Performance and Reliability Upgrades at the Wahiawa Wastewater Treatment Plant and Recycled Water Opportunities
Final Environmental Impact Statement
for the
Central Oahu Wastewater Facilities Plan

Preposing Agency:
City and County of Honolulu, Department of Design and Construction

Accepting Authority:
City and County of Honolulu, Department of Planning and Permitting

This Document is prepared pursuant to Chapter 343, Hawaii Revised Statutes

June 2008
Collection System

Treatment

Effluent Disposal and Reuse
Project History – City’s Wahiawa WWTP (2008)

Final Alternatives Analysis Report

Wahiawa Wastewater Treatment Plant Modifications

(Previously titled Wahiawa “Wastewater Treatment Plant Influent Pump Station Upgrade and Equalization Facility”)

Prepared for:
The City and County of Honolulu
Department of Design and Construction

Prepared by:
The Limiaco Consulting Group
Civil Engineering and Environmental Consultants

July 2008
Recent Upgrades at Wahiawa WWTP

Front-End (completed January 2013, $10.4M)
- Preliminary Treatment Upgrade
- Odor Control

Back-End (completed April 2015, $29.5M)
- MBR Upgrade
- On-Site Storage (Unused Tanks)
Recent Upgrades at Wahiawa WWTP

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Upgrades Resulted in Improved Performance and Reliability

***High Quality Effluent***
(aka Recycled Water)
Is recycled water a new thing?
Recycled water in Hawaii dates back to 1928. (Waialua, Oahu)
Recycled Water in Hawaii

2017

2018

2019

Source: State of Hawaii, Department of Health, Wastewater Branch
Recycled Water in Hawaii

Million Gallons Per Day

Source: State of Hawaii, Department of Health, Wastewater Branch
Is recycled water safe?
Is recycled water safe?

YES!
Recycled Water in Hawaii

R-1 Suitable Uses (a few examples)

- Irrigation: Landscape and agricultural irrigation via spray and drip irrigation.
- Irrigation storage reservoirs and ponds.
- Home irrigation per guideline conditions.
- Fire fighting.

Source: State of Hawaii, Department of Health, Wastewater Branch
Problem Solving
PROBLEM 1 (City): City’s Wahiawa WWTP discharges about 1.6 MG of high quality effluent into the Wahiawa Reservoir each day.
1.6 MG is equivalent to 2-1/2 Olympic Swimming Pools
Treated Wastewater Effluent in Wahiawa Reservoir = "Restricted Water"
PROBLEM 2: ADC diversified agriculture plan will require about 5 MG of irrigation water each day. Existing infrastructure is not enough.
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ADC diversified agriculture plan will require about 5 MG of irrigation water each day. Existing infrastructure is not enough.
ADC Recycled Water System

SOLUTION:
Use Recycled Water for Irrigation
ADC Recycled Water System

KEY BENEFITS:
1. Drought-Proof Water Source
2. Preserves Groundwater Supply
3. Gets the City “Out of the Lake”

SOLUTION:
Use Recycled Water for Irrigation
Thank you and stay safe!

Any questions?

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