

BOARD OF WATER SUPPLY

CITY AND COUNTY OF HONOLULU
630 SOUTH BERETANIA STREET
HONOLULU, HI 96843
www.boardofwatersupply.com



May 16, 2017

KIRK CALDWELL, MAYOR

BRYAN P. ANDAYA, Chair
ADAM C. WONG, Vice Chair
DAVID C. HULIHEE
KAPUA SPROAT
KAY C. MATSUI

ROSS S. SASAMURA, Ex-Officio
FORD N. FUCHIGAMI, Ex-Officio

ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

ELLEN E. KITAMURA, P.E.
Deputy Manager and Chief Engineer

RECEIVED
CITY CLERK
C & C OF HONOLULU
2017 MAY 16 AM 11:51

NOTICE

The Board of Water Supply, City and County of Honolulu, will hold a Public Hearing on Monday, May 22, 2017, at 2:00 p.m. in the Board Room, Public Service Building, 630 South Beretania Street, Honolulu, Hawaii. The following will be considered: (1) Adoption of the Operating and Capital Improvement Program Budget for the Fiscal Year 2017-2018 and Appropriating Funds Therefor.

SPEAKER REGISTRATION

The Board of Water Supply is committed to allowing public testimony at open meetings of the Board.

Please provide your name, phone number and subject matter of testimony when registering **prior to the day of the meeting** by one of the following options:

1. Emailing to board@hbws.org;
2. Faxing to 748-5079;
3. Calling 748-5061;
4. In person – 630 S. Beretania Street, Room 311

Persons wishing to testify may also register by filling out the registration form **on-site on the day of the meeting**.

Persons who have not registered to testify will be given an opportunity to speak on an item following the oral testimonies of the registered speakers.

Testimony is limited to three minutes and shall be presented by the registered speaker only.

WRITTEN TESTIMONY

Written testimony may be emailed to board@hbws.org or faxed to 748-5079, **prior to the day of the meeting**, for distribution at the meeting.

13 copies are requested if written testimony is submitted **on-site on the day of the meeting**.

If submitted, written testimonies, including the testifier's address, email address, and phone number may be posted on the Board of Water Supply website.

PHYSICALLY CHALLENGED REQUESTS

If you require special assistance, auxiliary aid and/or service to participate in this meeting (i.e. sign language interpreter; interpreter for language other than English, or wheelchair accessibility), please contact 748-5061 or email your request to board@hbws.org **at least three business days prior to the meeting date**.

The agenda for the May 22, 2017 Public Hearing and Regular Meeting of the Board of Water Supply is as follows:

ITEMS REQUIRING BOARD ACTION

1. Approval of the Minutes of the Regular Meeting Held on April 24, 2017
2. Approval of the Minutes of the Special Meeting Held on May 8, 2017
3. Adoption of Resolution No. 874, 2017, Acceptance of Gift to the Board of Water Supply for the Fred Ohrt Museum
4. Adoption of Resolution No. 875, 2017, Adopting the Operating and Capital Improvement Program Budget for the Fiscal Year 2017-2018 and Appropriating Funds Therefor

ITEMS FOR INFORMATION

1. Board of Water Supply Financial Plan and Rate Study Update
2. Capital Improvement Program Quarterly Update
3. Recruitment Status
4. Status Update of Groundwater Levels at All Index Stations
5. Water Main Repair Report for April 2017

EXECUTIVE SESSION

1. Approval of the Minutes of the Executive Session Meeting Held on April 24, 2017
2. To Consider the Evaluation of the Chief Engineer, Where Consideration of Matters Affecting Privacy Will Be Involved [HRS §92-5(a)(2)]

MINUTES

PUBLIC HEARING AND THE REGULAR MEETING OF THE BOARD OF WATER SUPPLY

May 22, 2017

The Public Hearing was held in the Board Room of the Public Service Building at 630 South Beretania Street, Honolulu, Hawaii, to Consider (1) Adoption of the Operating and Capital Improvement Program Budget for the Fiscal Year 2017-2018 and Appropriating Funds Therefor.

Present: Bryan P. Andaya, Chair
David C. Hulihee
Kapua Sproat
Ross S. Sasamura

Also Present: Ellen Kitamura, Deputy Manager and Chief Engineer
Robert Morita
Stuart Wong
Erwin Kawata
Mike Fuke
Jason Takaki
Kevin Ihu
Barry Usagawa
Henderson Nuuhiwa
Mike Matsuo
Kathleen Pahinui
Joe Cooper
Leanne Matsumoto
Jennifer Elflein
Mike Domion
Michele Thomas
Teri Akana

Others Present: Jessica Wong, Deputy Corporation Counsel
Randy Ishikawa, Deputy Corporation Counsel
Tom Myers, Brown and Caldwell
Susan Uyesugi, SSFM International, Inc.

Absent: Adam C. Wong, Vice Chair
Kay C. Matsui
Ford N. Fuchigami

The meeting was taken out of order.

At 2:00 PM, Chair Andaya called to order the Public Hearing announcing that this Public Hearing is to consider the proposed 2017-2018 Operating and Capital Improvement Program (CIP) Budget for the fiscal year (FY) beginning July 1, 2017. A Notice of Public Hearing appeared in the May 12, 2017, Honolulu Star Advertiser newspaper.

Before beginning the Public Hearing, Mr. Andaya stated that this Board is dedicated to the provision of a safe, dependable, and affordable supply of water to their customers. One of the best ways they ensure that this occurs is to thoughtfully plan and fund a regular program of water facility replacement and improvement as reflected in the annual Operating and CIP Budget they are considering today.

On May 8, 2017, a budget informational meeting was held. This meeting outlined the Department's goals and objectives, and the proposed Operating and CIP budgets for the FY 2017-2018.

Before taking testimony, Ellen Kitamura, Deputy Manager and Chief Engineer of the Board of Water Supply (BWS) explained that the proposed budget for FY 2017-2018 consists of the Operating and CIP budget. The Operating Budget provides for operational and maintenance costs for continuing water services to customers; while the CIP Budget provides funding for research and facility replacement costs; as well as funding for major water system additions or expansions. Combined, these budgets propose total expenditures of \$335.8 million. Approximately 57 percent of the combined budgets are allocated to operating expenditures totaling \$191.5 million, while 43 percent or \$144.3 million are allocated to the CIP.

Mr. Andaya called on Robert Morita, Executive Support Office Executive Assistant, Barry Usagawa, Water Resources Division Program Administrator, and Jason Takaki, Capital Projects Division Program Administrator to give the presentation.

Mr. Morita began the presentation by explaining that they will present an overview referred to as the big picture on how the budget is tied into the 30-year Water Master Plan that the Board recently adopted, and then go into detail on the Operating and CIP Budget.

Mr. Usagawa continued with an overview of the main break pipeline replacement, followed by an overview by Mr. Morita of the FY 2017-2018 Operating Budget, and concluded with an overview by Mr. Takaki of the FY 2017-2018 CIP Budget.

Mr. Takaki mentioned that one of the project category highlights is the Ewa Shaft Tunnel improvements. Board Member Sproat asked what improvements need to be done at the Ewa Shaft Tunnel. Mr. Usagawa replied that there is residual bacteria in the water coming from the nearby stream. The plan is to install infrastructure improvements to isolate the stream from the shaft. The \$3 million budgeted for this project is for the design based on the evaluation of alternatives proposed in the hydro-geological study. Mr. Usagawa stated that currently there is enough source capacity in Ewa, but this tunnel system would provide a huge source of water for Ewa's future. They hope to complete this project in the next five years.

Mr. Morita recognized and thanked Mr. Stuart Wong of the Executive Support Office, Management and Budget Office, and Mr. Mike Domion of the Capital Projects Division for their hard work in putting this budget together. Mr. Morita concluded the presentation with the budget summary.

Chair Andaya announced that they will now take testimony on the proposed Operating and CIP Budget. He asked if there was anyone who wished to testify to come forward, state their name and organization they represent and to limit their testimony to three minutes. There being no testimony, discussion, or questions, Chair Andaya closed the Public Hearing and continued on with the item to adopt Resolution No. 875, 2017.

"May 22, 2017

ADOPTION OF
RESOLUTION
NO. 875, 2017

Chair and Members
Board of Water Supply
City and County of Honolulu
Honolulu, Hawaii

Chair and Members:

Subject: Adoption of Resolution No. 875, 2017, Adopting the
Operating and Capital Improvement Program Budget
for the Fiscal Year 2017-2018 and Appropriating
Funds Therefor

We recommend adoption of the proposed Operating and Capital Improvement Program Budget for the fiscal year beginning July 1, 2017 and ending June 30, 2018.

A public hearing to consider the proposed budget, as required by the City Charter, was held on May 22, 2017. The affidavit attesting to the publication of the public hearing notice is attached.

We further recommend adoption of the attached Resolution No. 875, 2017, appropriating funds for the Operating and Capital Improvement Program Budget for Fiscal Year 2017-2018 as follows:

1. The sum of \$191,468,692 from the Operating Fund for Operating Budget expenditures.
2. The sum of \$119,967,900 from the Operating Fund, \$23,635,000 from the Special Expendable Fund and \$737,300 from the Reserve Release Fund for Capital Improvement Program Budget expenditures.

Respectfully submitted,

/s/ ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

Attachments"

AFFIDAVIT OF PUBLICATION

IN THE MATTER OF
NOTICE OF PUBLIC HEARING

STATE OF HAWAII

} SS.

City and County of Honolulu

Doc. Date:	<u>MAY 12 2017</u>	# Pages:	<u>1</u>
Notary Name:	<u>COLLEEN E. SORANAKA</u>	First Judicial Circuit	
Doc. Description:	<u>Affidavit of</u>		
Publication			
	<u>MAY 12 2017</u>		
Notary Signature	Date		

Gwyn Pang being duly sworn, deposes and says that she is a clerk, duly authorized to execute this affidavit of Oahu Publications, Inc. publisher of The Honolulu Star-Advertiser, MidWeek, The Garden Island, West Hawaii Today, and Hawaii Tribune-Herald, that said newspapers are newspapers of general circulation in the State of Hawaii, and that the attached notice is true notice as was published in the aforementioned newspapers as follows:

Honolulu Star-Advertiser 1 times on:

05/12/2017

MidWeek 0 times on:

The Garden Island 0 times on:

Hawaii Tribune-Herald 0 times on:

West Hawaii Today 0 times on:

Other Publications: 0 times on:

And that affiant is not a party to or in any way interested in the above entitled matter.


Gwyn Pang

Subscribed to and sworn before me this 12 day of May A.D. 2017

Colleen E. Soranaka, Notary Public of the First Judicial Circuit, State of Hawaii

My commission expires: Jan 06 2020

Ad # 0000990479

NOTICE OF PUBLIC HEARING

NOTICE IS HEREBY GIVEN that the BOARD OF WATER SUPPLY, CITY AND COUNTY OF HONOLULU, will hold a PUBLIC HEARING in the Board Room, Public Service Building, 630 South Beretania Street, on MONDAY, MAY 22, 2017, at 2:00 p.m. or soon thereafter, where all interested persons shall be afforded the opportunity of being heard on the adoption of the Proposed Fiscal Year 2018 Operating and Capital Improvement Program Budget of the Board of Water Supply for the fiscal year beginning July 1, 2017, and ending June 30, 2018.

Information to be discussed at this public hearing is available at Room 319 of the Public Service Building, Board of Water Supply, 630 South Beretania Street. All comments on or suggested changes to the proposed FY 2018 Operating and Capital Improvement Program Budget of the Board of Water Supply should be filed in writing before the date of the public hearing or presented in person at the time of the hearing. Persons wishing to speak are requested to register by 1:00 p.m. with Luella Paekukui, 748-5176, by providing your name, phone number, and subject matter of testimony. Testimony is limited to three minutes and shall be presented by the registered speaker only. Any person requiring special assistance who plans to attend the public hearing, may contact Luella Paekukui at 748-5176, no later than May 15, 2017, so that appropriate accommodations can be provided.

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

(SA090479 5/12/17)



SP.NO.: _____ L.N.

MOTION TO
ADOPT
RESOLUTION
NO. 875, 2017

David Hulihee motioned to adopt Resolution No. 875, 2017, Adopting the Operating and Capital Improvement Program Budget for the Fiscal Year 2017-2018 and Appropriating Funds Therefor, seconded by Kapua Sproat.

DISCUSSION:

Mr. Andaya stated that the Board is very proud of this budget. It shows the commitment to invest and to make sacrifices that are required to improve and maintain the quality of drinking water and the infrastructure. Now that the Board has approved this budget, the BWS needs to commit to execute all of the projects.

The motion was unanimously carried.

BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU

RESOLUTION NO. 875, 2017

**RESOLUTION ADOPTING THE OPERATING AND CAPITAL IMPROVEMENT
PROGRAM BUDGET FOR THE FISCAL YEAR 2017-2018 AND APPROPRIATING
FUNDS THEREFOR**

BE IT RESOLVED by the Board of Water Supply, City and County of Honolulu, State of Hawaii, that in accordance with the provisions of Article VII of the Charter of the City and County of Honolulu, the sum of ONE HUNDRED NINETY-ONE MILLION FOUR HUNDRED SIXTY-EIGHT THOUSAND SIX HUNDRED NINETY-TWO DOLLARS (\$191,468,692) be and the same is hereby appropriated out of all monies placed to the credit of the Operating Fund for expenditures of the Board of Water Supply Operating Budget for the fiscal year beginning July 1, 2017 and ending June 30, 2018 as follows:

OPERATING BUDGET

OPERATING FUND.....\$191,468,692

BE IT FURTHER RESOLVED that the said Operating Fund appropriation may be increased to the extent that any State or Federal environmental law, regulation, and/or electric power cost, causes the Board of Water Supply to exceed the cost thresholds as specified in the Schedule of Rates and Charges for the Furnishing of Water and Water Service; and

BE IT FURTHER RESOLVED that the sum of ONE HUNDRED NINETEEN MILLION NINE HUNDRED SIXTY-SEVEN THOUSAND NINE HUNDRED DOLLARS (\$119,967,900) be and the same is hereby appropriated out of all monies placed to the credit of the Operating Fund, the sum of TWENTY-THREE MILLION SIX HUNDRED

WATER FOR LIFE

Safe, dependable, and affordable water now and into the future



Board of Water Supply
City and County of Honolulu

FY 2018 Budget



Board of Water Supply
May 22, 2017



Agenda

- Opening Remarks
- The Big Picture
- Operating Budget
- Capital Improvement Program Budget
- Summary





The Big Picture

- The Water Master Plan provides a comprehensive understanding of Oahu's water supplies, water needs and the water system.
- Meeting the goals of the plan will be challenging as the level of investment will need to increase as the infrastructure ages.



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City and County of Honolulu

Main Break Pipeline Replacement Overview



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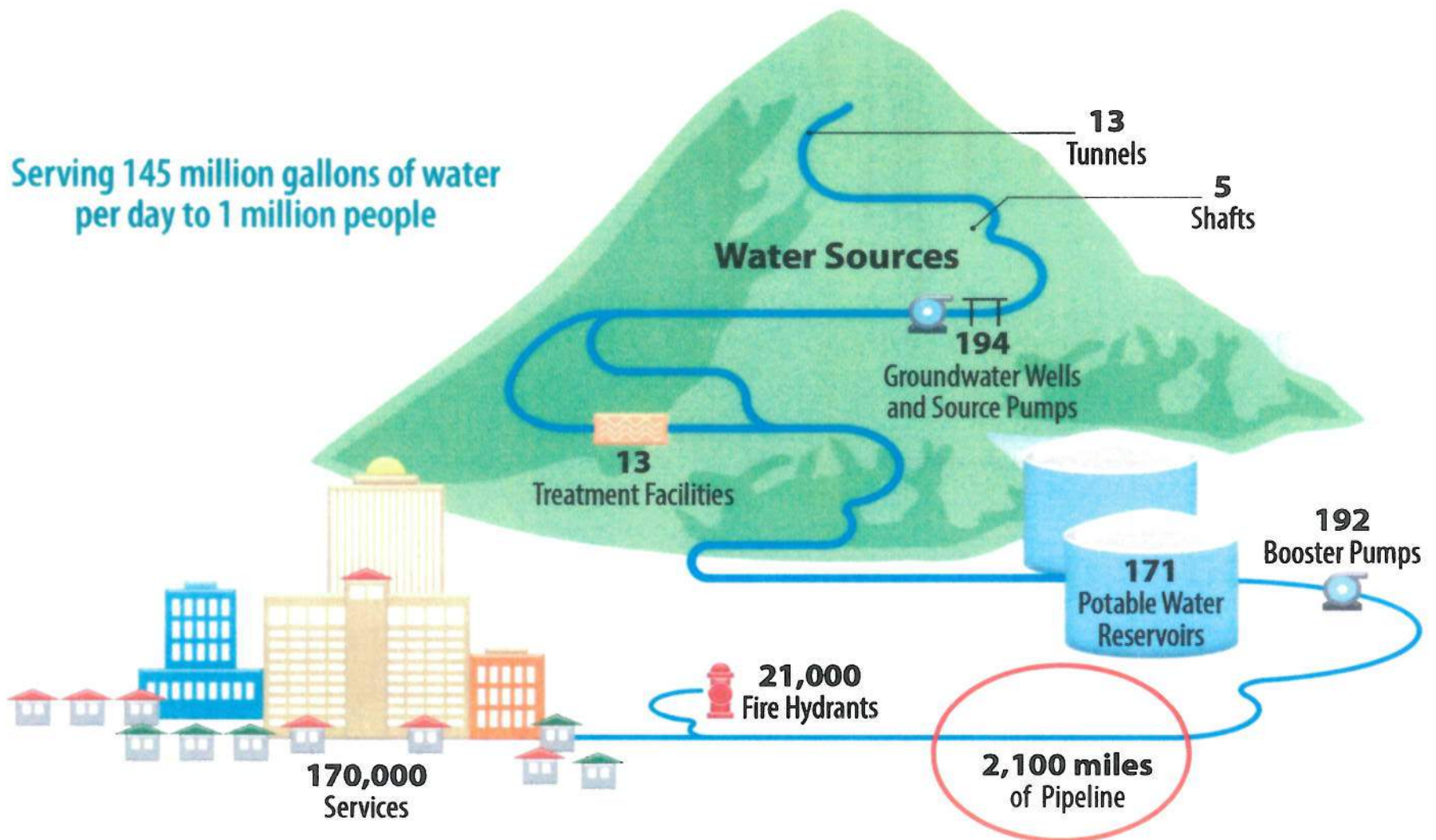
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Board of Water Supply
City and County of Honolulu

The BWS Water System is Large and Complex

Serving 145 million gallons of water
per day to 1 million people



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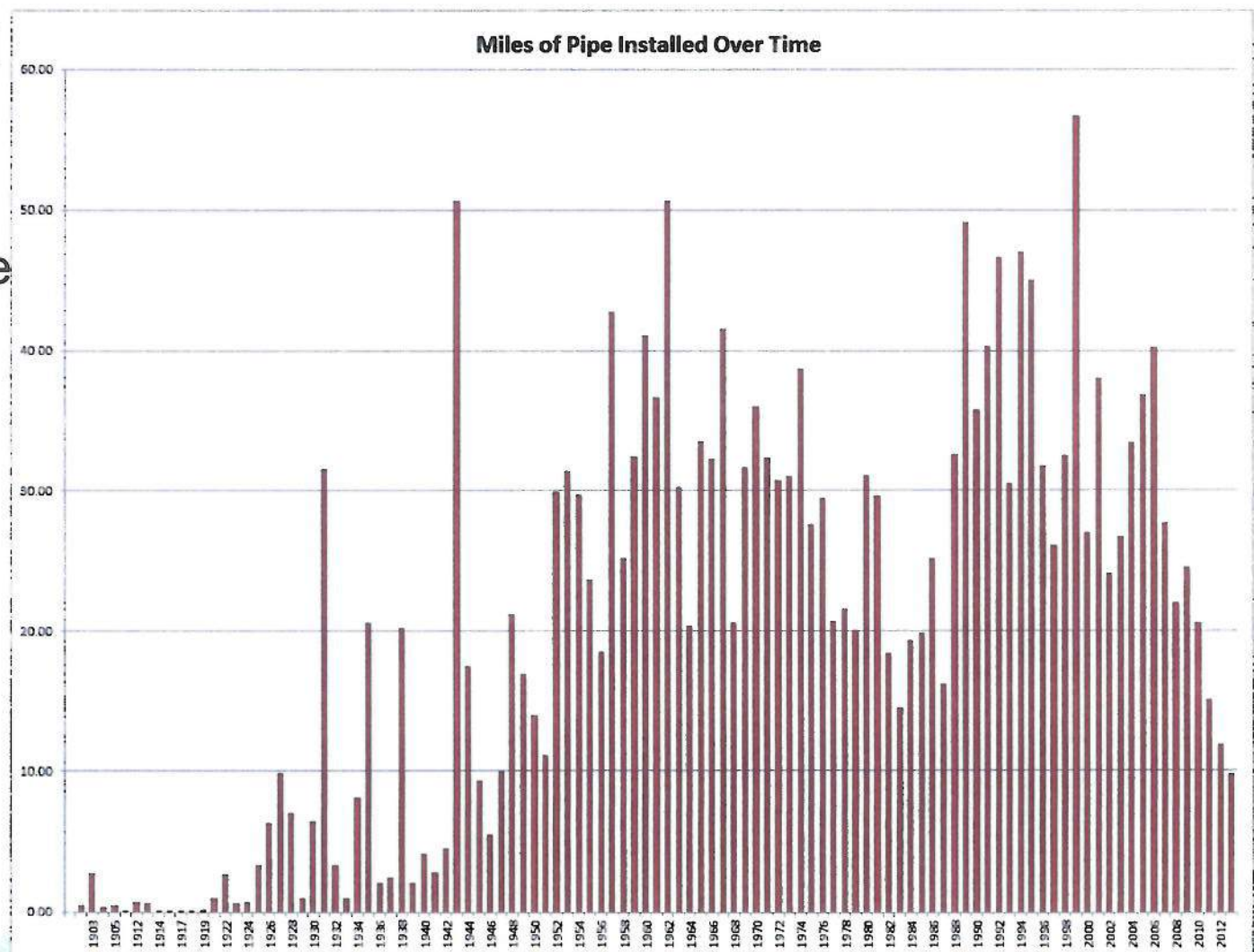
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City and County of Honolulu

BWS Pipeline Build-Out History 1900-Today

- BWS installed pipe by date and miles
- Mixture of pipe materials
- Average pipe age is 40 years



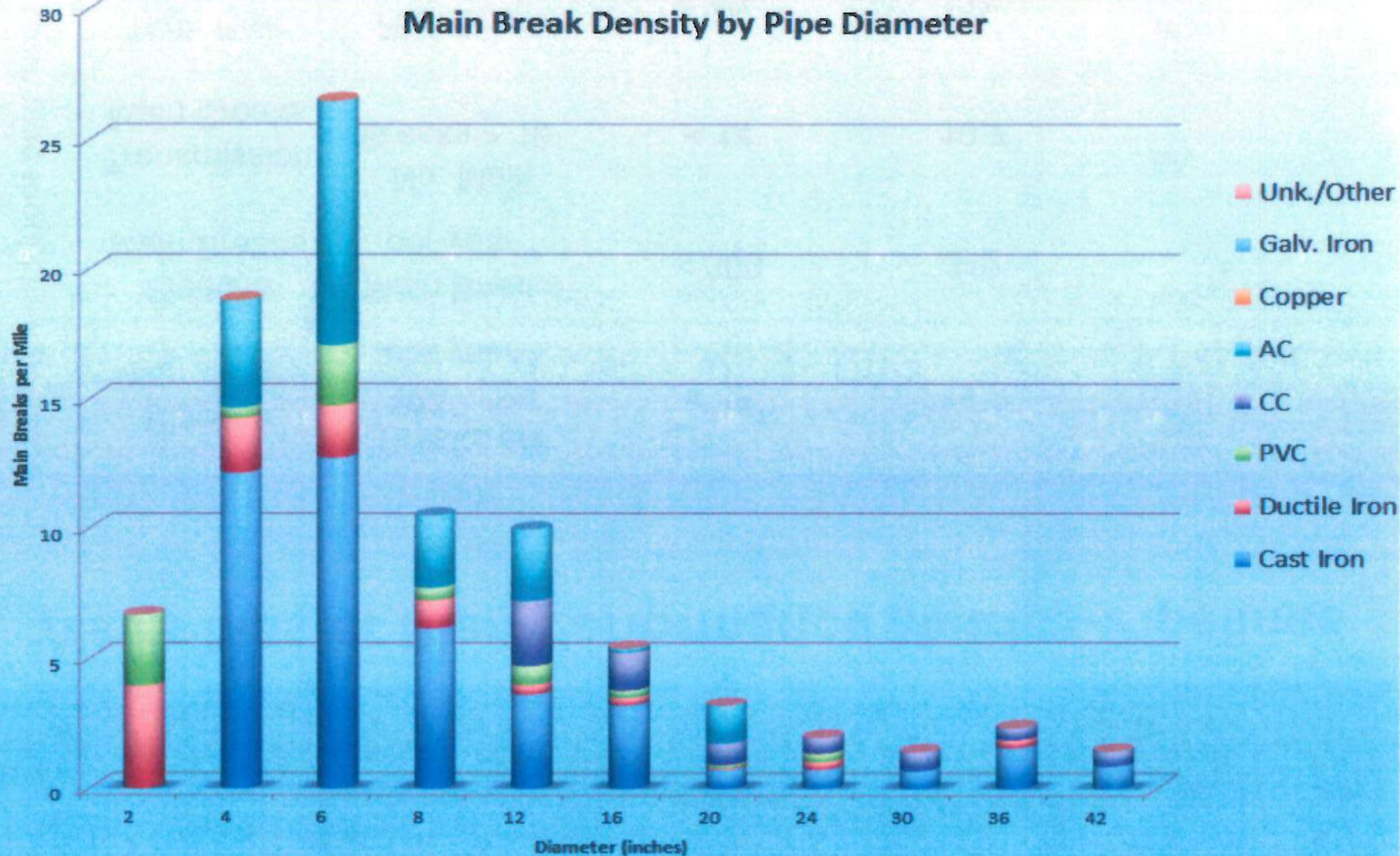
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Main Break Density by Pipe Diameter





Water Master Plan Performance Metrics-Pipelines

Indicator	Metric	Goal	Actual (2016)	Performance
Pipeline Main Breaks	Breaks per 100 miles per year *	< 15	15.2	●
Pipeline Main Breaks	Main Breaks per year *	< 300	312	●
Transmission Main Breaks	No. Main Breaks $\geq 16"$ *	< 14	10.7	●
High Risk Pipelines	Risk Score > 400	< 5%	12%	●
Pipeline R&R	Miles of Pipe Renewed *	21	10	●

How much pipe should be replaced?

* (3 yr avg)

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Current Outlook

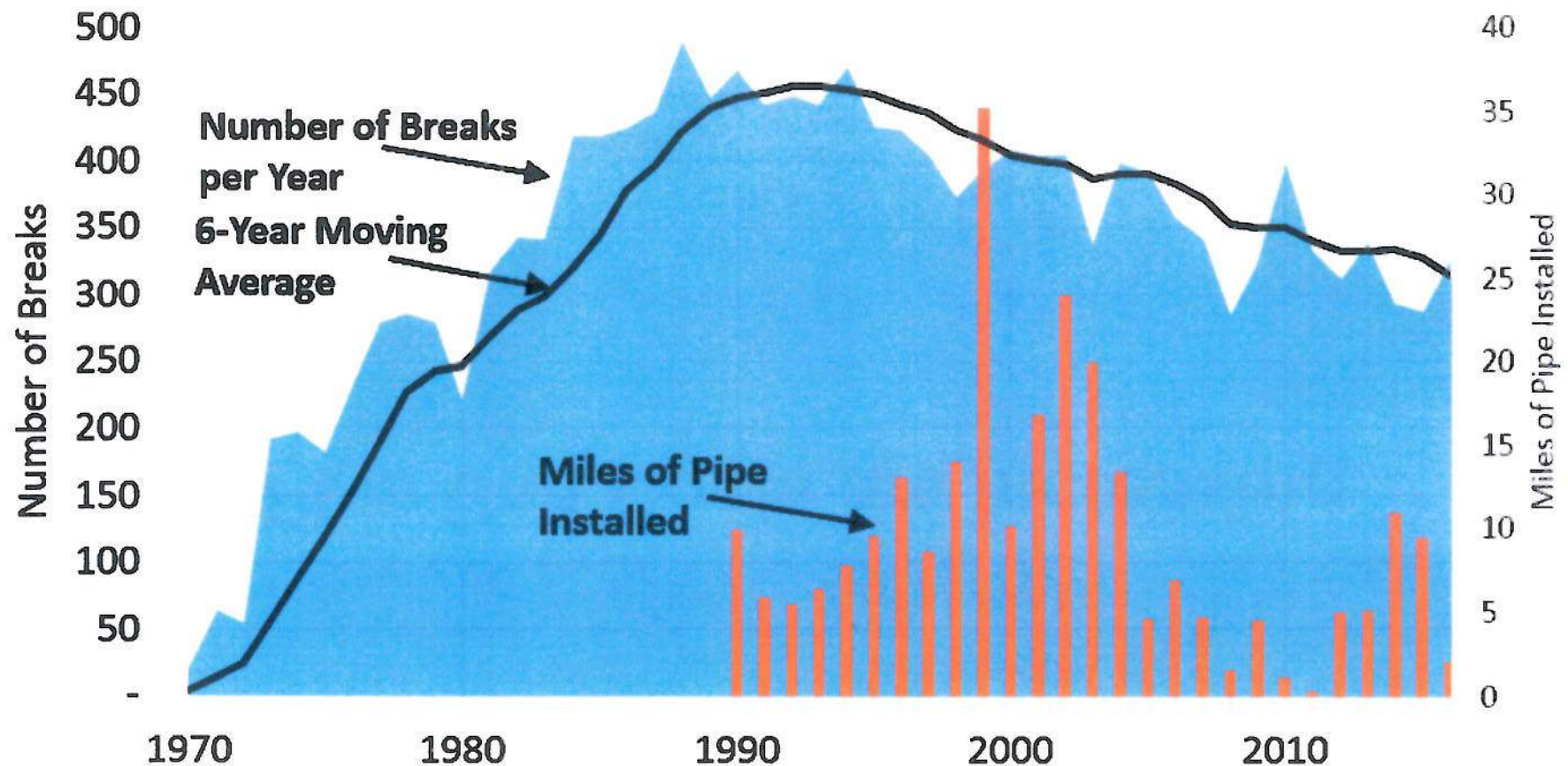
312 Breaks
(3 yr avg)

Trend

On Par ✓
(AWWA Guidance)

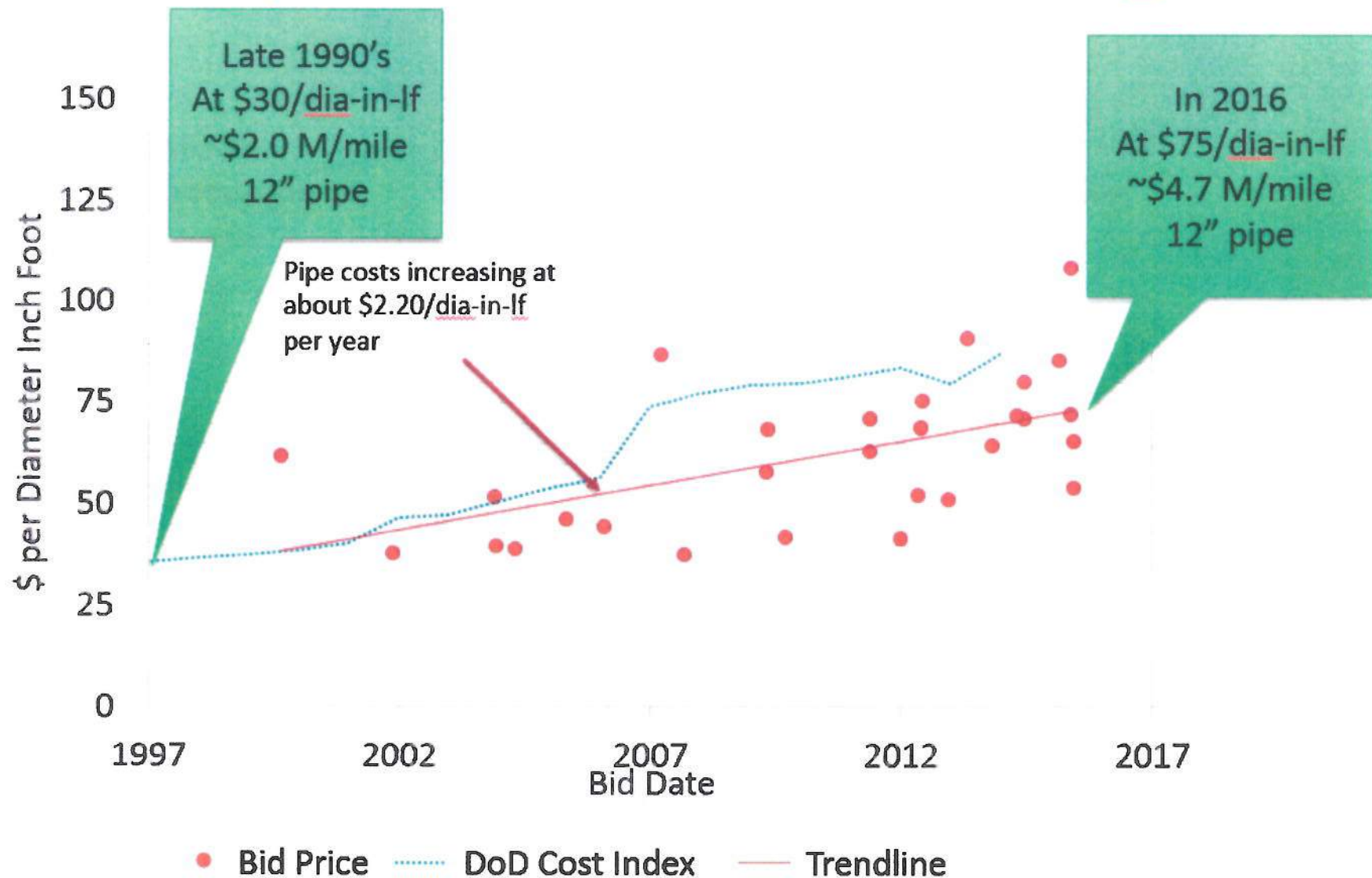
40 Years
(avg pipe age)

R&R Rate
(Below AWWA Guidance)





Pipe Unit Costs are Increasing





The Average Rate of Pipeline Replacement Goal is 1% or 21 miles/year

100 Year Lifespan

1.0% (20.6 mi/yr)

AWWA Benchmarking 2012

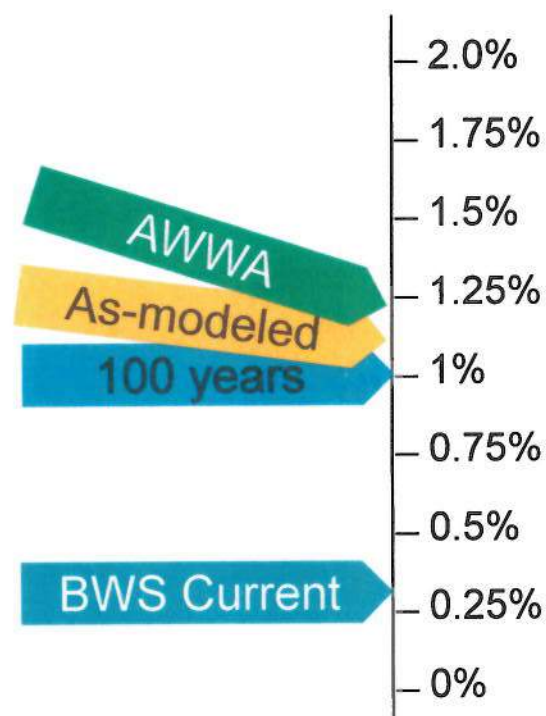
median 1.2% (24.7 mi/yr)

BWS As-Modeled Lifespan

1.1% (21.9 mi/yr)

BWS Current Rate

0.3% (6 mi/yr)



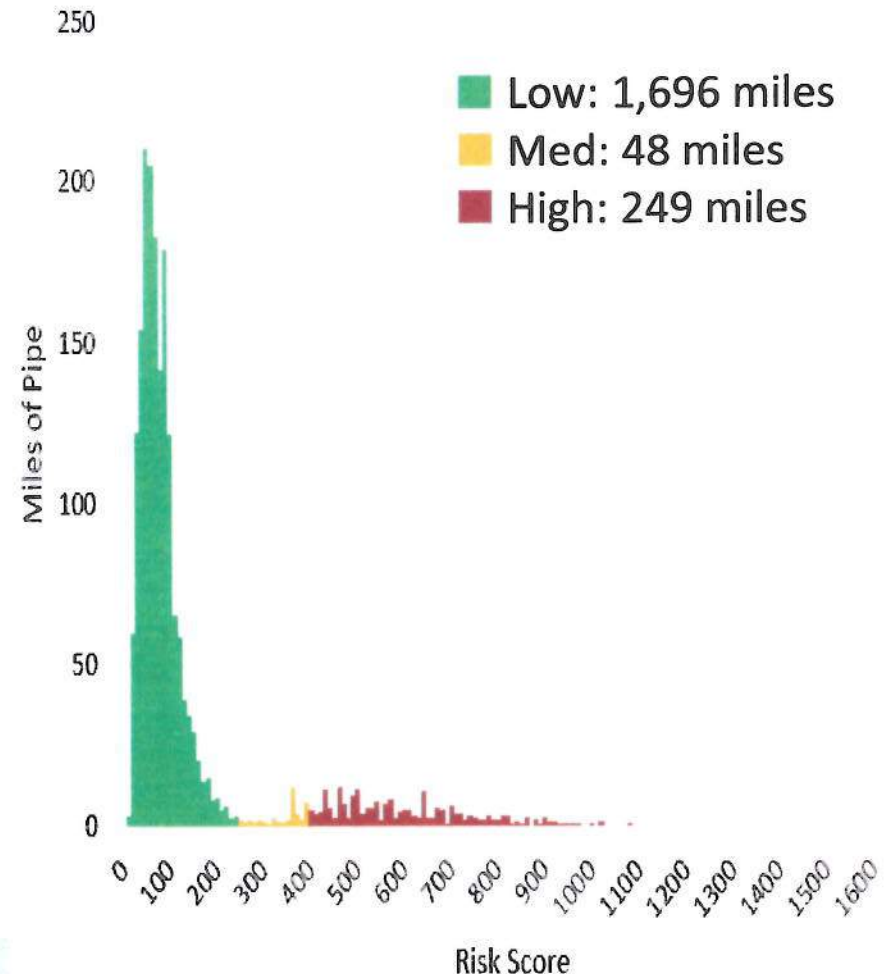


CapPlan Pipeline Risk Scores

Which pipes should be replaced?

- Range from 13 to 1,666
- Low < 250, High > 400
- Value is based on scores for criteria developed specific to BWS
- If the high risk pipelines were replaced, main breaks will decrease
- How long will it take to replace the ~10% or 249 miles of high risk pipelines

Risk Histogram (10 pt buckets)



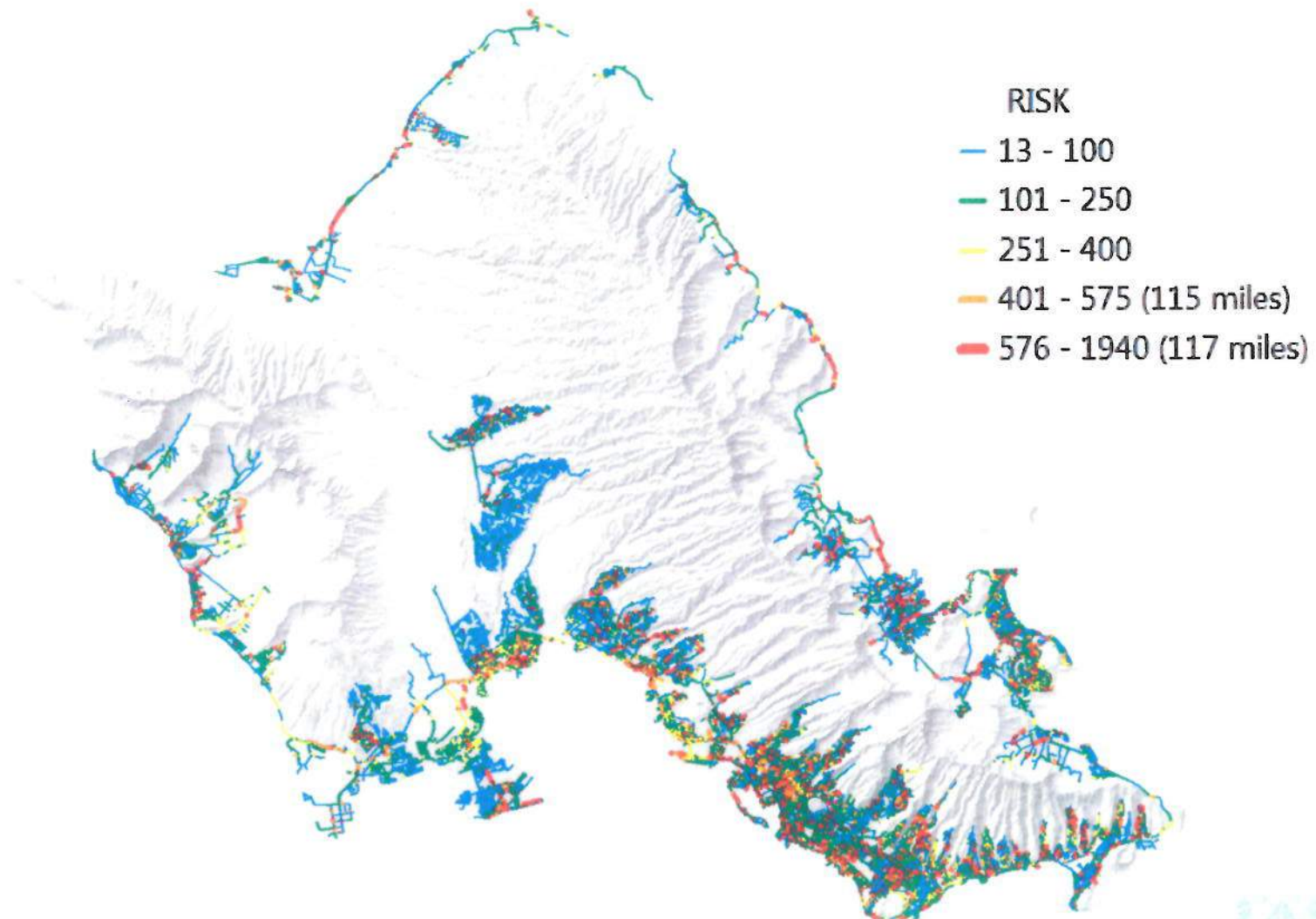
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City and County of Honolulu

Pipeline Risk Scores Island-wide





Goal of Projections

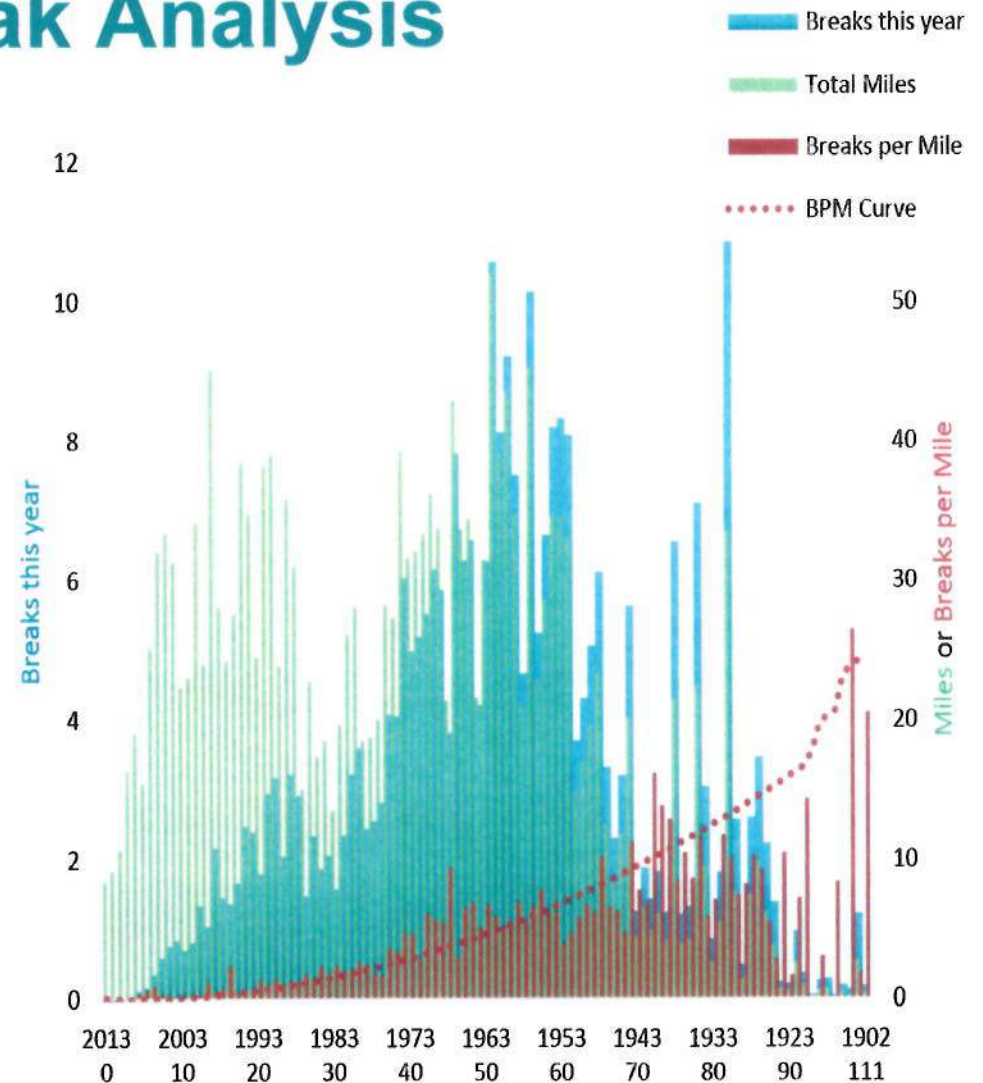
- Forecast main breaks for various financial planning scenarios
- Understand the effect of pipeline replacement rate (and thus CIP \$) on break rate
- Utilize BWS data rather than industry-estimated design lives





Main Break Analysis

- Keeping breaks under control
 - Using BWS break data, made simple model looking only at pipe age.
 - Slope of curve equals break rate for pipe of that age.
 - Using this equation, project break rates into the future under various scenarios.



How much pipe should be replaced?



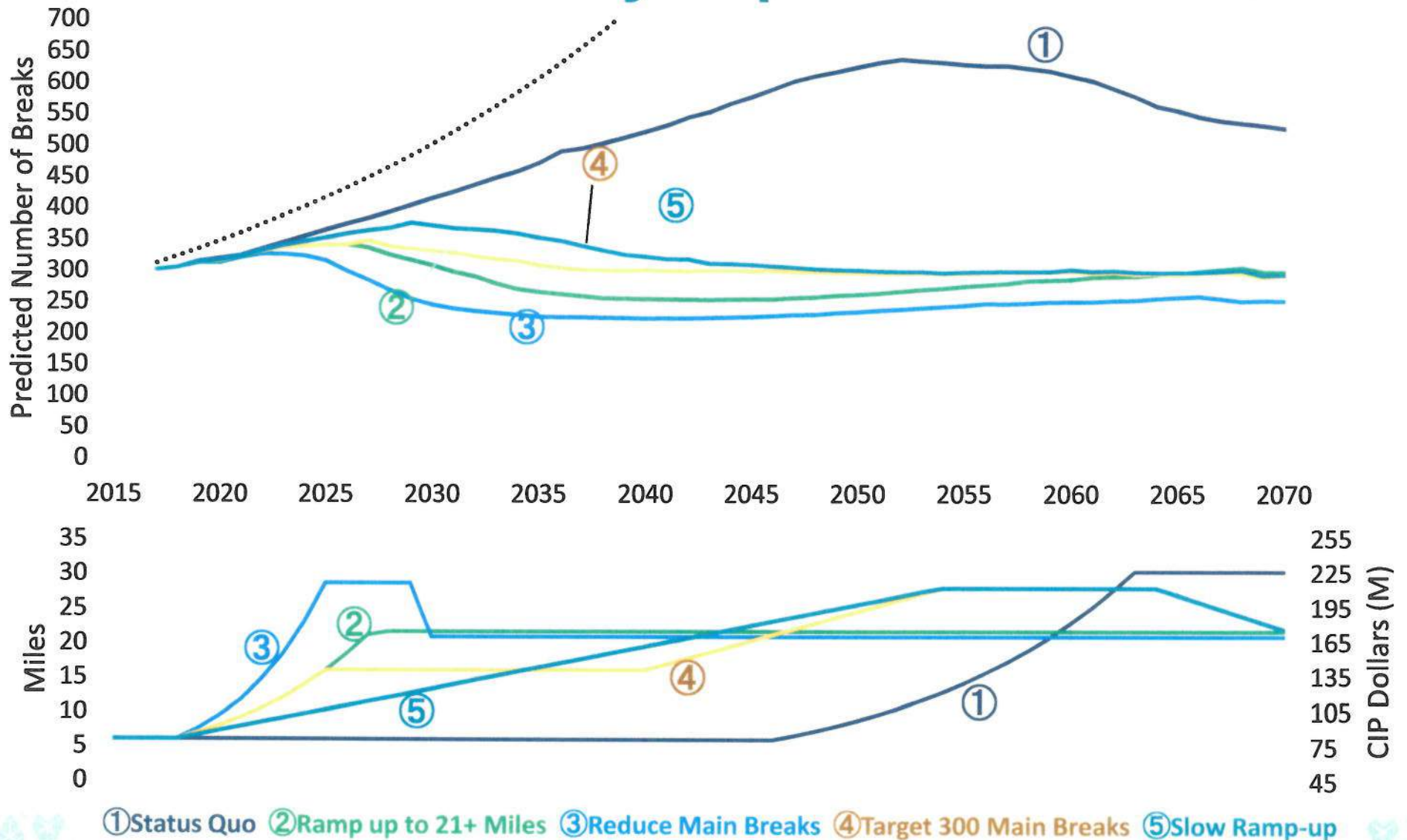
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Break Prediction by Replacement Scenario



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FY 2018 Operating Budget



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Operating Fund Revenue Expenditure Summary

(millions of dollars)

	FY 2017	FY 2018	Change	
	<u>Adopted</u>	<u>Proposed</u>	<u>\$ Mil.</u>	<u>%</u>
Revenues	\$230.8	\$236.5	\$5.7	2.5%
Total Operating Expenditures	\$210.9	\$191.5	\$-19.4	-9.2%





Operating Fund Resources and Expenditures

(millions of dollars)

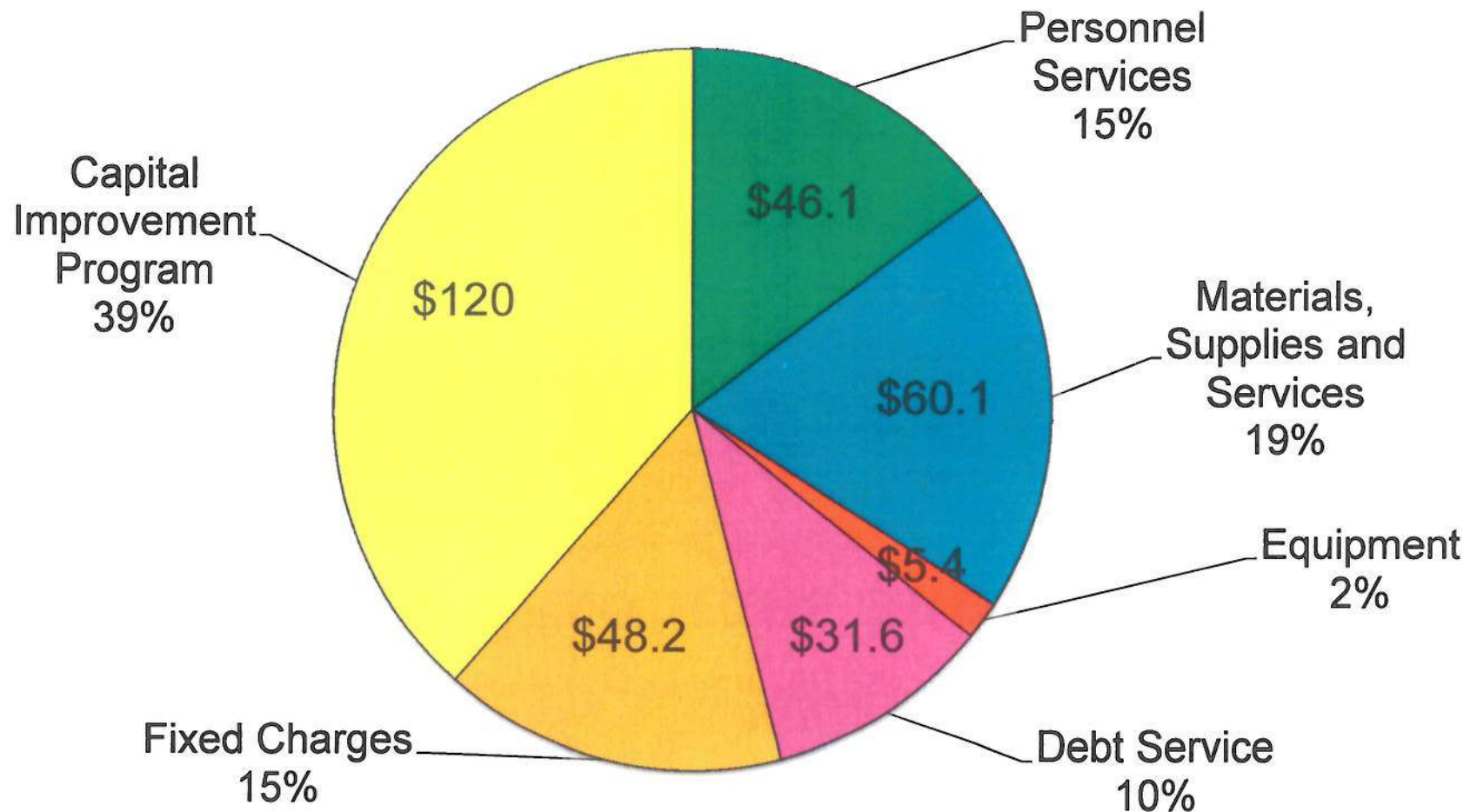
	FY 2016	FY 2017	FY 2018
	Actual	Estimated Actual	Budget
Beginning Balance	\$ 76.9	\$110.3	\$ 107.7
Revenues	239.3	235.4	236.5
Lapses/ Adjustments	5.3	6.4	-
Total Resources	321.4	352.1	344.3
Operating Expenditures	152.3	170.0	191.5
Capital Improvement Program	58.8	74.4	119.9
Total Expenditures	211.1	244.4	311.4
Ending Balance	110.3	\$107.7	\$ 32.8





Operating Budget Expenditures for FY 2018

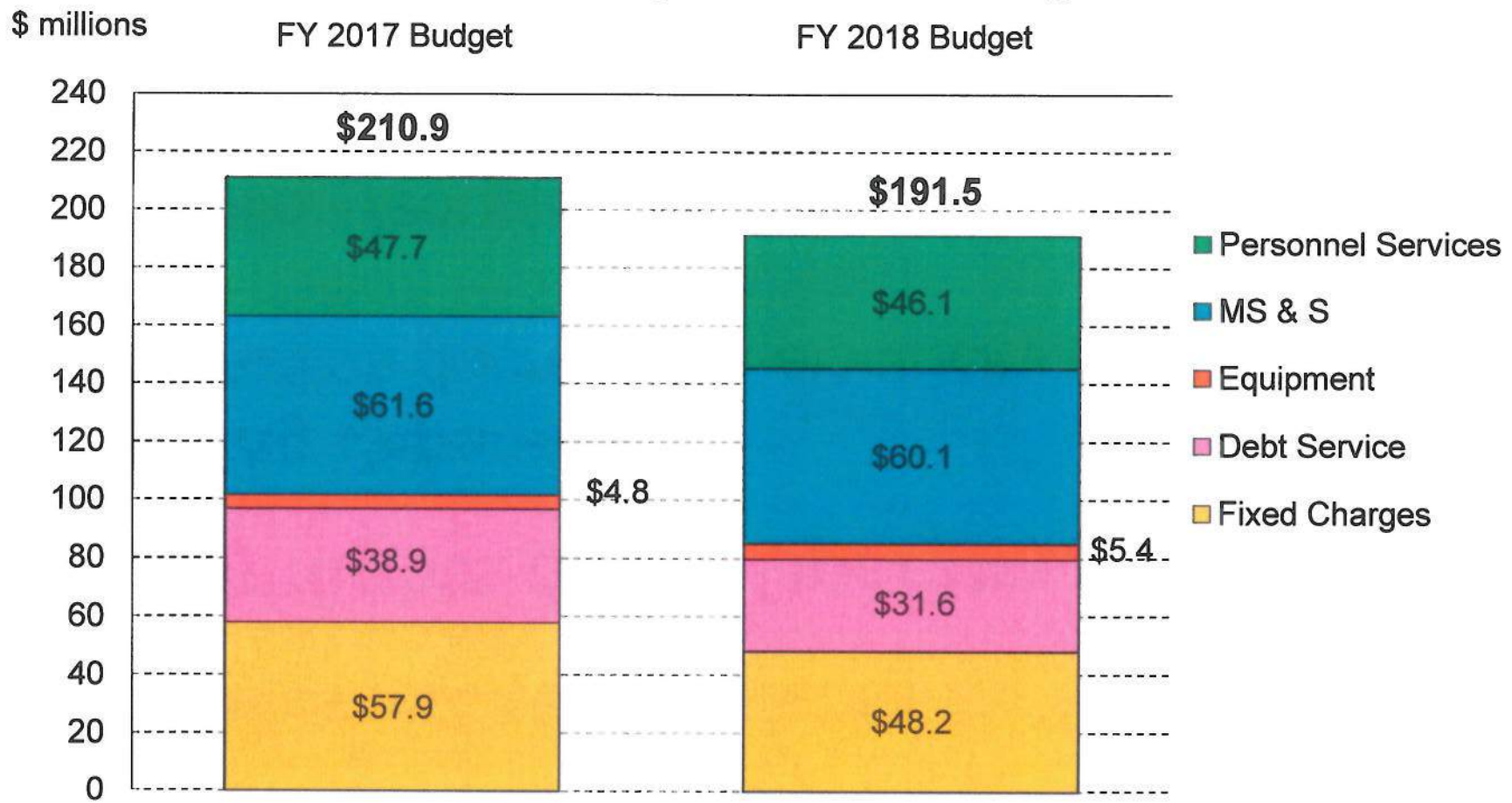
Total budget = \$311.4 million





Operating Budget Expenditures

FY 2017 Budget vs. FY 2018 Budget





Highlights of the Operating Budget

Operating Expenses:

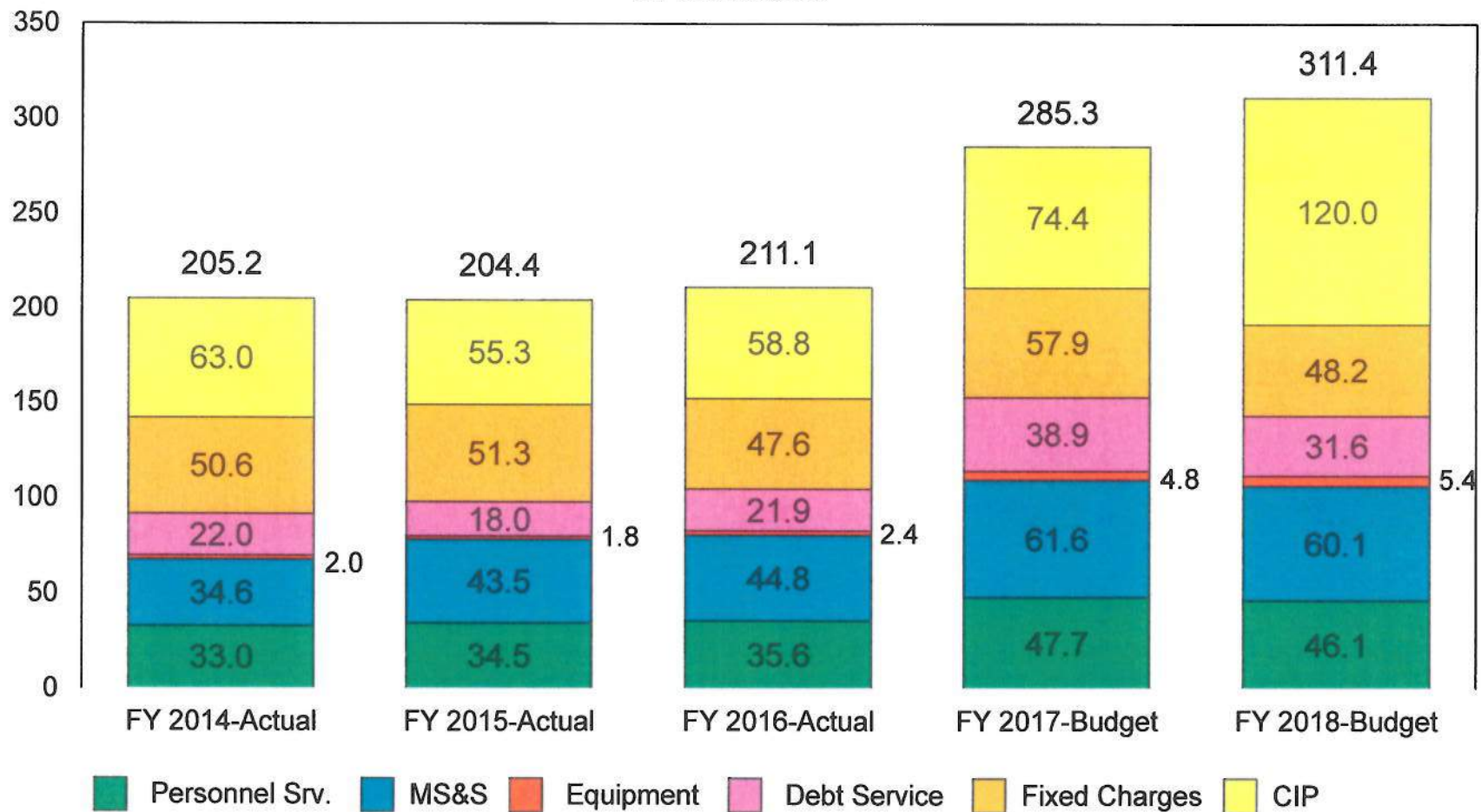
- \$8.2 million decrease in electricity costs (from \$30.1 million to \$21.9 million)
- \$3 million reduction for Other Post-Employment Benefits (OPEB) contributions (from \$6 million to \$3 million)
- \$1.9 million decrease in the purchase of meters
- Majority of funding for AMR in the operating budget moved to the CIP





Operating Fund Expenditures

in millions



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Revenues

- Water sales are projected to be relatively flat over FY 2017 Budget-Estimated.

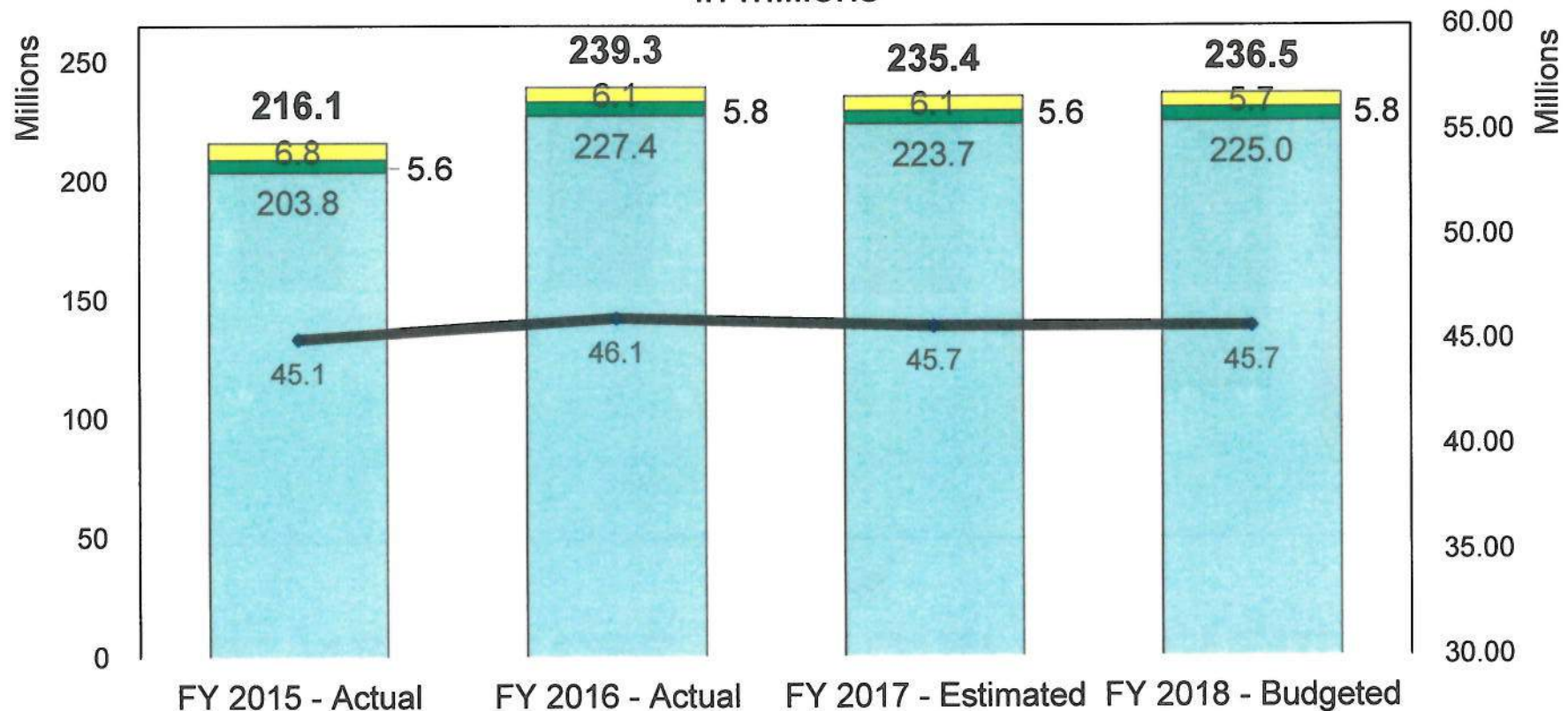
The FY 2018 projection is primarily due to stable potable water consumption in the near term.





Operating Fund Revenue

in millions



■ Metered Sales - Potable & Non-Potable
■ Other Revenues

■ Metered Sales - Recycled
—●— BILLED CONSUMPTION (kgal)



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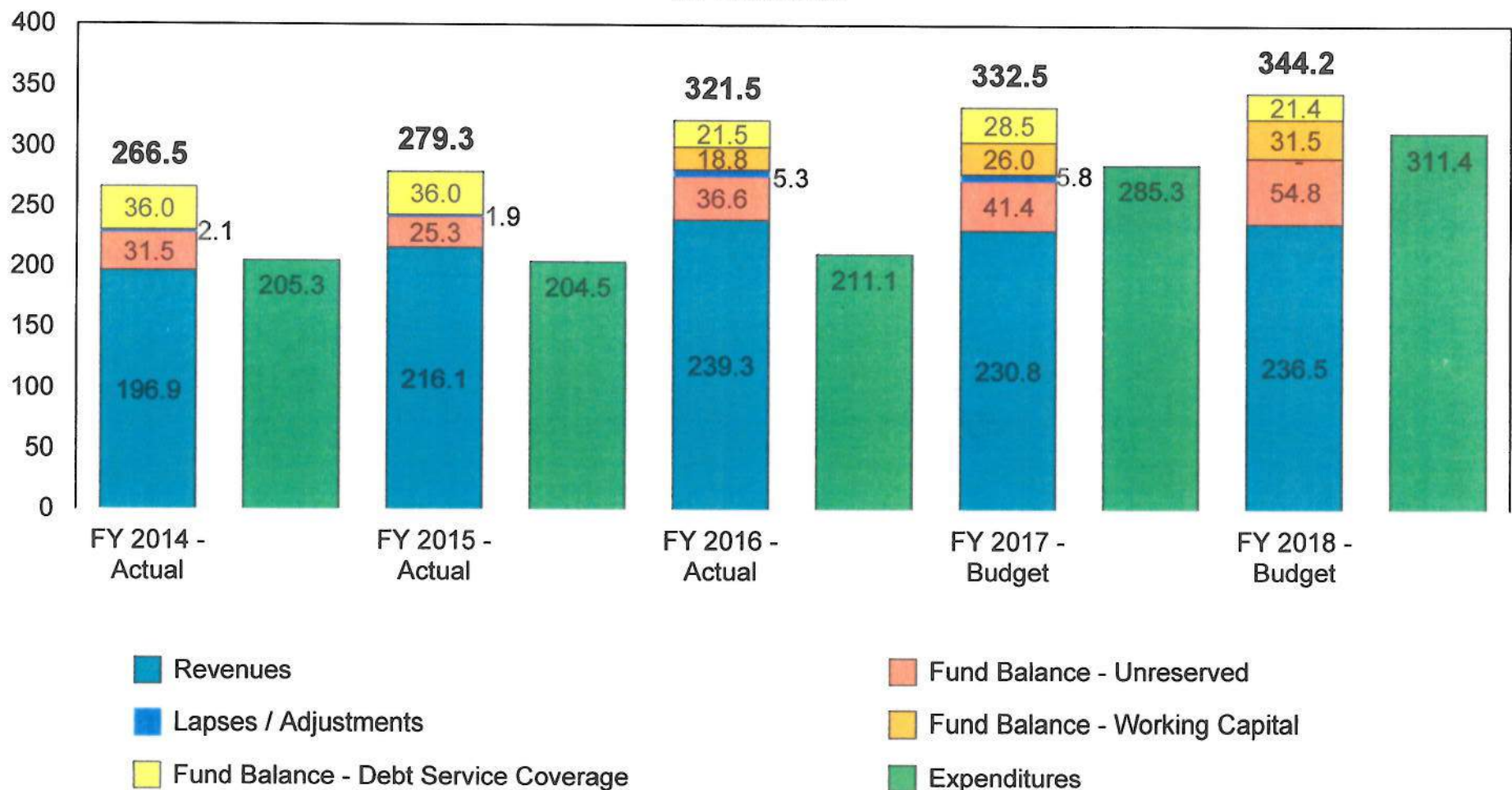
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Total Resources vs. Total Expenditures

in millions





Debt Service

- \$7.2 million decrease in debt service payments in FY 2017, \$16 million in SRF loans was retired and in FY 2018 only \$9.8 million is planned to be retired

This will provide greater borrowing capacity to utilize current SRF loans that are currently charging zero percent interest and one percent administrative fees.



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U W E K A L A N I O L A K A H O N U A

FY 2018

Capital Improvement Program Budget



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City and County of Honolulu

FY18 CIP

- Supports the BWS mission of **Water For Life: Safe, dependable and affordable water now and into the future**
- Aligned with the BWS Strategic Plan 2018-2022, Divisions' Goals & Objectives and the Six-Year Capital Improvement Program



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Program Categories

Research and Development

Renewal and Replacement

Capacity Expansion

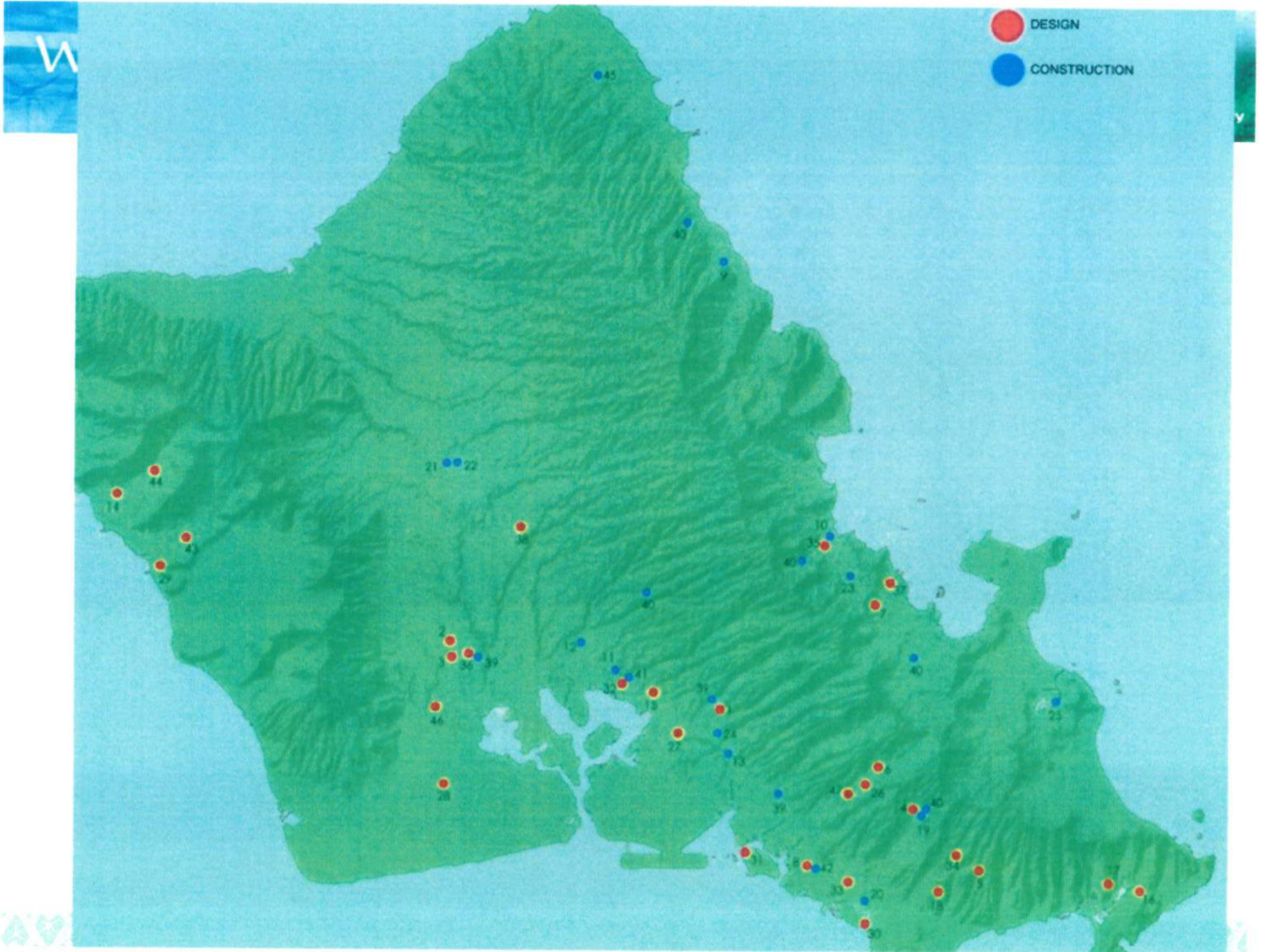




Capital Improvement Program Budget FY 2018

	Categories	Operating Fund	Operating Fund (SRF Eligible)	Special Expendable Fund	Reserve Release Fund	Total
I.	Research & Development	\$ 5,525,000				\$ 5,525,000
II.	Renewal & Replacement	53,708,000	30,962,700		737,300	85,408,000
III.	Capacity Expansion	585,000		21,250,000		21,835,000
	Sub-Total	59,818,000	30,962,700	21,250,000	737,300	112,768,000
	Adjustment	24,542,795	4,644,405	2,385,000		31,572,200
	Total	\$ 84,360,795	\$ 35,607,105	\$ 23,635,000	\$ 737,300	\$ 144,340,200



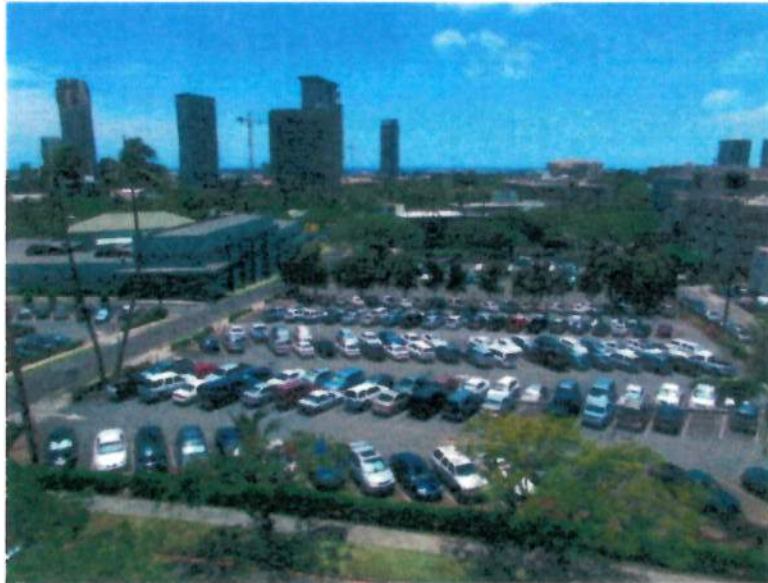




Project Category Highlights

Research and Development (\$5.5 million)

- Beretania Site Master Plan
- Construction Management for Various BWS Construction Projects
- Project Management for Various BWS Projects
- Nuuanu Hydro-Electric and Managed Aquifer Recovery Study and Environmental Assessment





Project Category Highlights

Renewal and Replacement (\$85.4 million)

- Waihee Line Booster Renovation
- Punanani Wells System Improvements
- Pearl City Wells II System Improvements
- Moanalua Wells: Replacement of Pump No. 1
- Pump Renewal and Replacement





Project Category Highlights

Renewal and Replacement (continued)

- Water Meter Transponder Replacement – Phase I
- Facility Repair and Renovation
- Beretania Engineering Building Window Replacement
- Security Enhancements for BWS Corporation Yards
- Waimalu Wells I Site Drainage Improvements





Project Category Highlights

Renewal and Replacement (continued)

- Water Main Replacement
 - Pipeline tunnel rehabilitation – Moanalua and Quarry Tunnels
 - Main replacement construction in Moiliili, Manoa, and Kaneohe
 - Main replacement design in Waikiki, Sand Island, Nuuanu, Moanalua, Foster Village, Pearl City, Kaneohe, Kapolei, and Waianae





Project Category Highlights

Capacity Expansion (\$21.8 million)

- Ewa Shaft Tunnel Improvements
- Kahuku Wells Unit No. 3
- Pacific Heights Booster No. 1

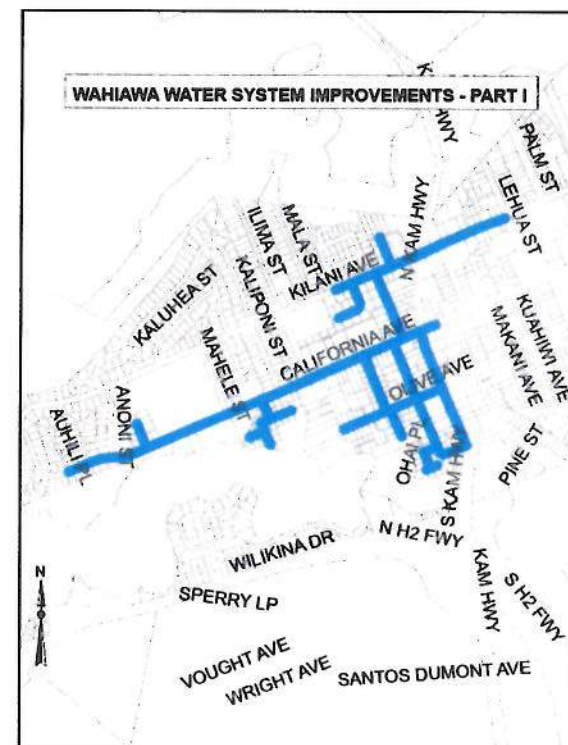
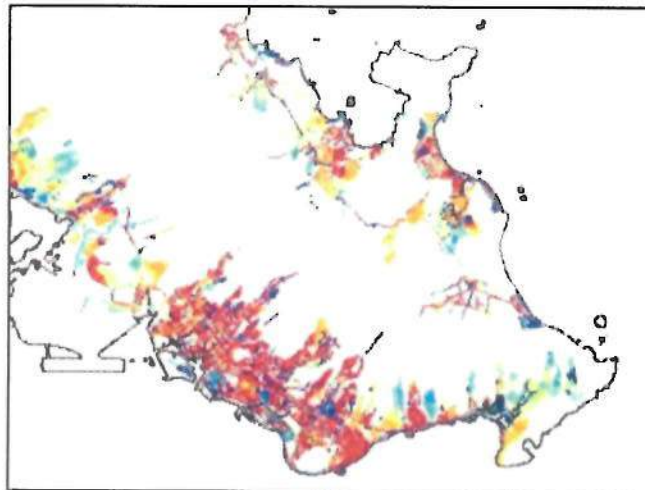




Project Category Highlights

Capacity Expansion (continued)

- Water main upsizing
 - Wahiawa Water System Improvements, Part IA
 - Wahiawa Water System Improvements, Part III

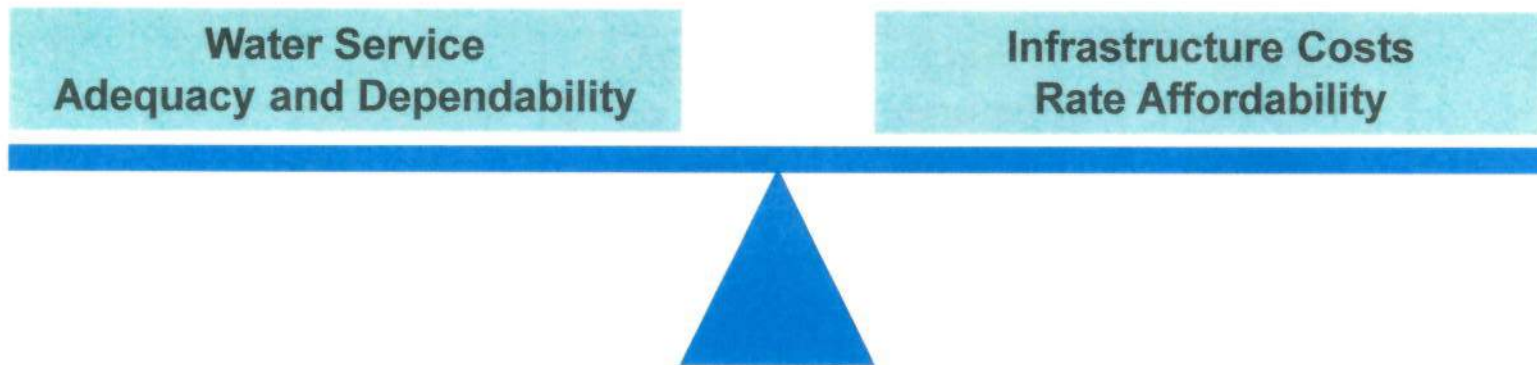


WATER FOR LIFE

Safe, dependable, and affordable water now and into the future



Board of Water Supply
City and County of Honolulu



WATER FOR LIFE

Safe, dependable, and affordable water now and into the future



Board of Water Supply
City and County of Honolulu

FY 2018 Operating and Capital Improvement Program Budget Summary

	Operating Fund	Operating Fund – SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
Operating Budget	\$191,468,692	---	---	---	\$191,468,692
Capital Improvement Program Budget	\$84,360,795	\$35,607,105	\$23,635,000	\$737,300	\$144,340,200
Total	\$275,829,487	\$35,607,105	\$23,635,000	\$737,300	\$335,808,892



BOARD OF WATER SUPPLY

City and County of Honolulu
Honolulu, Hawaii



2018 BUDGET

For the Fiscal Year Beginning July 1, 2017 and
Ending June 30, 2018

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**BOARD OF WATER SUPPLY
City and County of Honolulu**

**OPERATING AND CAPITAL IMPROVEMENT PROGRAM BUDGET
For the Fiscal Year Beginning July 1, 2017 and Ending June 30, 2018**

BOARD MEMBERS

Bryan P. Andaya, Chair

Adam C. Wong, Vice-Chair

David C. Hulihee, Member

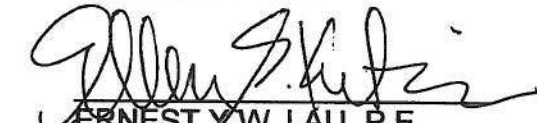
Kapua Sproat, Member

Kay C. Matsui, Member

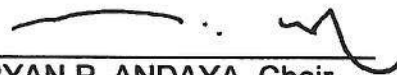
Ross S. Sasamura, Ex-Officio

Ford N. Fuchigami, Ex-Officio

SUBMITTED BY:


ERNEST Y.W. LAU, P.E.
Manager and Chief Engineer

APPROVED:


BRYAN P. ANDAYA, Chair
May 22, 2017

May 22, 2017

Chair and Members
Board of Water Supply
City and County of Honolulu
Honolulu, Hawaii 96843

Chair and Members:

In accordance with Section 7-106(i), Revised Charter of the City and County of Honolulu, we submit for your review and approval the proposed Operating and Capital Improvement Program Budget for fiscal year July 1, 2017 to June 30, 2018.

FINANCIAL PLAN

The proposed Operating Budget for FY 2018 is based upon total operating fund resources of \$344.3 million, to be derived from operating revenues of \$236.6 million and an estimated carryover balance from FY 2017 of \$107.7 million. The carryover balance results from the estimated operating fund balance that is unappropriated. The unappropriated fund balance is composed of a minimum fund reserve required to maintain its recommended debt service coverage of \$30.3 million, working capital amount of \$31.5 million, and an unreserved fund balance of \$45.9 million. The proposed operating fund expenditure allocations are \$191.5 million for operating expenses and \$119.9 million for the Capital Improvement Program (CIP) Budget. A projected ending balance of \$32.8 million will be unappropriated.

The proposed CIP budget totals \$144.3 million and is funded by \$120 million from the Operating Fund; \$23.6 million from the Special Expendable Fund; and \$737 thousand from the Reserve Release Fund. Of the \$120 million in Operating Funds proposed for the CIP, \$35.6 million is eligible for participation in the State of Hawaii, Department of Health State Revolving Fund (SRF) loan program. The SRF loan program currently offers zero interest rate loans and low administrative fees.

PART I. OPERATING BUDGET

Following are summaries of the proposed revenues and expenditures for the next fiscal year as well as the corresponding figures for the preceding two fiscal years.

A. REVENUES

For FY 2018, we are projecting total revenues of \$236.5 million; which is \$5.7 million or 2.5 percent more than total revenues budgeted for FY 2017. No water rate increases are programmed for FY 2018 and the 2.5 percent increase in revenue is due to increasing trend in metered sales revenue.

<u>Revenue Sources</u>	<u>FY 2016 Actual</u>	<u>FY 2017 Budgeted</u>	<u>FY 2018 Budgeted</u>	<u>Percent Change FY 2018 Over FY 2017</u>
Metered Sales:				
Potable and Non-Potable Water	227,382,000	220,000,000	225,000,000	2.3%
Recycled Water	5,806,000	5,606,000	5,809,500	3.6%
Other Revenues	<u>6,079,000</u>	<u>5,196,000</u>	<u>5,740,000</u>	<u>10.5%</u>
Total Revenues	<u>239,267,000</u>	<u>230,802,000</u>	<u>236,549,500</u>	<u>2.5%</u>

Metered Sales – Potable Water and Non-Potable

Potable and non-potable water sales are projected to increase by \$5 million or 2.3 percent over the FY 2017 budget amount to \$225 million. This increase is primarily due to an increasing trend in potable water consumption due to population growth, current billing trends and a conservative revenue estimate in the FY 2018 budget.

Metered Sales – Recycled Water

Recycled water sales at \$5.8 million is projected to increase by 3.6 percent when compared to the FY 2017 budgeted amounts due to projected increased usage.

Other Revenues

Other Revenues of \$5.7 million will be \$544 thousand higher than the FY 2017 budget amount due to an anticipated increase in interest income of \$400 thousand. Interest income is interest revenue earned on the Board's investments. Anticipated increases are also expected in Ocean Cooling Revenue. Other Revenues category is comprised of sources such as interest income on investments, ocean cooling revenues, automatic fire sprinkler charges, rental income, and miscellaneous billing charges.

B. EXPENDITURES

The proposed total operating fund expenditures for FY 2018 are budgeted at \$311.4 million. This represents an increase of \$26.1 million, or 9.2 percent more than the amount budgeted for the current fiscal year. This change is primarily attributable to an increase in funding for the Capital Improvement Program of \$45.6 million and an increase in funding for equipment of \$621 thousand. These increases are offset by a decrease in funding the department's fixed charges of \$9.8 million; a decrease in funding the department's debt service of \$7.2 million; a decrease in funding for personnel services of \$1.6 million and a decrease in funding for materials, supplies and services of \$1.5 million.

Highlights of the proposed Operating Budget for FY 2018 are presented following the next table.

Summary of Proposed Operating Budget, by Major Cost Categories

<u>Major Cost Category</u>	FY 2016 Actual	FY 2017 Budgeted	FY 2018 Budgeted	<u>FY 2018 Over FY 2017</u>	
				Amount	Percent
Personnel Services	35,594,802	47,686,232	46,116,429	(1,569,803)	-3.3%
Materials, Supplies & Services	44,814,150	61,633,544	60,109,943	(1,523,601)	-2.5%
Equipment	2,375,867	4,807,000	5,428,320	621,320	12.9%
Debt Service	21,884,855	38,865,000	31,648,000	(7,217,000)	-18.6%
Fixed Charges	47,596,013	57,918,000	48,166,000	(9,752,000)	-16.8%
Total Operating Expenditures	152,265,687	210,909,776	191,468,692	(19,441,084)	-9.2%
Transfer to CIP	58,785,473	74,396,800	119,967,900	45,571,100	61.3%
Total Expenditures	211,051,160	285,306,576	311,436,592	26,130,016	9.2%

Personnel Services

The proposed personnel services budget of \$46.1 million is \$1.6 million or 3.3 percent less than personnel services budgeted for the current year. This decrease is primarily due to the partial year funding of several vacant positions. The partial year funding of positions will more accurately reflect when the positions are projected to be filled.

The proposed operating budget includes the creation of 21 positions that are needed to undertake new initiatives and implement a more aggressive capital improvement program. These new positions are being offset by the reallocation or abolishment of existing positions, which are no longer needed, to avoid growing the authorized headcount unnecessarily.

Positions Requested

Division	Position Title
Capital Projects	Civil Engineer I
Capital Projects	Civil Engineer I
Capital Projects	Civil Engineer I
Capital Projects	Civil Engineer IV
Capital Projects	Construction Inspect Aide
Capital Projects	Construction Inspect Aide
Capital Projects	Construction Inspect Aide
Capital Projects	Construction Inspect Aide
Capital Projects	Engineering Support Tech I
Capital Projects	Engineering Support Tech I
Capital Projects	Electrical Engineer IV
Capital Projects	Civil Engineer III
Capital Projects	Mechanical Engineer IV
Exec Support Office	Insurance and Claims Asst II
Exec Support Office	Senior Clerk-Typist
Exec Support Office	Procure & Specif Spec V
Water Quality	Water Microbiologist I
Water Quality	Laboratory Technician II
Water Resources	Hydrologist-Geologist I
Human Resources	Human Resources Spec IV
Communications	Information Specialist II

Offsetting Positions

Pos No	Division	Position Title
BW626	Water Systems	Plant Equipment Machinist
BW633	Water Systems	Sr Plt Elec/Elec Equip Repair
BW649	Water Systems	Telemeter & Supv Cntrl Tech II
BW656	Water Systems	Sr Plt Elec/Elec Equip Repair
BW659	Water Systems	Plt Elec/Elec Equip Repairer
BW664	Water Systems	Water Plant Maint Mech
BW665	Water Systems	Sr Plt Elec/Elec Equip Repair
BW733	Water Systems	Telemeter & Supv Ctrl Tech I
BW860	Water Systems	Telemeter & Supv Ctrl Tech II
BW703	Water Systems	Water Plant Maint Mech
BW724	Field Ops	Lead MSW III
BW782	Field Ops	Mason
BW525	Field Ops	Scheduler
BW725	Field Ops	MSW III
BW710	Field Ops	Lead Water Meter Mechanic
BW715	Field Ops	Lead Water Meter Mechanic
BW716	Field Ops	Trade Apprentice I
BW850	Field Ops	Water Meter Mechanic
BW802	Field Ops	Scheduler
BW332	Customer Care	Clerk-Typist
BW385	Customer Care	Clerk-Typist

Materials, Supplies and Services (MS&S)

The proposed MS&S budget of \$60.1 million is \$1.5 million or 2.5 percent less than the expenditures budgeted for the current year. This is primarily due to a decrease in funding for the purchase of meters of \$1.9 million and a decrease in funding for the Automatic Meter Reading (AMR) program of \$1.6 million. These decreases are offset by increases in the Red Hill groundwater study and Administrative Order of Consent project of \$1 million. Funding is also being programmed for a lead contamination site assessment study \$500 thousand and additional funds are also being budgeted for the implementation of the Water Conservation Plan of \$350 thousand.

Equipment

The proposed equipment budget of \$5.4 million is \$621 thousand or 12.9 percent more than the amount budgeted in FY 2017. This change is due to an increased number of replacements and additions to the BWS vehicle and equipment fleet. Fleet replacements are based on a criteria of age and mileage in order to minimize future maintenance costs.

Debt Service

The total debt service requirement for FY 2018 is \$31.6 million, which is \$7.2 million or 18.6 percent less than the amount budgeted in FY 2017. In FY 2017, the amount of SRF loans to be retired was \$16 million and in FY 2018, the department plans to retire \$9.8 million in SRF loans.

Fixed Charges

The proposed fixed charges budget of \$48.2 million is \$9.8 million, or 16.8 percent less than the amount budgeted for the current year. This decrease is due to fewer funds budgeted for electricity costs in powering the department's pumping stations, reservoirs and facilities \$8.2 million and a decrease in contributions to the State of Hawaii OPEB account \$3 million. These decreases are offset by an increase in funding to the State ERS plan \$2 million.

PART II. CAPITAL IMPROVEMENT PROGRAM (CIP) BUDGET

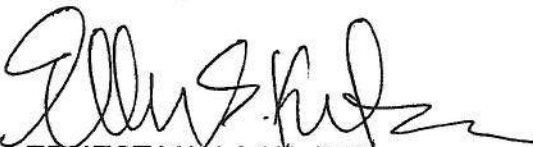
A CIP budget of \$144.3 million is proposed for FY 2018 to be funded as follows: Operating Fund -- \$119.9 million; Special Expendable Fund --

\$23.6 million; and the Reserve Release Fund – \$737 thousand. Of the \$143.3 million in CIP projects that will be funded through the various funds; \$35.6 million is eligible for participation in the State Department of Health's State Revolving Fund (SRF) loan program. The SRF loan program currently offers zero interest rate loans with low administrative fees.

Highlights of the proposed CIP for next year include funds for research and development (\$5.5 million), the renewal and replacement of various BWS pipelines, facilities and pumping stations (\$85.4 million), and capacity expansion (\$21.8 million).

The CIP cost categories and project descriptions are summarized starting on page CIP-1.

Respectfully submitted,



for ERNEST Y.W. LAU, P.E.
Manager and Chief Engineer



SUMMARY OF ALL FUNDS

OPERATING BUDGET

CAPITAL IMPROVEMENT
PROGRAM BUDGET

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**Board of Water Supply
Summary of All Funds
Fiscal Year 2018**

	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total All Funds by Program
Operating Budget	191,468,692	-	-		191,468,692
Capital Improvement Program	84,360,795	35,607,105	23,635,000	737,300	144,340,200
Total by Fund	<u>275,829,487</u>	<u>35,607,105</u>	<u>23,635,000</u>	<u>737,300</u>	<u>335,808,892</u>

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**BOARD OF WATER SUPPLY
OPERATING AND CAPITAL IMPROVEMENT PROGRAM BUDGET
FISCAL YEAR 2018
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II. CAPITAL IMPROVEMENT PROGRAM (CIP) BUDGET

Summary	CIP-1
CIP Project Details	CIP-2

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**Board of Water Supply
Operating Budget Fiscal
Year 2018**

Department Summary

Resources and Expenditures	FY2016 Actual	FY2017 Adopted Budget	FY2018 Proposed Budget
Beginning Balance	76,874,000	95,914,171	107,722,490
Revenues	239,267,000	230,802,000	236,549,500
Lapses/Adjustments	5,276,874	5,832,003	0
Total Resources	321,417,874	332,548,174	344,271,990
Operating Expenditures	152,265,687	210,909,776	191,468,692
Capital Program	58,785,473	74,396,800	119,967,900
Total Expenditures	211,051,160	285,306,576	311,436,592
Ending Balance	110,366,714	47,241,598	32,835,398

Board of Water Supply
Operating Budget Revenues
Fiscal Year 2018

Department Summary

Revenues	FY2016 Actual	FY2017 Adopted Budget	FY2018 Proposed Budget
Metered Revenue - Potable Water	227,382,000	220,000,000	225,000,000
Metered Revenue - Recycled Water (R-1)	3,284,000	3,254,600	3,288,700
Metered Revenue - Recycled Water (RO)	2,522,000	2,351,400	2,520,800
Private Fire Protection	760,000	700,000	700,000
Ocean Cooling Revenues	1,309,000	931,000	1,200,000
Other Water Revenues	400,000	375,000	375,000
Revenues from Water Service Installations	548,000	600,000	550,000
Revenues from Merchandising & Jobbing (M&J)	262,000	200,000	200,000
Interest Income - Operating	2,492,000	2,000,000	2,400,000
Miscellaneous Non-Operating Revenue	123,000	200,000	125,000
Non-Operating Rental Income	185,000	190,000	190,000
Total	239,267,000	230,802,000	236,549,500

**Board of Water Supply
Operating Budget Revenues
Fiscal Year 2018**

Department Summary

Expenditure Classification	FY2016 Actual	FY2017 Adopted Budget	FY2018 Proposed Budget
Personnel Services	35,594,802	47,686,232	46,116,429
Materials, Supplies and Services	44,814,150	61,633,544	60,109,943
Equipment	2,375,867	4,807,000	5,428,320
Departmental Fixed Charges	47,596,013	57,918,000	48,166,000
Debt Service	21,884,855	38,865,000	31,648,000
Operating Expenditures	152,265,687	210,909,776	191,468,692
Transfer to Capital Improvement Program	58,785,473	74,396,800	119,967,900
Total Expenditures	211,051,160	285,306,576	311,436,592

Board of Water Supply
Operating Budget Expenditures
Fiscal Year 2018

Department Summary by Division/Office

Expenditure Classification (Personnel Services, Materials, Supplies and Services, and Equipment)	FY2016 Actual	FY2017 Adopted Budget	FY2018 Proposed Budget
Manager's Office	1,058,610	1,099,371	925,640
Executive Support Office	4,482,708	8,439,280	8,981,021
Communications Office	801,444	1,167,100	1,158,310
Ocean Cooling	366,434	646,600	618,800
Human Resources Office	1,991,005	789,090	703,795
Water Quality	2,157,153	4,155,220	5,707,580
Customer Care	4,336,161	5,540,600	6,162,000
Land	617,913	750,880	737,900
Water Resources	7,833,571	10,619,501	11,796,008
Field Operations	23,233,158	35,459,250	30,966,630
Capital Projects	6,292,691	5,910,550	6,640,700
Water System Operations	12,823,012	19,378,374	19,005,450
Information Technology	8,980,441	13,970,560	13,174,018
Finance	7,810,518	6,200,400	5,076,840
Total of Divisions and Offices	82,784,819	114,126,776	111,654,692
Departmental Fixed Charges	47,596,013	57,918,000	48,166,000
Debt Service	21,884,855	38,865,000	31,648,000
Total Operating Expenditures	152,265,687	210,909,776	191,468,692

**Board of Water Supply
Expenses by Account Type
Fiscal Year 2018**

Department Summary by Division/Office

Division and Offices	Personnel Services	Materials, Supplies, and Services	Equipment	Debt Service and Dept Fixed Charges	FY2018 Proposed Budget
Manager's Office	586,200	339,440	0	0	925,640
Executive Support Office	1,232,900	7,748,121	0	0	8,981,021
Communications Office	823,740	334,570	0	0	1,158,310
Ocean Cooling	220,000	398,800	0	0	618,800
Human Resources Office	558,700	145,095	0	0	703,795
Water Quality	1,409,700	4,247,880	50,000	0	5,707,580
Customer Care	4,803,100	1,338,900	20,000	0	6,162,000
Land	303,000	434,900	0	0	737,900
Water Resources	2,307,089	9,384,639	104,280	0	11,796,008
Field Operations	15,831,800	15,075,590	59,240	0	30,966,630
Capital Projects	5,596,500	1,023,200	21,000	0	6,640,700
Water System Operations	6,113,200	8,119,450	4,772,800	0	19,005,450
Information Technology	3,329,700	9,494,318	350,000	0	13,174,018
Finance	3,000,800	2,025,040	51,000	0	5,076,840
Total:	46,116,429	60,109,943	5,428,320	0	111,654,692
Fixed Charges and Debt Service	0	0	0	79,814,000	79,814,000
Grand Total	46,116,429	60,109,943	5,428,320	79,814,000	191,468,692

Board of Water Supply
Operating Budget - Debt Service
Fiscal Year 2018

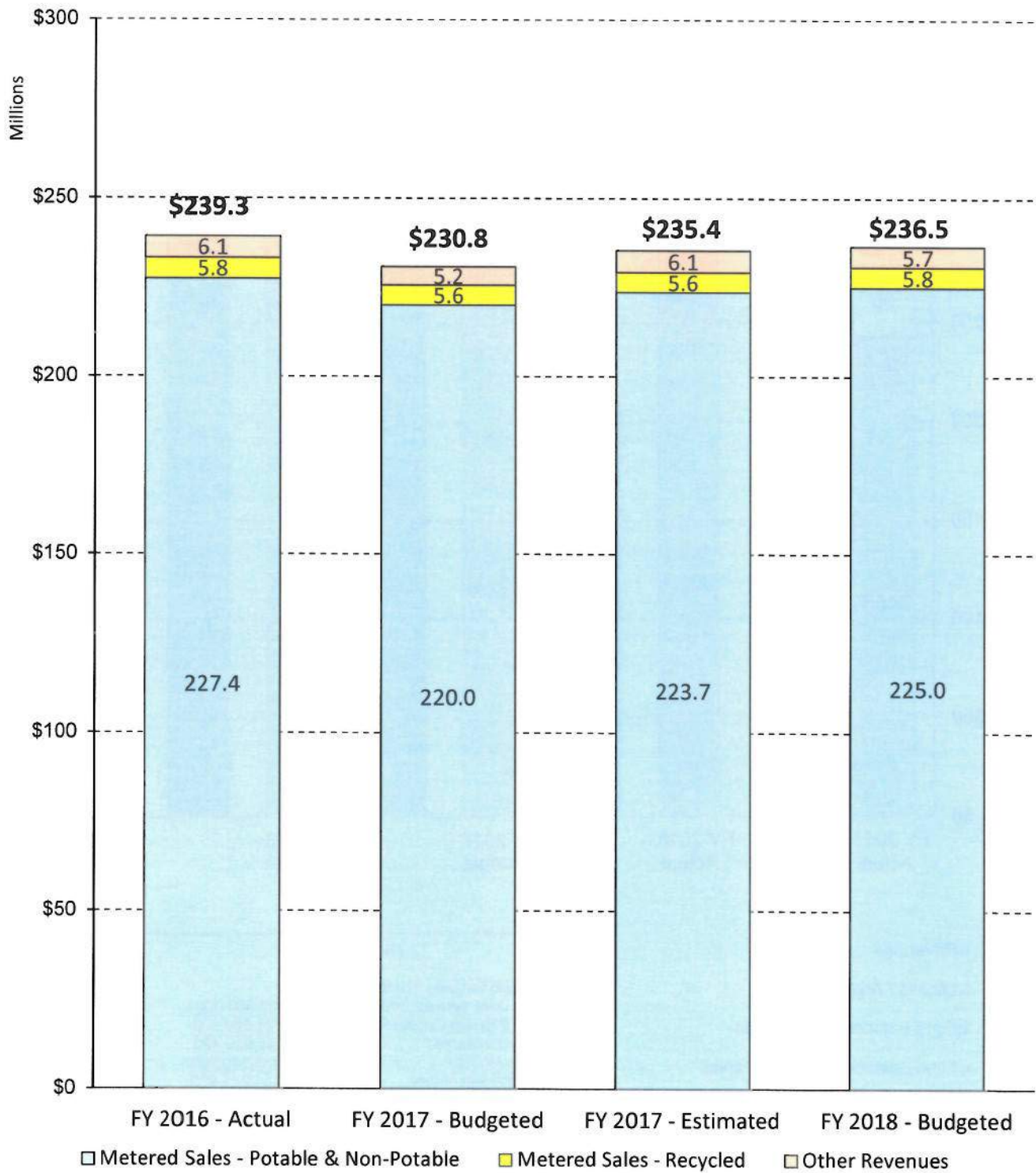
DEBT SERVICE

ISSUE	FY 2016 Actual	FY 2017 Budget	FY 2018 Budget
Water System Revenue Bonds:			
Series 2006	6,699,038	-	-
Series 2012A	4,745,125	4,747,000	7,708,000
Series 2014 A & B	6,446,546	13,041,000	10,137,000
Debt Service - Bonds Payable	17,890,709	17,788,000	17,845,000
Notes Payable:			
SRF Loans	3,994,146	5,077,000	4,047,000
SRF Loan retirement	-	16,000,000	9,756,000
Debt Service - Notes Payable	3,994,146	21,077,000	13,803,000
	21,884,855	38,865,000	31,648,000

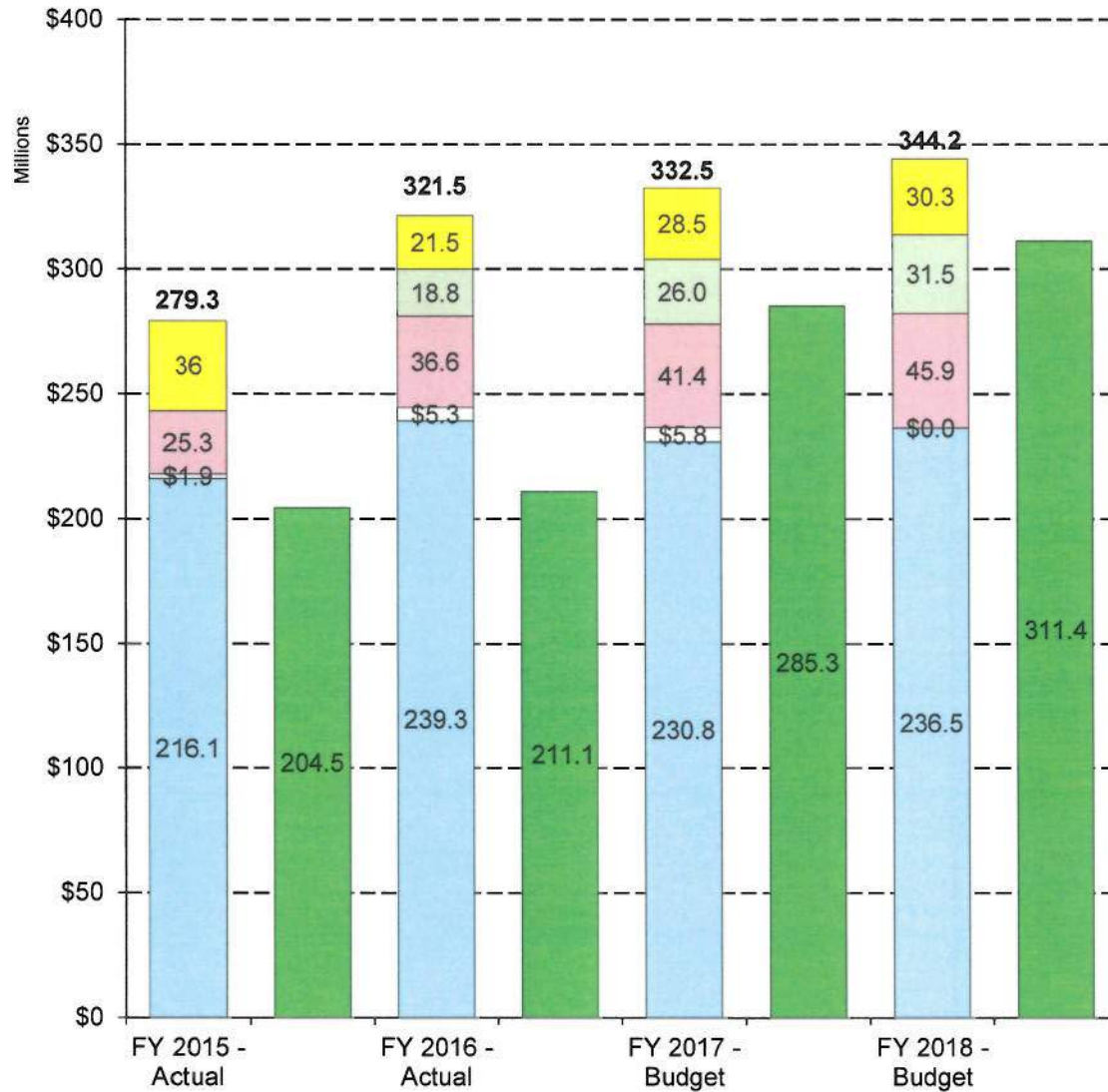
Bond Issues:				
<u>Year Issued</u>		<u>Amount</u>	<u>Year Expires</u>	<u>Years</u>
2006	\$	213,805,000	2036	30
2012A	\$	85,195,000	2033	21
2014A	\$	101,655,000	2036	22
2014B	\$	43,330,000	2031	17

(1) 2006 Revenue Bonds extinguished in FY 2016

**BOARD OF WATER SUPPLY
OPERATING FUND REVENUES
FISCAL YEAR 2018**



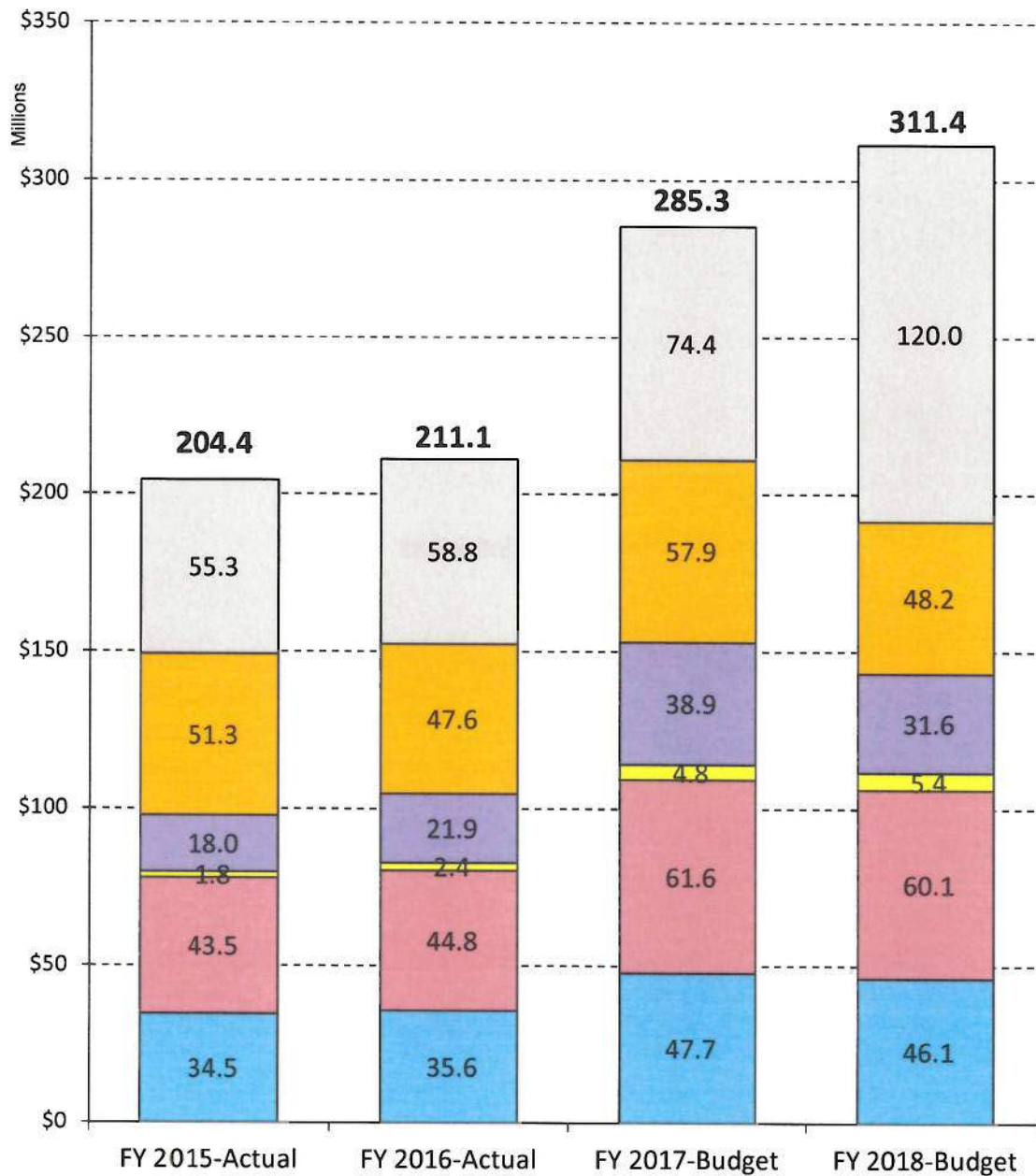
**BOARD OF WATER SUPPLY
TOTAL RESOURCES VS. TOTAL EXPENDITURES
FISCAL YEAR 2018**



- Revenues
- Lapses / Adjustments
- Fund Balance - Unreserved
- Fund Balance - Working Capital
- Fund Balance - Debt Service Coverage
- Expenditures

Fiscal Year 2018	
Fund Balance 7/1/2017	
Debt Service Coverage	\$30,300,000
Working Capital Reserve	31,500,000
Unreserved	45,922,490
Revenues	<u>236,549,500</u>
Total Resources	\$344,271,990
Total Expenditures	<u>-311,436,592</u>
Fund Balance 6/30/2018	<u>\$ 32,835,398</u>

**BOARD OF WATER SUPPLY
OPERATING BUDGET EXPENDITURES (INCLUDING CIP)
FISCAL YEAR 2018**



■ Personnel Srv. ■ MS&S
■ Equipment ■ Debt Service
■ Fixed Charges ■ CIP

Fiscal Year 2018	
CIP	\$ 119,967,900
Fixed Charges	48,166,000
Debt Service	31,648,000
Equipment	5,428,320
MS&S	60,109,943
Personnel Svcs.	46,116,429
Total	\$311,436,592

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PART I

OPERATING BUDGET

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**Board of Water Supply
Operating Budget
Fiscal Year 2018**

OMCE - Manager's Office

Section's Activity

The Manager and Chief Engineer is the executive head of the Board of Water Supply who administers the affairs of the department in accordance with policies and regulations adopted by the Board and the provisions of the City Charter.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	641,162	742,484	763,700	586,200	(177,500)
4130 - Miscellaneous (Payroll)	1,692	0	0	0	0
Personnel Services	642,854	742,484	763,700	586,200	(177,500)
4160 - Meals; Mileage & Uniform Allowances	10	0	0	0	0
4250 - Other Contractual Services	54,097	3,540	5,700	4,200	(1,500)
4255 - Other Services	8,543	42,836	56,773	57,000	227
4260 - Advertising & Publication of Notices	0	500	500	500	0
4265 - Printing	833	1,000	1,000	1,000	0
4270 - Professional Services	30,915	155,000	35,000	35,000	0
4430 - Miscellaneous Supplies	3,570	5,000	5,000	5,000	0
4460 - Other Materials & Supplies	8,744	13,400	13,000	15,000	2,000
4500 - Education and Training	60	1,000	0	0	0
4720 - Conference Travel & Expenses	17,276	45,781	36,748	38,240	1,492
4815 - Repair & Maint - Equipment	1,299	3,000	3,000	3,000	0
4910 - Miscellaneous Fees & Registration	285,444	170,433	178,950	175,500	(3,450)
8050 - Equipment (under \$5,000)	4,964	2,500	0	5,000	5,000
Materials, Supplies and Services	415,756	443,990	335,671	339,440	3,769
Total Manager's Office	1,058,610	1,186,474	1,099,371	925,640	(173,731)

Budget Highlights

**Board of Water Supply
Operating Budget
Fiscal Year 2018**

ESO - Executive Support Office

Division/Office's Activity

The Executive Support Office is responsible for the development of the annual departmental operating budget ; ensures that procurement of all goods and services and construction are in compliance with Hawaii Revised Statutes (HRS)103D; administers the department's safety, risk management, and security programs.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	869,900	1,061,087	1,255,900	1,214,400	(41,500)
4120 - Overtime	14,724	4,068	27,540	18,500	(9,040)
4130 - Miscellaneous (Payroll)	547	0	0	0	0
Personnel Services	885,171	1,065,155	1,283,440	1,232,900	(50,540)
4160 - Meals; Mileage & Uniform Allowances	2,316	2,700	5,540	3,700	(1,840)
4250 - Other Contractual Services	2,105,077	1,207,320	2,204,000	39,190	(2,164,810)
4260 - Advertising & Publication of Notices	1,035	0	0	300	300
4265 - Printing	495	3,500	2,500	2,500	0
4270 - Professional Services	527,005	1,700,000	1,000,000	3,887,143	2,887,143
4275 - Medical & Surgical Services	0	0	1,000,000	0	(1,000,000)
4410 - Gasoline	303	0	0	0	0
4430 - Miscellaneous Supplies	8,920	12,110	10,489	9,788	(701)
4460 - Other Materials & Supplies	12,477	9,704	26,386	90,000	63,614
4480 - Postage	7	400	200	200	0
4500 - Education and Training	445	12,000	6,500	6,000	(500)
4720 - Conference Travel & Expenses	4,626	18,500	7,000	19,000	12,000
4805 - Repair & Maint - Structures	36,766	100,000	100,000	500,000	400,000
4815 - Repair & Maint - Equipment	49,722	75,000	75,000	0	(75,000)
4910 - Miscellaneous Fees & Registration	5,750	5,000	3,160	2,300	(860)
4915 - Miscellaneous Financial Expenses	0	0	1,000	0	(1,000)
5700 - Insurance	0	1,200,000	1,200,000	800,000	(400,000)
6340 - Workers Compensation Benefits	0	0	500,000	1,340,000	840,000
6350 - Claims for Pers Injuries & Prop Damage	820,077	800,000	1,000,000	1,000,000	0
8050 - Equipment (under \$5,000)	15,436	33,825	14,065	48,000	33,935
Materials, Supplies and Services	3,590,456	5,180,059	7,155,840	7,748,121	592,281
1270 - General Plant & Equip (over \$5,000)	7,080	295,400	0	0	0
Equipment	7,080	295,400	0	0	0
Total ESO - Executive Support Office	4,482,708	6,540,614	8,439,280	8,981,021	541,741

Notes

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ESO - Executive Support Office

5105 - Executive Support Office

Section's Activity

The Executive Support Office (ESO) administers and manages programs in areas such as budget, position management, reorganization, procurement, security, risk management and safety.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	174,242	146,957	175,900	200,100	24,200
4120 - Overtime	596	0	500	1,000	500
4130 - Miscellaneous (Payroll)	547	0	0	0	0
Personnel Services	175,385	146,957	176,400	201,100	24,700
4160 - Meals; Mileage & Uniform Allowances	172	0	0	0	0
4250 - Other Contractual Services	286,813	300,000	0	0	0
4265 - Printing	495	0	0	1,000	1,000
4270 - Professional Services	0	0	0	135,143	135,143
4410 - Gasoline	303	0	0	0	0
4430 - Miscellaneous Supplies	6,135	4,500	4,440	7,788	3,348
4460 - Other Materials & Supplies	164	0	0	0	0
4480 - Postage	7	0	0	0	0
4500 - Education and Training	0	1,000	1,500	1,000	(500)
4720 - Conference Travel & Expenses	971	8,000	0	0	0
4910 - Miscellaneous Fees & Registration	850	1,000	1,000	1,000	0
4915 - Miscellaneous Financial Expenses	0	0	1,000	0	(1,000)
8050 - Equipment (under \$5,000)	624	0	2,500	0	(2,500)
Materials, Supplies and Services	296,535	314,500	10,440	145,931	135,491
1270 - General Plant & Equip (over \$5,000)	0	295,400	0	0	0
Equipment	0	295,400	0	0	0
Total Executive Support Office	471,920	756,857	186,840	347,031	160,191

Budget Highlights

Salaries increased due to the addition of a personal services contract for staff augmentation to update and further develop the department's emergency response plan and incident actions plans. These plans are necessary to ensure proper guidance during emergencies and natural disasters.

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ESO - Executive Support Office

5110 - Risk Management

Section's Activity

The Risk Management section provides risk management services that ensure the business and operational exposures of the BWS are covered through either insurance or self-retention policies. Oversees the department's workers' compensation program. Additionally, the section ensures the safety and well-being of our employees through a comprehensive safety program and return-to-work program.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	152,800	242,700	321,300	309,700	(11,600)
4120 - Overtime	3,386	0	3,500	3,500	0
Personnel Services	156,186	242,700	324,800	313,200	(11,600)
4160 - Meals; Mileage & Uniform Allowances	864	1,200	1,200	1,200	0
4250 - Other Contractual Services	1,749	0	0	34,390	34,390
4270 - Professional Services	527,005	1,700,000	1,000,000	1,152,000	152,000
4275 - Medical & Surgical Services	0	0	1,000,000	0	(1,000,000)
4430 - Miscellaneous Supplies	389	4,000	2,000	0	(2,000)
4460 - Other Materials & Supplies	11,611	4,000	4,000	0	(4,000)
4500 - Education and Training	0	4,000	0	4,500	4,500
4720 - Conference Travel & Expenses	3,275	8,000	4,000	12,000	8,000
4910 - Miscellaneous Fees & Registration	4,900	4,000	2,000	1,100	(900)
5700 - Insurance	0	1,200,000	1,200,000	800,000	(400,000)
6340 - Workers Compensation Benefits	0	0	500,000	1,340,000	840,000
6350 - Claims for Pers Injuries & Prop Damage	820,077	800,000	1,000,000	1,000,000	0
8050 - Equipment (under \$5,000)	14,387	15,500	2,500	23,000	20,500
Materials, Supplies and Services	1,384,258	3,740,700	4,715,700	4,368,190	(347,510)
Total Risk Management	1,540,444	3,983,400	5,040,500	4,681,390	(359,110)

Budget Highlights

Professional Services for to engage outside legal counsel for claims that the Corporation Counsel is unable to defend. Also included are workers' compensation management fees and subrosa services. Workers' compensation payments of \$1.3 million and \$1 million for legal services.

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ESO - Executive Support Office

5120 - Security Office

Section's Activity

Security section develops, coordinates, and maintains security measures and systems to protect BWS employees and facilities. It conducts vulnerability assessments, installs detection systems, and develops emergency response plans. It oversees the development and installation of security enhancements and equipment for BWS facilities. It monitors facilities from the central security center through the use of security guards, cameras, sensor alarms, and ID cards. The unit coordinates protective activities with external agencies such as the Honolulu Police and Fire Departments, State Civil Defense and Honolulu Department of Emergency Services, and other Homeland Security organizations.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	208,422	186,774	295,300	228,300	(67,000)
4120 - Overtime	4,975	4,068	21,040	10,000	(11,040)
Personnel Services	213,397	190,842	316,340	238,300	(78,040)
4160 - Meals; Mileage & Uniform Allowances	954	1,500	4,340	2,500	(1,840)
4250 - Other Contractual Services	1,816,514	907,320	2,204,000	4,800	(2,199,200)
4270 - Professional Services	0	0	0	2,600,000	2,600,000
4430 - Miscellaneous Supplies	2,060	1,610	2,049	2,000	(49)
4460 - Other Materials & Supplies	697	5,704	22,386	90,000	67,614
4500 - Education and Training	445	3,000	3,000	500	(2,500)
4720 - Conference Travel & Expenses	190	2,000	3,000	0	(3,000)
4805 - Repair & Maint - Structures	36,766	100,000	100,000	500,000	400,000
4815 - Repair & Maint - Equipment	49,722	75,000	75,000	0	(75,000)
8050 - Equipment (under \$5,000)	0	15,825	6,765	17,000	10,235
Materials, Supplies and Services	1,907,349	1,111,959	2,420,540	3,216,800	796,260
1270 - General Plant & Equip (over \$5,000)	7,080	0	0	0	0
Equipment	7,080	0	0	0	0
Total Security Office	2,127,826	1,302,801	2,736,880	3,455,100	718,220

Budget Highlights

Other Contractual Services includes \$1.1 million for security guard services at BWS facilities and \$1.5 million for the electronic and camera monitoring system maintenance contract.

**Board of Water Supply
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ESO - Executive Support Office

5125 - Management and Budget

Section's Activity

The Management and Budget section is responsible for the development and execution of the annual operating budget. Develops water and other revenue projections and conducts various revenue, budgetary, financial and statistical studies of the department.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	84,230	219,504	196,900	174,300	(22,600)
4120 - Overtime	5,767	0	2,500	4,000	1,500
Personnel Services	89,997	219,504	199,400	178,300	(21,100)
4160 - Meals; Mileage & Uniform Allowances	310	0	0	0	0
4250 - Other Contractual Services	0	0	0	0	0
4260 - Advertising & Publication of Notices	282	0	0	300	300
4265 - Printing	0	3,500	2,500	1,500	(1,000)
4430 - Miscellaneous Supplies	0	0	0	0	0
4720 - Conference Travel & Expenses	0	500	0	0	0
4910 - Miscellaneous Fees & Registration	0	0	160	200	40
8050 - Equipment (under \$5,000)	0	2,500	2,300	3,000	700
Materials, Supplies and Services	592	6,500	4,960	5,000	40
Total Management and Budget	90,589	226,004	204,360	183,300	(21,060)

Budget Highlights

No significant changes to the budget.

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ESO - Executive Support Office

5140 - Procurement

Section's Activity

The Procurement section assists all BWS divisions and offices with the procurement of construction, goods, services, and professional services and to ensure that such procurements are conducted in accordance with Hawaii Revised Statutes Chapter 103D and the Hawaii Administrative Rules.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	250,207	265,152	266,500	302,000	35,500
Personnel Services	250,207	265,152	266,500	302,000	35,500
4160 - Meals; Mileage & Uniform Allowances	16	0	0	0	0
4260 - Advertising & Publication of Notices	752	0	0	0	0
4430 - Miscellaneous Supplies	335	2,000	2,000	0	(2,000)
4460 - Other Materials & Supplies	6	0	0	0	0
4480 - Postage	0	400	200	200	0
4500 - Education and Training	0	4,000	2,000	0	(2,000)
4720 - Conference Travel & Expenses	190	0	0	7,000	7,000
8050 - Equipment (under \$5,000)	425	0	0	5,000	5,000
Materials, Supplies and Services	1,723	6,400	4,200	12,200	8,000
Total Procurement Section	251,930	271,552	270,700	314,200	43,500

Budget Highlights

Funding includes one Procurement and Specifications Specialist and one Clerk to provide the needed resources to process the anticipated increase in capital projects. Added training funds for attending the NIGP annual conference.

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COMM - Communications Office

Section's Activity

The Communications Office develops departmental policies and programs for strategic internal and external communications, including: community relations, water education and public information, including news releases, speeches, bulletins, advertisements, public service announcements, brochures, annual and special reports; notifies news media of water emergencies; coordinates and maintains effective media communications programs for the department; receives, processes and resolves complaints; develops and produces the employee newsletter; conducts orientations and manages the department's water education and facility tour program; coordinates community affairs programs and special events; and provides executive level strategic communications counsel and assistance to the Board, Manager, and departmental units in public affairs matters.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	585,184	653,424	698,400	732,300	33,900
4120 - Overtime	18,353	28,600	27,600	34,740	7,140
4130 - Miscellaneous (Payroll)	3,790	33,700	50,800	56,700	5,900
Personnel Services	607,327	715,724	776,800	823,740	46,940
4160 - Meals; Mileage & Uniform Allowances	445	600	400	870	470
4250 - Other Contractual Services	40,019	247,400	257,200	207,900	(49,300)
4251 - Software Licenses and Maintenance	0	0	0	3,500	3,500
4260 - Advertising & Publication of Notices	120,000	3,000	14,000	10,500	(3,500)
4265 - Printing	14,491	66,050	53,000	33,000	(20,000)
4430 - Miscellaneous Supplies	2,928	3,100	3,200	3,500	300
4460 - Other Materials & Supplies	11,661	35,900	29,900	29,900	0
4480 - Postage	308	500	15,400	15,400	0
4500 - Education and Training	0	9,500	2,500	4,500	2,000
4720 - Conference Travel & Expenses	570	200	7,000	5,000	(2,000)
4815 - Repair & Maint - Equipment	0	750	700	700	0
4910 - Miscellaneous Fees & Registration	249	400	1,000	14,800	13,800
8050 - Equipment (under \$5,000)	3,446	7,000	6,000	5,000	(1,000)
Materials, Supplies and Services	194,117	374,400	390,300	334,570	(55,730)
Total Communications Office	801,444	1,090,124	1,167,100	1,158,310	(8,790)

Budget Highlights

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OC - Ocean Cooling

Section's Activity

The Ocean Cooling Program is responsible under a 20-year contract, for the operation and maintenance of the seawater cooling facility at the University of Hawaii John A. Burns School of Medicine in Kakaako. The use of cold seawater for building cooling conserves potable water and energy that would otherwise be used in conventional mechanical cooling systems.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	220,008	220,008	220,000	220,000	0
Personnel Services	220,008	220,008	220,000	220,000	0
4250 - Other Contractual Services	1,065	0	0	0	0
4430 - Miscellaneous Supplies	226	800	800	800	0
4460 - Other Materials & Supplies	0	0	30,000	30,000	0
4470 - Parts and Accessories	0	0	5,000	5,000	0
4815 - Repair & Maint - Equipment	145,136	427,000	390,800	363,000	(27,800)
Materials, Supplies and Services	146,426	427,800	426,600	398,800	(27,800)
Total Ocean Cooling	366,434	647,808	646,600	618,800	(27,800)

Budget Highlights

Ocean Cooling

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HRO - Human Resources Office

Section's Activity

The BWS Human Resources Office administers and manages BWS human resources programs in areas including recruitment, examination, and selection, employee benefits, transactions and personnel record maintenance, labor relations, performance evaluation, classification and compensation, and staff development. In addition, BWS HRO provides staff support for position management and review of reorganizations.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	541,900	584,820	588,500	552,700	(35,800)
4120 - Overtime	105	3,000	3,000	6,000	3,000
4130 - Miscellaneous (Payroll)	0	1,400	38,500	0	(38,500)
Personnel Services	542,005	589,220	630,000	558,700	(71,300)
4160 - Meals; Mileage & Uniform Allowances	20	200	200	200	0
4250 - Other Contractual Services	17,022	63,400	40,000	43,000	3,000
4260 - Advertising & Publication of Notices	249	2,100	5,000	5,000	0
4270 - Professional Services	132,618	123,800	0	0	0
4275 - Medical & Surgical Services	503,856	604,800	0	0	0
4430 - Miscellaneous Supplies	903	2,400	2,400	4,500	2,100
4460 - Other Materials & Supplies	1,000	5,000	5,500	5,000	(500)
4480 - Postage	69	0	100	100	0
4500 - Education and Training	14,514	50,300	83,200	71,200	(12,000)
4720 - Conference Travel & Expenses	1,880	9,500	3,890	13,320	9,430
4815 - Repair & Maint - Equipment	711	1,000	1,500	1,500	0
4910 - Miscellaneous Fees & Registration	175	400	300	275	(25)
6340 - Workers Compensation Benefits	775,984	828,000	0	0	0
8050 - Equipment (under \$5,000)	0	0	5,000	1,000	(4,000)
Materials, Supplies and Services	1,449,000	1,690,900	147,090	145,095	(1,995)
1270 - General Plant & Equip (over \$5,000)	0	0	12,000	0	(12,000)
Equipment	0	0	12,000	0	(12,000)
Total Human Resources Office	1,991,005	2,280,120	789,090	703,795	(85,295)

Budget Highlights

**Board of Water Supply
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WQ - Water Quality

Division/Office's Activity

The Water Quality Division ensures the department's compliance with all federal and state drinking water regulations and environmental laws, rules and regulations and manages special water quality studies.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	1,150,240	1,352,522	1,304,500	1,364,700	60,200
4120 - Overtime	107,735	85,200	90,000	45,000	(45,000)
4130 - Miscellaneous (Payroll)	0	0	0	0	0
Personnel Services	1,257,975	1,437,722	1,394,500	1,409,700	15,200
4160 - Meals; Mileage & Uniform Allowances	6,125	6,000	5,600	4,000	(1,600)
4240 - Manhole Raising	1,100	0	0	0	0
4250 - Other Contractual Services	717,468	951,730	1,079,900	1,063,900	(16,000)
4251 - Software Licenses and Maintenance	0	0	85,000	85,000	0
4270 - Professional Services	0	0	1,406,500	2,900,000	1,493,500
4430 - Miscellaneous Supplies	260	500	820	1,820	1,000
4460 - Other Materials & Supplies	77,927	60,000	79,300	74,300	(5,000)
4500 - Education and Training	1,095	9,200	22,300	23,260	960
4720 - Conference Travel & Expenses	7,134	21,300	22,700	39,000	16,300
4815 - Repair & Maint - Equipment	2,072	9,500	9,500	34,000	24,500
4910 - Miscellaneous Fees & Registration	5,692	9,400	10,100	14,200	4,100
8050 - Equipment (under \$5,000)	2,173	8,400	11,800	8,400	(3,400)
Materials, Supplies and Services	821,045	1,076,030	2,733,520	4,247,880	1,514,360
1270 - General Plant & Equip (over \$5,000)	78,133	81,100	27,200	50,000	22,800
Equipment	78,133	81,100	27,200	50,000	22,800
Total WQ - Water Quality	2,157,153	2,594,852	4,155,220	5,707,580	1,552,360

Notes

Water Quality Division

**Board of Water Supply
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WQ - Water Quality

5250 - Water Quality Administration

Section's Activity

Administers the department's compliance with all safe drinking water regulations, environmental laws, rules and regulations.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	164,908	400,790	367,900	383,900	16,000
4120 - Overtime	156	0	0	0	0
Personnel Services	165,064	400,790	367,900	383,900	16,000
4160 - Meals; Mileage & Uniform Allowances	10	0	0	0	0
4250 - Other Contractual Services	133,737	185,500	290,500	215,500	(75,000)
4270 - Professional Services	0	0	1,400,000	2,900,000	1,500,000
4430 - Miscellaneous Supplies	243	500	500	0	(500)
4460 - Other Materials & Supplies	0	300	300	300	0
4500 - Education and Training	0	200	20,600	20,600	0
4720 - Conference Travel & Expenses	3,653	9,900	13,900	27,700	13,800
4815 - Repair & Maint - Equipment	0	500	500	0	(500)
4910 - Miscellaneous Fees & Registration	0	1,500	1,500	1,500	0
Materials, Supplies and Services	137,643	198,400	1,727,800	3,165,600	1,437,800
Total Water Quality Administration	302,707	599,190	2,095,700	3,549,500	1,453,800

Budget Highlights

The Water Quality Division Administration is requesting an additional \$1,000,000 over the previous year for its Red Hill groundwater study to keep pace with higher than anticipated workload demands for specialized consulting support services to assist the department in discussions with the Navy and regulatory agencies under the Red Hill Administrative Order on Consent (AOC). The FY 18 budget will also fund environmental assessment studies of various BWS pipeline easements for hazardous chemicals and wastes required under Hawaii Department of Health regulations.

The division is also requesting an additional \$100,000 in other Contractual Services for continued work to develop a test method to detect low level petroleum contaminants in drinking water and a source water protection program.

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WQ - Water Quality

5251 - Chemical Laboratory

Section's Activity

The Chemical Laboratory performs required water quality testing and monitoring to conform to federal and state regulations; monitors proposed rules for departmental impact. Supports the department's operational testing requirements and special water quality studies.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	501,048	555,648	527,400	530,600	3,200
4120 - Overtime	25,621	25,200	30,000	25,000	(5,000)
4130 - Miscellaneous (Payroll)	0	0	0	0	0
Personnel Services	526,669	580,848	557,400	555,600	(1,800)
4160 - Meals; Mileage & Uniform Allowances	893	3,600	3,600	2,000	(1,600)
4240 - Manhole Raising	1,100	0	0	0	0
4250 - Other Contractual Services	407,285	624,830	648,200	708,300	60,100
4270 - Professional Services	0	0	6,500	0	(6,500)
4430 - Miscellaneous Supplies	17	0	320	1,820	1,500
4460 - Other Materials & Supplies	22,268	5,700	25,000	20,000	(5,000)
4500 - Education and Training	435	8,000	500	500	0
4720 - Conference Travel & Expenses	0	0	1,800	3,000	1,200
4815 - Repair & Maint - Equipment	0	5,000	5,000	30,000	25,000
4910 - Miscellaneous Fees & Registration	2,730	2,900	3,800	6,800	3,000
8050 - Equipment (under \$5,000)	2,173	3,000	8,800	5,000	(3,800)
Materials, Supplies and Services	436,900	653,030	703,520	777,420	73,900
1270 - General Plant & Equip (over \$5,000)	72,238	75,000	11,200	50,000	38,800
Equipment	72,238	75,000	11,200	50,000	38,800
Total Chemical Laboratory	1,035,807	1,308,878	1,272,120	1,383,020	110,900

Budget Highlights

Chemical Laboratory

**Board of Water Supply
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WQ - Water Quality

5252 - Microbiological Laboratory

Section's Activity

The Microbiological Laboratory performs the required bacteriological water quality testing and monitoring to conform to federal and state regulations; monitors proposed rules for departmental impact. Supports the department's operational testing requirements and special water quality studies

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	484,285	396,084	409,200	450,200	41,000
4120 - Overtime	81,958	60,000	60,000	20,000	(40,000)
Personnel Services	566,242	456,084	469,200	470,200	1,000
4160 - Meals; Mileage & Uniform Allowances	5,222	2,400	2,000	2,000	0
4250 - Other Contractual Services	176,446	141,400	141,200	140,100	(1,100)
4251 - Software Licenses and Maintenance	0	0	85,000	85,000	0
4460 - Other Materials & Supplies	55,659	54,000	54,000	54,000	0
4500 - Education and Training	660	1,000	1,200	2,160	960
4720 - Conference Travel & Expenses	3,481	11,400	7,000	8,300	1,300
4815 - Repair & Maint - Equipment	2,072	4,000	4,000	4,000	0
4910 - Miscellaneous Fees & Registration	2,962	5,000	4,800	5,900	1,100
8050 - Equipment (under \$5,000)	0	5,400	3,000	3,400	400
Materials, Supplies and Services	246,501	224,600	302,200	304,860	2,660
1270 - General Plant & Equip (over \$5,000)	5,895	6,100	16,000	0	(16,000)
Equipment	5,895	6,100	16,000	0	(16,000)
Total Microbiological Laboratory	818,639	686,784	787,400	775,060	(12,340)

Budget Highlights

Microbiological Laboratory

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CC - Customer Care

Division/Office's Activity

The Customer Care Division handles contacts with customers; prepares applications and contracts for water service; designs service connections; and maintains accounts receivable; investigates consumers' service problems; and collects water and sewer bills. It is responsible for reviewing development construction plans, specifications, and reports for conformity with BWS standards; reviewing requests concerning the availability of water; and administering rules and regulations on cross-connection control and environmental requirements.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	3,410,559	4,041,655	4,098,400	4,358,200	259,800
4120 - Overtime	239,206	262,896	243,000	317,200	74,200
4130 - Miscellaneous (Payroll)	78,617	100,896	94,000	127,700	33,700
Personnel Services	3,728,383	4,405,447	4,435,400	4,803,100	367,700
4160 - Meals; Mileage & Uniform Allowances	16,040	15,825	21,100	25,100	4,000
4220 - Collection Fees	328,368	468,000	701,000	901,200	200,200
4250 - Other Contractual Services	32,483	347,300	98,400	141,700	43,300
4267 - Printed forms	0	1,500	1,500	4,400	2,900
4410 - Gasoline	13	0	0	0	0
4430 - Miscellaneous Supplies	11,186	6,750	12,000	21,100	9,100
4440 - Motor Vehicle Parts & Accessories	9	0	0	0	0
4460 - Other Materials & Supplies	30,057	77,348	45,700	80,200	34,500
4500 - Education and Training	5,220	34,800	41,400	48,900	7,500
4720 - Conference Travel & Expenses	3,630	9,560	9,400	6,000	(3,400)
4815 - Repair & Maint - Equipment	89,099	145,009	85,700	27,900	(57,800)
4910 - Miscellaneous Fees & Registration	0	1,900	6,300	5,900	(400)
8050 - Equipment (under \$5,000)	91,673	48,487	82,700	76,500	(6,200)
Materials, Supplies and Services	607,779	1,156,479	1,105,200	1,338,900	233,700
1270 - General Plant & Equip (over \$5,000)	0	20,000	0	20,000	20,000
Equipment	0	20,000	0	20,000	20,000
Total CC - Customer Care	4,336,161	5,581,926	5,540,600	6,162,000	621,400

Notes

Customer Care Division

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CC - Customer Care

5300 - Customer Care Administration

Section's Activity

Administers the affairs of the Customer Care Administration Section; provides clerical support to sections.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	276,347	353,424	324,500	348,500	24,000
4120 - Overtime	5	0	10,000	1,000	(9,000)
Personnel Services	276,352	353,424	334,500	349,500	15,000
4250 - Other Contractual Services	1,289	260,200	70,000	83,000	13,000
4430 - Miscellaneous Supplies	6,503	5,000	12,000	15,000	3,000
4460 - Other Materials & Supplies	3,461	6,000	0	0	0
4500 - Education and Training	5,220	34,800	41,400	35,000	(6,400)
4720 - Conference Travel & Expenses	3,630	9,560	9,400	6,000	(3,400)
4815 - Repair & Maint - Equipment	0	1,200	0	0	0
4910 - Miscellaneous Fees & Registration	0	300	4,500	500	(4,000)
8050 - Equipment (under \$5,000)	27,896	1,000	28,800	5,000	(23,800)
Materials, Supplies and Services	47,999	318,060	166,100	144,500	(21,600)
Total Customer Care Administration	324,351	671,484	500,600	494,000	(6,600)

Budget Highlights

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CC - Customer Care

5310 - Collection and Credit

Section's Activity

The Collection and Credit Section formulates and establishes collection and credit practices and procedures; maintains the cashiering service for payment of water and sewer bills; processes payments made by mail and through charge cards, E-bill, automatic bill payment, and Satellite City Halls; maintains records of delinquent and inactive accounts; performs all field collection and customer service work required to maintain an effective billing and collection program.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	545,860	741,792	825,700	790,300	(35,400)
4120 - Overtime	1,741	2,976	5,000	7,200	2,200
4130 - Miscellaneous (Payroll)	52,286	4,896	20,800	61,600	40,800
Personnel Services	599,886	749,664	851,500	859,100	7,600
4160 - Meals; Mileage & Uniform Allowances	1,186	0	2,050	2,800	750
4220 - Collection Fees	328,368	468,000	701,000	901,200	200,200
4250 - Other Contractual Services	6,920	68,100	8,400	42,700	34,300
4267 - Printed forms	0	1,500	1,500	4,400	2,900
4410 - Gasoline	13	0	0	0	0
4430 - Miscellaneous Supplies	2,485	500	0	3,600	3,600
4460 - Other Materials & Supplies	646	800	3,000	0	(3,000)
4500 - Education and Training	0	0	0	5,400	5,400
4815 - Repair & Maint - Equipment	0	2,000	3,000	5,400	2,400
8050 - Equipment (under \$5,000)	0	1,500	2,400	8,500	6,100
Materials, Supplies and Services	339,617	542,400	721,350	974,000	252,650
Total Collection and Credit	939,504	1,292,064	1,572,850	1,833,100	260,250

Budget Highlights

Collection fees are \$200,200 (28.6%) more than FY 2017 due to the continued increases in automatic bill payment charges (\$19,200), credit card payment processing fees (\$140,000), lockbox services (\$26,000) and collection agency fees (\$15,000).

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CC - Customer Care

5320 - Service Engineering

Section's Activity

The Service Engineering Section receives and processes applications for new water service and for relocating or altering water service facilities; renews and approves building permit applications for various types of developments; designs service connections, reviews development and construction plans for water service facilities, maintains maps and records of water distribution and service facilities; performs drafting work for the division; conducts special water service studies; administers water system facilities charges.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	357,568	463,891	447,100	408,000	(39,100)
4120 - Overtime	2,247	6,000	6,000	6,000	0
4130 - Miscellaneous (Payroll)	0	45,000	10,900	10,900	0
Personnel Services	359,814	514,891	464,000	424,900	(39,100)
4160 - Meals; Mileage & Uniform Allowances	319	325	800	800	0
4250 - Other Contractual Services	213	1,000	0	0	0
4460 - Other Materials & Supplies	6	1,200	1,200	1,200	0
8050 - Equipment (under \$5,000)	0	400	0	0	0
Materials, Supplies and Services	538	2,925	2,000	2,000	0
Total Service Engineering	360,353	517,816	466,000	426,900	(39,100)

Budget Highlights

Service Engineering Section

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CC - Customer Care

5325 - Cross-Connection Control

Section's Activity

The Cross-Connection Control Section manages and implements the Department's Cross-Connection Control Program; reviews construction plans for cross-connection control requirements; conducts agricultural rate inspections; inspects backflow prevention assembly installations; administers the annual backflow prevention assembly testing program; conducts the backflow prevention assembly tester training course; tests and maintains the Department's backflow prevention assemblies; performs public outreach/education on cross-connection control and backflow prevention.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	185,173	334,512	299,600	327,600	28,000
4120 - Overtime	39,546	3,600	10,000	50,000	40,000
4130 - Miscellaneous (Payroll)	15,702	0	200	200	0
Personnel Services	240,421	338,112	309,800	377,800	68,000
4160 - Meals; Mileage & Uniform Allowances	780	500	1,250	3,500	2,250
4250 - Other Contractual Services	1,649	0	0	0	0
4430 - Miscellaneous Supplies	2,005	450	0	0	0
4460 - Other Materials & Supplies	22,723	65,348	36,700	74,000	37,300
4815 - Repair & Maint - Equipment	88,551	133,809	76,700	16,500	(60,200)
4910 - Miscellaneous Fees & Registration	0	1,000	1,800	3,400	1,600
8050 - Equipment (under \$5,000)	13,393	13,487	18,500	25,400	6,900
Materials, Supplies and Services	129,101	214,594	134,950	122,800	(12,150)
Total Cross-Connection Control	369,522	552,706	444,750	500,600	55,850

Budget Highlights

**Board of Water Supply
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CC - Customer Care

5330 - Customer Service and Records

Section's Activity

Customer Service and Records Section services customers' applications requiring reestablishment, discontinuance or transfer of services; maintains customer records for billing purposes; initiates field investigations; reviews governmental agency water service contracts; prepares statistical reports on services and handles inquiries and complaints regarding BWS operations, policies, rates and high water bills. Assists other BWS personnel in other divisions with information, statistics, and status of accounts via computer terminals and services files.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	798,232	1,046,928	1,094,400	1,292,500	198,100
4120 - Overtime	11,210	10,320	12,000	13,000	1,000
4130 - Miscellaneous (Payroll)	888	0	0	0	0
Personnel Services	810,329	1,057,248	1,106,400	1,305,500	199,100
4160 - Meals; Mileage & Uniform Allowances	46	0	0	0	0
4250 - Other Contractual Services	1,472	0	0	0	0
4430 - Miscellaneous Supplies	9	400	0	2,500	2,500
4460 - Other Materials & Supplies	18	0	0	0	0
4500 - Education and Training	0	0	0	8,500	8,500
8050 - Equipment (under \$5,000)	0	2,400	2,400	7,600	5,200
Materials, Supplies and Services	1,545	2,800	2,400	18,600	16,200
Total Customer Service and Records	811,875	1,060,048	1,108,800	1,324,100	215,300

Budget Highlights

Customer Service and Records Section

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CC - Customer Care

5350 - Investigation

Section's Activity

The Investigation Section investigates and determines causes of abnormalities, interruptions and reductions in water supply; investigates consumer complaints; locates underground piping systems; locates leaks; inspects water services for conformance to the department's rules and regulations; and obtains field data on water services.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	1,247,380	1,101,108	1,107,100	1,191,300	84,200
4120 - Overtime	184,458	240,000	200,000	240,000	40,000
4130 - Miscellaneous (Payroll)	9,741	51,000	62,100	55,000	(7,100)
Personnel Services	1,441,579	1,392,108	1,369,200	1,486,300	117,100
4160 - Meals; Mileage & Uniform Allowances	13,709	15,000	17,000	18,000	1,000
4250 - Other Contractual Services	20,940	18,000	20,000	16,000	(4,000)
4430 - Miscellaneous Supplies	184	400	0	0	0
4440 - Motor Vehicle Parts & Accessories	9	0	0	0	0
4460 - Other Materials & Supplies	3,203	4,000	4,800	5,000	200
4815 - Repair & Maint - Equipment	548	8,000	6,000	6,000	0
4910 - Miscellaneous Fees & Registration	0	600	0	2,000	2,000
8050 - Equipment (under \$5,000)	50,384	29,700	30,600	30,000	(600)
Materials, Supplies and Services	88,977	75,700	78,400	77,000	(1,400)
1270 - General Plant & Equip (over \$5,000)	0	20,000	0	20,000	20,000
Equipment	0	20,000	0	20,000	20,000
Total Investigation	1,530,556	1,487,808	1,447,600	1,583,300	135,700

Budget Highlights

Investigation Section

**Board of Water Supply
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LAND - Land

Section's Activity

The Land Division is responsible for acquiring real property and real property interests by purchase, eminent domain, license, lease or otherwise, conducts title searches; prepares or secures surveys, maps and descriptions for real property transactions; makes and/or contracts for land appraisals and analyzes those prepared by others; contracts and negotiates with private parties and government agencies to acquire real property and real property interests; prepares, checks and processes deeds, grants of easement, licenses, leases, agreements and other documents through to final execution and recordation; manages all real property and real property interests under the jurisdiction of the department, including recommendations on land use policies and carrying out the disposition of real property and real property interests, licenses, leases, etc.; and keeps abreast of laws and court decisions affecting real property rights and values.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	289,817	285,936	282,900	280,900	(2,000)
4120 - Overtime	13,362	16,800	17,500	18,400	900
4130 - Miscellaneous (Payroll)	0	7,200	3,700	3,700	0
Personnel Services	303,179	309,936	304,100	303,000	(1,100)
4160 - Meals; Mileage & Uniform Allowances	230	480	480	500	20
4210 - Appraisals; Title Searches & Related Costs	297,698	420,500	420,500	390,500	(30,000)
4250 - Other Contractual Services	756	720	900	23,900	23,000
4430 - Miscellaneous Supplies	461	600	600	600	0
4460 - Other Materials & Supplies	80	0	0	0	0
4480 - Postage	94	200	100	200	100
4720 - Conference Travel & Expenses	0	0	5,000	0	(5,000)
4815 - Repair & Maint - Equipment	0	320	0	0	0
4910 - Miscellaneous Fees & Registration	15,415	19,200	19,200	19,200	0
Materials, Supplies and Services	314,735	442,020	446,780	434,900	(11,880)
Total Land	617,913	751,956	750,880	737,900	(12,980)

Budget Highlights

APPRAISALS, TITLE SEARCHES AND RELATED COSTS provides funding primarily for real property appraisals, title searches and land surveying that is needed to acquire or manage the department's real property assets. The need for these services is not constant and changes from fiscal year to fiscal year, depending on the capital needs of the department.

MISCELLANEOUS FEES & REGISTRATION provides funds to pay the State the Dam & Reservoir Safety Program annual fees for regulated dams in Nuuanu and Makaha that are under the department's jurisdiction and to pay the Hawaii Community Development Authority the annual utility assessment fee for property in Kalaeloa (former Barbers Point Naval Air Station) that was obtained via public benefit conveyance from the U.S. Department of the Navy.

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WR - Water Resources

Division/Office's Activity

The Water Resources Division administers and coordinates long range planning and the capital program; conducts continuous hydrologic and geologic monitoring; conducts hydraulic water system analysis for infrastructure improvements and operational efficiency; administers and coordinates the review of development related proposals for the availability of water and water system adequacy; and administers the water conservation and recycled water programs.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	1,881,794	2,227,769	2,321,800	2,137,700	(184,100)
4120 - Overtime	39,984	60,829	72,892	112,374	39,482
4130 - Miscellaneous (Payroll)	2,969	62,297	29,800	57,015	27,215
Personnel Services	1,924,747	2,350,895	2,424,492	2,307,089	(117,403)
4160 - Meals; Mileage & Uniform Allowances	920	600	2,000	2,430	430
4250 - Other Contractual Services	1,573,192	1,285,580	950,129	1,457,730	507,601
4255 - Other Services	68,607	237,700	547,018	548,840	1,822
4260 - Advertising & Publication of Notices	1,505	0	0	0	0
4265 - Printing	0	500	800	800	0
4270 - Professional Services	150,000	150,000	150,000	800,000	650,000
4430 - Miscellaneous Supplies	6,162	10,000	10,000	10,000	0
4460 - Other Materials & Supplies	26,619	21,500	26,860	45,400	18,540
4480 - Postage	0	480	480	480	0
4500 - Education and Training	9,347	16,169	28,300	16,300	(12,000)
4680 - Telephone	1,888	12,660	12,660	12,660	0
4720 - Conference Travel & Expenses	21,325	35,350	50,415	64,680	14,265
4810 - Repair & Maint - Recycled Water Plt	496,355	620,990	732,016	1,275,644	543,628
4815 - Repair & Maint - Equipment	1,272	14,900	25,900	31,900	6,000
4910 - Miscellaneous Fees & Registration	1,000	1,000	1,200	1,200	0
4920 - Non-Potable Water Trtmnt Plt Costs	3,384,331	5,507,800	5,365,331	4,668,725	(696,606)
4940 - US Geol Surv (USGS) CoOp Invest	154,978	160,000	60,000	232,000	172,000
8050 - Equipment (under \$5,000)	11,323	23,000	62,900	215,850	152,950
Materials, Supplies and Services	5,908,824	8,098,229	8,026,009	9,384,639	1,358,630
1270 - General Plant & Equip (over \$5,000)	0	40,000	169,000	104,280	(64,720)
Equipment	0	40,000	169,000	104,280	(64,720)
Total WR - Water Resources	7,833,571	10,489,124	10,619,501	11,796,008	1,176,507

Notes

Water Resources Division

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WR - Water Resources

5450 - Water Resources Administration

Section's Activity

The Water Resources Administration Section coordinates and directs the activities of the Division to meet the departmental requirements for water system and water resources management and development, conservation and projection; advises and keeps management informed on water resources and administers the pertinent rules and regulations.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	324,545	353,398	352,100	361,300	9,200
4120 - Overtime	0	0	2,000	2,000	0
Personnel Services	324,545	353,398	354,100	363,300	9,200
4160 - Meals; Mileage & Uniform Allowances	63	0	500	0	(500)
4250 - Other Contractual Services	588,222	500,000	500,000	920,000	420,000
4260 - Advertising & Publication of Notices	1,505	0	0	0	0
4430 - Miscellaneous Supplies	5,853	10,000	10,000	10,000	0
4460 - Other Materials & Supplies	18	0	6,500	0	(6,500)
4500 - Education and Training	0	0	0	0	0
4680 - Telephone	0	660	660	660	0
4720 - Conference Travel & Expenses	1,377	1,300	3,390	4,200	810
4815 - Repair & Maint - Equipment	83	500	500	500	0
4910 - Miscellaneous Fees & Registration	1,000	0	0	0	0
Materials, Supplies and Services	598,120	512,460	521,550	935,360	413,810
Total Water Resources Administration	922,664	865,858	875,650	1,298,660	423,010

Budget Highlights

Other Contractual Services of \$920,000 will meet the requirements of preparing a county water use and development plan per the State of Hawaii Water Code and County of Honolulu ordinance, and other Water Resources Research Studies.

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WR - Water Resources

5470 - Water System Planning

Section's Activity

The Water Systems Planning Section supports the functions of the Water Resources Division and other divisions by analyzing the feasibility of proposed capital projects and water system improvements using computer hydraulic models; verifying source contribution for the annual Consumer Confidence Report; developing specialized computer hydraulic models and analyzing operational scenarios; implementing/ assisting with the investigation and resolution of customer complaints of inadequate water service; coordinating the acquisition and evaluation of private water systems; and gathering real-time operational data for analysis and evaluation

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	251,730	336,932	313,900	291,000	(22,900)
4120 - Overtime	2,454	7,944	8,549	8,000	(549)
4130 - Miscellaneous (Payroll)	1,986	20,316	9,600	9,600	0
Personnel Services	256,171	365,192	332,049	308,600	(23,449)
4160 - Meals; Mileage & Uniform Allowances	10	0	0	880	880
4250 - Other Contractual Services	480	480	480	480	0
4460 - Other Materials & Supplies	1,866	1,500	1,500	1,500	0
4480 - Postage	0	480	480	480	0
4500 - Education and Training	8,719	8,190	8,460	9,060	600
4720 - Conference Travel & Expenses	2,341	9,490	11,450	12,930	1,480
4815 - Repair & Maint - Equipment	1,190	7,400	7,400	7,400	0
8050 - Equipment (under \$5,000)	0	0	20,400	0	(20,400)
Materials, Supplies and Services	14,606	27,540	50,170	32,730	(17,440)
1270 - General Plant & Equip (over \$5,000)	0	0	0	15,780	15,780
Equipment	0	0	0	15,780	15,780
Total Water System Planning	270,776	392,732	382,219	357,110	(25,109)

Budget Highlights

The Equipment budget of \$15,780 is to 1) complete the update the office layout to create a work environment more conducive to analysis, collaboration and training; and 2) purchase two more wireless pressure recorders that allow analysis, and ultimate prevention, of pressure anomalies in the water distribution system.

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WR - Water Resources

5472 - Water Conservation

Section's Activity

Directs the water conservation activities of the department; Conducts the planning, engineering, research, development, and implementation of the department's external (demand-side) and internal (infrastructure) conservation programs, including water facilities energy conservation and efficiency programs and recycled and other nonpotable water programs.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	321,472	455,368	539,400	426,100	(113,300)
4120 - Overtime	7,405	9,888	13,250	50,000	36,750
4130 - Miscellaneous (Payroll)	983	22,788	6,400	6,800	400
Personnel Services	329,860	488,044	559,050	482,900	(76,150)
4160 - Meals; Mileage & Uniform Allowances	316	0	600	650	50
4250 - Other Contractual Services	225,000	200,000	200,000	0	(200,000)
4255 - Other Services	0	20,000	35,000	35,000	0
4270 - Professional Services	150,000	150,000	150,000	800,000	650,000
4430 - Miscellaneous Supplies	0	0	0	0	0
4460 - Other Materials & Supplies	12,807	14,200	9,810	20,450	10,640
4480 - Postage	0	0	0	0	0
4500 - Education and Training	0	2,000	5,400	0	(5,400)
4720 - Conference Travel & Expenses	6,883	11,850	15,540	23,000	7,460
8050 - Equipment (under \$5,000)	0	0	2,500	140,000	137,500
Materials, Supplies and Services	395,005	398,050	418,850	1,019,100	600,250
1270 - General Plant & Equip (over \$5,000)	0	0	100,000	0	(100,000)
Equipment	0	0	100,000	0	(100,000)
Total Water Conservation	724,866	886,094	1,077,900	1,502,000	424,100

Budget Highlights

For Water Conservation, the \$350,000 is being dedicated to implementation of water conservation programs developed by previous studies. In addition, \$35,000 is being earmarked for a pilot "Watersmart" program aimed at reducing customer usage via a localized peer comparison strategy. Also, \$150,000 is being used to further development of practices and procedures for corrosion protection of the water mains.

For Energy Conservation, the branch continues to administer the 20 year Energy Savings Performance Contracting project necessitating the continued hiring of an additional person with expertise in ESPC projects. In addition, \$300,000 is being budgeted to evaluate the viability of a PV-Battery system to run pump stations.

For Recycled Water, the branch is revamping the administration of the Recycled Water System program including increasing the documentation of the physical assets and doing detailed asset assessments in the field. The biggest budget impact is an increase of \$140,000 to purchase leak detection equipment for deployment throughout the recycled water system to ensure that leaks can be found and fixed before it becomes a potential main break.

**Board of Water Supply
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WR - Water Resources

5475 - Recycled Water

Section's Activity

The Recycled Water Program is responsible for the treatment and distribution of recycled water for beneficial reuse island-wide; the construction, acquisition, and operation of recycled water treatment and distribution infrastructure; long-term service and support agreements with large water users; and to conduct research and provide public outreach to promote acceptance of recycled water.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4250 - Other Contractual Services	143,999	112,800	120,000	144,000	24,000
4265 - Printing	0	200	200	200	0
4460 - Other Materials & Supplies	1,538	1,400	1,400	400	(1,000)
4810 - Repair & Maint - Recycled Water Plt	496,355	620,990	732,016	1,275,644	543,628
4920 - Non-Potable Water Trtmnt Plt Costs	3,384,331	5,507,800	5,365,331	4,668,725	(696,606)
8050 - Equipment (under \$5,000)	11,323	400	0	0	0
Materials, Supplies and Services	4,037,547	6,243,590	6,218,947	6,088,969	(129,978)
Total Recycled Water	4,037,547	6,243,590	6,218,947	6,088,969	(129,978)

Budget Highlights

This budget is to keep the Honouliuli Water Recycling Facility operational and operating efficiently. The overall budget decrease is largely attributed to estimating lower energy related costs than previously estimated.

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WR - Water Resources

5480 - Hydrology-Geology

Section's Activity

The Hydrology-Geology Section is responsible for water resource monitoring and evaluation. The section collects and analyzes hydrologic and geologic data to manage resources, to identify new sources, to determine capacity of groundwater resources and aquifer properties. Plans and specifications are prepared for the drilling, testing, and sealing of wells of varying utility. The data collection unit collects rainfall, production and water level data, and conducts geophysical well profiles. These compiled data as well as hydrologic advice provided by staff is given to other sections, units, agencies and the public as requested. The data is used for the preparation of source development and management reports and studies. Watershed related programs and activities are administered through the watershed coordinator

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	442,342	451,716	495,800	408,000	(87,800)
4120 - Overtime	21,175	25,717	32,604	33,994	1,390
4130 - Miscellaneous (Payroll)	0	2,014	2,400	28,015	25,615
Personnel Services	463,518	479,447	530,804	470,009	(60,795)
4160 - Meals; Mileage & Uniform Allowances	333	300	600	600	0
4250 - Other Contractual Services	615,491	471,800	129,149	392,750	263,601
4255 - Other Services	68,607	217,700	512,018	513,840	1,822
4265 - Printing	0	300	600	600	0
4430 - Miscellaneous Supplies	240	0	0	0	0
4460 - Other Materials & Supplies	10,288	3,750	6,600	22,000	15,400
4500 - Education and Training	628	2,829	12,800	6,400	(6,400)
4680 - Telephone	1,888	12,000	12,000	12,000	0
4720 - Conference Travel & Expenses	6,655	8,410	9,310	10,400	1,090
4815 - Repair & Maint - Equipment	0	7,000	18,000	24,000	6,000
4910 - Miscellaneous Fees & Registration	0	1,000	1,200	1,200	0
4940 - US Geol Surv (USGS) CoOp Invest	154,978	160,000	60,000	232,000	172,000
8050 - Equipment (under \$5,000)	0	20,000	40,000	75,500	35,500
Materials, Supplies and Services	859,109	905,089	802,277	1,291,290	489,013
1270 - General Plant & Equip (over \$5,000)	0	40,000	69,000	85,000	16,000
Equipment	0	40,000	69,000	85,000	16,000
Total Hydrology-Geology	1,322,626	1,424,536	1,402,081	1,846,299	444,218

Budget Highlights

The overall Hydrology-Geology budget shows an increase over last year primarily because of 1) additional studies of the transpiration characteristics of the native and invaded mesic forests; 2) a benchmark elevation survey of the monitoring wells used to determine the health of the aquifer; and 3) an increase in the USGS CoOp Investment to support a groundwater modeling effort for a critical aquifer.

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WR - Water Resources

5490 - Project Review

Section's Activity

The Project Review Section reviews all requests concerning the availability of water; reviews all water master plans of private and public developments; provides system pressure and flow data; evaluates existing system facilities to ascertain capacities required to support proposed private and public developments; and maintains the files of outstanding water commitments

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	184,634	242,943	232,700	247,600	14,900
4120 - Overtime	560	4,800	4,800	3,600	(1,200)
4130 - Miscellaneous (Payroll)	0	3,097	0	800	800
Personnel Services	185,194	250,840	237,500	252,000	14,500
4160 - Meals; Mileage & Uniform Allowances	0	0	0	0	0
4430 - Miscellaneous Supplies	0	0	0	0	0
4460 - Other Materials & Supplies	0	0	400	400	0
4500 - Education and Training	0	750	800	0	(800)
4720 - Conference Travel & Expenses	2,130	1,700	4,210	4,450	240
8050 - Equipment (under \$5,000)	0	1,500	0	0	0
Materials, Supplies and Services	2,130	3,950	5,410	4,850	(560)
1270 - General Plant & Equip (over \$5,000)	0	0	0	3,500	3,500
Equipment	0	0	0	3,500	3,500
Total Project Review	187,324	254,790	242,910	260,350	17,440

Budget Highlights

Project Review

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WR - Water Resources

5495 - Long Range Planning

Section's Activity

The Long-Range Planning Section develops master and long-range plans for water system improvements to meet departmental goals and objectives; prepares population projections and estimates of future water requirements; and prepares, prioritizes, and justifies related Capital Program projects.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	357,071	387,412	387,900	403,700	15,800
4120 - Overtime	8,389	12,480	11,689	14,780	3,091
4130 - Miscellaneous (Payroll)	0	14,082	11,400	11,800	400
Personnel Services	365,460	413,974	410,989	430,280	19,291
4160 - Meals; Mileage & Uniform Allowances	197	300	300	300	0
4250 - Other Contractual Services	0	500	500	500	0
4430 - Miscellaneous Supplies	69	0	0	0	0
4460 - Other Materials & Supplies	102	650	650	650	0
4500 - Education and Training	0	2,400	840	840	0
4720 - Conference Travel & Expenses	1,940	2,600	6,515	9,700	3,185
8050 - Equipment (under \$5,000)	0	1,100	0	350	350
Materials, Supplies and Services	2,308	7,550	8,805	12,340	3,535
Total Long Range Planning	367,768	421,524	419,794	442,620	22,826

Budget Highlights

Long Range Planning

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FO - Field Operations

Division/Office's Activity

The Field Operations Division is responsible for the maintenance of all waterworks facilities, including all pipelines, valves, fire hydrants, meters, AMR components and corporation yards; maintaining all grounds; installing, maintaining, and repairing service connections; maintaining office buildings and physical control of the storerooms and storage yards.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	9,571,961	13,858,006	13,669,800	13,049,500	(620,300)
4120 - Overtime	1,307,499	1,617,600	1,629,600	1,598,000	(31,600)
4130 - Miscellaneous (Payroll)	440,008	895,000	1,051,100	1,184,300	133,200
Personnel Services	11,319,467	16,370,606	16,350,500	15,831,800	(518,700)
1110 - Materials & Supplies (Storeroom)	1,715,617	2,000,000	1,800,000	1,800,000	0
1120 - Meters (Storeroom)	831,399	2,400,000	4,297,000	2,400,000	(1,897,000)
1125 - AMR Materials & Supplies (Storeroom)	2,586,050	2,400,000	3,600,000	2,000,000	(1,600,000)
4160 - Meals; Mileage & Uniform Allowances	84,307	115,200	123,600	124,600	1,000
4230 - Emergency & Contracted Road Repairs	4,744,263	3,500,000	6,000,000	6,000,000	0
4250 - Other Contractual Services	532,892	917,100	890,100	893,100	3,000
4270 - Professional Services	0	0	450,000	25,000	(425,000)
4280 - Refuse Collection & Disposal	443,970	550,000	550,000	550,000	0
4420 - Hauling Charges	17,249	36,000	36,000	160,000	124,000
4430 - Miscellaneous Supplies	8,575	9,600	9,600	10,000	400
4460 - Other Materials & Supplies	298,549	320,400	352,400	313,000	(39,400)
4470 - Parts and Accessories	0	2,400	2,400	2,400	0
4500 - Education and Training	11,478	30,000	30,000	30,000	0
4720 - Conference Travel & Expenses	12,380	12,000	36,000	46,000	10,000
4805 - Repair & Maint - Structures	9,794	67,000	60,000	60,000	0
4815 - Repair & Maint - Equipment	31,493	31,200	48,200	48,100	(100)
4820 - Repair & Maint - Distribution	14,420	0	0	0	0
4920 - Non-Potable Water Trtmnt Plt Costs	0	60,000	200,000	0	(200,000)
4923 - Store Materials & Expense	501,910	500,000	500,000	500,000	0
8050 - Equipment (under \$5,000)	69,344	119,100	103,450	113,390	9,940
Materials, Supplies and Services	11,913,690	13,070,000	19,088,750	15,075,590	(4,013,160)
1270 - General Plant & Equip (over \$5,000)	0	0	20,000	59,240	39,240
Equipment	0	0	20,000	59,240	39,240
Total FO - Field Operations	23,233,158	29,440,606	35,459,250	30,966,630	(4,492,620)

Notes

Field Operations Division

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FO - Field Operations

5500 - Field Operations Administration

Section's Activity

Administers the affairs of the Field Operations Division.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	679,705	726,573	760,300	699,100	(61,200)
4120 - Overtime	3,900	4,800	12,000	12,000	0
4130 - Miscellaneous (Payroll)	0	87,000	94,200	77,200	(17,000)
Personnel Services	683,605	818,373	866,500	788,300	(78,200)
4160 - Meals; Mileage & Uniform Allowances	102	0	6,000	6,000	0
4250 - Other Contractual Services	43,255	160,000	160,000	160,000	0
4270 - Professional Services	0	0	450,000	25,000	(425,000)
4460 - Other Materials & Supplies	196	6,000	12,000	12,000	0
4500 - Education and Training	11,401	30,000	30,000	30,000	0
4720 - Conference Travel & Expenses	12,380	12,000	36,000	46,000	10,000
4815 - Repair & Maint - Equipment	0	0	10,000	10,000	0
8050 - Equipment (under \$5,000)	0	0	0	4,000	4,000
Materials, Supplies and Services	67,333	208,000	704,000	293,000	(411,000)
1270 - General Plant & Equip (over \$5,000)	0	0	0	51,940	51,940
Equipment	0	0	0	51,940	51,940
Total Field Operations Administration	750,938	1,026,373	1,570,500	1,133,240	(437,260)

Budget Highlights

4250 – Special duty police for traffic control; 4500 – DSO/CEU classes.
4815 – Leak detection equipment repair.

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FO - Field Operations

5510 - Distribution Branch Administration

Section's Activity

The Distribution Branch directs and coordinates the activities pertaining to maintenance of pipelines, appurtenances, buildings and corporation yards; coordinates and directs the maintenance of grounds; provides clerical support to sections of the division branch.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	204,489	295,129	419,400	264,400	(155,000)
4120 - Overtime	550	2,400	2,400	2,400	0
4130 - Miscellaneous (Payroll)	0	0	0	10,000	10,000
Personnel Services	205,039	297,529	421,800	276,800	(145,000)
4160 - Meals; Mileage & Uniform Allowances	30	0	0	0	0
4230 - Emergency & Contracted Road Repairs	4,744,263	3,500,000	6,000,000	6,000,000	0
4250 - Other Contractual Services	0	2,400	2,400	2,400	0
4430 - Miscellaneous Supplies	8,493	9,600	9,600	10,000	400
4460 - Other Materials & Supplies	517	0	0	0	0
4815 - Repair & Maint - Equipment	58	0	0	0	0
Materials, Supplies and Services	4,753,361	3,512,000	6,012,000	6,012,400	400
Total Distribution Branch Administration	4,958,399	3,809,529	6,433,800	6,289,200	(144,600)

Budget Highlights

Emergency & Contract Road Repairs – For City and State road repairs for BWS excavations.

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FO - Field Operations

5520 - Administration Unit

Section's Activity

The Maintenance Section (5520 – Administration Unit, 5521 – Hydrant & Valves Unit, and 5522 – Grounds and Landscaping Unit) installs, operates and maintains valves, hydrants and appurtenances, disinfects reservoirs and mains, conducts tapping and pipe cutting operations, maintains the metropolitan gravity system, corporation yards, grounds and landscaped areas; conducts inspections of the distribution system and facilities.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	137,388	64,668	68,900	186,900	118,000
4120 - Overtime	11,069	0	0	2,400	2,400
4130 - Miscellaneous (Payroll)	3,804	0	13,200	28,800	15,600
Personnel Services	152,260	64,668	82,100	218,100	136,000
4160 - Meals; Mileage & Uniform Allowances	1,496	0	0	0	0
4250 - Other Contractual Services	313,476	0	0	0	0
4280 - Refuse Collection & Disposal	443,970	550,000	550,000	550,000	0
4460 - Other Materials & Supplies	1,269	0	0	0	0
4820 - Repair & Maint - Distribution	14,420	0	0	0	0
8050 - Equipment (under \$5,000)	8,204	0	0	0	0
Materials, Supplies and Services	782,835	550,000	550,000	550,000	0
Total Maintenance Section	935,095	614,668	632,100	768,100	136,000

Budget Highlights

4280 - Refuse Collection & Disposal – Includes PVT Landfill disposal fees.

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FO - Field Operations

5521 - Hydrants and Valves

Section's Activity

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	1,078,499	1,586,160	1,672,700	1,584,800	(87,900)
4120 - Overtime	135,226	180,000	160,000	160,000	0
4130 - Miscellaneous (Payroll)	86,775	122,000	174,800	141,800	(33,000)
Personnel Services	1,300,500	1,888,160	2,007,500	1,886,600	(120,900)
4160 - Meals; Mileage & Uniform Allowances	10,482	10,800	10,800	10,800	0
4250 - Other Contractual Services	1,948	0	0	0	0
4460 - Other Materials & Supplies	26,275	48,000	48,000	35,000	(13,000)
4805 - Repair & Maint - Structures	832	0	0	0	0
4815 - Repair & Maint - Equipment	5,774	4,800	4,800	4,800	0
8050 - Equipment (under \$5,000)	0	21,900	16,000	22,350	6,350
Materials, Supplies and Services	45,311	85,500	79,600	72,950	(6,650)
Total Maintenance Section	1,345,812	1,973,660	2,087,100	1,959,550	(127,550)

Budget Highlights

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FO - Field Operations

5522 - Grounds and Landscaping

Section's Activity

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	774,943	1,062,252	1,094,500	1,051,700	(42,800)
4120 - Overtime	52,952	48,000	60,000	60,000	0
4130 - Miscellaneous (Payroll)	8,447	26,400	26,400	55,000	28,600
Personnel Services	836,342	1,136,652	1,180,900	1,166,700	(14,200)
4160 - Meals; Mileage & Uniform Allowances	4,048	6,000	6,000	6,000	0
4250 - Other Contractual Services	83,522	600,000	600,000	600,000	0
4460 - Other Materials & Supplies	42,739	60,000	60,000	60,000	0
4815 - Repair & Maint - Equipment	4,756	4,800	4,800	4,800	0
8050 - Equipment (under \$5,000)	8,311	12,300	8,900	8,170	(730)
Materials, Supplies and Services	143,375	683,100	679,700	678,970	(730)
1270 - General Plant & Equip (over \$5,000)	0	0	20,000	0	(20,000)
Equipment	0	0	20,000	0	(20,000)
Total Maintenance Section	979,717	1,819,752	1,880,600	1,845,670	(34,930)

Budget Highlights

(4250)Other Contractual Services-tree trimming,maintenance at Nuuanu Open Reservoirs Nos. 1 & 4, Mauna Olu Fire Break and Mauna Olu 530 non-potable reservoir.

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FO - Field Operations

5530 - Construction

Section's Activity

The Construction Section conducts all major emergency repair operations involving water mains, reservoirs and appurtenances ; constructs pipelines and appurtenances and miscellaneous projects; conducts all carpentry, masonry and heavy equipment operations.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	1,448,867	2,265,900	2,299,700	2,191,100	(108,600)
4120 - Overtime	372,867	600,000	500,000	450,000	(50,000)
4130 - Miscellaneous (Payroll)	68,427	173,000	212,600	265,800	53,200
Personnel Services	1,890,162	3,038,900	3,012,300	2,906,900	(105,400)
4160 - Meals; Mileage & Uniform Allowances	20,761	36,000	36,000	36,000	0
4250 - Other Contractual Services	28,046	48,000	48,000	48,000	0
4460 - Other Materials & Supplies	97,190	36,000	48,000	48,000	0
4500 - Education and Training	78	0	0	0	0
4805 - Repair & Maint - Structures	8,962	36,000	36,000	50,000	14,000
4815 - Repair & Maint - Equipment	884	0	0	0	0
8050 - Equipment (under \$5,000)	4,558	14,700	15,800	8,650	(7,150)
Materials, Supplies and Services	160,479	170,700	183,800	190,650	6,850
Total Construction	2,050,641	3,209,600	3,196,100	3,097,550	(98,550)

Budget Highlights

4805 - Repair & Maintenance - Structures: Repair structures to meet Sanitary Survey requirements.

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FO - Field Operations

5540 - Administration Section

Section's Activity

Administers the affairs of the Suburban Field Services Branch. Directs and coordinates the activities pertaining to maintenance of pipelines and appurtenances, building and corporation yards, coordinates and directs the maintenance of grounds, provides clerical support to sections of the branch (5541 – Manana, 5542 – Wahiawa, 5543 – Waianae, and 5560 Windward).

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	71,007	157,920	149,700	134,000	(15,700)
4120 - Overtime	326	1,200	0	0	0
Personnel Services	71,332	159,120	149,700	134,000	(15,700)
4160 - Meals; Mileage & Uniform Allowances	847	0	0	0	0
4250 - Other Contractual Services	449	0	0	0	0
4430 - Miscellaneous Supplies	0	0	0	0	0
4460 - Other Materials & Supplies	880	0	0	0	0
4720 - Conference Travel & Expenses	0	0	0	0	0
8050 - Equipment (under \$5,000)	37,039	0	0	0	0
Materials, Supplies and Services	39,215	0	0	0	0
Total Suburban Field Services Branch	110,547	159,120	149,700	134,000	(15,700)

Budget Highlights

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FO - Field Operations

5541 - Manana Section

Section's Activity

Maintains the water distribution system, appurtenances within the Manana Section including all mains, valves, service connections, and hydrants; and repairs to reservoirs and buildings, and grounds maintenance.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	1,352,377	1,923,288	1,899,900	1,949,300	49,400
4120 - Overtime	264,001	264,000	264,000	265,000	1,000
4130 - Miscellaneous (Payroll)	46,625	94,000	133,600	164,400	30,800
Personnel Services	1,663,004	2,281,288	2,297,500	2,378,700	81,200
4160 - Meals; Mileage & Uniform Allowances	15,345	20,400	20,400	20,400	0
4250 - Other Contractual Services	20,555	41,600	41,600	41,600	0
4460 - Other Materials & Supplies	35,488	42,000	42,000	30,000	(12,000)
4805 - Repair & Maint - Structures	0	7,000	0	0	0
4815 - Repair & Maint - Equipment	2,738	6,000	6,000	6,000	0
8050 - Equipment (under \$5,000)	1,138	26,600	12,800	11,770	(1,030)
Materials, Supplies and Services	75,264	143,600	122,800	109,770	(13,030)
Total Suburban Field Services Branch	1,738,268	2,424,888	2,420,300	2,488,470	68,170

Budget Highlights

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FO - Field Operations

5542 - Wahiawa Section

Section's Activity

Maintains the water distribution system, appurtenances within the Wahiawa Section including all mains, valves, service connections, and hydrants; and repairs to reservoirs and buildings.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	570,130	714,864	561,400	646,400	85,000
4120 - Overtime	123,213	120,000	120,000	120,000	0
4130 - Miscellaneous (Payroll)	18,863	69,000	53,200	66,400	13,200
Personnel Services	712,206	903,864	734,600	832,800	98,200
4160 - Meals; Mileage & Uniform Allowances	5,986	9,000	9,000	9,000	0
4250 - Other Contractual Services	891	700	700	700	0
4460 - Other Materials & Supplies	5,746	6,000	8,000	8,000	0
4815 - Repair & Maint - Equipment	1,234	0	2,000	2,000	0
8050 - Equipment (under \$5,000)	0	14,800	5,100	13,300	8,200
Materials, Supplies and Services	13,857	30,500	24,800	33,000	8,200
Total Suburban Field Services Branch	726,063	934,364	759,400	865,800	106,400

Budget Highlights

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FO - Field Operations

5543 - Waianae Section

Section's Activity

Maintains the water distribution system, appurtenances within the Waianae Section including all mains, valves, service connections, hydrants and repairs to reservoirs and buildings.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	490,455	710,076	668,000	670,600	2,600
4120 - Overtime	133,221	168,000	168,000	168,000	0
4130 - Miscellaneous (Payroll)	42,652	55,000	53,200	78,200	25,000
Personnel Services	666,328	933,076	889,200	916,800	27,600
4160 - Meals; Mileage & Uniform Allowances	6,286	9,000	9,000	9,000	0
4250 - Other Contractual Services	4,252	700	700	700	0
4460 - Other Materials & Supplies	1,863	6,000	6,000	6,000	0
4815 - Repair & Maint - Equipment	480	0	2,000	2,000	0
8050 - Equipment (under \$5,000)	0	15,100	1,100	9,600	8,500
Materials, Supplies and Services	12,881	30,800	18,800	27,300	8,500
Total Suburban Field Services Branch	679,208	963,876	908,000	944,100	36,100

Budget Highlights

Waianae Section

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FO - Field Operations

5550 - District Services

Section's Activity

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	35,727	36,936	38,200	0	(38,200)
4120 - Overtime	0	1,200	1,200	0	(1,200)
4130 - Miscellaneous (Payroll)	243	0	0	0	0
Personnel Services	35,970	38,136	39,400	0	(39,400)
4160 - Meals; Mileage & Uniform Allowances	100	0	0	0	0
4250 - Other Contractual Services	17,955	12,000	12,000	0	(12,000)
4280 - Refuse Collection & Disposal	0	0	0	0	0
4460 - Other Materials & Supplies	8	0	0	0	0
8050 - Equipment (under \$5,000)	1,634	0	0	0	0
Materials, Supplies and Services	19,697	12,000	12,000	0	(12,000)
Total Services Section	55,667	50,136	51,400	0	(51,400)

Budget Highlights

Personnel and activities were incorporated with 5553 - Building Maintenance.

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FO - Field Operations

5551 - Service Connections

Section's Activity

Service Connections installs new service connections and meters; and maintains, repairs, and renews service connections.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	261,983	783,300	395,700	418,700	23,000
4120 - Overtime	58,236	84,000	84,000	84,000	0
4130 - Miscellaneous (Payroll)	68,836	62,000	62,000	62,000	0
Personnel Services	389,055	929,300	541,700	564,700	23,000
4160 - Meals; Mileage & Uniform Allowances	3,664	6,000	6,000	6,000	0
4250 - Other Contractual Services	687	0	0	0	0
Materials, Supplies and Services	4,351	6,000	6,000	6,000	0
Total Services Section	393,406	935,300	547,700	570,700	23,000

Budget Highlights

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FO - Field Operations

5552 - Meter Maintenance

Section's Activity

The Meter Maintenance Section operates and maintains the meter shop for testing and repairing meters; conducts annual meter and AMR maintenance program; inspects and performs large meter performance tests; repairs or replaces large meters; reviews and evaluates meter technical data; performs meter mastering to optimize meter type, size, and to diagnose problems; and installs and removes temporary fire hydrant meter assemblies.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	708,914	1,163,673	1,349,000	1,058,300	(290,700)
4120 - Overtime	7,098	12,000	120,000	120,000	0
4130 - Miscellaneous (Payroll)	0	20,000	20,000	20,000	0
Personnel Services	716,012	1,195,673	1,489,000	1,198,300	(290,700)
1120 - Meters (Storeroom)	831,399	2,400,000	4,297,000	2,400,000	(1,897,000)
1125 - AMR Materials & Supplies (Storeroom)	2,586,050	2,400,000	3,600,000	2,000,000	(1,600,000)
4160 - Meals; Mileage & Uniform Allowances	704	0	2,400	3,000	600
4250 - Other Contractual Services	6,933	50,000	22,000	22,000	0
4430 - Miscellaneous Supplies	82	0	0	0	0
4460 - Other Materials & Supplies	27,663	12,000	24,000	24,000	0
4470 - Parts and Accessories	0	2,400	2,400	2,400	0
4815 - Repair & Maint - Equipment	14,253	12,000	15,000	15,000	0
8050 - Equipment (under \$5,000)	1,074	4,200	28,150	19,840	(8,310)
Materials, Supplies and Services	3,468,158	4,880,600	7,990,950	4,486,240	(3,504,710)
1270 - General Plant & Equip (over \$5,000)	0	0	0	7,300	7,300
Equipment	0	0	0	7,300	7,300
Total Meter Maintenance	4,184,170	6,076,273	9,479,950	5,691,840	(3,788,110)

Budget Highlights

1120 - Meters (Storeroom) – Reduced due to priority placed on MXU replacement program.

1125 - AMR Materials & Supplies (Storeroom) – New and replacement parts for Automated Meter Reading (AMR) system. Reduced due to MXU replacement program being CIP funded.

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FO - Field Operations

5553 - Building Maintenance

Section's Activity

Maintains Beretania Complex buildings, Kalihi Office buildings, and Kalihi Museum.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	337,793	391,152	404,900	444,500	39,600
4120 - Overtime	4,294	6,000	12,000	13,200	1,200
4130 - Miscellaneous (Payroll)	0	16,400	6,000	6,000	0
Personnel Services	342,087	413,552	422,900	463,700	40,800
4160 - Meals; Mileage & Uniform Allowances	886	2,400	2,400	2,400	0
4250 - Other Contractual Services	0	0	0	12,000	12,000
4460 - Other Materials & Supplies	0	6,000	6,000	6,000	0
4805 - Repair & Maint - Structures	0	24,000	24,000	10,000	(14,000)
4815 - Repair & Maint - Equipment	0	0	0	0	0
8050 - Equipment (under \$5,000)	0	3,800	2,000	0	(2,000)
Materials, Supplies and Services	886	36,200	34,400	30,400	(4,000)
Total Services Section	342,973	449,752	457,300	494,100	36,800

Budget Highlights

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FO - Field Operations

5560 - Windward Branch

Section's Activity

Maintains the water distribution system, appurtenances and grounds within the Windward Section including all mains, valves and hydrants; repairs and installs service connections and repairs reservoirs and buildings.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	1,148,334	1,646,296	1,540,000	1,438,600	(101,400)
4120 - Overtime	134,482	120,000	120,000	135,000	15,000
4130 - Miscellaneous (Payroll)	95,335	150,000	176,400	184,400	8,000
Personnel Services	1,378,151	1,916,296	1,836,400	1,758,000	(78,400)
4160 - Meals; Mileage & Uniform Allowances	9,999	12,000	12,000	12,000	0
4250 - Other Contractual Services	7,807	1,700	2,700	5,700	3,000
4460 - Other Materials & Supplies	15,580	14,400	14,400	14,000	(400)
4815 - Repair & Maint - Equipment	1,315	3,600	3,600	3,500	(100)
8050 - Equipment (under \$5,000)	3,250	5,700	7,600	5,650	(1,950)
Materials, Supplies and Services	37,950	37,400	40,300	40,850	550
Total Windward Branch	1,416,101	1,953,696	1,876,700	1,798,850	(77,850)

Budget Highlights

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FO - Field Operations

5585 - Procurement and Supply Unit

Section's Activity

The Supply Section is responsible for physical control of the storerooms and storage yards; coordinates and processes the annual materials contract and stores and disposes of scrap and surplus materials.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	271,350	329,820	347,500	311,100	(36,400)
4120 - Overtime	6,065	6,000	6,000	6,000	0
4130 - Miscellaneous (Payroll)	0	20,200	25,500	24,300	(1,200)
Personnel Services	277,414	356,020	379,000	341,400	(37,600)
1110 - Materials & Supplies (Storeroom)	1,715,617	2,000,000	1,800,000	1,800,000	0
4160 - Meals; Mileage & Uniform Allowances	3,572	3,600	3,600	4,000	400
4250 - Other Contractual Services	3,117	0	0	0	0
4420 - Hauling Charges	17,249	36,000	36,000	160,000	124,000
4430 - Miscellaneous Supplies	0	0	0	0	0
4460 - Other Materials & Supplies	43,136	84,000	84,000	70,000	(14,000)
4920 - Non-Potable Water Trtmnt Plt Costs	0	60,000	200,000	0	(200,000)
4923 - Store Materials & Expense	501,910	500,000	500,000	500,000	0
8050 - Equipment (under \$5,000)	4,136	0	6,000	10,060	4,060
Materials, Supplies and Services	2,288,737	2,683,600	2,629,600	2,544,060	(85,540)
Total Procurement and Supply	2,566,151	3,039,620	3,008,600	2,885,460	(123,140)

Budget Highlights

4420 - Hauling Charges: Delivery of base course and cold mix to Kalihi and Manana.
4923 - Store Materials & Expense - For base course and cold mix.

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CP - Capital Projects

Division/Office's Activity

The Capital Projects Division develops and directs engineering policy and programs to carry out the Department's mission, vision, goals and objectives; formulates and implements the annual Capital Improvement Program budget; develops, implements and maintains programs to address water infrastructure needs; ensures all improvements to the municipal water system are designed and constructed in compliance with the Department's standards and policies; coordinates construction schedules and requirements between operational units and external entities; and provides advisory services to other units and staff services for executive decision-making.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	3,892,500	4,367,720	4,430,900	4,667,400	236,500
4120 - Overtime	355,711	340,200	367,000	435,100	68,100
4130 - Miscellaneous (Payroll)	4,729	124,000	243,400	494,000	250,600
Personnel Services	4,252,940	4,831,920	5,041,300	5,596,500	555,200
4160 - Meals; Mileage & Uniform Allowances	14,732	19,800	23,200	23,300	100
4250 - Other Contractual Services	1,389,925	1,990,000	755,000	900,000	145,000
4260 - Advertising & Publication of Notices	2,869	2,000	2,000	5,000	3,000
4270 - Professional Services	600,000	600,000	0	0	0
4430 - Miscellaneous Supplies	4,527	6,700	7,000	8,400	1,400
4460 - Other Materials & Supplies	4,452	4,800	5,800	8,500	2,700
4500 - Education and Training	3,089	18,700	20,200	23,800	3,600
4720 - Conference Travel & Expenses	6,971	9,500	14,000	18,000	4,000
4815 - Repair & Maint - Equipment	9,447	10,600	9,600	5,000	(4,600)
4910 - Miscellaneous Fees & Registration	140	23,000	23,350	23,000	(350)
8050 - Equipment (under \$5,000)	3,599	750	9,100	8,200	(900)
Materials, Supplies and Services	2,039,751	2,685,850	869,250	1,023,200	153,950
1270 - General Plant & Equip (over \$5,000)	0	0	0	21,000	21,000
Equipment	0	0	0	21,000	21,000
Total CP - Capital Projects	6,292,691	7,517,770	5,910,550	6,640,700	730,150

Notes

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CP - Capital Projects

5565 - Administration

Section's Activity

Engineering Administration develops and directs programs involving the planning, design, inspection and execution of all projects that are incorporated into the public water system

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	447,430	514,323	500,100	526,400	26,300
4120 - Overtime	24	0	0	0	0
4130 - Miscellaneous (Payroll)	0	0	6,000	56,100	50,100
Personnel Services	447,454	514,323	506,100	582,500	76,400
4160 - Meals; Mileage & Uniform Allowances	0	200	200	0	(200)
4250 - Other Contractual Services	20,280	1,200,000	600,000	600,000	0
4260 - Advertising & Publication of Notices	2,281	2,000	2,000	5,000	3,000
4270 - Professional Services	0	0	0	0	0
4430 - Miscellaneous Supplies	2,782	2,500	2,500	2,500	0
4500 - Education and Training	2,400	1,000	3,400	3,400	0
4720 - Conference Travel & Expenses	1,856	2,500	3,300	4,800	1,500
4815 - Repair & Maint - Equipment	1,059	2,000	500	1,000	500
4910 - Miscellaneous Fees & Registration	0	22,500	22,850	22,500	(350)
8050 - Equipment (under \$5,000)	0	0	3,000	0	(3,000)
Materials, Supplies and Services	30,658	1,232,700	637,750	639,200	1,450
1270 - General Plant & Equip (over \$5,000)	0	0	0	0	0
Equipment	0	0	0	0	0
Total Administration	478,112	1,747,023	1,143,850	1,221,700	77,850

Budget Highlights

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CP - Capital Projects

5570 - Design & Plans Review

Section's Activity

The Design and Plans Review Branch formulates design and construction projects to address the needs of the Department; prepares and reviews plans, specifications, and cost estimates; coordinates and secures all necessary project approvals, permits and clearances for modifications or extensions to the municipal water system; and reviews all public and private construction plans for conformance with the Department's standards and policies and approved water master plans

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	724,858	876,336	819,000	871,800	52,800
4120 - Overtime	95,904	84,000	84,000	90,000	6,000
4130 - Miscellaneous (Payroll)	2,437	3,000	58,200	60,000	1,800
Personnel Services	823,199	963,336	961,200	1,021,800	60,600
4160 - Meals; Mileage & Uniform Allowances	3,362	3,000	4,000	4,000	0
4260 - Advertising & Publication of Notices	588	0	0	0	0
4270 - Professional Services	0	0	0	0	0
4430 - Miscellaneous Supplies	24	0	0	0	0
4460 - Other Materials & Supplies	532	3,000	600	2,000	1,400
4500 - Education and Training	0	6,200	6,200	6,200	0
4720 - Conference Travel & Expenses	2,080	2,500	2,500	2,800	300
8050 - Equipment (under \$5,000)	0	0	3,800	5,800	2,000
Materials, Supplies and Services	6,586	14,700	17,100	20,800	3,700
1270 - General Plant & Equip (over \$5,000)	0	0	0	0	0
Equipment	0	0	0	0	0
Total Design & Plans Review	829,784	978,036	978,300	1,042,600	64,300

Budget Highlights

**Board of Water Supply
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CP - Capital Projects

5575 - Construction

Section's Activity

The Construction Branch administers the Department's construction contracts; plans and coordinates construction schedules; oversees all construction activities associated with projects that impact BWS facilities and assets; and ensures all construction, whether by the BWS or by other public and private interests, is completed in accordance with approved construction and accepted engineering practices in accordance with the Department's standards and policies, and approved construction plans and specifications

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	1,829,043	1,981,658	1,936,100	2,020,400	84,300
4120 - Overtime	258,715	252,000	280,000	340,000	60,000
4130 - Miscellaneous (Payroll)	2,292	121,000	92,900	317,100	224,200
Personnel Services	2,090,049	2,354,658	2,309,000	2,677,500	368,500
4160 - Meals; Mileage & Uniform Allowances	11,350	16,500	18,900	19,000	100
4250 - Other Contractual Services	1,321,844	660,000	30,000	30,000	0
4270 - Professional Services	0	0	0	0	0
4430 - Miscellaneous Supplies	187	0	300	500	200
4460 - Other Materials & Supplies	3,344	0	4,000	6,500	2,500
4500 - Education and Training	689	6,000	6,400	6,400	0
4720 - Conference Travel & Expenses	2,755	4,000	7,200	7,200	0
4910 - Miscellaneous Fees & Registration	140	500	500	500	0
8050 - Equipment (under \$5,000)	3,599	0	300	0	(300)
Materials, Supplies and Services	1,343,907	687,000	67,600	70,100	2,500
1270 - General Plant & Equip (over \$5,000)	0	0	0	0	0
Equipment	0	0	0	0	0
Total Construction	3,433,957	3,041,658	2,376,600	2,747,600	371,000

Budget Highlights

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CP - Capital Projects

5580 - Support

Section's Activity

The Engineering Support Branch formulates the Department's annual Capital Improvement Program budget; prepares and administers agreements with public agencies and private developers; prepares and reviews plans, specifications, cost estimates and other necessary documents, and coordinates and secures all necessary project approvals, permits and clearances for the Department's facility repair and replacement construction projects; develops and implements programs for facility renovations, asset replacement, and fire protection improvement; provides technical research, assistance, expertise and advice throughout the Department; and develops and maintains the Department's water system standards and conducts research and product trials to evaluate new materials and equipment.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	455,025	506,232	672,300	664,500	(7,800)
4120 - Overtime	487	3,000	3,000	3,000	0
4130 - Miscellaneous (Payroll)	0	0	47,100	26,500	(20,600)
Personnel Services	455,511	509,232	722,400	694,000	(28,400)
4160 - Meals; Mileage & Uniform Allowances	0	100	100	100	0
4250 - Other Contractual Services	8,101	25,000	20,000	10,000	(10,000)
4270 - Professional Services	600,000	600,000	0	0	0
4430 - Miscellaneous Supplies	1,535	4,200	4,200	4,200	0
4460 - Other Materials & Supplies	476	0	0	0	0
4500 - Education and Training	0	2,500	2,400	6,000	3,600
4720 - Conference Travel & Expenses	0	500	500	600	100
4815 - Repair & Maint - Equipment	8,388	8,600	9,100	4,000	(5,100)
8050 - Equipment (under \$5,000)	0	0	500	1,400	900
Materials, Supplies and Services	618,500	640,900	36,800	26,300	(10,500)
1270 - General Plant & Equip (over \$5,000)	0	0	0	0	0
Equipment	0	0	0	0	0
Total Support	1,074,012	1,150,132	759,200	720,300	(38,900)

Budget Highlights

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CP - Capital Projects

5582 - Mechanical and Electrical

Section's Activity

The Mechanical and Electrical Engineering Branch oversees the design and installation of mechanical and electrical equipment and systems throughout the municipal water system; prepares plans, specifications, and cost estimates and coordinates and secures all necessary project approvals, permits and clearances for the construction of electrical and mechanical system installations and pump and motor repairs, renewals and replacement work in accordance with the Department's requirements; provides technical assistance and conducts field inspections, troubleshooting, pilot testing, and final acceptance inspections of mechanical and electrical components; monitors, evaluates, incorporates, and optimizes BWS equipment standards; and provides technical assistance, expertise, and advice on daily operation of pump and power facilities, equipment renewal and upgrade programs, continuity of service, and maintenance.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	436,145	489,171	503,400	584,300	80,900
4120 - Overtime	582	1,200	0	2,100	2,100
4130 - Miscellaneous (Payroll)	0	0	39,200	34,300	(4,900)
Personnel Services	436,727	490,371	542,600	620,700	78,100
4160 - Meals; Mileage & Uniform Allowances	20	0	0	200	200
4250 - Other Contractual Services	39,700	105,000	105,000	260,000	155,000
4270 - Professional Services	0	0	0	0	0
4430 - Miscellaneous Supplies	0	0	0	1,200	1,200
4460 - Other Materials & Supplies	100	1,800	1,200	0	(1,200)
4500 - Education and Training	0	3,000	1,800	1,800	0
4720 - Conference Travel & Expenses	280	0	500	2,600	2,100
8050 - Equipment (under \$5,000)	0	750	1,500	1,000	(500)
Materials, Supplies and Services	40,100	110,550	110,000	266,800	156,800
1270 - General Plant & Equip (over \$5,000)	0	0	0	21,000	21,000
Equipment	0	0	0	21,000	21,000
Total Mechanical and Electrical	476,827	600,921	652,600	908,500	255,900

Budget Highlights

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WSO - Water System Operations

Division/Office's Activity

The Water System Operations Division is responsible for the operations and maintenance of pumping and water treatment plant equipment, plant facilities, and communications and electronic control systems. It maintains a 24-hour watch over the department's island-wide water systems and departmental electrical and emergency power supply systems. The unit also purchases, maintains, and repairs the department's vehicles and construction equipment.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4620 - Electricity	0	0	0	0	0
Departmental Fixed Charges	0	0	0	0	0
4110 - Salaries & Wages	4,384,430	6,254,173	6,592,400	5,428,200	(1,164,200)
4120 - Overtime	445,640	542,800	577,000	579,200	2,200
4130 - Miscellaneous (Payroll)	50,884	111,600	83,800	105,800	22,000
Personnel Services	4,880,954	6,908,573	7,253,200	6,113,200	(1,140,000)
4160 - Meals; Mileage & Uniform Allowances	23,184	35,500	33,524	35,350	1,826
4250 - Other Contractual Services	277,578	295,200	313,400	312,500	(900)
4251 - Software Licenses and Maintenance	0	0	3,800	50,000	46,200
4267 - Printed forms	0	100	100	100	0
4270 - Professional Services	0	840,000	600,000	720,000	120,000
4410 - Gasoline	502,184	990,000	910,000	823,200	(86,800)
4430 - Miscellaneous Supplies	4,529	11,000	11,000	8,500	(2,500)
4440 - Motor Vehicle Parts & Accessories	433,867	432,000	452,000	452,000	0
4460 - Other Materials & Supplies	2,596,813	2,698,500	2,855,100	2,830,900	(24,200)
4470 - Parts and Accessories	823,521	524,400	716,400	646,400	(70,000)
4500 - Education and Training	14,498	79,600	52,700	50,900	(1,800)
4670 - Telemetering	225,827	240,000	240,000	240,000	0
4720 - Conference Travel & Expenses	1,028	15,800	17,100	14,100	(3,000)
4805 - Repair & Maint - Structures	36,328	52,000	52,000	52,000	0
4815 - Repair & Maint - Equipment	820,373	1,165,200	1,131,000	1,034,800	(96,200)
4910 - Miscellaneous Fees & Registration	4,789	5,100	8,900	6,500	(2,400)
8050 - Equipment (under \$5,000)	306,209	731,500	676,950	842,200	165,250
Materials, Supplies and Services	6,070,726	8,115,900	8,073,974	8,119,450	45,476
1270 - General Plant & Equip (over \$5,000)	1,871,332	2,560,100	4,051,200	4,772,800	721,600
Equipment	1,871,332	2,560,100	4,051,200	4,772,800	721,600
Total WSO - Water System Operations	12,823,012	17,584,573	19,378,374	19,005,450	(372,924)

Notes

Water System Operations Division

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WSO - Water System Operations

5600 - Operations Administration

Section's Activity

Administers the affairs of the Water System Operations Division; provides engineering and clerical support to sections within the unit.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	372,674	361,345	508,500	378,500	(130,000)
4120 - Overtime	12,643	2,400	5,000	7,200	2,200
4130 - Miscellaneous (Payroll)	2,763	19,900	18,900	15,300	(3,600)
Personnel Services	388,079	383,645	532,400	401,000	(131,400)
4160 - Meals; Mileage & Uniform Allowances	846	300	600	600	0
4250 - Other Contractual Services	15,975	18,000	18,000	18,000	0
4251 - Software Licenses and Maintenance	0	0	0	46,000	46,000
4270 - Professional Services	0	840,000	600,000	720,000	120,000
4410 - Gasoline	0	0	0	0	0
4430 - Miscellaneous Supplies	3,708	4,800	4,800	4,800	0
4460 - Other Materials & Supplies	1,031	0	0	0	0
4500 - Education and Training	465	2,300	2,300	1,700	(600)
4720 - Conference Travel & Expenses	838	3,000	3,900	2,900	(1,000)
4910 - Miscellaneous Fees & Registration	1,081	600	600	600	0
8050 - Equipment (under \$5,000)	0	0	1,000	0	(1,000)
Materials, Supplies and Services	23,944	869,000	631,200	794,600	163,400
Total Operations Administration	412,023	1,252,645	1,163,600	1,195,600	32,000

Budget Highlights

A/C 4251 - cost to purchase and one year maintenance for a small, simplified computerized maintenance management system for Water Systems Operations

A/C 4270 - increase budget needed for next phase of instrumentation and controls project

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WSO - Water System Operations

5610 - Plant Operations

Section's Activity

The Pumps Section operates, maintains, repairs and installs equipment of the pumping systems consisting of electrical pumping plants, booster pumping stations, water treatment plants, hydraulic turbine pumping units, water treatment stations, reservoirs, reservoir altitude valves, in-line check and hydraulically-operated butterfly valves and pressure-regulating valves, aerators, meters and gauges, repair shops, buildings and structures, air conditioners, exhaust blowers and fans, auxiliary pumping and water treatment equipment; regulates the water supply within the water distribution systems through the use of a variety of mechanically and electrically-operated supervisory controls; operates the department's after-hour control center; maintains a 24-hour watch over department's island-wide water system.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4620 - Electricity	0	0	0	0	0
Departmental Fixed Charges	0	0	0	0	0
4110 - Salaries & Wages	76,810	234,792	218,800	208,700	(10,100)
4120 - Overtime	3,050	9,000	9,000	9,000	0
4130 - Miscellaneous (Payroll)	0	1,200	1,200	1,200	0
Personnel Services	79,860	244,992	229,000	218,900	(10,100)
4160 - Meals; Mileage & Uniform Allowances	26	300	300	300	0
4250 - Other Contractual Services	13,548	3,600	10,000	4,800	(5,200)
4430 - Miscellaneous Supplies	0	5,000	5,000	2,500	(2,500)
4460 - Other Materials & Supplies	2,447,634	2,409,400	2,620,000	2,573,000	(47,000)
4470 - Parts and Accessories	44,716	0	0	0	0
4500 - Education and Training	255	900	1,600	1,600	0
4720 - Conference Travel & Expenses	190	1,500	1,300	1,200	(100)
4805 - Repair & Maint - Structures	31,589	48,000	48,000	48,000	0
4815 - Repair & Maint - Equipment	734,931	888,400	854,000	821,800	(32,200)
4910 - Miscellaneous Fees & Registration	570	2,400	5,400	3,000	(2,400)
8050 - Equipment (under \$5,000)	12,778	61,000	82,000	52,000	(30,000)
Materials, Supplies and Services	3,286,238	3,420,500	3,627,600	3,508,200	(119,400)
1270 - General Plant & Equip (over \$5,000)	0	140,000	140,000	100,000	(40,000)
Equipment	0	140,000	140,000	100,000	(40,000)
Total Plant Operations	3,366,097	3,805,492	3,996,600	3,827,100	(169,500)

Budget Highlights

4460 - slight decrease due to lower estimate of granular activated carbon required. 4815 - slight decrease due to reduction in switch gear maintenance required.

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WSO - Water System Operations

5611 - District 1 Leeward West Section

Section's Activity

District 1 consists of the stations on the leeward side of the island from Waipahu to Makaha. Granular activated carbon filtration plants are located at Hoaeae Wells; Waipahu Wells I, II, III, and IV; Kunia Wells I and II; and Waipio Heights Wells III.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	415,653	616,924	635,000	522,500	(112,500)
4120 - Overtime	133,891	100,000	120,000	144,000	24,000
4130 - Miscellaneous (Payroll)	0	6,000	6,000	6,000	0
Personnel Services	549,544	722,924	761,000	672,500	(88,500)
4160 - Meals; Mileage & Uniform Allowances	6,812	6,200	6,588	7,000	412
4460 - Other Materials & Supplies	28,031	39,600	33,800	34,000	200
4470 - Parts and Accessories	146,236	110,000	212,400	212,400	0
4500 - Education and Training	0	9,600	4,800	4,800	0
4720 - Conference Travel & Expenses	0	1,500	1,800	1,200	(600)
4815 - Repair & Maint - Equipment	0	12,000	12,000	12,000	0
8050 - Equipment (under \$5,000)	31,473	72,700	66,300	87,000	20,700
Materials, Supplies and Services	212,552	251,600	337,688	358,400	20,712
1270 - General Plant & Equip (over \$5,000)	0	36,000	160,000	120,000	(40,000)
Equipment	0	36,000	160,000	120,000	(40,000)
Total District 1 Leeward West Section	762,096	1,010,524	1,258,688	1,150,900	(107,788)

Budget Highlights

1270 - less three way valves need replacement at GAC facilities

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WSO - Water System Operations

5612 - District 2 Central/Windward Section

Section's Activity

District 2 consists of the stations on the windward, central, and north shore areas of the island from Waimanalo to Kahuku to Mokuleia to Mililani. Granular activated carbon filtration plants are located at Waialua Wells; Haleiwa Wells; and Mililani Wells I and III.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	386,737	567,576	577,800	585,100	7,300
4120 - Overtime	66,986	132,000	110,000	90,000	(20,000)
4130 - Miscellaneous (Payroll)	7,523	12,000	6,000	31,600	25,600
Personnel Services	461,246	711,576	693,800	706,700	12,900
4160 - Meals; Mileage & Uniform Allowances	4,183	7,400	5,688	6,100	412
4460 - Other Materials & Supplies	7,782	44,800	40,000	38,000	(2,000)
4470 - Parts and Accessories	106,623	80,000	90,000	72,000	(18,000)
4500 - Education and Training	2,980	9,600	4,800	4,800	0
4720 - Conference Travel & Expenses	0	1,500	1,800	1,200	(600)
4815 - Repair & Maint - Equipment	0	68,000	62,000	37,000	(25,000)
8050 - Equipment (under \$5,000)	7,438	79,500	62,800	65,300	2,500
Materials, Supplies and Services	129,005	290,800	267,088	224,400	(42,688)
1270 - General Plant & Equip (over \$5,000)	0	10,000	0	10,000	10,000
Equipment	0	10,000	0	10,000	10,000
Total District 2 Central/Windward Section	590,251	1,012,376	960,888	941,100	(19,788)

Budget Highlights

Pumps - District 2 Central Windward Section overall - less major repair work anticipated for this District.

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WSO - Water System Operations

5613 - District 3 Metropolitan Section

Section's Activity

District 3 consists of the stations in Metropolitan Honolulu from Kalihi to Makapuu.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	362,574	564,540	580,000	496,000	(84,000)
4120 - Overtime	27,434	60,000	60,000	60,000	0
4130 - Miscellaneous (Payroll)	0	6,000	6,000	6,000	0
Personnel Services	390,008	630,540	646,000	562,000	(84,000)
4160 - Meals; Mileage & Uniform Allowances	1,655	3,300	3,396	3,300	(96)
4410 - Gasoline	0	0	0	0	0
4460 - Other Materials & Supplies	3,485	17,900	17,900	17,900	0
4470 - Parts and Accessories	88,571	100,000	100,000	100,000	0
4500 - Education and Training	0	9,600	4,800	4,800	0
4720 - Conference Travel & Expenses	0	1,500	1,800	1,200	(600)
4815 - Repair & Maint - Equipment	6,539	27,000	27,000	12,000	(15,000)
8050 - Equipment (under \$5,000)	20,492	42,500	14,500	37,200	22,700
Materials, Supplies and Services	120,743	201,800	169,396	176,400	7,004
1270 - General Plant & Equip (over \$5,000)	0	50,000	25,000	30,000	5,000
Equipment	0	50,000	25,000	30,000	5,000
Total District 3 Metropolitan Section	510,750	882,340	840,396	768,400	(71,996)

Budget Highlights

Pumps - District 3 Metropolitan Section

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WSO - Water System Operations

5614 - District 4 Leeward East Section

Section's Activity

District 4 consists of the stations from Kalihi to Pearl City.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	407,027	568,512	580,000	593,400	13,400
4120 - Overtime	27,364	56,400	56,000	40,000	(16,000)
4130 - Miscellaneous (Payroll)	9,023	4,800	4,800	4,800	0
Personnel Services	443,415	629,712	640,800	638,200	(2,600)
4160 - Meals; Mileage & Uniform Allowances	1,800	5,600	4,616	5,650	1,034
4460 - Other Materials & Supplies	4,645	26,000	22,500	20,100	(2,400)
4470 - Parts and Accessories	158,786	74,000	74,000	70,000	(4,000)
4500 - Education and Training	540	9,600	4,800	4,800	0
4670 - Telemetering	0	0	0	0	0
4720 - Conference Travel & Expenses	0	1,500	1,800	1,200	(600)
4805 - Repair & Maint - Structures	314	0	0	0	0
4815 - Repair & Maint - Equipment	2,600	18,000	18,000	12,000	(6,000)
8050 - Equipment (under \$5,000)	0	56,100	53,300	80,500	27,200
Materials, Supplies and Services	168,684	190,800	179,016	194,250	15,234
1270 - General Plant & Equip (over \$5,000)	0	0	14,300	0	(14,300)
Equipment	0	0	14,300	0	(14,300)
Total District 4 Leeward East Section	612,099	820,512	834,116	832,450	(1,666)

Budget Highlights

Pumps - District 4 Leeward East Section

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WSO - Water System Operations

5615 - Control Center

Section's Activity

Operates the department's island-wide water system on a 24/7 basis. Is responsible for maintaining proper system pressure and levels to meet the needs of our customers. Due to its round-the-clock operation, the Control Center has the responsibility of being the point of contact for the public outside of BWS regular working hours.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	483,371	635,592	655,300	631,800	(23,500)
4120 - Overtime	122,333	110,000	120,000	120,000	0
4130 - Miscellaneous (Payroll)	0	4,000	4,000	4,000	0
Personnel Services	605,703	749,592	779,300	755,800	(23,500)
4160 - Meals; Mileage & Uniform Allowances	5,111	6,000	6,000	6,000	0
4500 - Education and Training	4,545	9,600	4,800	4,800	0
4720 - Conference Travel & Expenses	0	1,500	1,800	1,200	(600)
8050 - Equipment (under \$5,000)	0	3,000	1,800	1,800	0
Materials, Supplies and Services	9,656	20,100	14,400	13,800	(600)
Total Control Center	615,359	769,692	793,700	769,600	(24,100)

Budget Highlights

Pumps - Control Center Unit

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WSO - Water System Operations

5616 - Technical Services

Section's Activity

The Pumps and Technical Services Section operates, maintains, repairs, and installs air conditioners, exhaust blowers, fans, and electrical power at Beretania and the five outlying base yards; and maintains flow tubes.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	542,513	801,893	989,100	394,600	(594,500)
4120 - Overtime	27,401	24,000	48,000	60,000	12,000
4130 - Miscellaneous (Payroll)	678	28,800	4,800	4,800	0
Personnel Services	570,592	854,693	1,041,900	459,400	(582,500)
4160 - Meals; Mileage & Uniform Allowances	1,378	2,600	2,496	2,600	104
4250 - Other Contractual Services	5,402	0	0	0	0
4460 - Other Materials & Supplies	4,627	60,000	12,000	36,000	24,000
4470 - Parts and Accessories	69,493	40,000	108,000	60,000	(48,000)
4500 - Education and Training	500	9,600	4,800	4,800	0
4720 - Conference Travel & Expenses	0	1,500	1,800	1,200	(600)
4815 - Repair & Maint - Equipment	89	54,000	54,000	36,000	(18,000)
8050 - Equipment (under \$5,000)	13,593	61,400	45,900	123,900	78,000
Materials, Supplies and Services	95,082	229,100	228,996	264,500	35,504
1270 - General Plant & Equip (over \$5,000)	0	55,000	80,000	45,000	(35,000)
Equipment	0	55,000	80,000	45,000	(35,000)
Total Technical Services	665,675	1,138,793	1,350,896	768,900	(581,996)

Budget Highlights

8050 - increased because the Technical Services section will be installing new instrumentation and new chlorination systems as part of an island wide modernization and standardization effort.

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WSO - Water System Operations

5620 - Telecommunications

Section's Activity

The Telecommunications Section plans, modifies, adapts, installs, operates, maintains and repairs telecommunications equipment used in radio, microwave, supervisory control and telemetry networks covering the water distribution and pumping systems of the department, and industrial electronic equipment used in the operation of electrical pumping plants and underground pipe locating devices; designs multifunction telemetry and supervisory control systems and mobile radio systems.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	237,476	623,748	573,200	322,600	(250,600)
4120 - Overtime	11,713	36,000	36,000	36,000	0
4130 - Miscellaneous (Payroll)	30,897	12,000	15,200	15,200	0
Personnel Services	280,085	671,748	624,400	373,800	(250,600)
4160 - Meals; Mileage & Uniform Allowances	716	2,000	2,040	2,000	(40)
4250 - Other Contractual Services	82,872	102,000	102,000	102,000	0
4460 - Other Materials & Supplies	1,679	12,000	14,000	12,000	(2,000)
4470 - Parts and Accessories	162,886	72,000	72,000	72,000	0
4500 - Education and Training	1,782	2,400	2,400	2,400	0
4670 - Telemetry	225,827	240,000	240,000	240,000	0
4720 - Conference Travel & Expenses	0	1,500	1,100	1,200	100
4815 - Repair & Maint - Equipment	3,870	24,000	24,000	24,000	0
4910 - Miscellaneous Fees & Registration	210	0	0	0	0
8050 - Equipment (under \$5,000)	205,126	343,000	343,050	387,000	43,950
Materials, Supplies and Services	684,968	798,900	800,590	842,600	42,010
1270 - General Plant & Equip (over \$5,000)	0	192,000	189,000	303,000	114,000
Equipment	0	192,000	189,000	303,000	114,000
Total Telecommunications	965,054	1,662,648	1,613,990	1,519,400	(94,590)

Budget Highlights

1270 & 8050 - increase in budget due to ramping up implementation of equipment to utilize IT's wireless backbone for communications to pumping stations.

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WSO - Water System Operations

5660 - Automotive

Section's Activity

The Automotive Section operates the maintenance and repair shops; prepares plans and specifications for the purchase of vehicles and special construction equipment; maintains and repairs vehicles, construction and special equipment; disposes of retired fleet equipment; maintains and constructs special tools and equipment; conducts research work in the automotive field.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	1,099,596	1,279,250	1,274,700	1,295,000	20,300
4120 - Overtime	12,826	13,000	13,000	13,000	0
4130 - Miscellaneous (Payroll)	0	16,900	16,900	16,900	0
Personnel Services	1,112,422	1,309,150	1,304,600	1,324,900	20,300
4160 - Meals; Mileage & Uniform Allowances	658	1,800	1,800	1,800	0
4250 - Other Contractual Services	159,780	171,600	183,400	187,700	4,300
4251 - Software Licenses and Maintenance	0	0	3,800	4,000	200
4267 - Printed forms	0	100	100	100	0
4410 - Gasoline	502,184	990,000	910,000	823,200	(86,800)
4430 - Miscellaneous Supplies	820	1,200	1,200	1,200	0
4440 - Motor Vehicle Parts & Accessories	433,867	432,000	452,000	452,000	0
4460 - Other Materials & Supplies	97,900	88,800	94,900	99,900	5,000
4470 - Parts and Accessories	46,209	48,400	60,000	60,000	0
4500 - Education and Training	3,430	16,400	17,600	16,400	(1,200)
4720 - Conference Travel & Expenses	0	800	0	1,600	1,600
4805 - Repair & Maint - Structures	4,425	4,000	4,000	4,000	0
4815 - Repair & Maint - Equipment	72,344	73,800	80,000	80,000	0
4910 - Miscellaneous Fees & Registration	2,928	2,100	2,900	2,900	0
8050 - Equipment (under \$5,000)	15,309	12,300	6,300	7,500	1,200
Materials, Supplies and Services	1,339,853	1,843,300	1,818,000	1,742,300	(75,700)
1270 - General Plant & Equip (over \$5,000)	1,871,332	2,077,100	3,442,900	4,164,800	721,900
Equipment	1,871,332	2,077,100	3,442,900	4,164,800	721,900
Total Automotive	4,323,607	5,229,550	6,565,500	7,232,000	666,500

Budget Highlights

The increase in the general plant equipment budget is because there were 39 vehicles that were scheduled for replacement in FY2017 and there are 41 vehicles scheduled for replacement in FY2018. There are also ten sports utility vehicles, one hydraulic lift trailer, and one landscape trailer being proposed as new additions to the fleet in anticipation of a workforce expansion in FY2018.

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IT - Information Technology

Division/Office's Activity

The Information Technology Division designs, develops, maintains, and supports BWS databases; software systems; server/workstation/mobile hardware and software; wired/wireless networks, voice/video and call center systems.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	2,621,660	3,525,392	3,285,400	3,031,400	(254,000)
4120 - Overtime	199,704	279,600	284,000	254,500	(29,500)
4130 - Miscellaneous (Payroll)	0	62,772	41,300	43,800	2,500
Personnel Services	2,821,364	3,867,764	3,610,700	3,329,700	(281,000)
4160 - Meals; Mileage & Uniform Allowances	1,079	3,600	3,600	3,600	0
4250 - Other Contractual Services	2,748,503	5,508,300	5,024,956	5,287,900	262,944
4251 - Software Licenses and Maintenance	1,880,452	1,813,350	2,476,866	2,223,648	(253,218)
4260 - Advertising & Publication of Notices	208	0	0	0	0
4265 - Printing	3,242	5,000	0	0	0
4270 - Professional Services	3,695	0	0	0	0
4410 - Gasoline	20	0	0	0	0
4430 - Miscellaneous Supplies	5,377	6,500	5,600	5,000	(600)
4460 - Other Materials & Supplies	108,796	109,210	111,100	114,300	3,200
4470 - Parts and Accessories	17,973	13,200	10,400	24,000	13,600
4480 - Postage	333,398	1,120,800	1,000,000	700,000	(300,000)
4500 - Education and Training	95,079	139,400	277,450	157,600	(119,850)
4650 - Security Camera - Cable Line Services	70,302	0	0	0	0
4720 - Conference Travel & Expenses	21,394	57,115	85,915	76,600	(9,315)
4815 - Repair & Maint - Equipment	80,952	204,500	243,350	267,450	24,100
4910 - Miscellaneous Fees & Registration	0	200	500	500	0
8050 - Equipment (under \$5,000)	377,405	383,400	700,123	633,720	(66,403)
Materials, Supplies and Services	5,747,876	9,364,575	9,939,860	9,494,318	(445,542)
1270 - General Plant & Equip (over \$5,000)	411,200	414,900	420,000	350,000	(70,000)
Equipment	411,200	414,900	420,000	350,000	(70,000)
Total IT - Information Technology	8,980,441	13,647,239	13,970,560	13,174,018	(796,542)

Notes

Information Technology Division

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IT - Information Technology

5805 - IT Administration

Section's Activity

The Administration Section provides strategic planning, technology management, policy direction, cyber security program management and administrative support services for the Information Technology Division

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	307,755	398,852	407,700	391,400	(16,300)
4130 - Miscellaneous (Payroll)	0	0	0	0	0
Personnel Services	307,755	398,852	407,700	391,400	(16,300)
4250 - Other Contractual Services	126,617	150,000	250,000	475,000	225,000
4251 - Software Licenses and Maintenance	0	0	25,000	0	(25,000)
4260 - Advertising & Publication of Notices	208	0	0	0	0
4430 - Miscellaneous Supplies	759	1,200	1,200	1,200	0
4460 - Other Materials & Supplies	2,642	3,600	3,600	3,600	0
4500 - Education and Training	290	1,600	16,800	1,600	(15,200)
4720 - Conference Travel & Expenses	13,018	14,465	31,715	18,500	(13,215)
4910 - Miscellaneous Fees & Registration	0	200	500	500	0
8050 - Equipment (under \$5,000)	6,403	15,000	0	0	0
Materials, Supplies and Services	149,938	186,065	328,815	500,400	171,585
Total IT Administration	457,693	584,917	736,515	891,800	155,285

Budget Highlights

Other Contractual Services increased from FY 2017 to meet the expected need for consultant services to assist ITD with O&M of the BWS cyber security program over the next 2-3 year period

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IT - Information Technology

5820 - Application Systems Development

Section's Activity

The Application Systems Development Section is responsible for providing application and data management services for all enterprise systems of the department including, customer information system, water and sewer billings, financial/HR (payroll, accounts payable and cost accounting, time tracking, etc.), laboratory information, asset maintenance and workforce management

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	577,488	978,804	958,200	907,200	(51,000)
4120 - Overtime	137,776	222,000	222,000	172,500	(49,500)
4130 - Miscellaneous (Payroll)	0	42,000	24,000	24,000	0
Personnel Services	715,263	1,242,804	1,204,200	1,103,700	(100,500)
4160 - Meals; Mileage & Uniform Allowances	595	3,600	3,600	3,600	0
4250 - Other Contractual Services	538,104	3,000,800	2,400,800	1,900,800	(500,000)
4251 - Software Licenses and Maintenance	928,418	980,700	1,056,400	1,130,000	73,600
4270 - Professional Services	3,695	0	0	0	0
4430 - Miscellaneous Supplies	577	1,200	1,200	1,200	0
4460 - Other Materials & Supplies	407	0	0	0	0
4500 - Education and Training	2,694	60,000	188,300	88,300	(100,000)
4720 - Conference Travel & Expenses	1,250	15,900	15,900	13,100	(2,800)
Materials, Supplies and Services	1,475,739	4,062,200	3,666,200	3,137,000	(529,200)
Total Application Systems Development	2,191,002	5,305,004	4,870,400	4,240,700	(629,700)

Budget Highlights

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IT - Information Technology

5830 - Computer Operations

Section's Activity

The Operations Support Branch is responsible for planning, scheduling, administrating and coordinating the department's network and computer services operations (machine processing), and infrastructure operations, update and maintenance. Included in this is wired, wireless network devices/services, servers, workstations and mobile devices, cloud based services, etc.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	1,139,311	1,465,776	1,116,800	1,078,800	(38,000)
4120 - Overtime	55,934	54,000	58,000	78,000	20,000
Personnel Services	1,195,244	1,519,776	1,174,800	1,156,800	(18,000)
4160 - Meals; Mileage & Uniform Allowances	330	0	0	0	0
4250 - Other Contractual Services	1,529,788	1,807,500	1,824,156	2,362,100	537,944
4251 - Software Licenses and Maintenance	612,200	599,100	1,143,866	856,748	(287,118)
4410 - Gasoline	20	0	0	0	0
4430 - Miscellaneous Supplies	3,740	3,600	2,700	2,100	(600)
4460 - Other Materials & Supplies	104,499	104,400	106,300	109,500	3,200
4470 - Parts and Accessories	17,973	13,200	10,400	24,000	13,600
4480 - Postage	333,398	1,120,800	1,000,000	700,000	(300,000)
4500 - Education and Training	89,513	69,300	57,350	52,700	(4,650)
4650 - Security Camera - Cable Line Services	70,302	0	0	0	0
4720 - Conference Travel & Expenses	0	0	11,500	17,500	6,000
4815 - Repair & Maint - Equipment	80,952	197,700	239,250	262,850	23,600
8050 - Equipment (under \$5,000)	371,002	361,300	696,823	630,420	(66,403)
Materials, Supplies and Services	3,213,717	4,276,900	5,092,345	5,017,918	(74,427)
1270 - General Plant & Equip (over \$5,000)	411,200	414,900	410,000	335,000	(75,000)
Equipment	411,200	414,900	410,000	335,000	(75,000)
Total Operations Support	4,820,162	6,211,576	6,677,145	6,509,718	(167,427)

Budget Highlights

Majority of the change in 4250 is due to a \$300,000 increase in anticipated costs to support the wireless network (equipment replacement, upgrades and repair), \$90,000 for a network readiness assessment on our wireless network in preparation for SCADA analog to digital upgrade, and \$75,000 identified for design and consulting support of our VMWare NXS and vRealize systems

**Board of Water Supply
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Fiscal Year 2018**

IT - Information Technology

5835 - Technical Projects

Section's Activity

The Technical Engineering Projects (TEP) Branch plans, designs, installs, implements, manages, maintains and supports Board of Water Supply (BWS) Geographic Information System and spatial database. TEP also manages and maintains the BWS hydraulic models for currency and accuracy, in conjunction with Water Resources.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	597,107	681,960	802,700	654,000	(148,700)
4120 - Overtime	5,995	3,600	4,000	4,000	0
4130 - Miscellaneous (Payroll)	0	20,772	17,300	19,800	2,500
Personnel Services	603,102	706,332	824,000	677,800	(146,200)
4160 - Meals; Mileage & Uniform Allowances	154	0	0	0	0
4250 - Other Contractual Services	553,994	550,000	550,000	550,000	0
4251 - Software Licenses and Maintenance	339,835	233,550	251,600	236,900	(14,700)
4265 - Printing	3,242	5,000	0	0	0
4430 - Miscellaneous Supplies	302	500	500	500	0
4460 - Other Materials & Supplies	1,248	1,210	1,200	1,200	0
4500 - Education and Training	2,582	8,500	15,000	15,000	0
4720 - Conference Travel & Expenses	7,126	26,750	26,800	27,500	700
4815 - Repair & Maint - Equipment	0	6,800	4,100	4,600	500
8050 - Equipment (under \$5,000)	0	7,100	3,300	3,300	0
Materials, Supplies and Services	908,482	839,410	852,500	839,000	(13,500)
1270 - General Plant & Equip (over \$5,000)	0	0	10,000	15,000	5,000
Equipment	0	0	10,000	15,000	5,000
Total Technical Engineering Projects	1,511,584	1,545,742	1,686,500	1,531,800	(154,700)

Budget Highlights

Technical Engineering Projects Branch

**Board of Water Supply
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FIN - Finance

Division/Office's Activity

The Finance Division is responsible for controlling and directing the financial accounting activities of the department. Activities include conducting financial studies; administering long-term bonded debt programs and bond sales; assisting in controlling budgeted expenditures; and administering the general accounting systems including cost accounting, payroll, leave records, and accounts payable.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	2,015,534	2,661,888	2,770,200	2,606,900	(163,300)
4120 - Overtime	157,382	271,900	279,600	270,700	(8,900)
4130 - Miscellaneous (Payroll)	35,510	40,821	148,300	123,200	(25,100)
Personnel Services	2,208,427	2,974,609	3,198,100	3,000,800	(197,300)
4160 - Meals; Mileage & Uniform Allowances	12,473	7,500	11,600	12,800	1,200
4220 - Collection Fees	463	0	0	400	400
4250 - Other Contractual Services	8,582	7,000	41,000	9,100	(31,900)
4260 - Advertising & Publication of Notices	0	1,000	1,000	0	(1,000)
4267 - Printed forms	3,846	4,000	0	3,000	3,000
4270 - Professional Services	355,943	1,189,800	1,409,500	976,500	(433,000)
4410 - Gasoline	10	0	0	0	0
4430 - Miscellaneous Supplies	15,461	7,500	10,000	11,000	1,000
4460 - Other Materials & Supplies	5,242	4,000	6,000	5,200	(800)
4480 - Postage	9,668	17,000	17,000	15,000	(2,000)
4500 - Education and Training	4,728	12,250	13,200	6,500	(6,700)
4720 - Conference Travel & Expenses	3,743	3,200	8,900	10,300	1,400
4815 - Repair & Maint - Equipment	3,948	2,500	4,000	4,000	0
4910 - Miscellaneous Fees & Registration	815	4,000	4,200	1,640	(2,560)
4915 - Miscellaneous Financial Expenses	5,167,263	1,276,500	1,340,000	937,500	(402,500)
8050 - Equipment (under \$5,000)	1,784	29,450	28,300	32,100	3,800
Materials, Supplies and Services	5,593,969	2,565,700	2,894,700	2,025,040	(869,660)
1270 - General Plant & Equip (over \$5,000)	8,122	35,000	107,600	51,000	(56,600)
Equipment	8,122	35,000	107,600	51,000	(56,600)
Total FIN - Finance	7,810,518	5,575,309	6,200,400	5,076,840	(1,123,560)

Notes

**Board of Water Supply
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FIN - Finance

5900 - Finance Administration

Section's Activity

Develop, provide and manage budget, financial and administrative support services to all levels of the department.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	352,201	326,100	325,200	345,600	20,400
4120 - Overtime	6	0	100	500	400
Personnel Services	352,206	326,100	325,300	346,100	20,800
4250 - Other Contractual Services	644	1,000	5,000	1,000	(4,000)
4260 - Advertising & Publication of Notices	0	1,000	1,000	0	(1,000)
4267 - Printed forms	1,362	0	0	0	0
4270 - Professional Services	192,500	331,800	664,500	176,500	(488,000)
4430 - Miscellaneous Supplies	13,060	6,000	9,000	10,000	1,000
4460 - Other Materials & Supplies	86	0	0	0	0
4480 - Postage	0	2,000	2,000	0	(2,000)
4500 - Education and Training	2,757	2,000	3,200	3,000	(200)
4720 - Conference Travel & Expenses	3,743	3,200	8,900	7,800	(1,100)
4815 - Repair & Maint - Equipment	1,324	1,000	1,000	1,000	0
4910 - Miscellaneous Fees & Registration	710	4,000	4,200	320	(3,880)
4915 - Miscellaneous Financial Expenses	0	0	0	0	0
8050 - Equipment (under \$5,000)	760	1,000	1,000	2,000	1,000
Materials, Supplies and Services	216,944	353,000	699,800	201,620	(498,180)
Total Finance Administration	569,150	679,100	1,025,100	547,720	(477,380)

Budget Highlights

The decrease to Professional services was due to a one time contract for a peer review of the rate study.

**Board of Water Supply
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FIN - Finance

5910 - Treasury

Section's Activity

The Treasury Section administers and manages the long term bonded debt and federal loan programs; obtains other long term and short term financing as necessary; manages the department's cash flows; and administers and oversees the management of the department's investment program.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	162,258	149,712	231,600	175,300	(56,300)
4120 - Overtime	4,398	10,800	10,800	5,000	(5,800)
Personnel Services	166,656	160,512	242,400	180,300	(62,100)
4160 - Meals; Mileage & Uniform Allowances	230	500	500	500	0
4270 - Professional Services	163,443	858,000	745,000	800,000	55,000
4460 - Other Materials & Supplies	24	0	0	200	200
4720 - Conference Travel & Expenses	0	0	0	2,000	2,000
4910 - Miscellaneous Fees & Registration	0	0	0	320	320
4915 - Miscellaneous Financial Expenses	5,165,763	1,255,000	1,340,000	936,000	(404,000)
Materials, Supplies and Services	5,329,459	2,113,500	2,085,500	1,739,020	(346,480)
Total Treasury	5,496,115	2,274,012	2,327,900	1,919,320	(408,580)

Budget Highlights

The decrease in Miscellaneous Financial Expenses is due to the early retirement of higher rate SRF loans in FY 2017.

**Board of Water Supply
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FIN - Finance

5915 - Rev & Cust Accounting Section

Section's Activity

The Revenue and Customer Accounting Section conducts the department's billing operations and related functions which include meter reading, Pre-auditing of consumer accounts, part-rate billing, maintaining consumer records, maintaining accounts receivable and keeping special fund accounts; maintains revenue accounting and statistical reports.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	955,036	1,279,524	1,327,900	1,189,000	(138,900)
4120 - Overtime	149,688	245,000	245,000	245,000	0
4130 - Miscellaneous (Payroll)	9,040	15,988	51,700	0	(51,700)
Personnel Services	1,113,764	1,540,512	1,624,600	1,434,000	(190,600)
4160 - Meals; Mileage & Uniform Allowances	12,153	6,000	11,000	12,000	1,000
4250 - Other Contractual Services	7,938	6,000	36,000	8,100	(27,900)
4410 - Gasoline	10	0	0	0	0
4430 - Miscellaneous Supplies	2,401	1,000	1,000	1,000	0
4460 - Other Materials & Supplies	5,109	4,000	4,000	4,000	0
4480 - Postage	9,668	15,000	15,000	15,000	0
4500 - Education and Training	0	1,000	1,000	1,000	0
4815 - Repair & Maint - Equipment	2,329	1,000	3,000	3,000	0
8050 - Equipment (under \$5,000)	0	23,500	22,500	24,100	1,600
Materials, Supplies and Services	39,608	57,500	93,500	68,200	(25,300)
1270 - General Plant & Equip (over \$5,000)	8,122	35,000	107,600	51,000	(56,600)
Equipment	8,122	35,000	107,600	51,000	(56,600)
Total Rev	1,161,494	1,633,012	1,825,700	1,553,200	(272,500)

Budget Highlights

no significant changes to the budget

**Board of Water Supply
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Fiscal Year 2018**

FIN - Finance

5930 - General Accounting

Section's Activity

The General Accounting Section directs and coordinates the development, functional effectiveness and maintenance of accounting systems, records, procedures and reports to ensure the acquisition of valid and consistent data for use in planning and budgeting, performance control and evaluation, managerial decisions and reporting requirements; prepares monthly financial and statistical reports and studies; prepares payrolls and maintains leave records; audits and processes disbursement vouchers; maintains all property records and depreciation schedules; coordinates annual physical inventory of utility plant and prepares annual listing as required by City Charter; prepares and analyzes special reports and studies.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	497,214	641,160	617,200	604,000	(13,200)
4120 - Overtime	2,926	16,100	20,700	16,200	(4,500)
4130 - Miscellaneous (Payroll)	11,797	24,833	96,600	73,200	(23,400)
Personnel Services	511,937	682,093	734,500	693,400	(41,100)
4160 - Meals; Mileage & Uniform Allowances	90	1,000	100	300	200
4220 - Collection Fees	463	0	0	400	400
4250 - Other Contractual Services	0	0	0	0	0
4267 - Printed forms	2,485	4,000	0	3,000	3,000
4430 - Miscellaneous Supplies	0	500	0	0	0
4460 - Other Materials & Supplies	17	0	0	0	0
4500 - Education and Training	1,972	1,000	1,000	500	(500)
4720 - Conference Travel & Expenses	0	0	0	500	500
4815 - Repair & Maint - Equipment	296	500	0	0	0
4910 - Miscellaneous Fees & Registration	105	0	0	1,000	1,000
4915 - Miscellaneous Financial Expenses	1,500	21,500	0	1,500	1,500
8050 - Equipment (under \$5,000)	1,024	4,950	4,800	2,500	(2,300)
Materials, Supplies and Services	7,952	33,450	5,900	9,700	3,800
Total General Accounting	519,889	715,543	740,400	703,100	(37,300)

Budget Highlights

No significant changes to the budget.

**Board of Water Supply
Operating Budget
Fiscal Year 2018**

FIN - Finance

5940 - Fiscal Services

Section's Activity

The Fiscal Services Branch is responsible for reporting on budgetary, encumbrance and financial activities within the department. This branch records and reconciles all contract and claims encumbrances with the City annually at fiscal year-end; controls, edits and monitors reports on encumbrances extensions, insufficient funds and accounts payable; Fiscal Services maintains and coordinates an on-line vendor table (data file) for approximately 50,000 vendors for field and central use. This branch assigns vendor codes for all payment documents for timely and accurate payment processing. The administration of the purchasing card program for the procurement of goods and services is also a part of this branch's responsibilities. Fiscal Services designs hard copy and electronic encumbrance liquidation and payment forms for departmental use and submittal to Accounts Payable.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	22,332	209,628	202,600	226,100	23,500
4120 - Overtime	364	0	1,500	2,000	500
4130 - Miscellaneous (Payroll)	2,039	0	0	50,000	50,000
Personnel Services	24,735	209,628	204,100	278,100	74,000
4460 - Other Materials & Supplies	6	0	2,000	1,000	(1,000)
8050 - Equipment (under \$5,000)	0	0	0	3,500	3,500
Materials, Supplies and Services	6	0	2,000	4,500	2,500
Total Fiscal Services	24,741	209,628	206,100	282,600	76,500

Budget Highlights

No significant changes to the budget.

**Board of Water Supply
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FIN - Finance

5950 - Systems Accounting

Section's Activity

This System Accounting section is responsible for the planning, coordination, modification and administration of the financial management system for the BWS. This section spearheads initiatives and projects to troubleshoot the organization's financial systems.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4110 - Salaries & Wages	26,494	55,764	65,700	66,900	1,200
4120 - Overtime	0	0	1,500	2,000	500
4130 - Miscellaneous (Payroll)	12,634	0	0	0	0
Personnel Services	39,128	55,764	67,200	68,900	1,700
4500 - Education and Training	0	8,250	8,000	2,000	(6,000)
Materials, Supplies and Services	0	8,250	8,000	2,000	(6,000)
Total Systems Accounting	39,128	64,014	75,200	70,900	(4,300)

Budget Highlights

No significant changes to the budget.

**Board of Water Supply
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Fiscal Year 2018**

FC - Fixed Charges and Debt Service

Section's Activity

The activity represents fixed charges and non-divisional expenditures of a general nature not related to any divisional budget.

Account	FY2016 Actual	FY2016 Adopted Budget	FY2017 Adopted Budget	FY2018 Proposed Budget	Change
4610 - Electric Power - Water Distrib Fac	19,157,199	30,000,000	28,500,000	21,000,000	(7,500,000)
4620 - Electricity	759,163	1,700,000	1,614,000	900,000	(714,000)
4660 - Wastewater Service Charges	102,591	112,800	112,800	110,000	(2,800)
5600 - Central Admin Service Exp (CASE) Fees	3,300,000	3,300,000	3,300,000	3,300,000	0
6010 - Employee Retirement Sys (ERS)	7,794,987	5,700,000	6,000,000	8,000,000	2,000,000
6020 - FICA Contributions	2,517,000	2,760,000	2,700,000	2,800,000	100,000
6100 - Health Benefits - Employees	2,682,998	3,000,000	3,336,000	3,300,000	(36,000)
6200 - Health Benefits - Retirees	4,871,361	5,712,000	6,300,000	5,700,000	(600,000)
6250 - Other Post-Emplymnt Ben (OPEB)	6,410,714	6,400,000	6,000,000	3,000,000	(3,000,000)
6320 - Unemployment Insurance Benefits	0	55,000	55,200	56,000	800
Departmental Fixed Charges	47,596,013	58,739,800	57,918,000	48,166,000	(9,752,000)
1810 - Bonds Payable	11,999,361	13,288,000	29,252,000	8,550,000	(20,702,000)
1820 - Notes Payable - State Revolving Funds (SRF)	0	0	0	13,647,000	13,647,000
7071 - Bond Interest	9,885,494	10,023,000	9,613,000	9,451,000	(162,000)
Debt Service	21,884,855	23,311,000	38,865,000	31,648,000	(7,217,000)
Total Fixed Charges and Debt Service	69,480,868	82,050,800	96,783,000	79,814,000	(16,969,000)

Budget Highlights

Fixed Charges and Debt Service

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PART II

CAPITAL IMPROVEMENT PROGRAM BUDGET

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Board of Water Supply
Capital Improvement Program Budget
FY 2018

Summary by Categories	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
I - Research and Development	5,525,000	-	-	-	5,525,000
II - Renewal and Replacement					
A. Pumps	4,475,000	19,962,700	-	737,300	25,175,000
B. Reservoirs	500,000	-	-	-	500,000
C. Pipeline	8,255,000	11,000,000	-	-	19,255,000
D. Treatment	1,200,000	-	-	-	1,200,000
E. Facilities	39,278,000	-	-	-	39,278,000
Category II - Sub-Total	53,708,000	30,962,700	-	737,300	85,408,000
III - Capacity Expansion					
A. Pumps	-	-	7,000,000	-	7,000,000
B. Reservoirs	-	-	350,000	-	350,000
C. Pipeline	-	-	13,900,000	-	13,900,000
D. Treatment	-	-	-	-	-
E. Facilities	585,000	-	-	-	585,000
Category III - Sub-Total	585,000	-	21,250,000	-	21,835,000
Total Categories I - III	59,818,000	30,962,700	21,250,000	737,300	112,768,000
Construction Cost Index Adjustment	4,542,795	4,644,405	2,385,000	-	11,572,200
Contract Adjustment Account	20,000,000	-	-	-	20,000,000
FY18 Capital Program Total	84,360,795	35,607,105	23,635,000	737,300	144,340,200

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
<u>I. Research and Development</u>								
1.	Halawa Shaft and Moanalua Wells Alternatives Study	Conduct Engineering Feasibility Study to evaluate alternatives if Halawa Shaft and Moanalua Wells must be taken offline.	P&E	500,000	-	-	-	500,000
2.	Kunia Wells IV Exploratory Wells Environmental Assessment	Prepare Environmental Assessment for four (4) exploratory wells for Kunia Wells IV at two alternative sites (TMK 9-2-001:014 and TMK 9-4-003:010).	P&E	300,000	-	-	-	300,000
3.	Kunia Wells II Treatment Study	Conduct Engineering Feasibility Study to determine the best available technology to address Cr6 from Kunia Wells II (TMK: 9-4-157:099).	P&E	500,000	-	-	-	500,000
4.	Waipahu-Waiawa Exploratory Wells Environmental Assessment	Prepare Environmental Assessment for exploratory wells within the Waipahu-Waiawa aquifer.	P&E	100,000	-	-	-	100,000
5.	Manoa Well II Exploratory Well Environmental Assessment	Prepare Environmental Assessment for a second exploratory/production well at existing Manoa Well II Station (TMK: 2-9-054:033).	P&E	125,000	-	-	-	125,000
6.	Waialae Nui Well Test	Survey, videolog, clean and clear, test pump and sample well.	P&E	250,000	-	-	-	250,000
7.	Nuuanu Hydro-Electric and Managed Aquifer Recovery Study and Environmental Assessment	Prepare Preliminary Engineering Study and Environmental Assessment for hydro-electric generation and managed aquifer recharge for Nuuanu Reservoir Nos. 1 and 4.	P&E	600,000	-	-	-	600,000
8.	Ahuimanu Cross Country 16-inch Main Replacement Environmental Assessment	Prepare Environmental Assessment to replace Ahuimanu cross-country main with new 16-inch main and appurtenances along Kahekili Highway, from Ahuimanu Place to Keaahala Road - approx. 14,000 lin. ft.	P&E	150,000	-	-	-	150,000

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
9.	Beretania Site Master Plan	Prepare an Environmental Impact Statement for redevelopment options; help analyze development proposals and provide technical assistance with implementation of selected redevelopment option.	P&E	1,000,000	-	-	-	1,000,000
10.	Construction Management For Various BWS Construction Projects	Provide construction management and training services for selected BWS construction projects.	P&E	1,000,000	-	-	-	1,000,000
11.	Project Management For Various BWS Projects	Provide project management , engineering and training services for selected BWS projects.	P&E	1,000,000	-	-	-	1,000,000
Total Category I - Research and Development				5,525,000	-	-	-	5,525,000

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
II. Renewal and Replacement								
A. Pumps								
12.	Punaluu Wells II Renovation	Provide new pumping unit at well no. 6. Provide new aboveground/underground piping, valves, wiring, and appurtenances at wells no. 1, 2, 3, 5, and 6. Provide new surge anticipating valve at wells no. 1, 3, and 6. Replace sodium hypochlorite system. Replace all existing motor controls with new soft starters. Provide new telemetering and supervisory control equipment in new SCADA cabinet with new UPS system. Renovate existing control building.	Const	-	7,500,000	-	-	7,500,000
13.	Waihee Line Booster Renovation	Remove all eight (8) booster pumps including pumps, motors, piping, valves, concrete supports, gauges, and all electrical components. Install new free flow lines including piping, control valves, flow tubes, and appurtenant electrical equipment. Install new backfeed line connecting Waihee and Punaluu systems.	Const	-	4,000,000	-	-	4,000,000
14.	Punanani Wells System Improvements	Replace HECO service equipment including switchboards, transformer, primary metering, wiring and associated components. Replace MCC including power distribution equipment, motor controllers, gauge boards, power cables, control wiring, and associated components. Replace interior and exterior lights, switches and associated wiring. Mechanical work for six (6) wells includes replacing above ground piping and appurtenant equipment, butterfly isolation valve, air release valve, and flow switch. Remove and replace existing diaphragm operated ball valve with new Hy-Check Valve. Replace station flow tube with new venturi. Replace compressor, chlorination system, and drain lines. Patch and paint building interior and exterior including all new installations and miscellaneous architectural work.	Const	-	4,000,000	-	-	4,000,000

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
15.	Pearl City Wells II System Improvements	Replace well pumps and install new check valves and power-check pump control valves for well nos. 1, 2, & 3. Replace chlorination system.	Const	-	3,200,000	-	-	3,200,000
16.	Moanalua Wells: Replacement of Pump No. 1	Replace Pumping Unit No. 1 and aboveground piping for all three pumping units. Replace motor control center (MCC) with new soft start MCC. Provide temporary service. Replace control wires, junction boxes, conduits, disconnect switch, and mounts. Provide new security and sound attenuating wall.	Const	-	1,262,700	-	737,300	2,000,000
17.	Pump Renewal and Replacement	Renewal and replacement of various BWS pumps and plant facilities.	Const	3,100,000	-	-	-	3,100,000
18.	Makaha Shaft Renovation	Complete replacement of all components for the Makaha Shaft Pump Station.	P&E	700,000	-	-	-	700,000
19.	Kaamilo Booster and Kaamilo Wells Renovation	Replace well pump No. 1 MCC and motor starter, and relocate MCC inside the existing building. Replace telecommunication/ instrumentation box and install disconnect switch at the well pump. Replace isolation valve at reservoir. Cap well No. 2. Eliminate drop ceiling in building and relocate lighting to concrete ceiling.	P&E	200,000	-	-	-	200,000
20.	Kamiloiki Booster No. 1 MCC Replacement	Replace MCC including all motor starters with soft starters.	P&E	175,000	-	-	-	175,000
21.	Mariner's Ridge Booster No. 2 Renovation	Replace MCC including all of the motor starters, install pressure switches outside of the new MCC, recoat pumps, and reroute the pressure transmitter wiring through a dedicated conduit. Eliminate drop ceiling in building and relocate lighting to concrete ceiling. Replace transformer.	P&E	200,000	-	-	-	200,000
22.	Pump Renewal and Replacement	Renewal and replacement of various BWS pumps and plant facilities.	P&E	100,000	-	-	-	100,000
Pumps Total				4,475,000	19,962,700	-	737,300	25,175,000

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
B. Reservoirs								
23.	Wilhelmina Rise 811 Reservoir Replacement	Replace existing 0.43 MG reservoir and appurtenances.	P&E	500,000	-	-	-	500,000
Reservoirs Total				500,000	-	-	-	500,000
C. Pipelines								
24.	Manoa Estates Water System Improvements	Install 12-inch mains and appurtenances along Kumu Street, from Kumulani Street to Oahu Avenue; along Oahu Avenue, from Kumu Street to Manoa Road; and along Pawaina Street, from Manoa Road to Pinao Street - approx. 3,700 lin. ft. Install 4-inch mains and appurtenance along Manoa Estates Road, from FH M06169 to the last service - approx. 450 lin. ft. Abandon approx. 700 lin. ft. of cross-country main.	Const	3,080,000	-	-	-	3,080,000
25.	Moiiliili Water System Improvements, Part IV	Install 8-inch mains and appurtenances along University Avenue, from Kapiolani Boulevard to Hihiwai Street; along Hihiwai Street, from University Avenue to Kamoku Street; along Lauiki Street, from Hihiwai Street to Kamoku Street; and along Kamoku Street, from Hihiwai Street to Kapiolani Boulevard - approx. 4,030 lin. ft.	Const	-	3,500,000	-	-	3,500,000
26.	Hui Ulili Street: 12-Inch and 8-Inch Mains	Install 12-inch and 8-inch mains and appurtenances along Hui Ulili Street, from Hui Kelu Street to Hui Oi Street - approx. 2,750 lin. ft.	Const	1,700,000	-	-	-	1,700,000
27.	Rehabilitation of Pipeline Tunnels: Moanalua and Quarry Tunnels	Repair shotcrete lining, pipe supports, concrete wall, headwalls, and entry gates, replace existing lighting system, provide protective exterior coating for pipes, repair cracked pipe section at the Moanalua Tunnel, and replace chain link fence with expanded metal fencing at the South Portal of the Quarry Tunnel.	Const		7,500,000	-	-	7,500,000

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
28.	Keolu Bridge Pipe Hanger Replacement	Replace pipe hangers and appurtenances along Keolu Bridge.	Const	65,000	-	-	-	65,000
29.	Water Main Installation & Replacement	Install and replace water mains at various locations.	Const	100,000	-	-	-	100,000
30.	Puiwa Road 12-Inch and Dowsett Avenue 8-Inch Mains	Install 12-inch mains and appurtenances along Puiwa Road, from 24 Puiwa Road to Puiwa Lane - approx. 500 lin. ft. Install 8-Inch mains and appurtenances along Dowsett Avenue, from fire hydrant M03678 to Alika Avenue - approx. 1,000 lin. ft. Install 4-inch and 2-1/2 inch mains and appurtenances along the lane near 3964 Old Pali Road, from Old Pali Road to end - approx. 510 lin. ft.	P&E	210,000	-	-	-	210,000
31.	Halupa Street 12-Inch Main	Install 12-inch mains and appurtenances along Halupa Street, from Molehu Drive to Punihi Street - approx. 1,200 lin. ft.	P&E	140,000	-	-	-	140,000
32.	Kapolei Parkway 12-Inch Main	Install 12-inch mains and appurtenances along Kapolei Parkway, from Park Row to Kolowaka Drive - approx. 1,100 lin. ft.	P&E	130,000	-	-	-	130,000
33.	McArthur Street 8-inch Main	Install 8-inch mains and appurtenances along McArthur Street, from Mill Street to Waianae Valley Road - approx. 1,450 lin. ft.	P&E	160,000	-	-	-	160,000
34.	Kuhio Avenue and Kaiulani Avenue Water System Improvements	Install 16-inch mains and appurtenance along Kuhio Avenue, from Kalakaua Avenue to Kapahulu Avenue - approx. 6,170 lin. ft. Install 12-inch mains and appurtenances along Kaiulani Avenue, from Ala Wai Boulevard to Kalakaua Avenue - approx. 1,450 lin. ft. Install 8-inch mains and appurtenances along Kuhio Avenue, from Walina Street to Kaiulani Avenue - approx. 485 lin. ft.	P&E	960,000	-	-	-	960,000

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
35.	Sand Island Water System Improvements	Install 16-inch mains and appurtenance along Sand Island Access Road, from Auiki Street to Sand Island Parkway; and along Sand Island Parkway, from Sand Island Access Road to fire hydrant MO7897 - approx. 6,780 lin. ft. Install 12-inch mains and appurtenances along Hookela Street, from Makepono Street to end - approx. 1,200 lin. ft. Reconnect or relocate existing meters within the container yard - approx. 1,795 lin. ft.	P&E	930,000	-	-	-	930,000
36.	Moanalua Road 8-Inch Main, Waimalu Neighborhood Park Vicinity	Install 8-Inch mains and appurtenances along Moanalua Road, from fire hydrant L00646 to Kaahele Road - approx. 580 lin. ft.	P&E	100,000	-	-	-	100,000
37.	Beretania Street 12-Inch Blow-off Main	Install 12-inch blow-off main and appurtenances at the intersection of Beretania Street and Kalakaua Avenue - approx. 30 lin. ft.	P&E	80,000	-	-	-	80,000
38.	Waiomao Homestead Road 8-Inch Main	Install 8-Inch mains and appurtenances along Waiomao Homestead Road, from Waiomao Road to Palolo Chlorinator - approx. 700 lin. ft.	P&E	110,000	-	-	-	110,000
39.	Ahilama Road 8-Inch Main	Install 8-Inch mains and appurtenances along Ahilama Road, from Mapele Road to 47-550 Ahilama Road - approx. 1,200 lin. ft.	P&E	190,000	-	-	-	190,000
40.	Service Lateral Replacement at Various Locations	Topographic Survey for the service lateral replacement at various locations.	P&E	100,000	-	-	-	100,000
41.	Ahuimanu Cross Country Main Abandonment and System Improvements	Install improvements to facilitate the abandonment of the Ahuimanu 16-inch cross-country main, including interconnection of the Kamehameha Highway 30-inch main (Windward 272) with the 16-inch main (Windward 500) at Long Bridge.	P&E	100,000	-	-	-	100,000
42.	Water Main Installation & Replacement	Install and replace water mains at various locations.	P&E	100,000	-	-	-	100,000
Pipelines Total				8,255,000	11,000,000	-	-	19,255,000

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
D. Treatment								
43.	GAC Facility Improvements	Install improvements at select GAC facilities to extend use of existing systems.	Const	500,000	-	-	-	500,000
44.	Mililani Wells I GAC Renovation	Install four (4) new GAC units and replace the existing twelve (12) GAC units.	P&E	600,000	-	-	-	600,000
45.	GAC Facility Improvements	Install improvements at select GAC facilities to extend use of existing systems.	P&E	100,000	-	-	-	100,000
Treatment Total				1,200,000	-	-	-	1,200,000

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
E. Facilities								
46.	Emergency Generators at Kalihi Yard and Shaft, Halawa Shaft, and Kunia Wells I	Install permanent emergency power generation facilities at Kalihi Yard and Shaft, Halawa Shaft, and Kunia Wells I.	Const	7,700,000	-	-	-	7,700,000
47.	Data Center Renovation	Assess, design and construct layout changes to the Data Center room to more effectively utilize the floor space following decommissioning and removal of the DEC VAX. Repositioning/relocation of equipment racks, power and data conduits/cables, Halon system changes, and movement of existing, and construction of new walls/doors are included.	Const	150,000	-	-	-	150,000
48.	Security Fencing at Various Locations	Install expanded metal fencing at selected BWS facilities.	Const	1,100,000	-	-	-	1,100,000
49.	Security Improvements at Various Locations	Security improvements for fencing, doors and windows, locks and gates, concrete footings and pads, structures to protect external equipment, and vegetation setbacks and control at various BWS locations This appropriation includes funding for project management services for this project.	Const	1,268,000	-	-	-	1,268,000
50.	Waimalu Wells I Site Drainage Improvements	Install drainage improvements to minimize run-off from the well site.	Const	2,200,000	-	-	-	2,200,000
51.	Beretania Engineering Building Window Replacement	Replace leaking windows at the Engineering Building.	Const	2,000,000	-	-	-	2,000,000
52.	Facility Repair and Renovation	Repair, renovation, reroofing, fencing and repainting of selected BWS facilities.	Const	6,000,000	-	-	-	6,000,000

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
53.	Piliuka PRV Replacement	Replace and relocate PRVs, along Waianae Valley Road near fire hydrant L06812, to above ground within new building. Restore power, communications and supervisory controls.	P&E	200,000	-	-	-	200,000
54.	Facility Repair and Renovation	Repair, renovation, reroofing, fencing and repainting of selected BWS facilities.	P&E	400,000	-	-	-	400,000
55.	Professional Services for BWS Projects	Obtain services of archaeologists, botanists, environmental engineers, water quality labs, planners, government agencies and others.	P&E	300,000	-	-	-	300,000
56.	Monitoring Well Assessment and Repair	Provide well condition assessment and associated repair services for monitor wells.	P&E	60,000	-	-	-	60,000
57.	WiFi Network Deployment	Assess, design and implement WiFi networks to ensure coverage throughout Beretania facility, Heeia, Kalihi, Manana, Wahiawa and Waianae baseyards, inclusive of any new cabling, conduits and/or equipment.	P&E	150,000	-	-	-	150,000
58.	Mauna Olu 530 Reservoir Improvements	Install staff gauge, water level transducer and data logger, telemetry equipment and controls, and appurtenant utilities.	P&E	50,000	-	-	-	50,000
59.	Water Meter Transponders Replacement - Phase I	Replace existing water meter transponders (MXU) by furnishing and installing approximately 80,000 MXUs. The P&E funding for this project provides funding for CM services for this project.	Const P&E	17,200,000 500,000	- -	- -	- -	17,200,000 500,000
Facilities Total				39,278,000	-	-	-	39,278,000
Total Category II - Renewal and Replacement				53,708,000	30,962,700	-	737,300	85,408,000

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
III. Capacity Expansion								
A. Pumps								
60.	Kahuku Wells Unit No. 3	Install one (1) 1.0 MGD pump, connections, emergency generator and pump building improvements at existing Kahuku Wells Station (TMK: 5-6-008:005).	Const	-	-	2,000,000	-	2,000,000
61.	Pacific Heights Booster No. 1	Land acquisition for new Pacific Heights Booster No.1 to eliminate cross-country water main between Jack Lane and the Pacific Heights 578 Reservoir.	Land	-	-	2,000,000	-	2,000,000
62.	Ewa Shaft Tunnel Improvements	Install bulkhead and grout curtains and relocate pumps along the tunnel. This appropriation includes funding for project management services for this project.	P&E	-	-	3,000,000	-	3,000,000
Pumps Total				-	-	7,000,000	-	7,000,000
B. Reservoirs								
63.	Nuuanu 822 Reservoir Replacement, Booster No. 2 Replacement, 940 Reservoir and Booster No. 4 Environmental Assessment	Prepare Environmental Assessment, CDUP and PIM for the replacement 0.2 MG Nuuanu 822 Reservoir, replacement Nuuanu Booster No. 2, new Nuuanu Booster No. 4, new 60,000 gallon Nuuanu 940 Reservoir, and new 12-inch mains and appurtenances - approx. 10,350 lin. ft.	P&E	-	-	350,000	-	350,000
Reservoirs Total				-	-	350,000	-	350,000

Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
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C. Pipelines

64.	Wahiawa Water System Improvements, Part IA	Install 12-Inch mains and appurtenances along California Avenue, from Maalo Street to end of existing 12-inch main near fire hydrant C-532; and from end of existing 12-inch main 100 feet east of Cypress Avenue to Anoni Street – approx. 2,900 lin. ft. Install 8-inch mains and appurtenances along California Avenue, from Anoni Street to Auhili Place; along Kamehameha Highway, from California Avenue to Avocado Street; along Kilani Avenue, from Lehua Avenue to Holuku Place; along Koele Avenue, from California Avenue to Olive Avenue; along Kukui Street, from Kilani Avenue to California Avenue; along Lei Awapuhi Place, from California Avenue to fire hydrant C-190; along Longley Place, from Kilani Avenue to fire hydrant C-186; along Nihiwai Place, from Kilani Avenue to end; along Ohai Place, from Ohai Street to fire hydrant C-202; along Ohai Street, from California Avenue to Kamehameha Highway; and along Olive Avenue, from Kamehameha Highway to Cypress Avenue – approx. 8,000 lin. ft. Install 4-Inch mains and appurtenances along Kaalalo Street, from California Avenue to end; along Lei Aloalo Place, from Lei Awapuhi Place to end; along Lei Awapuhi Place, from fire hydrant -190 to end; along Lei Awapuhi Place, from the split to end; along Longley Place, from fire hydrant-186 to end; along Milikana Place, from Olive Avenue to end; and along Ohai Place, from fire hydrant C-202 to end – approx. 1,570 lin. ft.	Const			11,000,000	-	11,000,000
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Board of Water Supply
Capital Improvement Program Budget
FY 2018

Project No.	Project Title	Description	Type	Operating Fund	Operating Fund - SRF Eligible	Special Expendable Fund	Reserve Release Fund	Total
65.	Wahiawa Water System Improvements, Part III	Install 8-inch mains and appurtenances along Uluwehi Street, from California Avenue to Walea Street; along Uluwehi Place, from Walea Street to end; along Hoolulu Road, from Uluwehi Street to Hoomaha Street; along Walea Street, from Uluwehi Street to Walea Uka Place; along Hoomaha Street, from California Avenue to Walea Street; and along Walea Uka Place, from Walea Street to end - approx. 4,620 lin. ft. Install 2-inch mains and appurtenances along Hoolulu Road extension, from Hoomaha Street to end - approx. 140 lin. ft.	Const		-	2,900,000	-	2,900,000
Pipelines Total				-	-	13,900,000	-	13,900,000
D. Treatment								
Treatment Total				-	-	-	-	-
E. Facilities								
66.	Security Camera Systems	Install computer network-based security camera systems (camera, lights, speakers and motion detectors) at critical pump stations and reservoirs.	Const	585,000	-	-	-	585,000
Facilities Total				585,000	-	-	-	585,000
Total Category III - Capacity Expansion				585,000	-	21,250,000	-	21,835,000
Total Categories I - III				59,818,000	30,962,700	21,250,000	737,300	112,768,000
Construction Cost Index Adjustment				4,542,795	4,644,405	2,385,000	-	11,572,200
Contract Adjustment Account				20,000,000	-	-	-	20,000,000
FY 2018 Capital improvement Program Total				84,360,795	35,607,105	23,635,000	737,300	144,340,200

APPROVAL
OF MINUTES

Approval of the Minutes of the Regular Meeting held on April 24, 2017

MOTION
TO APPROVE

Kapua Sproat and Ross Sasamura motioned and seconded, respectively, to approve the Minutes of the Regular Session Meeting of April 24, 2017. The motion was unanimously carried.

APPROVAL
OF MINUTES

Approval of the Minutes of the Special Meeting held on May 8, 2017

MOTION
TO APPROVE

Ross Sasamura and Kapua Sproat motioned and seconded, respectively, to approve the Minutes of the Special Meeting of May 8, 2017. The motion was unanimously carried.

"May 22, 2017"

ADOPTION OF
RESOLUTION
NO. 874, 2017

Chair and Members
Board of Water Supply
City and County of Honolulu
Honolulu, Hawaii

Chair and Members:

Subject: Adoption of Resolution No. 874, 2017, Acceptance of Gift to
the Board of Water Supply for the Fred Ohrt Museum

We recommend acceptance of the proposed gift to the Honolulu Board of Water Supply (BWS) from Helen Friend in support of our public education program. The estimated value of this gift is approximately \$200.00.

The BWS's public education program teaches Oahu water users the value of our island's precious water resources and the importance of protecting our finite supply. Through its public education endeavors, the BWS hopes to effect behavior changes in participants that will result in long-term water conservation. Additionally, public education is integral to our continued efforts to raise generations of future BWS customers who understand, embrace, and engage in water sustainability.

One of our key public education facilities is the Fred Ohrt Museum. It hosts tours for visitors ranging in age from kindergarten up through adult seniors. Visitors learn about water management from ancient Hawaiian culture up to modern day techniques through an introduction to Oahu's water cycle, discussion on water conservation, and a walking tour of educational exhibits.

Ms. Helen Friend is offering to augment our exhibits through a donation of a plaster bas relief panel depicting the Hawaiian deity Ku. The artwork served as a model in the 1930s during the design and construction of Varney Memorial Fountain on the University of Hawaii at Manoa Campus. Its monetary value is estimated at about \$200.00.

We deeply appreciate the continued support of this Board for this very valuable and worthwhile public education program. Visitors to our Fred Ohrt Museum are encouraged to embrace their roles as responsible stewards of our precious water resource.

Respectfully submitted,

/s/ for ERNEST Y. W. LAU, P.E.
Manager and Chief Engineer

Attachment"

DISCUSSION

Kathleen Pahinui, Information Officer, gave the report. The plaster panel depicting the Hawaiian deity Ku donated by Ms. Helen Friend was displayed in the room for the Board Members to see. Ms. Pahinui informed the Board that the artwork was designed by a student Cornelia McIntyre Foley and her teacher Henry J. Remple. This artwork was believed to be the first use of Hawaiian iconography in architecture and the motif is carved into the base of Varney Memorial Fountain on the University of Hawaii at Manoa Campus. The fountain is dedicated to Ada Susan Varney who was a teacher in the Territorial Normal School in the 1900s.

Mr. Andaya asked where the Fred Ohrt Museum is located. Ms. Pahinui replied that it's located at the BWS's Kalihi Pumping Station on the corner of North King Street and Waiakamilo Road. The museum is undergoing renovation, and BWS plans to reopen it in a couple of years.

MOTION TO ADOPT RESOLUTION NO. 874, 2017

Ross Sasamura motioned to adopt Resolution No. 874, 2017, Acceptance of Gift to the Board of Water Supply for the Fred Ohrt Museum. The motion was seconded by Kapua Sproat and unanimously carried.

**BOARD OF WATER SUPPLY
CITY AND COUNTY OF HONOLULU**

RESOLUTION NO. 874, 2017

**ACCEPTANCE OF GIFT TO THE BOARD OF WATER SUPPLY
FOR THE FRED OHRT MUSEUM**

WHEREAS, the Board of Water Supply (BWS) works diligently to raise awareness among Oahu residents about the importance of efficient water use to promote its mission of providing a safe, dependable, and affordable supply to its customers now and for future generations; and

WHEREAS, the BWS has a robust public education program that includes tours of its facilities, including its Fred Ohrt Museum that teaches visitors about the value of Oahu's water and the history of island water management -- including how ancient Hawaiians managed their limited water resources -- through various means, including exhibits of noteworthy artifacts; and

WHEREAS, in support of the BWS's ongoing efforts to educate the public through its museum tour, Ms. Helen Friend is offering to donate a plaster bas relief panel depicting the Hawaiian deity Ku that was made as a model in the 1930s during the design and construction of Varney Memorial Fountain on the University of Hawaii at Manoa Campus; and

WHEREAS, the description and monetary value of this donation are set forth in the correspondence from the BWS Manager and Chief Engineer (attached); now, therefore,

BE IT RESOLVED that the Board of Water Supply hereby accepts the gift estimated in value of \$200.00 and directs the Manager and Chief Engineer, or his delegate, to accept and thank Ms. Friend for this gift.

ADOPTED:


BRYAN P. ANDAYA
Chair

Honolulu, Hawaii
May 22, 2017

RESOLUTION NO. 874, 2017, ADOPTING THE
ACCEPTANCE OF GIFT TO THE BOARD OF WATER
SUPPLY FOR THE FRED OHRT MUSEUM, ADOPTED
ON MAY 22, 2017.

	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
ADAM C. WONG			ABSENT
DAVID C. HULIHEE	X		
KAPUA SPROAT	X		
KAY C. MATSUI			ABSENT
ROSS S. SASAMURA	X		
FORD N. FUCHIGAMI			ABSENT

ITEM FOR INFORMATION NO. 1

"May 22, 2017

FINANCIAL
PLAN AND
RATE STUDY
UPDATE

Chairman and Members
Board of Water Supply
City and County of Honolulu
Honolulu, Hawaii 96843

Chairman and Members:

Subject: Board of Water Supply Financial Plan and Rate
Study Update

Joe Cooper, Waterworks Controller, will present an update of our Water Master Plan Financial Plan and Rate Study.

Respectfully submitted,

/s/ for ERNEST Y. W. LAU, P.E
Manager and Chief Engineer

Attachment"

The foregoing was for information only.

DISCUSSION:

Joe Cooper, Waterworks Controller, gave the presentation. Following the presentation, Mr. Andaya asked if the Board could get a breakdown on the average residential usage and agricultural usage. Mr. Andaya also asked if the Water System Facilities Charges and hookup fees are the same for single family residential and multi-family. Jennifer Elflein, Customer Care Division Program Administrator, indicated that the charges are different and offered to put together a chart with this information for presentation at a future Board meeting. Ms. Kitamura stated that they will provide some examples and calculations for the Board on the Water System Facilities Charges for single family residential, multi-family, and non-residential users.

In reference to the breakdown on the average use for agriculture, Ms. Sproat asked if the breakdown could be by type of use and location and by gallons per acre per day. Barry Usagawa, Water Resources Division Program Administrator, said that they can provide some examples.

Mr. Andaya asked why the employee salaries are decreasing when capital projects are ramping up. Mr. Cooper stated that because they are trying to be more rigorous on budgeting for vacant positions - if a division anticipates filling a vacancy in December, they will budget for six months instead of the full year. This has brought the salary budget down.

WATER FOR LIFE

Safe, dependable, and affordable water now and into the future



Board of Water Supply
City and County of Honolulu

Board Update

Long-Term Financial Plan and Rate Study

May 22, 2017

WATER FOR LIFE

Safe, dependable, and affordable water now and into the future

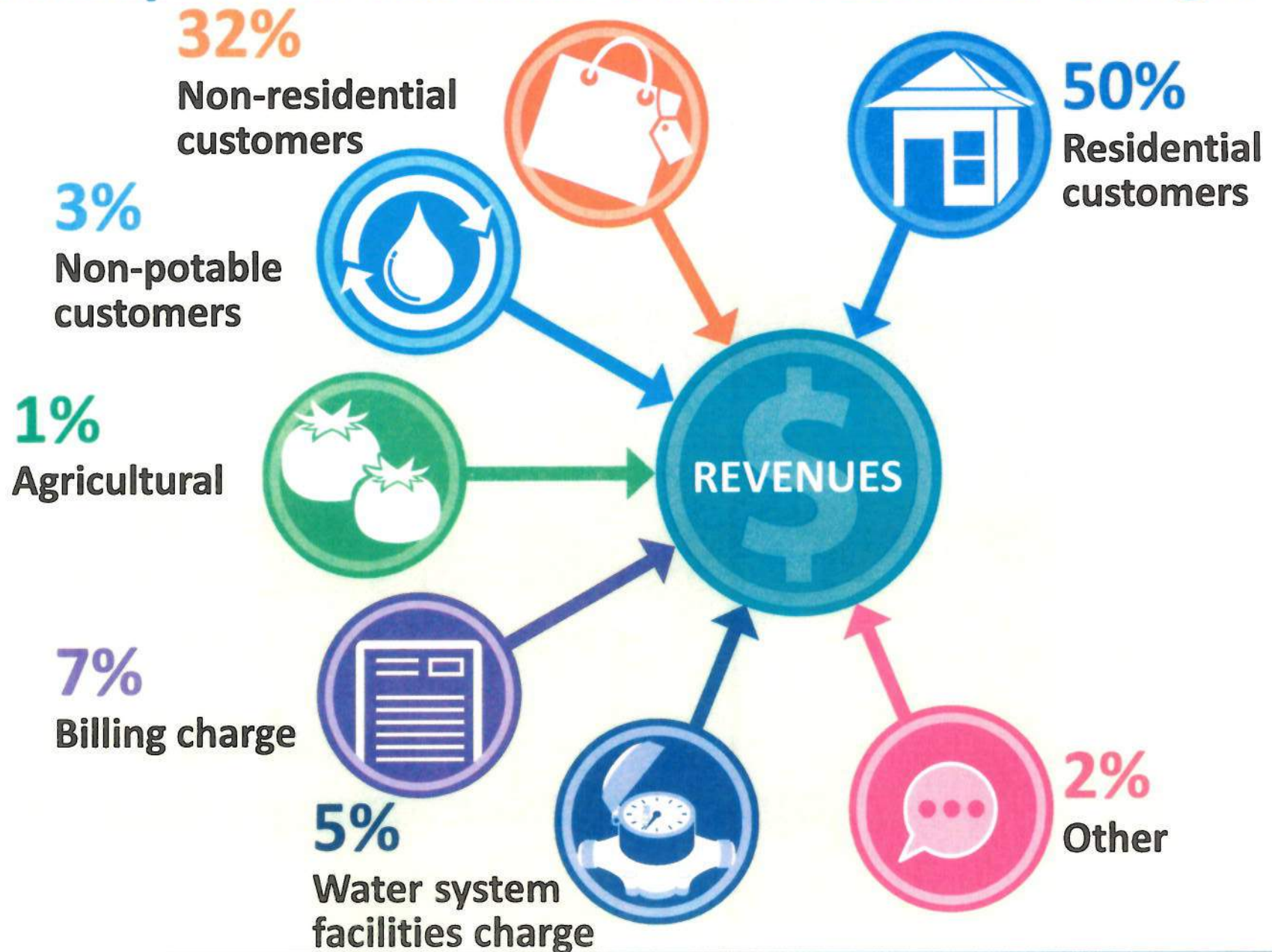


Board of Water Supply
City and County of Honolulu

SOURCES AND USES OF FUNDS

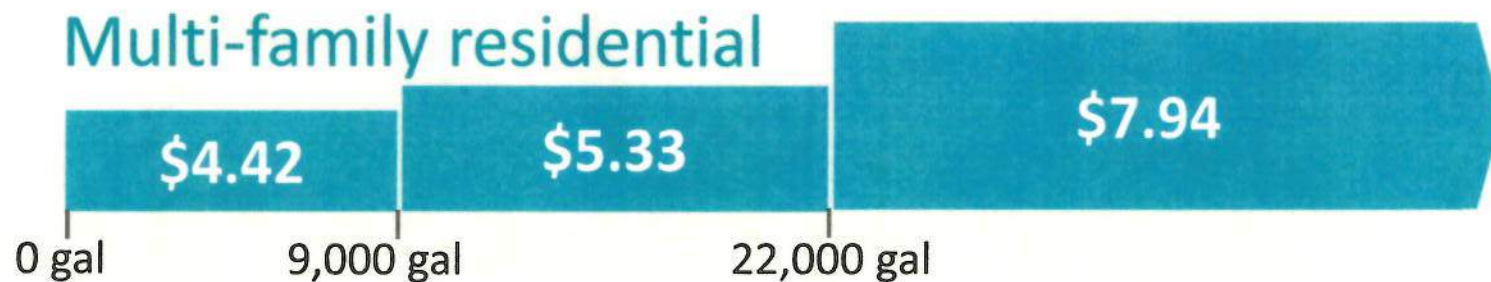
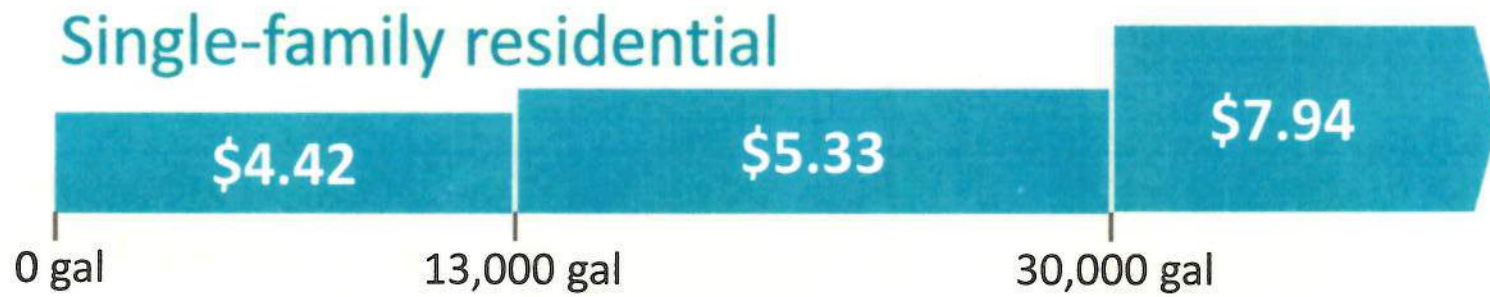


Nearly All Our Revenue is from Customer Charges



Residential Customers Pay More as Use Increases

- Increasing block or tiered rate structures, to encourage conservation



Charges per 1,000 gallons

Non-Residential Customers Drive Our Island's Economy



- All non-residential customers pay the same rate

\$4.96 per 1,000 gallons

Lower Non-potable Rates Benefit All Customers

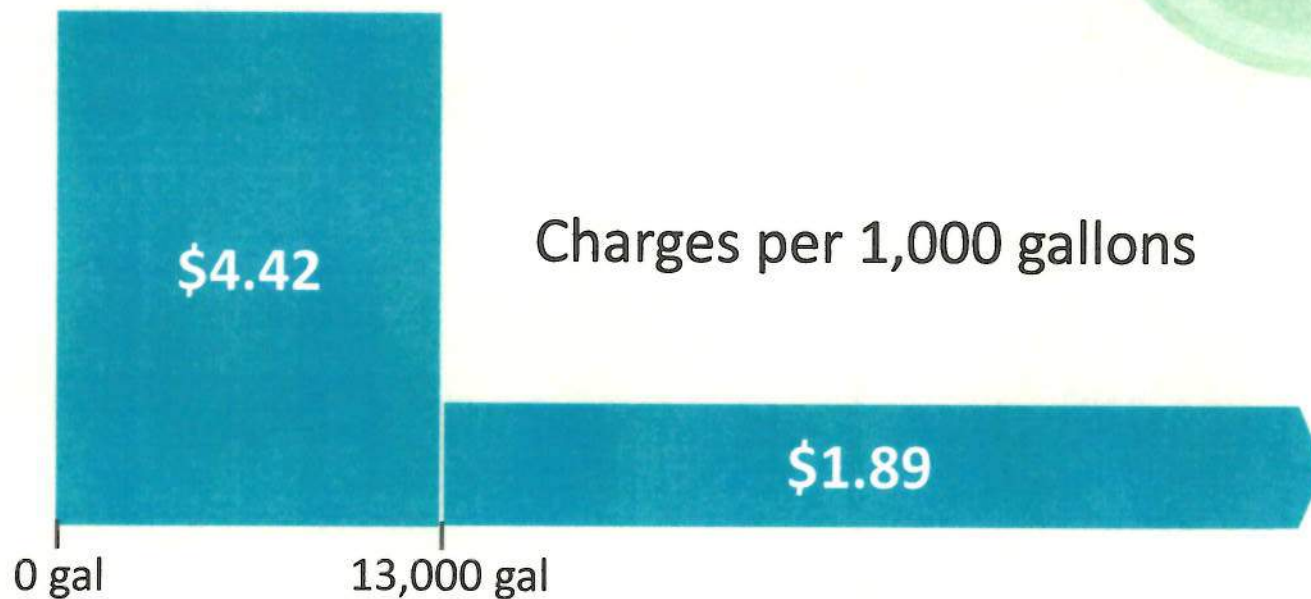


- Historically lower than potable rates
- Some non-potable customers have negotiated agreements
- Non-potable water is billed at a flat rate:

\$2.47 per 1,000 gallons

Agricultural Customers Pay a Lower Rate

- Decreasing block rate structure



Reduced rates encourage local farming of fresh, healthy produce.
Rate participation requires application and approval.

Billing Charge



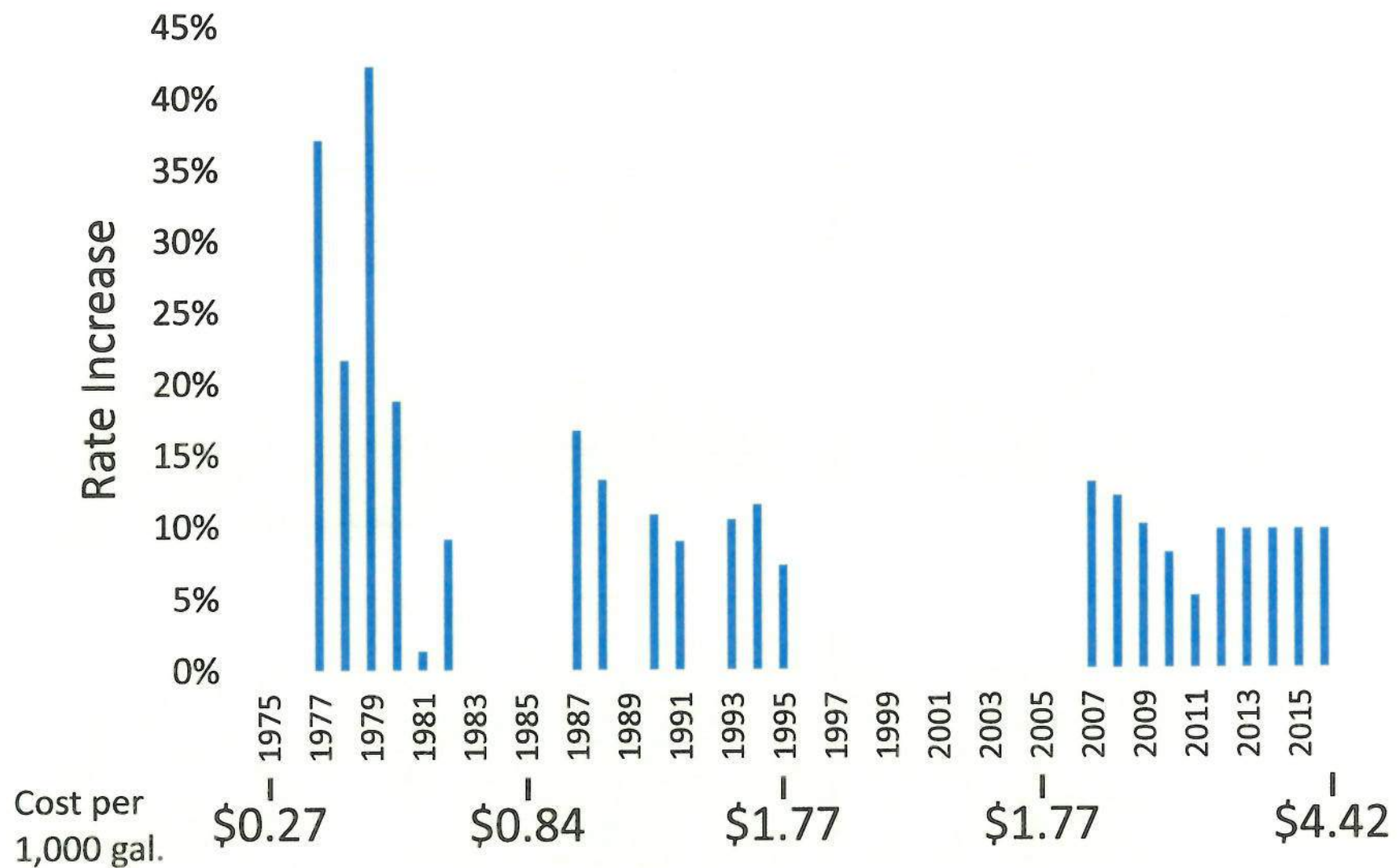
Water System Facilities Charge



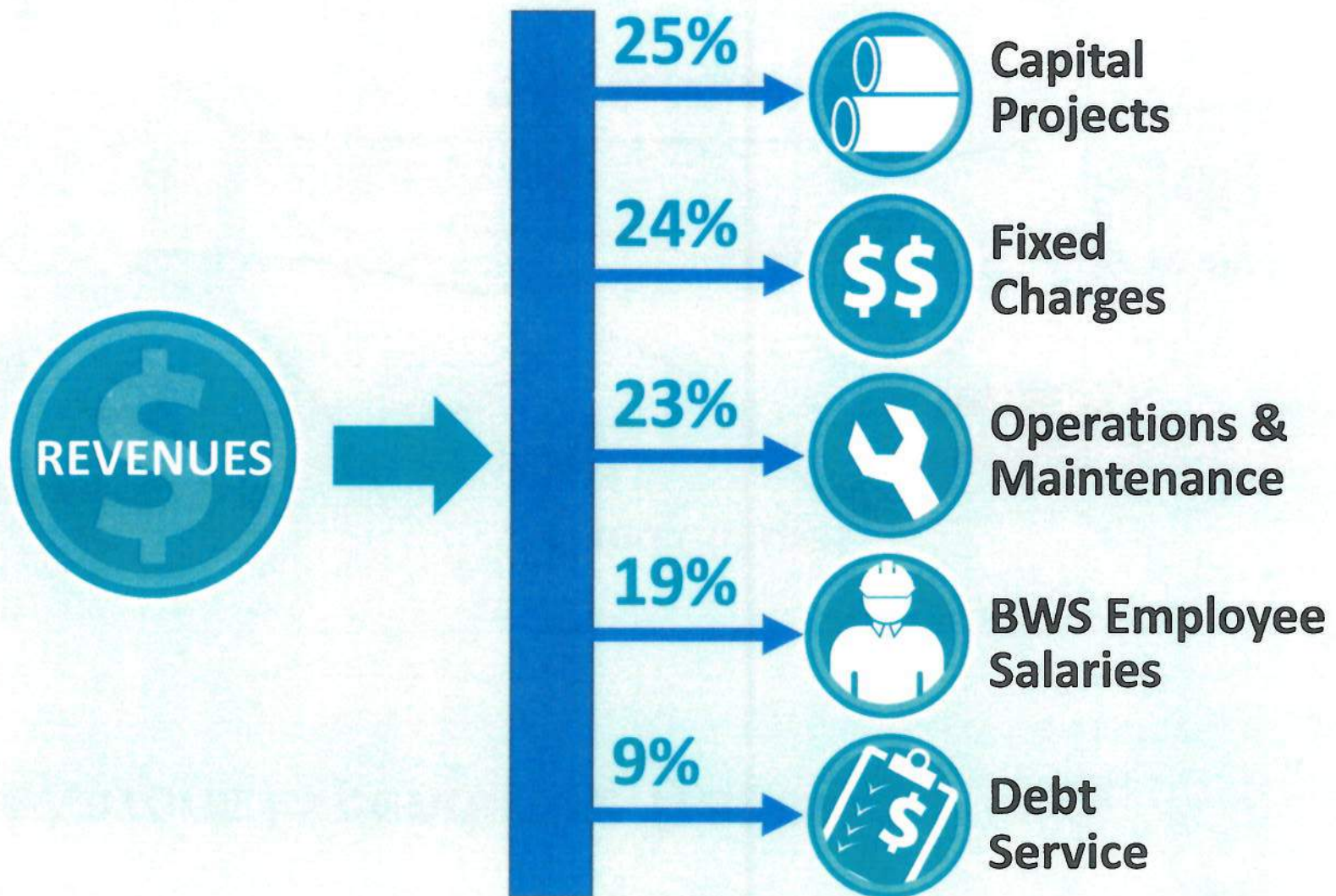
Other Sources



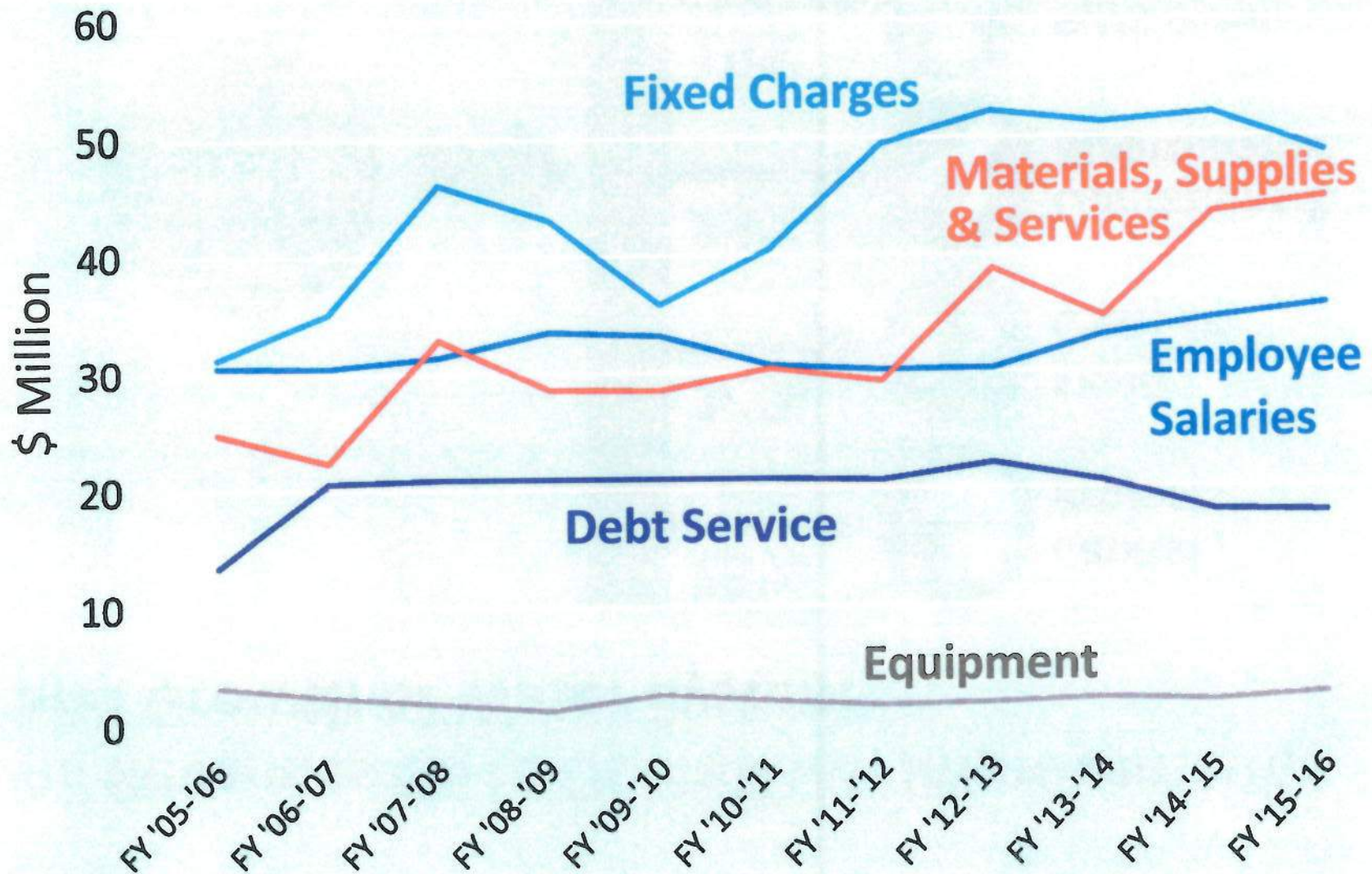
Rate Increases Have Varied Through the Years



All Revenues Go to Operations, Improvement, and Growth of Water System

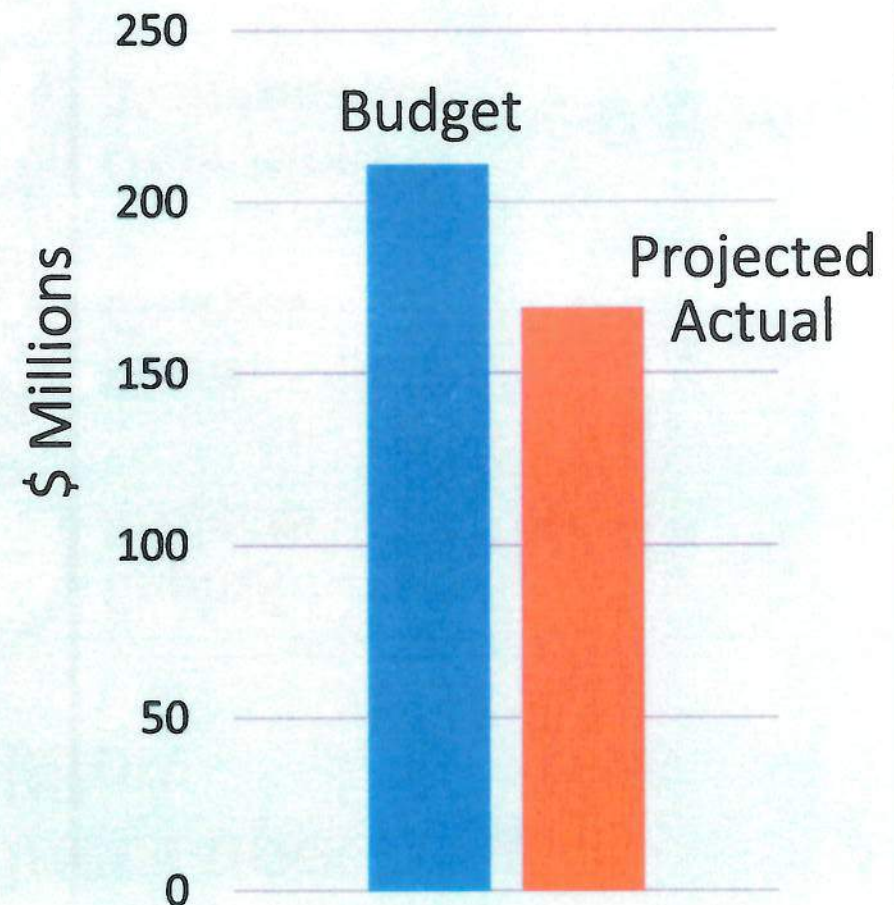


Operations Expenditure Trends

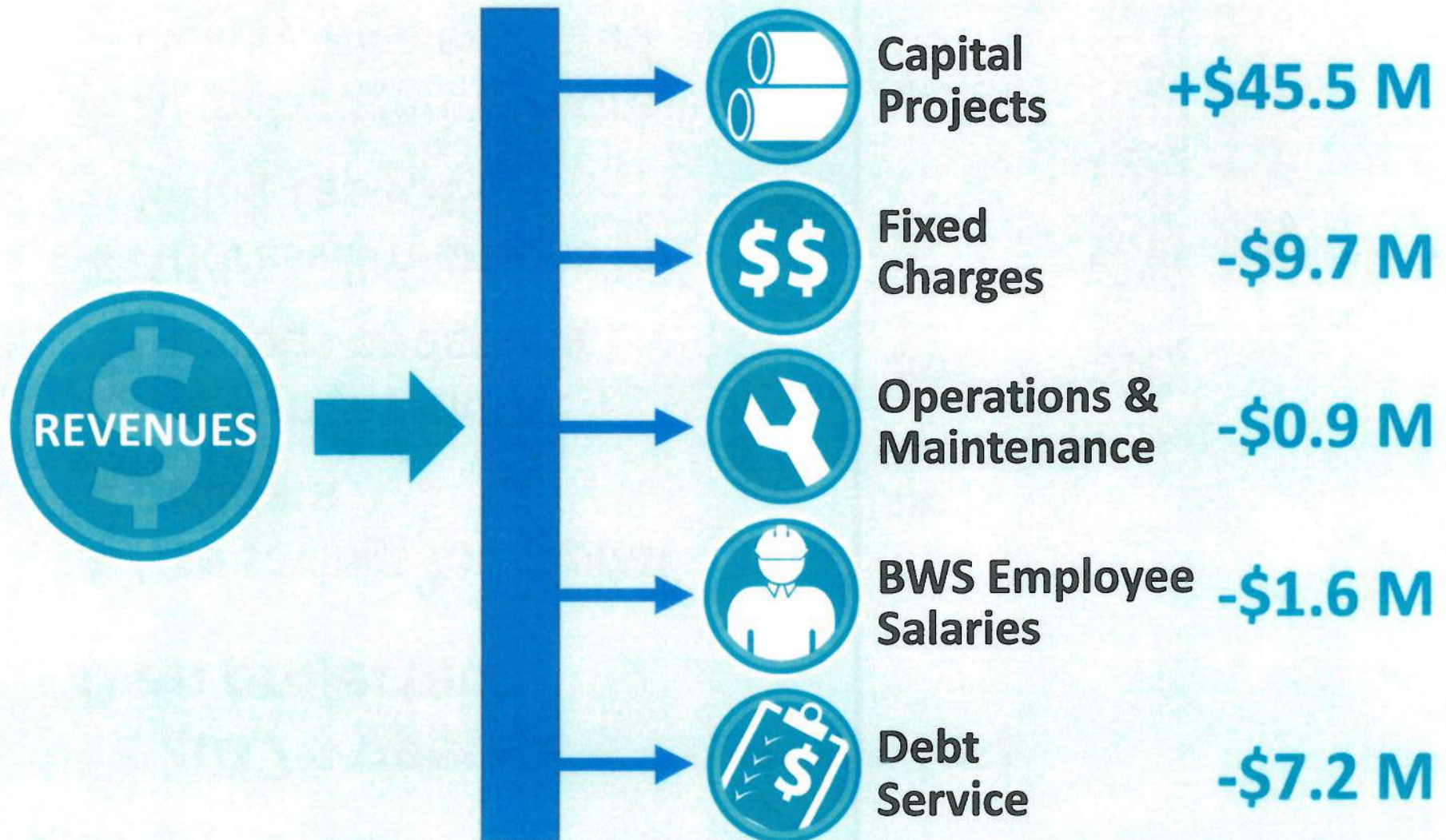


FY 2017's operating expenses less than projected

- 💧 Use savings for capital program
- 💧 Implement more rigorous budgeting
- 💧 Address limitations in hiring capacity
- 💧 Align budgeting more closely with expected cash flows



Proposed 2018 budget reduces operating expenses by nearly \$20 million



WATER FOR LIFE

Safe, dependable, and affordable water now and into the future



Board of Water Supply
City and County of Honolulu

COMMUNITY VALUES AND OBJECTIVES FOR WATER RATES STRUCTURE



Why Develop and Weight Rate Structure Objectives?

- Provides a “common language” to support discussion
- Illustrates the complimentary and competing aspects of certain objectives
- Supports clear communication of stakeholder interests and values
- Supports deeper understanding of other perspectives
- Facilitates evaluation of various rate alternatives and their impacts

Possible Rate Objectives

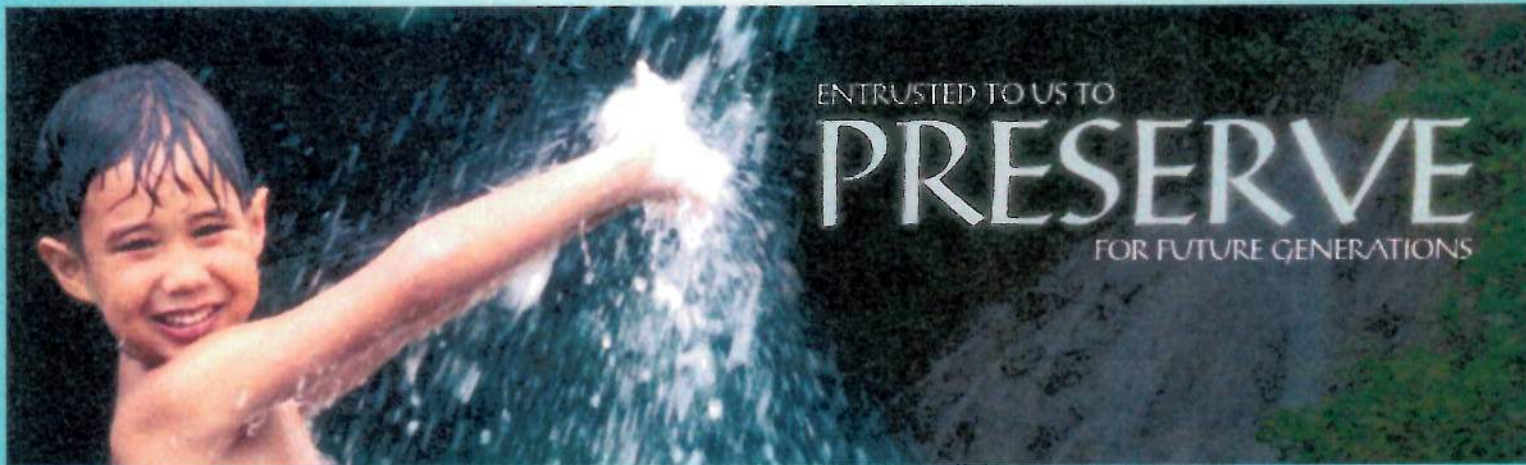
- 💧 Legal
- 💧 Recover Full Cost of Water
- 💧 Credit Strength
- 💧 Fair and Equitable
- 💧 Stable and Predictable
- 💧 Encourage Conservation
- 💧 Understandable
- 💧 Affordable

WATER FOR LIFE

Safe, dependable, and affordable water now and into the future



Board of Water Supply
City and County of Honolulu



Mahalo!



ITEM FOR INFORMATION NO. 2

Quarterly Capital Improvement Program Status Report
All Divisions

Quarter Awarded	JUL - SEP		OCT - DEC		JAN - MAR		APR - JUN		Awarded to Date	Total Budgeted
Design Contracts Awarded (#/\$)	0	\$0.00	1	\$427,504.00	6	\$2,098,458.97		\$0.00	\$2,525,962.97	\$13,880,000.00
Construction Contracts Awarded (#/\$)	5	\$1,474,398.82	7	\$11,423,670.36	7	\$19,859,271.61		\$0.00	\$32,757,340.79	\$53,555,000.00
Project Totals	5	\$1,474,398.82	8	\$11,851,174.36	13	\$21,957,730.58	0	\$0.00	\$35,283,303.76	\$67,435,000.00

Quarter Completed	JUL - SEP		OCT - DEC		JAN - MAR		APR - JUN		Totals
Design Contracts Completed (#/\$)	2	\$1,133,706.68	2	\$187,644.00	2	\$683,309.00			\$2,004,659.68
Construction Contracts Completed (#/\$)	0	\$0.00	1	\$830,900.00	2	\$3,568,665.00			\$4,399,565.00
Totals	2	\$1,133,706.68	3	\$1,018,544.00	4	\$4,251,974.00	0	\$0.00	\$6,404,224.68

Ongoing Projects	
Ongoing Design Projects (#)	197
Ongoing Design Projects (\$)	\$65,076,353.95
Ongoing Construction Projects (#)	116
Ongoing Construction Projects (\$)	\$242,811,696.74

Quarterly Capital Improvement Program Status Report
All Divisions

DESIGN AND CONSTRUCTION PROJECTS AWARDED - THIRD QUARTER FY 2017

Item #	Project Title	Expend Type	Budget Amount	Awarded
7	Waialeale Wells I Replacement of Pumping Unit	CONST	\$103,567.76	\$103,567.76
12	Mililani Wells II: Pump Replacement	P & E	100,000.00	452,819.00
26	Kalama Valley Water System Improvements, Part II	P & E	630,000.00	628,395.04
31	Lunalilo Home Road Water System Improvements	P & E	500,000.00	582,686.70
38	Drinking Water Fountain Replacements for PSB, WR and WSO	CONST	7,358.85	7,358.85
40	Nuuanu Reservoir No. 4 Dam Improvements	CONST	4,000,000.00	6,348,000.00
046	Archaeological Monitoring for Nuuanu Reservoir No. 4 Dam Improvements	P & E	53,257.00	53,257.00
046	Archaeological Monitoring Services for Fire Hydrant Installations at Various Locations, Part B (Manoa Road)	P & E	50,657.23	50,657.23
051	Diamond Head Line Booster: Replace Pumping Units	CONST	2,500,000.00	4,917,000.00
57A	Anoi Road Water System Improvements	CONST	6,200,000.00	6,140,245.00
059	Makakilo 920 and Waipahu 228 No. 2 Reservoir Facility Repairs (Split Funded)	CONST	1,700,000.00	2,243,100.00
062	East Kapolei 215 R-1 3.0 MG Reservoir (SPLIT FUNDED)	P & E	325,000.00	330,644.00
066	Security Camera Systems	CONST	375,000.00	100,000.00
	3rd Quarter totals		\$16,544,840.84	\$21,957,730.58

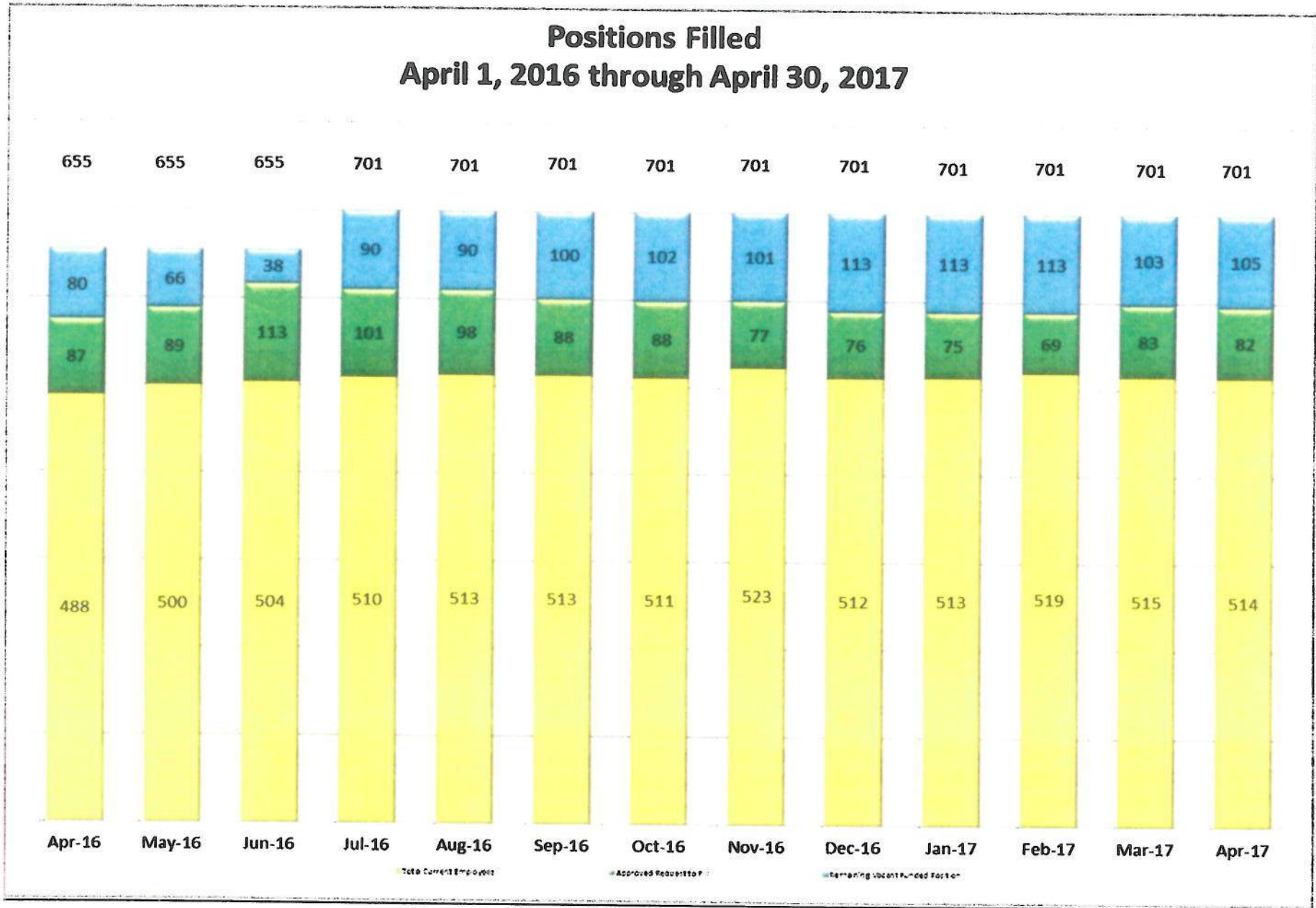
DESIGN AND CONSTRUCTION PROJECTS COMPLETED - THIRD QUARTER FY 2017

Job #	Project Title	Completion Date	Contract Amount
15-024	Kulaaupuni and Alta Street Water System Improvements	7/22/2016	\$1,394,905.00
12-010	Liliha Water System Improvements, Phase A	11/29/2016	2,173,760.00
2011-007	Water Main Replacements at Various Streets	2/3/2017	555,675.00
2011-022	Maunaolu 530 Non-Potable Reservoir Drainage Improvements	3/1/2017	127,634.00
	3rd Quarter totals		\$4,251,974.00

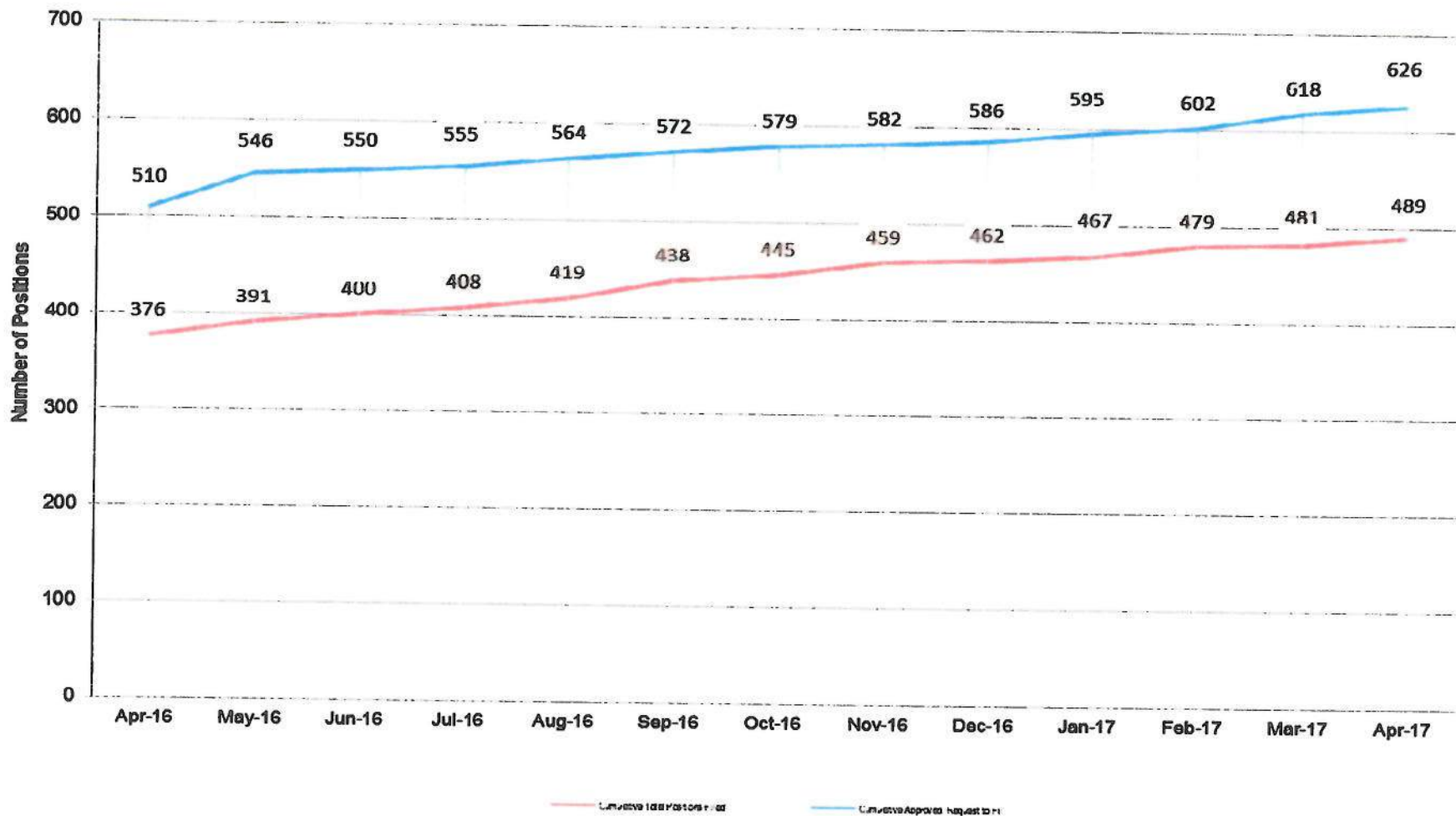
DISCUSSION:

Jason Takaki, Capital Projects Program Administrator, gave the report. He mentioned that more than half of the total budgeted amount has already been encumbered by the end of the third quarter, which is very different from previous years. Mr. Andaya asked what is attributed to this progress. Mr. Takaki replied that it's a better planning effort by staff, like starting last fiscal year to get the projects ready for advertisement early on in the fiscal year. It's a slow process, but efforts are being made to get the projects out closer to the beginning of the fiscal year, which allows more flexibility for everyone.

Positions Filled April 1, 2016 through April 30, 2017



Cumulative Totals **April 1, 2016 through April 30, 2017**



DISCUSSION:

Ms. Kitamura asked Teri Akana from the Human Resources Office to give the report and introduced the new Human Resources Officer, Michele Thomas. Following Ms. Akana's report, Ms. Thomas invited the Board to provide feedback on the format of this report. She stated that they want to ensure they provide an effective report and it meets the Board's needs. She asked the Board to email her or Ms. Kitamura with any comments, suggestions, or revisions, and she provided her email address to the Board. Ms. Kitamura asked the Board to copy Lisa Kim when emailing her or Ms. Thomas.

Mr. Andaya suggested separating the number of retirements from the number of non-retirements from the "separations" category. He also requested to include the different types of employee recruiting sources that are being used, if that information is known. Ms. Thomas stated that they will look into including these into the report.

"May 22, 2017

**GROUNDWATER
LEVELS**

Chairman and Members
Board of Water Supply
City and County of Honolulu
Honolulu, Hawaii 96843

Chairman and Members:

Subject: Status Update of Groundwater Levels at All Index
Stations

There were no aquifer index wells within low groundwater status for the production month of April 2017. The monthly production average for April 2017 was 135.56 million gallons per day.

The Board of Water Supply rainfall index for the month of April 2017 was 111 percent of normal; with a 5-month moving average of 77 percent. As of May 2, 2017, the Hawaii Drought Monitor shows no dry conditions for Oahu.

The National Weather Service (NWS) is predicting equal chances for above, near, or below normal precipitation for the month of May 2017. The NWS is forecasting normal weather conditions to continue through the spring, with increasing chances for El Nino conditions to develop in the late summer or fall. If correct, historically El Nino events favor increased odds for dry conditions for Hawaii in the winter season.

Most monitoring wells are exhibiting static or slightly decreasing trends due to the increased pumpage during the spring season.

Respectfully submitted,

/s/ for ERNEST Y. W. LAU, P.E
Manager and Chief Engineer

Attachment"

The foregoing was for information only.

DISCUSSION

Barry Usagawa, Water Resources Division Program Administrator, gave the report. Mr. Usagawa made mention of the sea level rise which is raising the height of the tidal systems, causing the water to extend further inland. There will be a "king" tide event with high tides occurring at the end of May, June, and July. The sea level rise combined with the high tides, will cause flooding and ponding water on roadways and low-lying areas. Mr. Usagawa stated that BWS and other City agencies are in discussion on how to adapt to this upcoming phenomenon.

**PRODUCTION, HEAD AND RAINFALL REPORT
MONTH OF APRIL 2017**

POTABLE

STATION	MGD
HONOLULU (1)	
KULIQUOU	0.09
WAILUPE	0.05
AINA KOA	0.16
AINA KOA II	0.78
MANOA II	0.00
PALOLO	1.15
KAIMUKI HIGH	2.49
KAIMUKI LOW	1.44
WILDER	7.41
BERETANIA HIGH	4.91
BERETANIA LOW	3.64
KALIHI HIGH	1.11
KALIHI LOW	5.69
KAPALAMA	0.89
KALIHI SHAFT	8.37
MOANALUA	1.32
HALAWA SHAFT	4.35
KAAMILO	0.00
KALAUAO	5.77
PUNANANI	12.56
KAHUMANU	0.02
HECO WAIU	2.81
MANANA	0.42
WELLS SUBTOTAL:	65.42
MANOA TUNNEL	0.17
PALOLO TUNNEL	0.23
GRAVITY SUBTOTAL:	0.40
HONO. SUBTOTAL:	65.82

STATION	MGD
WINDWARD (2)	
WAIMANALO II	0.29
WAIMANALO III	0.36
KUOU I	1.04
KUOU II	0.07
KUOU III	0.23
LULUKU	1.03
HAIKU	0.00
IOLAKAA	0.00
KAHALUU	0.87
KAHANA	0.81
PUNALUU I	0.00
PUNALUU II	1.95
PUNALUU III	1.10
KALUANUI	0.00
MAAKUA	0.11
HAUULA	0.00
WELLS SUBTOTAL:	7.88
WAIM. TUNNELS I & II	0.00
WAIM. TUNNELS III&IV	0.19
WAIHEE INCL. WELLS	0.94
WAIHEE TUNNEL	4.86
LULUKU TUNNEL	0.11
HAIKU TUNNEL	0.00
KAHALUU TUNNEL	1.53
GRAVITY SUBTOTAL:	7.63
WIND. SUBTOTAL:	15.51

STATION	MGD
NORTH SHORE (3)	
KAHUKU	0.38
OPANA	0.50
WAIALEE I	0.00
WAIALEE II	0.50
HALEIWA	0.00
WAIALUA	1.18
N.SHORE SUBTOTAL:	2.55

STATION	MGD
MILILANI (4)	
MILILANI I	3.10
MILILANI II	0.00
MILILANI III	0.00
MILILANI IV	1.61
MILILANI SUBTOTAL:	4.71

STATION	MGD
WAIHAWA (5)	
WAIHAWA	2.09
WAIHAWA II	1.10
WAIHAWA SUBTOTAL:	3.19

STATION	MGD
PEARL CITY-HALAWA (6)	
HALAWA 277	0.90
HALAWA 550	0.00
AIEA	0.99
AIEA GULCH 497	0.55
AIEA GULCH 550	0.22
KAONOHI I	0.88
WAIMALU I	0.00
NEWTOWN	0.96
WAIU	0.80
PEARL CITY I	0.52
PEARL CITY II	1.03
PEARL CITY III	0.38
PEARL CITY SHAFT	0.92
PEARL CITY-HALAWA SUBTOTAL:	8.15

STATION	MGD
WAIPAHU-EWA (7)	
WAIPIO HTS.	0.21
WAIPIO HTS. I	0.17
WAIPIO HTS. II	0.44
WAIPIO HTS. III	1.15
WAIPAHU	5.80
WAIPAHU II	1.55
WAIPAHU III	1.65
WAIPAHU IV	2.41
KUNIA I	3.76
KUNIA II	1.79
KUNIA III	1.42
HOAEAE	4.82
HONOULIULI I	1.30
HONOULIULI II	4.26
MAKAKILO	0.30
WAIPAHU-EWA SUBTOTAL:	31.02

STATION	MGD
WAIANAE (8)	
MAKAHA I	0.73
MAKAHA II	0.28
MAKAHA III	0.59
MAKAHA V	0.27
MAKAHA VI	0.00
MAKAHA SHAFT	0.00
KAMAILE	0.10
WAIANAE I	0.24
WAIANAE II	0.19
WAIANAE III	0.64
WELLS SUBTOTAL:	3.04
WAI. C&C TUNNEL	1.40
WAI. PLANT. TUNNELS	0.16
GRAVITY SUBTOTAL:	1.56
WAIANAE SUBTOTAL:	4.60

NONPOTABLE

NONPOTABLE	MGD
KALAUAO SPRINGS	0.46
BARBERS POINT WELL	1.04
GLOVER TUNNEL NP	0.43
NONPOTABLE TOTAL:	1.93

RECYCLED WATER (MARCH 2017)

RECYCLED WATER	MGD
HONOULIULI WRF R-1	6.04
HONOULIULI WRF RO	1.35
RECYCLED WATER TOTAL:	7.39

**PRODUCTION, HEAD AND RAINFALL REPORT
MONTH OF APRIL 2017**

PRODUCTION SUMMARIES

TOTAL WATER	MGD
PUMPAGE	125.96
GRAVITY	9.59
POTABLE TOTAL:	135.56
NONPOTABLE	1.93
RECYCLED WATER	7.39
TOTAL WATER:	144.87

CWRM PERMITTED USE AND BWS ASSESSED YIELDS FOR BWS POTABLE SOURCES				
WATER USE DISTRICTS		A PERMITTED USE/ BWS YLDS	B APR 2017	C DIFF. A-B
1	HONOLULU	82.93	65.42	17.51
2	WINDWARD	25.02	9.71	15.31
3	NORTH SHORE	4.74	2.55	2.19
4	MILILANI	7.53	4.71	2.82
5	WAHIAWA	4.27	3.19	1.08
6	PEARL CITY-HALAWA	12.25	8.15	4.10
7	WAIPAHU-EWA	50.63	31.02	19.61
8	WAIANAE	4.34	3.04	1.30
TOTAL:		191.71	127.80	63.91

CWRM PERMITTED USE FOR BWS NONPOTABLE SOURCES				
WATER USE DISTRICTS		A PERMITTED USE	B APR 2017	C DIFF. A-B
7	WAIPAHU-EWA (BARBERS POINT WELL)	1.00	1.04	-0.04
TOTAL:		1.00	1.04	-0.04

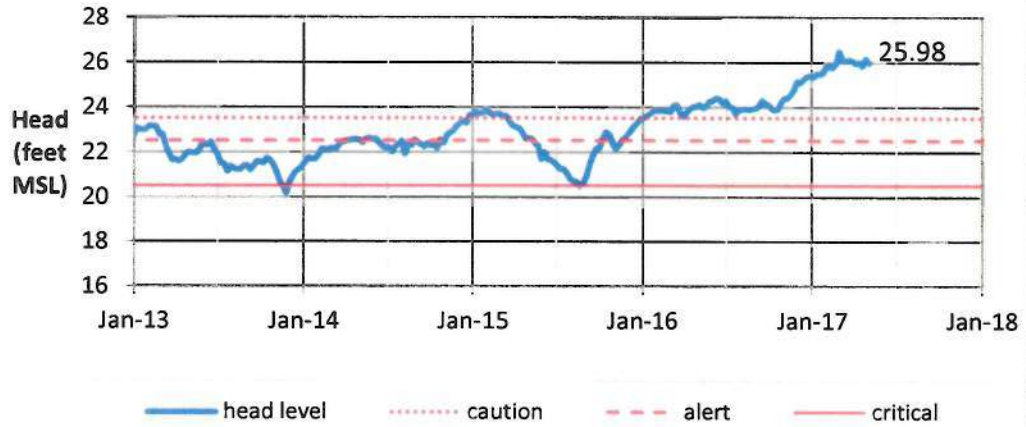
EFFECTIVE WATER DEMAND PER DISTRICT

IMPORT/EXPORT BETWEEN WATER USE DISTRICTS			
FROM	TO		MGD
2	1	WINDWARD EXPORT	0.14
7	8	BARBERS PT LB	4.68

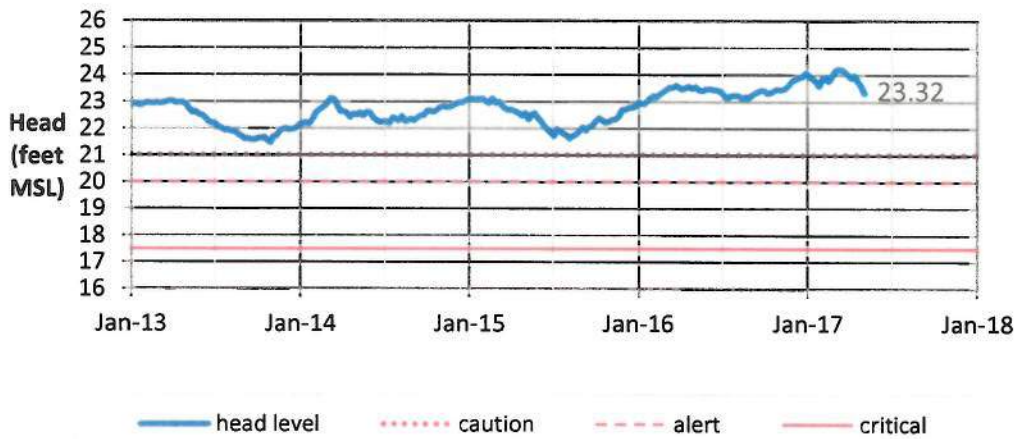
WATER USE DISTRICTS		SUBTOTAL	IMPORT	EXPORT	EFFECTIVE WATER DEMAND
1	HONOLULU	65.42	0.14	-	65.56
2	WINDWARD	9.71	-	0.14	9.57
3	NORTH SHORE	2.55	-	-	2.55
4	MILILANI	4.71	-	-	4.71
5	WAHIAWA	3.19	-	-	3.19
6	PEARL CITY-HALAWA	8.15	-	-	8.15
7	WAIPAHU-EWA	31.02	-	4.68	26.34
8	WAIANAE	3.04	4.68	-	7.72
TOTAL:		127.80	4.82	4.82	127.80

Weekly Head Report

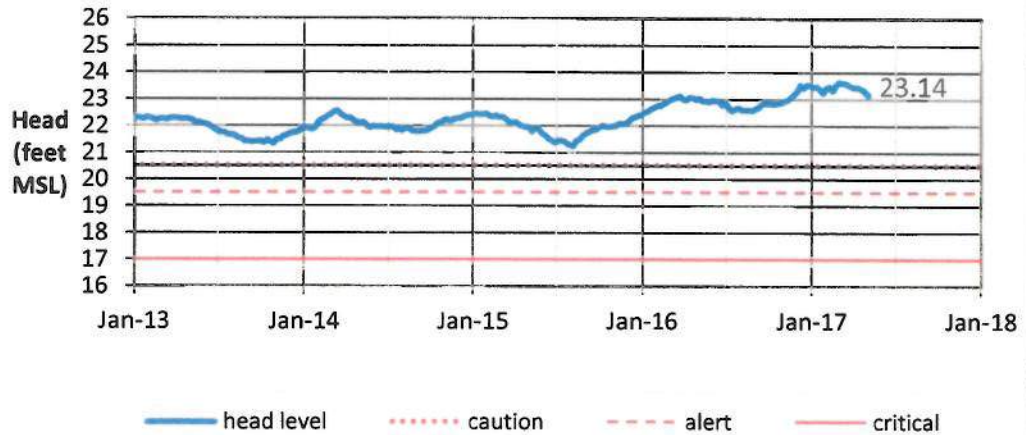
Kaimuki 05/08/17



Beretania 05/09/17

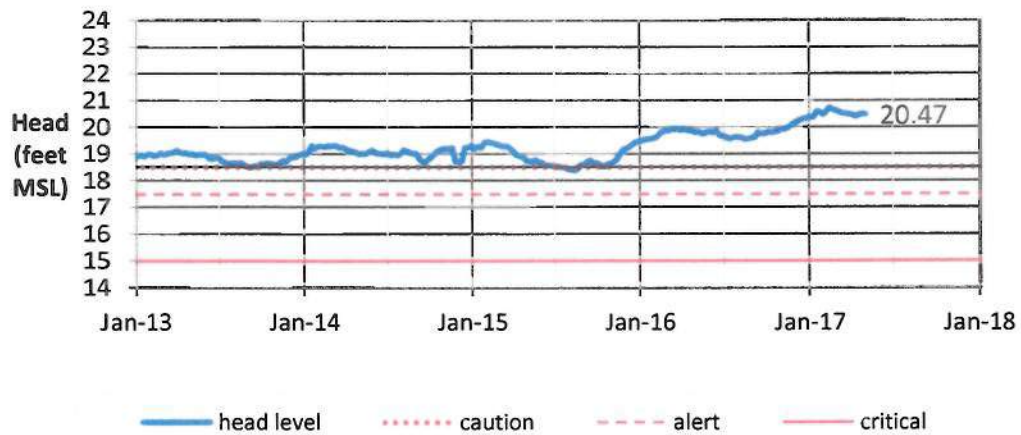


Kalihi 05/09/17

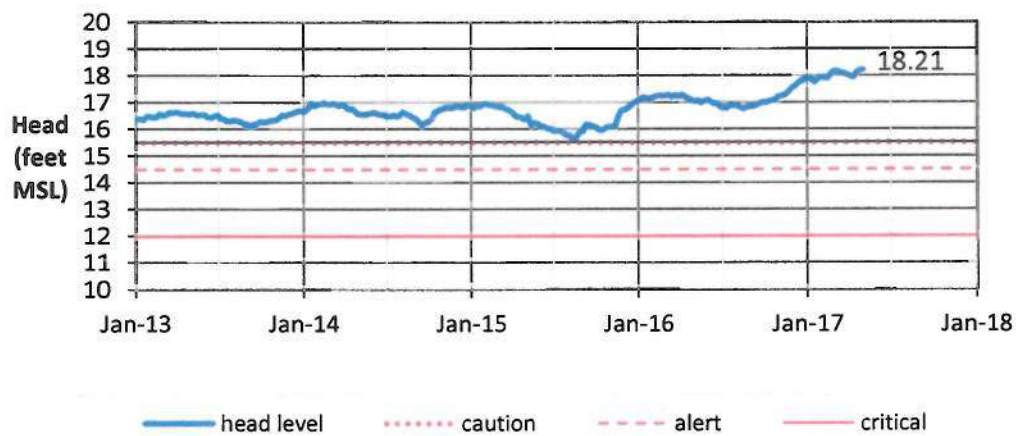


Weekly Head Report

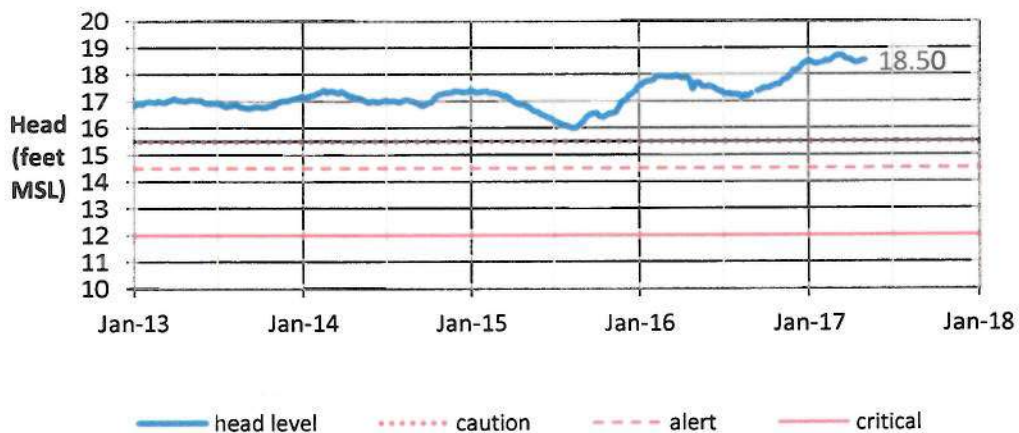
Moanalua 05/09/17



Halawa 05/09/17

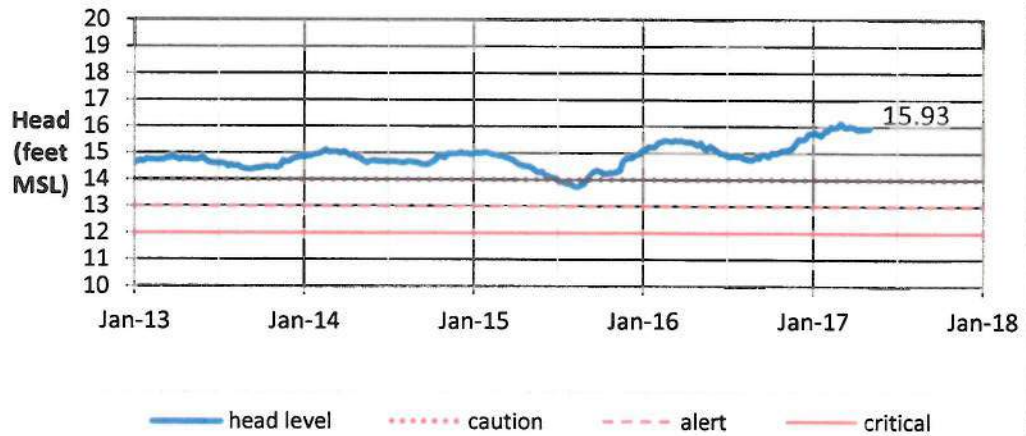


Kalauao 05/08/17

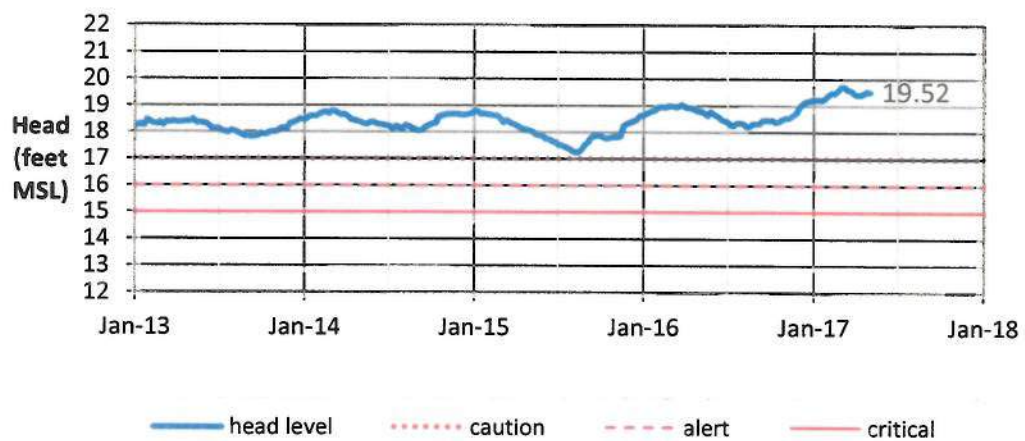


Weekly Head Report

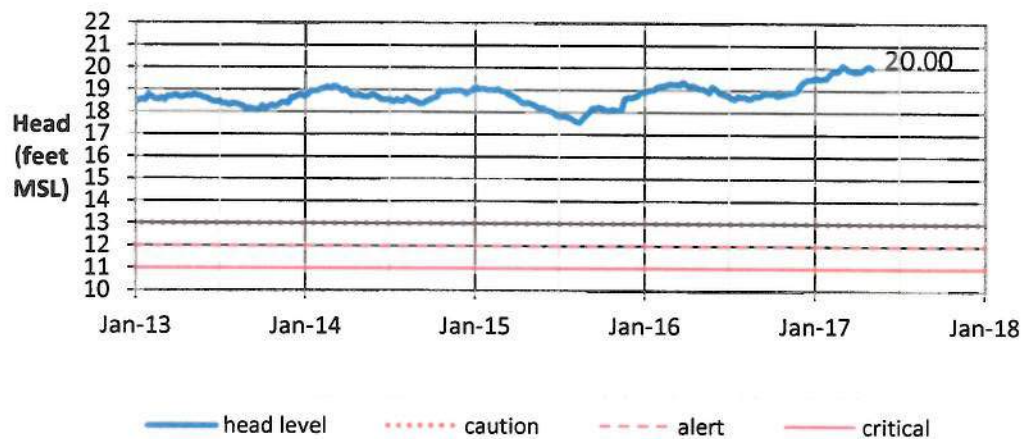
Pearl City 05/08/17



Waipahu 05/09/17

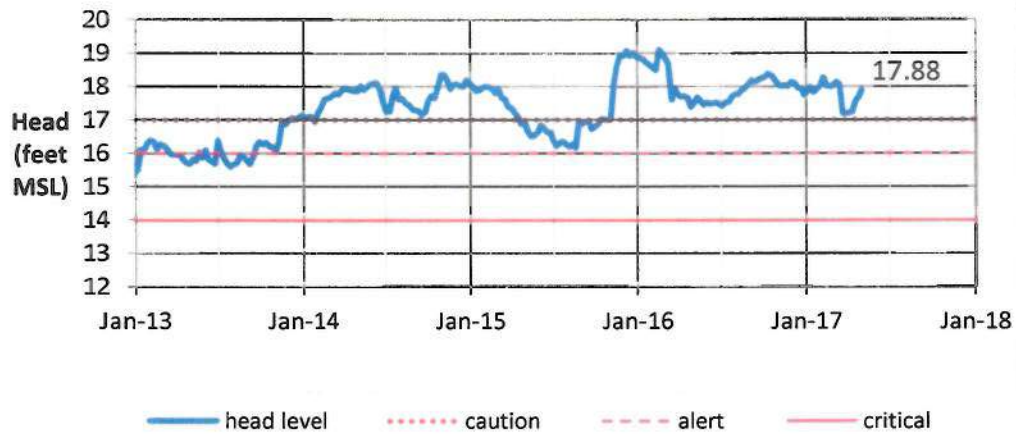


Hoaeae-Kunia 05/09/17

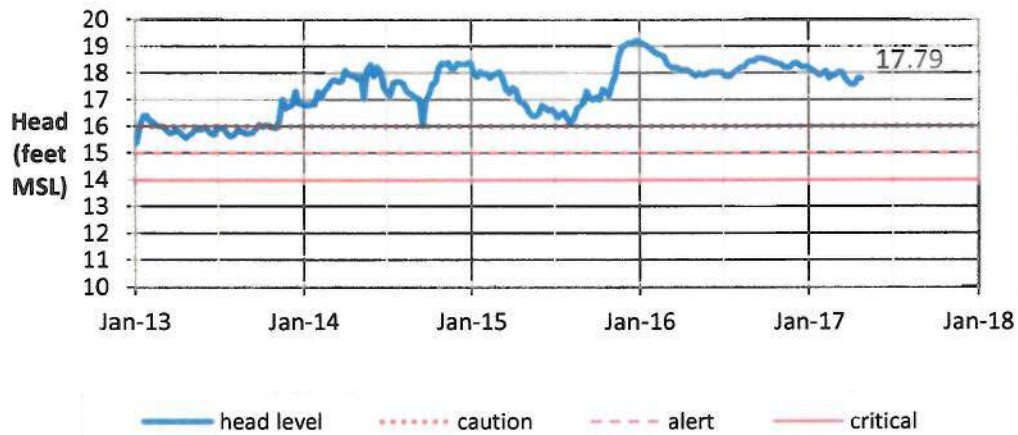


Weekly Head Report

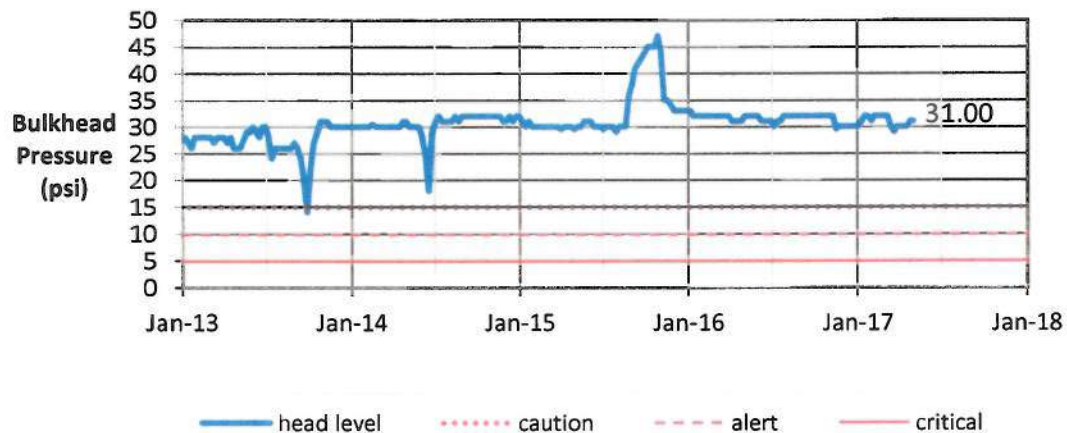
Punaluu 05/09/17



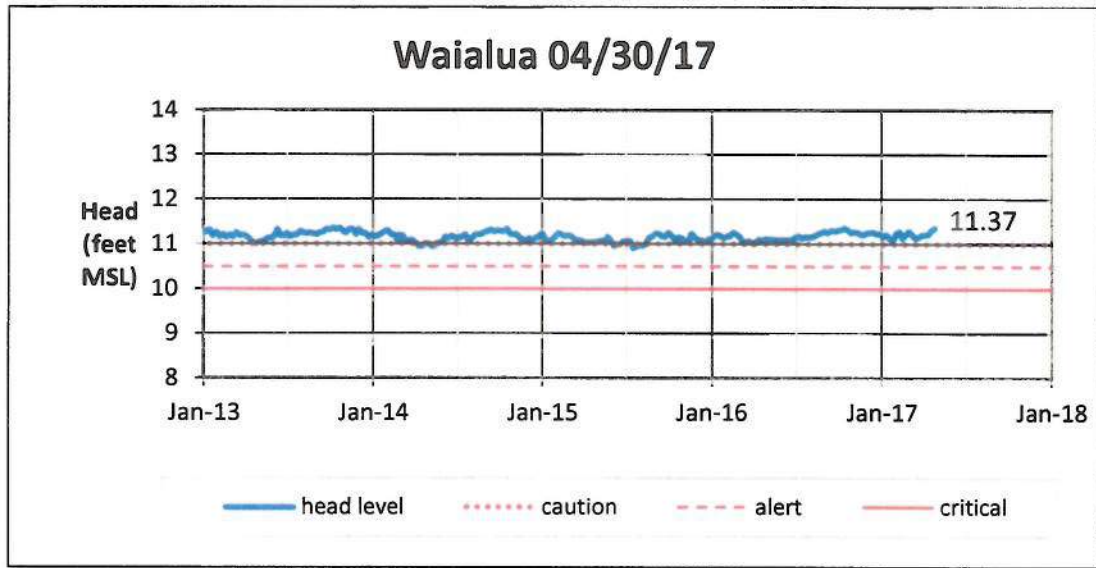
Kaluanui 04/30/17



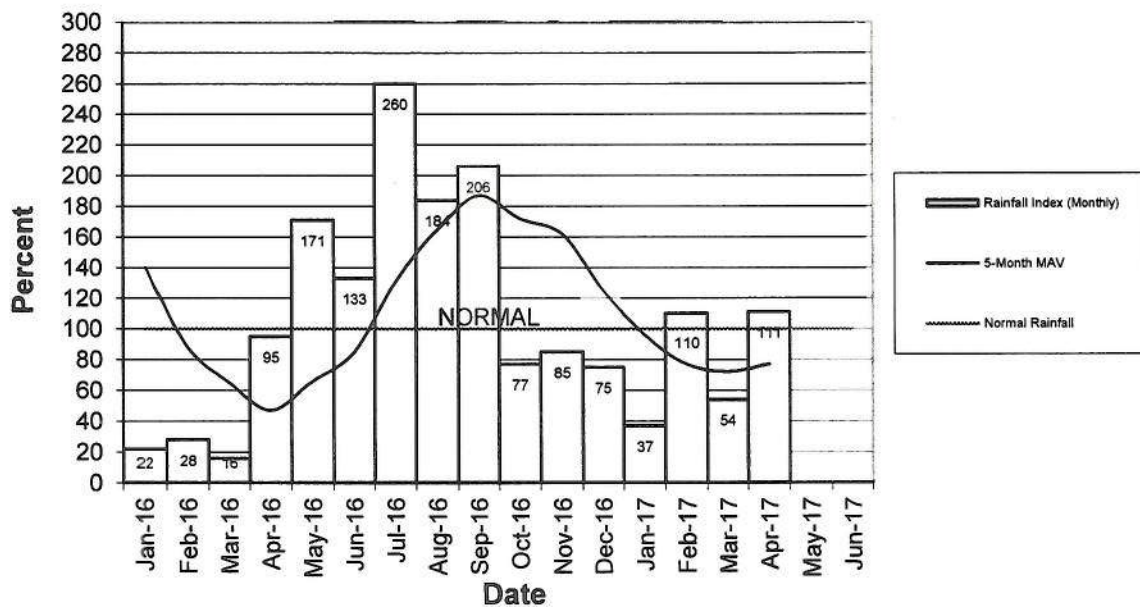
Waihee Tunnel 05/08/17



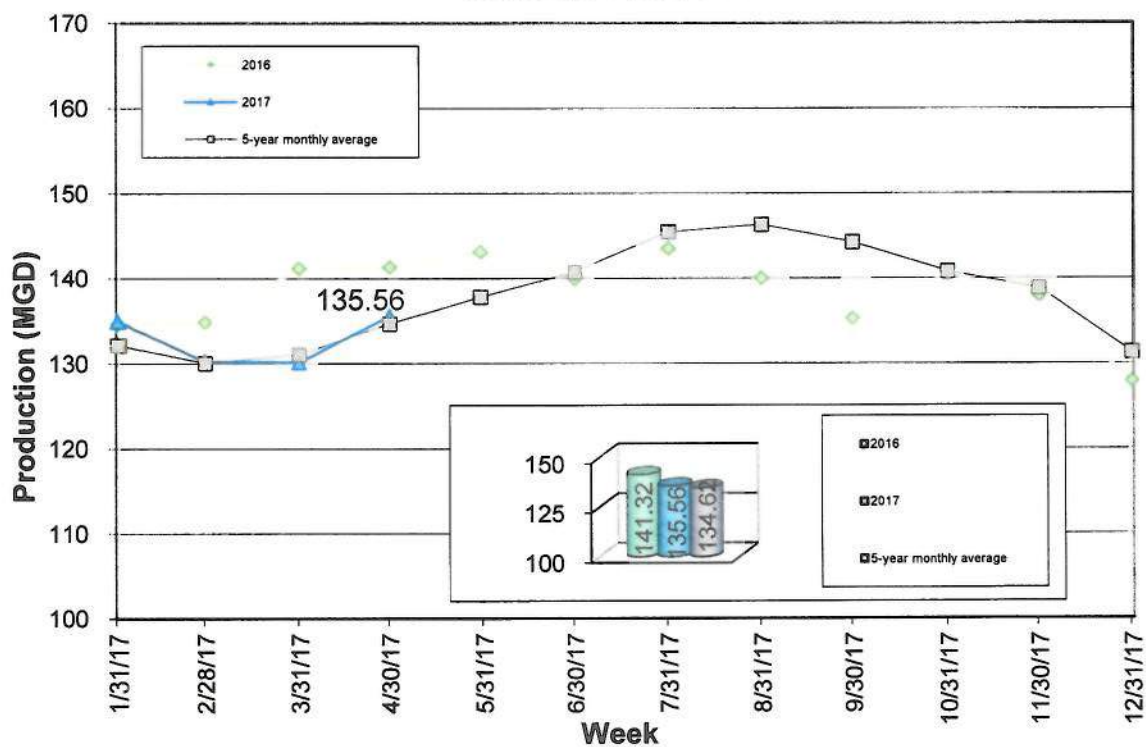
Weekly Head Report



HONOLULU WATERSHED AREA Rainfall Intake



Monthly Production



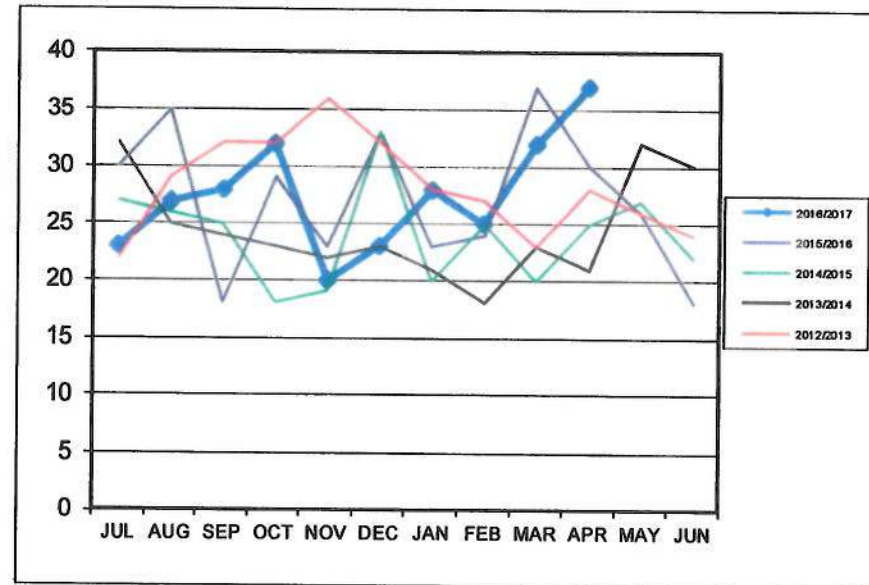
ITEM FOR INFORMATION NO. 5

WATER MAIN REPAIR REPORT

for April 2017

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	Total
2016/2017	23	27	28	32	20	23	28	25	32	37			275
2015/2016	30	35	18	29	23	33	23	24	37	30	26	18	326
2014/2015	27	26	25	18	19	33	20	25	20	25	27	22	287
2013/2014	32	25	24	23	22	23	21	18	23	21	32	30	294
2012/2013	22	29	32	32	36	32	28	27	23	28	26	24	339

Date	Address	Size (In)	Pipe Type
4/1/2017	2627 BOOTH RD, HONOLULU	6	CI
4/2/2017	827 LEIGHTON ST, HONOLULU	8	CI
4/3/2017	91-911 WAIPO PL, EWA BEACH	8	DI
4/5/2017	1111 KAUMAILUNA PL, HONOLULU	8	PVC
4/5/2017	1687 KALAUOKALANI WAY, HONOLULU	4	CI
4/7/2017	S LIHIWAI RD, KAILUA	6	CI
4/7/2017	94-607 HONOWAI ST, WAIPAHU	12	CI
4/8/2017	1230 KAINUI DR, KAILUA, 96734	12	CI
4/8/2017	94-534 AWAMOI ST, WAIPAHU	8	CI
4/9/2017	7508 MUOLEA PL, HONOLULU	4	DI
4/10/2017	61-735 KAM HWY, HALEIWA	4	CI
4/10/2017	1286 QUEEN EMMA ST, HONOLULU	6	CI
4/10/2017	2333 KAPIOLANI BLVD, HONOLULU	4	ci
4/11/2017	36 AALAPAPA PL, KAILUA	8	PVC
4/12/2017	2584 ALAULA WAY, HONOLULU	6	CI
4/13/2017	91-63 MALAKOLE ST, KAPOLEI	14	PVC-RO
4/15/2017	85-189 MCARTHUR ST, WAIANAE	8	PVC
4/19/2017	86-283 KAWILI ST, WAIANAE	8	PVC
4/19/2017	87-349 HAKIMO RD, WAIANAE	20	CC
4/19/2017	2939 KAHAWAI ST, HONOLULU	6	PVC
4/20/2017	47-420 HOOPALA ST, KANEOHE	8	DI
4/20/2017	2439 NALANIEHA ST, HONOLULU	12	CI
4/22/2017	92-578 UALEHEI ST, KAPOLEI	8	CI
4/22/2017	92-664 ANIPEAHI ST, KAPOLEI	8	CI
4/22/2017	9 AIKAHI LP, KAILUA	12	AC



37.3 +miles of pipelines were surveyed by the Leak Detection Team in the month of April.

4/24/2017	2442 LANAI ST, HONOLULU	6	CI
4/24/2017	87-141 MAIPALAOA RD, WAIANAE	8	PVC
4/24/2017	92-805 MOAKA ST, KAPOLEI	8	CI
4/25/2017	59-357 MAKANA RD, HALEIWA	8	CI
4/26/2017	4840 ANALII ST, HONOLULU	6	CI
4/27/2017	1577 HALOA DR, HONOLULU	8	CI
4/28/2017	91-661 FORT WEAVER RD, EWA	16	PVC
4/28/2017	45-549 KIANI ST, KANEOHE	8	CI
4/29/2017	1234 HONOKAHUA ST, HONOLULU	8	DI
4/29/2017	98-134 KIHAE PL, AIEA	6	CI
4/30/2017	92-611 MAKAKILO DR, KAPOLEI	4	CI
4/30/2017	3448 LIKINI ST, HONOLULU	8	CI

DISCUSSION: Mike Fuke, Field Operations Division Acting Program Administrator, gave the report. He stated that based on the main break totals to date, it looks like the total for the year will be around 330. There are still a number of PVC main breaks, some occurring on repeated streets like McArthur and Kahawai. The PVC pipes are lasting about 20 years, which is unsatisfactory. BWS is working on finalizing the PVC study report, but it looks like it may involve a water system standards amendment. Ms. Kitamura added that McArthur Street has been programmed for design in fiscal year 2018.

MOTION TO
RECESS INTO
EXECUTIVE
SESSION

Upon unanimously approved motion, the Board recessed into Executive Session Pursuant to [HRS §92-5(a)(2)] at 3:15 PM to Consider Issues Pertaining to Matters Posted for Discussion at an Executive Session

OPEN
SESSION

The Board reconvened in Open Session at 3:25 PM

MOTION TO
ADJOURN

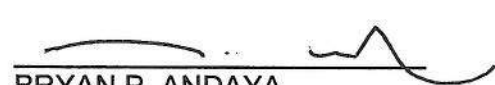
There being no further business Chair Andaya at 3:25 PM called for a motion to adjourn the Open Session. David Hulihee so moved; seconded by Ross Sasamura and unanimously carried.

Respectfully submitted,



LISA K. KIM

APPROVED:



BRYAN P. ANDAYA
Chair of the Board

JUL 31 2017

Date

THE MINUTES OF THE REGULAR SESSION BOARD MEETING ON MAY 22, 2017 WERE APPROVED AT THE JULY 31, 2017 SPECIAL BOARD MEETING			
	AYE	NO	COMMENT
BRYAN P. ANDAYA	X		
DAVID C. HULIHEE	X		
KAPUA SPROAT			ABSENT
KAY C. MATSUI	X		
ROSS S. SASAMURA	X		
FORD N. FUCHIGAMI			ABSENT