



HAWAIIAN HOME LANDS
HAWAIIAN HOMES COMMISSION
DEPARTMENT OF HAWAIIAN HOME LANDS

DHHL Water Systems: Cost of Service

**Agenda Item G-3
Hawaiian Homes Commission**

January 29 – 30, 2018 – Kapolei

What we'll cover

- Refresher - Policies & Legal Authorities
- “TMF Capacity”
 - Financial Capacity
 - Cost of Water Service
 - Rate Analysis
- Summary
- Next Steps

Where are DHHL's Water Systems Located?



DHHL water systems

At-a-glance

	Ho'olehua PWS 230	Anahola PWS 432	Kawaihae PWS 164	Pu'ukapu PWS n/a
Age of system	85 years est.	30 years est.	20 years est.	3 years
Service area	Ho'olehua, Kalama'ula, Naiwa, Pālā'au & Comm. Fac.	Anahola Farm Lots & Bay View residents	Kailapa residential	Pu'ukapu pastoral lots
Avg. # service connections	600	77	151	43
Water source	DHHL-owned Groundwater well	DHH-owned Groundwater well	Kohala Ranch	County of Hawaii
Dept. of Health regulated?	Yes - Certified Level 2	Yes - Certified Level 1	Yes - Certified Level 1	No
Operations handled by:	DHHL personnel	Contracted operator	Contracted operator	Contracted operator

Refresher

- ✓ HHCA 1920 as amended, Section 221f
- ✓ HAR 10-3-76(i) – water rates are set by HHC
- ✓ HRS Chapter 269, Section 31(a) – Public Utilities
- ✓ HHC Water Policy Plan, July 2014
 - Mission, Priority Policies, Goals
- ✓ HHC Enterprise Accounting Policy, August 2012
(USDA Condition)

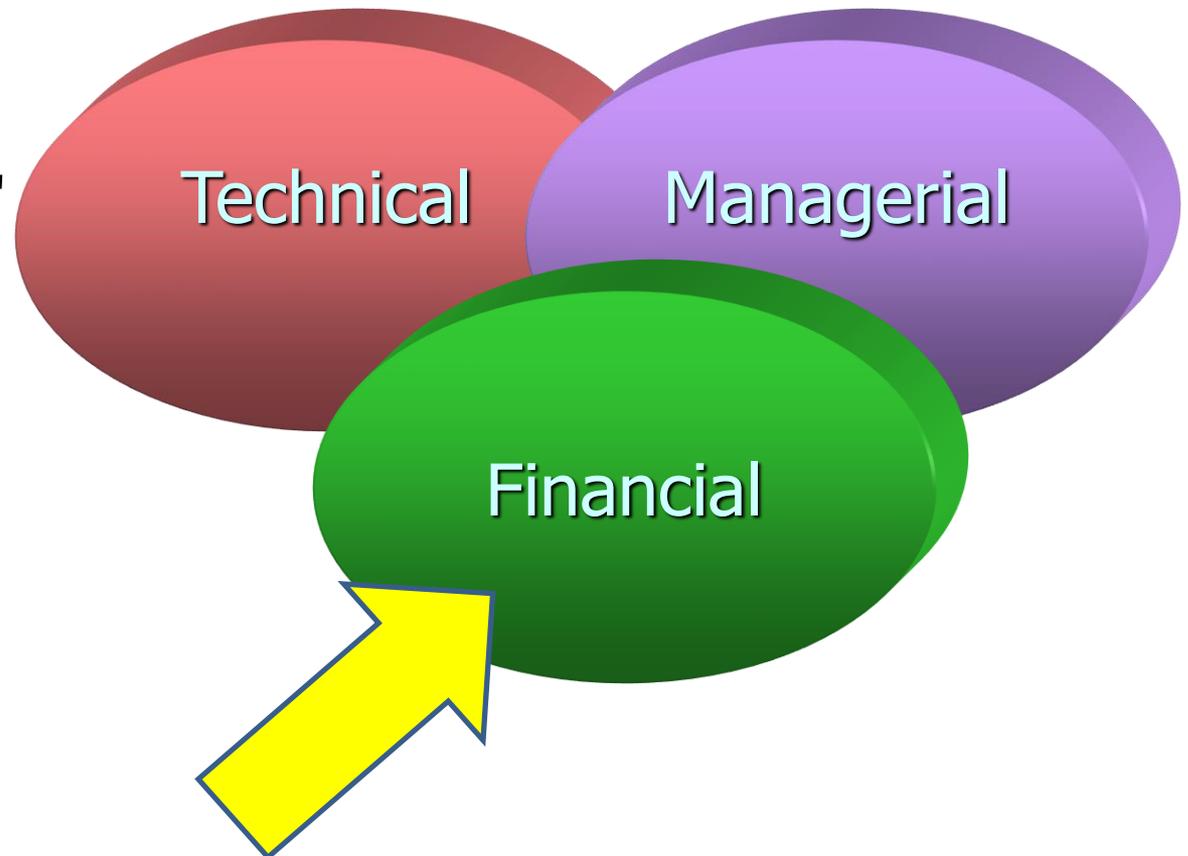
- ✓ USDA obligates \$15.9 million, August 2016
- ✓ “Water System 101 – Technical, Managerial, Financial (TMF) Capacity” workshop for HHC, June 2017 *(USDA condition)*

Refresher

- ✓ Cost of Service Analysis completed, June 2017
- ✓ Water Administrative Rules, Beneficiary Consultation completed, August 2017
(USDA Condition)
- ✓ Effective Utility Management paper completed, October 2017
- ✓ Community education meetings on DHHL Water Systems, November 2017

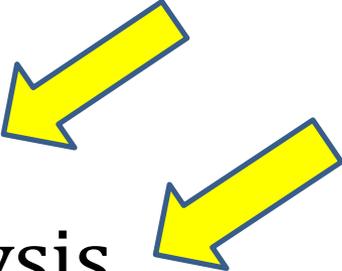
WATER SYSTEM “TMF CAPACITY”

- TECHNICAL
- MANAGERIAL
- FINANCIAL



Financial

Financial

- Enterprise Accounting
 - Water billings, collections
 - Accurate coding of transactions
 - Budgeting – Cost of Service
 - Planning / Forecasting – Rate Analysis
 - Financial Oversight – regular monitoring of budget-to-actual reports
- 

Typical Water System Expenses

OPERATIONS

- Certified Operator
- Well Pumps
- Electricity
- Storage tank
- Booster pumps, PRVs
- Appurtenances:
distribution lines, pipes,
fire hydrants
- Security: lights, fences,
gates, locks, security
cameras

RESERVES

- Operating
- Emergency
- Capital improvement
- Debt service

ADMINISTRATION

- Planning
- Accounting
- Community relations
- Enforcement

Cost of Service – FY 2016

Scenario 1

Scenario 1

Operating Costs: \$1,492,304

Revenue (billed): \$ 632,684

*** Shortfall: \$ 859,620 ***

Cost of Service – FY 2016

Scenario 2

Scenario 2 – Un-collectibles

Operating Costs: \$1,492,304

Revenue (billed): \$ 632,684

*** Shortfall: \$ 859,620 ***

Un-collectibles: \$ 233,430

*** Shortfall: **\$1,093,050** ***

Cost of Service – FY 2016

Scenario 3

Scenario 3 – with Recommended Reserves

Operating Costs: \$1,492,304

Revenue (billed): \$ 632,684

*** Shortfall: \$ 859,620 ***

Un-collectibles: \$ 233,430

*** Shortfall: \$1,093,050 ***

Recommended Reserve Funds: \$1,244,543

***** Shortfall: \$2,337,593 *****

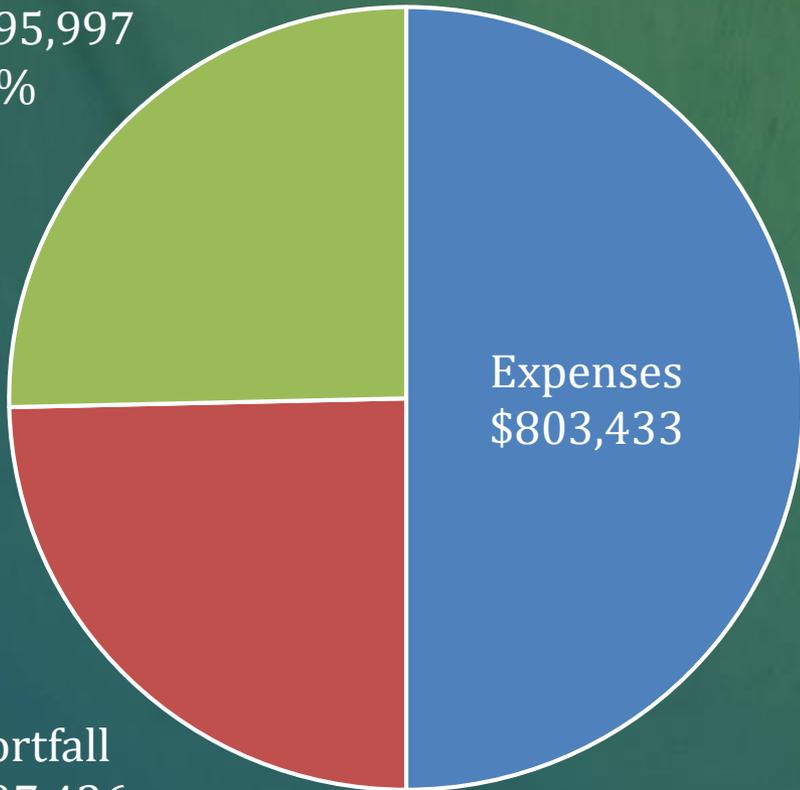
Ho'olehua Water System Expenses

Fiscal Year 2015 - 2016

	% of Total	Amount
Personnel & related costs	49%	\$394,943
Electricity	39%	309,600
Operations, Repair, Maintenance	6%	45,564
Vehicles	3%	25,959
Baseyard building	2%	18,739
Office expenses	1%	6,598
Freight & delivery	0%	2,030
Reserves	0%	-0-
TOTAL	100%	\$803,433

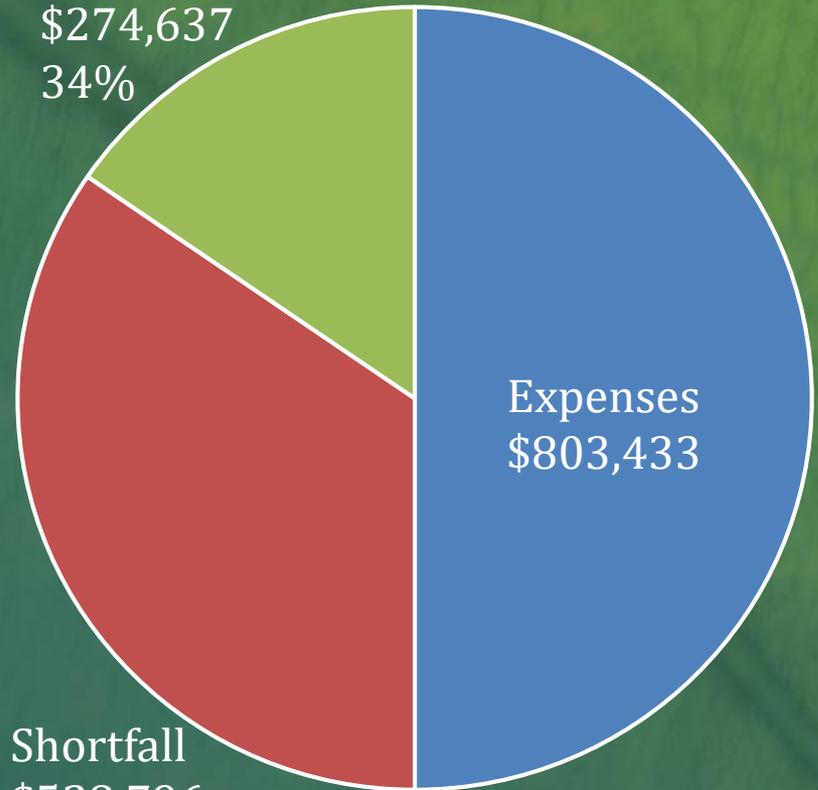
Ho'olehua Water System

Rev. Billed
\$395,997
49%



Shortfall
\$407,436
51%

Rev. Collected
\$274,637
34%



Shortfall
\$528,796
66%

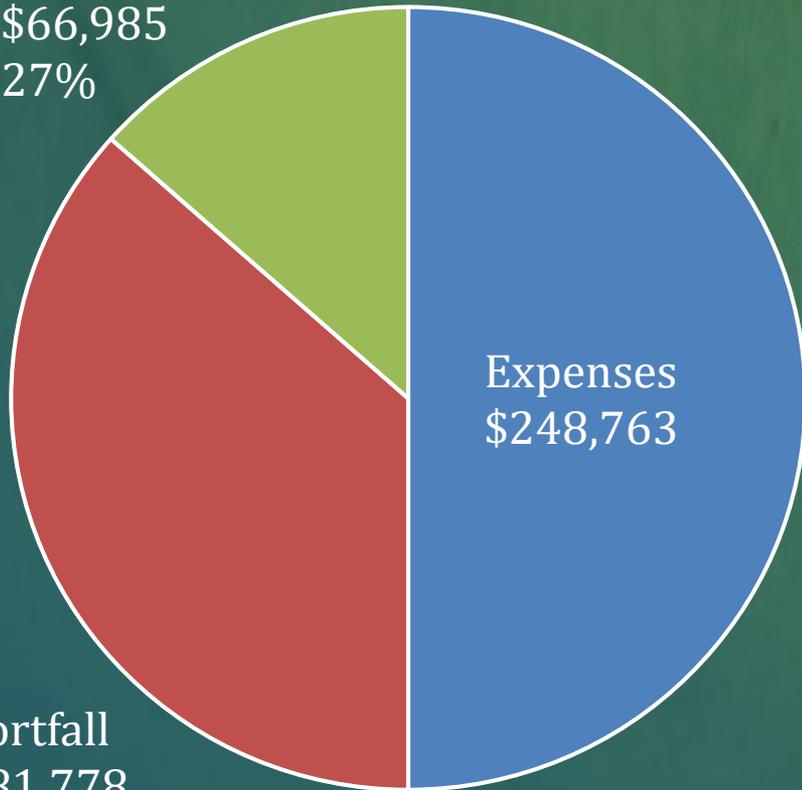
Anahola Water System Expenses

Fiscal Year 2015 - 2016

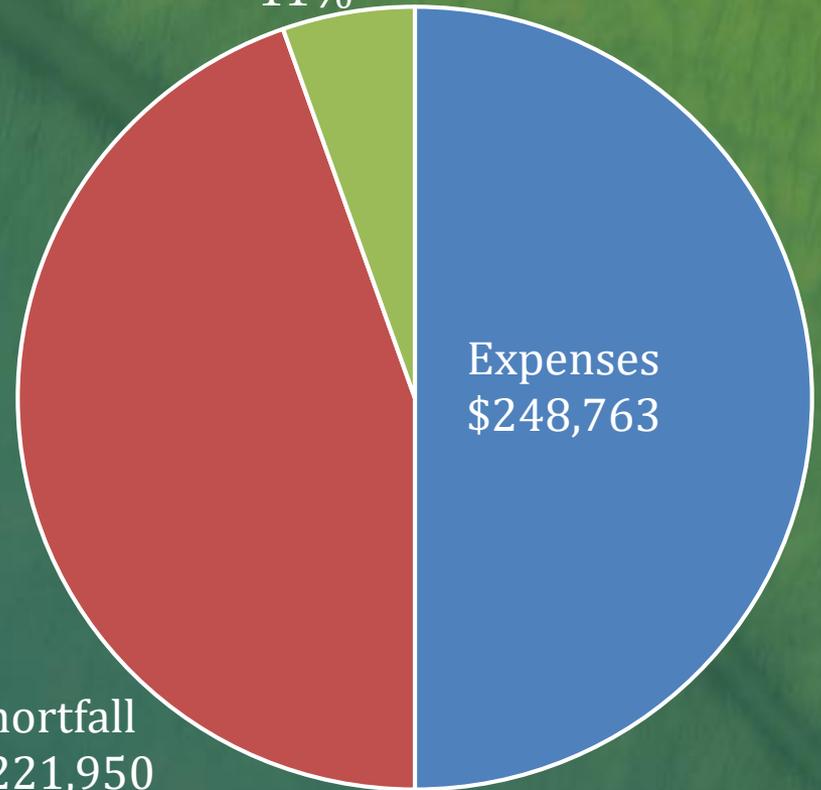
	% of Total	Amount
Personnel - DHHL	16%	\$40,906
Contracted Operator, includes:	71%	175,758
✓ O&M Service		
✓ Repair, Maintenance, Other		
Operations, Repair, Maintenance	0%	649
Electricity	10%	24,469
Telephone	0%	175
Fee for Service	3%	6,806
Reserves	0%	-0-
TOTAL	100%	\$248,763

Anahola Water System

Rev. billed
\$66,985
27%



Rev. collected
\$26,813
11%

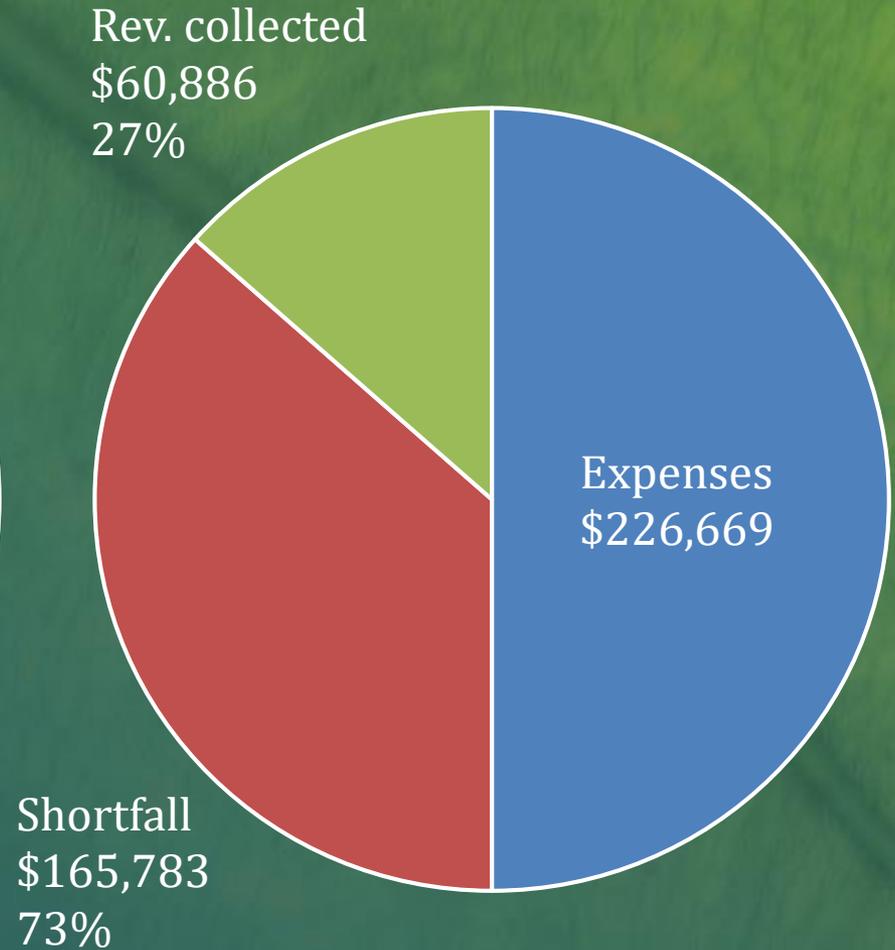
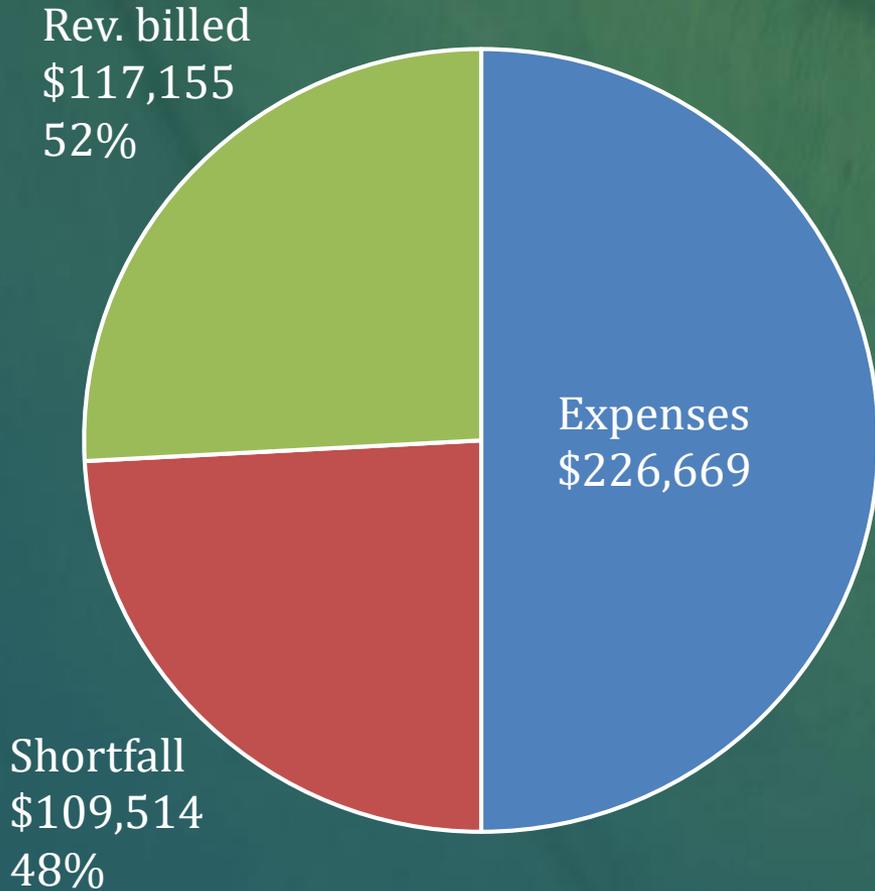


Kawaihae Water System Expenses

Fiscal Year 2015 - 2016

	% of Total	Amount
Personnel - DHHL	4%	\$9,082
Contracted Operator, includes ✓ O&M Service ✓ Repair, Maintenance, Other	19%	42,016
Water Purchase – Kohala Ranch	72%	164,553
Electricity	5%	11,018
Reserves	0%	-0-
TOTAL	100%	\$226,669

Kawaihae Water System



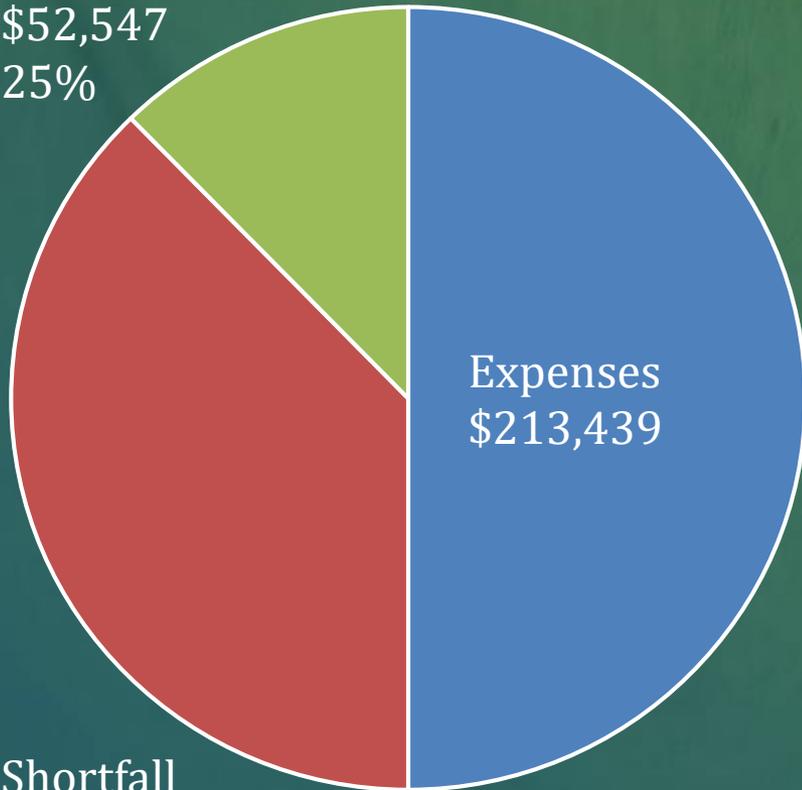
Pu'ukapu Water System Expenses

Fiscal Year 2015 - 2016

	% of Total	Amount
Personnel - DHHL	4%	\$7,568
Contract Operator, includes ✓ O&M Service ✓ Repair, Maintenance, Other	86%	183,496
Water Purchase – Hawaii County	10%	21,761
Electricity	0%	614
Reserves	0%	-0-
TOTAL	100%	\$213,439

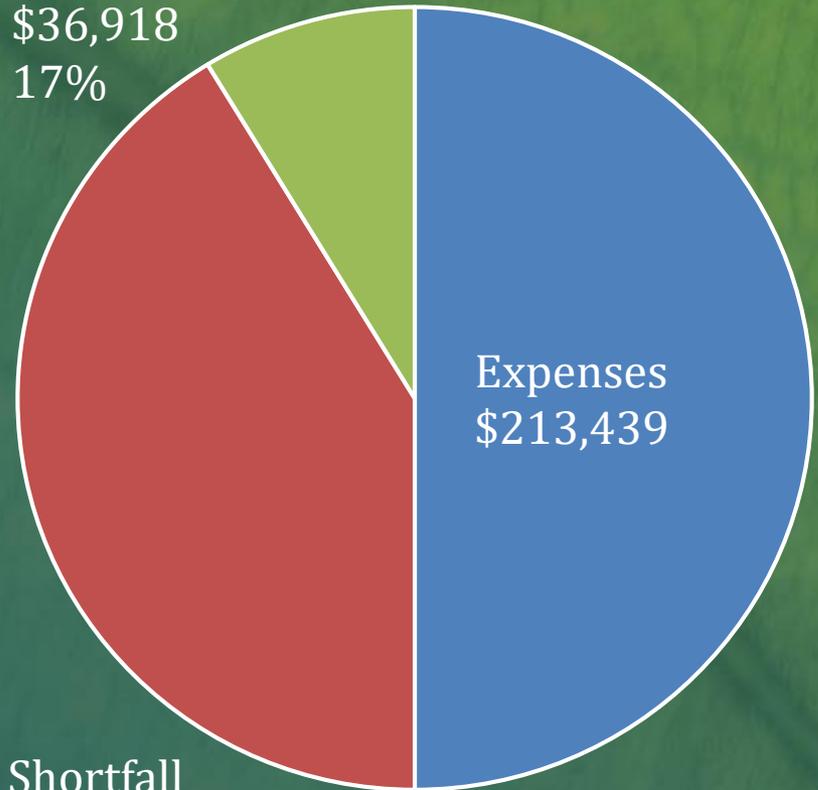
Pu'ukapu Water System

Rev. billed
\$52,547
25%



Shortfall
\$160,892
75%

Rev. collected
\$36,918
17%



Shortfall
\$176,521
83%

Cost Summary – FY 2016

Water System	(A) Expenses	(B) Revenue (billed) % of (A) exp.	(C) Un-collectible % of (B) rev.	(D) Revenue Shortfall % of (A) exp.
Ho'olehua	\$803,433	\$395,997 (49%)	\$121,360 (31%)	\$528,796 (66%)
Anahola	\$248,763	\$66,985 (27%)	\$40,172 (60%)	\$221,950 (90%)
Kawaihae	\$226,669	\$117,155 (52%)	\$56,269 (48%)	\$165,783 (73%)
Pu'ukapu	\$213,439	\$52,547 (25%)	\$15,629 (30%)	\$176,521 (83%)
TOTALS	\$1,492,304	\$632,684 (42%)	\$233,430 (37%)	\$1,093,050 (73%)

What to do to “Break Even”

Decrease Expenses

- Review operator contract costs
- Leak detection
- Un-accounted for water
- Increase routine maintenance

Increase Revenues

- Address Un-collectibles
- Increase rates
- Trust subsidy

- USDA \$16M CIP
- Other CIP

Cost of Service: Major Findings

Purpose of the Cost of Service Analysis (COS)

- Tool to determine the “True Cost” of providing water service to the community.

Major findings:

- No clear lines of responsibilities and decisionmaking.
- DHHL does not budget as a utility, so gathering data was challenging. COS figures are “after the fact”.
- DHHL accounting code system has the capacity to track water system costs, however, there’s inconsistent uses of DHHL accounting codes.
- Technology – Water system billing software.

Challenges

- Economies of scale: DHHL systems are considered “very small” – less than 1,000 service connections
- Capture “hidden costs”
- Current rates are extremely low
- Payment delinquencies

Cost of Service: Recommendations

- ✓ Establish Central Water Division – dedicated staff
- ✓ Set up budgets for each water utility enterprise
- ✓ Increase oversight & provide staff training on using DHHL accounting codes
- ✓ Establish asset inventory
- ✓ Establish policies for reserve accounts
- ✓ Closely examine costs & where you can achieve efficiencies
- ✓ Water Billing software that meets DHHL needs today & the future

Water Rate Setting

What it involves:

- ✓ Enterprise Accounting
- ✓ Water system budgets
- ✓ Budget monitoring – Budget-to-Actual reports
- ✓ Cost of Service
- ✓ Rate Analysis

Criteria:

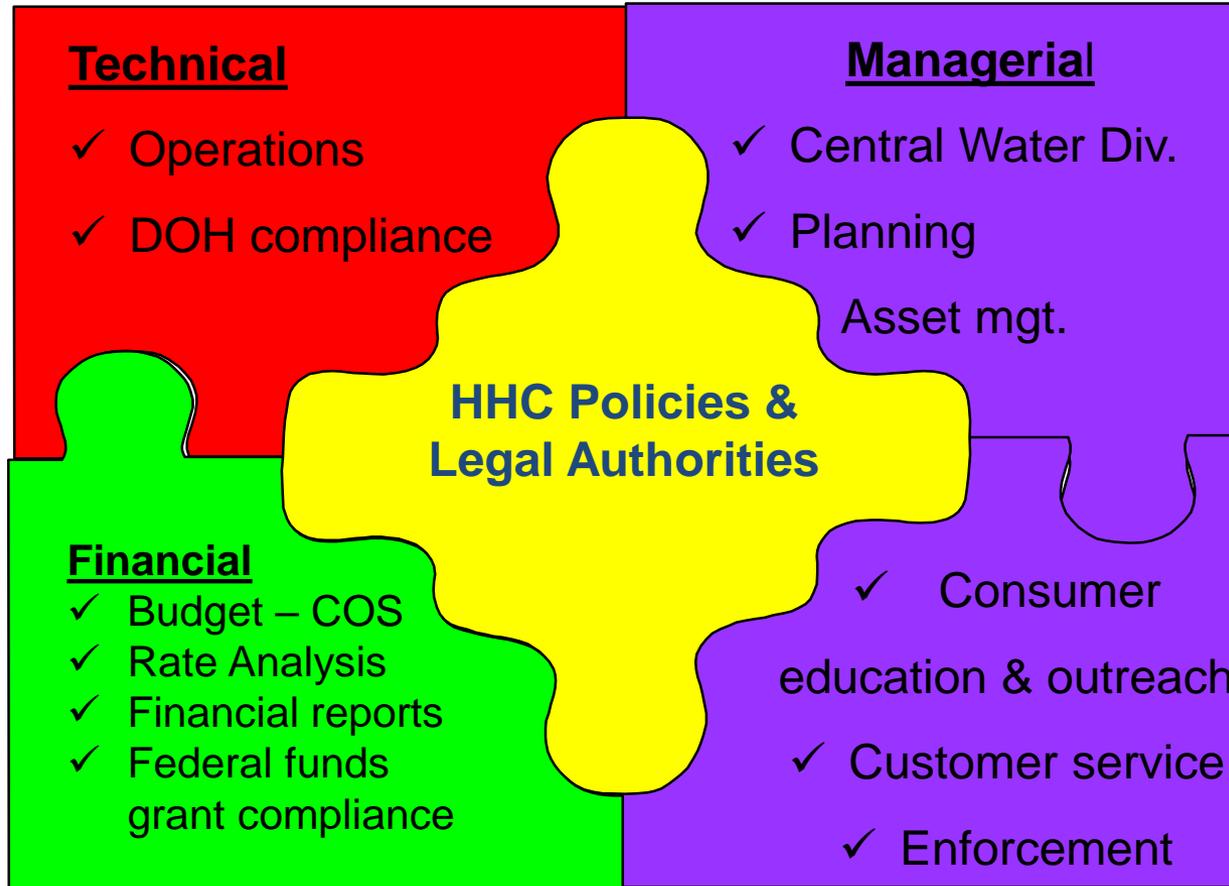
- Beneficiary
 - Rate affordability
 - Equitability
 - Fiscal sustainability
- “break even”

Interim Water Rate Study (in progress)

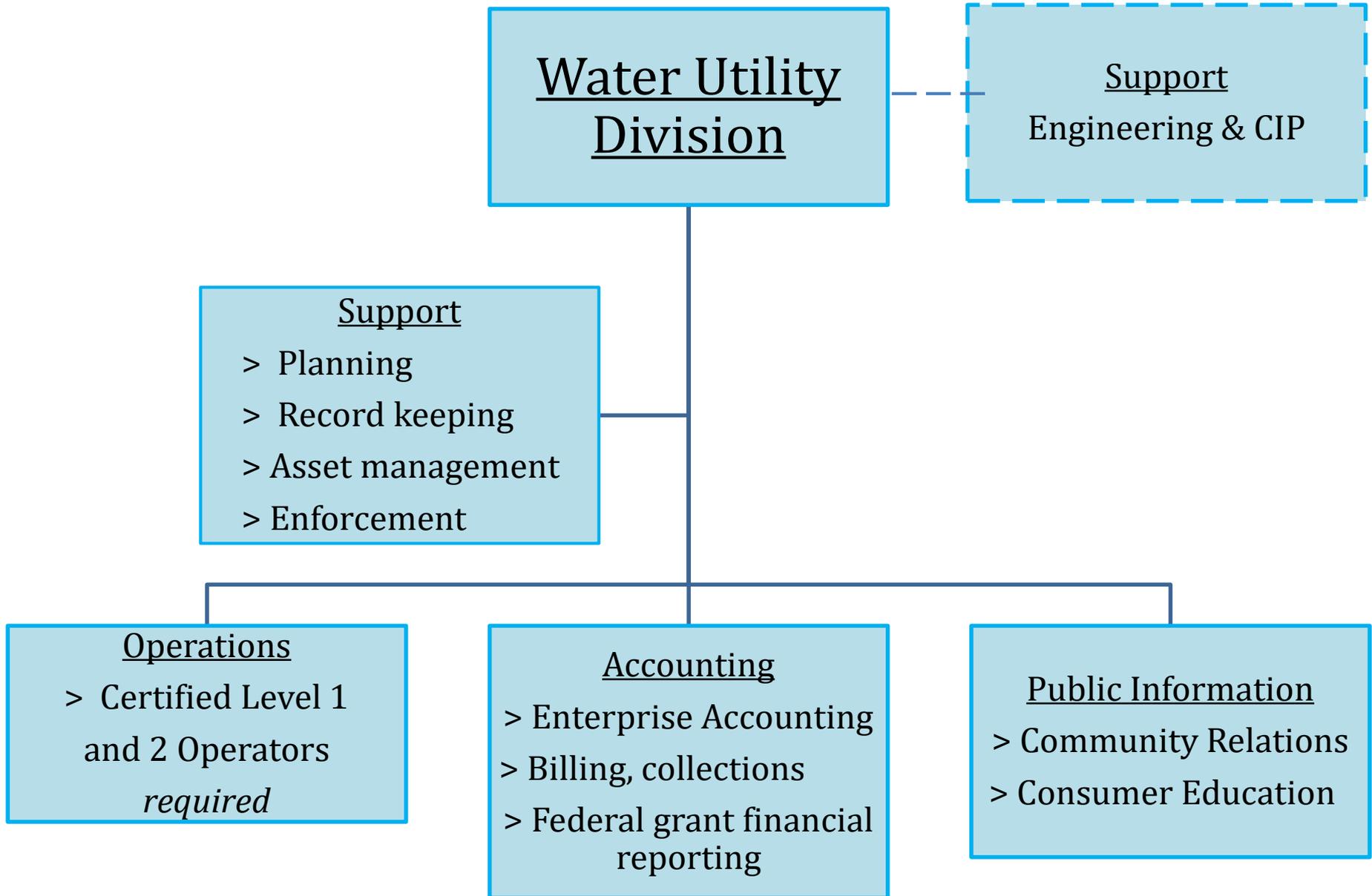
Break Even scenario Preliminary Numbers (per month)

	Avg. Water Bill Today	Full Cost Recovery plus Reserves	% Increase
Ho'olehua – Residential	\$30	\$144	480%
Ho'olehua – Agriculture	\$75	\$360	480%
Anahola	\$78.50	\$451	575%
Kawaihae	\$52	\$268	515%
Pu'ukapu	\$122.41 Flat rate	Not available	Not available

Effective Utility Management



Dedicated staff . . .



Summary: TMF Capacity

TECHNICAL	MANAGERIAL	FINANCIAL
<p><u>Completed</u></p> <ul style="list-style-type: none"> ✓ 3 Certified Operators ✓ Increased O&M Contract oversight 	<p><u>Completed</u></p> <ul style="list-style-type: none"> ✓ HHC Water Policy 2014 ✓ Ad hoc Committee ✓ Effective Utility Management study 	<p><u>Completed</u></p> <ul style="list-style-type: none"> ✓ \$16M USDA grant funds ✓ HHC Enterprise Accounting Policy 2012 ✓ Cost of Service Analysis
<p><u>In Progress</u></p> <ul style="list-style-type: none"> ➤ Add 1 Operator level 2 ➤ Improve consistency in O&M Contract Scopes ➤ Shift O&M contracts to Water Division staff 	<p><u>In Progress</u></p> <ul style="list-style-type: none"> ➤ Water Admin Rules – public hearings ➤ Public education ➤ Interim Rate Study (planning/forecasting) 	<p><u>In Progress</u></p> <ul style="list-style-type: none"> ➤ Implement Enterprise Accounting ➤ USDA grant compliance
<p><u>To Do</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Dedicate 100% staff time on Water Operations 	<p><u>To Do</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Central Water Division <input type="checkbox"/> Water Facility Master Plan - Asset Inventory & Record Keeping <input type="checkbox"/> Customer Service 	<p><u>To Do</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Dedicate Fiscal staff <input type="checkbox"/> Water billing, collection, delinquencies <input type="checkbox"/> Data automation

Next Steps: Water Rates

Schedule subject to change

January	<ul style="list-style-type: none">➤ HHC approval to conduct public hearings on Water Admin Rules➤ Water Rate Study expect to be completed
February	<ul style="list-style-type: none">➤ HHC - Water rate options workshop➤ Seek HHC approval BC consultation
March	<ul style="list-style-type: none">➤ Conduct BC Molokai
April	<ul style="list-style-type: none">➤ Seek HHC approval for new Ho'olehua rates➤ Conduct BC West Hawaii
May	<ul style="list-style-type: none">➤ Seek HHC approval for new Kawaihae & Pu'ukapu rates➤ Seek HHC approval for Anahola rate extension
July	<ul style="list-style-type: none">➤ Conduct BC Anahola
August	<ul style="list-style-type: none">➤ Seek HHC approval for new Anahola rates



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Mahalo !