Hawaiian Homes Commission
Agenda Item G-4
DHHL Cost of Water Service Analysis

December 20 – 21, 2021
Overview
- DHHL Water Systems
- Technical, Managerial, Financial Capacity or “TMF”
DHHL Cost Analysis Findings
- The numbers
Next Steps
Legal Authorities

- Hawaiian Homes Commission Act of 1920, as amended
- Enterprise Accounting Policy (2012)
- Water Policy Plan (2014)
Key Terms

- Enterprise
- Economies of Scale
- DHHL Financial Management System (FMS)
- True Costs vs. Hidden Costs
- Fixed Costs vs. Variable Costs
- Revenue billed vs. Revenue collected
Overview DHHL Water Systems

• WHAT are the “DHHL Water Systems”?
  • Hoʻolehua Public Water System No. 230 – Molokaʻi
  • Anahola Farm Lots Public Water System No. 432 – Kauaʻi
  • Kawaihae Unit #1 Public Water System No. 164 – Hawaiʻi
  • Puʻukapu Water System (non-regulated) – Hawaiʻi

• WHO are the customers?
  • Lessees
  • Non-beneficiaries (Hoʻolehua only) – Schools, Churches, businesses

• HOW many total customers statewide? – 881
Technical, Managerial, Financial Capacity – “TMF”

Owner responsibility

Federal USDA funding condition

US EPA guidance
Basic Elements in “Financial Capacity”

- Accounting
- Record Keeping & Reporting Systems
- Budget
- Cost of Water Service
- Financial Oversight
- HHC and DHHL Policies & Procedures
- Planning/Forecasting
- Rate Analysis
Cost of Water Service Analysis is a Tool

Analytical Tool to Determine the “True Cost” of Providing Water Service to the Community

- Basis for Budget Controls
- Basis for Determining Actual Revenue Requirement
- Basis for Setting Rates
DHHL Financial Management Challenges

DHHL water systems are “small systems”
< 1,000 customers

- Operating costs exceed revenue billed
  - Economies of scale
  - Fixed costs disproportionately higher

- DHHL must continue to supplement to break even
The Findings of the Cost Analysis are only as good as the Data Quality and Assumptions that go into it.

Even data with high uncertainty, can help us improve, including identifying how we can improve our data, which can lead to more useful results.
Since 2017 . . .

Accomplishments

- Rate Analysis completed, resulting in HHC approved rate increases
- Effective Utility Management paper completed, resulting in proposal to establish Water Branch
- Water Administrative Rules, effective 2021 with enforcement provisions
• Enterprise Accounting Policy not implemented
• De-centralized management and operations
• DHHL Financial Management System to be fully utilized
• Technology needs
• Education and Enforcement to be implemented
### DHHL Water System Budget

<table>
<thead>
<tr>
<th>“True COSTS“</th>
<th>REVENUE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operating, Repairs, Maintenance</strong></td>
<td>Customer Rates</td>
</tr>
<tr>
<td><strong>Hidden Costs:</strong></td>
<td></td>
</tr>
<tr>
<td>Education and Enforcement</td>
<td>Trust Funds</td>
</tr>
<tr>
<td>Administrative</td>
<td>State General Fund</td>
</tr>
<tr>
<td>Planning, Studies</td>
<td>(Personnel only)</td>
</tr>
<tr>
<td>Regulatory compliance</td>
<td></td>
</tr>
<tr>
<td>Funder requirements</td>
<td>Trust Funds for CIP</td>
</tr>
<tr>
<td>CIP</td>
<td>State Leg funds for CIP and Repairs/Maintenance</td>
</tr>
<tr>
<td>Reserves</td>
<td>Federal funds for CIP</td>
</tr>
</tbody>
</table>
Shortfall: Operating Costs and Revenue Billed

FY2015 – FY2018

Series 1

FY 2015

FY 2016

FY 2017

FY 2018
## FY2018: Shortfall (based on best available data)

<table>
<thead>
<tr>
<th></th>
<th>Ho'olehua Water System</th>
<th>Anahola Farms Lots Water System</th>
<th>Kawaihae Unit #1 Water System</th>
<th>Pu'ukapu Water System</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collected (customer rates)</td>
<td>$326,525</td>
<td>$54,684</td>
<td>$92,567</td>
<td>$59,161</td>
<td>$532,937</td>
</tr>
<tr>
<td>O&amp;M Expenses</td>
<td>$618,000</td>
<td>$168,000</td>
<td>$300,000</td>
<td>$225,000</td>
<td>$1,311,000</td>
</tr>
<tr>
<td>Shortfall</td>
<td>-$291,475</td>
<td>-$113,316</td>
<td>-$207,433</td>
<td>-$165,839</td>
<td>-$778,063</td>
</tr>
</tbody>
</table>

**Highest expense**
- Electricity: $386,000
- Fee for Service: $141,000
- Fee for Service: $231,000
- Fee for Service: $164,000

**Next highest**
- Fee for Service: $135,000
- Electricity: $20,000
- Maintenance: $56,000
- Water: $35,000

**Delinquent Accounts (estimate)**
- Commercial 22%
- Beneficiaries 40%
- 43%
- 24%
- 20%
Financial Outlook: Long Term Impact on Trust Funds

- Increasing operating costs
- Increase in rates by Hawaii County and Kohala Ranch
- Constructing more irrigation systems, not everyone signing up for water service
- Hoʻolehua and Anahola Improvement Projects – cost overruns
  - Photo-Voltaic for Hoʻolehua postponed
- $14 million federal loan
How to balance the budget?

There’s only one way to balance the budget:
Increase Revenue and Reduce Costs
## Suggestions to balance the Budget

<table>
<thead>
<tr>
<th><strong>INCREASE REVENUE</strong></th>
<th><strong>DECREASE COSTS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Address un-collectibles</td>
<td>Complete Hoʻolehua and Anahola improvements</td>
</tr>
<tr>
<td>Increase rates (again)</td>
<td>Convert operator contracts to staff positions</td>
</tr>
<tr>
<td>Pursue State Leg for Repairs and Maintenance</td>
<td>Centralize management and operations</td>
</tr>
<tr>
<td>Min. charge to all lessees</td>
<td>Smart meters for Kawaihae, Puʻukapu, future systems</td>
</tr>
<tr>
<td>Leaks/un-accounted for water</td>
<td></td>
</tr>
<tr>
<td>Use by Non-beneficiaries</td>
<td></td>
</tr>
<tr>
<td>“Right size” the system</td>
<td></td>
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</tbody>
</table>
Next Steps: Complete within Next 3 Months

Water system management and operations

- Appoint interim point of contact (interim)
  - With water expertise and decisionmaking authority
  - Coordinate across divisions
  - Contract oversight

- Centralize billings and collections
  - Support DOs and Fill MODO position
Next Steps: Complete within 6 Months

Water Systems Management & Operations
- Meter readings (by April 2022)
- Centralize Billing and Collections
  - Separation of duties
  - Assess causes of billing delinquencies

DHHL Financial Management System
- Consistent use of coding across all divisions
Next Steps: Complete within 12 Months

Water System Management and Operations
- Implement Water Branch

DHHL Financial Management System
- Produce financial reports for DHHL management & USDA

Implement rigorous education & enforcement
- Develop program to address delinquencies
- Implement new Rules enforcement provisions
Next Steps: Complete within 12 Months

Technology

- Assess billing system (Utility Star)
- Improve cell signal for smart meters
- Automate data collection
Long term: Other next steps

- Rate Setting: consider minimum charge to lessees within service area
- Equipment inventory
- GIS
- Reserves policy
  - USDA reserve requirements
  - CIP reserve funding schedule
- Current and Future DHHL water systems
  - Improve internal coordination in planning, design, construction, system management and operations, system budgets, and communications with community and stakeholders
What’s the Risk?

Without implementing these critical steps, we are not able to . . .

• Understand the Trust Subsidy
• Produce financial reports for DHHL management
• Produce required financial statements (Balance Sheet, etc.) for USDA
• Set better customer rates and fees
Questions?

Mahalo!