptop for Eng Mgr	$ 1,419	10/1/2014	MACRS 5	5	$ 272	$ 163	$ 163	$ 1,010	$ 1,174	$ 1,337
398		SCADA iNET-II 900 Dual Gateway	$ 21,482	3/1/2016	MACRS 5	5	$ 4,296	$ 6,874	$ 4,125	$ 4,296	$ 11,171	$ 15,295
399		SCADA radio data link	$ 51,073	5/1/2017	MACRS 5	5	$ -	$ 10,215	$ 16,343	$ -	$ 10,215	$ 26,558

Line No.	Utility Account	Property Description	Tax Cost	In Service Date	Tax Method	Tax Period	Annual Amortization 2016	Annual Amortization 2017	Annual Amortization 2018	Accumulated Depreciation 2016	Accumulated Depreciation 2017	Accumulated Depreciation 2018
400		SCADA upgrade 2013	$ 62,184	3/1/2016	MACRS 5	5	$ 12,437	$ 19,899	$ 11,939	$ 12,437	$ 32,335	$ 44,275
401		SCADAPack 32	$ 10,117	3/1/2016	MACRS 5	5	$ 2,023	$ 3,237	$ 1,942	$ 2,023	$ 5,261	$ 7,203
402		Scaffolding	$ 4,580	3/1/2016	MACRS 5	5	$ 916	$ 1,466	$ 879	$ 916	$ 2,382	$ 3,261
403		Work Order Addition	$ 14	12/1/2011	MACRS 5	5	$ 1	$ -	$ -	$ 14	$ 14	$ 14
404		Tools & Equipment	$ 954	6/1/2013	MACRS 5	5	$ 110	$ 110	$ 55	$ 789	$ 899	$ 954
405		Trailer, emergency compressor	$ 409	3/1/2016	SL-25	25	$ 16	$ 16	$ 16	$ 16	$ 33	$ 49
406		Trailer, emergency generator EG6500	$ 1,990	3/1/2016	SL-25	25	$ 80	$ 80	$ 80	$ 80	$ 159	$ 239
407		Trailer, emergency 6'x12' w/ramp	$ 7,488	3/1/2016	SL-25	25	$ 300	$ 300	$ 300	$ 300	$ 599	$ 899
408		Work Order Addition	$ 56,441	9/1/2012	MACRS 5	5	$ 6,502	$ 3,251	$ -	$ 53,190	$ 56,441	$ 56,441
409		V208214, Ford F-150	$ 6,545	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 6,545	$ 6,545	$ 6,545
410		V208216, Chevy Silverad	$ 8,656	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 8,656	$ 8,656	$ 8,656
411		V208217, Chevy 3500	$ 27,973	12/1/2010	MACRS 5	5	$ -	$ -	$ -	$ 27,973	$ 27,973	$ 27,973
412		V208222, '08 TOY 4 RUNNER	$ 30,978	12/1/2008	MACRS 5	5	$ -	$ -	$ -	$ 30,978	$ 30,978	$ 30,978
413		Visitor Chair	$ 162	9/1/2012	MACRS 7	7	$ 14	$ 14	$ 14	$ 126	$ 140	$ 155
414		SCADA Report Writer System	$ 40,983	11/30/2017	SL-25	25	$ -	$ 1,639	$ 1,639	$ -	$ 1,639	$ 3,279
415		Fuel Station	$ 175,680	8/31/2017	SL-25	25	$ -	$ 7,027	$ 7,027	$ -	$ 7,027	$ 14,054
416		Base Yard Security Cameras	$ 9,613	10/31/2017	MACRS 5	5	$ -	$ 1,923	$ 3,076	$ -	$ 1,923	$ 4,999
417		Big Island Radio Communication	$ 48,000	9/30/2017	MACRS 5	5	$ -	$ 9,600	$ 15,360	$ -	$ 9,600	$ 24,960
418		EMT Service Truck	$ 74,393	9/30/2017	MACRS 5	5	$ -	$ 14,879	$ 23,806	$ -	$ 14,879	$ 38,684
419		Handheld Meter Readers	$ 8,326	10/31/2017	MACRS 5	5	$ -	$ 1,665	$ 2,664	$ -	$ 1,665	$ 4,330
420		EMT Service Truck Tools	$ 8,436	10/31/2017	MACRS 5	5	$ -	$ 1,687	$ 2,699	$ -	$ 1,687	$ 4,386
421		Portable Air Compressor	$ 20,293	6/30/2017	MACRS 5	5	$ -	$ 4,059	$ 6,494	$ -	$ 4,059	$ 10,553
422		EMT Service Truck Tools	$ 8,436	10/31/2017	MACRS 5	5	$ -	$ 1,687	$ 2,699	$ -	$ 1,687	$ 4,386
423		Itron Handheld Meter Readers	$ 25,694	7/1/2018	MACRS 5	5	$ -	$ -	$ 5,139	$ -	$ -	$ 5,139
424		2018 Toyota 4Runner 4x4	$ 41,208	7/1/2018	MACRS 5	5	$ -	$ -	$ 8,242	$ -	$ -	$ 8,242
425		2018 Toyota Tacoma TRD 4x4	$ 38,978	7/1/2018	MACRS 5	5	$ -	$ -	$ 7,796	$ -	$ -	$ 7,796
426		Total	$ 1,891,044				$ 176,649	$ 181,966	$ 193,753	$ 1,026,703	$ 1,208,669	$ 1,402,422
427		BIG ISLAND ALLOCATIONS										
428		721 - Waikoloa Water	$ 346,702	18.33%			$ 32,387	$ 33,361	$ 35,523	$ 188,235	$ 221,596	$ 257,119
429		722 - Waikoloa Sewer	$ 263,142	13.92%			$ 24,581	$ 25,321	$ 26,961	$ 142,868	$ 168,189	$ 195,150
430		723 - Waikoloa Resort Water	$ 361,876	19.14%			$ 33,804	$ 34,822	$ 37,077	$ 196,473	$ 231,295	$ 268,372
431		724 - Waikoloa Resort Sewer	$ 480,339	25.40%			$ 44,870	$ 46,221	$ 49,215	$ 260,790	$ 307,010	$ 356,225
432		725 - Waikoloa Resort Irrigation	$ 19,251	1.02%			$ 1,798	$ 1,852	$ 1,972	$ 10,452	$ 12,305	$ 14,277
433		726 - Kona Water	$ 272,199	14.39%			$ 25,427	$ 26,192	$ 27,889	$ 147,785	$ 173,977	$ 201,866
434		727 - Kona Sewer	$ 147,535	7.80%			$ 13,782	$ 14,197	$ 15,116	$ 80,101	$ 94,297	$ 109,414
435	**WASTEWATER ADMINISTRATION**											
436		IPad 3 - WW Mgr.	$ 778	9/1/2013	MACRS 5	5	$ 90	$ 90	$ 45	$ 643	$ 733	$ 778
437		Total	$ 778				$ 90	$ 90	$ 45	$ 643	$ 733	$ 778
438		WASTEWATER ADMINISTRATION ALLOCATIONS										
439		701 - Pukalani	$ 134	17.22%			$ 15	$ 15	$ 8	$ 111	$ 126	$ 134
440		722 - Waikoloa Sewer	$ 191	24.52%			$ 22	$ 22	$ 11	$ 158	$ 180	$ 191
441		724 - Waikoloa Resort Sewer	$ 351	45.16%			$ 40	$ 40	$ 20	$ 290	$ 331	$ 351
442		727 - Kona Sewer	$ 102	13.10%			$ 12	$ 12	$ 6	$ 84	$ 96	$ 102

Line No.	Utility Account	Property Description	In Service Date	Federal Tax Cost	State Tax Cost	HCGETC	Amortization Period	Annual Amortization	Accumulated Amortization 2016	Accumulated Amortization 2017	Accumulated Amortization 2018	Unamortized HCGETC 2016	Unamortized HCGETC 2017	Unamortized HCGETC 2018
1	103540	**Structures & Improvement - Transmission & Distribution Plant**												
2		FENCING-VILLAGE STP	3/31/1989	$ 3,796	$ 3,644	$ 152	25	$ 6	$ -	$ -	$ -	$ 152	$ 152	$ 152	$ 0	$ 0	$ 0
3		A-PLANT FENCING	1/1/1999	$ 693	$ 665	$ 28	25	$ 1	$ 1	$ 1	$ 1	$ 20	$ 21	$ 22	$ 8	$ 7	$ 6
4		Sludge Dewatering Unit-Fence	5/15/2000	$ 1,353	$ 1,299	$ 54	25	$ 2	$ 2	$ 2	$ 2	$ 37	$ 39	$ 41	$ 17	$ 15	$ 13
5		A/Plant Trailer	12/31/2004	$ 29,221	$ 28,052	$ 1,169	25	$ 47	$ 47	$ 47	$ 47	$ 608	$ 655	$ 701	$ 561	$ 514	$ 468
6		A/Plant Reuse System Phase III - Electrical I	3/31/2004	$ 19,286	$ 18,515	$ 771	25	$ 31	$ 31	$ 31	$ 31	$ 401	$ 432	$ 463	$ 370	$ 339	$ 309
7		A-Plant Waterline Replacement	2/7/2003	$ 16,949	$ 16,271	$ 678	25	$ 27	$ 27	$ 27	$ 27	$ 380	$ 407	$ 434	$ 298	$ 271	$ 244
8		Sludge Dewatering Unit-Pad	4/12/2000	$ 15,185	$ 14,577	$ 607	25	$ 24	$ 24	$ 24	$ 24	$ 413	$ 437	$ 462	$ 194	$ 170	$ 146
9		K-PLANT ACCESS ROAD IMPROVEMENT	12/31/2000	$ 23,876	$ 22,921	$ 955	25	$ 38	$ 38	$ 38	$ 38	$ 649	$ 688	$ 726	$ 306	$ 267	$ 229
10		A/Plant Resue System Phase III - Pump & Pipin	3/31/2004	$ 6,792	$ 6,520	$ 272	25	$ 11	$ 11	$ 11	$ 11	$ 141	$ 152	$ 163	$ 130	$ 120	$ 109
11		A/Plant Aeration Piping Upgrade - Programming	4/30/2004	$ 3,160	$ 3,034	$ 126	25	$ 5	$ 5	$ 5	$ 5	$ 66	$ 71	$ 76	$ 61	$ 56	$ 51
12		K-PLANT POTABLE WATER SUPPLY	12/31/2000	$ 9,616	$ 9,232	$ 385	25	$ 15	$ 15	$ 15	$ 15	$ 262	$ 277	$ 292	$ 123	$ 108	$ 92
13		A/Plant Aeration Piping Upgrade - Piping	4/30/2004	$ 18,126	$ 17,401	$ 725	25	$ 29	$ 29	$ 29	$ 29	$ 377	$ 406	$ 435	$ 348	$ 319	$ 290
14		2 Reinforced Concrete MBBR Tanks	9/1/2010	$ 2,551,115	$ 2,449,071	$ 102,045	25	$ 4,082	$ 4,082	$ 4,082	$ 4,082	$ 28,572	$ 32,654	$ 36,736	$ 73,472	$ 69,390	$ 65,309
15		2 Steel Digester Tanks	9/1/2010	$ 515,910	$ 495,274	$ 20,636	25	$ 825	$ 825	$ 825	$ 825	$ 5,778	$ 6,604	$ 7,429	$ 14,858	$ 14,033	$ 13,207
16		Buildings and Decks	9/1/2010	$ 1,453,052	$ 1,394,930	$ 58,122	25	$ 2,325	$ 2,325	$ 2,325	$ 2,325	$ 16,274	$ 18,599	$ 20,924	$ 41,848	$ 39,523	$ 37,198
17		K Plant Dewatering Tank Slab	12/1/2013	$ 28,440	$ 27,302	$ 1,138	25	$ 46	$ 46	$ 46	$ 46	$ 182	$ 228	$ 273	$ 956	$ 910	$ 865
18		K Plant Treatment Facility	12/1/2013	$ 1,061,837	$ 1,019,364	$ 42,473	25	$ 1,699	$ 1,699	$ 1,699	$ 1,699	$ 6,796	$ 8,495	$ 10,194	$ 35,678	$ 33,979	$ 32,280
19		K Plant Electrical Work	12/1/2013	$ 121,896	$ 117,020	$ 4,876	25	$ 195	$ 195	$ 195	$ 195	$ 780	$ 975	$ 1,170	$ 4,096	$ 3,901	$ 3,706
20		K Plant Inlet Screen	12/1/2013	$ 11,208	$ 10,760	$ 448	25	$ 18	$ 18	$ 18	$ 18	$ 72	$ 90	$ 108	$ 377	$ 359	$ 341
21		K Plant Sitework	12/1/2013	$ 296,301	$ 284,449	$ 11,852	25	$ 474	$ 474	$ 474	$ 474	$ 1,896	$ 2,370	$ 2,844	$ 9,956	$ 9,482	$ 9,008
22		K Plant Design & Eng	12/1/2013	$ 2,559,773	$ 2,457,383	$ 102,391	25	$ 4,096	$ 4,096	$ 4,096	$ 4,096	$ 16,383	$ 20,478	$ 24,574	$ 86,008	$ 81,913	$ 77,817
23		K Plant Control Bldg	12/1/2013	$ 9,198	$ 8,830	$ 368	25	$ 15	$ 15	$ 15	$ 15	$ 59	$ 74	$ 88	$ 309	$ 294	$ 280
24		Emergency Shower-APlant	2/1/2015	$ 3,608	$ 3,464	$ 144	25	$ 6	$ 6	$ 6	$ 6	$ 12	$ 17	$ 23	$ 133	$ 127	$ 121
25		A-Plant curb 6"x6"	9/1/2016	$ 4,060	$ 3,917	$ 163	25	$ 7	$ 7	$ 7	$ 7	$ 7	$ 13	$ 20	$ 157	$ 150	$ 144
26		K-Plant DAF curb 6"x6"	9/1/2016	$ 3,042	$ 2,921	$ 122	25	$ 5	$ 5	$ 5	$ 5	$ 5	$ 10	$ 15	$ 117	$ 112	$ 107
27		K-Plant slab&curb 4'5"x6'	9/1/2016	$ 1,981	$ 1,902	$ 79	25	$ 3	$ 3	$ 3	$ 3	$ 3	$ 6	$ 10	$ 76	$ 73	$ 70
28		K-Plant slab&curb 4'5"x6'	9/1/2016	$ 1,981	$ 1,902	$ 79	25	$ 3	$ 3	$ 3	$ 3	$ 3	$ 6	$ 10	$ 76	$ 73	$ 70
29		KPlant Design-Brown&Caldwell	10/1/2014	$ 169,545	$ 162,764	$ 6,782	25	$ 271	$ 271	$ 271	$ 271	$ 814	$ 1,085	$ 1,356	$ 5,968	$ 5,697	$ 5,425
30		KPlant Construction	10/1/2014	$ 130,578	$ 125,355	$ 5,223	25	$ 209	$ 209	$ 209	$ 209	$ 627	$ 836	$ 1,045	$ 4,596	$ 4,387	$ 4,178
31		KPlant Project Mgt-Yame&Assoc	10/1/2014	$ 381,106	$ 365,861	$ 15,244	25	$ 610	$ 610	$ 610	$ 610	$ 1,829	$ 2,439	$ 3,049	$ 13,415	$ 12,805	$ 12,195
32		KPlant Headworks Access	10/1/2014	$ 39,678	$ 38,091	$ 1,587	25	$ 63	$ 63	$ 63	$ 63	$ 190	$ 254	$ 317	$ 1,397	$ 1,333	$ 1,270
33		KPlant Construction	10/1/2014	$ 72,505	$ 69,604	$ 2,900	25	$ 116	$ 116	$ 116	$ 116	$ 348	$ 464	$ 580	$ 2,552	$ 2,436	$ 2,320
34		KPlant Paddle Guards	10/1/2014	$ 4,344	$ 4,170	$ 174	25	$ 7	$ 7	$ 7	$ 7	$ 21	$ 28	$ 35	$ 153	$ 146	$ 139
35		APlant road repave, 5000 sq. ft.	5/1/2017	$ 25,667	$ 24,641	$ 1,027	25	$ 41	$ -	$ 41	$ 41	$ -	$ 41	$ 82	$ -	$ 986	$ 945
36		A-Plant Security Cameras	10/31/2017	$ 10,010	$ 9,609	$ 400	25	$ 16	$ -	$ 16	$ 16	$ -	$ 16	$ 32	$ -	$ 384	$ 368
37		K-Plant Security Cameras	10/31/2017	$ 10,010	$ 9,609	$ 400	25	$ 16	$ -	$ 16	$ 16	$ -	$ 16	$ 32	$ -	$ 384	$ 368
38		A-Plant Effluent Pits Fence	12/31/2017	$ 66,037	$ 63,395	$ 2,641	25	$ 106	$ -	$ 106	$ 106	$ -	$ 106	$ 211	$ -	$ 2,536	$ 2,430
39		Total		$ 9,680,954	$ 9,293,716	$ 387,238		$ 15,490	$ 15,385	$ 15,483	$ 15,483	$ 84,156	$ 99,639	$ 116,123	$ 298,613	$ 287,599	$ 272,115
40	103701	**Pumping Equipment**												
41		Sludge Feed Pump-Aplant	12/1/2014	$ 8,181	$ 7,854	$ 327	25	$ 13	$ 13	$ 13	$ 13	$ 92	$ 105	$ 118	$ 236	$ 223	$ 209
42		Total		$ 8,181	$ 7,854	$ 327		$ 13	$ 13	$ 13	$ 13	$ 92	$ 105	$ 118	$ 236	$ 223	$ 209
43	103801	**Treatment & Disposal Equipment**												
44		A-PLANT ABJ EQUIPMENT	1/1/1999	$ 162,449	$ 155,951	$ 6,498	25	$ 260	$ 260	$ 260	$ 260	$ 4,679	$ 4,938	$ 5,198	$ 1,819	$ 1,560	$ 1,300
45		A-PLANT TANK-INFRASTRUCTURE	1/1/1999	$ 7,885	$ 7,569	$ 315	25	$ 13	$ 13	$ 13	$ 13	$ 227	$ 240	$ 252	$ 88	$ 76	$ 63
46		COMPOSITE SAMPLER-K PLANT	4/12/2000	$ 4,685	$ 4,497	$ 187	25	$ 7	$ 7	$ 7	$ 7	$ 127	$ 135	$ 142	$ 60	$ 52	$ 45
47		200 GALLON SKID SPRAYER	7/5/2001	$ 2,860	$ 2,746	$ 114	25	$ 5	$ 5	$ 5	$ 5	$ 73	$ 78	$ 82	$ 41	$ 37	$ 32
48		Aqua-Jet Aerator	5/1/2003	$ 6,918	$ 6,641	$ 277	25	$ 11	$ 11	$ 11	$ 11	$ 155	$ 166	$ 177	$ 122	$ 111	$ 100
49		Lister Hawkpower Diesel Generator	12/31/2007	$ 1,500	$ 1,440	$ 60	25	$ 2	$ 2	$ 2	$ 2	$ 24	$ 26	$ 29	$ 36	$ 34	$ 31
50		VILLAGE STP EXPANSION	8/1/1990	$ 502,179	$ 482,092	$ 20,087	25	$ 803	$ -	$ -	$ -	$ 20,087	$ 20,087	$ 20,087	$ (0)	$ (0)	$ (0)
51		KAMAKOA WRP EXPANSION-LAGOON	9/1/1994	$ -	$ -	$ -	25	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
52		K-Plant composite sampler	9/30/1995	$ 7,208	$ 6,920	$ 288	25	$ 12	$ 12	$ 12	$ 12	$ 254	$ 265	$ 277	$ 35	$ 23	$ 12
53		K-PLANT UPGRADE CHLORINE FEEDER	7/1/1997	$ -	$ -	$ -	25	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
54		A-PLANT UNDERGROUND PIPING	1/1/1999	$ 14,021	$ 13,460	$ 561	25	$ 22	$ 22	$ 22	$ 22	$ 404	$ 426	$ 449	$ 157	$ 135	$ 112
55		K-PLANT ELECTRIC SAMPLER & MTR	7/1/1997	$ 9,128	$ 8,762	$ 365	25	$ 15	$ 15	$ 15	$ 15	$ 292	$ 307	$ 321	$ 73	$ 58	$ 44
56		KAMAKOA STP	4/30/1992	$ 476,936	$ 457,859	$ 19,077	25	$ 763	$ 763	$ -	$ -	$ 19,077	$ 19,077	$ 19,077	$ (0)	$ (0)	$ (0)
57		UTILITY PLANT DONATED	10/31/1978	$ 1,319	$ 1,266	$ 53	25	$ 2	$ -	$ -	$ -	$ 53	$ 53	$ 53	$ 0	$ 0	$ 0
58		TREATMENT PLANT-ORIGINAL	1/1/1974	$ 27,009	$ 25,928	$ 1,080	25	$ 43	$ -	$ -	$ -	$ 1,080	$ 1,080	$ 1,080	$ -	$ -	$ -
59		VILLAGE STP-EXPANSION PHASE II	3/1/1992	$ 261,932	$ 251,455	$ 10,477	25	$ 419	$ 419	$ -	$ -	$ 10,477	$ 10,477	$ 10,477	$ (0)	$ (0)	$ (0)
60		ADDITIONAL VILLAGE STP	1/1/1993	$ 9,319	$ 8,947	$ 373	25	$ 15	$ 15	$ 15	$ -	$ 358	$ 373	$ 373	$ 15	$ 0	$ 0
61		K-Plant 12" Valve/labor	1/1/1995	$ 2,051	$ 1,969	$ 82	25	$ 3	$ 3	$ 3	$ 3	$ 72	$ 75	$ 79	$ 10	$ 7	$ 3
62		Kamakoe WRP expansion - addt'l	1/1/1995	$ -	$ -	$ -	25	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
63		K-plant baffle	1/1/1996	$ -	$ -	$ -	25	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
64		K-PLANT RECIRCULATION PUMP	7/1/1997	$ -	$ -	$ -	25	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Line No.	Utility Account	Property Description	In Service Date	Federal Tax Cost	State Tax Cost	HCGETC	Amortization Period	Annual Amortization	Accumulated Amortization 2016	Accumulated Amortization 2017	Accumulated Amortization 2018	Unamortized HCGETC 2016	Unamortized HCGETC 2017	Unamortized HCGETC 2018
65		A-PLANT TANK STRUCTURE	1/1/1999	$ 207,435	$ 199,137	$ 8,297	25	$ 332	$ 332	$ 332	$ 332	$ 5,974	$ 6,306	$ 6,638	$ 2,323	$ 1,991	$ 1,659
66		A-PLANT BLOWER NO.3	2/17/1999	$ 42,731	$ 41,022	$ 1,709	25	$ 68	$ 68	$ 68	$ 68	$ 1,231	$ 1,299	$ 1,367	$ 479	$ 410	$ 342
67		A-PLANT ELECTRICAL	5/28/1999	$ 36,593	$ 35,129	$ 1,464	25	$ 59	$ 59	$ 59	$ 59	$ 1,054	$ 1,112	$ 1,171	$ 410	$ 351	$ 293
68		PALLET LIFTER	1/25/2000	$ 2,080	$ 1,997	$ 83	25	$ 3	$ 3	$ 3	$ 3	$ 57	$ 60	$ 63	$ 27	$ 23	$ 20
69		Sludge Dewatering Unit-Elect	4/12/2000	$ 1,040	$ 998	$ 42	25	$ 2	$ 2	$ 2	$ 2	$ 28	$ 30	$ 32	$ 13	$ 12	$ 10
70		A-Plant Effluent Reuse System - Pump & Piping	2/25/2002	$ 17,492	$ 16,792	$ 700	25	$ 28	$ 28	$ 28	$ 28	$ 420	$ 448	$ 476	$ 280	$ 252	$ 224
71		A-Plant Effluent Reuse System - Electrical Ch	2/25/2002	$ 11,772	$ 11,301	$ 471	25	$ 19	$ 19	$ 19	$ 19	$ 283	$ 301	$ 320	$ 188	$ 170	$ 151
72		A-Plant Reuse Syst PhIII-Piping	8/31/2006	$ 23,506	$ 22,566	$ 940	25	$ 38	$ 38	$ 38	$ 38	$ 336	$ 376	$ 414	$ 602	$ 564	$ 527
73		(1) Aqua-Jet Aerator	4/16/2004	$ 4,537	$ 4,355	$ 181	25	$ 7	$ 7	$ 7	$ 7	$ 94	$ 102	$ 109	$ 87	$ 80	$ 73
74		K-PLANT CONTREAT TANK CONVERSION	7/1/1997	$ 1,135	$ 1,090	$ 45	25	$ 2	$ 2	$ 2	$ 2	$ 36	$ 38	$ 40	$ 9	$ 7	$ 5
75		K-PLANT CHLORINE CONTACT BASIN	7/1/1997	$ 8,003	$ 7,682	$ 320	25	$ 13	$ 13	$ 13	$ 13	$ 256	$ 269	$ 282	$ 64	$ 51	$ 38
76		A-Plant Effluent Reuse System - Concrete Pump	2/25/2002	$ 3,182	$ 3,054	$ 127	25	$ 5	$ 5	$ 5	$ 5	$ 76	$ 81	$ 87	$ 51	$ 46	$ 41
77		K-PLANT REBUILD GENERATOR	7/1/1997	$ 44,012	$ 42,251	$ 1,760	25	$ 70	$ 70	$ 70	$ 70	$ 1,408	$ 1,479	$ 1,549	$ 352	$ 282	$ 211
78		KAMAKOA WRP EXPANSION-ADDITIONAL	10/1/1994	$ -	$ -	$ -	25	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
79		Marathon Magnamite Generator	2/1/2001	$ 10,689	$ 10,262	$ 428	25	$ 17	$ 17	$ 17	$ 17	$ 274	$ 291	$ 308	$ 154	$ 137	$ 120
80		SHELTER FOR ISCO SAMPLER	12/31/1981	$ 2,005	$ 1,925	$ 80	25	$ 3	$ -	$ -	$ -	$ 80	$ 80	$ 80	$ 0	$ 0	$ 0
81		VILLAGE STP-ELECTRICAL	12/31/1992	$ 2,418	$ 2,321	$ 97	25	$ 4	$ 4	$ -	$ -	$ 97	$ 97	$ 97	$ 0	$ 0	$ 0
82		Blower System	9/1/2010	$ 164,154	$ 157,588	$ 6,566	25	$ 263	$ 263	$ 263	$ 263	$ 1,839	$ 2,101	$ 2,364	$ 4,728	$ 4,465	$ 4,202
83		Electrical Controls	9/1/2010	$ 560,489	$ 538,069	$ 22,420	25	$ 897	$ 897	$ 897	$ 897	$ 6,277	$ 7,174	$ 8,071	$ 16,142	$ 15,245	$ 14,349
84		Sludge Dewatering System	9/1/2010	$ 1,130,023	$ 1,084,822	$ 45,201	25	$ 1,808	$ 1,808	$ 1,808	$ 1,808	$ 12,656	$ 14,464	$ 16,272	$ 32,545	$ 30,737	$ 28,929
85		K Plant Flocculant Sys Design Work	12/1/2013	$ 7,034	$ 6,753	$ 281	25	$ 11	$ 11	$ 11	$ 11	$ 45	$ 56	$ 68	$ 236	$ 225	$ 214
86		Replacement Sludge Gate Actuator	12/1/2013	$ 2,420	$ 2,323	$ 97	25	$ 4	$ 4	$ 4	$ 4	$ 15	$ 19	$ 23	$ 81	$ 77	$ 74
87		Gearboxes - APlant	12/1/2014	$ 1,532	$ 1,471	$ 61	25	$ 2	$ 2	$ 2	$ 2	$ 7	$ 10	$ 12	$ 54	$ 51	$ 49
88		APlant emergency stop button	12/1/2014	$ 1,145	$ 1,100	$ 46	25	$ 2	$ 2	$ 2	$ 2	$ 6	$ 7	$ 9	$ 40	$ 39	$ 37
89		A-Plant air compressor	3/1/2016	$ 2,633	$ 2,528	$ 105	25	$ 4	$ 4	$ 4	$ 4	$ 4	$ 8	$ 13	$ 101	$ 97	$ 93
90		2" valves for A-Plant digester blower	11/1/2016	$ 4,877	$ 4,682	$ 195	25	$ 8	$ 8	$ 8	$ 8	$ 8	$ 16	$ 23	$ 187	$ 179	$ 172
91		A-Plant flow meter controls	11/1/2016	$ 2,021	$ 1,940	$ 81	25	$ 3	$ 3	$ 3	$ 3	$ 3	$ 6	$ 10	$ 78	$ 74	$ 71
92		A-plant pH sensors	12/1/2016	$ 16,836	$ 16,163	$ 673	25	$ 27	$ 27	$ 27	$ 27	$ 27	$ 54	$ 81	$ 647	$ 620	$ 593
93		K-Plant Screw Press Design	12/31/2017	$ -	$ -	$ -	25	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
94		KPlant absorption bed#2 design	10/31/2017	$ 4,284	$ 4,113	$ 171	25	$ 7	$ -	$ 7	$ 7	$ -	$ 7	$ 14	$ -	$ 165	$ 158
95		Aplant Pneumatic Gate Valves	10/31/2017	$ 18,530	$ 17,789	$ 741	25	$ 30	$ -	$ 30	$ 30	$ -	$ 30	$ 59	$ -	$ 712	$ 682
96		Kplant Level Transducers	10/31/2017	$ 1,136	$ 1,091	$ 45	25	$ 2	$ -	$ 2	$ 2	$ -	$ 2	$ 4	$ -	$ 44	$ 42
97		K-Plant Headworks	7/1/2018	$ 38,630	$ 37,277	$ 1,553	25	$ 62	$ -	$ -	$ 62	$ -	$ -	$ 62	$ -	$ -	$ 1,491
98		A-Plant Headworks	7/1/2018	$ 16,154	$ 15,508	$ 646	25	$ 26	$ -	$ -	$ 26	$ -	$ -	$ 26	$ -	$ -	$ 620
99		A-Plant Centrifuge Motor	7/1/2018	$ 3,214	$ 3,085	$ 129	25	$ 5	$ -	$ -	$ 5	$ -	$ -	$ 5	$ -	$ -	$ 123
100		Total		$ 3,891,341	$ 3,735,687	$ 155,654		$ 6,226	$ 5,243	$ 4,095	$ 4,173	$ 90,034	$ 94,129	$ 98,302	$ 62,334	$ 59,197	$ 57,351
101	103600	**Collection Sewers Force**												
102		SEWER LINES(DEDICATED)SCHULER	5/14/1993	$ 147,285	$ 141,394	$ 5,891	25	$ 236	$ 236	$ 236	$ -	$ 5,656	$ 5,891	$ 5,891	$ 236	$ -	$ -
103		SWR LINES (DEDICTD) KEK I&II	4/4/1996	$ 34,888	$ 33,492	$ 1,396	25	$ 56	$ 56	$ 56	$ 56	$ 1,172	$ 1,228	$ 1,284	$ 223	$ 167	$ 112
104		SWR LINES (DEDICATED) KEKUMU III	1/1/1997	$ 75,132	$ 72,127	$ 3,005	25	$ 120	$ 120	$ 120	$ 120	$ 2,404	$ 2,524	$ 2,645	$ 601	$ 481	$ 361
105		Total		$ 257,305	$ 247,012	$ 10,292		$ 412	$ 412	$ 412	$ 176	$ 9,232	$ 9,644	$ 9,820	$ 1,060	$ 648	$ 472
106	103610	**Collection Sewers Gravity**												
107		Castle&Cooke DedicSwrLines-Kikaha@Wehilani	1/1/2008	$ 344,985	$ 331,186	$ 13,799	25	$ 552	$ 552	$ 552	$ 552	$ 4,968	$ 5,520	$ 6,072	$ 8,832	$ 8,280	$ 7,728
108		SEWER TRANSMISSION LINE	1/1/1974	$ 871,886	$ 837,011	$ 34,875	25	$ 1,395	$ -	$ -	$ -	$ 34,875	$ 34,875	$ 34,875	$ 0	$ 0	$ 0
109		K Plant Water Lines	12/1/2013	$ 8,400	$ 8,064	$ 336	25	$ 13	$ 13	$ 13	$ 13	$ 54	$ 67	$ 81	$ 282	$ 269	$ 255
110		K Plant SCH80 Sump Filtrate Piping	12/1/2013	$ 14,120	$ 13,556	$ 565	25	$ 23	$ 23	$ 23	$ 23	$ 90	$ 113	$ 136	$ 474	$ 452	$ 429
111		K Plant Sewer Lines	12/1/2013	$ 99,540	$ 95,558	$ 3,982	25	$ 159	$ 159	$ 159	$ 159	$ 637	$ 796	$ 956	$ 3,345	$ 3,185	$ 3,026
112		K-plant 3' manhole riser	3/1/2015	$ 2,589	$ 2,486	$ 104	25	$ 4	$ 4	$ 4	$ 4	$ 8	$ 12	$ 17	$ 95	$ 91	$ 87
113		Pua Melia 12" of 8" PVC sewer pipe	6/1/2016	$ 55,728	$ 53,499	$ 2,229	25	$ 89	$ 89	$ 89	$ 89	$ 89	$ 178	$ 267	$ 2,140	$ 2,051	$ 1,962
114		P.V.C. - 8" [559]	6/1/2016	$ 450	$ 432	$ 18	25	$ 1	$ 1	$ 1	$ 1	$ 1	$ 1	$ 2	$ 17	$ 17	$ 16
115		Total		$ 1,397,700	$ 1,341,792	$ 55,908		$ 2,236	$ 841	$ 841	$ 841	$ 40,723	$ 41,564	$ 42,405	$ 15,185	$ 14,344	$ 13,503
116	103550	**Power Generation Equipment**												
117		K Plant Emergency Generator	12/1/2013	$ 315,912	$ 303,276	$ 12,636	25	$ 505	$ 505	$ 505	$ 505	$ 2,022	$ 2,527	$ 3,033	$ 10,615	$ 10,109	$ 9,604
118		Shindaiwa Generator Lease Buy-out	2/1/2014	$ 10,200	$ 9,792	$ 408	25	$ 16	$ 16	$ 16	$ 16	$ 49	$ 65	$ 82	$ 359	$ 343	$ 326
119		Total		$ 326,112	$ 313,068	$ 13,044		$ 522	$ 522	$ 522	$ 522	$ 2,071	$ 2,593	$ 3,114	$ 10,974	$ 10,452	$ 9,930
120	103700	**Receiving Wells**												
121		Wet Well	9/1/2010	$ 24,727	$ 23,738	$ 989	25	$ 40	$ 40	$ 40	$ 40	$ 277	$ 317	$ 356	$ 712	$ 673	$ 633
122		Total		$ 24,727	$ 23,738	$ 989		$ 40	$ 40	$ 40	$ 40	$ 277	$ 317	$ 356	$ 712	$ 673	$ 633
123	103810	**Plant Sewers**												

Line No.	Utility Account	Property Description	In Service Date	Federal Tax Cost	State Tax Cost	HCGETC	Amortization Period	Annual Amortization	Accumulated Amortization 2016	Accumulated Amortization 2017	Accumulated Amortization 2018	Unamortized HCGETC 2016	Unamortized HCGETC 2017	Unamortized HCGETC 2018
124		K Plant Effluent Sewer Manhole	12/1/2013	$ 36,649	$ 35,183	$ 1,466	25	$ 59	$ 59	$ 59	$ 59	$ 235	$ 293	$ 352	$ 1,231	$ 1,173	$ 1,114
125		Total		$ 36,649	$ 35,183	$ 1,466		$ 59	$ 59	$ 59	$ 59	$ 235	$ 293	$ 352	$ 1,231	$ 1,173	$ 1,114
126	103890	**Other Equipment**												
127		SEWR LINES JETTER/WASHER EQP #177	4/17/1995	$ 5,144	$ 4,938	$ 206	25	$ 8	$ 8	$ 8	$ 8	$ 173	$ 181	$ 189	$ 33	$ 25	$ 16
128		K Plant HELCO Primary Ducts	12/1/2013	$ 420,498	$ 403,678	$ 16,820	25	$ 673	$ 673	$ 673	$ 673	$ 2,691	$ 3,364	$ 4,037	$ 14,129	$ 13,456	$ 12,783
129		K Plant NEMA 3R Equip.	12/1/2013	$ 93,536	$ 89,795	$ 3,741	25	$ 150	$ 150	$ 150	$ 150	$ 599	$ 748	$ 898	$ 3,143	$ 2,993	$ 2,844
130		A-Plant 1.5" Water Line Replacement	12/31/2017	$ 7,110	$ 6,825	$ 284	25	$ 11	$ -	$ 11	$ 11	$ -	$ 11	$ 23	$ -	$ 273	$ 262
131		Total		$ 526,288	$ 505,237	$ 21,052		$ 842	$ 831	$ 842	$ 842	$ 3,463	$ 4,305	$ 5,147	$ 17,304	$ 16,747	$ 15,905
132	103930	**Tools, Shop, & Garage Equipment**												
133		A-Plant safety cabinet	12/1/2016	$ 872	$ 837	$ 35	7	$ 5	$ 5	$ 5	$ 5	$ 5	$ 10	$ 15	$ 30	$ 25	$ 20
134		Total		$ 872	$ 837	$ 35		$ 5	$ 5	$ 5	$ 5	$ 5	$ 10	$ 15	$ 30	$ 25	$ 20
135	103940	**Laboratory Equipment**												
136		Ohaus MB25 Moisture Analyzer	12/1/2014	$ 1,320	$ 1,267	$ 53	7	$ 8	$ 8	$ 8	$ 8	$ 23	$ 30	$ 38	$ 30	$ 23	$ 15
137		KPlant Refrigerated Sampler	10/1/2014	$ 5,919	$ 5,682	$ 237	7	$ 34	$ 34	$ 34	$ 34	$ 101	$ 135	$ 169	$ 135	$ 101	$ 68
138		Aplant PLC	10/31/2017	$ 5,050	$ 4,848	$ 202	7	$ 29	$ -	$ 29	$ 29	$ -	$ 29	$ 58	$ -	$ 173	$ 144
139		Total		$ 12,289	$ 11,797	$ 492		$ 70	$ 41	$ 70	$ 70	$ 124	$ 194	$ 265	$ 165	$ 297	$ 227
140	103950	**Power Operated Equipment**												
141		KPlant Shindaiwa Generator 70KVA	10/1/2014	$ 19,531	$ 18,750	$ 781	25	$ 31	$ 31	$ 31	$ 31	$ 94	$ 125	$ 156	$ 688	$ 656	$ 625
142		Total		$ 19,531	$ 18,750	$ 781		$ 31	$ 31	$ 31	$ 31	$ 94	$ 125	$ 156	$ 688	$ 656	$ 625
143	103965	**Transportation Equipment**												
144		2006 Ford Ranger	12/1/2011	$ 4,960	$ 4,762	$ 198	5	$ 40	$ 40	$ -	$ -	$ 198	$ 198	$ 198	$ -	$ -	$ -
145		Jetting/Vacuum Truck/Pukalani	7/1/2013	$ 328,447	$ 315,309	$ 13,138	5	$ 2,628	$ 2,628	$ 2,628	$ 2,628	$ 10,510	$ 13,138	$ 13,138	$ 2,628	$ -	$ -
146		Jetting/Vacuum Truck/Pukalani	7/1/2013	$ 6,577	$ 6,314	$ 263	5	$ 53	$ 53	$ 53	$ 53	$ 210	$ 263	$ 263	$ 53	$ -	$ -
147		Total		$ 339,984	$ 326,385	$ 13,599		$ 2,720	$ 2,720	$ 2,680	$ 2,680	$ 10,919	$ 13,599	$ 13,599	$ 2,680	$ -	$ -
148	103975	**Stores Equipment**												
149		KPlant safety cabinets 42x49	3/1/2016	$ 1,795	$ 1,723	$ 72	7	$ 10	$ 10	$ 10	$ 10	$ 10	$ 21	$ 31	$ 62	$ 51	$ 41
150		Kplant 20' Storage Container	8/31/2017	$ 6,060	$ 5,818	$ 242	7	$ 35	$ -	$ 35	$ 35	$ -	$ 35	$ 69	$ -	$ 208	$ 173
151		Kplant Shed	11/30/2017	$ 4,698	$ 4,510	$ 188	7	$ 27	$ -	$ 27	$ 27	$ -	$ 27	$ 54	$ -	$ 161	$ 134
152		Total		$ 12,553	$ 12,051	$ 502		$ 72	$ 10	$ 72	$ 72	$ 10	$ 82	$ 154	$ 62	$ 420	$ 348
153	103980	**General Plant**												
154		Shower/eye wash station	1/25/1991	$ 818	$ 785	$ 33	7	$ 5	$ -	$ -	$ -	$ 33	$ 33	$ 33	$ -	$ -	$ -
155		K-PLANT PORTABLE RESTROOM	7/1/1997	$ 2,216	$ 2,128	$ 89	7	$ 13	$ -	$ -	$ -	$ 89	$ 89	$ 89	$ -	$ -	$ -
156		PH METER	3/3/1998	$ 281	$ 270	$ 11	7	$ 2	$ -	$ -	$ -	$ 11	$ 11	$ 11	$ -	$ -	$ -
157		A-PLANT TELEMETRY SOFTWARE	1/1/1999	$ 2,644	$ 2,539	$ 106	3	$ 35	$ -	$ -	$ -	$ 106	$ 106	$ 106	$ -	$ -	$ -
158		Dell Computer	7/6/2000	$ 290	$ 278	$ 12	5	$ 2	$ -	$ -	$ -	$ 12	$ 12	$ 12	$ -	$ -	$ -
159		Base Yard Lunch Room Rennovations (WHSC Share	3/31/2001	$ 3,356	$ 3,222	$ 134	5	$ 27	$ -	$ -	$ -	$ 134	$ 134	$ 134	$ -	$ -	$ -
160		DO Meter	4/29/2003	$ 849	$ 815	$ 34	7	$ 5	$ -	$ -	$ -	$ 34	$ 34	$ 34	$ -	$ -	$ -
161		2 Baseyard Computers	7/1/2002	$ 486	$ 467	$ 19	5	$ 4	$ -	$ -	$ -	$ 19	$ 19	$ 19	$ -	$ -	$ -
162		Radial Saw	4/3/2003	$ 257	$ 247	$ 10	7	$ 1	$ -	$ -	$ -	$ 10	$ 10	$ 10	$ -	$ -	$ -
163		Software Windows Upgrade for Softwater Billin	4/2/2004	$ 558	$ 535	$ 22	3	$ 7	$ -	$ -	$ -	$ 22	$ 22	$ 22	$ -	$ -	$ -
164		Lexmark T630N Laser Printer	12/31/2004	$ 306	$ 294	$ 12	5	$ 2	$ -	$ -	$ -	$ 12	$ 12	$ 12	$ -	$ -	$ -
165		Spin Balancer (WHSC Share)	9/20/2006	$ 749	$ 719	$ 30	7	$ 4	$ -	$ -	$ -	$ 30	$ 30	$ 30	$ -	$ -	$ -
166		Computer - Accounts Receivable Dept.	2/19/2002	$ 352	$ 338	$ 14	5	$ 3	$ -	$ -	$ -	$ 14	$ 14	$ 14	$ -	$ -	$ -
167		Portable Generator	5/23/2002	$ 208	$ 200	$ 8	25	$ 0	$ 0	$ 0	$ 0	$ 5	$ 5	$ 6	$ 3	$ 3	$ 3
168		Band Saw	7/1/2003	$ 524	$ 503	$ 21	7	$ 3	$ -	$ -	$ -	$ 21	$ 21	$ 21	$ -	$ -	$ -
169		A/Plant Sludge Trailer	8/12/2004	$ 2,117	$ 2,032	$ 85	7	$ 12	$ -	$ -	$ -	$ 85	$ 85	$ 85	$ -	$ -	$ -
170		2-Way Radio	4/22/2005	$ 250	$ 240	$ 10	7	$ 1	$ -	$ -	$ -	$ 10	$ 10	$ 10	$ -	$ -	$ -
171		2000 Jeep buy-out lease 77512740510968	1/1/2006	$ 1,666	$ 1,600	$ 67	5	$ 13	$ -	$ -	$ -	$ 67	$ 67	$ 67	$ -	$ -	$ -
172		Dell Precision 390 Computer-Util Clerk-Acctng	10/18/2007	$ 432	$ 414	$ 17	5	$ 3	$ -	$ -	$ -	$ 17	$ 17	$ 17	$ -	$ -	$ -
173		Two (2) Dodge Dakota Pickup Trucks (WHSC Shar	3/31/2001	$ 1,333	$ 1,280	$ 53	5	$ 11	$ -	$ -	$ -	$ 53	$ 53	$ 53	$ -	$ -	$ -
174		Safety Cabinet	7/3/2002	$ 226	$ 217	$ 9	7	$ 1	$ -	$ -	$ -	$ 9	$ 9	$ 9	$ -	$ -	$ -
175		(2) Telemetry Field Computers	4/15/2004	$ 890	$ 854	$ 36	5	$ 7	$ -	$ -	$ -	$ 36	$ 36	$ 36	$ -	$ -	$ -
176		Tommy Lift Gate for Aplant Truck	8/25/2006	$ 2,651	$ 2,545	$ 106	5	$ 21	$ -	$ -	$ -	$ 106	$ 106	$ 106	$ -	$ -	$ -
177		Chlorine gas detector	1/25/1991	$ 1,209	$ 1,161	$ 48	7	$ 7	$ -	$ -	$ -	$ 48	$ 48	$ 48	$ -	$ -	$ -
178		PH METER	3/3/1998	$ 281	$ 270	$ 11	7	$ 2	$ -	$ -	$ -	$ 11	$ 11	$ 11	$ -	$ -	$ -

Line No.	Utility Account	Property Description	In Service Date	Federal Tax Cost	State Tax Cost	HCGETC	Amortization Period	Annual Amortization	Accumulated Amortization 2016	Accumulated Amortization 2017	Accumulated Amortization 2018	Unamortized HCGETC 2016	Unamortized HCGETC 2017	Unamortized HCGETC 2018
179		PENTIUM COMPUTERS (2) (1/3 SHARE)	12/12/1998	$ 760	$ 730	$ 30	5	$ 6	$ -	$ -	$ -	$ 30	$ 30	$ 30	$ -	$ -	$ -
180		SOFTWATER SECURITY FEATURES	1/1/1999	$ 208	$ 200	$ 8	3	$ 3	$ -	$ -	$ -	$ 8	$ 8	$ 8	$ -	$ -	$ -
181		NORSTAR PHONE SYSTEM-BASEYARD	4/12/1999	$ 1,842	$ 1,768	$ 74	7	$ 11	$ -	$ -	$ -	$ 74	$ 74	$ 74	$ -	$ -	$ -
182		TOOLBOXES-2000 CHEVY S10 TRUCKS (3)	1/17/2000	$ 207	$ 199	$ 8	7	$ 1	$ -	$ -	$ -	$ 8	$ 8	$ 8	$ -	$ -	$ -
183		Oil Containment Area	1/1/2001	$ 1,733	$ 1,664	$ 69	7	$ 10	$ -	$ -	$ -	$ 69	$ 69	$ 69	$ -	$ -	$ -
184		Copy Machine	9/11/2001	$ 2,047	$ 1,965	$ 82	5	$ 16	$ -	$ -	$ -	$ 82	$ 82	$ 82	$ -	$ -	$ -
185		2-Way Radio for Aplant Truck	12/31/2006	$ 510	$ 490	$ 20	7	$ 3	$ -	$ -	$ -	$ 20	$ 20	$ 20	$ -	$ -	$ -
186		Tire Changer	8/8/2002	$ 989	$ 950	$ 40	7	$ 6	$ -	$ -	$ -	$ 40	$ 40	$ 40	$ -	$ -	$ -
187		Baseyard Computer-Utility Operations Clerk	2/19/2003	$ 335	$ 321	$ 13	5	$ 3	$ -	$ -	$ -	$ 13	$ 13	$ 13	$ -	$ -	$ -
188		Telemetry Field Computer	3/18/2004	$ 452	$ 434	$ 18	5	$ 4	$ -	$ -	$ -	$ 18	$ 18	$ 18	$ -	$ -	$ -
189		Baseyard Library and File Storage Room Traile	5/12/2004	$ 4,986	$ 4,787	$ 199	7	$ 28	$ -	$ -	$ -	$ 199	$ 199	$ 199	$ -	$ -	$ -
190		(3) Chevy S10 Trucks-WHSC Share of Lease Buyo	12/31/2004	$ 9,168	$ 8,802	$ 367	5	$ 73	$ -	$ -	$ -	$ 367	$ 367	$ 367	$ -	$ -	$ -
191		Digital DO Meter	7/25/2002	$ 851	$ 817	$ 34	7	$ 5	$ -	$ -	$ -	$ 34	$ 34	$ 34	$ -	$ -	$ -
192		A/Plant-Drexelbrook Level Transmitter System	12/29/2004	$ 2,001	$ 1,921	$ 80	7	$ 11	$ -	$ -	$ -	$ 80	$ 80	$ 80	$ -	$ -	$ -
193		A-Plant Radio/Atenna	2/20/2003	$ 716	$ 687	$ 29	7	$ 4	$ -	$ -	$ -	$ 29	$ 29	$ 29	$ -	$ -	$ -
194		Wood Shop Storage Shed Repairs	6/21/2003	$ 12,210	$ 11,722	$ 488	7	$ 70	$ -	$ -	$ -	$ 488	$ 488	$ 488	$ -	$ -	$ -
195		HP 5500 Color Jet (Color Laser Printer)	8/8/2003	$ 940	$ 902	$ 38	5	$ 8	$ -	$ -	$ -	$ 38	$ 38	$ 38	$ -	$ -	$ -
196		Storage Container	4/16/2004	$ 1,206	$ 1,158	$ 48	7	$ 7	$ -	$ -	$ -	$ 48	$ 48	$ 48	$ -	$ -	$ -
197		Steel Flat File Drawers for New Trailer Offic	6/30/2004	$ 587	$ 564	$ 23	7	$ 3	$ -	$ -	$ -	$ 23	$ 23	$ 23	$ -	$ -	$ -
198		EPSON PRINTER & STAND (1/3 SHARE)	12/10/1998	$ 668	$ 642	$ 27	5	$ 5	$ -	$ -	$ -	$ 27	$ 27	$ 27	$ -	$ -	$ -
199		Utility Baseyard Locker Room Addition (WHSC S	5/2/2005	$ 15,132	$ 14,526	$ 605	7	$ 86	$ -	$ -	$ -	$ 605	$ 605	$ 605	$ -	$ -	$ -
200		2-Way Radio for 2006 Chevy Silverado	11/8/2005	$ 372	$ 357	$ 15	7	$ 2	$ -	$ -	$ -	$ 15	$ 15	$ 15	$ -	$ -	$ -
201		Baseyard Storeroom Renovation (WHSC Share)	6/15/2006	$ 3,003	$ 2,883	$ 120	7	$ 17	$ -	$ -	$ -	$ 120	$ 120	$ 120	$ -	$ -	$ -
202		Composite Sampler	3/12/2007	$ 5,413	$ 5,197	$ 217	7	$ 31	$ -	$ -	$ -	$ 217	$ 217	$ 217	$ -	$ -	$ -
203		DO Meter	3/11/2003	$ 885	$ 850	$ 35	7	$ 5	$ -	$ -	$ -	$ 35	$ 35	$ 35	$ -	$ -	$ -
204		Baseyard Security Fencing	3/16/2005	$ 18,996	$ 18,236	$ 760	15	$ 51	$ 51	$ 51	$ 51	$ 608	$ 658	$ 709	$ 152	$ 101	$ 51
205		Aplant Desktop	12/31/2017	$ 1,364	$ 1,309	$ 55	5	$ 11	$ -	$ 11	$ 11	$ -	$ 11	$ 22	$ -	$ 44	$ 33
206		Kplant Desktop	12/31/2017	$ 1,365	$ 1,310	$ 55	5	$ 11	$ -	$ 11	$ 11	$ -	$ 11	$ 22	$ -	$ 44	$ 33
207		Total		$ 113,894	$ 109,338	$ 4,556		$ 684	$ 51	$ 73	$ 73	$ 4,291	$ 4,364	$ 4,437	$ 155	$ 192	$ 119
208		**TOTAL WHSC**		$ 16,648,382	$ 15,982,447	$ 665,935		$ 29,421	$ 26,123	$ 25,238	$ 25,080	$ 245,725	$ 270,963	$ 293,363	$ 411,430	$ 392,645	$ 372,572
209		**CONTRIBUTIONS IN AID OF CONSTRUCTION**															
210	103540	**Structures & Improvement - Transmission & Distribution Plant**															
211		17th Fairway Villas CIAC	9/1/2010	$ (62,803)	$ (60,291)	$ (2,512)	25	$ (100)	$ (100)	$ (100)	$ (100)	$ (703)	$ (804)	$ (904)	$ (1,809)	$ (1,708)	$ (1,608)
212		Castle & Cooke Unit 102 CIAC	9/1/2010	$ (88,498)	$ (84,958)	$ (3,540)	25	$ (142)	$ (142)	$ (142)	$ (142)	$ (991)	$ (1,133)	$ (1,274)	$ (2,549)	$ (2,407)	$ (2,266)
213		Makana Kai CIAC Castle & Cooke	9/1/2010	$ (16,792)	$ (16,120)	$ (672)	25	$ (27)	$ (27)	$ (27)	$ (27)	$ (188)	$ (215)	$ (242)	$ (484)	$ (457)	$ (430)
214		Na Puu Nani Phase 1 CIAC Castle & Cooke	9/1/2010	$ (125,606)	$ (120,582)	$ (5,024)	25	$ (201)	$ (201)	$ (201)	$ (201)	$ (1,407)	$ (1,608)	$ (1,809)	$ (3,617)	$ (3,416)	$ (3,216)
215		Na Puu Nani Phase 2 CIAC Castle & Cooke	9/1/2010	$ (276,653)	$ (265,586)	$ (11,066)	25	$ (443)	$ (443)	$ (443)	$ (443)	$ (3,099)	$ (3,541)	$ (3,984)	$ (7,968)	$ (7,525)	$ (7,082)
216		Paniolo Gardens CIAC	9/1/2010	$ (27,186)	$ (26,098)	$ (1,087)	25	$ (43)	$ (43)	$ (43)	$ (43)	$ (304)	$ (348)	$ (391)	$ (783)	$ (739)	$ (696)
217		Puu Melia St. CIAC	9/1/2010	$ (106,343)	$ (102,090)	$ (4,254)	25	$ (170)	$ (170)	$ (170)	$ (170)	$ (1,191)	$ (1,361)	$ (1,531)	$ (3,063)	$ (2,893)	$ (2,722)
218		The Pointe At Waikoloa CIAC	9/1/2010	$ (41,578)	$ (39,915)	$ (1,663)	25	$ (67)	$ (67)	$ (67)	$ (67)	$ (466)	$ (532)	$ (599)	$ (1,197)	$ (1,131)	$ (1,064)
219		COH WORKFORCE HOUSING PROJECT	10/1/2012	$ (389,424)	$ (373,856)	$ (15,577)	25	$ (623)	$ (623)	$ (623)	$ (623)	$ (3,115)	$ (3,739)	$ (4,362)	$ (12,462)	$ (11,839)	$ (11,216)
220		WAIKOLOA HEIGHTS	10/1/2012	$ (443,269)	$ (425,538)	$ (17,731)	25	$ (709)	$ (709)	$ (709)	$ (709)	$ (3,546)	$ (4,255)	$ (4,965)	$ (14,185)	$ (13,475)	$ (12,766)
221		WAIKOLOA HEIGHTS IMPUTED INTEREST - JANUARY 1994 TO DECEMBER 31, 2010	10/1/2012	$ (710,256)	$ (681,846)	$ (28,410)	25	$ (1,136)	$ (1,136)	$ (1,136)	$ (1,136)	$ (5,682)	$ (6,818)	$ (7,955)	$ (22,728)	$ (21,592)	$ (20,455)
222		WAIKOLOA HIGHLANDS (FUTURE WATER CIAC)	5/1/2013	$ (1,684,257)	$ (1,616,887)	$ (67,370)	25	$ (2,695)	$ (2,695)	$ (2,695)	$ (2,695)	$ (10,779)	$ (13,474)	$ (16,169)	$ (56,591)	$ (53,896)	$ (51,201)
223		Total		$ (3,972,674)	$ (3,813,767)	$ (158,907)		$ (6,356)	$ (6,356)	$ (6,356)	$ (6,356)	$ (31,472)	$ (37,828)	$ (44,185)	$ (127,435)	$ (121,079)	$ (114,722)
224	103600	**Collection Sewers Force**															
225		KE KUMU I & II-DEDICATED	4/1/1996	$ (34,888)	$ (33,492)	$ (1,396)	25	$ (56)	$ (56)	$ (56)	$ (56)	$ (1,172)	$ (1,228)	$ (1,284)	$ (223)	$ (167)	$ (112)
226		KE KUMU III DEDICATED	1/1/1997	$ (75,132)	$ (72,127)	$ (3,005)	25	$ (120)	$ (120)	$ (120)	$ (120)	$ (2,404)	$ (2,524)	$ (2,645)	$ (601)	$ (481)	$ (361)
227		PANIOLO ESTATES-DEDICATED	5/14/1993	$ (147,285)	$ (141,394)	$ (5,891)	25	$ (236)	$ (236)	$ (236)	$ -	$ (5,656)	$ (5,891)	$ (5,891)	$ (236)	$ -	$ -
228		Total		$ (257,305)	$ (247,012)	$ (10,292)		$ (412)	$ (412)	$ (412)	$ (176)	$ (9,232)	$ (9,644)	$ (9,820)	$ (1,060)	$ (648)	$ (472)
229	103610	**Collection Sewers Gravity**															
230		SEWER LINES-ORIGINAL PLANT	1/1/1974	$ (871,886)	$ (837,011)	$ (34,875)	25	$ (1,395)	$ -	$ -	$ -	$ (34,875)	$ (34,875)	$ (34,875)	$ (0)	$ (0)	$ (0)
231		Castle&Cooke DedicSwrLines-Kikaha@Wehilani	1/1/2008	$ (344,985)	$ (331,186)	$ (13,799)	25	$ (552)	$ (552)	$ (552)	$ (552)	$ (4,968)	$ (5,520)	$ (6,072)	$ (8,832)	$ (8,280)	$ (7,728)
232		Total		$ (1,216,871)	$ (1,168,196)	$ (48,675)		$ (1,947)	$ (552)	$ (552)	$ (552)	$ (39,843)	$ (40,395)	$ (40,947)	$ (8,832)	$ (8,280)	$ (7,728)
233	103801	**Treatment & Disposal Equipment**															
234		FAIRWAY TERRACE FEES	1/1/1990	$ (86,842)	$ (83,368)	$ (3,474)	25	$ (139)	$ -	$ -	$ -	$ (3,474)	$ (3,474)	$ (3,474)	$ 0	$ 0	$ 0
235		ORIGINAL UTILITY PLANT	10/1/1978	$ (1,319)	$ (1,266)	$ (53)	25	$ (2)	$ -	$ -	$ -	$ (53)	$ (53)	$ (53)	$ (0)	$ (0)	$ (0)
236		KE KUMU III FEES	1/1/1997	$ (7,444)	$ (7,146)	$ (298)	25	$ (12)	$ (12)	$ (12)	$ (12)	$ (238)	$ (250)	$ (262)	$ (60)	$ (48)	$ (36)
237		WAIKOLOA HILLS FEES	1/1/1990	$ (11,910)	$ (11,433)	$ (476)	25	$ (19)	$ -	$ -	$ -	$ (476)	$ (476)	$ (476)	$ (0)	$ (0)	$ (0)

Line No.	Utility Account	Property Description	In Service Date	Federal Tax Cost	State Tax Cost	HCGETC	Amortization Period	Annual Amortization	Accumulated Amortization 2016	2017	2018	2016	2017	2018	Unamortized HCGETC 2016	2017	2018
238		STP A-PLANT-ORIGINAL	1/1/1974	$ (27,009)	$ (25,926)	$ (1,080)	25	$ (43)	$ -	$ -	$ -	$ (1,080)	$ (1,080)	$ (1,080)	$ -	$ -	$ -
239		VILLAS	1/1/1979	$ (11,600)	$ (11,136)	$ (464)	25	$ (19)	$ -	$ -	$ -	$ (464)	$ (464)	$ (464)	$ (0)	$ (0)	$ (0)
240		PANIOLO ESTATES PH-1 FEES	7/1/1992	$ (43,917)	$ (42,161)	$ (1,757)	25	$ (70)	$ (70)	$ -	$ -	$ (1,757)	$ (1,757)	$ (1,757)	$ 0	$ 0	$ 0
241		KE KUMU II FEES	10/1/1995	$ (9,677)	$ (9,290)	$ (387)	25	$ (15)	$ (15)	$ (15)	$ (15)	$ (341)	$ (356)	$ (372)	$ (46)	$ (31)	$ (15)
242		PANIOLO CLUB	1/1/1983	$ (4,466)	$ (4,288)	$ (179)	25	$ (7)	$ -	$ -	$ -	$ (179)	$ (179)	$ (179)	$ (0)	$ (0)	$ (0)
243		FIRE STATION FEES	11/1/1997	$ (10,150)	$ (9,744)	$ (406)	25	$ (16)	$ (16)	$ (16)	$ (16)	$ (325)	$ (341)	$ (357)	$ (81)	$ (65)	$ (49)
244		US P.O.-APPLIED TO PLANT ABJ	6/19/1999	$ (6,844)	$ (6,570)	$ (274)	25	$ (11)	$ (11)	$ (11)	$ (11)	$ (197)	$ (208)	$ (219)	$ (77)	$ (66)	$ (55)
245		WAIKOLOA GREENS FEES	8/1/1991	$ (97,759)	$ (93,849)	$ (3,910)	25	$ (156)	$ -	$ -	$ -	$ (3,910)	$ (3,910)	$ (3,910)	$ -	$ -	$ -
246		WAIKOLOA FAIRWAYS FEES	12/1/1991	$ (50,616)	$ (48,592)	$ (2,025)	26	$ (81)	$ -	$ -	$ -	$ (2,025)	$ (2,025)	$ (2,025)	$ -	$ -	$ -
247		VILLAGES @ WAIKOLOA ELIMA LANI FEES	1/1/1992	$ (46,895)	$ (45,019)	$ (1,876)	25	$ (75)	$ (75)	$ -	$ -	$ (1,876)	$ (1,876)	$ (1,876)	$ (0)	$ (0)	$ (0)
248		REFRIGERATOR SHELTER-ORIGINAL PLANT	12/31/1981	$ (2,005)	$ (1,925)	$ (80)	26	$ (3)	$ -	$ -	$ -	$ (80)	$ (80)	$ (80)	$ (0)	$ (0)	$ (0)
249		WAIKOLOA ELEMENTARY SCHOOL FEES	9/1/1994	$ (97,232)	$ (93,343)	$ (3,889)	26	$ (156)	$ (156)	$ (156)	$ (156)	$ (3,578)	$ (3,734)	$ (3,889)	$ (311)	$ (156)	$ (0)
250		KE KUMU I FEES	9/1/1994	$ (17,865)	$ (17,150)	$ (715)	26	$ (29)	$ (29)	$ (29)	$ (29)	$ (657)	$ (686)	$ (715)	$ (57)	$ (29)	$ (0)
251		SEWER TRANSMISSION LINE	1/1/1974	$ (87,644)	$ (84,138)	$ (3,506)	25	$ (140)	$ -	$ -	$ -	$ (3,506)	$ (3,506)	$ (3,506)	$ -	$ -	$ -
252		PANIOLO CLUB	1/1/1980	$ (53,156)	$ (51,032)	$ (2,126)	25	$ (85)	$ -	$ -	$ -	$ (2,126)	$ (2,126)	$ (2,126)	$ (0)	$ (0)	$ (0)
253		FIARWAY TERRACE	1/1/1990	$ (7,290)	$ (6,998)	$ (292)	25	$ (12)	$ -	$ -	$ -	$ (292)	$ (292)	$ (292)	$ (0)	$ (0)	$ (0)
254		WAIKOLOA HILLS	1/1/1990	$ (48,416)	$ (46,479)	$ (1,937)	25	$ (77)	$ -	$ -	$ -	$ (1,937)	$ (1,937)	$ (1,937)	$ 0	$ 0	$ 0
255		WAIKOLOA GREENS	8/1/1991	$ (30,984)	$ (29,745)	$ (1,239)	25	$ (50)	$ -	$ -	$ -	$ (1,239)	$ (1,239)	$ (1,239)	$ (0)	$ (0)	$ (0)
256		WAIKOLOA FAIRWAYS	12/1/1991	$ (28,705)	$ (27,557)	$ (1,148)	25	$ (46)	$ -	$ -	$ -	$ (1,148)	$ (1,148)	$ (1,148)	$ (0)	$ (0)	$ (0)
257		VILLAGES AT WAIKOLOA ELIMA LANI	1/1/1992	$ (26,883)	$ (25,808)	$ (1,075)	25	$ (43)	$ (43)	$ -	$ -	$ (1,075)	$ (1,075)	$ (1,075)	$ (0)	$ (0)	$ (0)
258		PANIOLO ESTATES PH I	7/1/1992	$ (59,518)	$ (57,137)	$ (2,381)	25	$ (95)	$ (95)	$ -	$ -	$ (2,381)	$ (2,381)	$ (2,381)	$ -	$ -	$ -
259		SEWER LINES (DEDCIATED) SCHULER	5/14/1993	$ (21,654)	$ (20,788)	$ (866)	25	$ (35)	$ (35)	$ (35)	$ -	$ (832)	$ (866)	$ (866)	$ (35)	$ (0)	$ (0)
260		WAIKOLOA ELEMENTARY SCHOOL	9/1/1994	$ (82,455)	$ (79,157)	$ (3,298)	25	$ (132)	$ (132)	$ (132)	$ (132)	$ (3,034)	$ (3,166)	$ (3,298)	$ (264)	$ (132)	$ -
261		KE KUMU I	9/1/1994	$ (44,663)	$ (42,876)	$ (1,787)	25	$ (71)	$ (71)	$ (71)	$ (71)	$ (1,644)	$ (1,715)	$ (1,787)	$ (143)	$ (71)	$ (0)
262		KE KUMU II	10/1/1995	$ (34,356)	$ (32,982)	$ (1,374)	25	$ (55)	$ (55)	$ (55)	$ (55)	$ (1,209)	$ (1,264)	$ (1,319)	$ (165)	$ (110)	$ (55)
263		WAIKOLOA HEIGHTS	1/1/1994	$ (295,750)	$ (283,920)	$ (11,830)	25	$ (473)	$ (473)	$ (473)	$ (473)	$ (10,884)	$ (11,357)	$ (11,830)	$ (946)	$ (473)	$ 0
264		Total		$ (1,355,025)	$ (1,300,824)	$ (54,201)		$ (2,168)	$ (1,288)	$ (1,005)	$ (970)	$ (52,016)	$ (53,021)	$ (53,991)	$ (2,185)	$ (1,180)	$ (210)
265		**TOTAL CONTRIUBUTED ASSETS**		$ (8,891,874)	$ (8,529,799)	$ (272,075)		$ (10,883)	$ (8,608)	$ (8,325)	$ (8,055)	$ (132,564)	$ (140,888)	$ (148,943)	$ (139,511)	$ (131,187)	$ (123,132)
266	**HAWAII GENERAL OFFICE**																
267		790 Leasehold Improvements	5/1/2015	$ 16,865	$ 16,190	$ 676	7	$ 96	$ 96	$ 96	$ 96	$ 193	$ 289	$ 385	$ 482	$ 385	$ 289
268		desks, conf table, chairs	3/1/2010	$ 3,060	$ 2,938	$ 122	7	$ 17	$ 17	$ 17	$ -	$ 122	$ 122	$ 122	$ (0)	$ -	$ -
269		2 Cubical Work Stations	12/1/2010	$ 5,650	$ 5,424	$ 226	7	$ 32	$ 32	$ 32	$ -	$ 226	$ 226	$ 226	$ (0)	$ -	$ -
270		Cherry Desk	12/1/2010	$ 855	$ 821	$ 34	7	$ 5	$ 5	$ 5	$ -	$ 34	$ 34	$ 34	$ -	$ -	$ -
271		Cherry Drawer	12/1/2010	$ 71	$ 68	$ 3	7	$ 0	$ 0	$ 0	$ -	$ 3	$ 3	$ 3	$ (0)	$ -	$ -
272		Cherry Credenza	12/1/2010	$ 509	$ 489	$ 20	7	$ 3	$ 3	$ 3	$ -	$ 20	$ 20	$ 20	$ -	$ -	$ -
273		Cherry Corner Unit	12/1/2010	$ 404	$ 388	$ 16	7	$ 2	$ 2	$ 2	$ -	$ 16	$ 16	$ 16	$ (0)	$ -	$ -
274		Regency Library	12/1/2010	$ 284	$ 272	$ 11	7	$ 2	$ 2	$ 2	$ -	$ 11	$ 11	$ 11	$ -	$ -	$ -
275		Chairs	12/1/2010	$ 2,037	$ 1,955	$ 81	7	$ 12	$ 12	$ 12	$ -	$ 81	$ 81	$ 81	$ 0	$ -	$ -
276		Cherry Desk Shell 66"	12/1/2010	$ 429	$ 412	$ 17	7	$ 2	$ 2	$ 2	$ -	$ 17	$ 17	$ 17	$ (0)	$ -	$ -
277		24" x 71" Credenza Shells	12/1/2010	$ 793	$ 761	$ 32	7	$ 5	$ 5	$ 5	$ -	$ 32	$ 32	$ 32	$ -	$ -	$ -
278		Cherry Keyboard Drawer	12/1/2010	$ 71	$ 68	$ 3	7	$ 0	$ 0	$ 0	$ -	$ 3	$ 3	$ 3	$ (0)	$ -	$ -
279		Executive Chair	12/1/2010	$ 391	$ 376	$ 16	7	$ 2	$ 2	$ 2	$ -	$ 16	$ 16	$ 16	$ 0	$ -	$ -
280		Desk Pedestal F/F	12/1/2010	$ 468	$ 449	$ 19	7	$ 3	$ 3	$ 3	$ -	$ 19	$ 19	$ 19	$ (0)	$ -	$ -
281		Cherry Shelf Unit	12/1/2010	$ 308	$ 295	$ 12	7	$ 2	$ 2	$ 2	$ -	$ 12	$ 12	$ 12	$ 0	$ -	$ -
282		Cherry Storage Hutch	12/1/2010	$ 487	$ 468	$ 19	7	$ 3	$ 3	$ 3	$ -	$ 19	$ 19	$ 19	$ 0	$ -	$ -
283		Cherry Credenza 66"	12/1/2010	$ 333	$ 320	$ 13	7	$ 2	$ 2	$ 2	$ -	$ 13	$ 13	$ 13	$ -	$ -	$ -
284		Regency Desk	12/1/2010	$ 709	$ 681	$ 28	7	$ 4	$ 4	$ 4	$ -	$ 28	$ 28	$ 28	$ 0	$ -	$ -
285		2 Drawer Lateral File	12/1/2010	$ 988	$ 948	$ 40	7	$ 6	$ 6	$ 6	$ -	$ 40	$ 40	$ 40	$ (0)	$ -	$ -
286		3, 42" 4 Drawer Lateral File Cabinets	12/1/2010	$ 2,868	$ 2,754	$ 115	7	$ 16	$ 16	$ 16	$ -	$ 115	$ 115	$ 115	$ -	$ -	$ -
287		Cherry Desk Pedestal B/B/F	12/1/2010	$ 513	$ 492	$ 21	7	$ 3	$ 3	$ 3	$ -	$ 21	$ 21	$ 21	$ 0	$ -	$ -
288		Regency Lateral File	12/1/2010	$ 567	$ 545	$ 23	7	$ 3	$ 3	$ 3	$ -	$ 23	$ 23	$ 23	$ -	$ -	$ -
289		Fireproof safe for Customer Service office.	12/1/2011	$ 2,386	$ 2,291	$ 95	7	$ 14	$ 14	$ 14	$ 14	$ 82	$ 95	$ 95	$ 14	$ -	$ -
290		Ricoh Aficio MP C3001	5/1/2015	$ 3,044	$ 2,923	$ 122	5	$ 24	$ 24	$ 24	$ 24	$ 49	$ 73	$ 97	$ 73	$ 49	$ 24
291		790 Office Furniture	5/1/2015	$ 631	$ 606	$ 25	7	$ 4	$ 4	$ 4	$ 4	$ 7	$ 11	$ 14	$ 18	$ 14	$ 11
292		Automated Electronic Defibrillators	12/1/2010	$ 7,161	$ 6,875	$ 286	5	$ 57	$ -	$ -	$ -	$ 286	$ 286	$ 286	$ -	$ -	$ -
293		License for Capture Now	12/1/2010	$ 237	$ 227	$ 9	3	$ 3	$ -	$ -	$ -	$ 9	$ 9	$ 9	$ -	$ -	$ -
294		Fujitsu Fi6140 scanner	12/1/2010	$ 1,666	$ 1,599	$ 67	5	$ 13	$ 13	$ 13	$ -	$ 67	$ 67	$ 67	$ -	$ -	$ -
295		Ricoh MP 4001SP Copier w/Finisher	12/1/2010	$ 10,686	$ 10,259	$ 427	5	$ 85	$ -	$ -	$ -	$ 427	$ 427	$ 427	$ -	$ -	$ -
296		Monitors	12/1/2010	$ 1,207	$ 1,159	$ 48	5	$ 10	$ -	$ -	$ -	$ 48	$ 48	$ 48	$ -	$ -	$ -
297		Mitel EP Dig 6 Line Model 8560 Telephone	12/1/2010	$ 8,102	$ 7,778	$ 324	5	$ 65	$ -	$ -	$ -	$ 324	$ 324	$ 324	$ -	$ -	$ -
298		ELECTRONICS [681]	12/1/2011	$ 744	$ 714	$ 30	5	$ 6	$ 6	$ -	$ -	$ 30	$ 30	$ 30	$ -	$ -	$ -
299		8-way video conferencing system	12/1/2011	$ 37,185	$ 35,698	$ 1,487	5	$ 297	$ 297	$ -	$ -	$ 1,487	$ 1,487	$ 1,487	$ -	$ -	$ -
300		Hewlett Packard laser printer	12/1/2011	$ 1,111	$ 1,066	$ 44	5	$ 9	$ 9	$ -	$ -	$ 44	$ 44	$ 44	$ -	$ -	$ -
301		Desktop-HIWKLCS40	12/1/2014	$ 807	$ 774	$ 32	5	$ 6	$ 6	$ 6	$ 6	$ 19	$ 26	$ 32	$ 13	$ 6	$ -
302		Desktop-HIWKLCS39	12/1/2014	$ 807	$ 774	$ 32	5	$ 6	$ 6	$ 6	$ 6	$ 19	$ 26	$ 32	$ 13	$ 6	$ -

Line No.	Utility Account	Property Description	In Service Date	Federal Tax Cost	State Tax Cost	HCGETC	Amortization Period	Annual Amortization	Accumulated Amortization 2016	Accumulated Amortization 2017	Accumulated Amortization 2018	Unamortized HCGETC 2016	Unamortized HCGETC 2017	Unamortized HCGETC 2018
303		Desktop-HIWKLCS37	12/1/2014	$ 807	$ 774	$ 32	5	$ 6	$ 6	$ 6	$ 6	$ 19	$ 26	$ 32	$ 13	$ 6	$ -
304		Desktop-HIWKLCS38	12/1/2014	$ 807	$ 774	$ 32	5	$ 6	$ 6	$ 6	$ 6	$ 19	$ 26	$ 32	$ 13	$ 6	$ -
305		Desktop-HIWKCLS36	12/1/2014	$ 807	$ 774	$ 32	5	$ 6	$ 6	$ 6	$ 6	$ 19	$ 26	$ 32	$ 13	$ 6	$ -
306		Desktop-HIWKLCS41	12/1/2014	$ 807	$ 774	$ 32	5	$ 6	$ 6	$ 6	$ 6	$ 19	$ 26	$ 32	$ 13	$ 6	$ -
307		790 Server & Server room upgrade	5/1/2015	$ 17,650	$ 16,944	$ 706	5	$ 141	$ 141	$ 141	$ 141	$ 424	$ 565	$ 706	$ 282	$ 141	$ -
308		Hawaii Business Unit Software	12/1/2010	$ 132,361	$ 127,067	$ 5,294	3	$ 1,765	$ -	$ -	$ -	$ 5,294	$ 5,294	$ 5,294	$ -	$ -	$ -
309		RMS Software	3/1/2014	$ 92,429	$ 88,732	$ 3,697	3	$ 1,232	$ 1,232	$ 1,232	$ -	$ 3,697	$ 3,697	$ 3,697	$ -	$ -	$ -
310		phone system with 8 phones	3/1/2010	$ 24,859	$ 23,864	$ 994	5	$ 199	$ -	$ -	$ -	$ 994	$ 994	$ 994	$ -	$ -	$ -
311		Miscellaneous Kitchen Equipment	12/1/2010	$ 981	$ 941	$ 39	5	$ 8	$ -	$ -	$ -	$ 39	$ 39	$ 39	$ -	$ -	$ -
312		laptop for CS Mgr	4/1/2014	$ 1,496	$ 1,436	$ 60	5	$ 12	$ 12	$ 12	$ 12	$ 36	$ 48	$ 60	$ 24	$ 12	$ -
313		Total		$ 387,436	$ 371,938	$ 15,497		$ 4,204	$ 2,012	$ 1,700	$ 330	$ 14,527	$ 14,857	$ 15,173	$ 970	$ 640	$ 324
314		HAWAII GENERAL OFFICE ALLOCATIONS	%														
315		700 - Kaanapali	21.73%	$ 84,174	$ 80,808	$ 3,367		$ 913	$ 437	$ 369	$ 72	$ 3,156	$ 3,228	$ 3,297	$ 211	$ 139	$ 70
316		701 - Pukalani	6.87%	$ 26,623	$ 25,558	$ 1,065		$ 289	$ 138	$ 117	$ 23	$ 998	$ 1,021	$ 1,043	$ 67	$ 44	$ 22
317		721 - Waikoloa Water	12.83%	$ 49,713	$ 47,725	$ 1,989		$ 539	$ 256	$ 218	$ 42	$ 1,864	$ 1,906	$ 1,947	$ 125	$ 82	$ 42
318		722 - Waikoloa Sewer	10.02%	$ 38,813	$ 37,260	$ 1,553		$ 421	$ 202	$ 170	$ 33	$ 1,455	$ 1,488	$ 1,520	$ 97	$ 64	$ 32
319		723 - Waikoloa Resort Water	13.27%	$ 51,423	$ 49,366	$ 2,057		$ 558	$ 267	$ 225	$ 44	$ 1,928	$ 1,972	$ 2,014	$ 129	$ 85	$ 43
320		724 - Waikoloa Resort Sewer	18.18%	$ 70,422	$ 67,605	$ 2,817		$ 764	$ 366	$ 309	$ 60	$ 2,641	$ 2,700	$ 2,758	$ 176	$ 116	$ 59
321		725 - Waikoloa Resort Irrigation	0.75%	$ 2,893	$ 2,777	$ 116		$ 31	$ 15	$ 13	$ 2	$ 108	$ 111	$ 113	$ 7	$ 5	$ 2
322		726 - Kona Water	10.56%	$ 40,900	$ 39,264	$ 1,636		$ 444	$ 212	$ 179	$ 35	$ 1,534	$ 1,568	$ 1,602	$ 102	$ 68	$ 34
323		727 - Kona Sewer	5.80%	$ 22,474	$ 21,576	$ 899		$ 244	$ 117	$ 99	$ 19	$ 843	$ 862	$ 880	$ 56	$ 37	$ 19
324	BIG ISLAND																
325		(2)Replacement Op Computer Stations	12/1/2013	$ 2,081	$ 1,998	$ 83	5	$ 17	$ 17	$ 17	$ 17	$ 67	$ 83	$ 83	$ 17	$ -	$ -
326		Mobile office trailer	12/1/2011	$ 23,867	$ 22,912	$ 955	5	$ 191	$ 191	$ -	$ -	$ 955	$ 955	$ 955	$ -	$ -	$ -
327		1996 Eagle Forklift	12/1/2010	$ 22,871	$ 21,956	$ 915	5	$ 183	$ -	$ -	$ -	$ 915	$ 915	$ 915	$ -	$ -	$ -
328		20' Container Shelving-Baseyard	6/1/2015	$ 931	$ 894	$ 37	25	$ 1	$ 1	$ 1	$ 1	$ 3	$ 4	$ 6	$ 34	$ 33	$ 31
329		20' Container Shelving-EMT	6/1/2015	$ 455	$ 437	$ 18	25	$ 1	$ 1	$ 1	$ 1	$ 1	$ 2	$ 3	$ 17	$ 16	$ 15
330		20' Container-Baseyard	6/1/2015	$ 10,373	$ 9,958	$ 415	25	$ 17	$ 17	$ 17	$ 17	$ 33	$ 50	$ 66	$ 382	$ 365	$ 349
331		20' Container-EMT	6/1/2015	$ 5,312	$ 5,100	$ 212	25	$ 8	$ 8	$ 8	$ 8	$ 17	$ 25	$ 34	$ 195	$ 187	$ 178
332		Storage Contr	12/1/2010	$ 3,187	$ 3,060	$ 127	25	$ 5	$ 5	$ 5	$ 5	$ 36	$ 41	$ 46	$ 92	$ 87	$ 82
333		Nissan Frontier	12/1/2010	$ 27,030	$ 25,949	$ 1,081	5	$ 216	$ -	$ -	$ -	$ 1,081	$ 1,081	$ 1,081	$ -	$ -	$ -
334		Nissan Titan	12/1/2010	$ 35,679	$ 34,252	$ 1,427	5	$ 285	$ -	$ -	$ -	$ 1,427	$ 1,427	$ 1,427	$ -	$ -	$ -
335		FORD XCAB	6/1/2012	$ 26,901	$ 25,825	$ 1,076	5	$ 215	$ 215	$ 215	$ -	$ 1,076	$ 1,076	$ 1,076	$ -	$ -	$ -
336		FORD XCAB	6/1/2012	$ 26,395	$ 25,339	$ 1,056	5	$ 211	$ 211	$ 211	$ -	$ 1,056	$ 1,056	$ 1,056	$ -	$ -	$ -
337		Ford F-150	9/1/2012	$ 30,500	$ 29,280	$ 1,220	5	$ 244	$ 244	$ 244	$ -	$ 1,220	$ 1,220	$ 1,220	$ -	$ -	$ -
338		Ford F-150	9/1/2012	$ 30,500	$ 29,280	$ 1,220	5	$ 244	$ 244	$ 244	$ -	$ 1,220	$ 1,220	$ 1,220	$ -	$ -	$ -
339		Ford F-150	9/1/2012	$ 30,500	$ 29,280	$ 1,220	5	$ 244	$ 244	$ 244	$ -	$ 1,220	$ 1,220	$ 1,220	$ -	$ -	$ -
340		FRONTIER	6/1/2012	$ 25,350	$ 24,336	$ 1,014	5	$ 203	$ 203	$ 203	$ -	$ 1,014	$ 1,014	$ 1,014	$ -	$ -	$ -
341		Ford Explorer	9/1/2012	$ 37,497	$ 35,997	$ 1,500	5	$ 300	$ 300	$ 300	$ -	$ 1,500	$ 1,500	$ 1,500	$ -	$ -	$ -
342		2014 Nissan Frontier, V214001	4/1/2014	$ 35,122	$ 33,717	$ 1,405	5	$ 281	$ 281	$ 281	$ 281	$ 843	$ 1,124	$ 1,405	$ 562	$ 281	$ -
343		3 Ipad for Hawaii Island	9/1/2013	$ 2,542	$ 2,441	$ 102	5	$ 20	$ 20	$ 20	$ 20	$ 81	$ 102	$ 102	$ 20	$ -	$ -
344		Desk w Drawer	9/1/2012	$ 959	$ 921	$ 38	7	$ 5	$ 5	$ 5	$ 5	$ 27	$ 33	$ 38	$ 11	$ 5	$ 0
345		69"x43"x 18"	9/1/2012	$ 1,311	$ 1,259	$ 52	7	$ 7	$ 7	$ 7	$ 7	$ 37	$ 45	$ 52	$ 15	$ 7	$ -
346		Diesel tank	12/1/2011	$ 725	$ 696	$ 29	7	$ 4	$ 4	$ 4	$ 4	$ 25	$ 29	$ 29	$ 4	$ (0)	$ -
347		GIS Software	12/1/2011	$ 7,621	$ 7,316	$ 305	5	$ 61	$ 61	$ -	$ -	$ 305	$ 305	$ 305	$ -	$ -	$ -
348		Backflow Test Kit-Midwest 835	8/1/2015	$ 1,202	$ 1,154	$ 48	5	$ 10	$ 10	$ 10	$ 10	$ 19	$ 29	$ 38	$ 29	$ 19	$ 10
349		Big Island SCADA 2012	10/1/2014	$ 495,319	$ 475,506	$ 19,813	5	$ 3,963	$ 3,963	$ 3,963	$ 3,963	$ 11,888	$ 15,850	$ 19,813	$ 7,925	$ 3,963	$ -
350		Book Case	9/1/2012	$ 298	$ 286	$ 12	7	$ 2	$ 2	$ 2	$ 2	$ 9	$ 10	$ 12	$ 3	$ 2	$ -
351		Motorola Hardware	6/1/2012	$ 4,401	$ 4,225	$ 176	5	$ 35	$ 35	$ -	$ -	$ 176	$ 176	$ 176	$ -	$ -	$ -
352		Work Order Addition	6/1/2012	$ 2,144	$ 2,058	$ 86	5	$ 17	$ 17	$ -	$ -	$ 86	$ 86	$ 86	$ -	$ -	$ -
353		Misc. Wiring & Cables	6/1/2012	$ 544	$ 522	$ 22	5	$ 4	$ 4	$ -	$ -	$ 22	$ 22	$ 22	$ -	$ -	$ -
354		Work Order Addition	6/1/2012	$ 747	$ 717	$ 30	5	$ 6	$ 6	$ -	$ -	$ 30	$ 30	$ 30	$ -	$ -	$ -
355		1 desktops	4/1/2013	$ 1,133	$ 1,088	$ 45	5	$ 9	$ 9	$ 9	$ 9	$ 36	$ 45	$ 45	$ 9	$ -	$ -
356		1 desktops	4/1/2013	$ 1,133	$ 1,088	$ 45	5	$ 9	$ 9	$ 9	$ 9	$ 36	$ 45	$ 45	$ 9	$ -	$ -
357		Desktop-HIWKLOC56	12/1/2014	$ 1,572	$ 1,509	$ 63	5	$ 13	$ 13	$ 13	$ 13	$ 38	$ 50	$ 63	$ 25	$ 13	$ -
358		Desktop-HIWKLOC57	12/1/2014	$ 1,613	$ 1,549	$ 65	5	$ 13	$ 13	$ 13	$ 13	$ 39	$ 52	$ 65	$ 26	$ 13	$ -
359		dryer @ baseyard	4/1/2017	$ 503	$ 483	$ 20	5	$ 4	$ -	$ 4	$ 4	$ -	$ 4	$ 8	$ -	$ 16	$ 12
360		Exec Chair	9/1/2012	$ 351	$ 337	$ 14	7	$ 2	$ 2	$ 2	$ 2	$ 10	$ 12	$ 14	$ 4	$ 2	$ -
361		Work Order Addition	9/1/2013	$ 51	$ 49	$ 2	5	$ 0	$ 0	$ 0	$ 0	$ 2	$ 2	$ 2	$ 0	$ -	$ -
362		Work Order Addition	9/1/2012	$ 182	$ 175	$ 7	5	$ 1	$ 1	$ 1	$ -	$ 7	$ 7	$ 7	$ -	$ -	$ -
363		Work Order Addition	6/1/2012	$ 13,813	$ 13,260	$ 553	5	$ 111	$ 111	$ 111	$ -	$ 553	$ 553	$ 553	$ -	$ -	$ -
364		EMT Laptop	3/1/2014	$ 4,509	$ 4,328	$ 180	5	$ 36	$ 36	$ 36	$ 36	$ 108	$ 144	$ 180	$ 72	$ 36	$ -
365		Hand Helds	12/1/2010	$ 19,147	$ 18,382	$ 766	5	$ 153	$ -	$ -	$ -	$ 766	$ 766	$ 766	$ -	$ -	$ -
366		Desk Dock	12/1/2010	$ 2,793	$ 2,681	$ 112	5	$ 22	$ -	$ -	$ -	$ 112	$ 112	$ 112	$ -	$ -	$ -

Line No.	Utility Account	Property Description	In Service Date	Federal Tax Cost	State Tax Cost	HCGETC	Amortization Period	Annual Amortization	Accumulated Amortization 2016	Accumulated Amortization 2017	Accumulated Amortization 2018	Unamortized HCGETC 2016	Unamortized HCGETC 2017	Unamortized HCGETC 2018
367		Personnel Lift	6/1/2012	$ 5,844	$ 5,610	$ 234	5	$ 47	$ 47	$ 47	$ -	$ 234	$ 234	$ 234	$ -	$ -	$ -
368		Software	9/1/2012	$ 2,995	$ 2,875	$ 120	5	$ 24	$ 24	$ 24	$ -	$ 120	$ 120	$ 120	$ -	$ -	$ -
369		Hardware	9/1/2012	$ 8,824	$ 8,471	$ 353	5	$ 71	$ 71	$ 71	$ -	$ 353	$ 353	$ 353	$ -	$ -	$ -
370		Gradall lifting hook attachment	12/1/2014	$ 2,427	$ 2,330	$ 97	5	$ 19	$ 19	$ 19	$ 19	$ 58	$ 78	$ 97	$ 39	$ 19	$ -
371		Forklift	12/1/2010	$ 27,625	$ 26,520	$ 1,105	5	$ 221	$ -	$ -	$ -	$ 1,105	$ 1,105	$ 1,105	$ -	$ -	$ -
372		HON chair	2/1/2014	$ 636	$ 611	$ 25	7	$ 4	$ 4	$ 4	$ 4	$ 11	$ 15	$ 18	$ 15	$ 11	$ 7
373		Hydro Jetter	12/1/2010	$ 5,941	$ 5,703	$ 238	5	$ 48	$ -	$ -	$ -	$ 238	$ 238	$ 238	$ -	$ -	$ -
374		Ice Maker-Manitowac ID-0452A	9/1/2016	$ 4,536	$ 4,354	$ 181	5	$ 36	$ 36	$ 36	$ 36	$ 36	$ 73	$ 109	$ 145	$ 109	$ 73
375		Ingersoll Needle/Chisel Scl	9/1/2013	$ 773	$ 742	$ 31	5	$ 6	$ 6	$ 6	$ 6	$ 25	$ 31	$ 31	$ 6	$ -	$ -
376		Internal labor	7/1/2013	$ 21,402	$ 20,546	$ 856	5	$ 171	$ 171	$ 171	$ 171	$ 685	$ 856	$ 856	$ 171	$ -	$ -
377		Knoll task chair	2/1/2014	$ 13,806	$ 13,254	$ 552	7	$ 79	$ 79	$ 79	$ 79	$ 237	$ 316	$ 394	$ 316	$ 237	$ 158
378		1 laptops	4/1/2013	$ 1,165	$ 1,119	$ 47	5	$ 9	$ 9	$ 9	$ 9	$ 37	$ 47	$ 47	$ 9	$ -	$ -
379		1 laptops	4/1/2013	$ 1,165	$ 1,119	$ 47	5	$ 9	$ 9	$ 9	$ 9	$ 37	$ 47	$ 47	$ 9	$ -	$ -
380		Laptop, EMT-HIWKOCLT02	11/1/2016	$ 1,631	$ 1,566	$ 65	5	$ 13	$ 13	$ 13	$ 13	$ 13	$ 26	$ 39	$ 52	$ 39	$ 26
381		Lateral File	9/1/2012	$ 525	$ 504	$ 21	5	$ 4	$ 4	$ -	$ -	$ 21	$ 21	$ 21	$ -	$ -	$ -
382		Work Order Addition	12/1/2011	$ 1,447	$ 1,389	$ 58	5	$ 12	$ 12	$ -	$ -	$ 58	$ 58	$ 58	$ -	$ -	$ -
383		Work Order Addition	12/1/2011	$ 4,571	$ 4,388	$ 183	5	$ 37	$ 37	$ -	$ -	$ 183	$ 183	$ 183	$ -	$ -	$ -
384		Work Order Addition	6/1/2011	$ 16,749	$ 16,079	$ 670	5	$ 134	$ 134	$ -	$ -	$ 670	$ 670	$ 670	$ -	$ -	$ -
385		New IP phone system	6/1/2013	$ 19,704	$ 18,915	$ 788	5	$ 158	$ 158	$ 158	$ 158	$ 631	$ 788	$ 788	$ 158	$ -	$ -
386		New Hydraulic Hammer	12/1/2013	$ 9,847	$ 9,453	$ 394	5	$ 79	$ 79	$ 79	$ 79	$ 315	$ 394	$ 394	$ 79	$ -	$ -
387		Office Furnishings	2/1/2014	$ 6,706	$ 6,438	$ 268	7	$ 38	$ 38	$ 38	$ 38	$ 115	$ 153	$ 192	$ 153	$ 115	$ 77
388		Office furniture & equip	9/1/2012	$ 4,134	$ 3,969	$ 165	7	$ 24	$ 24	$ 24	$ 24	$ 118	$ 142	$ 165	$ 47	$ 24	$ (0)
389		Work Order Addition	9/1/2012	$ 47	$ 45	$ 2	5	$ 0	$ 0	$ 0	$ -	$ 2	$ 2	$ 2	$ -	$ -	$ -
390		Work Order Addition	9/1/2012	$ 90	$ 87	$ 4	5	$ 1	$ 1	$ 1	$ -	$ 4	$ 4	$ 4	$ -	$ -	$ -
391		Portable generator 3500w, EMT's	12/1/2016	$ 518	$ 497	$ 21	5	$ 4	$ 4	$ 4	$ 4	$ 4	$ 8	$ 12	$ 17	$ 12	$ 8
392		Power Quality Analyzer	3/1/2015	$ 8,416	$ 8,080	$ 337	5	$ 67	$ 67	$ 67	$ 67	$ 135	$ 202	$ 269	$ 202	$ 135	$ 67
393		Printer Cart	9/1/2012	$ 75	$ 72	$ 3	5	$ 1	$ 1	$ 1	$ -	$ 3	$ 3	$ 3	$ -	$ -	$ -
394		Projector-Dell 1610HD	12/1/2016	$ 626	$ 601	$ 25	5	$ 5	$ 5	$ 5	$ 5	$ 5	$ 10	$ 15	$ 20	$ 15	$ 10
395		Electrical Upgrade	12/1/2011	$ 8,770	$ 8,419	$ 351	5	$ 70	$ 70	$ -	$ -	$ 351	$ 351	$ 351	$ -	$ -	$ -
396		Respirator supplied air system	12/1/2016	$ 4,239	$ 4,069	$ 170	5	$ 34	$ 34	$ 34	$ 34	$ 34	$ 68	$ 102	$ 136	$ 102	$ 68
397		Richo Copier	11/1/2011	$ 10,588	$ 10,164	$ 424	5	$ 85	$ 85	$ -	$ -	$ 424	$ 424	$ 424	$ -	$ -	$ -
398		Richo Fax Module	11/1/2011	$ 1,045	$ 1,003	$ 42	5	$ 8	$ 8	$ -	$ -	$ 42	$ 42	$ 42	$ -	$ -	$ -
399		RICOH MPC3004-Engineering office	12/1/2016	$ 8,282	$ 7,951	$ 331	5	$ 66	$ 66	$ 66	$ 66	$ 66	$ 133	$ 199	$ 265	$ 199	$ 133
400		Rplc computer w/laptop for Eng Mgr	10/1/2014	$ 1,478	$ 1,419	$ 59	5	$ 12	$ 12	$ 12	$ 12	$ 35	$ 47	$ 59	$ 24	$ 12	$ -
401		SCADA iNET-II 900 Dual Gateway	3/1/2016	$ 22,377	$ 21,482	$ 895	5	$ 179	$ 179	$ 179	$ 179	$ 179	$ 358	$ 537	$ 716	$ 537	$ 358
402		SCADA radio data link	5/1/2017	$ 53,201	$ 51,073	$ 2,128	5	$ 426	$ -	$ 426	$ 426	$ -	$ 426	$ 851	$ -	$ 1,702	$ 1,277
403		SCADA upgrade 2013	3/1/2016	$ 64,775	$ 62,184	$ 2,591	5	$ 518	$ 518	$ 518	$ 518	$ 518	$ 1,036	$ 1,555	$ 2,073	$ 1,555	$ 1,036
404		SCADAPack 32	3/1/2016	$ 10,539	$ 10,117	$ 422	5	$ 84	$ 84	$ 84	$ 84	$ 84	$ 169	$ 253	$ 337	$ 253	$ 169
405		Scaffolding	3/1/2016	$ 4,771	$ 4,580	$ 191	5	$ 38	$ 38	$ 38	$ 38	$ 38	$ 76	$ 115	$ 153	$ 115	$ 76
406		Work Order Addition	12/1/2011	$ 15	$ 14	$ 1	5	$ 0	$ 0	$ -	$ -	$ 1	$ 1	$ 1	$ -	$ -	$ -
407		Tools & Equipment	6/1/2013	$ 994	$ 954	$ 40	5	$ 8	$ 8	$ 8	$ 8	$ 32	$ 40	$ 40	$ 8	$ -	$ -
408		Trailer, emergency compressor	3/1/2016	$ 426	$ 409	$ 17	25	$ 1	$ 1	$ 1	$ 1	$ 1	$ 1	$ 2	$ 16	$ 16	$ 15
409		Trailer, emergency generator EG6500	3/1/2016	$ 2,073	$ 1,990	$ 83	25	$ 3	$ 3	$ 3	$ 3	$ 3	$ 7	$ 10	$ 80	$ 76	$ 73
410		Trailer, emergency 6'x12' w/ramp	3/1/2016	$ 7,800	$ 7,488	$ 312	25	$ 12	$ 12	$ 12	$ 12	$ 12	$ 25	$ 37	$ 300	$ 287	$ 275
411		Work Order Addition	9/1/2012	$ 58,793	$ 56,441	$ 2,352	5	$ 470	$ 470	$ 470	$ -	$ 2,352	$ 2,352	$ 2,352	$ -	$ -	$ -
412		V208214, Ford F-150	12/1/2010	$ 6,817	$ 6,545	$ 273	5	$ 55	$ -	$ -	$ -	$ 273	$ 273	$ 273	$ -	$ -	$ -
413		V208216, Chevy Silverad	12/1/2010	$ 9,017	$ 8,656	$ 361	5	$ 72	$ -	$ -	$ -	$ 361	$ 361	$ 361	$ -	$ -	$ -
414		V208217, Chevy 3500	12/1/2010	$ 29,139	$ 27,973	$ 1,166	5	$ 233	$ -	$ -	$ -	$ 1,166	$ 1,166	$ 1,166	$ -	$ -	$ -
415		V208222, '08 TOY 4 RUNNER	12/1/2008	$ 32,269	$ 30,978	$ 1,291	5	$ 258	$ -	$ -	$ -	$ 1,291	$ 1,291	$ 1,291	$ -	$ -	$ -
416		Visitor Chair	9/1/2012	$ 169	$ 162	$ 7	7	$ 1	$ 1	$ 1	$ 1	$ 5	$ 6	$ 7	$ 2	$ 1	$ -
417		SCADA Report Writer System	11/30/2017	$ 42,691	$ 40,983	$ 1,708	25	$ 68	$ -	$ 68	$ 68	$ -	$ 68	$ 137	$ -	$ 1,639	$ 1,571
418		Fuel Station	8/31/2017	$ 183,000	$ 175,680	$ 7,320	25	$ 293	$ -	$ 293	$ 293	$ -	$ 293	$ 586	$ -	$ 7,027	$ 6,734
419		Base Yard Security Cameras	10/31/2017	$ 10,014	$ 9,613	$ 401	5	$ 80	$ -	$ 80	$ 80	$ -	$ 80	$ 160	$ -	$ 320	$ 240
420		Big Island Radio Communication	9/30/2017	$ 50,000	$ 48,000	$ 2,000	5	$ 400	$ -	$ 400	$ 400	$ -	$ 400	$ 800	$ -	$ 1,600	$ 1,200
421		EMT Service Truck	9/30/2017	$ 77,492	$ 74,393	$ 3,100	5	$ 620	$ -	$ 620	$ 620	$ -	$ 620	$ 1,240	$ -	$ 2,480	$ 1,860
422		Handheld Meter Readers	10/31/2017	$ 8,673	$ 8,326	$ 347	5	$ 69	$ -	$ 69	$ 69	$ -	$ 69	$ 139	$ -	$ 278	$ 208
423		EMT Service Truck Tools	10/31/2017	$ 8,787	$ 8,436	$ 351	5	$ 70	$ -	$ 70	$ 70	$ -	$ 70	$ 141	$ -	$ 281	$ 211
424		Portable Air Compressor	6/30/2017	$ 21,139	$ 20,293	$ 846	5	$ 169	$ -	$ 169	$ 169	$ -	$ 169	$ 338	$ -	$ 676	$ 507
425		Socket fusion & welding prep kit	6/30/2017	$ 2,249	$ 2,159	$ 90	5	$ 18	$ -	$ 18	$ 18	$ -	$ 18	$ 36	$ -	$ 72	$ 54
426		Itron Handheld Meter Readers	7/1/2018	$ 26,765	$ 25,694	$ 1,071	5	$ 214	$ -	$ -	$ 214	$ -	$ -	$ 214	$ -	$ -	$ 856
427		2018 Toyota 4Runner 4x4	7/1/2018	$ 42,925	$ 41,208	$ 1,717	5	$ 343	$ -	$ -	$ 343	$ -	$ -	$ 343	$ -	$ -	$ 1,374
428		2018 Toyota Tacoma TRD 4x4	7/1/2018	$ 40,602	$ 38,978	$ 1,624	5	$ 325	$ -	$ -	$ 325	$ -	$ -	$ 325	$ -	$ -	$ 1,299
429		Total		$ 1,953,300	$ 1,884,768	$ 78,532		$ 14,000	$ 9,153	$ 10,774	$ 9,293	$ 40,812	$ 49,132	$ 57,835	$ 14,998	$ 24,988	$ 20,697
430		BIG ISLAND ALLOCATIONS															
431		721 - Waikoloa Water	18.33%	$ 359,950	$ 345,552	$ 14,398		$ 2,567	$ 1,678	$ 1,975	$ 1,687	$ 7,482	$ 9,008	$ 10,603	$ 2,750	$ 4,581	$ 3,795
432		722 - Waikoloa Sewer	13.92%	$ 273,197	$ 262,269	$ 10,928		$ 1,948	$ 1,274	$ 1,499	$ 1,281	$ 5,679	$ 6,837	$ 8,048	$ 2,087	$ 3,477	$ 2,880
433		723 - Waikoloa Resort Water	19.14%	$ 375,703	$ 360,675	$ 15,028		$ 2,679	$ 1,752	$ 2,062	$ 1,761	$ 7,810	$ 9,402	$ 11,067	$ 2,870	$ 4,782	$ 3,961

Line No.	Utility Account	Property Description	In Service Date	Federal Tax Cost	State Tax Cost	HCGETC	Amortization Period	Annual Amortization	Accumulated Amortization 2016	Accumulated Amortization 2017	Accumulated Amortization 2018	Unamortized HCGETC 2016	Unamortized HCGETC 2017	Unamortized HCGETC 2018
434		724 - Waikoloa Resort Sewer	25.40%	$ 498,692	$ 478,744	$ 19,948		$ 3,556	$ 2,325	$ 2,737	$ 2,338	$ 10,367	$ 12,480	$ 14,690	$ 3,810	$ 6,347	$ 5,257
435		725 - Waikoloa Resort Irrigation	1.02%	$ 19,987	$ 19,187	$ 799		$ 143	$ 93	$ 110	$ 94	$ 415	$ 500	$ 589	$ 153	$ 254	$ 211
436		726 - Kona Water	14.39%	$ 282,599	$ 271,295	$ 11,304		$ 2,015	$ 1,318	$ 1,551	$ 1,325	$ 5,875	$ 7,072	$ 8,325	$ 2,159	$ 3,597	$ 2,979
437		727 - Kona Sewer	7.80%	$ 153,172	$ 147,045	$ 6,127		$ 1,092	$ 714	$ 841	$ 718	$ 3,184	$ 3,833	$ 4,512	$ 1,170	$ 1,950	$ 1,615
438	**WASTEWATER ADMINISTRATION**																
439		iPad 3 - WW Mgr.	9/1/2013	$ 810	$ 778	$ 32	5	$ 6	$ 6	$ 6	$ 6	$ 26	$ 32	$ 32	$ 6	$ -	$ -
440		Total		$ 810	$ 778	$ 32		$ 6	$ 6	$ 6	$ 6	$ 26	$ 32	$ 32	$ 6	$ -	$ -
441		WASTEWATER ADMINISTRATION ALLOCATIONS															
442		701 - Pukalani	17.22%	$ 139	$ 134	$ 6		$ 1	$ 1	$ 1	$ 1	$ 4	$ 6	$ 6	$ 1	$ -	$ -
443		722 - Waikoloa Sewer	24.52%	$ 199	$ 191	$ 8		$ 2	$ 2	$ 2	$ 2	$ 6	$ 8	$ 8	$ 2	$ -	$ -
444		724 - Waikoloa Resort Sewer	45.16%	$ 366	$ 351	$ 15		$ 3	$ 3	$ 3	$ 3	$ 12	$ 15	$ 15	$ 3	$ -	$ -
445		727 - Kona Sewer	13.10%	$ 106	$ 102	$ 4		$ 1	$ 1	$ 1	$ 1	$ 3	$ 4	$ 4	$ 1	$ -	$ -
446		TOTALS		$ 10,158,716	$ 9,752,368	$ 406,349		$ 20,909	$ 16,991	$ 18,584	$ 18,341	$ 120,302	$ 138,407	$ 153,996	$ 274,104	$ 264,999	$ 252,353

Application Filed December 2017
Exhibit WHSC 7.15
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Working Cash
Test Year Ending December 31, 2018

Line No.			
1	Labor Expenses	$	575,337
2	Fuel & Power	$	174,449
3	Chemicals	$	28,908
4	Materials & Supplies	$	32,218
5	Waste/Sludge Disposal	$	28,941
6	Affiliated Charges	$	96,052
7	Professional and Outside Services	$	3,966
8	Repairs & Maintenace	$	116,824
9	Rental Expenses	$	7,887
10	Insurance Expenses	$	9,256
11	Regulatory Expenses	$	69,167
12	General & Administrative Expenses	$	37,494
13	Customer Accounts Expenses	$	12,748
14	subtotal	$	1,193,248
15	Working Cash factor		12
16	Working Cash	$	99,437

Application Filed December 2017
Exhibit WHSC 8
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Historical 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								
3	Revenues							
4	Residential							
5	Single-family							
6	Fixed revenue	$ 94,057	$ 98,608	$ 119,207	$ 172,922	$ 214,948	$ 245,678	$ 349,133
7	Metered Revenue	$ 39,974	$ 38,530	$ 36,893	$ 42,368	$ 51,419	$ 57,598	$ 92,975
8	Power Cost Charge Revenue	$ -	$ -	$ 4,529	$ 37,073	$ 32,985	$ 30,676	$ 30,676
9	Multi-Family							
10	Fixed revenue	$ 526,752	$ 529,295	$ 586,536	$ 768,972	$ 896,151	$ 895,609	$ 1,272,750
11	Metered Revenue	$ 212,708	$ 196,147	$ 195,710	$ 182,508	$ 240,954	$ 242,000	$ 390,635
12	Power Cost Charge Revenue	$ -	$ -	$ 21,769	$ 158,420	$ 146,738	$ 128,885	$ 128,885
13	subtotal	$ 873,491	$ 862,580	$ 964,644	$ 1,362,263	$ 1,583,196	$ 1,600,448	$ 2,265,055
14	Non-Residential							
15	Business							
16	Fixed revenue	$ 18,482	$ 18,199	$ 19,984	$ 26,186	$ 30,400	$ 30,524	$ 43,377
17	Metered Revenue	$ 22,513	$ 22,372	$ 22,362	$ 18,857	$ 26,832	$ 27,477	$ 44,353
18	Power Cost Charge Revenue	$ -	$ -	$ 2,502	$ 18,147	$ 16,320	$ 14,634	$ 14,634
19	Public Authority							
20	Fixed revenue	$ 9,681	$ 9,681	$ 10,723	$ 14,051	$ 16,379	$ 15,634	$ 22,218
21	Metered Revenue	$ 24,941	$ 17,121	$ 15,346	$ 14,109	$ 25,811	$ 21,391	$ 34,529
22	Power Cost Charge Revenue	$ -	$ -	$ 1,720	$ 12,392	$ 15,762	$ 11,393	$ 11,393
23	subtotal	$ 75,617	$ 67,373	$ 72,636	$ 103,742	$ 131,503	$ 121,052	$ 170,504
24	Other Revenue							
25	Miscellaneous Service	$ 1,265	$ 1,141	$ 185	$ 1,694	$ 2,975	$ -	$ -
26	Other	$ 1	$ 119	$ -	$ 952	$ -	$ -	$ -
27	Unbilled Revenue Adjustment	$ (1,135)	$ 6,456	$ 20,883	$ 29,506	$ (2,267)	$ -	$ -
28	TOTAL REVENUES	$ 949,239	$ 937,670	$ 1,058,348	$ 1,498,157	$ 1,715,407	$ 1,721,500	$ 2,435,559
29	Expenses							
30	Labor Expenses	$ 825,218	$ 736,429	$ 805,207	$ 732,406	$ 763,118	$ 575,337	$ 575,337
31	Fuel & Power	$ 229,068	$ 313,532	$ 216,514	$ 206,269	$ 180,832	$ 174,449	$ 174,449
32	Chemicals	$ 31,780	$ 49,649	$ 34,898	$ 29,314	$ 17,671	$ 28,908	$ 28,908
33	Materials & Supplies	$ 32,921	$ 23,151	$ 21,212	$ 40,932	$ 29,632	$ 32,218	$ 32,218
34	Waste/Sludge Disposal	$ 14,158	$ 22,348	$ 24,283	$ 26,716	$ 31,587	$ 28,941	$ 28,941
35	Affiliated Charges	$ 85,683	$ 100,635	$ 110,711	$ 91,542	$ 96,408	$ 96,052	$ 96,052
36	Professional and Outside Services	$ 3,554	$ 7,507	$ 5,420	$ 4,614	$ 1,153	$ 3,966	$ 3,966
37	Repairs & Maintenace	$ 155,266	$ 133,884	$ 150,298	$ 69,667	$ 111,795	$ 116,824	$ 116,824
38	Rental Expenses	$ 9,394	$ 8,502	$ 5,730	$ 6,334	$ 9,321	$ 7,887	$ 7,887
39	Insurance Expenses	$ 7,045	$ 3,053	$ 4,687	$ 2,255	$ 250	$ 9,256	$ 9,256
40	Regulatory Expenses	$ 30,145	$ 7,524	$ 48,507	$ 21,154	$ 28,602	$ 69,167	$ 69,167
41	General & Administrative Expenses	$ 61,714	$ 33,549	$ 34,428	$ 26,856	$ 45,768	$ 37,494	$ 37,494
42	Customer Accounts Expenses	$ 15,877	$ 6,379	$ 10,414	$ 14,370	$ 11,538	$ 12,748	$ 12,748
43	Taxes Other than Income Taxes	$ 94,563	$ 96,239	$ 84,549	$ 118,724	$ 135,610	$ 109,918	$ 155,510
44	Depreciation	$ 332,587	$ 397,967	$ 404,341	$ 429,498	$ 434,932	$ 403,084	$ 403,084
45	Amortization	$ -	$ -	$ -	$ -	$ -	$ -	$ -
46	Income Taxes	$ -	$ -	$ -	$ -	$ -	$ -	$ 219,092
47	TOTAL EXPENSES	$ 1,928,974	$ 1,940,349	$ 1,961,198	$ 1,820,649	$ 1,898,219	$ 1,706,250	$ 1,970,935
48	NET INCOME/(LOSS)	$ (979,735)	$ (1,002,679)	$ (902,850)	$ (322,493)	$ (182,812)	$ 15,250	$ 464,624

Application Filed December 2017
Exhibit WHSC 8.1
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer 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	Sewer							
3	Residential							
4	Single-family customers							
5	Fixed revenue	$ 94,057	$ 98,608	$ 119,207	$ 172,922	$ 214,948	$ 245,678	$ 349,133
6	Metered Revenue	$ 39,974	$ 38,530	$ 36,893	$ 42,368	$ 51,419	$ 57,598	$ 92,975
7	Power Cost Charge Revenue	$ -	$ -	$ 4,529	$ 37,073	$ 32,985	$ 30,676	$ 30,676
8	subtotal	$ 134,031	$ 137,138	$ 160,628	$ 252,362	$ 299,352	$ 333,953	$ 472,785
9	Multi-family							
10	Fixed revenue	$ 526,752	$ 529,295	$ 586,536	$ 768,972	$ 896,151	$ 895,609	$ 1,272,750
11	Metered Revenue	$ 212,708	$ 196,147	$ 195,710	$ 182,508	$ 240,954	$ 242,000	$ 390,635
12	Power Cost Charge Revenue	$ -	$ -	$ 21,769	$ 158,420	$ 146,738	$ 128,885	$ 128,885
13	subtotal	$ 739,460	$ 725,442	$ 804,015	$ 1,109,901	$ 1,283,844	$ 1,266,495	$ 1,792,271
14	Non-Residential							
15	Business							
16	Fixed revenue	$ 18,482	$ 18,199	$ 19,984	$ 26,186	$ 30,400	$ 30,524	$ 43,377
17	Metered Revenue	$ 22,513	$ 22,372	$ 22,362	$ 18,857	$ 26,832	$ 27,477	$ 44,353
18	Power Cost Charge Revenue	$ -	$ -	$ 2,502	$ 18,147	$ 16,320	$ 14,634	$ 14,634
19	subtotal	$ 40,995	$ 40,571	$ 44,847	$ 63,190	$ 73,551	$ 72,634	$ 102,364
20	Public Authority							
21	Fixed revenue	$ 9,681	$ 9,681	$ 10,723	$ 14,051	$ 16,379	$ 15,634	$ 22,218
22	Metered Revenue	$ 24,941	$ 17,121	$ 15,346	$ 14,109	$ 25,811	$ 21,391	$ 34,529
23	Power Cost Charge Revenue	$ -	$ -	$ 1,720	$ 12,392	$ 15,762	$ 11,393	$ 11,393
24	subtotal	$ 34,622	$ 26,802	$ 27,789	$ 40,552	$ 57,952	$ 48,418	$ 68,140
25	Other Revenue							
26	Miscellaneous Service	$ 1,265	$ 1,141	$ 185	$ 1,694	$ 2,975	$ -	$ -
27	Other	$ 1	$ 119	$ -	$ 952	$ -	$ -	$ -
28	Unbilled Revenue Adjustment	$ (1,135)	$ 6,456	$ 20,883	$ 29,506	$ (2,267)	$ -	$ -
29	TOTAL	$ 949,239	$ 937,670	$ 1,058,348	$ 1,498,157	$ 1,715,407	$ 1,721,500	$ 2,435,559

Application Filed December 2017
Exhibit WHSC 8.2
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Sales, Usage, and Customer Counts
Test Year Ending December 31, 2018

Line No.							Test Year	
1	**Customer Count / Volumetric measurements**							
2		2013	2014	2015	2016	2017	Present Rates	Proposed Rates
3	**Residential**							
4	**Single-family**							
5	No. of customers	219	234	260	284	306	330	330
6	subtotal	219	234	260	284	306	330	330
7	Customer Growth Projection		15	26	24	22		
8	Average growth per year (2015 - 2017)						24	
9	Billed Sewer Flows [TG]	30,729	29,180	32,638	37,608	36,684	38,145	38,145
10	subtotal	30,729	29,180	32,638	37,608	36,684	38,145	38,145
11	Billed Sewer Flow Projection			3,458	4,970	-924		
12	Average (2015 - 2017)						2,501	
13	**Multi-family**							
14	No. of customers	1,203	1,203	1,203	1,203	1,203	1,203	1,203
15	subtotal	1,203	1,203	1,203	1,203	1,203	1,203	1,203
16	Billed Sewer Flows [TG]	160,486	147,450	156,893	160,708	163,194	160,265	160,265
17	subtotal	160,486	147,450	156,893	160,708	163,194	160,265	160,265
18	**Non-Residential**							
18	**Business**							
19	No. of customers	41	41	41	41	41	41	41
20	subtotal	41	41	41	41	41	41	41
21	Billed Sewer Flows [TG]	16,927	16,821	18,031	18,409	18,150	18,197	18,197
22	subtotal	16,927	16,821	18,031	18,409	18,150	18,197	18,197
23	**Public Authority**							
24	No. of customers	21	21	21	21	21	21	21
25	subtotal	21	21	21	21	21	21	21
26	Billed Sewer Flows [TG]	18,753	12,873	12,398	12,571	17,530	14,166	14,166
27	subtotal	18,753	12,873	12,398	12,571	17,530	14,166	14,166
28	Totals							
29	Residential	1,422	1,437	1,463	1,487	1,509	1,533	1,533
30	Commercial	41	41	41	41	41	41	41
31	Public Authority	21	21	21	21	21	21	21
32	Billed Sewer Flows [TG]	226,895	206,324	219,960	229,296	235,558	230,773	230,773

Application Filed December 2017
Exhibit WHSC 8.3
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer 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/

Application Filed December 2017
Exhibit WHSC 8.4
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Four Factor Allocations
Test Year Ending December 31, 2018

Line No.					
1	**Allocations from Big Island (Dept 720)**	**2012 - 2015**	**2016**	**2017**	**2018**
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%
19	**Allocations from Wastewater Administration (796)**				
20	Pukalani (701)	17.58%	15.87%	17.22%	17.22%
21	Waikoloa Sewer (722)	27.12%	24.68%	24.52%	24.52%
22	Waikoloa Resort Sewer (724)	40.43%	42.90%	45.16%	45.16%
23	Kona Sewer (727)	14.87%	16.56%	13.10%	13.10%
		100.00%	100.00%	100.00%	100.00%

Application Filed December 2017
Exhibit WHSC 8.5
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer 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
1							
2							
3	**Expenses**						
4	Payroll:						
5	Operating Labor	$ 455,300	$ 425,493	$ 419,645	$ 417,089	$ 442,312	$ 323,238
6	Total Payroll	$ 455,300	$ 425,493	$ 419,645	$ 417,089	$ 442,312	$ 323,238
7	**Employee Benefits**						
8	Health Care Benefits (Medical and Dental)	$ 210,609	$ 185,744	$ 236,867	$ 185,105	$ 193,467	$ 105,263
9	Workers Compensation	$ 13,652	$ 11,805	$ 9,821	$ 16,768	$ 5,565	$ 9,148
10	Pension	$ 111,085	$ 86,713	$ 113,386	$ 91,062	$ 89,760	$ 109,646
11	Total Employee Benefits	$ 335,346	$ 284,263	$ 360,074	$ 292,934	$ 288,793	$ 224,057
12	**Payroll Taxes**						
13	FICA	$ 27,697	$ 23,885	$ 22,886	$ 21,827	$ 25,643	$ 26,678
14	FUTA	$ 225	$ 195	$ 189	$ 185	$ 209	$ 205
15	SUTA	$ 6,650	$ 2,594	$ 2,414	$ 370	$ 6,163	$ 1,160
16	Total payroll taxes	$ 34,572	$ 26,674	$ 25,489	$ 22,382	$ 32,014	$ 28,042

Application Filed December 2017
Exhibit WHSC 8.6
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer 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
1							
2							
3	**Expenses [$]**						
4	Electricity						
5	Auwaiakeakua WWTP	$ 66,981	$ 52,719	$ 45,113	$ 39,384	$ 53,276	$ 43,692
6	Auwaiakeakua WWTP Wind Energy	$ 59,053	$ 90,700	$ 71,005	$ 69,131	$ 46,164	$ 60,233
7	Kamakoa WWTP	$ -	$ -	$ 4,711	$ 96,746	$ 81,392	$ 70,525
8	subtotal	$ 126,034	$ 143,419	$ 120,830	$ 205,261	$ 180,832	$ 174,449
9	Fuel for Power Production	$ 103,034	$ 170,113	$ 95,684	$ 1,009	$ -	$ -
10	Total Expense	$ 229,068	$ 313,532	$ 216,514	$ 206,269	$ 180,832	$ 174,449
11	**Units of consumption [kWh]**						
12	Electricity						
13	Auwaiakeakua WWTP	137,320	123,560	126,160	124,120	168,000	139,427
14	Auwaiakeakua WWTP Wind Energy	155,091	216,047	191,083	227,270	158,280	192,211
15	Kamakoa WWTP	0	0	17,200	368,600	289,360	225,053
16	subtotal	292,411	339,607	334,443	719,990	615,640	556,691
17	Unit Cost [$ / kWh]	$ 0.4310	$ 0.4223	$ 0.3613	$ 0.2851	$ 0.2937	$ 0.3134

Application Filed December 2017
Exhibit WHSC 8.7
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Power Cost Charge
Test Year Ending December 31, 2018

Line No.			
1	Power Cost [$]	$	174,449
2	Billed Sewer Flows [TG]		230,773
3	Power Cost Charge [$ / TG]	$	0.7559
4	Adopted Revenue Tax Factor		6.385%
5	Power Cost Charge Revenue		$185,588

Application Filed December 2017
Exhibit WHSC 8.8
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Chemicals
Test Year Ending December 31, 2018

Line No.	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
1							
2	Chemicals	31,780	49,649	34,898	29,314	17,671	$ 27,294
3	subtotal	$31,780	$ 49,649	$ 34,898	$ 29,314	$ 17,671	$ 27,294
4	In 2018 Dollars						
5	Chemicals	$ 35,136	$ 54,111	$ 37,652	$ 30,922	$ 18,150	$ 28,908
6	Total	$ 35,136	$ 54,111	$ 37,652	$ 30,922	$ 18,150	$ 28,908

Application Filed December 2017
Exhibit WHSC 8.9
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Materials & Supplies
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 WHSC						
3	Treatment and Disposal	$ 29,310	$ 22,673	$ 20,923	$ 40,674	$ 29,374	$ 30,324
4	Water Treatment and Water Quality	$ -	$ -	$ -	$ -	$ -	$ -
5	Transmission & Distribution	$ 2,132	$ -	$ -	$ -	$ -	$ -
6	Collection	$ 1,045	$ -	$ -	$ -	$ -	$ -
7	Pumping	$ 434	$ 477	$ 289	$ 257	$ 258	$ 268
8	subtotal	$ 32,921	$ 23,151	$ 21,212	$ 40,932	$ 29,632	$ 30,592
9	Allocated from Hawaii Water to WHSC						
10	Treatment and Disposal	$ 1	$ 23	$ 101	$ 21	$ -	$ 41
11	Water Treatment and Water Quality	$ -	$ -	$ -	$ -	$ -	$ -
12	Transmission & Distribution	$ -	$ -	$ -	$ -	$ -	$ -
13	Collection	$ (1)	$ -	$ -	$ -	$ -	
14	Pumping	$ -	$ 18	$ 5	$ -	$ 19	$ 8
15	subtotal	$ 0	$ 41	$ 106	$ 21	$ 19	$ 49
16	Direct and Allocated Professional & Outside Services						
17	Treatment and Disposal	$ 29,312	$ 22,696	$ 21,023	$ 40,695	$ 29,374	$ 30,364
18	Water Treatment and Water Quality	$ -	$ -	$ -	$ -	$ -	$ -
19	Transmission & Distribution	$ 2,132	$ -	$ -	$ -	$ -	$ -
20	Collection	$ 1,044	$ -	$ -	$ -	$ -	
21	Pumping	$ 434	$ 496	$ 294	$ 257	$ 277	$ 276
22	subtotal	$ 32,921	$ 23,192	$ 21,317	$ 40,952	$ 29,651	$ 30,640
23	In 2018 Dollars						
24	Treatment and Disposal	$ 32,407	$ 24,736	$ 22,683	$ 42,928	$ 30,169	$ 31,927
25	Water Treatment and Water Quality	$ -	$ -	$ -	$ -	$ -	$ -
26	Transmission & Distribution	$ 2,357	$ -	$ -	$ -	$ -	$ -
27	Collection	$ 1,154	$ -	$ -	$ -	$ -	$ -
28	Pumping	$ 479	$ 540	$ 317	$ 271	$ 285	$ 291
29	Total	$ 36,397	$ 25,276	$ 23,000	$ 43,199	$ 30,454	$ 32,218

Application Filed December 2017
Exhibit WHSC 8.10
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Waste/Sludge Disposal
Test Year Ending December 31, 2018

Line No.	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	Sludge Removal	$ 14,158	$ 22,348	$ 24,283	$ 26,716	$ 31,587	$ 27,529
3	subtotal	$ 14,158	$ 22,348	$ 24,283	$ 26,716	$ 31,587	$ 27,529
4	In 2018 Dollars						
5	Sludge Removal	$ 15,653	$ 24,356	$ 26,200	$ 28,182	$ 32,442	$ 28,941
6	Total	$ 15,653	$ 24,356	$ 26,200	$ 28,182	$ 32,442	$ 28,941

Application Filed December 2017
Exhibit WHSC 8.11
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Affiliated Charges
Test Year Ending December 31, 2018

Line No.	Description		2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
2	PubCo		$ 85,683	$ 100,635	$ 110,711	$ 91,542	$ 96,408	$ 96,052
3	Total		$85,683	$100,635	$110,711	$91,542	$96,408	$ 96,052
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	10.02%		$ 100,635	$ 110,711	$ 91,542	$ 96,408	
7	Adjustment for Account 791000			$ (5,706)	$ (9,466)	$ (1,040)	$ -	
8	Proposed Allocation			$ 94,929	$ 101,245	$ 90,502	$ 96,408	$ 96,052

Application Filed December 2017
Exhibit WHSC 8.12
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Professional and Outside Services
Test Year Ending December 31, 2018

Line No.	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
1							
2	Direct Charge to WHSC						
3	Legal Expense	$ -	$ -	$ -	$ -	$ -	$ -
4	Other Outside Services	$ -	$ 160	$ 721	$ 1,315	$ -	$ 679
5	Training Consultants	$ -	$ -	$ -	$ -	$ -	$ -
6	subtotal	$ -	$ 160	$ 721	$ 1,315	$ -	$ 679
7	Allocated from Hawaii Water to WHSC						
8	Legal Expense	$ 2,490	$ 2,405	$ 1,626	$ 2,639	$ 1,082	$ 1,782
9	Other Outside Services	$ 719	$ 4,942	$ 1,907	$ 660	$ 71	$ 879
10	Training Consultants	$ 345	$ -	$ -	$ -	$ -	$ -
11	Auditors and Consultants	$ -	$ -	$ 1,166	$ -	$ -	$ 389
12	subtotal	$ 3,554	$ 7,347	$ 4,699	$ 3,299	$ 1,153	$ 3,050
13	Direct and Allocated Professional & Outside Services						
14	Legal Expense	$ 2,490	$ 2,405	$ 1,626	$ 2,639	$ 1,082	$ 1,782
15	Other Outside Services	$ 719	$ 5,102	$ 2,628	$ 1,974	$ 71	$ 1,558
16	Training Consultants	$ 345	$ -	$ -	$ -	$ -	$ -
17	Auditors and Consultants	$ -	$ -	$ 1,166	$ -	$ -	$ 389
18	subtotal	$ 3,554	$ 7,507	$ 5,420	$ 4,614	$ 1,153	$ 3,729
19	In 2018 Dollars						
20	Legal Expense	$ 2,752	$ 2,621	$ 1,754	$ 2,784	$ 1,111	$ 1,883
21	Other Outside Services	$ 795	$ 5,560	$ 2,836	$ 2,083	$ 73	$ 1,664
22	Training Consultants	$ 382	$ -	$ -	$ -	$ -	$ -
23	Auditors and Consultants	$ -	$ -	$ 1,258	$ -	$ -	$ 419
24	Total	$ 3,929	$ 8,181	$ 5,848	$ 4,867	$ 1,184	$ 3,966

Application Filed December 2017
Exhibit WHSC 8.13
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Repairs & Maintenance
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 WHSC						
3	Source of Supply	$ -	$ -	$ -	$ -		$ -
4	Pumping	$ 3,226	$ 1,973	$ 1,546	$ 6,253	$ 17,361	$ 8,387
5	Treatment and Disposal	$ 181,431	$ 193,542	$ 199,323	$ 117,724	$ 129,310	$ 148,786
6	Transmission & Distribution	$ 17,036	$ 3,455	$ 1,434	$ 4,238	$ 2,303	$ 2,658
7	A&G	$ 126	$ 491	$ 358	$ 465	$ -	$ 274
8	Mileage	$ 17,709	$ 18,537	$ 18,687	$ 22,341	$ 24,367	$ 21,798
8	less chemicals	$ (31,780)	$ (49,649)	$ (34,898)	$ (29,314)	$ (17,671)	$ (27,294)
9	less materials & supplies	$ (32,921)	$ (23,151)	$ (21,212)	$ (40,932)	$ (29,632)	$ (30,592)
10	less waste disposal	$ (14,158)	$ (22,348)	$ (24,283)	$ (26,716)	$ (31,587)	$ (27,529)
11	subtotal	$ 140,669	$ 122,849	$ 140,955	$ 54,060	$ 94,451	$ 96,489
12	Allocated from Hawaii Water to WHSC						
13	Source of Supply	$ 62	$ 408	$ 53	$ -	$ 42	$ 32
14	Pumping	$ 4,091	$ 798	$ 496	$ 70	$ 1,223	$ 596
15	Treatment and Disposal	$ 2,472	$ 2,543	$ 1,353	$ 169	$ 264	$ 595
16	Transmission & Distribution	$ 3,930	$ 3,559	$ 3,543	$ 4,112	$ 4,230	$ 3,962
17	A&G	$ 4,042	$ 3,471	$ 3,563	$ 2,781	$ 2,867	$ 3,070
18	Mileage	$ -	$ 297	$ 441	$ 8,496	$ 8,737	$ 5,891
19	less materials & supplies	$ (0)	$ (41)	$ (106)	$ (21)	$ (19)	$ (49)
20	subtotal	$ 14,597	$ 10,779	$ 9,008	$ 7,132	$ 8,627	$ 8,256
21	Direct and Allocated Repairs & Maintenance						
22	Source of Supply	$ 62	$ 408	$ 53	$ -	$ 42	$ 32
23	Pumping	$ 7,317	$ 2,770	$ 2,041	$ 6,323	$ 18,585	$ 8,983
24	Treatment and Disposal	$ 183,903	$ 196,085	$ 200,676	$ 117,893	$ 129,574	$ 149,381
25	Transmission & Distribution	$ 20,966	$ 7,014	$ 4,977	$ 8,350	$ 6,534	$ 6,620
26	A&G	$ 4,168	$ 3,961	$ 3,921	$ 3,246	$ 2,867	$ 3,345
27	Mileage	$ 17,709	$ 18,834	$ 19,128	$ 30,837	$ 33,103	$ 27,689
28	less chemicals	$ (31,780)	$ (49,649)	$ (34,898)	$ (29,314)	$ (17,671)	$ (27,294)
29	less materials & supplies	$ (32,921)	$ (23,192)	$ (21,317)	$ (40,952)	$ (29,651)	$ (30,640)
30	less waste disposal	$ (14,158)	$ (22,348)	$ (24,283)	$ (26,716)	$ (31,587)	$ (27,529)
31	subtotal	$ 155,266	$ 133,884	$ 150,298	$ 69,667	$ 111,795	$ 110,587
32	In 2018 Dollars						
33	Source of Supply	$ 68	$ 444	$ 57	$ -	$ 43	$ 33
34	Pumping	$ 8,090	$ 3,019	$ 2,202	$ 6,670	$ 19,088	$ 9,320
35	Treatment and Disposal	$ 203,323	$ 213,707	$ 216,516	$ 124,361	$ 133,083	$ 157,986
36	Transmission & Distribution	$ 23,180	$ 7,645	$ 5,370	$ 8,809	$ 6,710	$ 6,963
37	A&G	$ 4,608	$ 4,317	$ 4,230	$ 3,425	$ 2,945	$ 3,533
38	Mileage	$ 19,579	$ 20,527	$ 20,638	$ 32,528	$ 34,000	$ 29,055
39	less chemicals	$ (35,136)	$ (54,111)	$ (37,652)	$ (30,922)	$ (18,150)	$ (28,908)
40	less materials & supplies	$ (36,397)	$ (25,276)	$ (23,000)	$ (43,199)	$ (30,454)	$ (32,218)
41	less waste disposal	$ (15,653)	$ (24,356)	$ (26,200)	$ (28,182)	$ (32,442)	$ (28,941)
42	Total	$ 171,662	$ 145,916	$ 162,161	$ 73,489	$ 114,822	$ 116,824

Application Filed December 2017
Exhibit WHSC 8.14
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Rents
Test Year Ending December 31, 2018

Line No.	Description	2013	2014	2015	2016	2017	Test Year Jan 1, 2018 to Dec. 31, 2018
1							
2	Waikoloa Office and Baseyard	$ 9,394	$ 8,502	$ 5,730	$ 6,334	$ 9,321	$ 7,887
3	Total	$9,394	$ 8,502	$ 5,730	$ 6,334	$ 9,321	$ 7,887

4	Waikoloa General Office Rent Expense (2018)	$ 59,500
5	Waikoloa Baseyard Rent Expense (2018)	$ 19,229
6	4-Factor Allocation to WHSC (proposed)	10.02%
7	Total ((4 + 5) x 6)	$ 7,887

Application Filed December 2017
Exhibit WHSC 8.15
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Insurance 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 WHSC							
3	Liability Insurance - General, Auto, Umbrella, and etc	see (1) below	$ 2,816	$ 56	$ 1,412	$ (832)	$ -	
4	subtotal		$ 2,816	$ 56	$ 1,412	$ (832)	$ -	$ -
5	Allocated from Hawaii Water to WHSC							
6	Liability Insurance - General, Auto, Umbrella, and etc		$ 4,229	$ 2,998	$ 3,275	$ 3,086	$ 250	
7	subtotal		$ 4,229	$ 2,998	$ 3,275	$ 3,086	$ 250	$ -
8	Direct and Allocated Insurance							
9	Liability Insurance - General, Auto, Umbrella, and etc		$ 7,045	$ 3,053	$ 4,687	$ 2,255	$ 250	$ 9,256
10	Total		$ 7,045	$ 3,053	$ 4,687	$ 2,255	$ 250	$ 9,256

11 (1) Test year expense based on Marsh Insurance quote and allocated to WHSC 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 WHSC (proposed)		10.02%
15	Total (12 x 13 x 14)	$	9,256

Application Filed December 2017
Exhibit WHSC 8.16
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Regulatory Expenses
Test Year Ending December 31, 2018

Line No.	Description		Test Year
1			
2			
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	subotal	$	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	subotal	$	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	subotal	$	25,000
30	STUDIES		
31	Cost of Service	$	18,500
32	Depreciation	$	10,000
33	subotal	$	28,500
34	Total	$	207,500
35	Amortization Period		3
36	Test Year expense (Ln30/Ln31)	$	69,167

Application Filed December 2017
Exhibit WHSC 8.17
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Regulatory 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 WHSC						
3	Regulatory Expense	$ 30,097	$ 7,524	$ 45,982	$ 14,146	$ 14,586	$ -
4	subtotal	$ 30,097	$ 7,524	$ 45,982	$ 14,146	$ 14,586	$ -
5	Allocated from Hawaii Water to WHSC						
6	Regulatory Expense	$ 48	$ -	$ 2,525	$ 7,008	$ 14,016	
7	subtotal	$ 48	$ -	$ 2,525	$ 7,008	$ 14,016	$ -
8	Direct and Allocated Regulatory						
9	Regulatory Expense	$ 30,145	$ 7,524	$ 48,507	$ 21,154	$ 28,602	$ 69,167
10	Total	$ 30,145	$ 7,524	$ 48,507	$ 21,154	$ 28,602	$ 69,167

Application Filed December 2017
Exhibit WHSC 8.18
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer 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 WHSC						
3	Office Supplies	$ 5,885	$ 6,306	$ 6,202	$ 4,302	$ 17,688	$ 9,397
4	Misc G&A	$ 7,527	$ 686	$ 34	$ 399	$ 50	$ 161
5	subtotal	$ 13,412	$ 6,992	$ 6,235	$ 4,701	$ 17,738	$ 9,558
6	Allocated from Hawaii Water to WHSC						
7	Office Supplies	$ 24,154	$ 15,797	$ 19,448	$ 18,517	$ 24,551	$ 20,839
8	Misc G&A	$ 24,148	$ 10,761	$ 8,744	$ 3,638	$ 3,478	$ 5,287
9	subtotal	$ 48,302	$ 26,557	$ 28,192	$ 22,155	$ 28,029	$ 26,126
10	Direct and Allocated General & Adminsitrative						
11	Office Supplies	$ 30,039	$ 22,103	$ 25,650	$ 22,819	$ 42,240	$ 30,236
12	Misc G&A	$ 31,675	$ 11,447	$ 8,777	$ 4,037	$ 3,528	$ 5,448
13	Total General & Administrative	$ 61,714	$ 33,549	$ 34,428	$ 26,856	$ 45,768	$ 35,684
14	In 2018 Dollars						
15	Office Supplies	$ 33,211	$ 24,089	$ 27,675	$ 24,071	$ 43,383	$ 31,710
16	Misc G&A	$ 35,020	$ 12,475	$ 9,470	$ 4,259	$ 3,624	$ 5,784
17	Total	$ 68,231	$ 36,564	$ 37,145	$ 28,330	$ 47,007	$ 37,494

Application Filed December 2017
Exhibit WHSC 8.19
Witness: Carrasco
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Customer Accounts 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 WHSC						
3	Customer Accounts Exp.	$ 9,722	$ 2,733	$ (60)	$ (806)	$ 236	$ (210)
4	subtotal	$9,722	$ 2,733	$ (60)	$ (806)	$ 236	$ (210)
5	Allocated from Hawaii Water to WHSC						
6	Customer Accounts Exp.	$ 6,155	$ 3,646	$ 10,474	$ 15,176	$ 11,302	$ 12,317
7	subtotal	$ 6,155	$ 3,646	$ 10,474	$ 15,176	$ 11,302	$ 12,317
8	Direct and Allocated Customer Accounts						
9	Customer Accounts Exp.	$ 15,877	$ 6,379	$ 10,414	$ 14,370	$ 11,538	$ 12,107
10	Total Customer Accounts	$ 15,877	$ 6,379	$ 10,414	$ 14,370	$ 11,538	$ 12,107
11	In 2018 Dollars						
12	Customer Accounts Exp.	$ 17,554	$ 6,952	$ 11,236	$ 15,158	$ 11,851	$ 12,748
13	Total	$ 17,554	$ 6,952	$ 11,236	$ 15,158	$ 11,851	$ 12,748

Application Filed December 2017
Exhibit WHSC 8.20
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Taxes Other Than Income Taxes
Test Year Ending December 31, 2018

Line No.	Revenue Taxes	Revenues at Present Rates	Revenues at Proposed Rates	Tax Rates	Taxes at Present Rates	Taxes at Proposed Rates
1						
2						
3						
4						
5	Public Company Service Tax	$ 1,721,500	$ 2,435,559	5.885%	$ 101,310	$ 143,333
6	(Pursuant to HRS § 239)					
7	Public Utility Fee	$ 1,721,500	$ 2,435,559	0.500%	$ 8,608	$ 12,178
8	(Purusant to HRS § 269-30)					
9	Total Revenue Taxes				$ 109,918	$ 155,510
10	Total Taxes Other Than Income Taxes				$ 109,918	$ 155,510

Application Filed December 2017
Exhibit WHSC 8.21
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Income Tax Expense
Test Year Ending December 31, 2018

Line No.			At Present Rates	At Proposed Rates
1	Total Revenues		$ 1,721,500	$ 2,435,559
2	Total Operations & Maintenance Expenses		$ 1,193,248	$ 1,193,248
3	Depreciation		$ 403,084	$ 403,084
4	Amortization		$ -	$ -
5	Taxes Other than Income Taxes		$ 109,918	$ 155,510
6	Total Operating Expenses		$ 1,706,250	$ 1,751,843
7	Operating Income before Income Taxes		$ 15,250	$ 683,716
8	Interest Expenses		$ 72,838	$ 72,838
9	State taxable Income		$ (57,588)	$ 610,878
		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%	$ -	$ 30,729
14	Less Hawaii Capital Goods Excise Tax Credit		$ -	$ (18,341)
15	Federal taxable income		$ (57,588)	$ 593,615
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%	$ -	$ 91,650
21	Over $335K	34.0%	$ -	$ 87,929
22	**Total Federal and State income taxes**		$ -	$ 219,092
23	Effective Tax Rate		0.000%	35.865%
24	State		0.000%	2.826%
25	Federal		0.0000%	34.0000%

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer 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	$ 1,403,472	$ 680,209	$ 2,083,681
5	Non-Residenital	$ 99,421	$ 53,141	$ 152,562
6	Power Cost Charge	$ 211,806	$ (22,370)	$ 189,436
7	Total Operating Revenues	$ 1,714,699	$ 710,981	$ 2,425,680
8	Labor Expenses	$ 763,118	$ -	$ 763,118
9	Fuel & Power	$ 180,832	$ -	$ 180,832
10	Chemicals	$ 17,671	$ -	$ 17,671
11	Materials & Supplies	$ 29,632	$ -	$ 29,632
12	Waste/Sludge Disposal	$ 31,587	$ -	$ 31,587
13	Affiliated Charges	$ 96,408	$ -	$ 96,408
14	Professional and Outside Services	$ 1,153	$ -	$ 1,153
15	Repairs & Maintenace	$ 111,795	$ -	$ 111,795
16	Rental Expenses	$ 9,321	$ -	$ 9,321
17	Insurance Expenses	$ 250	$ -	$ 250
18	Regulatory Expenses	$ 28,602	$ -	$ 28,602
19	General & Administrative Expenses	$ 45,768	$ -	$ 45,768
20	Customer Accounts Expenses	$ 11,538	$ -	$ 11,538
21	Total O&M Expenses	$ 1,327,677	$ -	$ 1,327,677
22	Taxes Other than Income Taxes	$ 135,610	$ -	$ 135,610
23	Depreciation	$ 434,932	$ -	$ 434,932
24	Amortization	$ -	$ -	$ -
25	Income Taxes	$ -	$ 294,346	$ 294,346
26	Diff. due to changing factors		$ -	$ -
27	Total Operating Expenses	$ 1,898,219	$ 294,346	$ 2,192,565
28	Operating Income	$ (183,520)	$ 416,635	$ 233,115
29	Average Rate Base	$ 5,995,147	$ -	$ 5,995,147
30	Return on Rate Base	-3.06%		3.89%

Application Filed December 2017
Exhibit WHSC 10
Witness: Stout
1/1/2018

HAWAII WATER SERVICE COMPANY
PROJECTED RATE OF RETURN

Line No.		PRO FORMA AVERAGE CAPITAL			RATE OF
1					
2		AMOUNT	RATIO	EFF. RATE	RETURN
3					
4	***Estimated Average Rate of Return 2018***				
5	Long-Term Debt	$ 2,817,719	47.0%	5.50%	2.59%
6	Common Stock	3,177,428	53.0%	9.75%	5.17%
7		5,995,147	100.00%		**7.75%**

Application Filed December 2017
Exhibit WHSC 11
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Phase-in Schedule
Test Year Ending December 31, 2018

Line No.	Revenue Requirement	Present Rates	Incremental	Proposed Rates	% Increase
1					
2	No Phase-in	$ 1,721,500	$ 714,059	$ 2,435,559	41.5%
3	Phase 1	$ 1,721,500	$ 430,375	$ 2,151,875	25.0%
4	Phase 2	$ 2,151,875	$ 283,684	$ 2,435,559	13.2%

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Rate Design
Test Year Ending December 31, 2018

Line No.	Revenue Requirement	Split	Present Revenue	Incremental	Proposed Revenue Split	Proposed Revenue	+/- Rev. Req.	% increase
2	Fixed	77.3%	$ 1,187,446	$ 500,033	75.0%	$ 1,687,478	$ -	42.1%
3	Metered	22.7%	$ 348,467	$ 214,026	25.0%	$ 562,493	$ -	61.4%
4	Power Cost Charge		$ 185,588	$ -		$ 185,588		0.0%
5	Total	100.0%	$ 1,721,500	$ 714,059		$ 2,435,559	$ -	41.5%
						$ -		

		Revenue
6	Non-PCC Revenue	$ 2,249,971

7	Fixed Revenue	Present Rates	Proposed Rates	Present Customer Count	Proposed Customer Count	Present Revenue	Proposed Revenue	% increase
8	Number of Services							
9	Residential	$ 62.04	$ 88.17	330	330	$ 245,678	$ 349,133	42.1%
10	Multi-Family	$ 62.04	$ 88.17	1,203	1,203	$ 895,609	$ 1,272,750	42.1%
11	Business	$ 62.04	$ 88.17	41	41	$ 30,524	$ 43,377	42.1%
12	Public Authority	$ 62.04	$ 88.17	21	21	$ 15,634	$ 22,218	42.1%
13	Total			1,595	1,595	$ 1,187,446	$ 1,687,478	

14	Metered Revenue	$ 562,493

15	Metered Revenue	Present Rates	Proposed Rates	Present [TG]	Proposed [TG]	Present Revenue	Proposed Revenue	% increase
16	Residential	$ 1.51	$ 2.4374	38,145	38,145	$ 57,598	$ 92,975	61.4%
17	Multi-Family	$ 1.51	$ 2.4374	160,265	160,265	$ 242,000	$ 390,635	61.4%
18	Business	$ 1.51	$ 2.4374	18,197	18,197	$ 27,477	$ 44,353	61.4%
19	Public Authority	$ 1.51	$ 2.4374	14,166	14,166	$ 21,391	$ 34,529	61.4%
20	Total			230,773	230,773	348,467	562,493	

21	Power Cost Charge	Present	Proposed
22	Electricity Cost [$]	$ 174,449	$ 174,449
23	Billed Sewer Flows [TG]	230,773	230,773
24	Power Cost Charge [$ / TG]	$ 0.8042	$ 0.8042
25	Revenue	$ 185,588	$ 185,588

26	Bill Impact	Present	Proposed	Difference
27	Monthly Billed Sewer Flows	12	12	
28	Stand-by Charge	$ 62.04	$ 88.17	$ 26.13
29	Quantity Charge	$ 18.21	$ 29.40	$ 11.18
30	PCC	$ 9.70	$ 9.70	$ -
31	Total	$ 89.95	$ 127.26	$ 37.31

Application Filed December 2017
Exhibit WHSC 13
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Rate Design Phase 1
Test Year Ending December 31, 2018

Line No.	Revenue Requirement	Split	Present Revenue	Incremental	Proposed Revenue Split	Proposed Revenue	+/- Rev. Req.	% increase
2	Fixed	77.3%	$ 1,187,446	$ 287,270	75.0%	$ 1,474,716	$ -	24.2%
3	Metered	22.7%	$ 348,467	$ 143,105	25.0%	$ 491,572	$ -	41.1%
4	Power Cost Charge		$ 185,588	$ -		$ 185,588		0.0%
5	Total	100.0%	$ 1,721,500	$ 430,375		$ 2,151,875	$ -	25.0%
						$ -		

		Revenue
6	Non-PCC Revenue	$ 1,966,287

7	Fixed Revenue	Present Rates	Proposed Rates	Present Customer Count	Proposed Customer Count	Present Revenue	Proposed Revenue	% increase
8	Number of Services							
9	Residential	$ 62.04	$ 77.05	330	330	$ 245,678	$ 305,114	24.2%
10	Multi-Family	$ 62.04	$ 77.05	1,203	1,203	$ 895,609	$ 1,112,278	24.2%
11	Business	$ 62.04	$ 77.05	41	41	$ 30,524	$ 37,908	24.2%
12	Public Authority	$ 62.04	$ 77.05	21	21	$ 15,634	$ 19,416	24.2%
13	Total			1,595	1,595	$ 1,187,446	$ 1,474,716	

14	Metered Revenue	$ 491,572

15	Metered Revenue	Present Rates	Proposed Rates	Present [TG]	Proposed [TG]	Present Revenue	Proposed Revenue	% increase
16	Residential	$ 1.51	$ 2.1301	38,145	38,145	$ 57,598	$ 81,252	41.1%
17	Multi-Family	$ 1.51	$ 2.1301	160,265	160,265	$ 242,000	$ 341,383	41.1%
18	Business	$ 1.51	$ 2.1301	18,197	18,197	$ 27,477	$ 38,761	41.1%
19	Public Authority	$ 1.51	$ 2.1301	14,166	14,166	$ 21,391	$ 30,176	41.1%
20	Total			230,773	230,773	348,467	491,572	

21	Power Cost Charge	Present	Proposed
22	Electricity Cost [$]	$ 174,449	$ 174,449
23	Billed Sewer Flows [TG]	230,773	230,773
24	Power Cost Charge [$ / TG]	$ 0.8042	$ 0.8042
25	Revenue	$ 185,588	$ 185,588

26	Bill Impact	Present	Proposed	Difference
27	Monthly Billed Sewer Flows	12	12	
28	Stand-by Charge	$ 62.04	$ 77.05	$ 15.01
29	Quantity Charge	$ 18.21	$ 25.69	$ 7.48
30	PCC	$ 9.70	$ 9.70	$ -
31	Total	$ 89.95	$ 112.44	$ 22.49

Application Filed December 2017
Exhibit WHSC 14
Witness: Stout
1/1/2018

Waikoloa Sanitary Sewer Company dba West Hawaii Sewer Company
Rate Design Phase 2
Test Year Ending December 31, 2018

Line No.	Revenue Requirement	Split	Present Revenue	Incremental	Proposed Revenue Split	Proposed Revenue	+/- Rev. Req.	% increase
2	Fixed	75.0%	$ 1,474,716	$ 212,763	75.0%	$ 1,687,478	$ -	14.4%
3	Metered	25.0%	$ 491,572	$ 70,921	25.0%	$ 562,493	$ -	14.4%
4	Power Cost Charge		$ 185,588	$ -		$ 185,588		0.0%
5	Total	100.0%	$ 2,151,875	$ 283,684		$ 2,435,559	$ -	13.2%
						$ -		

		Revenue
6	Non-PCC Revenue	$ 2,249,971

7	Fixed Revenue	Present Rates	Proposed Rates	Present Customer Count	Proposed Customer Count	Present Revenue	Proposed Revenue	% increase
8	Number of Services							
9	Residential	$ 77.05	$ 88.17	330	330	$ 305,114	$ 349,133	14.4%
10	Multi-Family	$ 77.05	$ 88.17	1,203	1,203	$ 1,112,278	$ 1,272,750	14.4%
11	Business	$ 77.05	$ 88.17	41	41	$ 37,908	$ 43,377	14.4%
12	Public Authority	$ 77.05	$ 88.17	21	21	$ 19,416	$ 22,218	14.4%
13	Total			1,595	1,595	$ 1,474,716	$ 1,687,478	

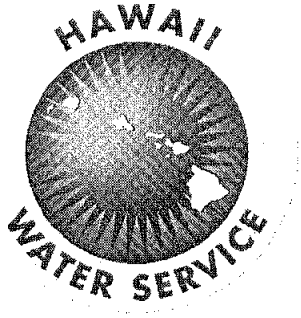
14	Metered Revenue	$ 562,493

15	Metered Revenue	Present Rates	Proposed Rates	Present [TG]	Proposed [TG]	Present Revenue	Proposed Revenue	% increase
16	Residential	$ 2.1301	$ 2.4374	38,145	38,145	$ 81,252	$ 92,975	14.4%
17	Multi-Family	$ 2.1301	$ 2.4374	160,265	160,265	$ 341,383	$ 390,635	14.4%
18	Business	$ 2.1301	$ 2.4374	18,197	18,197	$ 38,761	$ 44,353	14.4%
19	Public Authority	$ 2.1301	$ 2.4374	14,166	14,166	$ 30,176	$ 34,529	14.4%
20	Total			230,773	230,773	491,572	562,493	

21	Power Cost Charge	Present	Proposed
22	Electricity Cost [$]	$ 174,449	$ 174,449
23	Billed Sewer Flows [TG]	230,773	230,773
24	Power Cost Charge [$ / TG]	$ 0.8042	$ 0.8042
25	Revenue	$ 185,588	$ 185,588

26	Bill Impact	Present	Proposed	Difference
27	Monthly Billed Sewer Flows	12	12	
28	Stand-by Charge	$ 77.05	$ 88.17	$ 11.12
29	Quantity Charge	$ 25.69	$ 29.40	$ 3.71
30	PCC	$ 9.70	$ 9.70	$ -
31	Total	$ 112.44	$ 127.26	$ 14.82

Exhibit WHSC-T-100
Direct Testimony of Robert Stout



West Hawaii Sewer Company General Rate Case
Application Filed December 2017

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WEST HAWAII SEWER COMPANY GENERAL RATE CASE
DIRECT TESTIMONY OF ROBERT STOUT

Introduction

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

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

Q. Please summarize your educational background and professional experience.

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

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

A. The purpose of my testimony in this proceeding is to explain the details of the revenue requirement West Hawaii Sewer Company ("WHSC") for the test year beginning January 1, 2018 to December 31, 2018. Additionally, I will address sales and revenue estimates, estimates of certain expenses, calculation of rate base, rate of return, recovery of capital project costs that were excluded in the previous rate cases, proposed tariff revisions, special requests, the phase-in of rates, the cost of service study, and the proposed rate design for WHSC.

Q. Please summarize the financial exhibits supporting this application.

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

Q. Please explain the use of Unaudited Financial Statements.

A. WHSC request 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 WHSC, West Hawaii Utility Company ("WHUC") and West Hawaii Water Company ("WHWC") (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 WHSC-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] Also included in this application are the consolidated revenue requirement and rate base for the Waikoloa Utilities.

Revenue Requirement

Q. Please describe the summary of earnings.

A. The summary of earnings exhibit for WHSC 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 WHSC is requesting for the test year?

[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

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

Revenue at Present Rates	Incremental	Revenue at Proposed Rates	% Increase	Exhibit Reference
$ 1,721,500	$ 714,059	$ 2,435,559	41.5%	Exhibit WHSC 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 WHSC 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.[3] PCC revenue is calculated using WHSC'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 WHSC:

Fixed Revenue	Metered Revenue	PCC Revenue	Total	Exhibit Reference
$ 1,187,446	$ 348,467	$ 185,588	$ 1,721,500	Exhibit WHSC 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

[3] WHSC customers are charged a quantity rate based on their metered water use.

proposed rates, multiplied by the estimated water consumption in the test year. Finally, PCC revenue is calculated using WIIWC's PCC formula multiplied by the estimated water consumption for the test year.

Sales, Services, and Production

Q. Please discuss the Exhibits where recorded and forecasted customer counts are shown.

A. Exhibit WHSC 8.2 shows the recorded customer counts by customer class. The Exhibit also show the forecasted customer counts by customer class in the test year.

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

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

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

Residential		Non-Residential			
Single-family	Multi-family	Business	Public Authority	Total	Exhibit Reference
330	1,203	41	21	1,595	Exhibit WHSC 8.2

Table 103. Customer count.

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

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

A. "Billed sewer flows" is defined as water sold to customers that receive both water and sewer service and is measured in thousands of gallons ("TG"). Billed sewer flows were estimated using a 3 year average of recorded data from 2015 to 2017. Since only the first 6 months of 2017 were available when the application was prepared, the 2017 figures are annualized. These figures will be updated with data through the end of 2017 once it is available.

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

Residential		Non-Residential			
Single-family	Multi-family	Business	Public Authority	Total	Exhibit Reference
38,145	160,265	18,197	14,166	230,773	Exhibit WHSC 8.2

Table 104. Billed sewer flows (TG).

Details of billed sewer flows for WHSC can be found in the Exhibit listed in the table above.

Expense Estimates

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

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

4-factor Allocation

Q. Please explain which expenses are allocated from Hawaii Water to WHSC.

A. Hawaii Water has several operating units and subsidiaries: Waikoloa Village Water and Sewer, Waikoloa Resort Water, Sewer and Irrigation, Pukalani Wastewater, Ka'anapali Water, and Kona Water and Sewer. Hawaii Water incurs certain expenses which apply to more than one of its operating units, which are allocated among the various operating units. These

expenses include payroll, rent, insurance, and employee benefits. The details of these expenses are discussed in the testimony of Anthony Carrasco (Exhibit WHSC-T-200).

Q. Why must these expenses be allocated?

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

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

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

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

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

A. Hawaii Water uses an internal 4-factor methodology to allocate general operations costs among its regulated utility companies. The four factors used to determine the allocation include the number of customer equivalents, gross plant in service, direct operations & maintenance expenses, and direct gross payroll. Customer equivalents are used because of the correlation between the number of customers in a system, and the billing and service costs associated with those customers. This is also a good indicator of the size of the system. Plant in service is used because many general costs are related to the level of capital investment used in a system and there is a general relationship between the amount of this capital investment and the general costs allocated to effectively operate that infrastructure. Additionally, direct operation & maintenance expenses are also good indicators of the size of the system. Finally, direct gross payroll is used because it represents the number of employees working in the system that are served by various general office departments. These four factors can vary between systems, but by not equally weighting all four, individual systems are not penalized in their general allocation for any one factor that is higher than the other systems.

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

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

Hawaii Water GO (790)	Big Island (720)	Wastewater Admin. (796)	Exhibit Reference
10.02%	13.92%	24.52%	Exhibit WHSC 8.4

Table 105. 4-factor allocations.

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

Q. Is the 4-factor methodology widely accepted in the wastewater industry?

A. Yes. Companies use a factor allocation when a more direct method is unavailable or would be impractical. The 4-factor methodology is a widely accepted technique used to determine proper allocation of general costs to specific business units. This is the method used by many state Public Utilities Commissions, and has been accepted by the Hawaii Public Utilities Commission in the recent rate cases filed for Hawaii Water's Waikoloa Resort, Waikoloa Village Water, Waikoloa Village Sewer, Kona, Ka'anapali Water, and Pukalani Wastewater operating units.[5]

Depreciation Expense

Q. How were the depreciable lives determined?

A. WHSC is proposing to use group depreciation for the plant, property, and equipment. For this application, AUS was retained to perform a detailed depreciation study of the Waikoloa Utilities' plant, property, and equipment. The depreciation study for the Waikoloa wastewater system applies to both WHSC and WHUC. A copy of the depreciation study will be filed with WHUC's general rate case application, and is incorporated in this application by reference.[6]

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

A. When numerous property units exist within a utility's operating property, the units are typically grouped into similar depreciation categories as opposed to being depreciated on an individual unit basis. This is known as group depreciation. While the items within a specific group may serve the same or similar function, they typically do not have identical service lives. Their useful lives are dispersed over a range of time. Some items may last longer than the expected service life, while others may last less than the expected useful service life. The

[5] 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").

[6] See Exhibit WHUC-T-103 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.

application of group depreciation rates allows for uniform depreciation to groups of similar property instead of performing extensive depreciation calculations on an item-by-item basis. The proposal to use group depreciation is consistent with Hawaii Water's most recent rate cases for the Ka`anapali water system and the Pukalani wastewater system, in which the Commission approved the agreement between Hawaii Water and the Consumer Advocate to use group depreciation.[7]

Q. How was depreciation expense estimated?

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

Depreciation Expense	Depreciation Expense Exhibit Reference	Depreciation Group Detail Exhibit Reference
$ 403,084	Exhibit WHSC 7.5	Exhibit WHSC 7.6

Table 106. Depreciation Expense.

Details of depreciation expense and depreciation groups can be found in the Exhibit listed in the table above. Exhibit WHSC 7.7 shows detailed depreciation expense calculations for Hawaii Water General Office, Big Island Operations, and Wastewater Administration.

Income Tax Expense

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

A. Federal income taxes at present and proposed rates were calculated using the 34% corporate rate, net of the effective Hawaii State Income Tax rate since state income tax is a deduction from federal tax. State income taxes at present and proposed rates are calculated using the corporate Hawaii State Income Tax rate of 6.4%. State income tax expense was reduced by the test year's amortized expense for the Hawaii Capital Goods Excise Tax Credit ("HCGETC"). Book depreciation was used as deductions for both federal and state income taxes. The

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

difference between book and federal tax depreciation is reflected in rate base as deferred taxes. The following table summarizes test year income tax expense for WHSC:

Income Tax Expense	Exhibit Reference
$ 219,092	Exhibit WHSC 8.21

Table 107. Income Tax Expense.

Details of income tax expense can be found in the Exhibit listed in the table above. 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.

Rate Base

Q. How was rate base estimated?

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

Q. What components make up the proposed rate base?

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

Q. How was plant in service estimated?

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

Plant Balance 12/31/2016	Plant Balance 12/31/2017	Plant Balance 12/31/2018	Exhibit Reference
$ 16,662,029	$ 16,887,045	$ 16,960,591	Exhibit WHSC 7.2

Table 107. Plant in Service.

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

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

Plant Additions 2017	Plant Additions 2018	Exhibit Reference
$ 225,015	$ 73,546	Exhibit WHSC 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 WHSC's last rate case, and that will be completed before December 31, 2018 are discussed in Mr. Green's direct testimony (Exhibit WHSC-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 WHSC'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
$ 5,131,060	$ 5,719,218	$ 6,311,309	Exhibit WHSC 7.4

Table 109. Accumulated Depreciation Reserve.

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

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

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

Q. How were contributions in aid of construction estimated?

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

CIAC	CIAC Amortization
Exhibit WHSC 7.8	Exhibit WHSC 7.9

Table 110. Contributions in Aid of Construction.

Q. How were deferred income taxes estimated?

A. Deferred income taxes were based on accelerated depreciation for federal income tax purposes by the Economic Recovery Act of 1981 and the Tax Reform Act of 1986. Under these statues, state regulatory commissions calculate provision for federal income taxes at book rates, and then allow the utility to record the tax difference between book and federal and state depreciation as adjustments to rate base. For the test year, deferred income taxes were estimated based on the recent recorded accruals and forecasts of the new plant in the test year. The

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

following table shows the Exhibits where details of deferred income taxes can be found for WHSC:

Deferred Income Taxes Exhibits
Exhibit WHSC 7.10 - 7.13

Table 111. Deferred Income Taxes.

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 $1/12^{th}$ method, which is generally accepted by state regulatory commissions for determining working cash for smaller utilities. This method uses $1/12^{th}$ 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 WHSC for the test year:

Working Cash	Exhibit Reference
$ 99,437	Exhibit WHSC 7.15

Table 112. Working Cash.

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

Rate of Return

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

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 WHSC 10.

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

A. WHSC 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.

WHSC is proposing a 5.5% cost of debt and a 9.75% return on equity. The 5.5% cost of debt is the actual interest rate under the long term note in the original principal amount of $609,768 dated May 31, 2012 payable by WHSC to CWSG.[9] Therefore, the 5.5% cost of debt is an appropriate forecast for the current proceeding.

The requested ROE of 9.75% maintains the 7.75% ROR that was approved in the recent rate cases described above. Investors in CWSG equity will expect the company and its subsidiaries to make rational allocations of capital to meet the facilities needs of their service areas. In CPUC Decision (D.) 12-07-009, the most recent proceeding approving a return on equity ("ROE") for Hawaii Water's affiliate, Cal Water, Cal Water was allowed a 9.99% ROE for the period 2012-2015.[10] Cal Water has filed a cost of capital application in 2017. The proceeding is still pending before the California Public Utilities Commission. WHSC believes it would be reasonable to request a similar ROE as their affiliate, Cal Water (i.e. 9.99%). However, WHSC is only requesting a ROE of 9.75% in order to maintain the 7.75% ROR that was approved in the recent rate cases described above. Applicants plan to update the ROE and capital structure for the current proceeding using the approved cost of capital for Cal Water as the basis.

Capital Project Costs

Auwaiakeakua Plant

Q. Please describe the rate-making treatment of the cost of the Auwaiakeakua Wastewater Treatment Plant ("A-Plant") that was approved in WHSC's last rate case.

A. In WHSC's last rate case, WHSC proposed to include the cost of Phases 1 and 2 of the A-Plant in rate base. Phase 1 of the A-Plant had a capacity of 266,000 GPD. Phase 2 increased the capacity of the A-Plant from 266,000 GPD to 533,000 GPD. WHSC and the Consumer

[9] See Letter to the Commission dated April 26, 2013 in Docket No. 2008-0018.
[10] This is still the current approved ROE for Cal Water.

Advocate agreed that the upgrade and expansion of the A-Plant was reasonable and necessary. They further agreed that: a) the cost of Phases 1 and 2 of the A-Plant, in the amount of $6,638,941 was reasonable; and b) until such time as Phase 3 is placed in service, the incremental cost of Phase 3 equipment in the amount of $238,968 will be excluded from plant in service.[11] WHSC and the Consumer Advocate also agreed that a 23.68% excluded capacity[12] adjustment would be applied to the A-Plant, and that the excluded capacity would not be depreciated until such costs are included in rates.[13] Finally, WHSC and the Consumer Advocate agreed that all of WHSC's deferred CIAC related to the A-Plant would be applied to the cost of the A-Plant, consistent with the terms of the Global Settlement.[14]

Q. Please described the proposed rate-making treatment of the A-Plant in this rate case.

A. Consistent with the WHSC Stipulation, the cost of the A-Plant, in the amount of $6,638,941, less the incremental cost of Phase 3, in the amount of $238,968, is included in plant in service. As discussed in more detail in the Direct Testimony of Stephen Green, WHSC has not made any "excess capacity" or "excluded capacity" adjustment to the cost of the A-Plant. Therefore, WHSC proposes to include the net amount of $6,399,973 in plant in service. This is reasonable since the A-Plant is fully used and useful.

Kamakoa Plant

Q. Please describe the rate-making treatment of the cost of the Kamakoa Wastewater Treatment Plant (the "K-Plant") that was approved in WHSC's last rate case.

[11] See Stipulation of the Parties for Full Settlement filed on November 15, 2013 in Docket No. 2012-0147 (the "WHSC Stipulation") at 36. The Commission approved the WHSC Stipulation in Decision and Order No. 32926 filed on June 22, 2015 in Docket No. 2012-0147 (the "WHSC D&O").

[12] Because WHSC believes that its WWTPs are appropriately sized, it refers to adjustments to plant capacity as "excluded" capacity, rather than "excess" capacity.

[13] Although WHSC and the Consumer Advocate agreed that the excluded capacity would not be depreciated until such costs are included in rates, those costs have been depreciated. This was initially due to an oversight, and WHSC was not able to correct this error retroactively.

[14] WHSC Stipulation at 62. The application of the deferred CIAC was made pursuant to the Settlement Agreement dated October 22, 2009 between the Waikoloa Utilities and the Consumer Advocate (the "Global Settlement"), under which the Waikoloa Utilities agreed to apply "deferred" CIAC amounts recorded on their books to the cost of utility plant.

A. In WHSC's last rate case, WHSC proposed to include the cost of the new K-Plant in rate base. WHSC had constructed Phase 1 of the K-Plant, which has a capacity of 200,000 GPD. [15] The Application in that case included the estimated cost of Phase 1, in the amount of $4,752,925, in plant in service. WHSC subsequently informed the Consumer Advocate that the updated estimated cost of the K-Plant was approximately $6 million. The incremental increase was attributable mainly to work performed by HELCO, an emergency generator and automatic transfer switch, and improvements to the effluent manhole and pipe to the leach field. However, for purposes of settlement, WHSC agreed to only include the cost estimate included in the Application, and to defer the discussion of additional costs to WHSC's next rate case.[16]

In the WHSC Stipulation, WHSC and the Consumer Advocate agreed that: (a) construction of the new K-Plant was reasonable and necessary; (b) the originally estimated cost of Phase 1 of the K-Plant, in the amount of $4,752,925, was reasonable for ratemaking purposes in that rate case, subject to the parties agreement regarding Excluded Capacity; and (c) in WHSC's next rate case, WHSC would have the right to seek to include additional costs of Phase 1 in rate base, and the Consumer Advocate would have the right to review the reasonableness of any such additional costs. As discussed below, WHSC is seeking to include the actual costs of Phase 1 of the K-Plant in rate base, and has not made any adjustment for "Excluded Capacity".

Q. Please describe how the "Excluded Capacity" of the K-Plant was calculated in WHSC's last rate case.

A. Prior to WHSC's last rate case, Applicants and the Consumer Advocate entered into a Settlement Agreement dated October 22, 2009 (the "Global Settlement") in order to resolve various issues regarding CIAC funds held by the Waikoloa Utilities. In WHSC's last rate case, the Consumer Advocate agreed with WHSC's proposal that the amount of K-Plant costs to be included in rate base in that case would be determined consistent with the terms of the Global Settlement. Under those terms, the "existing ratepayer contribution" to be included in rate base was to be 25% of the cost of the 400,000 GPD plant, with the remaining costs to be paid for with WHSC's "deferred CIAC" associated with the K-Plant, "excess CIAC" that was to be transferred

[15] The capacity of the K-Plant may be increased in the future to 400,000 GPD in Phase 2.
[16] WHSC Stipulation at 45.

from WHWC to WHSC, and deferred CIAC that was to be transferred from WHUC to WHSC.[17] It should be noted that the "excess CIAC" that was transferred from WHWC to WHSC has not yet been received. However, WHSC agreed to apply this CIAC that it anticipates receiving in the future in order to settle the issues relating to the deferred CIAC and to reduce the amount of K-Plant costs to be recovered in rates.[18] In order to settle their differences in the last case, the Consumer Advocate agreed with WHSC's proposal to include in rate base an amount equal to 25% of the original estimated cost of Phase 1 as follows: $4,752,925 x 25% = $1,188,231. This was accomplished through the application of CIAC and an adjustment to plant in service as follows:

Original Estimated Cost of Phase 1	$4,752,925
WHSC Deferred CIAC	($1,838,709)
WHWC "Excess" CIAC	($1,684,257)
Net Phase 1 Rate Base	$1,229,959

WHSC also agreed to adjust plant in service by $41,728, which is the difference between $1,229,959, as calculated above, and 25% of the estimated cost of Phase 1 of the K-Plant.[19]

Q. What was the final cost to complete Phase 1 of the K-Plant?

A. The final cost to complete Phase 1 of the K-Plant was $5,907,550.

Q. Please explain the proposed rate-making treatment of the K-Plant in this rate case.

A. As explained above, in WHSC's last rate case, the parties agreed to include $4,752,935 of the costs of Phase 1 of the K-Plant in plant in service (subject to the agreement regarding Excluded Capacity) based on the originally estimated cost of the plant. The parties also agreed that in WHSC's next rate case, it would have the right to seek to include additional costs of Phase 1 in rate base, and the Consumer Advocate would have the right to review the reasonableness of such costs. The final cost of the K-Plant is $5,907,550. WHSC is proposing to include the final cost to complete the K-Plant in plant in service in this rate case, a difference

[17] In its last rate case, WHSC modified this proposal to remove the proposed transfer of deferred CIAC from WHUC to WHSC.
[18] WHSC Stipulation at 61.
[19] WHSC Stipulation at 46-50.

of $1,154,624 between this case and the last case.[20] As I will explain in greater detail below, WHSC should be able to include the full cost of the K-Plant for several reasons: 1) in the last rate case, the parties recognized that the actual plant costs could exceed $4,752,926; 2) the costs in excess of $4,752,926 are reasonable, necessary and supported; and 3) there is no excess capacity in the plant as demonstrated in Mr. Green's testimony.

At the time of the stipulation of the previous rate case, WHSC and the Consumer Advocate agreed that WHSC could seek to recover any costs to complete the K-Plant that exceeded $4,752,926, and that the Consumer Advocate could challenge those costs in the current case. The $4,752,926 was the original cost estimate of Phase 1 of the plant. However, this cost was only an estimate and does not reflect the actual costs to complete the project. The invoices supporting the full, final cost of the K-Plant are available upon request. These invoices show that all of the costs to complete the K-Plant were prudently incurred and are fully supported. Since the final costs to complete the K-Plant are reasonable and fully supported, WHSC should be permitted to recover these costs.

As discussed in more detail in the Direct Testimony of Stephen Green, WHSC has not made any "excluded capacity" adjustment to the cost of the K-Plant. Therefore, WHSC proposes to include the entire, updated cost of the K-Plant in plant in service. Consistent with the last rate case, WHSC has applied the WHSC "deferred CIAC" in the amount of $1,838,709 and the "Excess" (future) CIAC transferred from WHWC in the amount of $1,684,257, to reduce the amount of K-Plant costs included in rates.

Finally, the K-Plant was completed during the test year of WHSC's last rate case. Because the Commission uses an average test year rate base, only half of the cost of the K-Plant was included in rate base in that rate case. Therefore, customers have benefitted from a fully utilized plant while only half of the cost has been included in rates. The entire cost of the plant is included in Test Year rate base in this rate case.

Proposed Tariff Revisions

Q. Please describe the revisions WHSC is proposing to its tariff.

[20] $5,907,550 - $4,752,926 = $1,154,624

A. As explained in more detail below, WHSC is requesting approval of the following proposed revisions to its tariff: (a) include an exhibit to illustrate the calculation of CIAC for the A-Plant; and (b) remove the service application form from its tariff. Clean and black-lined versions of the proposed revised tariff pages are attached as Exhibits WHSC-T-102 and WHSC-T-103, respectively.

Q. Please describe the revisions WHSC proposes to its CIAC tariff.

A. In WHSC's last rate case, WHSC and the Consumer Advocate agreed to attach an exhibit to WHSC's tariff to illustrate the calculation of CIAC for WHSC's A-Plant.[21] Rule XI, Section 7 of WHSC's approved tariff references this exhibit as "Exhibit C". However, the exhibit was inadvertently not included in the tariff sheets WHSC submitted to the Commission for final approval. WHSC requests approval to include this exhibit as part of its tariff. The exhibit does not change the calculation of CIAC under WHSC's tariff. The exhibit has been re-labelled as "Exhibit B" because WHSC is also asking for approval to remove its service application form, which is currently labelled as Exhibit B, from its tariff.

Q. Please describe the other proposed revisions to WHSC's tariff.

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

Special Requests

Q. What special request is WHSC making in this general rate case proceeding?

[21] See WHSC Stipulation at 68-70 and Exhibit B, Schedule 12A.
[22] See Pukalani Proposed D&O at 85-86.
[23] See Stipulation of the Parties for Partial Settlement filed on July 21, 2017 in Docket No. 2015-0236 at 39-40.

A. In WHSC's last general rate case, the Commission ordered it to file quarterly energy use and efficiency reports ("EUE Reports") with the Commission.[24] WHSC requests that this reporting requirement be modified to require annual, rather than quarterly, reports.

In addition to requiring quarterly EUE Reports, the Commission ordered WHSC to conduct an energy audit, and to file the results of the audit along with its plans to implement the recommendations in the audit.[25] WHSC has complied with the requirements to conduct and file an energy audit and to file quarterly EUE Reports. The energy audit recommended a number of actions to reduce energy consumption. WHSC analyzed those recommendations and has implemented the actions that it considered to be reasonable. The quarterly EUE Reports have reported on the status of the recommendations in the audit, as well as other energy-related projects.

Initially, the EUE Reports included several items, since WHSC had not previously reported its energy conservation efforts. However, the number of items reported slowed for WHSC. Some quarterly reports show that there has not been an update since the previous report. This is attributable to several factors, including the slow pace of the electric utility industry, permitting constraints, and judicious decisions regarding capital investments. Quarterly reporting imposes an administrative burden on WHSC. Therefore, WHSC requests that the frequency of the EUE Reports be changed from quarterly to annually. WHSC believes that annual reporting will result in more substantive reports and will reduce the administrative burden of generating quarterly reports.

Phase-in of Rate Increases

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

A. Yes. WHSC proposes to phase-in rates. The proposed revenue increases for WHSC is greater than 25%. Based on the Consumer Advocate's position that increases in rates greater than 25% might constitute rate shock, and in order to reduce the burden to its customers and to mitigate rate shock, WHSC proposes to phase-in the requested revenue increase over two years. The proposed increase for the first phase revenue increase is 25% over present revenues. The

[24] WHSC D&O at 83.
[25] Id.

second year increase is the difference between the proposed increase and the total that was implemented in the previous year. The following table summarizes the revenue phase-in for WHSC:

First Phase Revenue Increase	Second Phase Revenue Increase	Total Revenue Increase	Exhibit Reference
$ 430,375	$ 283,684	$ 714,059	Exhibit WHSC 11

Table 113. Revenue Phase-in.

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

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

Rate Design and Cost of Service Studies

Q. IS WHSC proposing any changes to its rate designs in this proceeding?

A. Yes. As I will discuss in greater detail below, WHSC is not proposing to make major changes to rate design, but rather shift revenues between fixed and variable charges.

Power Cost Charge

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

A. No. WHSC is not proposing any changes to the PCC.

The following formula shows the methodology used to calculate the PCC for WHSC:

$$Electricity\ Cost\ per\ Thousand\ Gallons = \frac{Previous\ Month's\ Electrical\ Cost\ (\$)}{Previous\ Month's\ Total\ Metered\ TG\ of\ Water} \times revenue\ tax\ factor$$

where the revenue tax factor is 1.06385.

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

PCC Revenue	Exhibit Reference
$ 185,588	Exhibit WHSC 8.7

Table 115. PCC Revenue.

Details of the PCC revenues can be found in the Exhibit listed in the table above. The PCC revenues presented in this application are annualized and are meant to demonstrate how the PCC works. The actual PCC passed through to customers would vary month to month depending on the power consumed and sales that month.[26]

Cost of Service Studies and Rate Designs

Q. Why did WHSC conduct a COSS for this proceeding?

A. In WHSC's most recent rate case, the Commission ordered it to complete and file a Cost of Service Study (the "COSS") with its next rate case application.[27] In order to comply with the Commission's order, WHSC retained Shambaugh Utility Consulting, LLC and EXP 1, LLC to perform the COSS for the current application. The report and results of the COSS are attached as Exhibit WHSC-T-104. The goal of a cost of service study is to allocate costs to customer classes based on the demand they place on the system. Once the costs are allocated to the customer classes, rates are designed to recover those costs.

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

[26] Sales affect sewer PCC, not water PCC.
[27] See WHSC D&O at 84.

A. WHSC proposes to maintain its existing rate design. The cost of service analysis for WHSC showed that the multi-family customer class is somewhat subsidizing the single family, business, and public authority customer classes. The difference is small enough that it does not warrant a change in the rate structure. It is rare in utilities that the rate structure will exactly match the cost of service. As I will explain in greater detail below, WHSC proposes to maintain its existing rate design, but to shift revenues between flat rate and quantity revenue.

Q. How were proposed rates calculated?

A. The following discussion describes the procedures used to calculate proposed rates for WHSC if there were no phase-in.

First, WHSC took the difference between the proposed revenue requirement and the forecasted PCC revenue. This ensures that the revenue collected through fixed customer charges and quantity rates excludes the cost of power. The amount of revenue to be collected through fixed customer charges and quantity rates is $2,249,971:

$$\$2,435,559 - \$185,588 = \$2,249,971$$

where $2,435,559 is the proposed revenue requirement and $185,588 is PCC revenue.

Next, the revenue was allocated into two categories: flat rate revenue and quantity revenue. The ratio between flat rate revenue and quantity revenue at present rates is approximately 77.3%/22.7%. In the current proceeding, WHSC proposes a revenue split of 75%/25% flat rate revenue and quantity revenue, respectively. This revenue allocation gradually brings WHSC in line with industry guidelines, sends a conservation signal to customers, and stabilizes WHSC revenues for its sewer operations. Because a sudden shift in the revenue split should be avoided, WHSC is not proposing a 30%/70% revenue split. The resulting revenues to be collected through fixed customer charges and quantity rates are $1,687,478 and $562,493, respectively:

$$\$2,249,971 \times 75\% = \$1,687,478$$

and

$$\$2{,}249{,}971 - \$1{,}687{,}478 = \$562{,}493$$

Next, fixed customer charges are calculated. Customer charges at present rates are increased by the percentage increase that flat rate revenue is increasing. In this case, flat rate revenues are increasing by approximately 42%.

Finally, quantity rates are calculated. The amount of revenue to be collected through quantity rates, as calculated above, is divided by the projected billed sewer flows for the test year. The resulting rate is $2.4374 per TG:

$$\frac{\$562{,}493}{230{,}773\ TG} = \$2.4374\ /\ TG$$

Detailed calculations are shown in Exhibit WHSC 12.

Q. How were phase-in rates calculated?

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

Q. Does this conclude your testimony?

A. Yes it does.

Deloitte.

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San Francisco, CA 94105-0935
USA

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

WHSC Tariff Revisions

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

WHSC Tariff No. 1
Tenth Revised Sheet 1
Cancels Ninth Revised Sheet 1

CHECK LIST SHEET

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

Issued:
By: Paul Townsley, Vice President - Regulatory

Effective:

7. The contribution in aid of construction for sewer service shall include an equivalent per gallon charge, to be determined separately for the A Plant and the K Plant, 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, but not less than the average cost per gallon of the most recent two phases of plant capacity, and is calculated as follows:

Estimated Daily Gallons for Proposed or Existing Development	X	Estimated Cost per Gallon of the Company's Next Capacity Addition, But In No Event Less Than The Average Cost Per Gallon of the Most Recent Two Phases of Plant Capacity	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, But In No Event Less Than The Average Cost Per Gallon of the Most Recent Two Phases of Plant Capacity	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. Illustrations of the calculation of CIAC under subsections 6(a) and (b) are shown on Exhibit "B".

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

WHSC Tariff No. 1
Third Revised Sheet 32
Cancels Second Revised Sheet 32

EXHIBIT B
Illustrations of Calculation of CIAC

A Plant Cost Per Gallon:

Phase 1	266,000 gpd	$1,859,077	$6.99 per gallon
Phase 2	267,000 gpd	$4,779,864	$17.90 per gallon
Phase 3	266,000 gpd	$ 900,000 (est.)	$ 3.38 per gallon (est.)

Developer A requests 20,000 gpd where the Company has sufficient capacity to meet this request with its existing capacity in Phases 1 and 2:

CIAC = 20,000 gpd x $17.90 per gallon = $358,000, plusCIAC

Developer B requests 20,000 gpd. No capacity is available from Phases 1 and 2. Phase 3 will need to be constructed:

Cost per gallon = $3.38*, but not less than the average cost of Phases 1 and 2 = $12.45 per gallon

CIAC = 20,000 gpd x $12.45 per gallon = $249,000 CPI

Developer C requests 20,000 gpd. No capacity is available from Phases 1 and 2. Phase 3 has been constructed and will be used to serve Developer C.:

Cost per gallon = $3.38**, but not less than the average cost of Phases 2 and 3 = $10.64 per gallon

CIAC = 20,000 gpd x $10.64 per gallon = $216,800 plus CPI

*$3.38 is the present estimate of the cost per gallon of Phase 3. This calculation will be revised to incorporate the updated estimated cost of Phase 3 as of the time the will-serve letter and/or Extension Agreement is signed.

**$3.38 is the present estimate of the cost per gallon of Phase 3. This calculation will be revised to incorporate the actual cost of Phase 3.

WHSC Tariff Revisions

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

WHSC Tariff No. 1
~~Ninth~~Tenth Revised Sheet 1
Cancels ~~Eighth~~Ninth Revised Sheet 1

CHECK LIST SHEET

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

Issued: ~~August 20, 2015~~
By: Paul Townsley, Vice President - Regulatory

Effective: ~~August 20, 2015~~

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

WHSC Tariff No. 1
~~Fourth~~Fifth Revised Sheet 22
Cancels ~~Third~~Fourth Revised Sheet 22

7. The contribution in aid of construction for sewer service shall include an equivalent per gallon charge, to be determined separately for the A Plant and the K Plant, 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, but not less than the average cost per gallon of the most recent two phases of plant capacity, and is calculated as follows:

Estimated Daily Gallons for Proposed or Existing Development	X	Estimated Cost per Gallon of the Company's Next Capacity Addition, But In No Event Less Than The Average Cost Per Gallon of the Most Recent Two Phases of Plant Capacity	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, But In No Event Less Than The Average Cost Per Gallon of the Most Recent Two Phases of Plant Capacity	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. Illustrations of the calculation of CIAC under subsections 6(a) and (b) are shown on Exhibit "~~C~~B".

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

WHSC Tariff No. 1
~~Second~~Third Revised Sheet 32
Cancels ~~First~~Second Revised Sheet 32

~~NEW INSTALLATION ☐ OWNER ☐~~
~~RECONNECTION ☐ TENANT ☐~~

~~WEST HAWAII SEWER 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 SEWER COMPANY FOR SEWER 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 SEWER SERVICE AND TO ABIDE BY ALL RULES, REGULATIONS AND PROVISIONS PRESCRIBED BY WEST HAWAII SEWER COMPANY AND AUTHORIZED BY THE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII RELATING TO SEWER SERVICE AND/OR RATES. THE UNDERSIGNED UNCONDITIONALLY GUARANTEES PAYMENT OF ALL CHARGES FOR SEWER 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)~~

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

Effective:

EXHIBIT B
Illustrations of Calculation of CIAC

A Plant Cost Per Gallon:

Phase 1	266,000 gpd	$1,859,077	$6.99 per gallon
Phase 2	267,000 gpd	$4,779,864	$17.90 per gallon
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CIAC = 20,000 gpd x $17.90 per gallon = $358,000, plus CIAC

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Cost per gallon = $3.38*, but not less than the average cost of Phases 1 and 2 = $12.45 per gallon

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Developer C requests 20,000 gpd. No capacity is available from Phases 1 and 2. Phase 3 has been constructed and will be used to serve Developer C.:

Cost per gallon = $3.38**, but not less than the average cost of Phases 2 and 3 = $10.64 per gallon

CIAC = 20,000 gpd x $10.64 per gallon = $216,800 plus CPI

*$3.38 is the present estimate of the cost per gallon of Phase 3. This calculation will be revised to incorporate the updated estimated cost of Phase 3 as of the time the will-serve letter and/or Extension Agreement is signed.

**$3.38 is the present estimate of the cost per gallon of Phase 3. This calculation will be revised to incorporate the actual cost of Phase 3.

WEST HAWAII SEWER 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 SEWER COMPANY

INTRODUCTION

This report sets forth the procedures, findings, and results of a cost of service allocation study for the West Hawaii Sewer 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 illustrative tables and a general discussion of rate and tariff design follows.

GENERAL

The total cost of service is a utility's revenue requirement. This amount is determined by establishing the revenues needed from all customers, in total, to permit the utility to recover its expenses and taxes and to produce a fair return on its rate base. The determination of the Company's revenue requirement involves the issues pertaining to revenues, expenses, taxes, rate of return and rate base that are typically raised in a rate proceeding.

A sewer system cost of service allocation study provides the cost information necessary to develop appropriate fixed (or customer) charges and volumetric usage charges. A cost of service allocation study is one of a number of factors that may be considered in developing a schedule of rates and charges that will produce the required revenues if actual sewer flows are equal to estimated test year flows. We have allocated the annual revenue requirement based on a cost-causative basis using wastewater flows. Wastewater flows are usually calculated on the basis of estimated daily flows by customer and class using metered water use data obtained from the Company. Metered water use data provides an accurate basis for the cost allocations and the customer tariff rate designs. Using metered water used by customer class, we have accurately

allocated the costs to customers based upon the level of service provided. Having metered water use data and basing the cost allocations on that data is a benefit to both the customers and the utility.

The method employed in wastewater cost allocation studies is the classification of the system's total annual revenue requirements according to cost-causative operations performed by the wastewater collection and treatment facilities. Costs are categorized to be flow or volume-related, BOD related, suspended solids-related or customer-related. Costs related to the collection system are segregated and treated separately in the allocation process. In this study, the cost allocation process is based upon an adaptation of an allocation methodology originally developed for use in water utility cost allocation studies. Costs are identified and allocated to the functional cost categories of flow, demand, customer accounting, and customer facilities costs, then such functionalized costs are allocated to customer classes. An explanation will follow below in this report regarding the other cost-causative elements normally considered in the allocation process.

FUNCTIONAL COSTS

Flow costs include those costs which vary with the amount of wastewater collected in the sewerage system. These costs include power and fuel for pumping and other collecting, pumping, and transmission expenses under average sewage flow conditions.

Demand costs include those costs related to the facilities which meet the peak rates of use, or demands, placed on the sewerage system by the users of the service. These costs include capital costs for plant facilities designed to meet peak requirements and the related operation and maintenance expenses under flow conditions greater than average.

Customer costs include those costs associated with connecting and serving customers independent of the volume of sewage contributed or the demand requirements imposed upon the system. Customer costs have been subdivided into customer accounting costs and customer

facilities costs. Customer accounting costs include the commercial operations related to billing and collecting activities while customer facilities costs include capital and operating costs related to service connections.

The costs of the sewerage utility are assigned to the various functional cost categories through the use of allocation factors which are developed for each item of capital investment, operating expense, taxes, and other items. Certain costs, such as power and fuel for pumping, are assigned entirely to the flow cost function. Other costs, such as the commercial expenses related to billing and collecting, are assigned directly to the customer accounting function. Many cost elements, however, are not specifically related to a single cost function and are therefore allocated on the basis of other relevant factors. For example, collecting system operation and maintenance expenses are allocated to the flow cost function and the demand cost function on the basis of the ratio of maximum to average flows.

A wastewater cost of service study should also consider other cost-causative factors such as infiltration/inflow (I/I) volumes, strength of wastewater and the quantity of sludge produced through the treatment process. The use of cost-causing factors in the allocation process should be limited to those factors for which information is available or determined with reasonable effort. In an effort to understand the wastewater system's dynamics, the authors of this report and study visited the wastewater plants, pumping stations and toured the service territory.

We determined that I/I should not be assigned to a specific class of customers since no determinations of I/I flows or studies have been performed. Therefore, I/I costs will be treated as normal flows in the rate design process. It was also determined that no additional allocations would be required to segregate costs associated with strength of wastewater or the quantity of sludge. The customer base indicates that the wastewater flows would be described as domestic and would not contain flow characteristics requiring additional treatment processes or would result in abnormal quantities of sludge.

Finally, when summarized, the flow, the demand, the customer accounting, and the customer facilities costs define the total cost of service and provide guidelines for the development of a schedule of rates and charges which allows for the recovery of the sewerage system costs from the users of the service.

CUSTOMER COSTS

The next step in the allocation process is a distribution of the functional costs to the customer classes. For the purpose of this study, the distribution of the annual revenue requirements is based upon the total annual wastewater flows by customer class and maximum-to-average daily demand by customer class. The volume related costs are allocated to the customer classes in proportion to the total flow for the system. The demand related costs are allocated based on maximum-to-average daily flows on the system by class. Customer service and billing related costs are allocated based upon the customer units and billing requirements.

Wastewater flow data include average day flow by customer class and maximum day flow systems. We used the monthly metered water use data provided by Company's water utility, West Hawaii Water Company.

All of the estimates discussed in this section were used to obtain the estimated wastewater flows for the entire system and the volume allocation of costs between residential, multifamily, non-residential and public authority. The estimated-to-actual ratio, using plant data for treated wastewater, is 1.23, meaning that the estimated flows are 23% higher than the actual plant flow data.

The maximum-to-average ratios for the residential and non-residential classes for allocating demand related costs use secondary information for a similar system in Maui owned by the Hawaii Water Services Company, from the 2012 Pukulani Hydraulic Model and Capital Report Improvement Plan for the residential and commercial diurnal curves as shown that Report.

Customer related costs have been treated separately in this study and include customer billing, collection and customer service related expenses.

REVENUE REQUIREMENT

As previously discussed, the total cost of service is synonymous with a utility's revenue requirement. The total revenue requirement for a sewerage utility should be sufficient to ensure the provision of adequate sewerage service and to ensure the maintenance, development, and perpetuation of the sewerage system. The principal components of the revenue requirement for an investor-owned sewerage utility comprise operation and maintenance expenditures; depreciation requirements; income and other taxes; and, operating income or return on investment. Cost of service studies for investor-owned sewerage utilities reporting to a regulatory authority are often prepared in conjunction with the processing of a rate relief application and the concurrent development of a pro forma revenue requirement. This particular study is based on a revenue requirement of $2,435,559 as developed by the Company within the context of the current rate proceeding.

This revenue requirement provides for the following expense categories:

Operating and Maintenance	$1,097,194
Depreciation	403,086
Taxes Other Than Income Tax	155,511
Public Company Allocation	96,052
Income Taxes	219,092
Net Operating Income	464,624
Total Revenue Requirement	$2,435,559

As subsequently discussed herein, this study results in the allocation of the $2,435,559 annual revenue requirement to the functional cost components. This functional cost allocation then becomes an input in the development of a schedule of rates and charges for sewerage service.

PLANT INVESTMENT/RATE BASE

The Company maintains its plant investment in fixed capital accounts by plant function. Under this system, the original cost and the related depreciation reserve for utility plant in service as of December 31, 2018 has been projected as follows:

Functional Plant Account	Original Cost	Depreciation Reserve
Structures and Improvements	$9,680,954	$2,799,347
Pumping Equipment	8,181	6,067
Treatment Equipment	3,862,242	1,668,420
Transmission & Distribution	2,181,293	1,100,931
Source of Supply	61,376	12,923
Power Generation Equipment	326,112	55,285
Transportation	339,984	121,676
Tools and Laboratory Equipment	45,245	27,846
General Plant	113,894	117,286
Hawaii Water GO Allocation	38,813	26,411
Big Island Allocation	265,524	78,986
Wastewater Administration	199	86
Totals	$16,923,817	$6,015,263

The combination of the original cost and the depreciation reserve results in the net utility plant in service. This is an important input in the development of the net investment rate base which also includes contributions in aid of construction, deferred taxes from depreciation, excess reserve, and excess deferred tax liability.

The pro forma rate base used in this study may be summarized as follows:

Original Cost Utility Plant in Service	$16,923,817
Depreciation Reserve	(6,015,263)
Contributions in Aid of Construction	(4,587,002)
Deferred Taxes from Depreciation	62,873
General Excise Tax Credit	(258,676)
Working Capital	99,437
Net Salvage Adjustment	(230,040)
Total Pro Forma Rate Base	$5,995,146

The rate base is allocated to the several functional cost categories in accordance with the methodology previously described. The results of the rate base allocation are then subsequently used to allocate investment related revenue requirement items such as income taxes and utility operating income.

FUNCTIONAL COST OF SERVICE ALLOCATION

The allocation of the Company's cost of service to the previously defined functional cost components is set forth on a series of three schedules contained in Schedule 1. Descriptions of the individual schedules are given herein.

Schedule No. 1, pages 1 to 4 presents the details, in tabular form, of the allocation of the original cost of plant in service and rate base to the previously defined cost functions. Columns (1) and (2) on Schedule No. 1 sets forth an account number and a description of the item being allocated. The allocations to the several cost functions are shown in Columns (4) through (7), while the right-most column, i.e. Column (8), indicates an allocation code for the specific allocation factor used to assign each cost element to the cost functions. The allocations set forth on Schedule No. 1 utilize the utility plant in service and depreciation reserve data that were previously summarized in an earlier section of this report. The allocations to the cost functions were made in accordance with the concepts which were previously described.

Schedule 1, pages 5 to 7 is constructed in a format which is similar to that of the previous pages. It sets forth the details of the allocation of the operation and maintenance expense, the annual depreciation expense, the amortization expense, taxes other than income taxes, income taxes, and utility operating income as adjusted and projected by the Company for the twelve months ending December 31, 2018. The data utilized on Schedule No. 1, pages 5 to 7 were previously summarized in the Revenue Requirement discussion in this report.

The allocation codes mentioned above are simply reference characters which designate groups of percentages that are used to allocate the total amount of any given cost element to the several cost functions. Page 8 through 13 of Schedule No. 1 describe the codes and illustrate their development.

COST OF SERVICE ALLOCATION RESULTS

The functional cost of service allocation results may be summarized as follows:

Cost Function	Amount
Flow Costs	$1,712,215
Demand Costs	338,743
Total Customer Costs – Commercial	59,703
Total Customer Costs - Service	324,898
Total Revenue Requirement	$2,435,559

The allocated costs by function are further allocated to each customer class in proportion to the total flow for the system.

CUSTOMER COST OF SERVICE ALLOCATION

The allocation to customer class or group employs the results from the functional allocation of the annual revenue requirement $2,435,559 by flow, demand and commercial, and

assigns those costs to the residential, multifamily, non-residential and public authority based upon cost causative factors. Schedule No. 2, pages 1 to 6 contains the results of those allocations. The allocations to customer class employs four (4) allocation factors that are set forth and described on Schedule No. 2, pages 2 to 6.

Page 2 of Schedule No. 2 summarizes the allocation process to customer class as follows:

	Residential	Multi-Family	Non-Residential	Public Authority
Flow	$282,981	$1,189,010	$135,095	$105,130
Demand	30,520	256,430	29,131	22,662
Commercial	50,515	4,902	3,063	1,223
Services	286,299	26,024	8,675	3,899
	$650,315	$1,476,366	$175,964	$132,914

Schedule 2, page 4 shows the development and analysis of the estimated customer class wastewater flows used to allocate flow related costs. The demand-related costs are allocated by the customer class maximum-to-average day ratios that represent the relative peak demand placed on the system by each customer class. These ratios for residential and non-residential classes were obtained from the 2012 Pukalani Hydraulic Model and Capital Improvement Plan. They are specifically located in Figures 3 and 4, or, the diurnal curves for the residential and commercial customer classes. The ratios for multifamily and public authority are based on a combination of reference to other studies and subjective judgement.

REVENUES FROM PRESENT RATES

A comparison was made of revenues by customer class at present rates, cost of service allocations of revenue requirement and the revenues at proposed rates. Present rates and proposed rates generate the same proportions of revenues for each class as they based on the same rate design. The relevant comparison is between revenues at present rates and cost of service indicated revenues as forth on Schedule No. 3. The results show that there is somewhat of a difference between the present revenues and what the cost of service study shows. Residential revenue is 18 percent versus cost of service at 27 percent, multifamily is 75 and 61 percent, non-residential is 4.3 and 7.2 percent, and public authority is 2.9 and 5.5 respectively.

Although all classes except multifamily could be assigned more revenues by a pure cost of service approach, we do not find a compelling reason to re-structure rate design at this time. This is the first cost of service ever done for the Company. Our reasoning is discussed in the following section.

CONCLUSION

The studies discussed in this report have allocated the revenue requirement of the Company to a series of functional cost classifications that were allocated to customer class. The results of the studies discussed herein can provide reasonable guidelines to be utilized in restructuring the Company's rates and charges for service. It must be noted that seldom, if ever, are rates exactly in line with the cost of service indications at any given time. 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 judgment and experience and their results provide a substantial aid in the design of rates.

Attempts to exactly meet cost of service indications in one rate adjustment can impose large and undue burdens on individual customer groups. Rather than impose large changes in one step, most rate analysts favor a process of gradually bringing revenue generation in line with cost of service indications so as to avoid or ameliorate undue or abrupt changes in rate structure.

Actual tariff design, in addition to relying on the results of cost of service analyses, should also include consideration of policy matters, impact of rate changes, future planning, special customer characteristics, and judicial, regulatory, and contract requirements.

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West Hawaii Sewer Company

Summary of Functional Cost Allocation Factors

Allocation Code	Description	Flow Cost	Demand Cost	Customer Related Commercial Cost	Customer Related Services Cost	Check Total
A	Flow Costs	100.00	0.00	0.00	0.00	100.00 %
B	Demand Costs	0.00	100.00	0.00	0.00	100.00 %
C	Customer Costs - Commercial	0.00	0.00	100.00	0.00	100.00 %
D	Customer Costs - Services	0.00	0.00	0.00	100.00	100.00 %
E	Average Day Flow to Maximum Day Flow	81.30	18.70	0.00	0.00	100.00 %
F	G&A Salaries & Wages, Employee Benefits & Worker's Comp.	61.98	12.29	3.45	22.28	100.00 %
G	Administrative and General	66.01	12.12	0.00	21.87	100.00 %
H	Office Rent and Furniture and Equipment	57.58	11.42	10.30	20.70	100.00 %
I	Other Rate Base Costs	43.67	50.12	0.00	6.20	99.99 %
J	Other Insurance and G&A Miscellaneous Expense	62.07	12.26	4.43	21.24	100.00 %
K	Income Taxes	74.59	24.17	0.00	1.24	100.00 %
L	Revenue Related Taxes, Expenses & Net Income	70.30	13.91	2.45	13.34	100.00 %

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West Hawaii Sewer Company

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

Account Number (1)	Account Title (2)	Total Cost (3)	Flow Cost (4)	Demand Cost (5)	Customer Related Commercial Cost (6)	Customer Related Services Cost (7)	Allocation Code (8)
Utility Plant in Service:							
Exhibit WHSC 7.2							
5	Intangible	0	0	0	0	0	B
6	Land and land rights	0	0	0	0	0	E
7	Structures and Improvements	9,680,954	7,870,616	1,810,338	0	0	E
8	Pumping Equipment	8,181	0	8,181	0	0	B
9	Treatment Equipment	3,862,242	3,140,003	722,239	0	0	E
10	Transmission & Distribution Plant	2,181,293	0	2,181,293	0	0	B
11	Source of Supply	61,376	0	61,376	0	0	B
12	Power Generation Equipment	326,112	326,112	0	0	0	A
13	Transportation	339,984	224,423	41,206	0	74,355	G
14	Tools and Laboratory Equipment	45,245	29,866	5,484	0	9,895	G
15	General Plant	113,894	75,181	13,804	0	24,909	G
16	Hawaii Water GO Allocation	38,813	25,620	4,704	0	8,488	G
17	Big Island Allocation	265,524	175,272	32,181	0	58,070	G
18	Wastewater Administration	199	131	24	0	44	G
	Total Utility Plant In Service	16,923,817	11,867,224	4,880,830	0	175,761	

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West Hawaii Sewer Company

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

Account Number (1)	Account Title (2)	Total Cost (3)	Flow Cost (4)	Demand Cost (5)	Customer Related Commercial Cost (6)	Customer Related Services Cost (7)	Allocation Code (8)
Accumulated Depreciation Reserve:							
Exhibit WHSC 7.4							
5	Intangible	0	0	0	0	0	B
6	Land and land rights	0	0	0	0	0	E
7	Structures and Improvements	2,799,347	2,275,869	523,478	0	0	E
8	Pumping Equipment	6,067	0	6,067	0	0	B
9	Treatment Equipment	1,668,420	1,356,425	311,995	0	0	E
10	Transmission & Distribution Plant	1,100,931	0	1,100,931	0	0	B
11	Source of Supply	12,923	0	12,923	0	0	B
12	Power Generation Equipment	55,285	55,285	0	0	0	A
13	Transportation	121,676	80,318	14,747	0	26,611	G
14	Tools and Laboratory Equipment	27,846	18,381	3,375	0	6,090	G
15	General Plant	117,286.00	77,420	14,215	0	25,650	G
16	Hawaii Water GO Allocation	26,411	17,434	3,201	0	5,776	G
17	Big Island Allocation	78,986	52,139	9,573	0	17,274	G
18	Wastewater Administration	86	56	10	0	19	G
	Total Accumulated Depreciation Reserve	6,015,263	3,933,327	2,000,515	0	81,420	
	Net Plant in Service	10,908,554	7,933,897	2,880,316	0	94,341	

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West Hawaii Sewer Company

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

Account Number (1)	Account Title (2)	Total Cost (3)	Flow Cost (4)	Demand Cost (5)	Customer Related Commercial Cost (6)	Customer Related Services Cost (7)	Allocation Code (8)
Other Rate Base Items:							
Exhibit WHSC 7.8							
Exhibit WHSC 7.9							
	Net Contributions in Aid of Construction						
5	Intangible	0	0	0	0	0	B
6	Land and land rights	0	0	0	0	0	E
7	Structures and Improvements	(3,341,191)	(2,716,388)	(624,803)	0	0	E
8	Pumping Equipment		0	0	0	0	B
9	Treatment Equipment	(742,026)	(603,267)	(138,759)	0	0	E
10	Transmission & Distribution Plant	(503,785)	0	(503,785)	0	0	B
11	Source of Supply	0	0	0	0	0	B
12	Power Generation Equipment	0	0	0	0	0	A
13	Transportation	0	0	0	0	0	G
14	Tools and Laboratory Equipment	0	0	0	0	0	G
15	Global Settlement	0	0	0	0	0	A
16	Hawaii Water GO Allocation	0	0	0	0	0	G
17	Big Island Allocation	0	0	0	0	0	G
18	Wastewater Administration	0	0	0	0	0	G
	Total Net Contributions in Aid of Construction	(4,587,002)	(3,319,655)	(1,267,347)	0	0	
8	Customer Advances	0	0	0	0	0	I
9	Customer Deposits	0	0	0	0	0	I
Exhibit WHSC 7.10	Accumulated Deferred Taxes: Federal	45,066	19,680	22,587	0	2,794	I
Exhibit WHSC 7.12	Accumulated Deferred Taxes: State	17,807	7,776	8,925	0	1,104	I
Exhibit WHSC 7.14	Unamortized Hawaii Capital Goods Excise Tax Credit	(258,676)	(112,964)	(129,648)	0	(16,038)	I
Exhibit WHSC 7.6	Net Salvage Adjustment	(230,040)	(100,458)	(115,296)	0	(14,262)	I
Exhibit WHSC 7.15	Working Capital	99,437	43,424	49,838	0	6,165	I
	Total Other Rate Base Items	(4,913,408)	(3,462,197)	(1,430,941)	0	(20,237)	
	Total Pro Forma Rate Base	5,995,146	4,471,700	1,449,374	0	74,104	

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West Hawaii Sewer Company

Test Year Ending December 31, 2018
Allocation of Pro Forma Operating & Maintenance Expenses

Account Number (1)	Account Title (2)	Total Cost (3)	Flow Cost (4)	Demand Cost (5)	Customer Related Commercial Cost (6)	Customer Related Services Cost (7)	Allocation Code (8)
	Pumping Expenses						
O&M Expense Workpapers	Salaries & Wages	20,708	20,708	0	0	0	A
O&M Expense Workpapers	Purchased Power	0	0	0	0	0	A
O&M Expense Workpapers	Miscellaneous Expense	10,052	10,052	0	0	0	A
	Total Pumping Expenses	30,760	30,760	0	0	0	
	Treatment & Disposal Expenses						
O&M Expense Workpapers	Salaries & Wages - Operating (Collection 25%)	52,826	0	0	0	52,826	D
O&M Expense Workpapers	Salaries & Wages - Operating (Treatment 75%)	155,782	126,651	29,131	0	0	E
O&M Expense Workpapers	Salaries & Wages - Maint. (Collection 25%)	1,070	0	0	0	1,070	D
O&M Expense Workpapers	Salaries & Wages - Maint. (Treatment 75%)	3,155	2,565	590	0	0	E
O&M Expense Workpapers	Purchased Power	174,449	174,449	0	0	0	A
O&M Expense Workpapers	Chemicals	26,233	26,233	0	0	0	A
O&M Expense Workpapers	Materials & Supplies (Collection 25%)	7,982	0	0	0	7,982	D
O&M Expense Workpapers	Materials & Supplies (Treatment 75%)	23,944	19,466	4,478	0	0	E
O&M Expense Workpapers	Contractual Services - Testing	224	0	0	0	224	D
O&M Expense Workpapers	Misc. Expense - Operating (Collection 25%)	30,755	0	0	0	30,755	D
O&M Expense Workpapers	Misc. Expense - Operating (Treatment 75%)	92,263	75,010	17,253	0	0	E
O&M Expense Workpapers	Misc. Expense - Maint. (Collection 25%)	806	0	0	0	806	D
O&M Expense Workpapers	Misc. Expense - Maint. (Treatment 75%)	2,418	1,966	452	0	0	E
	Total Treatment & Disposal Expenses	571,907	426,340	51,904	0	93,663	
	Customer Accounts Expenses						
O&M Expense Workpapers	Salaries & Wages	8,349	0	0	8,349	0	C
O&M Expense Workpapers	Bad Debt Expense	0	0	0	0	0	C
O&M Expense Workpapers	Miscellaneous Expenses	12,826	0	0	12,826	0	C
	Total Customer Accounts Expenses	21,175	0	0	21,175	0	
	General & Administrative Expenses						
O&M Expense Workpapers	Salaries & Wages	109,335	67,766	13,437	3,772	24,360	F
O&M Expense Workpapers	Employee Pensions & Benefits	214,909	133,201	26,412	7,414	47,882	F
O&M Expense Workpapers	Materials & Supplies	3,533	2,332	428	773	0	G
O&M Expense Workpapers	Contractual Services - Legal	1,883	1,243	228	412	0	G
O&M Expense Workpapers	Contractual Services - Other	1,481	978	179	324	0	G
O&M Expense Workpapers	Building / Property Rental	7,887	4,541	901	812	1,633	H
O&M Expense Workpapers	Insurance - General Liability	9,256	6,110	1,122	2,024	0	G
O&M Expense Workpapers	Insurance - Worker's Compensation	9,148	5,670	1,124	316	2,038	F
O&M Expense Workpapers	Insurance - Other	0	0	0	0	0	J
O&M Expense Workpapers	Regulatory Commission Expense	69,167	42,932	8,480	3,064	14,691	J
O&M Expense Workpapers	Miscellaneous Expense	46,755	29,021	5,732	2,071	9,931	J
	Total General & Administrative Expenses	473,354	293,794	58,043	20,982	100,535	
	Total Operation & Maintenance Expense	1,097,196	750,894	109,947	42,157	194,198	

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West Hawaii Sewer Company

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

Account Number (1)	Account Title (2)	Total Cost (3)	Flow Cost (4)	Demand Cost (5)	Customer Related Commercial Cost (6)	Customer Related Services Cost (7)	Allocation Code (8)
103.061	Land	0	0	0	0	0	E
103.540	Structures & Improvement	89,272	72,578	16,694	0	0	E
103.701	Pumping Equipment	129	0	129	0	0	B
103.801	Treatment Equipment	151,902	123,496	28,406	0	0	E
103.600	Collection Sewers Force	4,425	2,921	536	0	968	G
103.610	Collection Sewers Gravity	21,867	14,434	2,650	0	4,782	G
103.890	Other Equipment	27,628	18,237	3,349	0	6,042	G
103.550	Power Generation Equipment	10,794	0	10,794	0	0	B
103.700	Receiving Wells	868	0	868	0	0	B
103.810	Plant Sewers	1,352	0	1,352	0	0	B
103.965	Transportation Equipment	52,120	34,404	6,317	0	11,399	G
103.930	Tools, Shop, & Garage Equipment	61	40	7	0	13	G
103.940	Laboratory Equipment	440	440	0	0	0	A
103.950	Power Operated Equipment	0	0	0	0	0	A
103.975	Stores Equipment	669	442	81	0	146	G
103.980	General Plant	23,496	15,510	2,848	0	5,139	G
16	Hawaii Water GO Allocation	844	557	102	0	185	G
17	Big Island Allocation	17,178	11,339	2,082	0	3,757	G
18	Wastewater Administration	40	26	5	0	9	G
	Total Depreciation Expense	403,086	294,424	76,220	0	32,440	

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West Hawaii Sewer Company

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

Account Number (1)	Account Title (2)	Total Cost (3)	Flow Cost (4)	Demand Cost (5)	Customer Related Commercial Cost (6)	Customer Related Services Cost (7)	Allocation Code (8)
	Total Revenue Requirement						
	Operation and Maintenance Expense	1,087,196	750,894	109,947	42,157	194,198	
	Depreciation Expense	403,086	294,424	76,220	0	32,440	
Exhibit WHSC 8.11							
2	PubCo Allocation	96,052	67,525	13,361	2,353	12,813	L
Exhibit WHSC 8.20	Taxes Other Than Income Taxes						
5	Public Company Service Tax	143,333	100,763	19,938	3,512	19,120	L
7	Public Utility Fee	12,178	8,561	1,694	298	1,625	L
	Total Taxes Other Than Income Taxes	155,511	109,324	21,632	3,810	20,745	
	Total Operating Expenses Before Income Taxes	1,751,845	1,222,167	221,160	48,320	260,196	
Exhibit WHSC 8.21	Income Taxes						
11,12,13	State	17,283	12,876	4,172	0	215	K
17 - 20	Federal	201,829	150,544	48,782	0	2,503	K
22	Total Income Taxes	219,092	163,420	52,954	0	2,718	
Exhibit WHSC 6							
28	Operating Income	464,624	326,631	64,629	11,383	61,981	L
	Total Revenue Requirement	2,435,559	1,712,218	338,743	59,703	324,895	
	Total Revenue Requirement %	100.00 %	70.30 %	13.91 %	2.45 %	13.34 %	

West Hawaii Sewer Company

Development of Functional Cost Allocation Factors

Factor A - Allocation of Costs Which Vary with Total Flow

Costs which vary with the volume of sewage collected and treated are allocated 100% to the flow cost function.

Factor B - Allocation of Costs Related to Demand

Costs which are related to the users' capacity requirements for maximum flow conditions are allocated 100% to the demand cost function.

Factor C - Allocation of Costs Related to Customer - Commercial

Costs that are allocated 100% to the customer - commercial cost function.

Factor D - Allocation of Costs Related to Customer - Service

Costs that are allocated 100% to the customer - service cost function.

Factor E - Allocation of Costs Related to Average Day Flow to Maximum Day Flow

Cost that are allocated to the flow cost function and to the demand cost function on the basis of the average day flow to maximum day flow as follows:

Cost Function	Ratio	Allocation %
(1)	(2)	(3)
Base	1.00	81.30
Extra Capacity	0.23	18.70
Maximum Day	1.23	100.00

Factor F - Allocation of General & Administrative Salaries and Wages, Employee Benefits, and Worker's Compensation Insurance

General & administrative salaries and wages, employee benefits, and worker's compensation insurance are allocated to the cost function in accordance with the composite allocation of all other salaries & wages as follows:

Cost Function	Allocated Collecting System Maintenance Expenses	Allocation %
(1)	(2)	(3)
Base	$ 149,924	61.98
Extra Capacity	29,721	12.29
Customer - Commercial	8,349	3.45
Customer - Services	53,896	22.28
	$ 241,890	100.00

West Hawaii Sewer Company

Development of Functional Cost Allocation Factors

Factor G - Allocation of Administrative and General Expenses

Certain administrative and general expenses are allocated to the cost functions in accordance with the composite allocation of operation and maintenance expenses with the exception of power and fuel as follows:

Cost Function	Allocated Operation and Maintenance Expenses	Allocation %
(1)	(2)	(3)
Base	$ 282,651	66.01
Extra Capacity	51,904	12.12
Customer - Commercial	0	0.00
Customer - Services	93,663	21.87
	$ 428,218	100.00

Factor H - Allocation of Office Rent and Office Furniture and Equipment

Office rent and the capital costs related to office furniture and equipment are allocated to the cost functions in accordance with the composite allocation of customer and general and administrative salaries and labor costs as follows:.

Cost Function	Allocated Customer/ and G&A Labor	Allocation %
(1)	(2)	(3)
Base	$ 67,766	57.58
Extra Capacity	13,437	11.42
Customer - Commercial	12,121	10.30
Customer - Services	24,360	20.70
	$ 117,684	100.00

Factor I - Allocation of Other Rate Base Costs

Other rate base costs are allocated to the cost functions in accordance with the composite allocation of the total rate base costs as follows:

Cost Function	Allocated Rate Base	Allocation %
(1)	(2)	(3)
Base	$ 643,538	43.67
Extra Capacity	738,652	50.12
Customer - Commercial	0	0.00
Customer - Services	91,315	6.20
	$ 1,473,505	99.99

West Hawaii Sewer Company

Development of Functional Cost Allocation Factors

Factor J - Allocation of Other Insurance and G&A Miscellaneous Costs

Other insurance and G&A miscellaneous costs are allocated to the cost functions in accordance with the composite allocation of all other G&A costs as follows:

Cost Function (1)	Depreciated Original Cost (2)	Allocation % (3)
Base	$ 221,841	62.07
Extra Capacity	43,831	12.26
Customer - Commercial	15,847	4.43
Customer - Services	75,913	21.24
	$ 357,432	100.00

Factor K - Allocation of Operating Income and Income Taxes

Operating income and income taxes are allocated to the cost functions in accordance with the composite allocation of all rate base items as follows:

Cost Function (1)	Rate Base (2)	Allocation % (3)
Base	$ 4,471,700	74.59
Extra Capacity	1,449,374	24.17
Customer - Commercial	0	0.00
Customer - Services	74,104	1.24
	$ 5,995,178	100.00

Factor L - Allocation of Revenue Related Taxes, Expenses & Net Income

Regulatory commission expenses, amortization expense, other income taxes, and net income are allocated to the cost functions in accordance with the composite allocation of all other cost of service elements as follows:

Cost Function (1)	Cost of Service (2)	Allocation % (3)
Base	$ 1,208,738	70.30
Extra Capacity	239,121	13.91
Customer - Commercial	42,157	2.45
Customer - Services	229,356	13.34
	$ 1,719,372	100.00

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West Hawaii Sewer Company

Elements for Development Factor F

Account Number (1)	Account Title (2)	Total Costs (3)	Flow Costs (4)	Demand Costs (5)	Customer Related Commercial Costs (6)	Customer Related Services Costs (7)
O&M Expense Workpapers	Salaries & Wages	20,708	20,708	0	0	0
O&M Expense Workpapers	Salaries & Wages - Operating (Collection 25%)	52,826	0	0	0	52,826
O&M Expense Workpapers	Salaries & Wages - Operating (Treatment 75%)	155,782	126,651	29,131	0	0
O&M Expense Workpapers	Salaries & Wages - Maint. (Collection 25%)	1,070	0	0	0	1,070
O&M Expense Workpapers	Salaries & Wages - Maint. (Treatment 75%)	3,155	2,565	590	0	0
O&M Expense Workpapers	Salaries & Wages	8,349	0	0	8,349	0
	Total Above Expenses	241,890	149,924	29,721	8,349	53,896
		100.00 %	61.98 %	12.29 %	3.45 %	22.28 %

Elements for Development Factor G

Account Number (1)	Account Title (2)	Total Costs (3)	Flow Costs (4)	Demand Costs (5)	Customer Related Commercial Costs (6)	Customer Related Services Costs (7)
	Pumping Expenses					
O&M Expense Workpapers	Salaries & Wages	20,708	20,708	0	0	0
O&M Expense Workpapers	Miscellaneous Expense	10,052	10,052	0	0	0
	Treatment & Disposal Expenses					
O&M Expense Workpapers	Salaries & Wages - Operating (Collection 25%)	52,826	0	0	0	52,826
O&M Expense Workpapers	Salaries & Wages - Operating (Treatment 75%)	155,782	126,651	29,131	0	0
O&M Expense Workpapers	Salaries & Wages - Maint. (Collection 25%)	1,070	0	0	0	1,070
O&M Expense Workpapers	Salaries & Wages - Maint. (Treatment 75%)	3,155	2,565	590	0	0
O&M Expense Workpapers	Chemicals	26,233	26,233	0	0	0
O&M Expense Workpapers	Materials & Supplies (Collection 25%)	7,982	0	0	0	7,982
O&M Expense Workpapers	Materials & Supplies (Treatment 75%)	23,944	19,466	4,478	0	0
O&M Expense Workpapers	Contractual Services - Testing	224	0	0	0	224
O&M Expense Workpapers	Misc. Expense - Operating (Collection 25%)	30,755	0	0	0	30,755
O&M Expense Workpapers	Misc. Expense - Operating (Treatment 75%)	92,263	75,010	17,253	0	0
O&M Expense Workpapers	Misc. Expense - Maint. (Collection 25%)	806	0	0	0	806
O&M Expense Workpapers	Misc. Expense - Maint. (Treatment 75%)	2,418	1,966	452	0	0
	Total Above Expenses	428,218	282,651	51,904	0	93,663
		100.00 %	66.01 %	12.12 %	0.00 %	21.87 %

Elements for Development Factor H

Account Number (1)	Account Title (2)	Total Costs (3)	Flow Costs (4)	Demand Costs (5)	Customer Related Commercial Costs (6)	Customer Related Services Costs (7)
	Customer Accounts Expenses					
O&M Expense Workpapers	Salaries & Wages	8,349	0	0	8,349	0
	General & Administrative Expenses					
O&M Expense Workpapers	Salaries & Wages	109,335	67,766	13,437	3,772	24,360
	Total Above Expenses	117,684	67,766	13,437	12,121	24,360
		100.00 %	57.58 %	11.42 %	10.30 %	20.70 %

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West Hawaii Sewer Company

Elements for Development Factor I

Account Number (1)	Account Title (2)	Total Costs (3)	Flow Costs (4)	Demand Costs (5)	Customer Related Commercial Costs (6)	Customer Related Services Costs (7)
	Tools and Laboratory Equipment	45,245	29,866	5,484	0	9,895
	Total Accumulated Depreciation Reserve	6,015,263	3,933,327	2,000,515	0	81,420
	Total Net Contributions in Aid of Construction	(4,587,002)	(3,319,655)	(1,267,347)	0	0
	0	0	0	0	0	0
	Total Above Expenses	1,473,506	643,538	738,652	0	91,315
		99.99 %	43.67 %	50.12 %	0.00 %	6.20 %

Elements for Development Factor J

Account Number (1)	Account Title (2)	Total Costs (3)	Flow Costs (4)	Demand Costs (5)	Customer Related Commercial Costs (6)	Customer Related Services Costs (7)
O&M Expense Workpapers	Salaries & Wages	109,335	67,766	13,437	3,772	24,360
O&M Expense Workpapers	Employee Pensions & Benefits	214,909	133,201	26,412	7,414	47,882
O&M Expense Workpapers	Materials & Supplies	3,533	2,332	428	773	0
O&M Expense Workpapers	Contractual Services - Legal	1,883	1,243	228	412	0
O&M Expense Workpapers	Contractual Services - Other	1,481	976	179	324	0
O&M Expense Workpapers	Building / Property Rental	7,887	4,541	901	812	1,633
O&M Expense Workpapers	Insurance - General Liability	9,256	6,110	1,122	2,024	0
O&M Expense Workpapers	Insurance - Worker's Compensation	9,148	5,670	1,124	316	2,038
	Total Above Items	357,432	221,841	43,831	15,847	75,913
		100.00 %	62.07 %	12.26 %	4.43 %	21.24 %

Elements for Development Factor K

Account Number (1)	Account Title (2)	Total Costs (3)	Flow Costs (4)	Demand Costs (5)	Customer Related Commercial Costs (6)	Customer Related Services Costs (7)
	Total Rate Base	5,995,146	4,471,700	1,449,374	0	74,104
		100.00 %	74.59 %	24.17 %	0.00 %	1.24 %

Elements for Development Factor L

Account Number (1)	Account Title (2)	Total Costs (3)	Flow Costs (4)	Demand Costs (5)	Customer Related Commercial Costs (6)	Customer Related Services Costs (7)
	Total Operation & Maintenance Expense	1,097,196	750,894	109,947	42,157	194,198
	Depreciation Expense	403,086	294,424	76,220	0	32,440
	Income Taxes					
	State	17,263	12,876	4,172	0	215
	Federal	201,829	150,544	48,782	0	2,503
	Total Above Items	1,719,374	1,208,738	239,121	42,157	229,356
		100.00 %	70.30 %	13.91 %	2.45 %	13.34 %

West Hawaii Sewer Company

Depreciation Expense
Test Year Ending December 31, 2018

		Account Title (2)	2017 Depr Exp (3)	Inc. Tax Credit (4)	Net Depr Exp (5)
Exhibit WHSC 7.6					
Exhibit WHSC 7.9					
Non Dep Plant					
103061	x	Land	0	0	0
		Total Non Depreciable Plant	0	0	0
Structure & Improv.					
103540	x	Structures & Improvement	89,272	0	89,272
		Total Structures and Imrpovements	89,272	0	89,272
Pumping Equip					
103701	x	Pumping Equipment	129	0	129
		Total Pumping Equipment	129	0	129
Treatment Equipment					
103801	x	Treatment Equipment	151,902	0	151,902
		Total Treatment	151,902	0	151,902
T&D Plant					
103600	x	Collection Sewers Force	4,425	0	4,425
103610	x	Collection Sewers Gravity	21,867	0	21,867
103890	x	Other Equipment	27,628	0	27,628
		Total Transmission & Distribution Plant	53,920	0	53,920
Power Gen. Equip					
103550	x	Power Generation Equipment	10,794	0	10,794
		Total Power Generation Equipment	10,794	0	10,794
Source of Supply					
103700	x	Receiving Wells	868	0	868
103810	x	Plant Sewers	1,352	0	1,352
		Total Source of Supply	2,220	0	2,220
Transportation					
103965	x	Transportation Equipment	52,120	0	52,120
		Total Transportation Equipment	52,120	0	52,120
Tools and Lab Equip.					
103930		Tools, Shop, & Garage Equipment	61	0	61
103940	x	Laboratory Equipment	440	0	440
103950	x	Power Operated Equipment	0	0	0
103975	x	Stores Equipment	669	0	669
		Total Tools and Laboratory Equipment	1,170	0	1,170
General Plant					
103980	x	General Plant	23,496	0	23,496
		Total General Plant	23,496	0	23,496
Exhibit WHSC 7.4					
Other					
16		Hawaii Water GO Allocation	844	0	844
17		Big Island Allocation	17,178	0	17,178
18		Wastewater Administration	40	0	40
			18,063	0	18,063
		Total	403,086	0	403,086

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West Hawaii Sewer Company

Allocation Codes For Customer Groups

Alloc. Code	Description	Residential	Multi-Family	Non-Residential	Public Authority	Check Total
60	Flow Cost	16.53 %	69.45 %	7.89 %	6.14 %	100.01 %
61	Demand Cost	9.01 %	75.70 %	8.60 %	6.69 %	100.00 %
62	Customer Costs - Commercial	84.62 %	8.21 %	5.13 %	2.05 %	100.01 %
63	Customer Costs - Services	88.12 %	8.01 %	2.67 %	1.20 %	100.00 %

West Hawaii Sewer Company

Allocation To Customer Groups

	Total Cost $	Residential $	Multi-Family $	Non-Residential $	Public Authority $	AC
Operation & Maintenance Expense:						
Flow Cost	750,894	124,123	521,496	59,246	46,105	60
Demand Cost	109,947	9,906	83,230	9,455	7,355	61
Customer Cost - Commercial	42,157	35,673	3,461	2,163	864	62
Customer Cost - Services	194,198	171,127	15,555	5,185	2,330	63
Total Operation & Maintenance Expense	1,097,196	340,829	623,742	76,049	56,654	
	100.00%	31.06%	56.85%	6.93%	5.16%	
Depreciation Expense:						
Flow Cost	294,424	48,668	204,477	23,230	18,078	60
Demand Cost	76,220	6,867	57,699	6,555	5,099	61
Customer Cost - Commercial	0	0	0	0	0	62
Customer Cost - Services	32,440	28,586	2,598	866	389	63
Total Depreciation Expense	403,084	84,121	264,774	30,651	23,566	
	100.01%	20.87%	65.69%	7.60%	5.85%	
Amortization Expense:						
Flow Cost	67,525	11,162	46,896	5,328	4,146	60
Demand Cost	13,361	1,204	10,114	1,149	894	61
Customer Cost - Commercial	2,353	1,991	193	121	48	62
Customer Cost - Services	12,813	11,291	1,026	342	154	63
Total Amortization Expense	96,052	25,648	58,229	6,940	5,242	
	100.01%	26.70%	60.62%	7.23%	5.46%	
Taxes Other Than Income Taxes:						
Flow Cost	109,324	18,071	75,926	8,626	6,712	60
Demand Cost	21,632	1,949	16,375	1,860	1,447	61
Customer Cost - Commercial	3,810	3,224	313	195	78	62
Customer Cost - Services	20,745	18,280	1,662	554	249	63
Total Taxes Other Than Income Taxes	155,511	41,524	94,276	11,235	8,486	
	100.00%	26.70%	60.62%	7.22%	5.46%	
Miscellaneous Non-Utility Expenses:						
Flow Cost	0	0	0	0	0	60
Demand Cost	0	0	0	0	0	61
Customer Cost - Commercial	0	0	0	0	0	62
Customer Cost - Services	0	0	0	0	0	63
Total Miscellaneous Non-Utility Expenses	0	0	0	0	0	

West Hawaii Sewer Company

Allocation To Customer Groups

	Total Cost $	Residential $	Multi-Family $	Non-Residential $	Public Authority $	AC
Income Taxes:						
Flow Cost	163,420	26,997	113,495	12,894	10,034	60
Demand Cost	52,954	4,771	40,086	4,554	3,543	61
Customer Cost - Commercial	0	0	0	0	0	62
Customer Cost - Services	2,718	2,394	218	73	33	63
Total Income Taxes	219,092	34,162	153,799	17,521	13,610	
	100.00%	15.59%	70.20%	8.00%	6.21%	
Net Income:						
Flow Cost	326,631	53,960	226,845	25,771	20,055	60
Demand Cost	64,629	5,823	48,924	5,558	4,324	61
Customer Cost - Commercial	11,383	9,631	935	584	233	62
Customer Cost - Services	61,981	54,617	4,965	1,655	744	63
Total Net Income	464,624	124,031	281,669	33,568	25,356	
	99.99%	26.69%	60.62%	7.22%	5.46%	
Total Cost of Service	**2,435,559**	**650,315**	**1,476,366**	**175,964**	**132,914**	
	100.00%	**26.70%**	**60.62%**	**7.22%**	**5.46%**	
Total Flow Cost	**1,712,216**	**282,981**	**1,189,010**	**135,095**	**105,130**	
	100.00%	**16.53%**	**69.44%**	**7.89%**	**6.14%**	
Total Demand Cost	**338,743**	**30,520**	**256,430**	**29,131**	**22,662**	
	84.71%	**9.01%**	**75.70%**	**8.60%**	**6.69%**	100.00%
Total Customer Cost - Commercial	**59,703**	**50,515**	**4,902**	**3,063**	**1,223**	
	92.82%	**84.61%**	**8.21%**	**5.13%**	**2.05%**	100.00%
Total Customer Cost - Services	**324,895**	**286,299**	**26,024**	**8,675**	**3,899**	
	96.13%	**88.12%**	**8.01%**	**2.67%**	**1.20%**	100.00%

West Hawaii Sewer Company

Development of Customer Group Factors

Factor 60 - Allocation of Base Costs

Costs are allocated to Base Cost to the Customer Groups in accordance with the percentage of wastewater flows by each individual customer group.

Factor 61 - Allocation of Maximum Day Costs

Costs are allocated to Maximum Day Cost to the Customer Groups in accordance with the ratio of the excess maximum day demand of each individual customer group to the total non-coincident excess daily demand for all customer groups.

Factor 62 - Allocation of Costs Related to Customer - Commercial

Costs are allocated to Customer Cost - Commercial to the Customer Groups in accordance with the percentage of bills issued to each individual customer group.

Factor 63 - Allocation of Costs Related to Customer - Services

Costs are allocated to Customer Cost - Services to the Customer Groups in accordance with the percentage of equivalent services of each individual customer group.

West Hawaii Sewer Company

Development of Allocation Factors to Customer Groups

	Annual Flows				Maximum Day		
Customer Group	1000 Gal.	1000 Gal. Per Day	%	% of Average	Amount	Excess	%
Residential	38,145.0	104.507	16.53	150	156.761	52.254	9.01
Multi-Family	160,265.0	439.082	69.45	200	878.164	439.082	75.70
Non-Residential	18,197.0	49.855	7.89	200	99.710	49.855	8.60
Public Authority	14,166.0	38.811	6.14	200	77.622	38.811	6.69
Grand Total	230,773.0	632.255	100.01		1,212.257	580.002	100.00
Allocation Code			60				61

West Hawaii Sewer Company

Development of the Equivalent Meters and Services Factors
and the Factor Based on the Number of Bills

Customer Group	Number of Bills	%	Equiv. Services	%		Equiv. Meters	%
Residential - Monthly	3960	84.62	1,980	88.12	84.61538	1,983	63.99
Multi-Family - Monthly	384	8.21	180	8.01	8.205128	809	26.11
Non-Residential Monthly	240	5.13	60	2.67	5.128205	216	6.97
Public Authority - Monthly	96	2.05	27	1.2	2.051282	91	2.94
Grand Total	4680	100.01	2,247	100		3,099	100.01
Allocation Code		62		63			63

West Hawaii Sewer Company

Development of Equivalent Services

Customer Group	Meter Size	Number of Meters	Eq. Svc. Ratio	Equiv. Services	Percent	Eq. Meter Ratio	Equiv. Meters	Percent
Residential	5/8"	1,970	1.0	1,970		1.0	1,970	
	1"	5	2.0	10		2.5	13	
		1,975		1,980	88.12 %		1,983	63.99 %
Multi-Family	2"	18	4.0	72		8.0	144	
	3"	1	4.0	4		15.0	15	
	6"	13	8.0	104		50.0	650	
		32		180	8.01 %		809	26.11 %
Non-Residential	5/8"	7	1.0	7		1.0	7	
	1"	3	2.0	6		2.5	8	
	1 1/2"	4	2.7	11		5.0	20	
	2"	2	4.0	8		8.0	16	
	3"	1	4.0	4		15.0	15	
	6"	3	8.0	24		50.0	150	
		20		60	2.67 %		216	6.97 %
Public Authority	1"	3	2.0	6		2.5	8	
	1 1/2"	2	2.7	5		5.0	10	
	2"	1	4.0	4		8.0	8	
	3"	1	4.0	4		15.0	15	
	6"	1	8.0	8		50.0	50	
		8		27	1.20 %		91	2.94 %
Grand Total		2,035		2,247	100.00 %		3,099	100.01 %

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West Hawaii Sewer Company

Revenue Comparison Between Customer Groups
Revenues at Present Rates vs. Indicated Cost of Service

	---- Present Rates ----		---------- Indicated Cost of Service ----------				---- Proposed Rates -------	
Customer Group	Total	Percent	Total	Effluent Rev.	Adj. Total	Percent	Total	Percent
Residential	$310,611	18.27%	$650,315	$0	$650,315	26.70%	$403,649	18.27%
Multi-Family	1,267,907	74.59%	1,476,366	0	1,476,366	60.62%	1,555,889	74.59%
Non-Residential	72,795	4.28%	175,964	0	$175,964	7.22%	296,615	4.28%
Public Authority	48,543	2.86%	132,914	0	$132,914	5.46%	179,406	2.86%
Totals	$1,699,856	100.00%	$2,435,559	$0	$2,435,559	100.00%	$2,435,559	100.00%

Exhibit WHSC-T-200
Direct Testimony of Anthony Carrasco

West Hawaii Sewer Company General Rate Case
Application Filed December 2017

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WEST HAWAII SEWER COMPANY GENERAL RATE CASE
DIRECT TESTIMONY OF ANTHONY CARRASCO

Introduction

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

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

Q. Please summarize your educational background and professional experience.

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

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

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

A. The purpose of my testimony in this proceeding is to explain the details of the 2018 test year expense estimates and inflation methodology for West Hawaii Sewer Company ("WHSC").

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

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

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

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

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

Recorded expenses were adjusted with a Consumer Price Index ("CPI") factor to account for changes in prices of goods and services from the averaging period up to the test year. This was done using a two-step process. First, the annual recorded expenses were adjusted to 2018 dollars using Honolulu CPI and then a 3 year average of the adjusted figures was calculated. Published U.S. Department of Labor Bureau of Labor and Statistics data was used to adjust 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

available data which was for Honolulu was used.[2] This is an appropriate index for Hawaii Island and Maui operations. Details of inflation factors are shown on Exhibit WHSC 8.3.

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

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

Labor

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

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

[2] http://dbedt.hawaii.gov/economic/library/faq/faq03/

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

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

Payroll	Benefits	Taxes	Total	Exhibit Reference
$ 323,238	$ 224,057	$ 28,042	$ 575,337	Exhibit WHSC 8.5

Table 201. Labor Expense.

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

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

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

[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.

Fuel & Power

Purchased power expense varies with the amount of wastewater pumped from lift stations and treated at the wastewater treatment plants ("WWTP"). This expense was estimated by calculating a unit cost [$ / kWh] of power for the test year and multiplying it by the expected kWh usage in the test year. A unit cost for purchased power was calculated by taking the ratio of recorded power cost and recorded power use for each year. The unit cost for the test year was estimated by taking a three year average from 2015 to 2017 of the calculated unit cost. Projected power use for the test year was estimated by taking a three year average from 2015 to 2017 of recorded power use. Fuel for power production expense was estimated by taking a three year average of recorded fuel for production. The following table summarizes the projected unit cost of power, power consumption, power expense, and fuel for power production expense for the test year for WHSC:

Unit Cost [$ / kWh]	Power Consumption [kWh]	Power Expense [$]	Fuel for Power Production	Total Fuel & Power Expense	Exhibit Reference
$ 0.3134	556,691	$ 174,449	$ -	$ 174,449	Exhibit WHSC 8.6

Table 202. Fuel and Power Expense.

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

Chemicals

Chemicals are purchased for wastewater operations to treat wastewater pumped to the WWTPs. Chemical purchased include hypochlorite, sodium carbonate, and flocculants for wastewater operations other materials relating to the WWTP.

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

Chemical Expense	Exhibit Reference
$ 28,908	Exhibit WHSC 8.8

Table 203. Chemical Expense.

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

Materials & Supplies

Materials and supplies expense is grouped using the following categories: treatment & disposal, water treatment & water quality, transmission & distribution, collection, and pumping. The test year materials & supplies expense for WHSC is calculated by taking a three year average from 2015 – 2017 of CPI adjusted recorded expenses. The following table summarizes materials & supplies expense for WHSC:

Materials & Supplies Expense	Exhibit Reference
$ 32,218	Exhibit WHSC 8.9

Table 204. Materials & Supplies Expense.

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

Waste Disposal

Waste disposal expense consists of fees for the removal and disposal of dewatered sludge from the WWTPs. The test year waste disposal expense was estimated by taking a three year average from 2015 – 2017 of CPI adjusted recorded expenses. The following table summarizes waste disposal expense for WHSC:

Waste Disposal Expense	Exhibit Reference
$ 28,941	Exhibit WHSC 8.10

Table 205. Waste Disposal Expense.

Details of waste disposal expense can be found in the Exhibit listed in the table above.

Affiliated Charges

California Water Service Group ("CWSG") includes several subsidiaries which include Hawaii Water, Cal Water, Washington Water Service Company ("WWSC"), and New Mexico Water Service Company ("NMWSC"). CWSG's expenses are allocated to its subsidiaries based

on relative proportions of work being performed. A large portion of the work resides in Customer Support Services ("CSS") of Cal Water. Within CSS, there are a number of departments that provide support services for its subsidiaries. These include corporate governance (CEO, CFO, Corporate Secretary, etc.), audit, accounting and finance, information technology, human resources, and communications. These functions are provided centrally at CSS because it is more cost effective to do so than to hire the specific expertise needed for each particular subsidiary. This centralized service model has been shown in to be lower in cost to customers than staffing up locally for all necessary back office expertise such as noted above.

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

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

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

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

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.

In Hawaii Water's most recent case for its Ka'anapali and Pukalani districts, Hawaii Water and the Consumer Advocate agreed to remove incentive compensation as well as certain other expenses from account 791000 from the overall allocation of affiliated charges to the district.[5] While WHSC believes that incentive compensation is a part of a regular compensation package that retains talented individuals in a competitive market, this adjustment was applied to affiliated charges that are allocated to WHSC, consistent with the stipulation that the Commission adopted from the Ka'anapali and Pukalani cases.

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

Affiliated Charges Expense	Exhibit Reference
$ 96,052	Exhibit WHSC 8.11

Table 206. Affiliated Charges Expense.

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

Outside Services

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

Outside Services Expense	Exhibit Reference
$ 3,966	Exhibit WHSC 8.12

Table 207. Outside Services Expense.

[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.

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

Repairs & Maintenance

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

Repairs & Maintenance Expense	Exhibit Reference
$ 116,824	Exhibit WHSC 8.13

Table 208. Repairs & Maintenance Expense.

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

Rents

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

Rents Expense	Exhibit Reference
$ 7,887	Exhibit WHSC 8.14

Table 209. Rents Expense.

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

Insurance

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

Insurance Expense	Exhibit Reference
$ 9,256	Exhibit WHSC 8.15

Table 210. Insurance Expense.

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

Regulatory

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

Regulatory Expense	Exhibit Reference
$ 69,167	Exhibit WHSC 8.16

Table 211. Regulatory Expense.

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

General & Administrative

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

General & Administrative Expense	Exhibit Reference
$ 37,494	Exhibit WHSC 8.18

Table 212. General & Administrative Expense.

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

Customer Accounts

Customer accounts expenses includes customer records, other stationary & print, telephone expenses, other utilities & janitor expense, and uncollectible accounts expense. The test year customer accounts expense was estimated by taking a three year average from 2015 – 2017 of CPI adjusted recorded expenses. The following table summarizes customer accounts expense for WHSC:

Customer Accounts Expense	Exhibit Reference
$ 12,748	Exhibit WHSC 8.19

Table 213. Customer Accounts Expense.

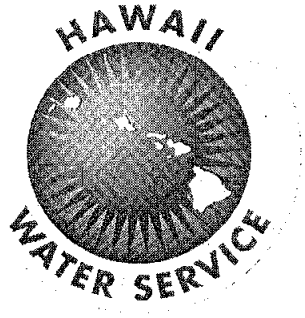
Details of customer accounts expense for WHSC can be found in the Exhibit listed in the table above.

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

2 A. Yes, it does.

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

Exhibit WHSC-T-300
Direct Testimony of Stephen Green



West Hawaii Sewer Company General Rate Case
Application Filed December 2017

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WEST HAWAII SEWER COMPANY GENERAL RATE CASE
DIRECT TESTIMONY OF STEPHEN GREEN

Introduction

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

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

Q. Please summarize your educational background, professional certifications, and professional experience.

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

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

A. The purpose of my testimony in this proceeding is to support capital investment projects that WHSC has completed since its last rate case and plans to complete in 2018. Additionally, I will discuss and describe the capacity of WHSC's Auwaiakeakua Wastewater Treatment Plant ("A-Plant") and Kamakoa Wastewater Treatment Plant (the "K-Plant"). I will address whether there is any capacity in the WWTPs that is not required to treat existing and committed users. In

summary and as further detailed below, my professional opinion is that all of the present capacity of each of the WWTPs is required to treat existing and committed customers.

Capital Improvements

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

A. Exhibit WHSC-T-301 lists and describes the capital improvements for the Waikoloa Village Wastewater area with a cost of $25,000 or more that were completed since 2013, all of which have been placed in service or will be placed in service during the 2018 test year.

Auwaiakeakua Plant Capacity

Q. Please describe the capacity of the A-Plant.

A. The A-Plant is a moving bed biofilm reactor ("MBBR") wastewater treatment plant which presently has a capacity of 533,000 GPD. It was designed to be constructed in three phases. Phase 1, which had a capacity of 266,000 GPD, was completed in 2008. Phase 2, which made additions to increase treatment capacity to 533,000 GPD, was completed in December 2009. Phase 3, which will include additions to increase treatment capacity to 800,000 GPD, has been deferred until it is needed.

The A Plant is owned by WHSC and receives wastewater from the service area located in the southern end of Waikoloa Village. Commercial facilities served by the A Plant include Waikoloa Highlands Commercial Center, Waikoloa Village Association Complex, Waikoloa Village Post Office and the Waikoloa Fire Station. Multi-Family dwelling units served include Waikoloa Gardens, Paniolo Club, Fairway Terrace, 17th Fairway Villas, Waikoloa Villas, Waikoloa Fairways, Waikoloa Hills, Waikoloa Village Condos, Elima Lani, and the Greens at Waikoloa.

Q. Please describe what capacity is required for existing and committed users of the WWTP.

A. In general, the sizing of a WWTP is governed by the Hawaii Administrative Rules ("HAR") section 11-62. For treatment plants with an average design flow at or greater than

100,000 gallons per day ("GPD"), the sizing requirements are specified by the county. Hawaii County follows the design standards of the City and County of Honolulu ("C&C"). The C&C has published design standards which provide guidelines for sizing the flow to a wastewater treatment plant based on historic flows and per capita projections (Division of Wastewater Management Design Standards (the "Design Standards"), Vol. 2, Sec. 43.2; Vol. 1, Sec. 22; Vol. 1, Sec. 11.1.5). Furthermore, HAR section 11-62-23.1(h)(i) states:

> For public wastewater treatment works a facility plan shall be initiated when the actual wastewater flow reaches 75% of the design capacity of the wastewater treatment works. Implementation of the facility plan shall be initiated when the actual wastewater flow reaches 90% of the design capacity of the wastewater treatment works.

Therefore, the sizing of a WWTP is based upon the existing flow, calculated base flow load, and calculated projections of increased wastewater flow due to population growth and expansion. Due to the lead time in constructing or modifying a WWTP, the design must be based upon future flow projections; otherwise, the plant will be undersized by the time the design, permit, construct and commission cycle is completed. There are two methods used to identify appropriate capacity of WWTPs: A) calculated flows; and B) historical flows. These methods are discussed in the following two sections.

A. A-Plant Capacity Based On Calculated Flow for Existing Customers

Chapter 20 of the Design Standards defines per capita flow factors to be taken into consideration for wastewater treatment facility design.[1] Poe Tyler of WSI International completed design flow calculations for the A-Plant in WHSC's most recent general rate case[2] in accordance with the requirements set forth in Chapter 20 of the Design Standards. Those calculations are attached hereto as Exhibit WHSC-T-303.[3] Exhibit WHSC-T-303 shows that the design flows for WHSC's current and committed customers served by the A-Plant are 329,530 GPD and 75,930 GPD, respectively.[4] The total flow from current and committed customers is

[1] An excerpt of Chapter 20 of the Design Standards is attached as Exhibit WHSC-T-302.
[2] See Stipulation of the Parties for Full Settlement filed on November 13, 2013 in Docket No. 2012-0147 (the "WHSC Stipulation"), Exhibit B, Schedule 7A, Attachment B.
[3] Exhibit WHSC-T-303 shows the A-Plant wastewater flow calculations.
[4] Pu'u Meliea previously committed to 133 units but has indicated to WHSC that it now plans to construct 60 units. This reduced the overall committed capacity.

405,460 GPD. Thus, according to Design Standards, if the A-Plant were sized to treat only the existing and committed customers, it would be sized to treat 405,460 GPD. This is in comparison to the actual hydraulic capacity of 533,000 GPD.

B. Existing Plant Capacity Required Based on Historical Flows from Existing Customers

Another method of determining the appropriate capacity for the existing customers served by the A-Plant is through evaluation of the historical daily flows of existing users. Chapter 40, Section 43 of the Design Standards[5] includes the following language:

> Design flows for wastewater treatment facilities shall be modified as appropriate and as approved by the Division based on field monitoring data for existing service areas, anticipated changes in wastewater generation patterns, and the performance related impacts of significant flow variations. Flow variations stemming from diurnal variation, seasonal variation, and variations due to nondomestic consumption and influent pump cycling shall be carefully evaluated and documented.

This means that the design capacity of a treatment plant must incorporate field monitoring data for existing service areas. Additionally Chapter 40, Section 43 of the Design Standards expands on the definitions regarding the flows included in Chapter 20 for the purpose of "evaluating field monitoring data." According to the Design Standards the expanded definitions are as follows:

- **Design Average Flow** is "the average wastewater flow rate during a 24-hour period or shorter significant period during a prolonged period of dry weather." The Design Average Flow for the existing A-Plant is 533,000 GPD. In layman's terms, this is the maximum continuous treatment capacity of the wastewater plant during a 24 hour period as currently constructed.

- **Design Maximum Flow** is the "highest average wastewater flow rate during a 1-hour period during a prolonged period of dry weather." In layman's terms, this is the maximum hourly peak of dry weather wastewater flow.

[5] An excerpt of Chapter 40, Section 43 of the Design Standards is attached as Exhibit WHSC-T-302.

- **Design Peak Flow** is the "highest instantaneous wastewater flow rate during a prolonged period of wet weather." In layman's terms, this is the maximum instantaneous flow rate into the plant consisting of both wastewater and infiltrated storm water.

The design flow that is most significant in determining capacity of a wastewater plant is the Design Average Flow. As noted in the definition quoted above, this represents the flow in a time period of 24-hours or less, meaning daily, rather than weekly, monthly, or annually. In my professional opinion, even if there were no room for growth, the plant would have to be sized so that it would treat the highest recorded daily flow over the last few years. Exhibit WHSC-T-304 shows the A-Plant influent flows over the two year period from October 2015 through October 2017. As shown on the exhibit, the highest recorded daily flow during that period was 352,522 GPD. Therefore, the A-plant must be sized to treat at least 352,522 GPD. The average flow into the plant during the same period was 239,000 GPD. However, this average cannot be used to determine the capacity required for existing customers. During that period, flows to the plant exceeded the average on 369 of the 735 days or 50% of the time. If the A-Plant was sized only to treat the average flows, it would not have sufficient capacity on over one-half of the days during this two year period. The chart below graphically represents influent flows during this time frame.

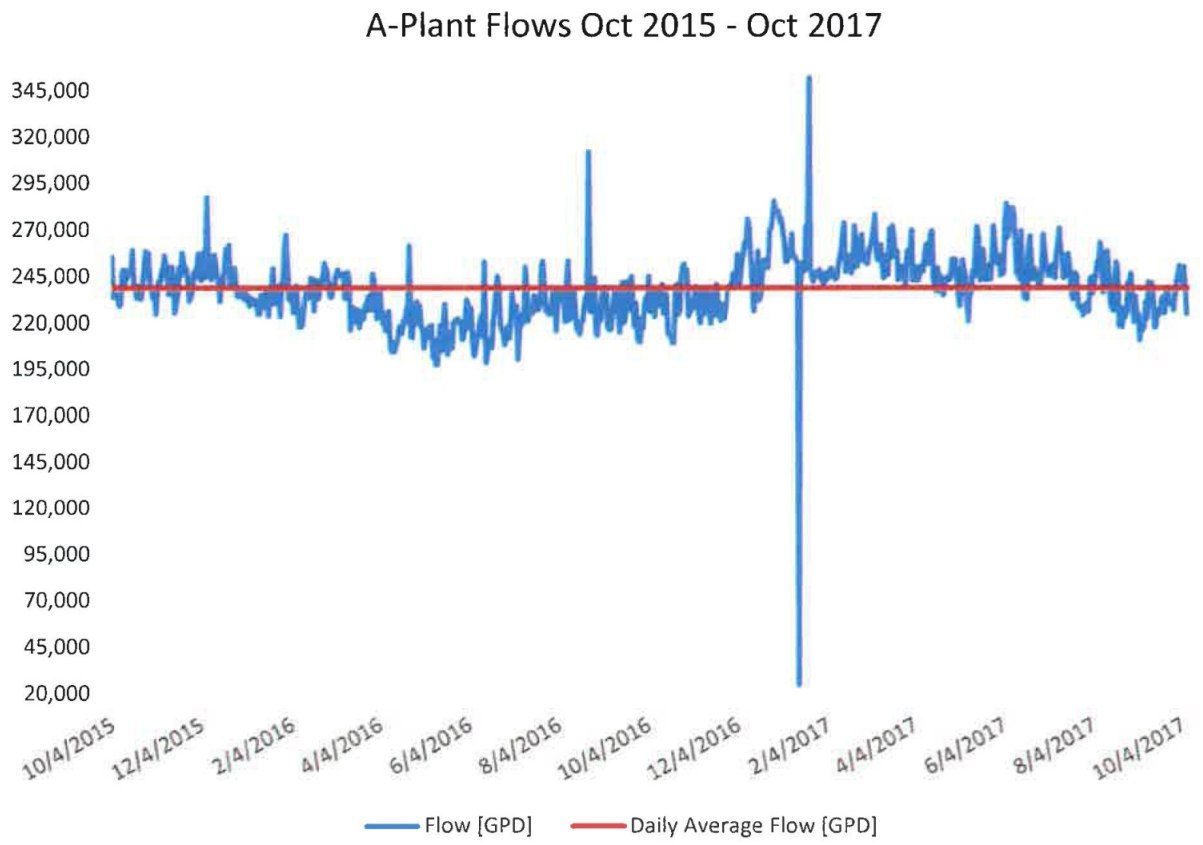

Figure 1. A-Plant Daily flow from October 2015 through October 2017.

In addition, WHSC has included CIAC related to the A-Plant in its calculation of test year rate base. This represents CIAC paid by developers to whom will-serve letters have been issued, but who have not begun to receive service. Because this CIAC will be included in the calculation of rate base, the capacity associated with that CIAC (the "committed capacity) should be included in the presently required capacity for purposes of calculating any "excluded capacity".[6] As shown on Exhibit WHSC-T-303, the committed capacity is 75,930 GPD. If the highest daily flow during the two year period (352,552 GPD) is added to the committed capacity (75,932 GPD), the total flow into the plant would be 428,500 GPD.

[6] This is consistent with the agreement of the Parties in WHSC's last rate case. See WHSC Stipulation at 38-39.

WHSC also believes that a safety factor of at least 10% should be applied to the observed and committed flows to account for unexpected flow increases.[7] The following table summarizes the calculations discussed above:

Max Flow [GPD][8]	352,552
Committed Capacity [GPD]	75,930
subtotal	428,482
10% safety factor	42,848
Total	471,330
Plant Capacity [GPD]	533,000
Actual to Design Flow	88.4%

This data demonstrates that the A-Plant is operating at a capacity that is rapidly approaching 90% threshold for implementation of a facility expansion in accordance with the Design Standards. Therefore, in my opinion, based on historic flows, all of the present capacity of the A-plant is required to treat existing and committed customers.

Finally, it is important to remember that there was an existing plant on the site and that the plant had existing basins in place. WHSC could have demolished the existing basins and replaced them with a series of small basins which might have more accurately reflected the customer base and committed capacity at the time Phase 2 was constructed. However, that would have been a much more expensive project than what was undertaken by WHSC. In using the existing basins, WHSC was limited in the "block size" of its expansion steps because of the basin sizes. The old plant included reactor basins of 266,000 GPD each, and this capacity was used to design the block size used in the three phases of the A-Plant expansion. It would not have been more cost effective in the short term or the long term to design, permit, and renovate Phase 2 of the A-Plant for a treatment capacity between 266,000 GPD and 533,000 GPD when these were the existing basin block sizes available. Therefore, any excess capacity adjustment based on the difference between capacity that is utilized and the 533,000 GPD would penalize WHSC for making the most cost effective decision in designing the plant.

[7] In WHUC's most recent rate case, the Consumer Advocate included a 10% safety factor to account for unexpected flow increases in its calculation of "excess" capacity of the R Plant. See Division of Consumer Advocacy's Direct Testimony and Exhibits filed on August 30, 2013 in Docket No. 2011-0311, CA-T-3 at 45.
[8] As used in the calculation of "excluded" capacity, "Max Flow" means the highest daily flow.

Kamakoa Plant Capacity

Q. Please describe the capacity of the K-Plant.

A. The K-Plant is an MBBR wastewater treatment plant which presently has a capacity of 200,000 GPD and can be expanded to 400,000 GPD. It was designed to be constructed in two phases. Phase 1, which has a capacity of 200,000 GPD, was completed in 2013. Phase 2 will include additions to increase treatment capacity to 400,000 GPD, and has been deferred until it is needed. The K-Plant is owned by WHSC and receives wastewater from several Hawaii County housing projects[9] and the Waikoloa Elementary School in Waikoloa Village.

Q. Please describe what capacity is required for existing users of the WWTP.

Similar to the A-Plant, the K-Plant must be sized to meet the observed flows of existing customers. As noted above, the design flow that is most significant in determining capacity of a wastewater plant is the Design Average Flow. As noted in the definition quoted above, this represents the flow in a time period of 24-hours or less, meaning daily, rather than weekly, monthly, or annually. In my professional opinion, even if there were no room for growth, the plant would have to be sized so that it would treat the highest recorded daily flow over the last few years. Exhibit WHSC-T-305 shows the K-Plant influent flows over the two year period from October 2015 through October 2017. As shown on the exhibit, the highest recorded daily flow during that period was 203,724 GPD. The average flow into the plant during the same period was 95,163 GPD. However, this average cannot be used to determine the capacity required for existing customers. During that period, flows to the plant exceeded the average on 329 of the 735 days or 45% of the time. If the K-Plant was sized only to treat the average flows, it would not have sufficient capacity on nearly one-half of the days during this two year period. The chart below graphically represents influent flows during this time frame.

[9] The County of Hawaii projects are Paniolo Estates, Kukumu I, II, and III, and the Waikoloa Employee Housing Project. Only a portion of the Waikoloa Employee Housing Project is constructed and connected to the K-Plant.

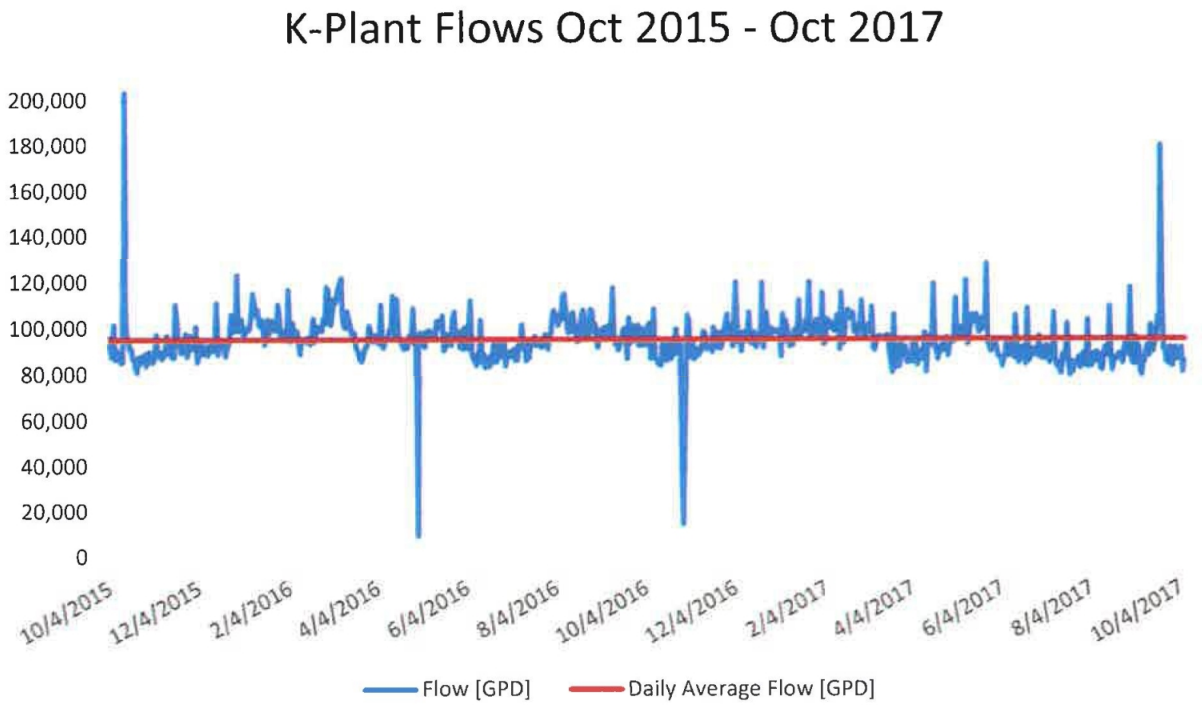

Figure 2. K-Plant Daily flow from October 2015 through October 2017.

In addition, similar to the A-Plant, WHSC has received CIAC from developers who will be served by the K-Plant, but who have not yet begun to receive service. Because this CIAC will be included in the calculation of rate base, the committed capacity associated with that CIAC should normally be considered in determining the presently required capacity. The committed capacity for the K-Plant is approximately 376,290 GPD, as shown on Exhibit WHSC-T-306.

Since the maximum flow exceeded the design flow on the highest flow day, WHSC has not included the committed capacity in its calculation of required capacity. For the same reason, it has not added a 10% factor for unexpected flow increases. The following table summarizes the calculations discussed above:

Max Flow [GPD]	203,742
Total	203,742
Plant Capacity [GPD]	200,000
Actual to Design Flow	101.87%

This data demonstrates that the K-Plant is operating at a capacity that has exceeded the 90% threshold for implementation of a facility expansion in accordance with the Design Standards. If the committed capacity for the K-Plant were included in the calculation above, the flows into the plant would be over the current design flow of the plant. Therefore, in my opinion, based on historic flows, all of the present capacity of the K-plant is required to treat existing customers.

Q: DOES THIS CONCLUDE YOUR TESTIMONY?

A: Yes, it does.

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Big Island Project Justifications

For projects completed from 2013 through 2017 and projects planned to be in service in 2018

Waikoloa GRC

Capital Project Justification

Project ID/WO: 00068103 and 00083857

Project Description: Big Island SCADA upgrade 2012 and 2013

SCADA System - Upgrade Waikoloa & Kukio (Kona); New Big Island Central Office & Engineering.

The Supervisory Control and Data Acquisition ("SCADA") system for Waikoloa and Kukio needed to be upgraded and replaced to match the systems in California Water Service ("Cal Water") to allow ease of maintenance and improved operations. This project entailed the addition of central office and Engineering office SCADA to monitor all of Hawaii Water Service Company, Inc.'s ("Hawaii Water") Big Island operations.

The scope of the project was to install SCADA equipment to communicate with the water system and wastewater system from a central location. The water SCADA system includes well and tank site data transmission to the field office. The wastewater system includes wastewater treatment plant and wastewater lift station data transmission to the field office. The existing telemetric equipment was outdated and in need of replacement, having been in service more than 20 years. In addition, the upgraded SCADA equipment provides more accurate information and has the ability to report emergency levels and variances to the operator. It gives the operator the ability to check the system remotely by laptop. All tanks, pump stations, wastewater treatment plants, and wastewater lift stations are connected to the system.

A fully functional SCADA system provides: remote monitoring, operational control, historic data collection, and data reporting. The SCADA data provides the opportunity to implement a water management and wastewater management system. On the potable water side, the benefits include decreasing the number of service interruptions and a strategy to measure and reduce

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

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

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

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)
HMI	MAPLE SYSTEMS HMI5100T	WELL DW1
HMI	MAPLE SYSTEMS HMI5100T	WELL DW2
HMI	MAPLE SYSTEMS HMI5100T	WELL DW3
HMI	MAPLE SYSTEMS HMI5100T	WELL DW4
HMI	MAPLE SYSTEMS HMI5100T	WELL DW5
HMI	MAPLE SYSTEMS HMI5100T	WELL DW6
HMI	MAPLE SYSTEMS HMI5100T	WELL DW7
HMI	MAPLE SYSTEMS HMI5100T	WELL DW8
HMI	MAPLE SYSTEMS HMI5100T	TANK 1200S
HMI	MAPLE SYSTEMS HMI5100T	TANK 1200N
HMI	MAPLE SYSTEMS HMI5100T	TANK 300
HMI	MAPLE SYSTEMS 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
SCADA RADIO	MDS INET900II	WELL DW8 (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 HR1
RTU	SCADAPACK	WELL HR2
RTU	SCADAPACK	WELL HR3
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
RTU	SCADAPACK	SPS5
RTU	SCADAPACK	SPS6
RTU	SCADAPACK	SPS7
HMI	MAPLE SYSTEMS HMI5100T	WELL HR1
HMI	MAPLE SYSTEMS HMI5100T	WELL HR2
HMI	MAPLE SYSTEMS HMI5100T	WELL HR3
HMI	MAPLE SYSTEMS HMI5100T	WELL HR4
HMI	MAPLE SYSTEMS HMI5100T	WELL HR5
HMI	MAPLE SYSTEMS HMI5100T	TANK A
HMI	MAPLE SYSTEMS HMI5100T	TANK B
HMI	MAPLE SYSTEMS HMI5100T	TANK C
HMI	MAPLE SYSTEMS HMI5100T	TANK 312
HMI	MAPLE SYSTEMS HMI5100T	SPS1
HMI	MAPLE SYSTEMS HMI5100T	SPS2
HMI	MAPLE SYSTEMS HMI5100T	SPS3
HMI	MAPLE SYSTEMS HMI5100T	SPS4
HMI	MAPLE SYSTEMS HMI5100T	SPS5
HMI	MAPLE SYSTEMS HMI5100T	SPS6
HMI	MAPLE SYSTEMS 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

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

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

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

Waikoloa GRC

Capital Project Justification

Project ID/WO: 106178

Project Description: EMT Service Truck

Project 106178 consists of purchase and specialized modification of a work truck for the company's second EMT. Usually working independently to address distributed demands, the two EMTs perform vital electrical and mechanical repairs on the company's pumps, motors, electrical systems, computer systems, and communication systems for the water and wastewater systems. The EMTs also perform necessary preventative maintenance on the pumps, motors, electrical systems, computer systems, and communication systems for the water and wastewater systems. The EMT positions are also vital to maintaining and troubleshooting the SCADA system. The EMT positions are based on the Big Island as the EMTs are responsible for all of Hawaii Water's in-house repairs and maintenance. Furthermore, their preventative maintenance on pumps, motors, electrical systems, computer systems, and communication systems reduces reactive repairs and increases reliability of the systems. Although the EMTs frequently travel from the Big Island to work on repair and maintenance issues on Maui, this truck is for Big Island operations.

The truck for the EMT is equipped with a service truck body containing numerous compartments to store the necessary tools and supplies of the trade. These include specialized tools for the EMT to perform the wide range of specialized duties including electrician, electronics technician, and mechanical repairman. Before the first EMT truck was purchased, the specialized EMT equipment, tools and supplies had to be first loaded onto a standard pickup, driven to the site to perform the work, driven back and finally unloaded. The effort of loading and unloading requires valuable mobilizing and demobilizing time that could instead be more efficiently utilized for repair and maintenance work. The mobilization and demobilization time results in a decrease in response time and a loss in efficiency of the EMT position. It is now standard to

equip a utility truck with the necessary tools, equipment and supplies to maximize the EMT's efficiency.

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

Cost Breakdown:

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

Waikoloa GRC

Capital Project Justification

Project ID/WO: 00111877

Project Description: 720-Itron Handheld Meter Readers

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

This project replaces six (6) FC200 Itron Handheld meter readers and docking stations with FS400 Itron Handheld meter readers and docking stations at Waikoloa Village office. Replacement of old FC200 Itron Handhelds is required because the units are obsolete and they are no longer supported by Itron. For example, replacement parts or repairs are no longer available for the FC200 model. Currently, the batteries are not charging and one of the handheld units does not turn on. The next best Itron handheld model is the FS300. However, this model is not available for purchase and support, replacement, and repair will end in 2021. This project improves efficiency by reducing the amount of time an operator spends reading meters, writing on paper, and completing manual rereads. The project is expected to be placed in service in 2018. The estimated cost of the project is $26,765.

Waikoloa GRC

Capital Project Justification

Project ID/WO: 00112028

Project Description: 720-2018 Toyota 4Runner 4x4

This project replaces a 2007 Nissan XTerra (HKA780-V208221) with a 2018 Toyota 4Runner. The 2007 Nissan XTerra has high mileage at 121,732 and requires mechanical repairs. These repairs are more expensive than the value of the vehicle. The main problem with the 2007 Nissan XTerra is the automatic transmission sometimes drops in to the neutral position while driving.

The 2018 Toyota 4Runner vehicle is for the Engineering Project Manager, and will be used to inspect existing infrastructure, provide tours for consulting engineers, inspect new construction projects, inspect developer construction projects, attend meeting and training, provide operational support, and respond to emergencies,

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. This project is expected to be placed in service during 2018. The estimated cost of the project is $42,925.

Waikoloa GRC

Capital Project Justification

Project ID/WO: 00112029

Project Description: 720-2018 Toyota Tacoma TRD 4x4

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

The new 2018 Toyota Tacoma TRD 4x4 truck is necessary to service the Waikoloa water and wastewater systems. For the water system, the truck is required for day to day operations, routine maintenance, meter reading, water main breaks, and service calls. For the wastewater system, the truck is required for day by day operations, routine maintenance, manhole inspections, 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. This project is expected to be placed in service during 2018. The estimated cost of the project is $40,602.

Waikoloa GRC

Capital Project Justification

Project ID/WO: 0093544

Project Description: 720-SCADA Report Writer System

The SCADA system for Waikoloa and Kukio needs to be upgraded and replaced where necessary to match the systems in Cal Water to allow ease of maintenance and improved operations. This project consists of the acquisition of the equipment and software necessary for real-time energy efficiency reporting and creation of monthly production reports. This also requires the installation of well level transducers, program updates for the RTUs, and some master computer programming.

The SCADA Report Writer System upgrade will enable the SCADA system to produce DOH reports, spreadsheets, and trending plots automatically. This information is vital for operators to complete their daily rounds. This project is expected to be placed in service during 2018. The estimated cost of this project is $42,691.

Waikoloa GRC

Capital Project Justification

Project ID/WO: 0097976

Project Description: 720-Fuel Station

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

Waikoloa GRC

Capital Project Justification

Project ID/WO: 0083938

Project Description: 720-SCADA Radio Data Link

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

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

Waikoloa GRC

Capital Project Justification

Project ID/WO: 0102600

Project Description: 720-Big Island Radio Communication

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

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

Waikoloa Village Sewer Project Justifications

For projects completed from 2013 through 2017 and projects planned to be in service in 2018

Waikoloa GRC

Capital Project Justification

Project ID/WO: 00034088

Project Description: Jetting/Vacuum Truck

This project was the purchase of a new jetting and vacuum truck to clean the collection system piping. The collection system in a wastewater utility collects the wastewater effluent from residential homes and business and delivers the wastewater stream to the treatment plant via gravity flow. The collection system is comprised of sewer pipes connected with a manhole at each end. The sewer pipes must be cleaned and jetted from manhole to manhole.

Cleaning and jetting sewer lines is how sewer lines are maintained. Cleaning and jetting is required for routine maintenance, hot spot cleaning, or emergencies. Sewer cleaning and jetting either happens on a maintenance schedule which is usually about 5 years or on an as needed basis. Problem areas in the collections system are defined as hot spots and may require a quarter annual cleaning. An example of when an emergency cleaning is needed is when a manhole surcharges and has standing wastewater raising in the manhole. The emergency is solved with the jetting and vacuuming of the clogged pipe. This is usually due to grease build up. The jetting/vacuum truck allows for this maintenance. If this vehicle was not available, a contractor would have to be called out to do the emergency work.

Maintaining wastewater collection infrastructure such as sewer pipes is critical to preventing wastewater releases (or spills). Effective preventive maintenance programs significantly reduce the frequency and volume of untreated sewage discharges and save money on emergency response.

The jetting / vacuum truck is also used for potholing sewer lines. The process includes excavating the lines, and using the vacuum saves time while minimizing damage to the pipe.

Cost Breakdown:

Jetting/Vacuum Truck	$328,846.92
Overhead	$6,911.82
Other	(-$734.88)
Total	$335,023.86

Waikoloa GRC

Capital Project Justification

Project ID/WO: 00093679

Project Description: 722-Pua Melia 8" Sewer Pipe

Project 93679 consisted of repair to a section of the 8-inch diameter sanitary sewer pipe that failed under Pua Melia Street in Waikoloa Village. Routine manhole inspections by West Hawaii Sewer Company ("WHSC") had shown surcharged conditions in the Pua Melia Street 8-inch diameter sewer, upstream from its upper intersection with the Waikoloa Road sewer pipeline. The Pua Melia Street gravity sanitary sewer was an 8-inch diameter vitrified clay pipe line that had been installed in 1970. The surcharged manhole was located across from the driveway into the present-day location of Waikoloa Automotive Repair Shop, downstream from the United States Postal Service Waikoloa Post Office. Evidence consisting of small rocks and earth suggested a sewer line collapse upstream of the upper intersection of Pua Melia Street and Waikoloa Road. Use of WHSC video camera confirmed a line blockage consistent with this type of sewer line collapse.

WHSC solicited bids from three on-island construction contractors for the work that needed to be completed. An RFP bid package was assembled and distributed, a mandatory onsite pre-bid meeting was conducted, and the RFP directions were explained along with the due date for the RFP. Bids were received from RIVCO LLC, E.M. Rivera Co., and Isemoto by the due date. RIVCO LLC submitted the lowest-price bid and was selected for the contract. A construction agreement was then executed with this contractor.

The contractor applied for and subsequently received a permit for work within the county roadway right-of-way. The contractor then used its own video camera to confirm the location of the blockage identified by WHSC. Upon determination of the estimated subsurface blockage location, the ground surface above was marked and excavated by the contractor down

approximately eight feet to the 8-inch diameter vitrified clay pipe sanitary sewer. The two broken segments of vitrified clay pipe were removed and replaced with a section of 8-inch diameter Schedule C900 PVC pipe. The location of the collapsed sanitary sewer pipe segment happened to be underneath the shallower 16-inch diameter water transmission main. Based on appearances in the field, it was speculated that the original damage to the sewer line may have occurred at the time of installation of the overlying water transmission main crossing in 1971. An equipment operator of an excavator originally installing the water pipeline may have overreached and stress-cracked the underlying vitrified clay pipe sanitary sewer. It would be many years before the sewer pipe would collapse and the overlying trench backfill would fall into the sewer. The project was completed in early 2016.

Cost Breakdown:

Pua Melia 8" Sewer Pipe	$52,572.34
Capitalized Interest	$0.28
Overhead	$2,160.71
Labor	$1,445.36
Total	$56,178.69

Waikoloa GRC

Capital Project Justification

Project ID/WO: 00109632

Project Description: 722-A-Plant Road Repave (Paving, not Repave)

Project 109632 comprised the paving of a short section of the private roadway accessing the lower portion of the Auwaiakeakua Wastewater Treatment Plant ("A-Plant"). The treatment process at the A-Plant creates a solid waste sludge that is collected and transported offsite for disposal at the local sanitary landfill. The sludge is accumulated within a large roll-off container that is drawn up onto the bed rails of a special Kenworth heavy-duty truck. Previously, while driving empty or hauling full containers of sludge up a short hill segment, the truck would buck and bounce on ruts in the gravel road, risking damage to the truck and container when empty and risking a spill when hauling a container full of sludge. The gravel road would continue to degrade further after heavy rains. The solution to this problem was to pave a 500 foot long by 11 foot wide section of the road on the hill section to protect against truck damage or sludge spill. This project was completed in 2017.

Cost Breakdown:

Contractor	$23,500
Other	$882.81
Overhead	$1,284.45
Total	$25,667.26

Waikoloa GRC

Capital Project Justification

Project ID/WO: 00106181

Project Description: 722-A-Plant Effluent Pits Fence

Project 106181 consisted of the installation of 932 lineal feet of six-foot high chain-link galvanized metal wire security fence topped with three-strand barbed wire around the effluent pits for the Auwaiakeakua Gulch Wastewater Treatment Plant (A-Plant). Hawaii Department of Health Wastewater Branch Regulations in Hawaii Administrative Rules 11-62 requires that effluent pits be secured. Specifically, HAR 11-62 Section 8(d) states:

> Measures to control public accessibility to all treatment units shall be provided to prevent accidents, drownings, vandalism, and interference with the treatment process. At a minimum, the provisions shall include: (1) Fencing or other secured enclosures at least six feet in height with no more than three and a half inch clear openings or spaces for treatment units with exposed water surfaces or equipment.

The original fencing at the site was approximately four feet high with approximately four inch wide openings (colloquially known as "hog wire"). As it was, the original fence presented no clear impediment to a person determined to enter the area to be secured. Furthermore, the openings in the original fence were large enough such that wildlife (e.g., feral goats) were becoming entangled in the fence on a regular basis. It was clearl the existing fence was substandard compared to the regulatory requirements. Therefore Hawaii Water solicited proposals for fencing from two fencing contractors on the Big Island: Miranda Fencing and Islandwide Fencing. The contractor Islandwide Fencing was selected based on lowest price bid. Purchase Order No. 5249, dated June 30, 2017, was executed for the contractor. The contractor installed the fence over the coming weeks, completing the work on September 28, 2017. The project was placed into service on September 29, 2017. The current fence now meets the

regulatory requirements contained within HAR 11-62-8(d)(1). Furthermore, it is constructed such that it should not require significant repair or replacement for at least 20 years. The project is expected to be placed in service during 2018. The estimated cost of the project is $66,037.

Waikoloa GRC

Capital Project Justification

Project ID/WO: 00114181

Project Description: 722-K-Plant Headworks

Headworks is a civil engineering term for any structure at the head or diversion point of a waterway. It is smaller than a barrage and is used to divert water from a river into a canal or from a large canal into a smaller canal. Historically the phrase "headworks" derives from the traditional approach of diverting water at the start of an irrigation network and the location of these processes at the "head of the works". Headworks have two primary functions: remove deleterious material and remove grit such as sand and dirt to prevent it from reaching the wastewater treatment process. This is accomplished through pumps, mechanical screens, screening compactors, grit removal systems and grit washing systems.

The headworks for K-Plant need to be serviced and certain worn out parts need to be replaced. Excessive debris is bypassing the screening process, which ends up in the treatment process and clogs the wastewater treatment media. This affects the biological processes in the wastewater treatment plant. Additionally, the grit removal units are not removing all of the grit, causing the grit to accumulate and take up space in the aeration wastewater treatment basins.

A sole source proposal was obtained from the manufacturer of the equipment to service the equipment and replace the applicable components to bring units to proper operational status. This project is expected to be placed in service in 2018. The estimated cost of the project is $38,830.

CHAPTER 20

DESIGN OF SEWERS

21. General

21.1 Type of System: All sewers shall be designed as Sanitary Sewers.

21.2 Ordinance Requirements: The wastewater from industrial or commercial plants should be thoroughly evaluated. Provisions of the City Ordinance (Sec. 14-1.6, Revised Ordinances of Honolulu, 1990, as amended) impose certain restrictions on the quantity, strength and character of industrial wastewater which may be discharged into public sewers.

22. Quantity of Wastewater

22.1 Design Period: In general, sewer systems should be designed for the estimated ultimate tributary equivalent population, except for systems that can be readily increased in capacity. Where Federal or other legal requirement dictates the use of other specific design period, the design period required by them may be used, unless modified by the City.

22.2 Design Flows: In determining the required capacities of sanitary sewers, the following factors shall be considered:

22.2.1 Average Daily per Capita Flow: New sewer systems shall be designed on the basis of an average per capita flow of wastewater of 80 gallons per day, unless other current data has been established by the City. Densities of residential occupancy shall be assumed to be 4 persons per home and 2.8 persons per apartment unit.

22.2.2 Other Average Flows: Other wastewater flows shall be based on land use or best available data, whichever is higher. Considerations shall be given for high wastewater generation for particular types of industries. The following equivalent populations or average flow data shall be used for the various land uses:

a. Central Business 300 cpa.*

b.	Community Business	140 cpa.
c.	Neighborhood Business	40 cpa.
d.	Resort	400 cpa.
e.	Apartment (high density)	390 cpa.
f.	Apartment (medium density)	250 cpa.
g.	Apartment (low density)	85 cpa.
h.	General Industry	100 cpa.
i.	Waterfront Industry	40 cpa.
j.	School	25 gpcd.**
k.	Institution (hospital, etc.)	200 gpcd.

* cpa. = capita per acre
** gpcd. = gallon per capita per day

22.2.3 Average Wastewater Flow: The average wastewater flow is the sum of the applicable wastewater flow obtained in Sections 22.2.1 and 22.2.2 above.

22.2.4 Maximum Wastewater Flow: The maximum wastewater flow is obtained by multiplying the average flow by a flow factor. Except as noted in Section 11.1.5, Figure 22.2.4 shall be used to obtain the flow factor for the maximum rate of wastewater flows.

22.2.5 Dry Weather Infiltration/Inflow (I/I): The following rates of dry weather I/I shall be used in the design of sewers:

a. 35 gpcd - sewers laid below the normal ground water table.

b. 5 gpcd - sewers laid above the normal ground water table.

22.2.6 Design Average Flow: The design average flow is the sum of the average wastewater flow and the applicable dry weather infiltration/inflow rate.

22.2.7 Design Maximum Flow: The design maximum flow is the sum of the maximum flow and the applicable dry weather infiltration/inflow rate.

22.2.8 Wet Weather Infiltration/Inflow: The following rates shall be used in the design of sewers:

a. 2750 gad* - sewers laid below the normal ground water table.

b. 1250 gad - sewers laid above the normal ground water table.

* gad = Gallon Per Acre Per Day

22.2.9 Design Peak Flow: The design peak flow of wastewater is the sum of the applicable quantities obtained from Sections 22.2.7 and 22.2.8.

22.2.10 Organization of Computation: Figure 22.2.10 shows the format desired for tabulating the results of computations for the design of sewers.

23. Hydraulics of Sewers

All gravity sewers shall be designed to carry the peak flow of wastewater without surcharging and to transport suspended solids in such a manner that deposits in sewers and odor nuisances therefrom are kept to a minimum.

23.1 Formula and "n" Values: All sewer design shall be based on the Manning Formula ($V = \frac{1.486}{n} r^{2/3} s^{1/2}$) using the "n" values given below:

23.1.1 0.015 - All pipes up to and including 18 inches in diameter.

23.1.2 0.013 - All pipes larger than 18 inches in diameter.

23.1.3 0.015 - Cast-in-place reinforced concrete conduit.

23.2 Velocities: All sewers shall be designed to give mean velocities of not less than 2.0 feet per second when flowing full. The following minimum slopes are to be

be provided. In no case shall any inhabitable building be allowed above the treatment facility. Access hatches, which are large enough to remove equipment from the facility, shall be provided above all equipment not accessible from the maintenance gallery. Ventilation systems for underground installations shall conform to requirements of Section 123.4.

42.7 Takeover of Existing Private Treatment Facilities

At the discretion of the Director, the Department may agree to operate and maintain existing private treatment plants and associated pumping and sewerage facilities serving 10 or more lots in remote areas or 40 or more lots in any area if the facilities are upgraded to conform to Department standards and requirements. Facilities to be taken over shall be in good repair, capable of reliable performance, and have adequate and satisfactory means for disposal of effluent and waste sludge. The rate of infiltration/inflow of the collection system shall not be excessive. The owner shall be responsible for arranging for a detailed engineering evaluation of the facilities to provide the required information as described in Appendix C.

Should the Director agree to accept the facilities based upon the findings and recommendations of the engineering evaluation, the owner shall be required to provide for the engineering and construction services for the necessary corrective, upgrading, or repair work. The owner shall bear all costs associated with the purchase of any required spare parts and materials. Both the design and the completed construction shall be acceptable to the Director.

43.0 BASIS OF DESIGN

43.1 Design Period

In general, treatment plant layout shall be based upon the ultimate service area, or a 50-year design period. Installed units and facilities should be capable of being expanded to accommodate the future

ultimate design flows. Installed treatment units and mechanical equipment shall generally have a capacity suitable for a 20-year design period. Design periods specified by Federal or other legal requirements may be utilized as approved by the Department.

The design period for temporary facilities shall be as approved by the Director.

43.2 Population and Flow Projections

Population projections shall be based on available census data; the extent of existing industrial, commercial, resort, and institutional development; and documented projections for anticipated service area increases throughout the design period. Documentation of the projection shall include reference to all zoning ordinances, sewerage system planning, and other relevant development planning documents addressing the design service area.

Design average, maximum, and peak wastewater flows shall be determined in accordance with Section 22, "Quantity of Wastewater," in Chapter 20 of Volume I. Design flows for wastewater treatment facilities shall be modified as appropriate and as approved by the Division based on field monitoring data for existing service areas, anticipated changes in wastewater generation patterns, and the performance related impacts of significant flow variations. Flow variations stemming from diurnal variation, seasonal variation, and variations due to nondomestic consumption and influent pump cycling shall be carefully evaluated and documented. In evaluating field monitoring data, pump cycling effects, and impacts to downstream treatment units, definitions for the design flows specified in Chapter 20 of Volume I shall be expanded as follows:

1) "Design average flow" shall mean the average wastewater flow rate during a 24-hour period or shorter significant period during a prolonged period of dry weather.

2) "Design maximum flow" shall mean the highest average wastewater flow rate during a 1-hour period during a prolonged period of dry weather.

3) "Design peak flow" shall mean the highest instantaneous wastewater flow rate during a prolonged period of wet weather.

Wastewater flow rates in the above definitions shall be the flow rates downstream of influent pumping facilities whenever such facilities are employed.

43.3 Waste Characterization

Determination of wastewater strengths and characteristics shall be based on field sampling and monitoring data for existing service areas, allowances for anticipated changes in existing service areas, and allowances for contributions from new service areas. The allowances for newly-served domestic contributors shall be not less than:

Biochemical Oxygen Demand (BOD_5): 0.20 pounds per capita per day

Suspended Solids (SS): 0.20 pounds per capita per day

Projected nondomestic waste characterization shall be estimated based upon the nature of the projected commercial/industrial developments and estimates of water usage and process requirements.

The influent wastewater characterization (IWWC) should include evaluation and quantification of wastewater BOD_5, SS, temperature, pH, and constituents such as chlorides, nitrogen, phosphorus, and sulfides. Whenever possible, septicity of influent waters shall be analyzed by sampling. The IWWC program shall be subject to approval by the Director prior to implementation. A report on the findings of the IWWC program shall be submitted to the City no later than two months after completion of sampling and analyses.

TABLE 1
COMPUTATION OF WASTEWATER FLOW
CONNECTED DEMAND

WWTP:	Waikoloa A Plant	Page:	1
District:	Waikoloa Village, Hawaii	Computed By:	Stpehen Green
Reference Maps:		Date:	October 31, 2017

			TRIBUTARY AREA		TRIBUTARY EQUIVALENT POPULATION						WASTEWATER FLOW COMPUTATION							
					RESIDENTIAL		OTHER		TOTAL		AVE WWF @ 80 GPCD	MAX FLOW FACTOR [1]	MAX FLOW (MGD) [2]	DRY WEATH INFIL. (MGD) [3&4]	DES. AVE. FLOW (MGD) [5]	DES MAX. FLOW (MGD) [6]	WET WEATH INFIL (MGD) [7&8]	DESIGN PEAK FLOW (MGD) [9]
SOURCE	TYPE	Qty	INCR. (Acre)	TOTAL (Acre)	INCR. (Capita)	TOTAL (Capita)	INCR. (Capita)	TOTAL (Capita)	INCR. (Capita)	TOTAL (Capita)	(MGD)							
Paniolo Club Condos	MF	24	0.1	2.4	2.8	67.2			2.8	67.2	0.00538	1.6	0.00860	0.00034	0.00571	0.00894	0.00300	0.01194
Waikoloa Village Condos	MF	38	0.1	3.8	2.8	106.4			2.8	106.4	0.00851	1.6	0.01362	0.00053	0.00904	0.01415	0.00475	0.01890
Waikoloa Villas	MF	104	0.1	10.4	2.8	291.2			2.8	291.2	0.02330	1.6	0.03727	0.00146	0.02475	0.03873	0.01300	0.05173
Waikoloa Gardens	MF	24	0.1	2.4	2.8	67.2			2.8	67.2	0.00538	1.6	0.00860	0.00034	0.00571	0.00894	0.00300	0.01194
Paniolo Club Condos	MF	36	0.1	3.6	2.8	100.8			2.8	100.8	0.00806	1.6	0.01290	0.00050	0.00857	0.01341	0.00450	0.01791
Waikoloa Hills	MF	78	0.1	7.8	2.8	218.4			2.8	218.4	0.01747	1.6	0.02796	0.00109	0.01856	0.02905	0.00975	0.03880
Steadfast (Elima Lani)	MF	128	0.1	12.8	2.8	358.4			2.8	358.4	0.02867	1.6	0.04588	0.00179	0.03046	0.04767	0.01600	0.06367
Steadfast (Elima Lani) II	MF	88	0.1	8.8	2.8	246.4			2.8	246.4	0.01971	1.6	0.03154	0.00123	0.02094	0.03277	0.01100	0.04377
Fairway Terrace North	MF	72	0.1	7.2	2.8	201.6			2.8	201.6	0.01613	1.6	0.02580	0.00101	0.01714	0.02681	0.00900	0.03581
Waikoloa Fairways	MF	51	0.1	5.1	2.8	142.8			2.8	142.8	0.01142	1.6	0.01828	0.00071	0.01214	0.01899	0.00638	0.02537
Fairway Terrace South	MF	128	0.1	12.8	2.8	358.4			2.8	358.4	0.02867	1.6	0.04588	0.00179	0.03046	0.04767	0.01600	0.06367
Paniolo Gardens	MF	17	0.1	1.7	2.8	47.6			2.8	47.6	0.00381	1.6	0.00609	0.00024	0.00405	0.00633	0.00213	0.00846
17th Fairway Villas	SF	25	0.25	6.25	4.0	100			4.0	100	0.00800	1.6	0.01280	0.00050	0.00850	0.01330	0.00781	0.02111
Pointe at Waikoloa	MF	26	0.1	2.6	2.8	72.8			2.8	72.8	0.00582	1.6	0.00932	0.00036	0.00619	0.00968	0.00325	0.01293
Greens at Waikoloa	MF	197	0.1	19.7	2.8	551.6			2.8	551.6	0.04413	1.6	0.07060	0.00276	0.04689	0.07336	0.02463	0.09799
Clubhouse/ Restaurant	Guest	100	0.08	8			2.8	280	2.8	280	0.02240	1.6	0.03584	0.00140	0.02380	0.03724	0.01000	0.04724
Market/ Offices	Employee	100	0.08	8			2.8	280	2.8	280	0.02240	1.6	0.03584	0.00140	0.02380	0.03724	0.01000	0.04724
Wehilani (C&C)	SF	37	0.25	9.25	4.0	148			4.0	148	0.01184	1.6	0.01894	0.00074	0.01258	0.01968	0.01156	0.03125
Makana Kai (C&C)	MF	68	0.1	6.8	2.8	190.4			2.8	190.4	0.01523	1.6	0.02437	0.00095	0.01618	0.02532	0.00850	0.03382
Waikoloa Post Office	Employee	2	0.1	0.2	2.8	5.6			2.8	5.6	0.00045	1.6	0.00072	0.00003	0.00048	0.00074	0.00025	0.00099
Restaurant/Auto Repair/Office Complex	Employee	10	0.1	1	2.8	28			2.8	28	0.00224	1.6	0.00358	0.00014	0.00238	0.00372	0.00125	0.00497
Waikoloa Fire Station	Employee	5	0.1	0.5	2.8	14			2.8	14	0.00112	1.6	0.00179	0.00007	0.00119	0.00186	0.00063	0.00249
Total						3,316.8		560		3,876.8	0.31014		0.49623	0.01938	0.32953	0.51561	0.17638	0.69199

Notes:
1) Max flow factor derived from normalized typical 24-hour flow profile per "Design Standards of the Department of Wastewater Management" § 11.1.5 "Field Survey Data"
2) Max Flow is equal to Average flow times Max Flow Factor
3) Dry Weather I/I assumes sewers located above water table: 5 gpcd per "Design Standards of the Department of Wastewater Management" § 22.2.5 "Dry Weather Infilitration/Inflow (I/I)"
4) Dry Weather I/I is equal to Total Capita times 5 gpcd per "Design Standards of the Department of Wastewater Management" § 22.2.5 "Dry Weather Infilitration/Inflow (I/I)"
5) Design Average Flow is equal to the sum of the average flow and applicable dry weather I/I per "Design Standards of the Department of Wastewater Management" § 22.2.6 "Design Average Flow"
6) Design Maximum Flow is the sum of the maximum flow and applicable dry weather I/I per "Design Standards of the Department of Wastewater Management" § 22.2.7 "Design Maximum Flow"
7) Wet Weather I/I assumes sewers laid above the normal ground water table: 1,250 gad per "Design Standards of the Department of Wastewater Management" § 22.2.8 "Wet Weather Infilitration/Inflow (I/I)"
8) Wet Weather Infiltration/Inflow is equal to the tributary area times the infiltration rate per "Design Standards of the Department of Wastewater Management" § 22.2.8 "Wet Weather Infilitration/Inflow (I/I)"
9) Design Peak Flow is the sum of the Design Maximum Flow and Wet Weather I/I per "Design Standards of the Department of Wastewater Management" § 22.2.9 "Design Peak Flow"

TABLE 1
COMPUTATION OF WASTEWATER FLOW
CIAC DEMAND

WWTP:	Waikoloa A Plant	Page:	1
District:	Waikoloa Village, Hawaii	Computed By:	Stephen Green
Reference Maps:		Date:	October 31, 2017

			TRIBUTARY AREA		TRIBUTARY EQUIVALENT POPULATION						WASTEWATER FLOW COMPUTATION							
					RESIDENTIAL		OTHER		TOTAL									
SOURCE	TYPE	Qty	INCR. (Acre)	TOTAL (Acre)	INCR. (Capita)	TOTAL (Capita)	INCR. (Capita)	TOTAL (Capita)	INCR. (Capita)	TOTAL (Capita)	AVE WWF @ 80 GPCD (MGD)	MAX FLOW FACTOR [1]	MAX FLOW (MGD) [2]	DRY WEATH INFIL. (MGD) [3&4]	DES. AVE. FLOW (MGD) [5]	DES MAX. FLOW (MGD) [6]	WET WEATH INFIL (MGD) [7&8]	DESIGN PEAK FLOW (MGD) [9]
Castle & Cooke Ph I Na Puu Nani	SF	17	0.25	4.25	4.0	68			4.0	68	0.00544	1.6	0.00870	0.00034	0.00578	0.00904	0.00531	0.01436
Castle & Cooke Ph II Na Puu Nani	MF	84	0.1	8.4	2.8	235.2			2.8	235.2	0.01882	1.6	0.03011	0.00118	0.01999	0.03128	0.01050	0.04178
Castle & Cooke Ph II Na Puu Nani (Amended)	MF	21	0.1	2.1	2.8	58.8			2.8	58.8	0.00470	1.6	0.00753	0.00029	0.00500	0.00782	0.00263	0.01045
Castle & Cooke Unit 102 (Single Family)	SF	75	0.25	18.75	4.0	300			4.0	300	0.02400	1.6	0.03840	0.00150	0.02550	0.03990	0.02344	0.06334
Castle & Cooke Unit 102 (Common Area Park Pavilion)	Common Area Facility	1					4.5	4.5	4.5	4.5	0.00036	1.6	0.00058	0.00002	0.00038	0.00060	0.00000	0.00060
Castle & Cooke Makana Kai	MF	21	0.1	2.1	2.8	58.8			2.8	58.8	0.00470	1.6	0.00753	0.00029	0.00500	0.00782	0.00263	0.01045
Puu Melia St.	MF	60	0.1	6	2.8	168			2.8	168	0.01344	1.6	0.02150	0.00084	0.01428	0.02234	0.00750	0.02984
Total						888.8		4.5		893.3	0.07146		0.11434	0.00447	0.07593	0.11881	0.05200	0.17081

Notes:
1) Max flow factor derived from normalized typical 24-hour flow profile per "Design Standards of the Department of Wastewater Management" § 11.1.5 "Field Survey Data"
2) Max Flow is equal to Average flow times Max Flow Factor
3) Dry Weather I/I assumes sewers located above water table: 5 gpcd per "Design Standards of the Department of Wastewater Management" § 22.2.5 "Dry Weather Infilitration/Inflow (I/I)"
4) Dry Weather I/I is equal to Total Capita times 5 gpcd per "Design Standards of the Department of Wastewater Management" § 22.2.5 "Dry Weather Infilitration/Inflow (I/I)"
5) Design Average Flow is equal to the sum of the average flow and applicable dry weather I/I per "Design Standards of the Department of Wastewater Management" § 22.2.6 "Design Average Flow"
6) Design Maximum Flow is the sum of the maximum flow and applicable dry weather I/I per "Design Standards of the Department of Wastewater Management" § 22.2.7 "Design Maximum Flow"
7) Wet Weather I/I assumes sewers laid above the normal ground water table: 1,250 gad per "Design Standards of the Department of Wastewater Management" § 22.2.8 "Wet Weather Infilitration/Inflow (I/I)"
8) Wet Weather Infiltration/Inflow is equal to the tributary area times the infiltration rate per "Design Standards of the Department of Wastewater Management" § 22.2.8 "Wet Weather Infilitration/Inflow (I/I)"
9) Design Peak Flow is the sum of the Design Maximum Flow and Wet Weather I/I per "Design Standards of the Department of Wastewater Management" § 22.2.9 "Design Peak Flow"

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
10/7/2017	225,133	0.225
10/6/2017	239,194	0.239
10/5/2017	250,583	0.251
10/4/2017	241,941	0.242
10/3/2017	247,034	0.247
10/2/2017	251,461	0.251
10/1/2017	246,469	0.246
9/30/2017	242,270	0.242
9/29/2017	235,811	0.236
9/28/2017	227,247	0.227
9/27/2017	232,336	0.232
9/26/2017	230,353	0.230
9/25/2017	232,251	0.232
9/24/2017	239,194	0.239
9/23/2017	239,036	0.239
9/22/2017	225,701	0.226
9/21/2017	229,769	0.230
9/20/2017	233,923	0.234
9/19/2017	226,457	0.226
9/18/2017	224,199	0.224
9/17/2017	227,157	0.227
9/16/2017	218,221	0.218
9/15/2017	218,087	0.218
9/14/2017	237,056	0.237
9/13/2017	241,930	0.242
9/12/2017	233,207	0.233
9/11/2017	242,442	0.242
9/10/2017	222,689	0.223
9/9/2017	231,723	0.232
9/8/2017	218,611	0.219
9/7/2017	216,595	0.217
9/6/2017	220,543	0.221
9/5/2017	210,881	0.211
9/4/2017	225,578	0.226
9/3/2017	224,735	0.225
9/2/2017	234,694	0.235
9/1/2017	220,995	0.221
8/31/2017	232,144	0.232
8/30/2017	247,223	0.247
8/29/2017	242,146	0.242
8/28/2017	241,956	0.242
8/27/2017	225,531	0.226

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
8/26/2017	223,053	0.223
8/25/2017	228,371	0.228
8/24/2017	218,163	0.218
8/23/2017	219,895	0.220
8/22/2017	218,632	0.219
8/21/2017	248,923	0.249
8/20/2017	253,279	0.253
8/19/2017	238,969	0.239
8/18/2017	227,129	0.227
8/17/2017	229,037	0.229
8/16/2017	231,049	0.231
8/15/2017	246,091	0.246
8/14/2017	259,299	0.259
8/13/2017	253,886	0.254
8/12/2017	244,975	0.245
8/11/2017	236,685	0.237
8/10/2017	258,052	0.258
8/9/2017	263,724	0.264
8/8/2017	252,875	0.253
8/7/2017	253,049	0.253
8/6/2017	246,517	0.247
8/5/2017	241,232	0.241
8/4/2017	236,380	0.236
8/3/2017	245,068	0.245
8/2/2017	243,514	0.244
8/1/2017	226,557	0.227
7/31/2017	226,195	0.226
7/30/2017	230,482	0.230
7/29/2017	229,213	0.229
7/28/2017	224,461	0.224
7/27/2017	229,467	0.229
7/26/2017	228,413	0.228
7/25/2017	228,430	0.228
7/24/2017	245,810	0.246
7/23/2017	247,120	0.247
7/22/2017	239,178	0.239
7/21/2017	233,077	0.233
7/20/2017	239,034	0.239
7/19/2017	251,911	0.252
7/18/2017	257,902	0.258
7/17/2017	255,616	0.256
7/16/2017	246,025	0.246
7/15/2017	244,650	0.245

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
7/14/2017	256,748	0.257
7/13/2017	259,866	0.260
7/12/2017	271,261	0.271
7/11/2017	262,856	0.263
7/10/2017	256,437	0.256
7/9/2017	244,383	0.244
7/8/2017	248,864	0.249
7/7/2017	251,597	0.252
7/6/2017	249,193	0.249
7/5/2017	245,764	0.246
7/4/2017	248,057	0.248
7/3/2017	251,925	0.252
7/2/2017	259,863	0.260
7/1/2017	268,092	0.268
6/30/2017	249,648	0.250
6/29/2017	241,489	0.241
6/28/2017	240,692	0.241
6/27/2017	245,390	0.245
6/26/2017	247,031	0.247
6/25/2017	249,406	0.249
6/24/2017	243,970	0.244
6/23/2017	252,512	0.253
6/22/2017	267,072	0.267
6/21/2017	258,002	0.258
6/20/2017	233,198	0.233
6/19/2017	235,789	0.236
6/18/2017	233,852	0.234
6/17/2017	241,994	0.242
6/16/2017	269,873	0.270
6/15/2017	243,970	0.244
6/14/2017	259,173	0.259
6/13/2017	246,987	0.247
6/12/2017	265,546	0.266
6/11/2017	279,653	0.280
6/10/2017	282,225	0.282
6/9/2017	271,352	0.271
6/8/2017	273,217	0.273
6/7/2017	266,457	0.266
6/6/2017	284,591	0.285
6/5/2017	275,325	0.275
6/4/2017	247,124	0.247
6/3/2017	249,981	0.250
6/2/2017	245,999	0.246

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
6/1/2017	256,622	0.257
5/31/2017	252,319	0.252
5/30/2017	256,206	0.256
5/29/2017	263,167	0.263
5/28/2017	272,658	0.273
5/27/2017	252,681	0.253
5/26/2017	243,647	0.244
5/25/2017	251,294	0.251
5/24/2017	246,266	0.246
5/23/2017	243,435	0.243
5/22/2017	248,904	0.249
5/21/2017	260,085	0.260
5/20/2017	249,439	0.249
5/19/2017	243,040	0.243
5/18/2017	266,240	0.266
5/17/2017	272,405	0.272
5/16/2017	263,387	0.263
5/15/2017	245,626	0.246
5/14/2017	248,653	0.249
5/13/2017	236,678	0.237
5/12/2017	236,222	0.236
5/11/2017	221,332	0.221
5/10/2017	231,933	0.232
5/9/2017	244,799	0.245
5/8/2017	249,501	0.250
5/7/2017	254,271	0.254
5/6/2017	241,076	0.241
5/5/2017	229,399	0.229
5/4/2017	236,062	0.236
5/3/2017	247,735	0.248
5/2/2017	254,680	0.255
5/1/2017	252,364	0.252
4/30/2017	254,758	0.255
4/29/2017	246,163	0.246
4/28/2017	243,524	0.244
4/27/2017	245,338	0.245
4/26/2017	244,064	0.244
4/25/2017	240,949	0.241
4/24/2017	235,134	0.235
4/23/2017	242,388	0.242
4/22/2017	245,415	0.245
4/21/2017	236,917	0.237
4/20/2017	249,967	0.250

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
4/19/2017	240,480	0.240
4/18/2017	237,563	0.238
4/17/2017	244,464	0.244
4/16/2017	269,946	0.270
4/15/2017	268,267	0.268
4/14/2017	253,892	0.254
4/13/2017	252,112	0.252
4/12/2017	262,711	0.263
4/11/2017	256,940	0.257
4/10/2017	248,133	0.248
4/9/2017	250,273	0.250
4/8/2017	250,770	0.251
4/7/2017	243,480	0.243
4/6/2017	242,960	0.243
4/5/2017	245,034	0.245
4/4/2017	250,872	0.251
4/3/2017	242,983	0.243
4/2/2017	270,515	0.271
4/1/2017	257,761	0.258
3/31/2017	252,226	0.252
3/30/2017	259,152	0.259
3/29/2017	239,451	0.239
3/28/2017	246,500	0.247
3/27/2017	246,065	0.246
3/26/2017	250,825	0.251
3/25/2017	247,860	0.248
3/24/2017	243,438	0.243
3/23/2017	259,211	0.259
3/22/2017	256,182	0.256
3/21/2017	266,139	0.266
3/20/2017	272,917	0.273
3/19/2017	255,584	0.256
3/18/2017	270,982	0.271
3/17/2017	246,367	0.246
3/16/2017	256,753	0.257
3/15/2017	248,008	0.248
3/14/2017	244,334	0.244
3/13/2017	251,703	0.252
3/12/2017	262,486	0.262
3/11/2017	257,495	0.257
3/10/2017	254,247	0.254
3/9/2017	257,936	0.258
3/8/2017	278,549	0.279

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
3/7/2017	271,486	0.271
3/6/2017	264,941	0.265
3/5/2017	261,963	0.262
3/4/2017	259,552	0.260
3/3/2017	251,970	0.252
3/2/2017	257,484	0.257
3/1/2017	253,344	0.253
2/28/2017	253,942	0.254
2/27/2017	267,845	0.268
2/26/2017	262,704	0.263
2/25/2017	259,809	0.260
2/24/2017	250,662	0.251
2/23/2017	261,786	0.262
2/22/2017	272,795	0.273
2/21/2017	252,035	0.252
2/20/2017	246,989	0.247
2/19/2017	256,166	0.256
2/18/2017	256,784	0.257
2/17/2017	253,167	0.253
2/16/2017	247,879	0.248
2/15/2017	274,280	0.274
2/14/2017	268,411	0.268
2/13/2017	259,487	0.259
2/12/2017	255,645	0.256
2/11/2017	251,773	0.252
2/10/2017	244,467	0.244
2/9/2017	243,789	0.244
2/8/2017	247,075	0.247
2/7/2017	245,097	0.245
2/6/2017	249,809	0.250
2/5/2017	247,608	0.248
2/4/2017	244,977	0.245
2/3/2017	243,593	0.244
2/2/2017	247,354	0.247
2/1/2017	240,488	0.240
1/31/2017	243,513	0.244
1/30/2017	243,816	0.244
1/29/2017	249,184	0.249
1/28/2017	247,687	0.248
1/27/2017	246,958	0.247
1/26/2017	247,527	0.248
1/25/2017	242,513	0.243
1/24/2017	246,343	0.246

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
1/23/2017	249,201	0.249
1/22/2017	352,552	0.353
1/21/2017	266,356	0.266
1/20/2017	272,412	0.272
1/19/2017	248,634	0.249
1/18/2017	247,757	0.248
1/17/2017	252,538	0.253
1/16/2017	235,797	0.236
1/15/2017	25,028	0.025
1/14/2017	253,207	0.253
1/13/2017	254,286	0.254
1/12/2017	256,683	0.257
1/11/2017	255,966	0.256
1/10/2017	268,419	0.268
1/9/2017	256,350	0.256
1/8/2017	256,173	0.256
1/7/2017	253,797	0.254
1/6/2017	253,228	0.253
1/5/2017	263,327	0.263
1/4/2017	270,000	0.270
1/3/2017	276,725	0.277
1/2/2017	274,346	0.274
1/1/2017	280,586	0.281
12/31/2016	279,859	0.280
12/30/2016	280,425	0.280
12/29/2016	285,980	0.286
12/28/2016	277,169	0.277
12/27/2016	271,509	0.272
12/26/2016	270,495	0.270
12/25/2016	250,163	0.250
12/24/2016	251,991	0.252
12/23/2016	254,347	0.254
12/22/2016	254,170	0.254
12/21/2016	245,754	0.246
12/20/2016	236,361	0.236
12/19/2016	232,591	0.233
12/18/2016	259,109	0.259
12/17/2016	241,452	0.241
12/16/2016	231,998	0.232
12/15/2016	226,644	0.227
12/14/2016	245,249	0.245
12/13/2016	255,563	0.256
12/12/2016	272,492	0.272

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
12/11/2016	276,151	0.276
12/10/2016	265,371	0.265
12/9/2016	263,916	0.264
12/8/2016	257,681	0.258
12/7/2016	252,652	0.253
12/6/2016	245,576	0.246
12/5/2016	238,865	0.239
12/4/2016	257,361	0.257
12/3/2016	242,853	0.243
12/2/2016	242,511	0.243
12/1/2016	246,992	0.247
11/30/2016	238,754	0.239
11/29/2016	240,937	0.241
11/28/2016	239,656	0.240
11/27/2016	238,537	0.239
11/26/2016	228,508	0.229
11/25/2016	223,072	0.223
11/24/2016	223,259	0.223
11/23/2016	230,571	0.231
11/22/2016	221,778	0.222
11/21/2016	224,620	0.225
11/20/2016	233,431	0.233
11/19/2016	240,975	0.241
11/18/2016	224,515	0.225
11/17/2016	238,041	0.238
11/16/2016	235,271	0.235
11/15/2016	220,202	0.220
11/14/2016	227,052	0.227
11/13/2016	234,019	0.234
11/12/2016	237,134	0.237
11/11/2016	229,661	0.230
11/10/2016	224,711	0.225
11/9/2016	237,133	0.237
11/8/2016	220,377	0.220
11/7/2016	225,219	0.225
11/6/2016	235,174	0.235
11/5/2016	239,798	0.240
11/4/2016	233,734	0.234
11/3/2016	230,095	0.230
11/2/2016	227,212	0.227
11/1/2016	228,657	0.229
10/31/2016	223,942	0.224
10/30/2016	248,532	0.249

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
10/29/2016	244,644	0.245
10/28/2016	251,827	0.252
10/27/2016	250,784	0.251
10/26/2016	244,281	0.244
10/25/2016	226,781	0.227
10/24/2016	224,950	0.225
10/23/2016	240,846	0.241
10/22/2016	237,050	0.237
10/21/2016	209,603	0.210
10/20/2016	209,546	0.210
10/19/2016	213,652	0.214
10/18/2016	213,512	0.214
10/17/2016	215,040	0.215
10/16/2016	235,668	0.236
10/15/2016	234,407	0.234
10/14/2016	225,504	0.226
10/13/2016	240,919	0.241
10/12/2016	237,116	0.237
10/11/2016	229,742	0.230
10/10/2016	232,156	0.232
10/9/2016	237,100	0.237
10/8/2016	223,783	0.224
10/7/2016	231,396	0.231
10/6/2016	238,111	0.238
10/5/2016	226,318	0.226
10/4/2016	245,418	0.245
10/3/2016	228,045	0.228
10/2/2016	234,232	0.234
10/1/2016	230,746	0.231
9/30/2016	217,743	0.218
9/29/2016	223,091	0.223
9/28/2016	209,950	0.210
9/27/2016	210,423	0.210
9/26/2016	213,864	0.214
9/25/2016	231,386	0.231
9/24/2016	218,463	0.218
9/23/2016	233,295	0.233
9/22/2016	245,416	0.245
9/21/2016	227,647	0.228
9/20/2016	237,537	0.238
9/19/2016	242,606	0.243
9/18/2016	223,606	0.224
9/17/2016	220,571	0.221

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
9/16/2016	242,117	0.242
9/15/2016	227,006	0.227
9/14/2016	215,358	0.215
9/13/2016	232,491	0.232
9/12/2016	234,542	0.235
9/11/2016	238,585	0.239
9/10/2016	233,110	0.233
9/9/2016	223,775	0.224
9/8/2016	217,216	0.217
9/7/2016	216,929	0.217
9/6/2016	218,317	0.218
9/5/2016	235,908	0.236
9/4/2016	239,372	0.239
9/3/2016	237,806	0.238
9/2/2016	234,643	0.235
9/1/2016	221,779	0.222
8/31/2016	229,442	0.229
8/30/2016	213,765	0.214
8/29/2016	215,002	0.215
8/28/2016	244,371	0.244
8/27/2016	229,951	0.230
8/26/2016	233,430	0.233
8/25/2016	226,370	0.226
8/24/2016	311,945	0.312
8/23/2016	234,164	0.234
8/22/2016	234,164	0.234
8/21/2016	229,547	0.230
8/20/2016	221,854	0.222
8/19/2016	221,239	0.221
8/18/2016	214,435	0.214
8/17/2016	216,867	0.217
8/16/2016	217,325	0.217
8/15/2016	226,368	0.226
8/14/2016	238,132	0.238
8/13/2016	233,133	0.233
8/12/2016	226,199	0.226
8/11/2016	222,040	0.222
8/10/2016	253,612	0.254
8/9/2016	239,960	0.240
8/8/2016	221,105	0.221
8/7/2016	238,397	0.238
8/6/2016	237,053	0.237
8/5/2016	238,246	0.238

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
8/4/2016	236,952	0.237
8/3/2016	230,846	0.231
8/2/2016	216,174	0.216
8/1/2016	236,865	0.237
7/31/2016	238,725	0.239
7/30/2016	231,344	0.231
7/29/2016	225,231	0.225
7/28/2016	225,000	0.225
7/27/2016	227,391	0.227
7/26/2016	226,851	0.227
7/25/2016	239,479	0.239
7/24/2016	253,451	0.253
7/23/2016	251,401	0.251
7/22/2016	230,933	0.231
7/21/2016	227,367	0.227
7/20/2016	228,691	0.229
7/19/2016	230,797	0.231
7/18/2016	234,984	0.235
7/17/2016	225,459	0.225
7/16/2016	228,971	0.229
7/15/2016	228,507	0.229
7/14/2016	221,439	0.221
7/13/2016	237,756	0.238
7/12/2016	250,466	0.250
7/11/2016	222,960	0.223
7/10/2016	219,940	0.220
7/9/2016	224,424	0.224
7/8/2016	215,779	0.216
7/7/2016	200,617	0.201
7/6/2016	229,619	0.230
7/5/2016	226,447	0.226
7/4/2016	226,678	0.227
7/3/2016	236,077	0.236
7/2/2016	222,015	0.222
7/1/2016	212,340	0.212
6/30/2016	218,327	0.218
6/29/2016	216,813	0.217
6/28/2016	208,602	0.209
6/27/2016	214,772	0.215
6/26/2016	216,677	0.217
6/25/2016	219,330	0.219
6/24/2016	240,178	0.240
6/23/2016	245,711	0.246

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
6/22/2016	238,852	0.239
6/21/2016	227,332	0.227
6/20/2016	221,711	0.222
6/19/2016	207,002	0.207
6/18/2016	209,669	0.210
6/17/2016	211,377	0.211
6/16/2016	203,346	0.203
6/15/2016	198,972	0.199
6/14/2016	253,325	0.253
6/13/2016	213,036	0.213
6/12/2016	224,610	0.225
6/11/2016	221,029	0.221
6/10/2016	215,523	0.216
6/9/2016	212,053	0.212
6/8/2016	205,657	0.206
6/7/2016	202,751	0.203
6/6/2016	209,052	0.209
6/5/2016	228,692	0.229
6/4/2016	217,556	0.218
6/3/2016	230,458	0.230
6/2/2016	232,824	0.233
6/1/2016	222,338	0.222
5/31/2016	213,633	0.214
5/30/2016	211,414	0.211
5/29/2016	220,964	0.221
5/28/2016	220,812	0.221
5/27/2016	222,678	0.223
5/26/2016	220,792	0.221
5/25/2016	221,907	0.222
5/24/2016	219,935	0.220
5/23/2016	206,798	0.207
5/22/2016	215,482	0.215
5/21/2016	208,907	0.209
5/20/2016	203,390	0.203
5/19/2016	218,116	0.218
5/18/2016	230,476	0.230
5/17/2016	218,481	0.218
5/16/2016	205,423	0.205
5/15/2016	219,049	0.219
5/14/2016	210,613	0.211
5/13/2016	197,664	0.198
5/12/2016	198,149	0.198
5/11/2016	211,060	0.211

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
5/10/2016	201,886	0.202
5/9/2016	219,075	0.219
5/8/2016	213,041	0.213
5/7/2016	218,118	0.218
5/6/2016	217,479	0.217
5/5/2016	213,505	0.214
5/4/2016	206,953	0.207
5/3/2016	215,849	0.216
5/2/2016	217,747	0.218
5/1/2016	229,738	0.230
4/30/2016	229,179	0.229
4/29/2016	231,918	0.232
4/28/2016	219,817	0.220
4/27/2016	225,166	0.225
4/26/2016	212,451	0.212
4/25/2016	212,909	0.213
4/24/2016	261,987	0.262
4/23/2016	226,454	0.226
4/22/2016	228,167	0.228
4/21/2016	220,154	0.220
4/20/2016	221,817	0.222
4/19/2016	215,007	0.215
4/18/2016	218,730	0.219
4/17/2016	217,957	0.218
4/16/2016	210,687	0.211
4/15/2016	208,891	0.209
4/14/2016	205,051	0.205
4/13/2016	210,222	0.210
4/12/2016	204,655	0.205
4/11/2016	208,098	0.208
4/10/2016	226,614	0.227
4/9/2016	225,344	0.225
4/8/2016	216,240	0.216
4/7/2016	220,886	0.221
4/6/2016	220,425	0.220
4/5/2016	228,716	0.229
4/4/2016	237,221	0.237
4/3/2016	233,836	0.234
4/2/2016	222,733	0.223
4/1/2016	234,423	0.234
3/31/2016	243,637	0.244
3/30/2016	246,694	0.247
3/29/2016	227,275	0.227

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
3/28/2016	234,045	0.234
3/27/2016	234,436	0.234
3/26/2016	227,291	0.227
3/25/2016	230,287	0.230
3/24/2016	222,545	0.223
3/23/2016	226,707	0.227
3/22/2016	224,210	0.224
3/21/2016	217,944	0.218
3/20/2016	227,520	0.228
3/19/2016	220,695	0.221
3/18/2016	221,127	0.221
3/17/2016	228,594	0.229
3/16/2016	228,991	0.229
3/15/2016	216,589	0.217
3/14/2016	243,866	0.244
3/13/2016	247,640	0.248
3/12/2016	241,705	0.242
3/11/2016	233,500	0.234
3/10/2016	246,940	0.247
3/9/2016	245,947	0.246
3/8/2016	245,542	0.246
3/7/2016	245,897	0.246
3/6/2016	248,840	0.249
3/5/2016	246,053	0.246
3/4/2016	238,887	0.239
3/3/2016	241,190	0.241
3/2/2016	234,106	0.234
3/1/2016	234,528	0.235
2/29/2016	238,090	0.238
2/28/2016	248,331	0.248
2/27/2016	249,439	0.249
2/26/2016	252,486	0.252
2/25/2016	243,163	0.243
2/24/2016	241,522	0.242
2/23/2016	238,884	0.239
2/22/2016	233,436	0.233
2/21/2016	243,139	0.243
2/20/2016	237,281	0.237
2/19/2016	226,929	0.227
2/18/2016	243,930	0.244
2/17/2016	244,449	0.244
2/16/2016	236,479	0.236
2/15/2016	234,070	0.234

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
2/14/2016	239,052	0.239
2/13/2016	233,360	0.233
2/12/2016	227,162	0.227
2/11/2016	218,751	0.219
2/10/2016	224,122	0.224
2/9/2016	218,271	0.218
2/8/2016	227,248	0.227
2/7/2016	240,160	0.240
2/6/2016	239,102	0.239
2/5/2016	226,052	0.226
2/4/2016	235,964	0.236
2/3/2016	236,175	0.236
2/2/2016	232,733	0.233
2/1/2016	249,299	0.249
1/31/2016	267,548	0.268
1/30/2016	261,617	0.262
1/29/2016	243,806	0.244
1/28/2016	239,306	0.239
1/27/2016	223,777	0.224
1/26/2016	233,654	0.234
1/25/2016	240,253	0.240
1/24/2016	232,452	0.232
1/23/2016	230,629	0.231
1/22/2016	249,678	0.250
1/21/2016	232,237	0.232
1/20/2016	238,340	0.238
1/19/2016	224,042	0.224
1/18/2016	231,246	0.231
1/17/2016	236,689	0.237
1/16/2016	228,979	0.229
1/15/2016	230,638	0.231
1/14/2016	235,434	0.235
1/13/2016	225,405	0.225
1/12/2016	224,898	0.225
1/11/2016	229,866	0.230
1/10/2016	232,650	0.233
1/9/2016	231,505	0.232
1/8/2016	230,666	0.231
1/7/2016	233,754	0.234
1/6/2016	229,259	0.229
1/5/2016	231,431	0.231
1/4/2016	236,969	0.237
1/3/2016	237,890	0.238

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
1/2/2016	233,269	0.233
1/1/2016	234,572	0.235
12/31/2015	237,253	0.237
12/30/2015	237,849	0.238
12/29/2015	234,502	0.235
12/28/2015	238,771	0.239
12/27/2015	249,805	0.250
12/26/2015	246,113	0.246
12/25/2015	242,700	0.243
12/24/2015	241,343	0.241
12/23/2015	262,281	0.262
12/22/2015	257,893	0.258
12/21/2015	259,959	0.260
12/20/2015	249,352	0.249
12/19/2015	240,764	0.241
12/18/2015	243,767	0.244
12/17/2015	231,896	0.232
12/16/2015	240,783	0.241
12/15/2015	246,172	0.246
12/14/2015	252,570	0.253
12/13/2015	257,028	0.257
12/12/2015	252,279	0.252
12/11/2015	243,610	0.244
12/10/2015	252,805	0.253
12/9/2015	254,080	0.254
12/8/2015	287,539	0.288
12/7/2015	244,815	0.245
12/6/2015	258,632	0.259
12/5/2015	246,368	0.246
12/4/2015	242,944	0.243
12/3/2015	246,516	0.247
12/2/2015	257,558	0.258
12/1/2015	250,171	0.250
11/30/2015	244,453	0.244
11/29/2015	247,632	0.248
11/28/2015	237,675	0.238
11/27/2015	234,413	0.234
11/26/2015	231,979	0.232
11/25/2015	240,418	0.240
11/24/2015	249,359	0.249
11/23/2015	248,934	0.249
11/22/2015	252,411	0.252
11/21/2015	257,922	0.258

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
11/20/2015	245,705	0.246
11/19/2015	250,085	0.250
11/18/2015	235,730	0.236
11/17/2015	231,286	0.231
11/16/2015	225,601	0.226
11/15/2015	244,317	0.244
11/14/2015	250,433	0.250
11/13/2015	240,855	0.241
11/12/2015	235,518	0.236
11/11/2015	243,092	0.243
11/10/2015	251,012	0.251
11/9/2015	256,522	0.257
11/8/2015	250,465	0.250
11/7/2015	247,363	0.247
11/6/2015	242,056	0.242
11/5/2015	242,645	0.243
11/4/2015	236,975	0.237
11/3/2015	225,189	0.225
11/2/2015	237,587	0.238
11/1/2015	233,718	0.234
10/31/2015	238,193	0.238
10/30/2015	240,468	0.240
10/29/2015	257,877	0.258
10/28/2015	253,048	0.253
10/27/2015	258,771	0.259
10/26/2015	248,808	0.249
10/25/2015	240,324	0.240
10/24/2015	233,081	0.233
10/23/2015	234,472	0.234
10/22/2015	240,152	0.240
10/21/2015	233,568	0.234
10/20/2015	240,787	0.241
10/19/2015	240,741	0.241
10/18/2015	259,527	0.260
10/17/2015	246,984	0.247
10/16/2015	249,264	0.249
10/15/2015	247,433	0.247
10/14/2015	243,614	0.244
10/13/2015	241,666	0.242
10/12/2015	248,920	0.249
10/11/2015	246,619	0.247
10/10/2015	229,962	0.230
10/9/2015	229,373	0.229

A-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
10/8/2015	235,251	0.235
10/7/2015	235,605	0.236
10/6/2015	234,228	0.234
10/5/2015	234,187	0.234
10/4/2015	255,864	0.256

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
10/7/2017	86,108	0.086
10/6/2017	81,166	0.081
10/5/2017	91,507	0.092
10/4/2017	89,970	0.090
10/3/2017	89,553	0.090
10/2/2017	86,362	0.086
10/1/2017	91,609	0.092
9/30/2017	88,882	0.089
9/29/2017	83,534	0.084
9/28/2017	85,666	0.086
9/27/2017	91,697	0.092
9/26/2017	84,498	0.084
9/25/2017	85,497	0.085
9/24/2017	90,395	0.090
9/23/2017	90,836	0.091
9/22/2017	112,707	0.113
9/21/2017	180,212	0.180
9/20/2017	105,428	0.105
9/19/2017	105,428	0.105
9/18/2017	94,332	0.094
9/17/2017	96,614	0.097
9/16/2017	89,984	0.090
9/15/2017	96,001	0.096
9/14/2017	101,436	0.101
9/13/2017	88,011	0.088
9/12/2017	92,545	0.093
9/11/2017	89,437	0.089
9/10/2017	85,661	0.086
9/9/2017	84,366	0.084
9/8/2017	79,806	0.080
9/7/2017	81,683	0.082
9/6/2017	91,981	0.092
9/5/2017	88,923	0.089
9/4/2017	96,218	0.096
9/3/2017	84,446	0.084
9/2/2017	84,698	0.085
9/1/2017	86,837	0.087
8/31/2017	117,647	0.118
8/30/2017	89,743	0.090
8/29/2017	88,666	0.089
8/28/2017	93,741	0.094
8/27/2017	91,087	0.091

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
8/26/2017	84,884	0.085
8/25/2017	87,604	0.088
8/24/2017	88,943	0.089
8/23/2017	88,638	0.089
8/22/2017	86,593	0.087
8/21/2017	87,132	0.087
8/20/2017	86,428	0.086
8/19/2017	81,887	0.082
8/18/2017	86,712	0.087
8/17/2017	109,706	0.110
8/16/2017	88,348	0.088
8/15/2017	88,276	0.088
8/14/2017	91,656	0.092
8/13/2017	87,957	0.088
8/12/2017	81,964	0.082
8/11/2017	82,650	0.083
8/10/2017	88,348	0.088
8/9/2017	85,969	0.086
8/8/2017	89,627	0.090
8/7/2017	85,208	0.085
8/6/2017	88,767	0.089
8/5/2017	83,730	0.084
8/4/2017	84,409	0.084
8/3/2017	83,504	0.084
8/2/2017	103,827	0.104
8/1/2017	83,690	0.084
7/31/2017	84,919	0.085
7/30/2017	89,117	0.089
7/29/2017	84,896	0.085
7/28/2017	82,820	0.083
7/27/2017	87,375	0.087
7/26/2017	84,453	0.084
7/25/2017	85,303	0.085
7/24/2017	83,884	0.084
7/23/2017	81,127	0.081
7/22/2017	85,622	0.086
7/21/2017	79,789	0.080
7/20/2017	84,827	0.085
7/19/2017	102,108	0.102
7/18/2017	88,077	0.088
7/17/2017	87,274	0.087
7/16/2017	88,582	0.089
7/15/2017	80,521	0.081

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
7/14/2017	82,208	0.082
7/13/2017	85,167	0.085
7/12/2017	83,415	0.083
7/11/2017	86,712	0.087
7/10/2017	107,065	0.107
7/9/2017	87,611	0.088
7/8/2017	89,155	0.089
7/7/2017	85,056	0.085
7/6/2017	91,583	0.092
7/5/2017	92,385	0.092
7/4/2017	89,735	0.090
7/3/2017	86,741	0.087
7/2/2017	91,093	0.091
7/1/2017	87,193	0.087
6/30/2017	96,483	0.096
6/29/2017	88,345	0.088
6/28/2017	88,223	0.088
6/27/2017	90,198	0.090
6/26/2017	90,984	0.091
6/25/2017	88,868	0.089
6/24/2017	87,171	0.087
6/23/2017	85,846	0.086
6/22/2017	108,735	0.109
6/21/2017	84,488	0.084
6/20/2017	87,725	0.088
6/19/2017	91,797	0.092
6/18/2017	90,586	0.091
6/17/2017	88,625	0.089
6/16/2017	85,080	0.085
6/15/2017	92,098	0.092
6/14/2017	105,896	0.106
6/13/2017	87,157	0.087
6/12/2017	93,820	0.094
6/11/2017	91,286	0.091
6/10/2017	92,221	0.092
6/9/2017	87,929	0.088
6/8/2017	95,342	0.095
6/7/2017	87,986	0.088
6/6/2017	86,937	0.087
6/5/2017	83,514	0.084
6/4/2017	87,089	0.087
6/3/2017	87,915	0.088
6/2/2017	88,156	0.088

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
6/1/2017	91,355	0.091
5/31/2017	95,378	0.095
5/30/2017	93,948	0.094
5/29/2017	95,054	0.095
5/28/2017	89,908	0.090
5/27/2017	92,299	0.092
5/26/2017	93,029	0.093
5/25/2017	128,020	0.128
5/24/2017	99,944	0.100
5/23/2017	104,614	0.105
5/22/2017	104,388	0.104
5/21/2017	99,153	0.099
5/20/2017	98,396	0.098
5/19/2017	102,076	0.102
5/18/2017	106,082	0.106
5/17/2017	103,182	0.103
5/16/2017	102,793	0.103
5/15/2017	106,035	0.106
5/14/2017	102,239	0.102
5/13/2017	94,951	0.095
5/12/2017	93,161	0.093
5/11/2017	120,897	0.121
5/10/2017	96,126	0.096
5/9/2017	97,120	0.097
5/8/2017	96,957	0.097
5/7/2017	100,324	0.100
5/6/2017	96,496	0.096
5/5/2017	96,767	0.097
5/4/2017	113,291	0.113
5/3/2017	94,214	0.094
5/2/2017	94,100	0.094
5/1/2017	93,801	0.094
4/30/2017	93,263	0.093
4/29/2017	88,144	0.088
4/28/2017	96,051	0.096
4/27/2017	90,245	0.090
4/26/2017	92,345	0.092
4/25/2017	93,136	0.093
4/24/2017	89,777	0.090
4/23/2017	91,488	0.091
4/22/2017	86,543	0.087
4/21/2017	89,893	0.090
4/20/2017	92,172	0.092

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
4/19/2017	119,310	0.119
4/18/2017	96,199	0.096
4/17/2017	92,857	0.093
4/16/2017	96,541	0.097
4/15/2017	90,802	0.091
4/14/2017	81,358	0.081
4/13/2017	98,205	0.098
4/12/2017	87,529	0.088
4/11/2017	86,548	0.087
4/10/2017	88,668	0.089
4/9/2017	89,976	0.090
4/8/2017	84,274	0.084
4/7/2017	94,234	0.094
4/6/2017	91,463	0.091
4/5/2017	93,456	0.093
4/4/2017	85,470	0.085
4/3/2017	88,416	0.088
4/2/2017	87,368	0.087
4/1/2017	85,227	0.085
3/31/2017	91,972	0.092
3/30/2017	89,326	0.089
3/29/2017	88,421	0.088
3/28/2017	93,347	0.093
3/27/2017	83,642	0.084
3/26/2017	91,927	0.092
3/25/2017	84,181	0.084
3/24/2017	82,994	0.083
3/23/2017	106,240	0.106
3/22/2017	81,156	0.081
3/21/2017	84,919	0.085
3/20/2017	89,900	0.090
3/19/2017	96,921	0.097
3/18/2017	97,160	0.097
3/17/2017	95,283	0.095
3/16/2017	94,932	0.095
3/15/2017	95,800	0.096
3/14/2017	96,630	0.097
3/13/2017	96,472	0.096
3/12/2017	96,306	0.096
3/11/2017	93,874	0.094
3/10/2017	90,641	0.091
3/9/2017	91,611	0.092
3/8/2017	109,703	0.110

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
3/7/2017	98,524	0.099
3/6/2017	101,783	0.102
3/5/2017	99,690	0.100
3/4/2017	97,871	0.098
3/3/2017	96,240	0.096
3/2/2017	101,069	0.101
3/1/2017	112,276	0.112
2/28/2017	100,691	0.101
2/27/2017	101,265	0.101
2/26/2017	97,195	0.097
2/25/2017	98,991	0.099
2/24/2017	98,596	0.099
2/23/2017	106,962	0.107
2/22/2017	106,209	0.106
2/21/2017	104,366	0.104
2/20/2017	108,320	0.108
2/19/2017	106,127	0.106
2/18/2017	103,353	0.103
2/17/2017	93,597	0.094
2/16/2017	105,164	0.105
2/15/2017	115,997	0.116
2/14/2017	90,866	0.091
2/13/2017	104,542	0.105
2/12/2017	105,743	0.106
2/11/2017	99,025	0.099
2/10/2017	99,107	0.099
2/9/2017	101,331	0.101
2/8/2017	102,394	0.102
2/7/2017	100,521	0.101
2/6/2017	103,685	0.104
2/5/2017	104,317	0.104
2/4/2017	93,708	0.094
2/3/2017	93,164	0.093
2/2/2017	115,736	0.116
2/1/2017	96,432	0.096
1/31/2017	98,251	0.098
1/30/2017	100,861	0.101
1/29/2017	103,957	0.104
1/28/2017	99,644	0.100
1/27/2017	97,127	0.097
1/26/2017	95,678	0.096
1/25/2017	96,967	0.097
1/24/2017	120,292	0.120

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
1/23/2017	102,922	0.103
1/22/2017	103,402	0.103
1/21/2017	98,919	0.099
1/20/2017	98,458	0.098
1/19/2017	99,705	0.100
1/18/2017	96,583	0.097
1/17/2017	112,494	0.112
1/16/2017	96,130	0.096
1/15/2017	99,811	0.100
1/14/2017	99,144	0.099
1/13/2017	92,708	0.093
1/12/2017	92,994	0.093
1/11/2017	92,114	0.092
1/10/2017	95,044	0.095
1/9/2017	100,626	0.101
1/8/2017	103,594	0.104
1/7/2017	94,598	0.095
1/6/2017	106,386	0.106
1/5/2017	87,815	0.088
1/4/2017	98,700	0.099
1/3/2017	98,515	0.099
1/2/2017	99,184	0.099
1/1/2017	98,693	0.099
12/31/2016	98,047	0.098
12/30/2016	98,975	0.099
12/29/2016	100,303	0.100
12/28/2016	95,929	0.096
12/27/2016	96,200	0.096
12/26/2016	107,294	0.107
12/25/2016	97,182	0.097
12/24/2016	91,426	0.091
12/23/2016	119,953	0.120
12/22/2016	96,507	0.097
12/21/2016	94,371	0.094
12/20/2016	96,300	0.096
12/19/2016	91,788	0.092
12/18/2016	98,367	0.098
12/17/2016	94,253	0.094
12/16/2016	93,503	0.094
12/15/2016	93,678	0.094
12/14/2016	107,204	0.107
12/13/2016	94,654	0.095
12/12/2016	94,803	0.095

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
12/11/2016	95,023	0.095
12/10/2016	98,416	0.098
12/9/2016	90,127	0.090
12/8/2016	95,682	0.096
12/7/2016	93,863	0.094
12/6/2016	100,958	0.101
12/5/2016	120,001	0.120
12/4/2016	102,325	0.102
12/3/2016	92,023	0.092
12/2/2016	96,356	0.096
12/1/2016	101,294	0.101
11/30/2016	95,528	0.096
11/29/2016	106,236	0.106
11/28/2016	101,479	0.101
11/27/2016	98,120	0.098
11/26/2016	93,975	0.094
11/25/2016	91,295	0.091
11/24/2016	98,425	0.098
11/23/2016	91,259	0.091
11/22/2016	95,317	0.095
11/21/2016	94,652	0.095
11/20/2016	100,492	0.100
11/19/2016	89,825	0.090
11/18/2016	91,535	0.092
11/17/2016	92,148	0.092
11/16/2016	90,984	0.091
11/15/2016	92,845	0.093
11/14/2016	98,200	0.098
11/13/2016	98,533	0.099
11/12/2016	90,636	0.091
11/11/2016	91,704	0.092
11/10/2016	88,309	0.088
11/9/2016	91,202	0.091
11/8/2016	89,617	0.090
11/7/2016	86,708	0.087
11/6/2016	93,464	0.093
11/5/2016	87,240	0.087
11/4/2016	88,184	0.088
11/3/2016	104,013	0.104
11/2/2016	105,977	0.106
11/1/2016	85,779	0.086
10/31/2016	52,921	0.053
10/30/2016	14,666	0.015

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
10/29/2016	36,625	0.037
10/28/2016	93,434	0.093
10/27/2016	94,209	0.094
10/26/2016	91,490	0.091
10/25/2016	99,816	0.100
10/24/2016	88,804	0.089
10/23/2016	91,094	0.091
10/22/2016	86,798	0.087
10/21/2016	93,827	0.094
10/20/2016	91,405	0.091
10/19/2016	85,927	0.086
10/18/2016	87,342	0.087
10/17/2016	92,099	0.092
10/16/2016	94,408	0.094
10/15/2016	83,997	0.084
10/14/2016	86,451	0.086
10/13/2016	84,655	0.085
10/12/2016	86,544	0.087
10/11/2016	87,179	0.087
10/10/2016	108,601	0.109
10/9/2016	88,097	0.088
10/8/2016	86,934	0.087
10/7/2016	102,129	0.102
10/6/2016	100,978	0.101
10/5/2016	98,204	0.098
10/4/2016	92,561	0.093
10/3/2016	96,345	0.096
10/2/2016	99,852	0.100
10/1/2016	92,828	0.093
9/30/2016	92,386	0.092
9/29/2016	101,529	0.102
9/28/2016	94,410	0.094
9/27/2016		0.000
9/26/2016	94,576	0.095
9/25/2016	101,778	0.102
9/24/2016	93,529	0.094
9/23/2016	104,724	0.105
9/22/2016	86,757	0.087
9/21/2016	95,427	0.095
9/20/2016	99,976	0.100
9/19/2016	99,039	0.099
9/18/2016	95,266	0.095
9/17/2016	94,500	0.095

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
9/16/2016	90,583	0.091
9/15/2016	94,029	0.094
9/14/2016	93,226	0.093
9/13/2016	97,789	0.098
9/12/2016	117,671	0.118
9/11/2016	100,803	0.101
9/10/2016	96,394	0.096
9/9/2016	101,346	0.101
9/8/2016	95,966	0.096
9/7/2016	98,671	0.099
9/6/2016	100,494	0.100
9/5/2016	97,562	0.098
9/4/2016	97,226	0.097
9/3/2016	99,183	0.099
9/2/2016	91,720	0.092
9/1/2016	94,668	0.095
8/31/2016	102,084	0.102
8/30/2016	98,943	0.099
8/29/2016	107,520	0.108
8/28/2016	108,419	0.108
8/27/2016	97,466	0.097
8/26/2016	95,206	0.095
8/25/2016	95,426	0.095
8/24/2016	101,822	0.102
8/23/2016	108,138	0.108
8/22/2016	106,610	0.107
8/21/2016	98,522	0.099
8/20/2016	94,450	0.094
8/19/2016	94,212	0.094
8/18/2016	98,517	0.099
8/17/2016	102,470	0.102
8/16/2016	107,138	0.107
8/15/2016	98,803	0.099
8/14/2016	105,490	0.105
8/13/2016	98,299	0.098
8/12/2016	101,978	0.102
8/11/2016	108,741	0.109
8/10/2016	115,149	0.115
8/9/2016	113,826	0.114
8/8/2016	104,039	0.104
8/7/2016	105,420	0.105
8/6/2016	101,428	0.101
8/5/2016	105,967	0.106

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
8/4/2016	103,970	0.104
8/3/2016	108,137	0.108
8/2/2016	105,253	0.105
8/1/2016	97,638	0.098
7/31/2016	97,145	0.097
7/30/2016	90,991	0.091
7/29/2016	93,356	0.093
7/28/2016	97,568	0.098
7/27/2016	94,681	0.095
7/26/2016	91,726	0.092
7/25/2016	91,899	0.092
7/24/2016	94,307	0.094
7/23/2016	94,190	0.094
7/22/2016	92,631	0.093
7/21/2016	96,717	0.097
7/20/2016	93,312	0.093
7/19/2016	92,554	0.093
7/18/2016	94,515	0.095
7/17/2016	87,404	0.087
7/16/2016	88,288	0.088
7/15/2016	86,065	0.086
7/14/2016	94,452	0.094
7/13/2016	92,010	0.092
7/12/2016	101,819	0.102
7/11/2016	91,338	0.091
7/10/2016	93,008	0.093
7/9/2016	86,583	0.087
7/8/2016	86,138	0.086
7/7/2016	91,024	0.091
7/6/2016	87,548	0.088
7/5/2016	88,793	0.089
7/4/2016	89,947	0.090
7/3/2016	88,109	0.088
7/2/2016	88,617	0.089
7/1/2016	83,843	0.084
6/30/2016	93,936	0.094
6/29/2016	87,684	0.088
6/28/2016	95,436	0.095
6/27/2016	91,842	0.092
6/26/2016	90,731	0.091
6/25/2016	85,569	0.086
6/24/2016	91,667	0.092
6/23/2016	94,801	0.095

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
6/22/2016	85,389	0.085
6/21/2016	88,366	0.088
6/20/2016	83,729	0.084
6/19/2016	84,993	0.085
6/18/2016	87,427	0.087
6/17/2016	83,171	0.083
6/16/2016	89,216	0.089
6/15/2016	85,720	0.086
6/14/2016	103,840	0.104
6/13/2016	90,079	0.090
6/12/2016	87,364	0.087
6/11/2016	84,201	0.084
6/10/2016	85,855	0.086
6/9/2016	87,874	0.088
6/8/2016	89,465	0.089
6/7/2016	112,184	0.112
6/6/2016	101,726	0.102
6/5/2016	91,419	0.091
6/4/2016	91,165	0.091
6/3/2016	100,644	0.101
6/2/2016	91,154	0.091
6/1/2016	92,152	0.092
5/31/2016	91,802	0.092
5/30/2016	98,834	0.099
5/29/2016	97,263	0.097
5/28/2016	95,124	0.095
5/27/2016	107,399	0.107
5/26/2016	104,742	0.105
5/25/2016	92,699	0.093
5/24/2016	96,610	0.097
5/23/2016	97,362	0.097
5/22/2016	97,720	0.098
5/21/2016	91,778	0.092
5/20/2016	90,500	0.091
5/19/2016	105,931	0.106
5/18/2016	101,080	0.101
5/17/2016	100,403	0.100
5/16/2016	103,055	0.103
5/15/2016	103,391	0.103
5/14/2016	94,956	0.095
5/13/2016	95,719	0.096
5/12/2016	95,220	0.095
5/11/2016	98,347	0.098

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
5/10/2016	99,189	0.099
5/9/2016	96,193	0.096
5/8/2016	98,677	0.099
5/7/2016	91,833	0.092
5/6/2016	93,647	0.094
5/5/2016	96,421	0.096
5/4/2016	98,321	0.098
5/3/2016	94,858	0.095
5/2/2016	9,448	0.009
5/1/2016	94,415	0.094
4/30/2016	93,354	0.093
4/29/2016	109,030	0.109
4/28/2016	94,575	0.095
4/27/2016	97,349	0.097
4/26/2016	95,478	0.095
4/25/2016	91,499	0.091
4/24/2016	95,045	0.095
4/23/2016	91,203	0.091
4/22/2016	92,191	0.092
4/21/2016	95,135	0.095
4/20/2016	94,444	0.094
4/19/2016	98,389	0.098
4/18/2016	113,083	0.113
4/17/2016	96,087	0.096
4/16/2016	98,799	0.099
4/15/2016	114,424	0.114
4/14/2016	99,998	0.100
4/13/2016	99,768	0.100
4/12/2016	96,686	0.097
4/11/2016	95,594	0.096
4/10/2016	95,231	0.095
4/9/2016	91,743	0.092
4/8/2016	92,519	0.093
4/7/2016	110,623	0.111
4/6/2016	93,315	0.093
4/5/2016	94,794	0.095
4/4/2016	96,589	0.097
4/3/2016	97,210	0.097
4/2/2016	94,373	0.094
4/1/2016	95,150	0.095
3/31/2016	97,420	0.097
3/30/2016	101,382	0.101
3/29/2016	93,861	0.094

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
3/28/2016	92,110	0.092
3/27/2016	91,348	0.091
3/26/2016	87,414	0.087
3/25/2016	85,868	0.086
3/24/2016	86,680	0.087
3/23/2016	88,792	0.089
3/22/2016	90,768	0.091
3/21/2016	91,858	0.092
3/20/2016	98,132	0.098
3/19/2016	98,559	0.099
3/18/2016	97,739	0.098
3/17/2016	102,094	0.102
3/16/2016	104,074	0.104
3/15/2016	107,618	0.108
3/14/2016	100,434	0.100
3/13/2016	101,368	0.101
3/12/2016	105,090	0.105
3/11/2016	122,084	0.122
3/10/2016	119,416	0.119
3/9/2016	118,379	0.118
3/8/2016	113,928	0.114
3/7/2016	111,546	0.112
3/6/2016	112,984	0.113
3/5/2016	106,571	0.107
3/4/2016	101,725	0.102
3/3/2016	108,828	0.109
3/2/2016	116,745	0.117
3/1/2016	118,090	0.118
2/29/2016	102,512	0.103
2/28/2016	104,644	0.105
2/27/2016	99,063	0.099
2/26/2016	99,697	0.100
2/25/2016	100,128	0.100
2/24/2016	101,048	0.101
2/23/2016	97,819	0.098
2/22/2016	94,350	0.094
2/21/2016	104,604	0.105
2/20/2016	97,237	0.097
2/19/2016	93,292	0.093
2/18/2016	95,947	0.096
2/17/2016	96,231	0.096
2/16/2016	94,339	0.094
2/15/2016	95,273	0.095

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
2/14/2016	95,693	0.096
2/13/2016	94,713	0.095
2/12/2016	88,920	0.089
2/11/2016	94,636	0.095
2/10/2016	99,120	0.099
2/9/2016	97,251	0.097
2/8/2016	96,926	0.097
2/7/2016	102,618	0.103
2/6/2016	94,518	0.095
2/5/2016	99,646	0.100
2/4/2016	117,100	0.117
2/3/2016	94,909	0.095
2/2/2016	96,737	0.097
2/1/2016	97,367	0.097
1/31/2016	99,152	0.099
1/30/2016	96,580	0.097
1/29/2016	103,980	0.104
1/28/2016	110,798	0.111
1/27/2016	99,419	0.099
1/26/2016	99,904	0.100
1/25/2016	100,381	0.100
1/24/2016	103,745	0.104
1/23/2016	102,369	0.102
1/22/2016	98,010	0.098
1/21/2016	104,348	0.104
1/20/2016	100,764	0.101
1/19/2016	93,228	0.093
1/18/2016	100,153	0.100
1/17/2016	104,183	0.104
1/16/2016	101,377	0.101
1/15/2016	102,139	0.102
1/14/2016	108,624	0.109
1/13/2016	106,241	0.106
1/12/2016	111,117	0.111
1/11/2016	115,417	0.115
1/10/2016	107,407	0.107
1/9/2016	101,814	0.102
1/8/2016	99,484	0.099
1/7/2016	100,180	0.100
1/6/2016	99,704	0.100
1/5/2016	96,980	0.097
1/4/2016	100,898	0.101
1/3/2016	104,392	0.104

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
1/2/2016	99,426	0.099
1/1/2016	99,196	0.099
12/31/2015	123,490	0.123
12/30/2015	99,725	0.100
12/29/2015	98,961	0.099
12/28/2015	103,919	0.104
12/27/2015	106,237	0.106
12/26/2015	95,899	0.096
12/25/2015	92,961	0.093
12/24/2015	90,818	0.091
12/23/2015	88,136	0.088
12/22/2015	94,484	0.094
12/21/2015	93,248	0.093
12/20/2015	93,274	0.093
12/19/2015	93,289	0.093
12/18/2015	88,859	0.089
12/17/2015	111,261	0.111
12/16/2015	92,578	0.093
12/15/2015	90,592	0.091
12/14/2015	93,201	0.093
12/13/2015	93,046	0.093
12/12/2015	90,574	0.091
12/11/2015	88,489	0.088
12/10/2015	91,944	0.092
12/9/2015	92,639	0.093
12/8/2015	89,261	0.089
12/7/2015	88,938	0.089
12/6/2015	93,416	0.093
12/5/2015	88,840	0.089
12/4/2015	85,695	0.086
12/3/2015	101,028	0.101
12/2/2015	91,566	0.092
12/1/2015	91,279	0.091
11/30/2015	93,488	0.093
11/29/2015	97,259	0.097
11/28/2015	91,039	0.091
11/27/2015	88,038	0.088
11/26/2015	98,033	0.098
11/25/2015	94,616	0.095
11/24/2015	90,205	0.090
11/23/2015	89,583	0.090
11/22/2015	94,799	0.095
11/21/2015	93,636	0.094

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
11/20/2015	103,489	0.103
11/19/2015	110,713	0.111
11/18/2015	87,482	0.087
11/17/2015	87,740	0.088
11/16/2015	89,390	0.089
11/15/2015	94,146	0.094
11/14/2015	89,398	0.089
11/13/2015	97,165	0.097
11/12/2015	89,687	0.090
11/11/2015	89,377	0.089
11/10/2015	87,038	0.087
11/9/2015	88,119	0.088
11/8/2015	90,194	0.090
11/7/2015	88,863	0.089
11/6/2015	97,641	0.098
11/5/2015	87,371	0.087
11/4/2015	85,866	0.086
11/3/2015	85,725	0.086
11/2/2015	87,652	0.088
11/1/2015	90,023	0.090
10/31/2015	89,302	0.089
10/30/2015	84,017	0.084
10/29/2015	89,096	0.089
10/28/2015	86,260	0.086
10/27/2015	88,039	0.088
10/26/2015	85,066	0.085
10/25/2015	87,939	0.088
10/24/2015	81,490	0.081
10/23/2015	82,386	0.082
10/22/2015	86,631	0.087
10/21/2015	87,542	0.088
10/20/2015	91,626	0.092
10/19/2015	91,063	0.091
10/18/2015	96,182	0.096
10/17/2015	94,711	0.095
10/16/2015	110,820	0.111
10/15/2015	203,742	0.204
10/14/2015	85,487	0.085
10/13/2015	85,487	0.085
10/12/2015	88,004	0.088
10/11/2015	87,791	0.088
10/10/2015	90,708	0.091
10/9/2015	86,639	0.087

K-Plant Influent Flows

Date	Flow [GPD]	FLOW [MGD]
10/8/2015	101,924	0.102
10/7/2015	87,672	0.088
10/6/2015	89,809	0.090
10/5/2015	94,979	0.095
10/4/2015	96,183	0.096

K-Plant Committed Capacity

Project	Description	Units	Gallons / Unit / Day	Gallons / Day
County of Hawaii Workforce Housing Project	Single Family	438	320	140,160
	Multi Family	577	220	126,940
	Community Center Building (4 bathroom stalls)	4	330	1,320
	Central Park Bathrooms (4 bathroom stalls)	4	330	1,320
	Makai Park Bathrooms (4 bathroom stalls)	4	330	1,320
	School (825 Students)	825	22	18,150
	Commercial Space Bathrooms (4 bathroom stalls)	4	330	1,320
Waikoloa Heights	Single Family	268	320	85,760
Total				376,290

VERIFICATION OF PAUL TOWNSLEY

STATE OF Santa Clara – California)
) SS.
COUNTY Santa Clara)

PAUL TOWNSLEY, being first duly sworn, deposes and says:

1. That he is the Vice President-Regulatory Matters of WAIKOLOA SANITARY SEWER CO., INC., dba WEST HAWAII SEWER COMPANY ("WHSC") and is the duly appointed representative of WHSC 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 WHSC 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 Dec 2017

Lina Jo DiStefano
Notary Public, State of California
My commission expires: 1-21-2021

LINA JO DISTEFANO
Notary Public - California
Santa Clara County
Commission # 2176986
My Comm. Expires Jan 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 SANITARY SEWER CO., INC., dba
WEST HAWAII SEWER COMPANY