

An aerial photograph of a mountainous region. In the foreground, a large reservoir is visible, surrounded by a city and some industrial or agricultural structures. The background shows rolling green hills and mountains under a clear sky.

PRIMARY URBAN CENTER WATERSHED MANAGEMENT PLAN

Community Meeting #1
Watershed Profile and Issues

May 2017



PRESENTATION TOPICS

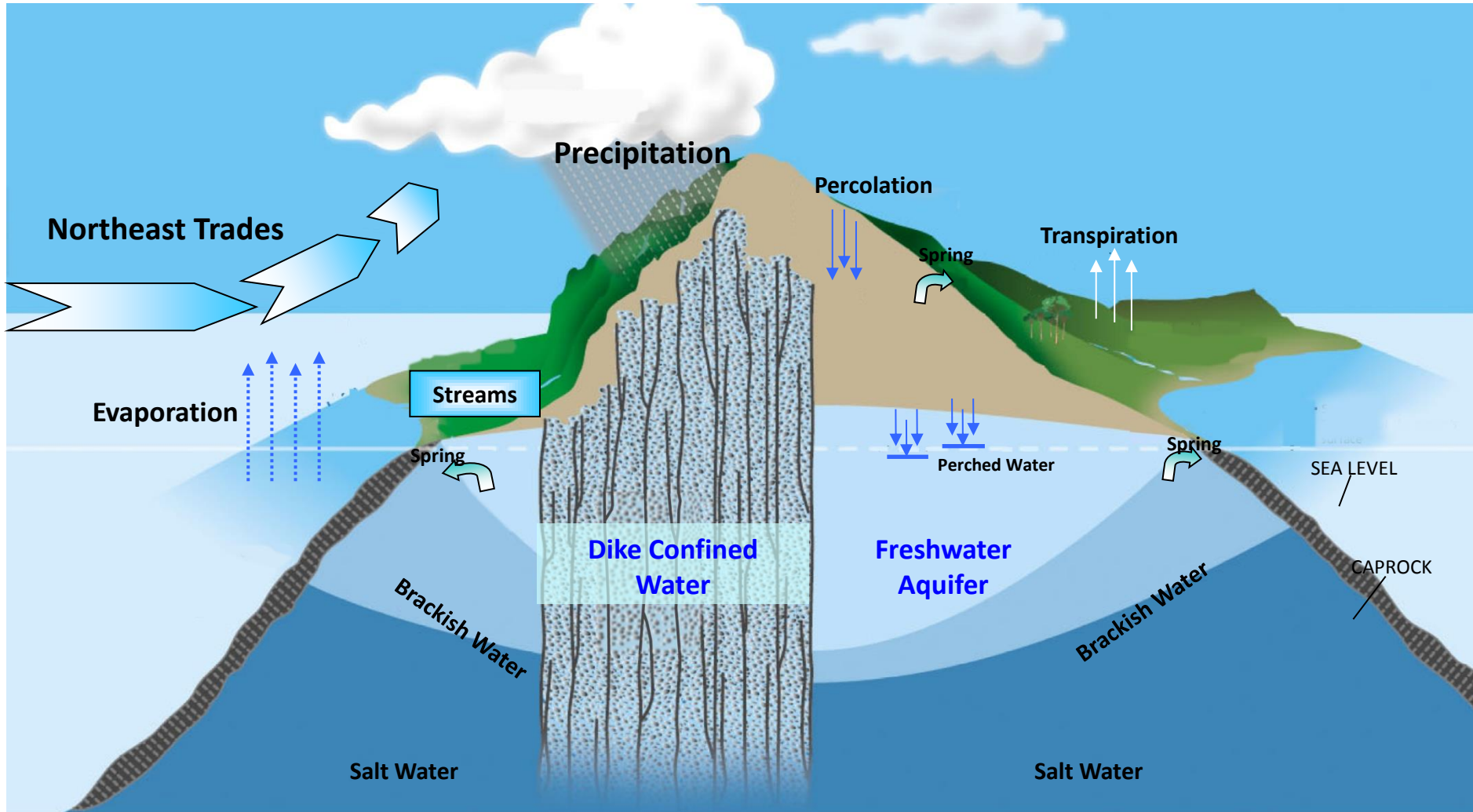
- Background and Overview of the O‘ahu Water Management Plan (WMP)
- Overview of the Honolulu Primary Urban Center (PUC)
- Watershed Overview
- Watershed Issues
- Next Steps

WATER FOR LIFE

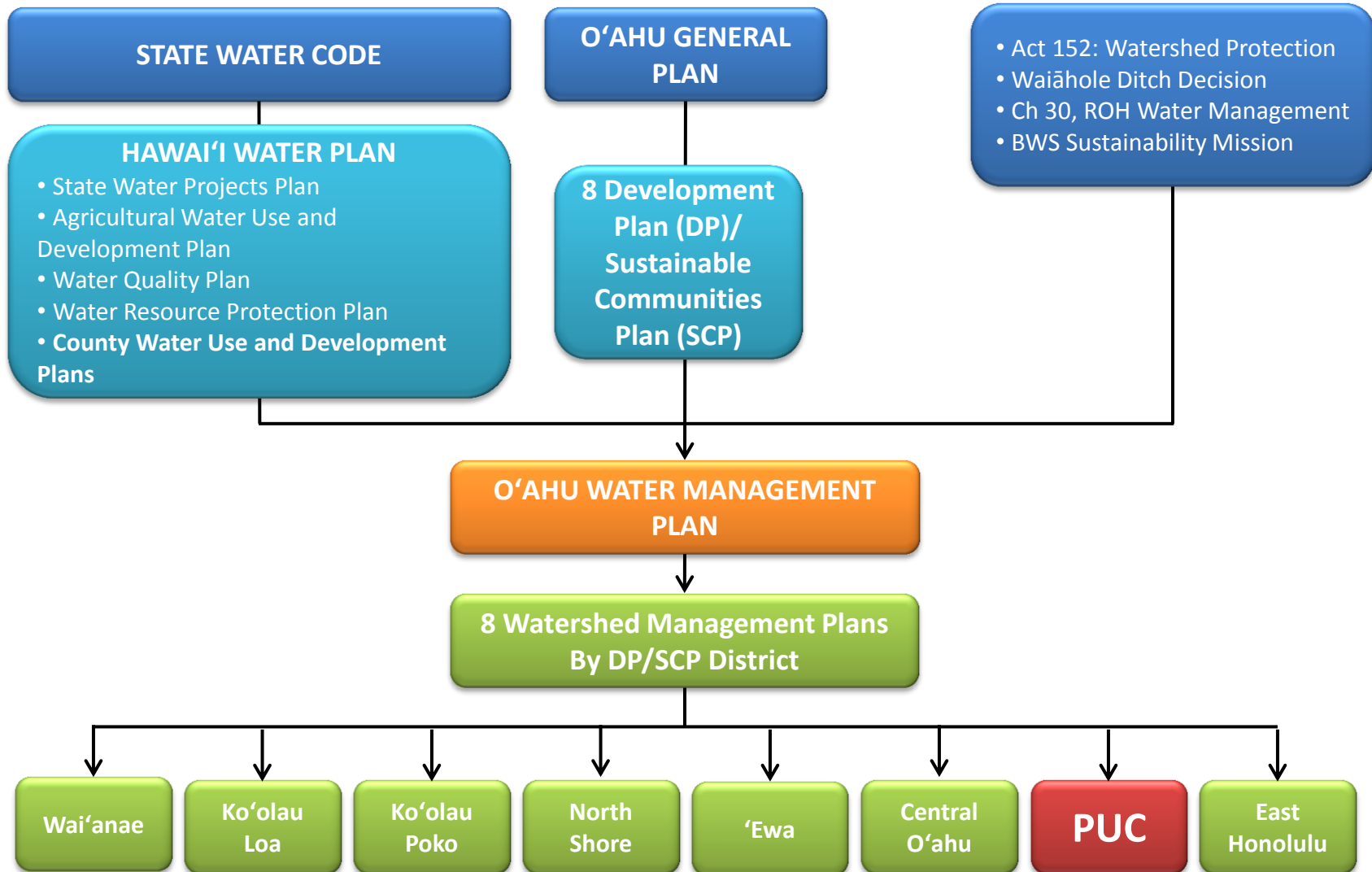
Safe, dependable, and affordable water now and into the future



Board of Water Supply
City and County of Honolulu

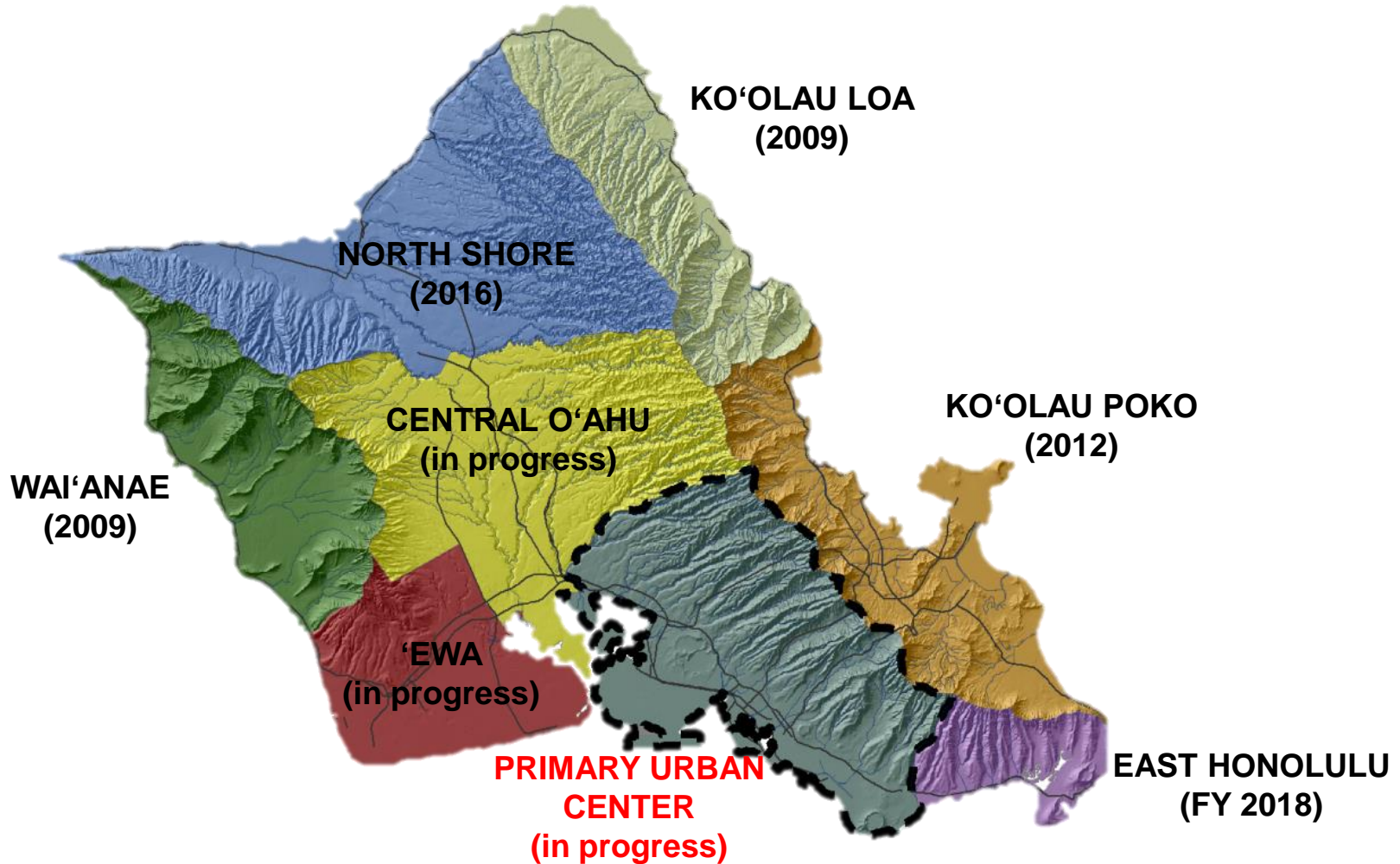


O'AHU WATER MANAGEMENT PLAN





STATUS OF THE O'AHU WATER MANAGEMENT PLAN





O'AHU WATER MANAGEMENT PLAN Ahupua'a Planning Concept



Holistic

Inter-relationship of resources

Self-sufficient

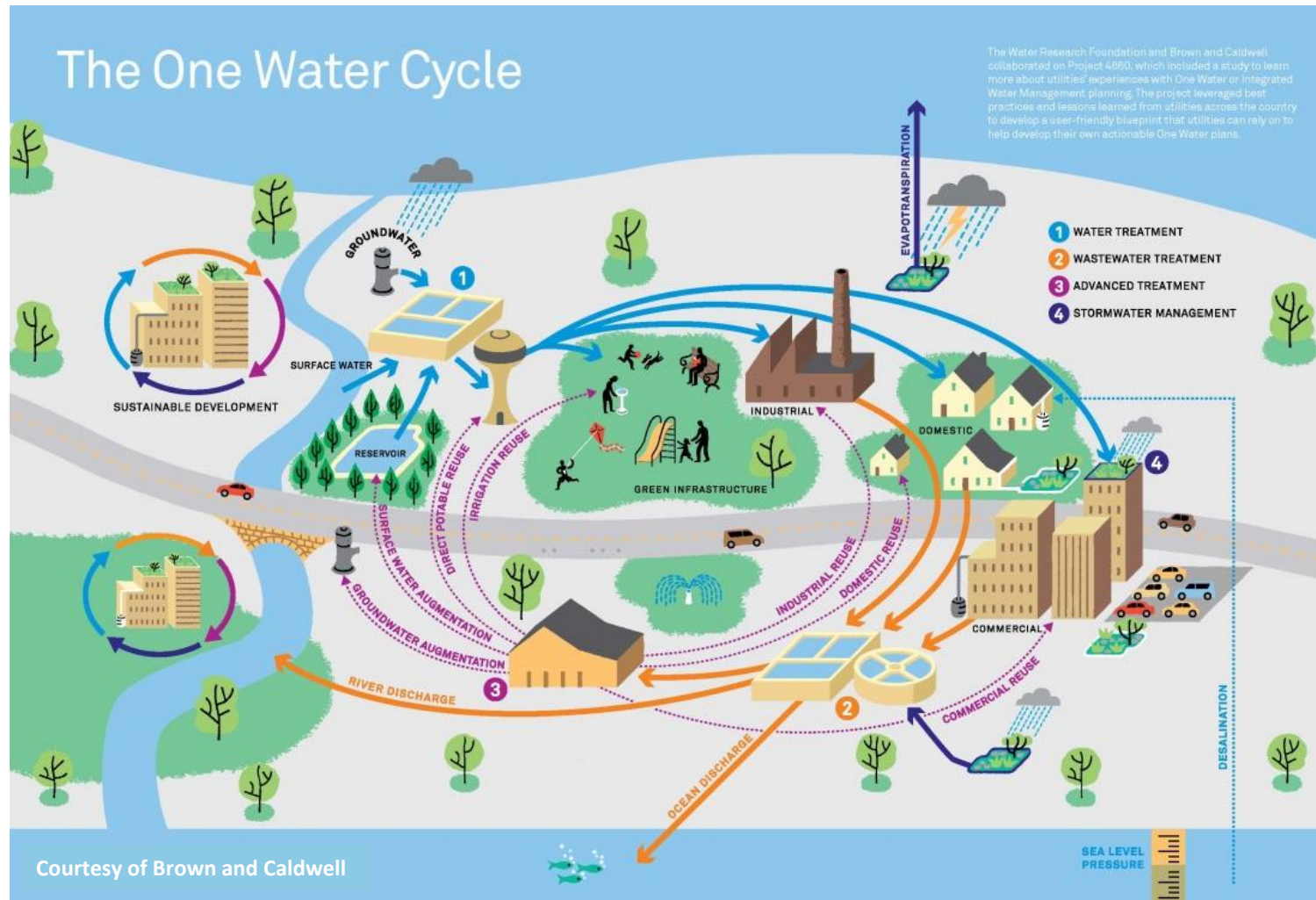
Sustainable

Kuleana

Source: <http://www.boardofwatersupply.com/bws/media/files/publication-water-for-life.pdf>



APPROACH: ONE WATER

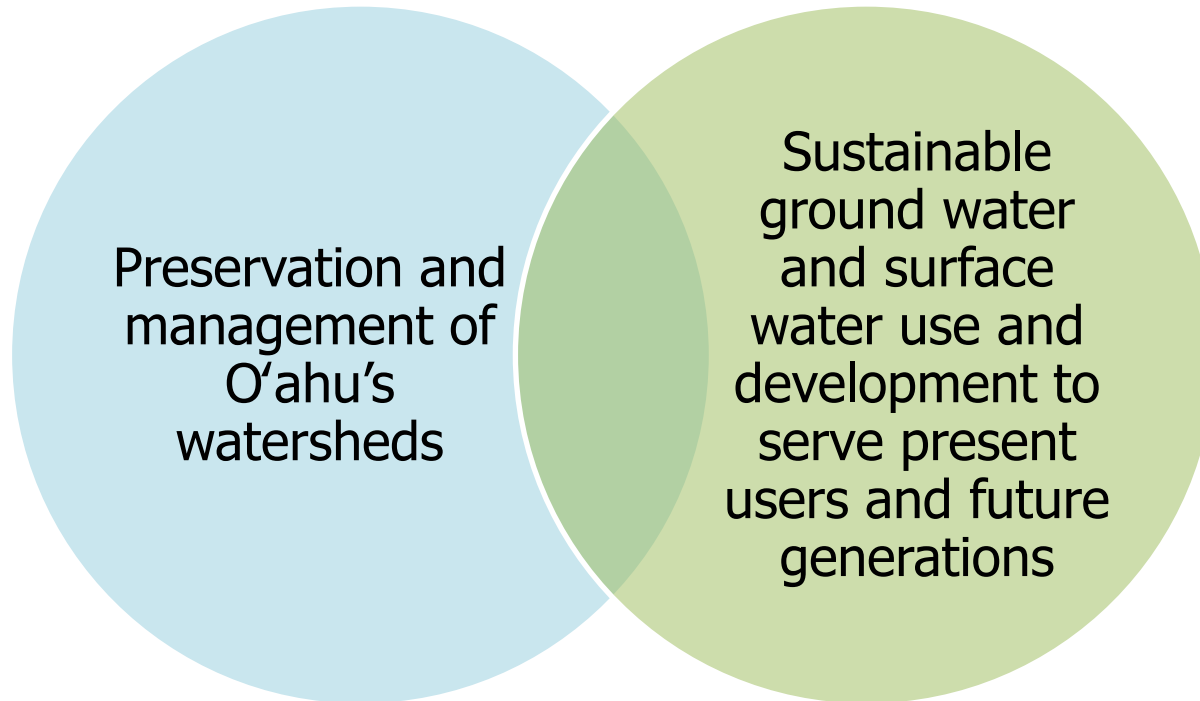




O'AHU WATER MANAGEMENT PLAN

Goal

To formulate an environmentally holistic, community-based, and economically viable watershed management plan that will provide a balance between:





O'AHU WATER MANAGEMENT PLAN

Objectives

Promote sustainable watersheds

Protect and enhance water quality and quantity

Protect native Hawaiian rights and traditional and customary practices

Facilitate public participation, education, and project implementation

Meet future water demands at reasonable costs



Chapters of the PUC WMP

Executive Summary

1. O'ahu Watershed Management Plan Overview

2. Watershed Profile

3. Water Use and Projected Demand

4. Objectives, Water Supply and Watershed Management Projects and Programs

5. Implementation Plan



PRIMARY URBAN CENTER





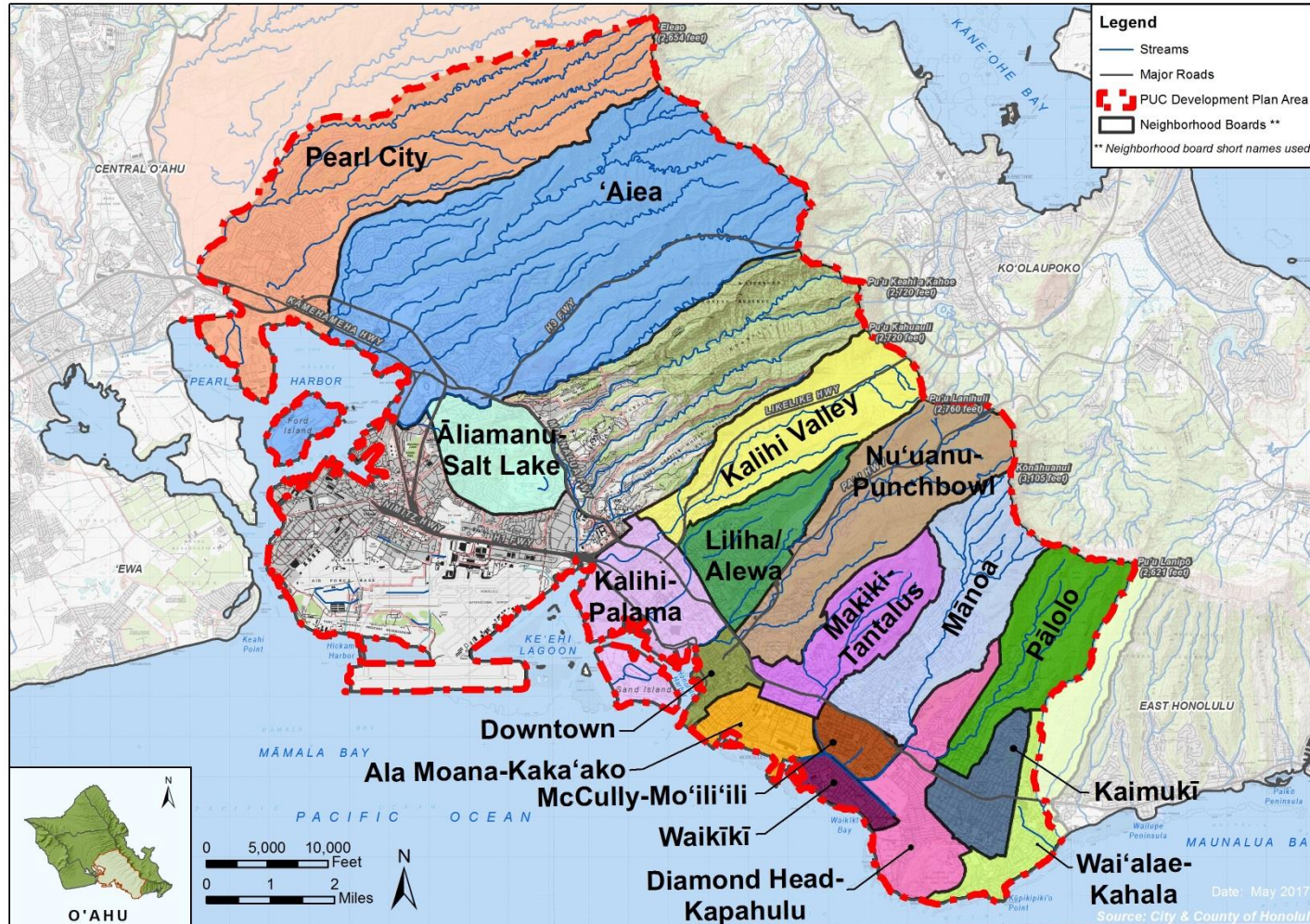
PRIMARY URBAN CENTER

- Kaimukī/Kahala to Pearl City
- Land Area: ~105 square miles (1/6 of O'ahu)
- Population: ~440,000 people
- 47% of the PUC is in Conservation (State land use)
- 17 Watersheds
- 16 Ahupua'a
- 17 Neighborhood Boards

The General Plan of the City and County of Honolulu directs future growth and development to the Primary Urban Center and the 'Ewa district.

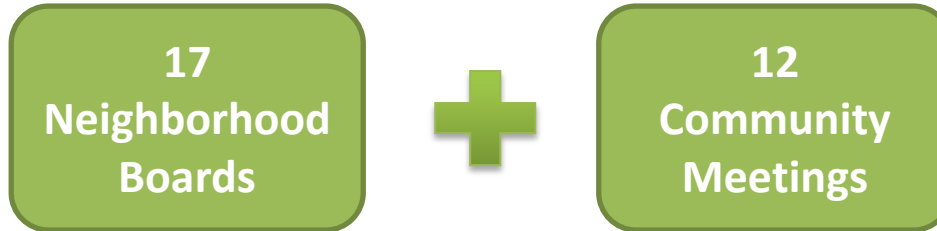


17 PUC Neighborhood Boards





PUC WMP Stakeholder Outreach



Meetings as of May 2017:

STATE AGENCIES

- Department of Land and Natural Resources
 - Commission on Water Resources Management
 - Division of Forestry and Wildlife
- Hawai'i Community Development Authority
- Office of Planning, Coastal Zone Management
- University of Hawai'i
 - Aquifer Research Project
 - Department of Urban and Regional Planning
 - Sea Grant
 - Kanewai Lo'i

COUNTY AGENCIES

- Department of Design and Construction
- Department of Environmental Services
- Department of Facilities Maintenance
- Department of Planning & Permitting
 - Land Use Permits Division
 - Planning Division
 - Site Development Division
 - Transit-Oriented Development
- Mayor Chief of Staff

ORGANIZATIONS/ OTHER

- Ho'oulu 'Āina
- Kamehameha Schools, Commercial Real Estate Division
- Kaonohi Poi
- Ko'olau Mountains Watershed Partnership
- Kumuola Foundation
- Lo'i Kalo Park
- O'ahu Pig Hunters Association
- Stanford Carr Development, LLC
- Waikiki Improvement Association



COMMUNITY MEETINGS

1st Series

(May 2017)

- PUC Watershed Overview and Critical Issues

2nd Series

(Nov 2017)

- PUC Water Use and Future Water Demands

3rd Series

(May 2018)

- PUC Watershed Projects and Strategies

4th Series

(Nov 2018)

- PUC WMP Public Review Draft



17 Watersheds in the PUC

- Waiawa
- Waimalu
- Kalauao
- 'Aiea
- Hālawā

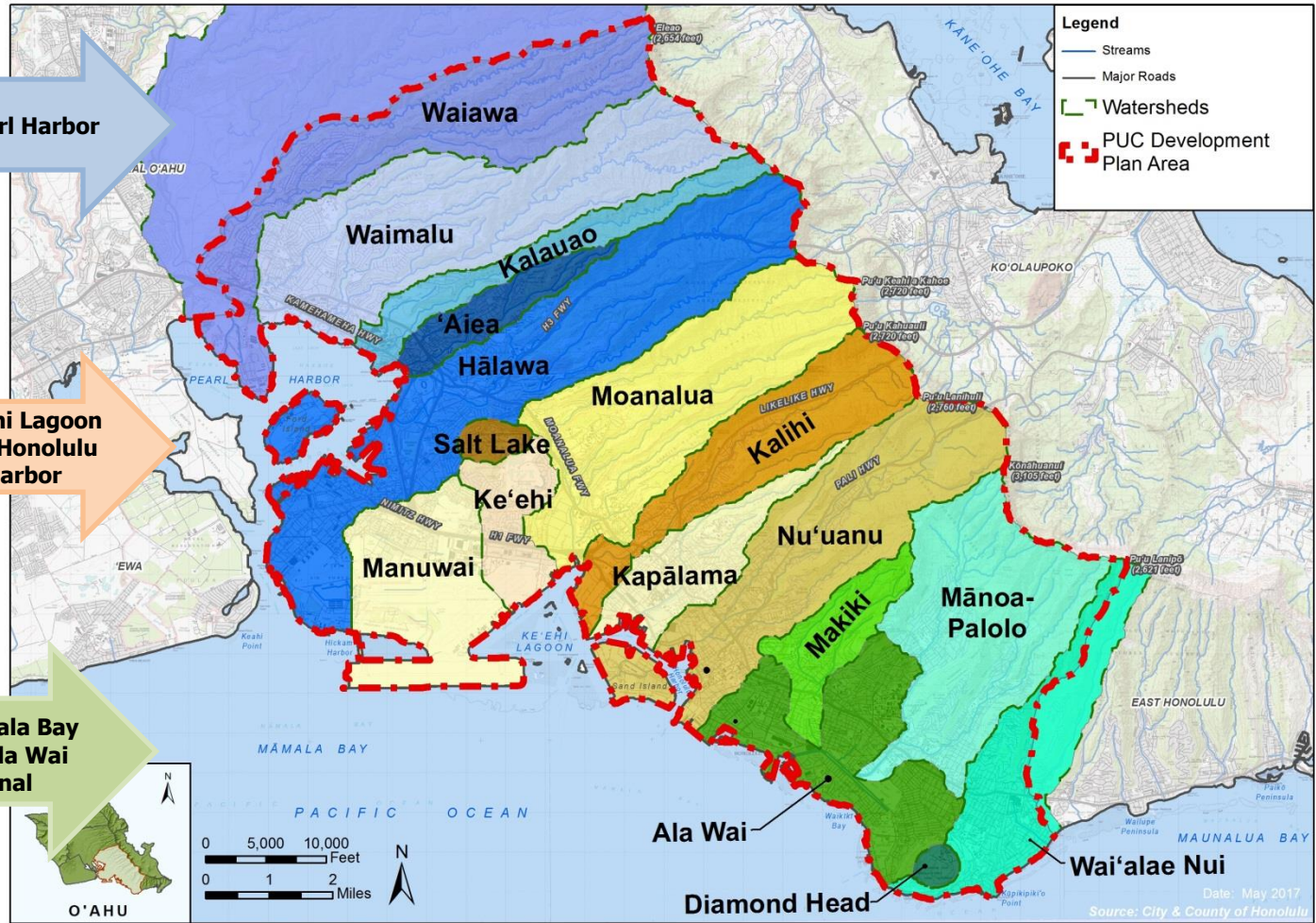
Pearl Harbor

- Salt Lake
- Manuwai
- Ke'ehi
- Moanalua
- Kalihi
- Kapālama
- Nu'uānu

Ke'ehi Lagoon and Honolulu Harbor

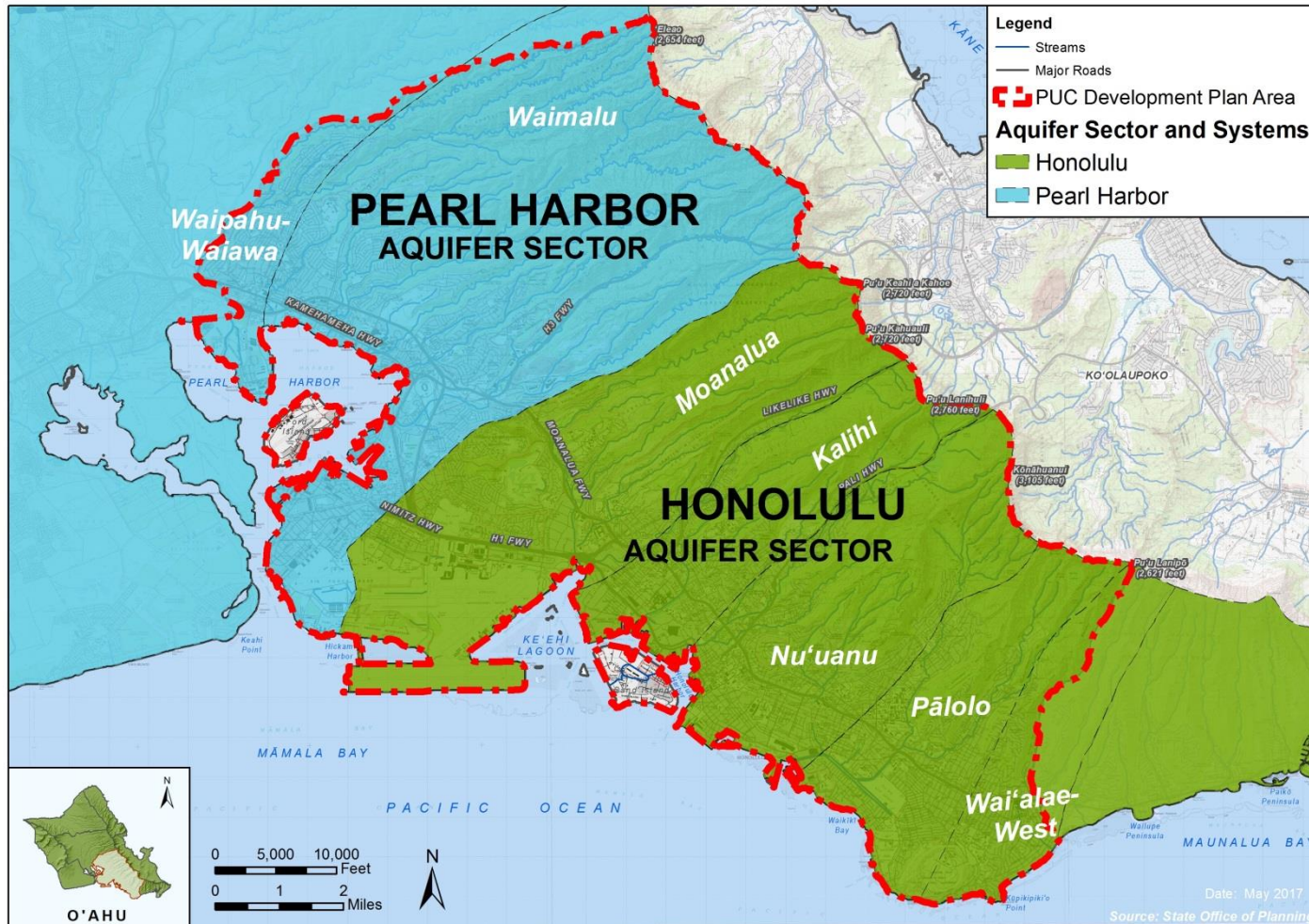
- Makiki
- Mānoa-Palolo
- Ala Wai
- Wa'ialae Nui
- Diamond Head

Māmāla Bay and Ala Wai Canal



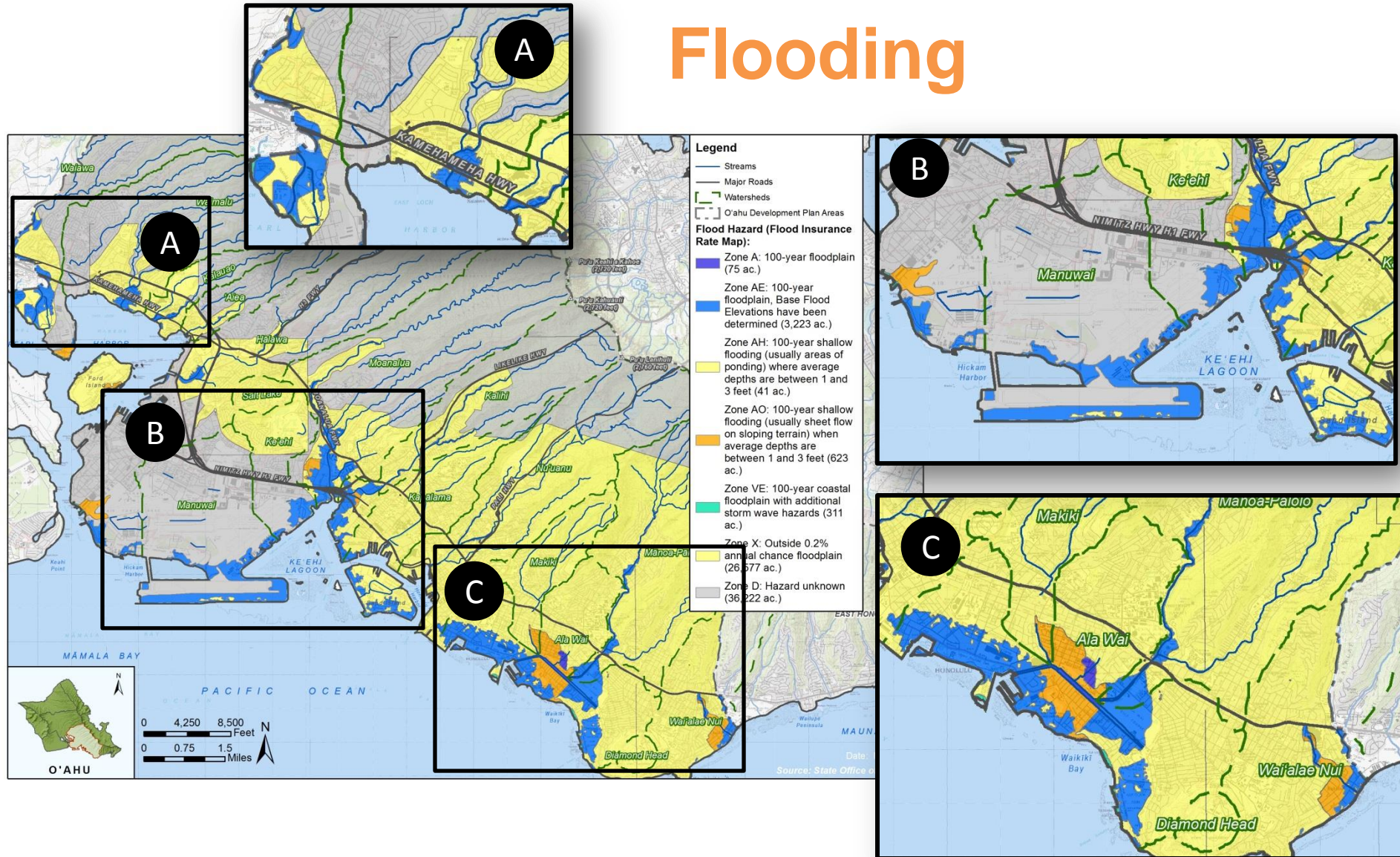


Groundwater Aquifer Systems





Flooding





PRELIMINARY ISSUES AND TOPICS

Climate Change
and Sea Level Rise

Water Quality

New Water Source
Technologies

Stormwater/
Flooding

Future
Development

Traditional and
Cultural Practices

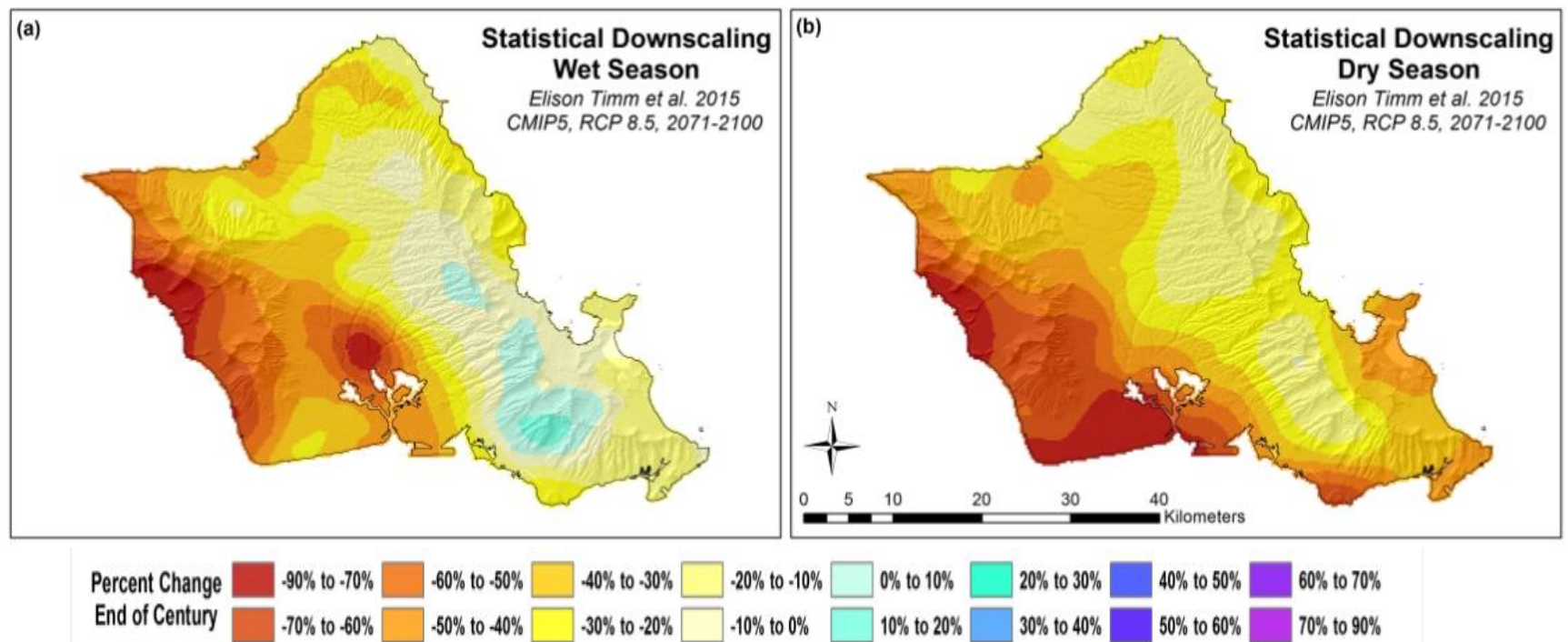
Red Hill Navy
Fuel Tanks

Restoration of
Urban Streams in
the Primary Urban
Center

Restoration of the
Forests in the
Primary Urban
Center

Issue: Climate Change

Rainfall: Dry areas will get drier by 2100



Source: Figure developed by Abby Frazier, UH. Modified from data presented in Helweg et al. 2016



Issue: Future Development

Transit-Oriented Development (TOD)

- TOD Special Districts
- Revisions to zoning and land use regulations following adoption of the Neighborhood TOD Plans
- 15 transit stations planned within the Primary Urban Center





Issue: Forest Restoration



Photo Credit: Hurley, Timothy. Star Advertiser. <http://www.staradvertiser.com/2017/04/12/hawaii-news/coke-pitches-in-to-help-protect-key-source-of-drinking-water/>



NEXT STEPS: PUC WMP SCHEDULE

	Year 1				Year 2				Year 3			
	1	2	3	4	5	6	7	8	9	10	11	12
STAKEHOLDER CONSULTATION	[Active]											
WATERSHED PROFILE	[Active]			★	[Inactive]							
WATER DEMAND ANALYSIS	[Inactive]		[Active]		★	[Inactive]						
PROJECTS AND STRATEGIES	[Inactive]			[Active]		[Active]		★	[Inactive]			
IMPLEMENTATION PLAN	[Inactive]				[Active]				[Inactive]			
PUBLIC REVIEW DRAFT	[Inactive]				[Inactive]		[Active]		[Active]		★	
APPROVALS PROCESS	[Inactive]				[Inactive]				[Active]			

★ = Community Meetings



QUESTIONS



Board of Water Supply

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For more information, please visit:

<http://www.boardofwatersupply.com/water-resources/watershed-management-plan/primary-urban-center-plan>