

EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN TECHNICAL REPORT



1999 TO 2020

Volume 2 of 2

Appendices C to I

**DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
APRIL 2020**

APPENDIX C: VISION SCORECARD

EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN 5-YEAR REVIEW Vision Scorecard

GOAL 1: PROTECT NATURAL, SCENIC, AND CULTURAL RESOURCES								
Agricultural lands and open space outside the Urban Community Boundary have been protected from development since adoption of the Plan. Lands have been acquired by the City and the State to allow creation of the Ka Iwi scenic shoreline area.								
Vision Element Indicators	ACHIEVEMENTS							
	2040 GOAL	HISTORICAL TRENDS			PROJECTIONS			ACHIEVEMENTS DISCUSSION
		2000	2010	2015	2020	2030	2040	
Establish Urban Community, Agriculture and Preservation Boundaries								
1. Establishment and Enforcement of Urban Community Boundary (UCB) / Community Growth Boundary (CGB)	No urban development approved outside CGB	n/a	No DPs and SCPs switch to CGB	No	No	No	No	A project submitted before the adoption of the SCP for lands outside the CGB was approved after the SCP was adopted. Since then, no land outside the CGB has been rezoned to residential or commercial.
2. Status of undeveloped Urban District lands identified as susceptible to hazards including: sea level rise, flooding, severe coastal storms, and wildfires	Avoid development of hazardous areas	n/a	No	No	No	No	No	Boulder falls caused extensive activity by Castle & Cooke and by Schuler to reduce threats to Hawaii Kai projects.
3. Status of Acres of Agricultural Land under long-term leases in Kamilonui Valley and adjacent to Kaiser High School	Support agricultural uses and retain existing acreage. No urban development of agricultural lands	n/a	Develo per interest No action	New leases	No	?	?	Kamilo Nui Valley farm lots and farm lots adjacent to Kaiser High School have not been developed. Ag leases for Kamilonui valley were negotiated in 2015.
4. Status of undeveloped areas in Kamilo Nui Valley which are adjacent to existing agricultural areas	Support agricultural uses. No urban dev adjacent to farming areas	n/a	No	No	Completion of cemetery			Cemetery approved for area adjacent to Kamilonui Valley agricultural lands.

EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN 5-YEAR REVIEW Vision Scorecard

Vision Element Indicators	ACHIEVEMENTS							ACHIEVEMENTS DISCUSSION
	2040 GOAL	HISTORICAL TRENDS			PROJECTIONS			
		2000	2010	2015	2020	2030	2040	
5. Capacity for Growth (housing units)	Provide sufficient capacity for projected growth. 3,100 potential new units sufficient for 1999 to 2020.	2,600 ¹ 17,099 total units	3,100 ²	- 19,745 units	- 20,141 Total units	More Mixed-Use ?	More Mixed-Use ?	¹ Estimate of capacity in 1999 EH SCP was 2,600 ² 2010 calculation is approx 3,100 new units without adjusting the CGB
6. Acres in Preservation zoning	Protect significant natural landscape features, especially those visible from Kalaniana'ole Highway. Acres retained in Preservation			9319 acres in P-1 1248 acres in P-2	No	No	No	Maintain CGB
Preserve the Scenic Value of the Koko Head-Makapuu Viewshed								
7. Ka Iwi Scenic Shoreline District	Create the Ka Iwi Scenic Shoreline District	State acquire land in 2001; City near Sandy Beach in 2002	215 Acres from U to C	Public buyout of 2 mauka parcels of 182 acres	Designate approx. 227 acres from the trust purchase and adjacent lands from Urban to Conservation. Potential trail improvements.			Ka Iwi Shoreline 215 acres changed from Urban to Conservation. Proposal to build vacation cabins as an accessory use rejected by DPP. Mauka lands purchased for protection.
Maintain the Urban Form of Ridge-and-Valley Neighborhoods								
8. Development in in-fill areas	Growth should occur by in-filling existing areas, not on steep slopes, higher elevations, undeveloped mountain ridges and valley walls or deep recesses of valleys	17,099 units		19,745 units	361 new units: 297 for Hale ali'i 35 H Loa Ridge 17 Na pali Haweo 12 Waialae Iki		3,042 new units	Continue to preserve and enforce CGB encouraging any growth that occurs to be within CGB.

EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN 5-YEAR REVIEW Vision Scorecard

Vision Element Indicators	ACHIEVEMENTS							ACHIEVEMENTS DISCUSSION
	2040 GOAL	HISTORICAL TRENDS			PROJECTIONS			
		2000	2010	2015	2020	2030	2040	
Expand Access to Recreational Areas								
9. Mountain Trails	Preserve existing access and seek to restore access to historic trails	10.5 mi in DLNR, 17 trails inventory		Mariners Ridge closed to public	Repair KC Stairs, Open Wailupe NP			Enforce access agreements. Reduce conflict with gated communities including Kamehame Ridge. Address liability issue.
10. Shoreline Access	Preserve and restore lateral and mauka-makai access	Issues of public access to alleys		Portlock issues Paiko issues	Pedestrian improvements in Hawaii Kai along Kam Hwy. Portlock alleys remain private and open. Paiko Resolved			
11. Ka Iwi Scenic Shoreline (Queen's Beach and Lighthouse)	Balance recreational access and historical and environmental protection		More parking near lighthouse trail	Trail improvements	Open trails on trust purchased land to take pressure off of the Koolau Spine (Makapuu Tomtom) trail and Kuli'ou'ou			
Protect and Preserve Natural Areas								
12. Paiko Lagoon Wildlife Sanctuary			Blocking access, grading	Buy fishpond			Ready for SLR	Restore access. Routine maintenance and monitoring of algae. Classroom
13. Ihihilauakea Preserve	Preserve habitat							Recognize Koko Head Trail
14. Hanauma Bay Marine Life Conservation District	Balance marine conservation with recreational use							Change justification for visitor limits or adjust limits.
15. Paiko Ridge	In conservation and zoned preservation.		Failed buyout					
16. Ka Iwi Scenic Shoreline	See #11			Mauka buyout				

EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN 5-YEAR REVIEW Vision Scorecard

GOAL 2: GUIDE RESIDENTIAL AND COMMERCIAL DEVELOPMENT TO SUSTAIN EXISTING COMMUNITY QUALITIES WHILE MEETING NEW NEEDS.

Significant residential development has occurred in recent years, including development of Market and affordable senior units. Commercial development has been primarily in-fill and redevelopment.

Vision Element Indicators	ACHIEVEMENTS							ACHIEVEMENTS DISCUSSION
	2040 GOAL	HISTORICAL TRENDS			PROJECTIONS			
		2000	2010	2015	2020	2025*	2040	
Adapt Housing Supply to Changing Demographics to Create Stability								
Population Average Increase (Decrease) Per Year from Ten Years Previous		46,735	49,914	48,900	51,514	50,627	49,985	Aging population and declining household size leads to population decrease
		108	3,179	(1,014)	2,614	(-887)	(-642)	
Population Share of Oahu Total	General Plan objective for 2020 is 5.3% or less	5.3%	5.8%		5.1%	4.9%	4.6%	East Honolulu population share is close to the GP objective
Housing Units		17,099	18,774	19,745	19,991	19,945	20,283	5 major residential projects in Hawaii Kai and Kalama Valley
Average Growth per Year		145/yr	-	194/yr	49/yr	(9/yr)	23/yr	
Housing for Seniors	Provide housing for aging population							Hawaii Kai Retirement and Assisted Living Community, Hale Ali'i, Kahala Nui, Kalama Valley
Housing for Multi-generational Households	Encourage mixed-use development and ADUs							
Focus Commercial Centers on Serving the Region								
Aina Haina Shopping Center	Expansion limited to residual development capacity. No new commercial areas added							Remodeled in 2011-2012. No change in size.
Niu Shopping Center	Expansion limited to residual development capacity. No new commercial areas added							Purchase of center for use by church

EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN 5-YEAR REVIEW Vision Scorecard

Vision Element Indicators	ACHIEVEMENTS							ACHIEVEMENTS DISCUSSION
	2040 GOAL	HISTORICAL TRENDS			PROJECTIONS			
		2000	2010	2015	2020	2030	2040	
Hahaione Shopping Center	Expansion limited to residual development capacity. No new commercial areas added							No change.
Kalama Shopping Center	Expansion limited to residual development capacity. No new commercial areas added							High vacancies. Only two businesses. Possible renewal or redevelopment.
Koko Marina Shopping Center	Expansion limited to residual development capacity. No new commercial areas added							Renewal and redevelopment activities. Greater pedestrian access needed. Develop waterfront features. Potential mixed-use split-level.
Hawaii Kai Shopping Center	Expansion limited to residual development capacity. No new commercial areas added							No change.
Hawaii Kai Towne Center	Expansion limited to residual development capacity. No new commercial areas added							Costco expansion complete. Pedestrian waterfront improvements and orientation needed. Potential mixed-use split-level.

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APPENDIX D: SCENIC VIEW INVENTORY 2016



VIEW SHEET 1 - Kahala Golf Course from Kalaniana'ole Highway



1. View of Kahala Golf Course at Kalaniana'ole On Ramp



2. View of Kahala Golf Course at Kalaniana'ole On Ramp



VIEW SHEET 2 - Wailupe & Aina Haina



3. Wailupe Beach Park from Kalaniana'ole Highway (A)



4. Wailupe Beach Park from Kalaniana'ole Highway (B)



5. Wailupe Beach Park View Toward Diamond Head



6. Wailupe Valley at West Hind Drive



7. Wailupe Valley from East Hind Drive

VIEW SHEET 3 - Kawaikui Beach Park



8. Kawaikui Beach Park from Kalaniana'ole Highway



9. Kawaikui Beach Park



10. Kawaikui Beach Park



11. Kawaikui Beach Park View Toward Diamond Head



12. Kawaikui Beach Park View Toward Koko Head



VIEW SHEET 4 – Niu Valley and Kuliouou Valley from Kalanianaʻole Highway



13. Niu Valley from Kalanianaʻole Highway



14. Moomuku Place in Kuliouou Valley



15. Kuliouou Valley from at Kuliouou Road /Kalaniana'ole Hwy



VIEW SHEET 5 - Maunalua Bay Beach Park



16. Maunalua Bay Beach Park at Canoe House



17. Maunalua Bay Beach Park View Toward Diamond Head



18. “Great Lawn” from Maunalua Bay Beach Park



19. Maunalua Bay Beach Park Looking West



20. View of Koko Head from Maunalua Bay Beach Park



21. Maunalua Bay Towards Koko Head



VIEW SHEET 6 - Kuapa Pond Lookout & Hanauma Bay



22. View Toward Diamond Head from Kuapa Pond Lookout



23. Hawaii Kai from Lookout near Hanauma Bay Entrance



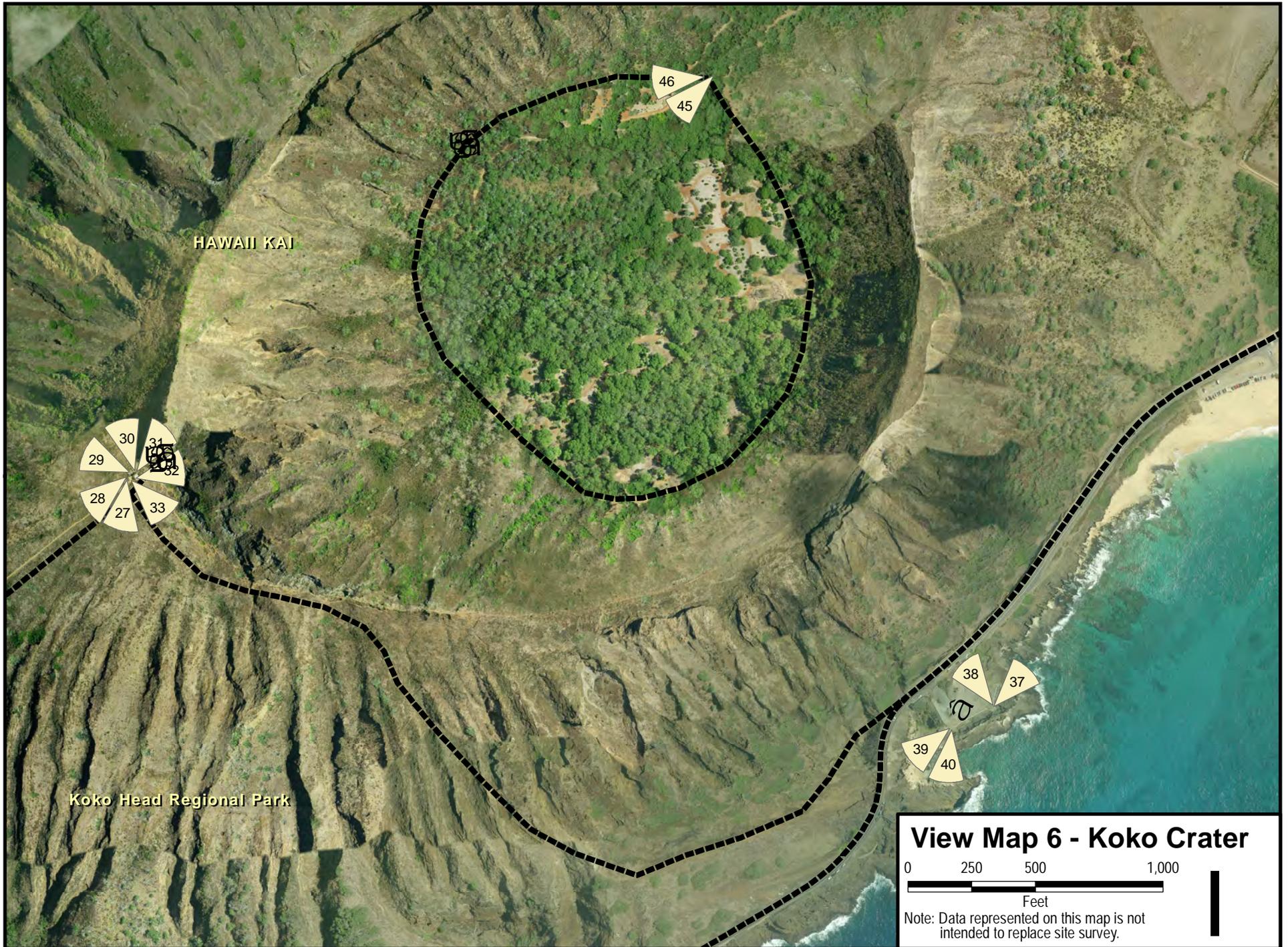
24. Mariner's Ridge & Hawaii Kai from Kuapa Pond Lookout



25. Koko Crater from Kuapa Pond Lookout Viewpoint



26. Hanauma Bay from Viewpoint at Visitor Entry Area



VIEW SHEET 7 - Views from Koko Crater Peak



27. Hanauma Bay & Shooting Range from Koko Crater Peak



28. Diamond Head & Maunalua Bay from Koko Crater Peak



29. Lower Hawaii Kai from Koko Crater Peak



30. Hawaii Kai and Mariner's Ridge from Koko Crater Peak



31. Upper Hawaii Kai from Koko Crater Peak



32. Kamehame Ridge and Kalama Valley from Koko Crater Peak



33. Sandy Beach and Golf Course from Koko Crater Peak

VIEW SHEET 8 - Ka Iwi Scenic By-way



34. Ka Iwi Coastline From Lanai Viewpoint



35. Koko Crater from Lanai Viewpoint

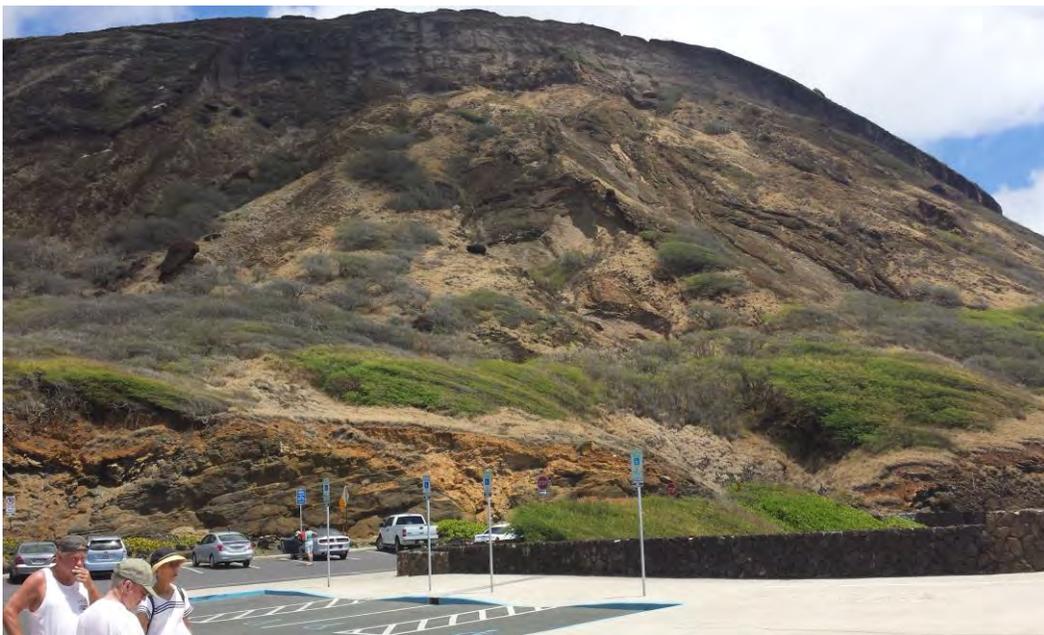


36. Ka Iwi Coast & Kalanianaʻole Highway From Lanai Viewpoint

VIEW SHEET 9 - Halona Blowhole



37. Ka Iwi Coastline & Sandy Beach from Halona Blowhole Lookout



38. Koko Crater from Halona Blowhole Visitor Lookout



39. Kahauloa Cove Beach from Lanai Lookout



40. Kahauloa Cove Beach With Heiau on Rocks Above



VIEW SHEET 10 - Sandy Beach Park



41. Ka Iwi Coast and Koko Crater from Sandy Beach Park



42. Koko Crater from Sandy Beach Park



43. Koolau Range from Sandy Beach Park



44. View Toward Makapuu from Sandy Beach Park

VIEW SHEET 11 – Koko Crater Botanical Garden



45. Koko Crater Botanical Garden Entrance



46. Tree Overhangs along the Botanical Garden Trail



VIEW SHEET 12 – Makapuu Lookout, Trail, and Lighthouse



47. Waimanalo and Manana “Rabbit” Island from Makapuu Lighthouse Overlook



48. Makapuu Lighthouse from Overlook



49. Makapuu Lighthouse from East Trail



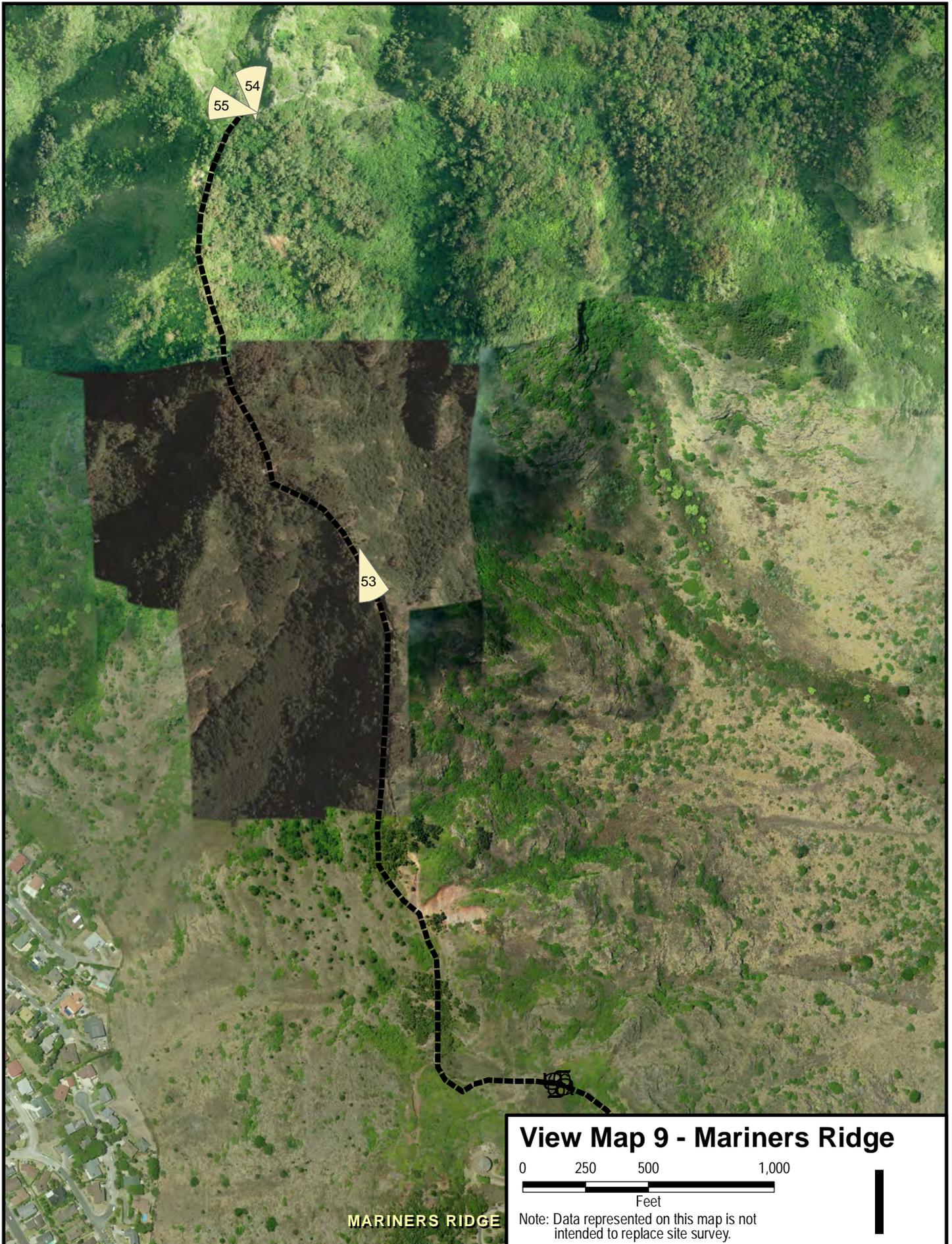
50. Makapuu Tide Pools



51. Koko Crater from Makapuu Lighthouse Trail



52. View through Saddle along Makapuu Trail



VIEW SHEET 13 – Mariners Ridge



53. Koko Crater and Koko Head from Mariners Ridge Trail



54. View of Waimanalo from Mariners Ridge Trail Summit



55. View of Koolau Ridge Spine from Trail Summit



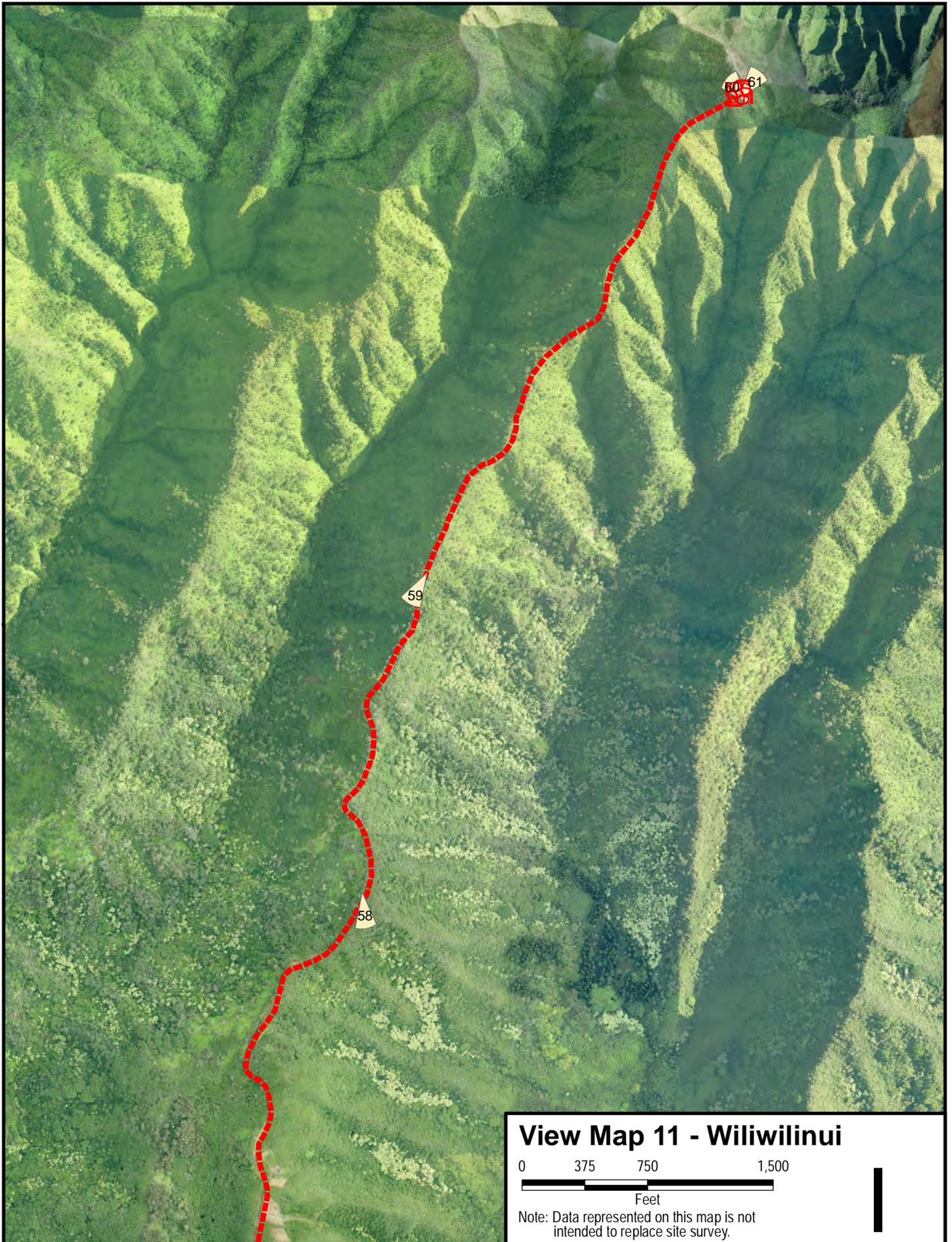
VIEW SHEET 14 – Kuliouou Ridge Summit



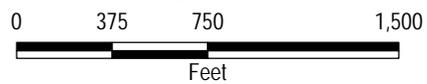
56. View toward Makapuu from Kuliouou Ridge Summit



57. View of East Honolulu from Summit



View Map 11 - Wiliwilinui



Note: Data represented on this map is not intended to replace site survey.



VIEW SHEET 15 – Wiliwilinui Trail



58. View of Aina Haina from Wiliwilinui Trail



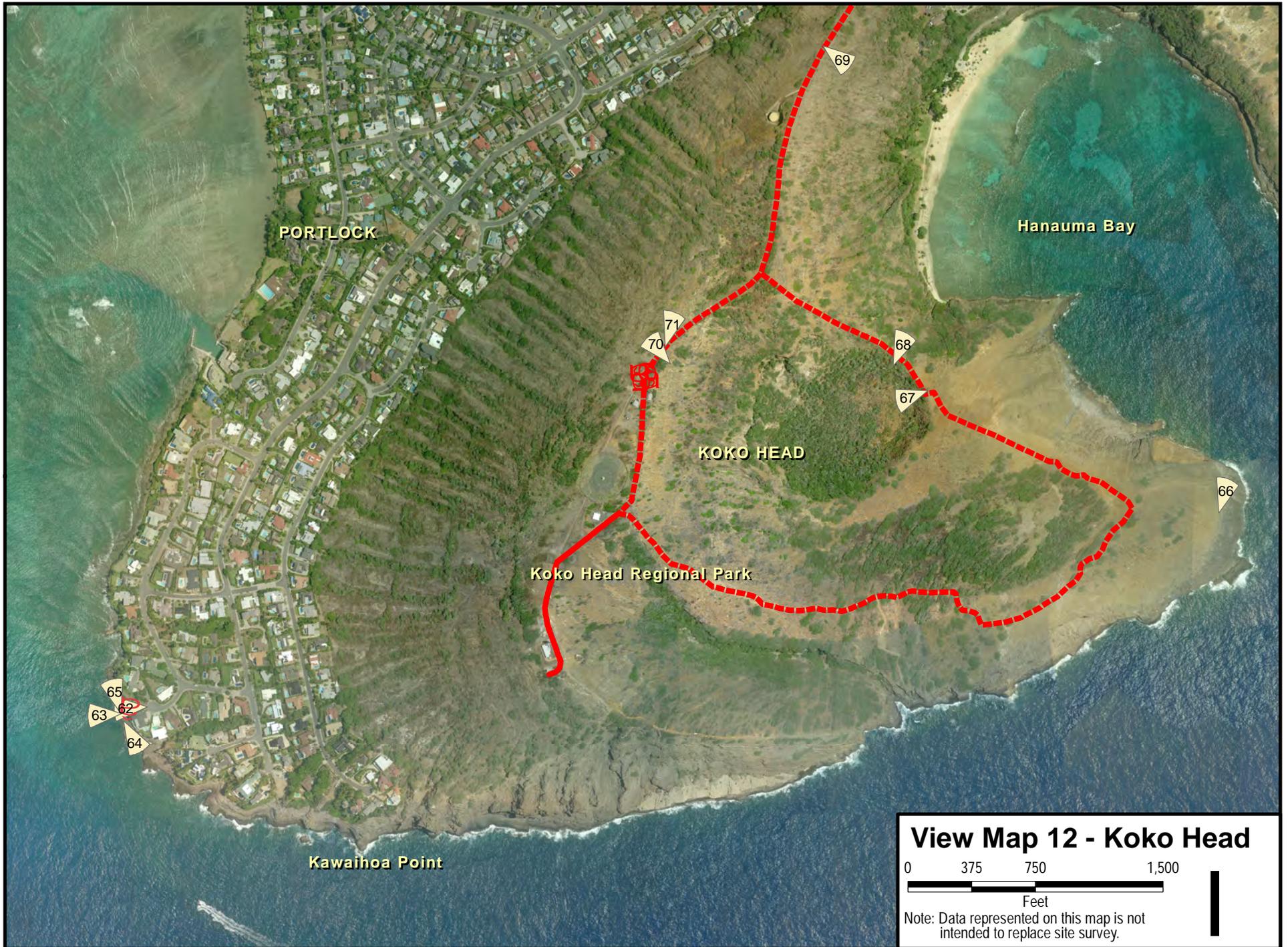
59. View toward Waikiki along Wiliwilinui Trail



60. View toward Kaneohe and Koolau Spine from Trail Summit



61. View toward Kailua from Wiliwilinui Trail Summit



VIEW SHEET 16 – Portlock and China Walls



62. View toward Diamond Head from Koko Kai Beach park



63. View Toward Diamond Head across Maunalua Bay



64. View South from China Walls



65. View North Toward Kuliouou across Maunalua Bay

VIEW SHEET 17 – Koko Head Trail



66. Koko Crater and Makapuu



67. Nonoula Below the Summit of Koko Head



68. Hanauma Bay and Koko Crater



69. Above Hanauma Bay Along the Access Road



70. Kuapa Pond from Koko Head Summit



71. Koko Crater from Koko Head Summit



View Map 13 - Kaulana Kaiole

0 375 750 1,500

Feet

Note: Data represented on this map is not intended to replace site survey.

VIEW SHEET 18 – Kaulanaakaiole Trail and Koolau Spine



72. View toward Makapuu along Koolau Spine Trail



73. Lanikai and Kaneohe MCBH Along Spine Trail



74. Manana and Kaohikaipu Islands from Kaulanaakaiole Puka



VIEW SHEET 19 – Koko Crater Saddle along Hawaii Kai Drive

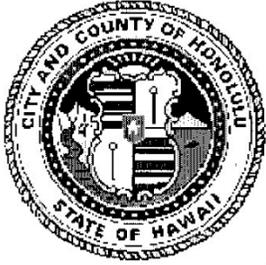


75. At the top of the Hawaii Kai Saddle toward Kalama Valley



76. View near Hawaii Kai GC toward Kalama Valley

**APPENDIX E: JANUARY 2005 ORIENTATION WORKSHOP
DOCUMENTATION**



City and County of Honolulu

**DEPARTMENT OF
PLANNING & PERMITTING**

PUBLIC WORKSHOP I

**ORIENTATION/COMMUNITY COMMENTS & QUESTIONS
East Honolulu Sustainable Communities Plan
Five Year Review**

Saturday, January 15, 2005
8:30 AM – 12:30 PM

Aina Haina Public Library
Meeting Room
5246 Kalanianaʻole Highway
Honolulu, HI 96824

AGENDA

- 8:00 AM Registration/Talk Story
- 8:30 AM Plan and Program Orientation:
 - East Honolulu SCP Overview
 - East Honolulu SCP Digest
 - Five Year Review Program
- 9:00 AM Questions and Answers
- 9:15 AM Refreshment Break
- 9:30 AM Where We Have Been and Where We Are Going
 - Vision Scorecard
 - Issues Listing
 - Known Projects
- 10:00 AM Questions and Answers
- 10:30 AM Issues Discussion Groups I
- 11:15 AM Issues Discussion Groups II
- 12:00 Noon Summing Up
 - What's Next
- 12:30 PM Formal Program Pau/ Staff Available for Q & A

EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN FIVE YEAR REVIEW

- Required by the Ordinance that adopted the Plan in 1999
- **Workprogram Steps**
 - Community Interviews (Underway)
 - Workshop I: Orientation/Community Comments & Questions (Nov 20)
 - Inventory Comments/Draft Report/Plan Preparation
 - Workshop II: Community Review of Draft Report/Plan
 - Inventory of Comments
 - Final Report Preparation and Distribution
 - Public Information Meeting/Neighborhood Board Briefings
 - Planning Commission Hearing
 - City Council Review (Three formal votes, 1 public hearing)

You are invited to participate in the Five Year Review of the East Honolulu Sustainable Communities Plan (SCP). An Orientation Workshop will be held on January 15, 2005 at the Aina Haina Library Meeting Room from 8:30 am to 12:30 pm. See the flyer on the other side for more information.

For information about additional opportunities to provide comments and suggestions on the East Honolulu SCP, contact Bob Stanfield at the Department of Planning & Permitting by

- mail at 650 South King Street, 7th Floor, Honolulu, Hawaii 96813;
- by e-mail at bstanfield@co.honolulu.hi.us;
- by fax at 527-6743; or by voice mail at 527-6094.

Information about the East Honolulu SCP and the Review is also available at the Planning Division web page <http://www.honolulu.dpp.org/Planning/>

City and County of Honolulu
Department of Planning and Permitting
650 S. King Street, 7th Floor
Honolulu, Hawaii 96813

EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN

FIVE YEAR REVIEW

Development Plan Areas



ORGANIZATION OF THE PLAN:

1. **East Honolulu's Role in Oahu's Development Pattern**
 2. The Vision for East Honolulu's Future
 3. Land Use Policies, Principles and Guidelines
 4. Public Facilities and Infrastructure Policies and Principles
 5. Implementation
- Appendix: Illustrative Maps

GENERAL PLAN: Directed Growth Policies

I. Population, Objective C

To establish a pattern of population distribution that will allow the people of Oahu to live and work in harmony.

Policy 1

Facilitate the full development of the Primary Urban Center.

Policy 2

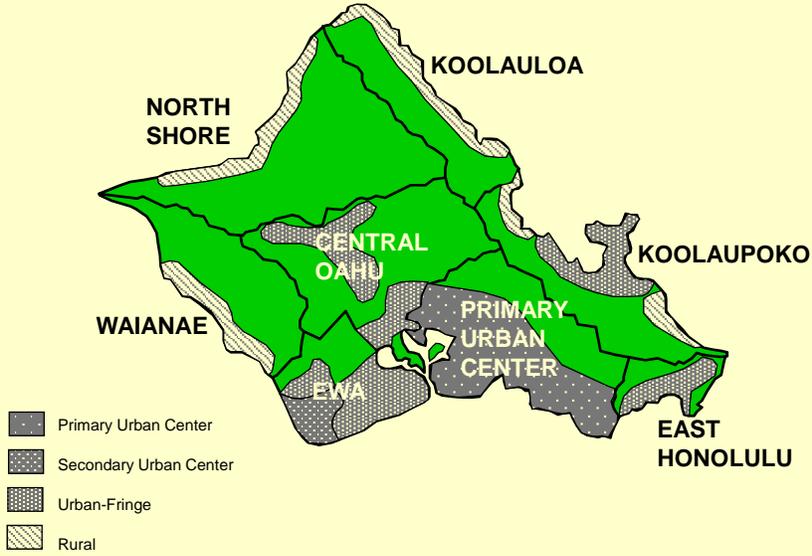
Encourage development within the secondary urban center at Kapolei and the Ewa and Central Oahu urban-fringe areas to relieve developmental pressures in the remaining urban-fringe and rural areas and to meet housing needs not readily provided in the Primary Urban Center.

Policy 3

Manage physical growth and development in the urban-fringe and rural areas so that:

- a. An undesirable spreading of population is prevented; and
- b. Their population densities are consistent with the character of development and environmental qualities desired for such areas.

1. East Honolulu's Role in Oahu's Development Pattern



1. East Honolulu's Role in Oahu's Development Pattern

ORGANIZATION OF THE PLAN:

1. East Honolulu's Role in Oahu's Development Pattern

2. The Vision for East Honolulu's Future

3. Land Use Policies, Principles and Guidelines

4. Public Facilities and Infrastructure Policies and Principles

5. Implementation

Appendix: Illustrative Maps

THE VISION FOR EAST HONOLULU

PROTECT THE COMMUNITY'S NATURAL, SCENIC, CULTURAL AND HISTORICAL RESOURCES:

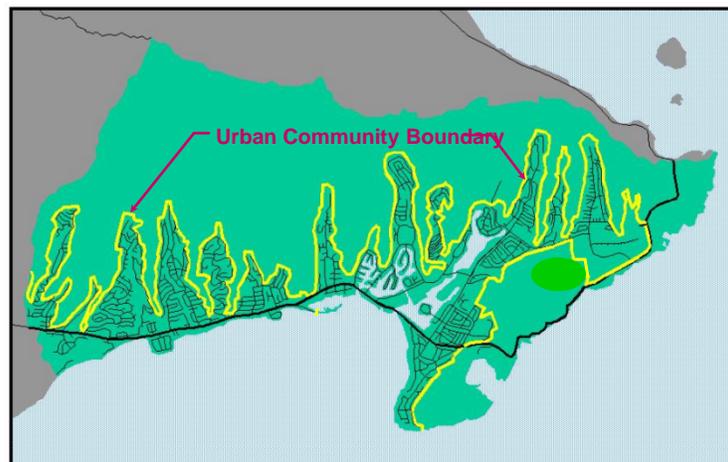
- ESTABLISH AN URBAN GROWTH BOUNDARY
- PRESERVE THE KOKO HEAD-MAKAPUU VIEWSHED
- MAINTAIN THE FORM OF THE RIDGE AND VALLEY NEIGHBORHOODS
- EXPAND ACCESS TO MOUNTAIN AND SHORELINE RECREATION AREAS
- PROTECT AND PRESERVE NATURAL AREAS

ADAPT HOUSING TO ACCOMMODATE A MODEST INCREASE IN RESIDENTS AND THE AGING OF POPULATION

FOCUS COMMERCIAL CENTERS ON SERVING EAST HONOLULU

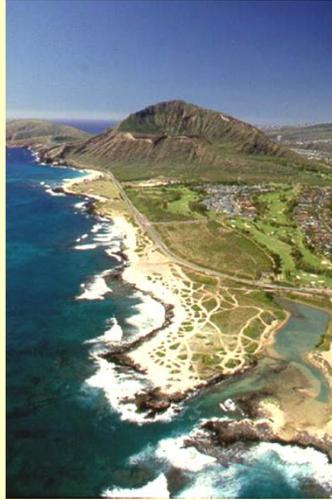
KEY ELEMENTS OF THE VISION

- Establish an Urban Growth Boundary



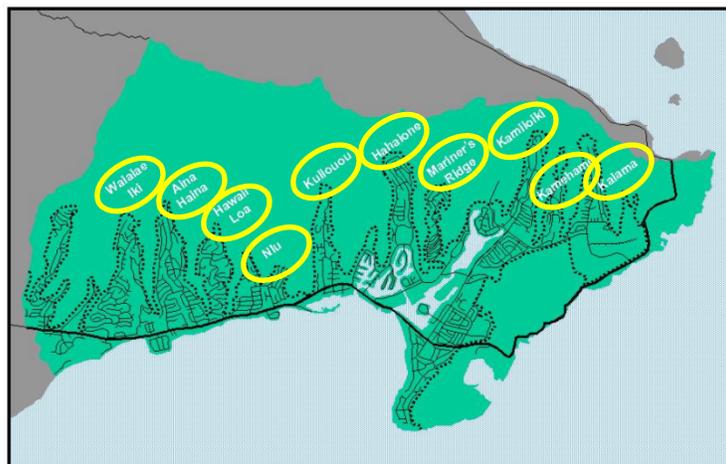
KEY ELEMENTS OF THE VISION:

Preserve the scenic value of the Koko Head-Makapuu viewshed



KEY ELEMENTS OF THE VISION:

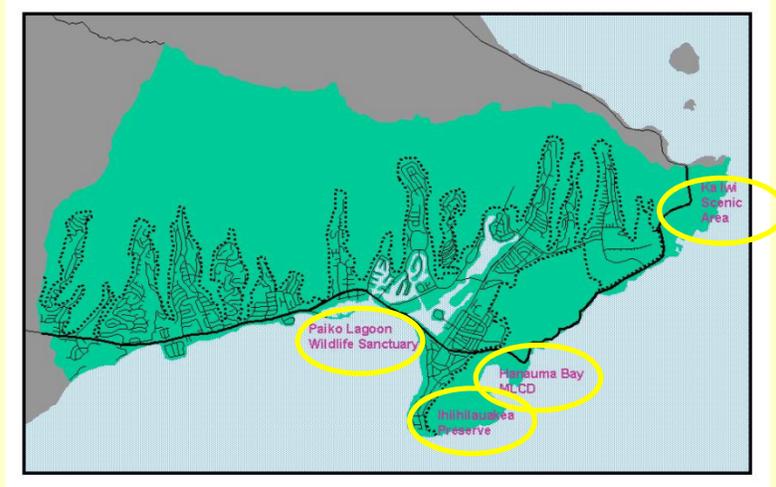
Maintain the ridge-and-valley urban form of neighborhoods



KEY ELEMENTS OF THE VISION:
Expand access to recreational areas



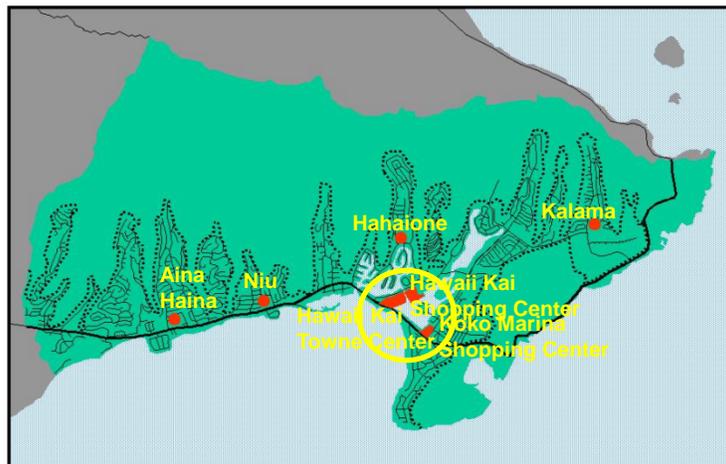
KEY ELEMENTS OF THE VISION:
Protect and preserve natural areas



KEY ELEMENTS OF THE VISION:
Adapt housing supply to changing demographics



KEY ELEMENTS OF THE VISION:
Focus commercial centers on serving the region's neighborhoods



ORGANIZATION OF THE PLAN:

- 1. East Honolulu's Role in Oahu's Development Pattern**
- 2. The Vision for East Honolulu's Future**

3. Land Use Policies, Principles and Guidelines

- 4. Public Facilities and Infrastructure Policies and Principles**
- 5. Implementation**

Appendix: Illustrative Maps

• Open Space Preservation and Development

- Provide passive and active open spaces
- Promote accessibility of recreational open space
- Enhance the visual and physical definition of urban areas
- Plan dual use of roadway and drainage corridors

• Island-Based Parks and Recreation Areas

- Use appropriate screening and siting
- Assure environmental compatibility
- Employ community integration

• Community-Based Parks

- Increase the inventory of community-based parks
- Modify existing park facilities and increase the use of school facilities to satisfy changing demographic trends and recreational requirements
- Encourage new developments to dedicate suitable park lands in lieu of paying park dedication fees

**East Honolulu Sustainable Communities Plan
Five Year Review**

- **Historic and Cultural Resources**
 - Promote preservation and protection
 - Plan and design to ensure compatible settings
 - Determine the best type and degree of access

- **Residential Use**
 - Enhance the physical character and definition of neighborhoods
 - Encourage development of transit-, bicycle- and pedestrian-oriented streets
 - Assure provision of an appropriate variety of housing types
 - Use environmentally compatible design strategies

- **Non-Residential Development**
 - Define scale and purpose of Neighborhood Commercial Centers
 - Encourage an appropriate mix of uses in the Regional Town Center
 - Provide physical linkages and accessibility
 - Employ appropriate scale and architectural style
 - Use environmentally compatible design strategies

3. Land Use Policies, Principles and Guidelines

**East Honolulu Sustainable Communities Plan
Five Year Review**

ORGANIZATION OF THE PLAN:

1. East Honolulu's Role in Oahu's Development Pattern
2. The Vision for East Honolulu's Future
3. Land Use Policies, Principles and Guidelines
4. **Public Facilities and Infrastructure Policies and Principles**

5. Implementation

Appendix: Illustrative Maps

**East Honolulu Sustainable Communities Plan
Five Year Review**

- **Transportation Systems**
 - Roadway network
 - Transit system
 - Bikeway system
- **Water Systems Development**
 - Development and allocation of potable water
 - Water conservation measures, including effluent re-use for irrigation
- **Wastewater Treatment**
 - Sand Island Wastewater Treatment Plant
 - East Honolulu Wastewater Treatment Plant
- **Electrical Power Development**
- **Solid Waste Handling and Disposal**
- **Drainage Systems**
 - Retention and detention
 - Stream channel improvements
- **School Facilities**
- **Civic and Public Safety Facilities**
 - Satellite City Hall
 - Police, fire and ambulance facilities

4. Public Facilities and Infrastructure Policies and Principles

**East Honolulu Sustainable Communities Plan
Five Year Review**

ORGANIZATION OF THE PLAN:

1. East Honolulu's Role in Oahu's Development Pattern
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5. Implementation

Appendix: Illustrative Maps

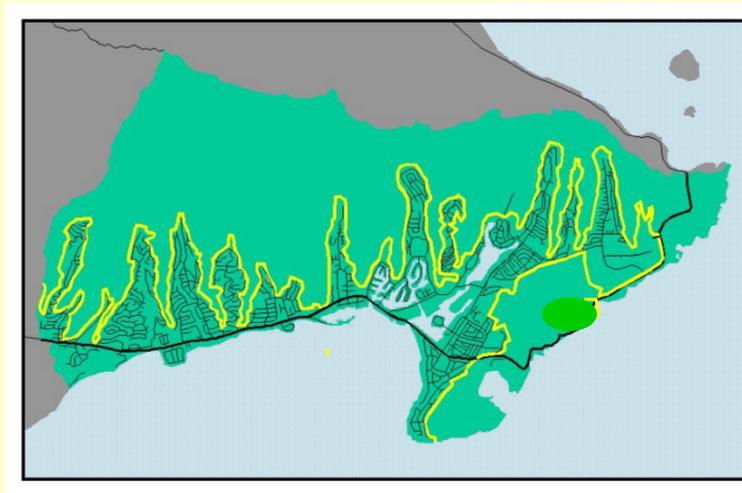
**East Honolulu Sustainable Communities Plan
Five Year Review**

- **Initiate** zoning map and development code amendments to achieve consistency with the DP's policies, principles and guidelines
- **Use** functional planning to guide public investment in a way which supports the Plan's vision
- **Approve** or deny applications for zoning and other development approvals based upon how well they support the region's vision
- **Incorporate** Development Plan priorities through the annual budget process, including the proposed Public Infrastructure Map
- **Prepare** biennial reports evaluating progress in fulfilling the vision for East Honolulu
- **Conduct** reviews of the vision, policies, principles, guidelines and CIP priorities for East Honolulu every five years
- **Provide** an orderly transition from the current system

5. Implementation

**East Honolulu Sustainable Communities Plan
Five Year Review**

3 Conceptual Maps to Illustrate Vision and Policies



Appendix A: Illustrative Maps

Overview of the Five Year Review

- Report to Council with Recommendations
 - Are the Plan Vision, Policies, Principles, Guidelines and Implementing Actions still Valid?
 - Are Revisions Needed to the Plan?

Overview of the Five Year Review

- Goals
 - Evaluate the East Honolulu Plan and Recommend Needed Updates and Improvements
 - Involve the Community in the Review, Evaluation and Recommendations
 - Submit a Report and Revised Plan to Council by mid-2005

Overview of the Five Year Review

- Work Program
 - Prepare Briefing Package and Presentation
 - Meet with the Community
 - Workshop I: Orientation and Comments
 - Prepare Public Review Draft Report/Plan Revision
 - Workshop II: Review Draft Report/Plan
 - Prepare Final Report/Revised Plan

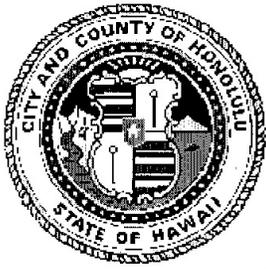
Known Community Issues

- Kamilonui Valley Ag Lands Future
- Hale Ali'i Height Increase
- Setback Requirements for Nanea Kai
- Portlock Beach Access
- Rock Falls/Slopes Hazards
- Hawaii Kai Drive Extension
- Infrastructure Capacity

Contact Opportunities

- See Me Today After the Presentation
- Contact Me at Work
 - Bob Stanfield, DPP
 - 527-6094 voice mail or 527-6743 fax
 - e-mail: bstanfield@honolulu.gov
- Visit the Planning Division Web Site
 - <http://www.honolulu.dpp.org/Planning>
- Fill Out a Participant Form to get on the mailing list

**APPENDIX F: SEPTEMBER 2012 COMMUNITY OUTREACH
WORKSHOP DOCUMENTATION**



City and County of Honolulu
**DEPARTMENT OF
PLANNING & PERMITTING**

PUBLIC WORKSHOP

East Honolulu Sustainable Communities Plan Review: A Community Discussion on Preliminary Findings and Issues

Wednesday, September 19, 2012
6:30 pm to 9:30 pm

Niu Valley Middle School Cafeteria
310 Halemaumau Street
Honolulu, HI 96821

AGENDA

- 6:30 pm Sign in/Talk Story/Review the Maps and Handouts
- 7:00 pm Introductions
Overview of the Review Scope and Purpose
Overview of the Workshop
The Big Picture: Projections and Anticipations
- 7:30 pm Discussion of Preliminary Findings on Plan Implementation
(See July 2012 Status Handout)
Cards Markup
Group Sharing and Recording
- 8:00 pm Discussion of Planning and Land Use Issues under Review
(See Planning and Land Use Issues Handout)
Cards Markup
Group Sharing and Recording
- 8:30 pm Break to Review Recorded Results
- 8:45 pm Discussion of How the Plan and/or Plan Implementation Could Be
Improved
Cards Markup
Group Sharing and Recording
- 9:20 pm Concluding Remarks/What's Next?
(Please turn in your cards with your comments before leaving)

NEWS RELEASE
Department of Planning and Permitting

September 4, 2012

COMMUNITY WORKSHOP TO COLLECT SUGGESTIONS FOR IMPROVING THE EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN

The Department of Planning and Permitting will hold a workshop at the Niu Valley Middle School Cafeteria on September 19, 2012. Registration will begin at 6:30 pm, and the formal program will begin at 7:00 pm and end at 9:30 pm.

The purpose of the workshop is to collect suggestions on how either the East Honolulu Sustainable Communities Plan or its implementation might be improved as part of the Department's required review of the Plan. Based on the results of the review, the Department will recommend changes to the Plan for the City Council to consider and suggest actions that the Council might take to improve implementation of the Plan's vision and policies.

A report of preliminary findings from the Review will be provided at the workshop and is available on the Web at <http://dev.honoluluodpp.org/Planning/DevelopmentSustainableCommunitiesPlans/EastHonoluluPlan.aspx>.

The East Honolulu Sustainable Communities Plan which was adopted in 1999 is also available on the Web at <http://dev.honoluluodpp.org/Portals/0/pdfs/planning/EastHonolulu/EastHonoluluSCP.pdf>

Contact: Bob Stanfield, Department of Planning and Permitting, 768-8051

Introductory Notes for Sep. 19, 2012
EH SCP Review Community Discussion on
Preliminary Findings and Issues under Review

Welcome to the East Honolulu Sustainable Community Plans Review Workshop. I am Bob Stanfield, project manager for the review of the East Honolulu plan.

We appreciate you taking the time to join us for the discussion about preliminary findings and issues we are analyzing as part of our effort to identify ways that either the Plan or the Plan's implementation might be improved.

Before we start, we would like to introduce ourselves to you and then ask you to introduce yourself.

With me today from the City Department of Planning and Permitting are:

Kathy Sokugawa, the City's Chief Planner and my boss and Hal Senter and Adrian Siu-Liu from my staff.

Now could you please tell us who you are and how you are affected by the East Honolulu SCP? We would also be interested in knowing if you are representing any organization or agency.

Could you start?

- Who are you and how are you affected by the EH SCP?
- What is your stake in the future of East Honolulu?
- Do you represent any organization or interest?

Thank you once again for taking precious time after work to come join this community discussion of the plan for East Honolulu.

Sep 19, 2012 Community Outreach Workshop

Now some housekeeping items

We have refreshments, including water, tea, and coffee and cookies. Help yourself at any time.

The restrooms are located where, Hal?

When you came in, you should have been asked to sign-in so that we can provide you with notices of future opportunities to participate in the review or release of draft plans or review reports for public review and comment. If you did not yet please sign in, please do.

You also should have received handouts, including

- The Agenda with a press release for the meeting on the back
- The July 2012 Status Report for the Review Project with a summary of the steps in the Review process and a Vision Scorecard which summarizes our evaluation of how well we have done implementing the Plan
- A handout showing historic demographic trends for East Honolulu and the City's projections for population, housing, and jobs by all of Oahu's DP and SCP areas through 2035; and
- A handout listing the Planning and Land Use Issues which we are analyzing in our review.

If you didn't get these handouts, please let Hal or Adrian know so they can bring you a set.

We also had some surplus copies of the existing EH SCP adopted in 1999. Adrian, do we have any left? (if you did not get a copy, the adopted plan is available on line at the web site listed on the back of the agenda.)

Any questions so far?

Okay, next I would like to talk briefly about the big picture:

- Why are we doing the Review
- What are major trends that we need to be aware of in planning for East Honolulu's future?
- What do we want to accomplish at tonight's workshop

First, **What is the Purpose of the Review?**

The purpose of the review, which is required by the ordinance that adopted the Plan, is for the Department to:

- Evaluate the Plan

- Evaluate the implementation of the Plan; and
- Based on the results of the Review, make recommendations to the City Council on
 - How the Plan could be improved, and
 - How the implementation of the Plan could be improved.

The process that we are following in doing the review is shown on the first page of the July 2012 Status Report.

Starting on the second page of the Status Report is a Vision Scorecard which summarizes our preliminary findings about the validity of the Plan and its implementation.

We think the Plan is basically sound but could be improved, that it has strong community support and that there has been significant successes in protecting natural, cultural, and historic resources and mixed results in adapting residential and commercial areas to meet changing community needs.

We are wrapping up our analysis of issues and getting ready to make recommendations on how the Plan and its implementation could be improved.

Second, **What Does Council Do with the Department's Recommendations?**

If convinced by the Department's findings, the Council can:

- Act to amend the existing Plan
- Take actions to improve implementation, including
 - Change rules and regulations
 - Change City program policies and operations
 - Appropriate funds to support improvements
 - Ask for and appropriate funds for further study; or
 - Make requests for actions by the State or Federal agencies

Finally, **What Is the Community Role in the Review?**

You, as a resident of the City and County, have:

- The right to be informed about the Review Process, the comments and suggestions received during the review, and the conclusions and recommendations that the Department makes as a result of the Review
- the right to let us know what concerns or opportunities should be addressed in the Review, and to suggest ways either the Plan or its implementation; and
- the right to have your comments and suggestions treated respectfully and fully considered in our Review.

The Department wants everybody with an interest in the future of East Honolulu to participate in the Plan's review, and is willing to accommodate them in whatever form works best.

We would hope that you would attend and participate in our workshops, but you can also participate by communicating with us by phone, e-mail or letter, or by arranging to meet with us, either at the Department offices or in a more convenient location, during working hours.

We welcome your questions and comments, and promise that they will be given seriously consideration. However, **we don't promise that your recommendations will automatically be followed.** All changes proposed for the Plan and all recommendations for how implementation can be improved have to make sense to the Department before we will recommend them to the Council.

We do promise that if we don't agree with your recommendation, we will explain why we disagree.

We also promise to work with you to see if we can find an alternative that we all can agree would improve the Plan or its implementation.

Any questions about the purpose of the Review and the process being followed to do the Review?

Next, I would like to talk about three major trends that we need to be aware of in planning for East Honolulu's future:

- Growth in East Honolulu (See hand out)
 - Very little capacity for housing development
 - Aging population with declining household size
 - No job growth
 - Implications: plan to ease transition and provide greater options
- Energy conservation
 - Most expect steadily rising energy prices
 - Climate change concerns also may increase energy prices
 - Implications: plan to conserve energy
- Water conservation
 - Likely impact of climate change is more drought conditions punctuated by more intense storms
 - Implications: plan to conserve water and protect against flooding
- Sea level rise
 - Likely impact of climate change is some amount of sea level rise
 - Implications: plan to mitigate or accommodate some amount of sea level rise

Finally, I would like to talk about what we want to accomplish at tonight's workshop:

The **purpose** of the Sep. 19 meeting is to reintroduce ourselves and the EH SCP Review to the community and to collect any and all comments, concerns, and suggestions for how the EH SCP or its implementation could be improved.

Context: We last held public meetings in East Honolulu in 2005 and want to restart community outreach and use the comments received to evaluate and improve the Preliminary Review Findings and Public Review Draft before we send them out for public review and comment. (An internal draft of both are under preparation/internal review)

We have been in contact with the community since 2005 but want to give everybody one last chance to get their two cents in before we start making proposals about what should be done.

We have not, as a Department, decided exactly what changes to the Plan are needed or how best to improve implementation of the Plan, and want to update our sense of what members of the community think about how the Plan and its implementation could be improved.

We really want to listen and learn and are not here defend, or advocate. We invite you to look over our shoulders at what conclusions we have reached and what issues we have been investigating, and give us your thoughts and suggestions.

The process we would like to follow is designed to give everybody a chance to share their thoughts first by writing them down on the cards we provided when you signed in and then by sharing them with the group while we record the comments.

The **agenda** for the rest of the workshop is as follows:

Break into three smaller groups and

- Discuss the Preliminary Findings about the Validity of the Plan
 - Do you agree that the Plan is basically sound and only needs some tweaks and updates?
 - Do you agree with our evaluations of how we have done in implementing the Plan vision?
 - What are your questions, concerns, or suggestions regarding these findings?

- Discuss the Issues we are analyzing as part of the Review. Each of these issues can be viewed as a test of the Plan's validity and policies.
 - Are there issues that should be added?
 - Is there information, questions, or proposals that should be included in the review?

- What are your questions, concerns, or suggestions regarding the issues?

Then we will take a break so that you can go look at what each of the other groups had to say about the findings and the issues and then we will come back together in the larger group to

- Discuss the improvements that you would like to see be made to either the Plan or its implementation.
 - How would you improve the Plan?
 - How would you improve the implementation of the vision and policies in the Plan?

Any questions about the purpose of the workshop and the process that we will follow.

OK, lets break into three groups.

- If you have a red name tag, please join me with Group A here at the front.
- If you have a blue name tag, please join Adrian with Group B at the back of the room, and
- if you have a green name tag, please join Hal with Group C at the middle of the room

Next : Collection of your comments about the preliminary findings Read prompts from above.

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East Honolulu Sustainable Communities Plan Review Workshop Planning and Land Use Issues – September 19, 2012

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
1.1 Hawaiian Place Names	<ul style="list-style-type: none"> • "Use more Hawaiian place names in the Plan." • Please use proper place names from the Hawaiian traditions in the plan. • Change names of non-Hawaiian streets to Hawaiian names. 	<ul style="list-style-type: none"> • Update plan text to include Hawaiian place names and spelling.
2.2 Coastal Waters / Wetlands / Fishponds	<ul style="list-style-type: none"> • 2.3 - Preserve all natural habitat areas. • Fishponds need protection and restoration with natural stream flow. • Support public land trust of 5 acres wetland near P.O. • Water quality in the Maunalua bay also depends on restoring fresh spring water flow to the bay (disrupted by Kal Hwy construction). Cold fresh water retards growth of alien algae! • Please recognize Hawea Heiau and Phua Heiau as they are protected by SHPD. Also Keawawa wetland is protected by the Army Corps of Engineers (USACE). Please include these protected sites on the Plan. • Protect Keawawa wetland on HK Drive. • Critically endangered 'Alae'ula nest at Keawawa wetland sometimes know as Hawaii Kai Drive Wetland. There are estimated by FWS to be only about 400 of these endemic native wetland birds living only in Hawaii and mainly on Oahu and Kauai. • Protect fishponds Yes! Rehab fishponds Yes! • Kuliouou/Niu Valley fish pond repaired fully. 	<ul style="list-style-type: none"> • Revise policies/guidelines to strengthen protection/restoration of historic fish ponds, springs, wetlands and stream flow. • New City Low Impact Development (LID) Standards require all construction projects disturbing more than one acre and all projects with large parking areas keep all the waters from storms delivering up to 1" of rainfall on site and to provide landscaping and other biofilter techniques like green roofs, vegetated swales, etc. to filter all runoff above the 1" amount.

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
<p>2.3 Endangered Species Nature Preserves</p>	<ul style="list-style-type: none"> • Prohibit new development at Oahu Club. Traffic, noise, light disrupt species to be protected. • What safeguards are under consideration to mitigate the impact on endangered species? • Please protect wildlife 'safe havens' 	<ul style="list-style-type: none"> • Identify all wetlands, wildlife preserves, and strengthen policies for protection in the plan. • The current EH SCP calls for <ul style="list-style-type: none"> ○ protection of wildlife preserves from encroachment or intensification of residential uses adjacent to the sanctuaries; and ○ implementation of management programs to protect against human activity threatening the sustainability of the resources. • Four known nature preserves in East Honolulu provide "safe havens for endangered native Hawaiian seabirds and plants. They are: <ul style="list-style-type: none"> ○ Paiko Lagoon Wildlife Sanctuary ○ Ihi'ihilauakea Preserve ○ Hawaii Kai Drive Wetland, and ○ Rim Island 2 in Kuapa Pond • Two of the preserves, the Hawaii Kai Drive Wetland and Rim Island 2 in Kuapa Pond, are not identified in the current EH SCP as areas deserving protection, and are not officially protected habitat areas.
<p>2.4 Commercial Center Transition & Redevelopment</p>	<ul style="list-style-type: none"> • Housing over parking lots is not appropriate. • No building of housing above parking lots or existing shopping centers! • Commercial centers for neighborhoods should have full service supermarket and gas station, post office with PO boxes; pharmacy. 	<ul style="list-style-type: none"> • Adding a small business hotel has been used on the Mainland to support the transformation of shopping centers into town centers/main street areas. Whereas a small hotel (up to perhaps 150 rooms) would be inappropriate in a residential

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
	<ul style="list-style-type: none"> • Small hotel is not appropriate for residential area. • Commercial supply needs to keep pace & be accommodated to serve 9.3% population & 20% housing unit growth. During same period, there's been decrease in commercial space (e.g. commercial changes to churches). • Need to support and encourage growth in non-construction related jobs (where will they go?). • With the 2011 closure of Foodland at Koko Marina Center, area residents have expressed a desire to see Foodland Center return to the community. They would like to have a locally owned grocery option and an alternative to the one remaining supermarket, Safeway. At suggestion of some community members, Foodland contacted Kamehameha Schools to explore possibility of extending existing commercial projects on Keahole St. to Kamehameha land on Kalaniana'ole Hwy and Keahole St. • Commercial centers serving region's neighborhoods centers are more focused on bringing in outside customers which creates problems for residents - traffic, parking, speeding, crowding. • Need to ensure design guidelines for redevelopment of shopping centers will not change the complexion of our bedroom community. • If Foodland could not afford the lease at the Koko Marina location, how can they afford a 	<p>neighborhood, it could be compatible within an existing commercial area.</p> <ul style="list-style-type: none"> • Current policy does not encourage additional land area for commercial use and there is no compelling reason to change this policy until an appropriate level of market demand materializes for such development. There does exist, however, the potential for more intensive use of existing commercial and parking areas.

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
	<p>lease at a brand new location?</p> <ul style="list-style-type: none"> • I have concerns about more development along the marina because of additional run-off from parking lots into Maunalua Bay where our kids paddle and many others enjoy water sports. • What is the status of Costco’s plan for a gas station? Is this idea dead? • No hotel/motel/lodge in East Honolulu. • No building of housing above parking lots or existing shopping centers! 	
3.1 Light Pollution	<ul style="list-style-type: none"> • No light pollution in residential neighborhoods. • Need to prevent light pollution from “stadium lights” at Kalani HS, Waialae Iki Park, and Wilson Park. • Light pollution harms endangered wildlife and wastes energy. • (Proposed Plan Change) Use, where sensible, fully shielded lighting fixtures using lower wattage. 	<ul style="list-style-type: none"> • Include a policy/guidelines supporting shielding of light fixtures in residential areas, parks & schools to reduce light pollution (e.g. Oahu Club, Kalani HS, Waialae Iki Park & Wilson Park).
3.2 Kamilonui Valley	<ul style="list-style-type: none"> • Maintain UGB, especially in Kamilonui Valley. • Keep Kamilonui Valley in ag use including education. • Protect and preserve Kam Valley farm lots. • Support State changes from Urban to Ag. • Need to control temp stockpiling of “material” in Kam Valley. • Why is K- Schools selling or trying to sell Ag & preservation land for development? Shouldn’t they protect the land for future generations? • No development on farmlands - keep ag lands 	<ul style="list-style-type: none"> • Ag use is continuing under renegotiated leases. • Despite news of informal proposals for residential development, there have been no formal proposals submitted for a SCP amendment and a zone change from agricultural to residential use • The area is shown on the EH SCP land use maps as an Agricultural Area outside the Community Growth Boundary and that designation should continue.

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
	<ul style="list-style-type: none"> • Cemetery is not a dump - the areas were not appropriate as a cemetery due to soil & proximity to marina. Wrong use of land in Kam Valley. • Ag land should be preserved for sustainability. • Keep Kamilonui Valley in Ag. No cemetery - wrong use of land not a dump. • Although areas have, so far, been saved, their status seems precarious. Is there a way to strengthen the implementation & enforcement of UCB's & preservation & agricultural boundaries? • Urban Growth Boundaries (now Community Growth Boundaries [CGB]) and zoning designations for agriculture and preservation were established for reasons that have increased in importance in East Honolulu and should not be changed. Preservation lands seem to be especially threatened by interests wanting more commercial development. All preservation land should remain protected from commercial development. The value of agricultural land too has become even more essential with regard to sustainability and should not be reduced or converted to other purposes. 	<p><i>Background</i></p> <ul style="list-style-type: none"> • A request for an extension of the lease for ag use past 2035 has been made to Kamehameha Schools. • A request has been made to Kamehameha Schools to support redistricting from State Urban District to State Agricultural District. • Cemetery use on land above the farming area shown as Preservation on the EH SCP map is consistent with the EH SCP. • Runoff from the Cemetery lands has caused flooding and erosion problems and raised concerns about pollution • Access issue: Will the cemetery developer build the Hawaii Kai Drive extension to provide direct access to the farms and the cemetery site?

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
3.3 Use of City Surplus Lands	<ul style="list-style-type: none"> • 3.3 - Support other use of Wailupe - private classes, possible Royal Hawaiian Band or community center. • Do not support sale of surplus lands that have been used as parks, support the sale of old cul-de-sacs. • Safeguard school properties - prevent private development thereof. 	<ul style="list-style-type: none"> • Wailupe School closed and now is being used by the City Department of Parks and Recreation, Department of Transportation Services, and the Royal Hawaiian Band. • A portion of Aina Haina School and Playground has been listed as surplus by the City Department of Budget and Fiscal Services and possibly could be purchased by an adjacent owner involved in a previous controversial hillside development proposal.
3.4 Beach and Mountain Access	<ul style="list-style-type: none"> • Expand Mauka Makai access to beach and mountain areas/trails. • Access to ocean is no longer an issue for Portlock community. • The Portlock Beach Reserve (aka Kamehameha Schools sells beach for \$10). Should be shown on the map as such and noted as public access. • 3.4 - What's comment Re: sale of shoreline lands? • Need more access to the beach along Kalaniana'ole Hwy. • More beach access points, specifically at 5295 Kalaniana'ole Hwy for community. • Need a "Kama'aina Day" for residents at Hanauma Bay once a month like Bishop Museum or Iolani Palace. • Vision: Expand Mauka/Makai recreation access. 	<ul style="list-style-type: none"> • The EHSCP should call for additional shoreline access along Kalaniana'ole Hwy to meet City standard of public shoreline access every ¼ mile. • A recent listing and mapping of shoreline access ways in East Honolulu will be included in the EH SCP Review Report. • Beach access issues were recently resolved on Portlock Road and Hanapepe Loop through public-private actions. • Kamehameha Schools sold Portlock Beach shoreline lands to shoreline frontage owners. • No particular problems were reported with mountain trail access.

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
<p>3.5 Ka Iwi Shoreline</p>	<ul style="list-style-type: none"> • Preservation of Makapuu views. These need to be permanently preserved. • Ka Iwi shoreline acquisition - support land across Ka Iwi - support no development. • Support scenic byways. • One of the most controversial issues in recent years is the proposal to build 180+ “cabins” on preservation land in the mauka areas of Ka Iwi. This is greatly opposed by the community. The proposal to consolidate the “1 cabin per acre” provision for P-2 to create a resort-like development appears to be a gross misapplication of the provision - especially since the 180+ acres are actually 2 non-contiguous parcels. I would like the plan to clearly and specifically reflect the intent of the 1 cabin provision and very directly prohibit such a blatant abuse of the preservation land as proposed by the resort-like developers. • Preserve Ka Iwi Mauka - when has half of something ever been enough? • Vision: Preserve scenic value of Kokohead/Makapuu viewshed. 	<ul style="list-style-type: none"> • Queen's Rise and Mau'uwai lands above the Hawaii Kai Golf Course should be moved from the Urban District to the Conservation District. • Including the Ka Iwi Shoreline area in the Hawaii Scenic Byways program should be supported in the EHSCP. <p><i>Background</i></p> <ul style="list-style-type: none"> • An application for a Conditional Use Permit to develop vacation cabins above the Hawaii Kai Golf Course on two parcels (Queen's Rise and Mau'uwai) was not accepted for processing because the proposed use was not demonstrated to be consistent with the Land Use Ordinance and key required information was not provided with the application. • The proposed vacation cabin use was strongly resisted by residents who turned out in large numbers at a series of meetings in Hawaii Kai. • Since then, a series of owners of the two parcels have discussed alternative forms of development, but no formal proposals have been made. • Urban District lands makai of Kalaniana'ole Highway which are part of the State park were moved into the Conservation District by the State Land Use Commission.

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
3.6 Hale Ka Lae	<ul style="list-style-type: none"> • Affordable units should be built at Hale Ka Lea. 	<ul style="list-style-type: none"> • The affordable housing requirement is part of the Unilateral Agreement signed by the developer as a condition of zoning. In view of this, no specific policy change appears necessary. • This luxury market housing project still needs design approval from City Council. Development has been postponed due to financing difficulties. • The developer has proposed meeting its requirement to provide affordable housing units by building off-site at Lunalilo Home • Transfer of P-2 Conservation zoned lands adjacent to the housing project site to a non-profit land trust for a cultural park/wetland refuge is underway.
3.7 Kalama Valley Developments	<ul style="list-style-type: none"> • Kalama Valley infrastructure is inadequate. • Do not support change Kalama Valley Shopping Center to non-commercial development (would strain infrastructure). • Frequent water main breaks indicative of stressed infrastructure which cannot support further development. • Development of 11 acre parcel in back of valley would strain narrow streets and utilities (water). • Would support low density SF homes on Kalama Valley shopping center site. • Soils slides/rock falls pose a danger for new development in Kalama Valley. • Archaeological structures exist in Kalama that are not studied. Please investigate and protect 	<ul style="list-style-type: none"> • Consider any proposed re-zoning of Kalama Valley Shopping Center only after an assessment is made to determine the adequacy of supporting infrastructure. <p><i>Background</i></p> <ul style="list-style-type: none"> • The Mokuhano Street cluster development was approved by the City. • Keahou Street residential development off-site infrastructure work has been done. • Kalama Valley Shopping Center is owned by Kamehameha Schools. Rep. Gene Ward reported they are seeking to redevelop the area, and asked for community suggestions on what would be appropriate use.

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
	<p>these sites, be aware before allowing destruction of our history.</p> <ul style="list-style-type: none"> • The 1999 plan calls for rezoning of the Kalama Valley Shopping Center and from commercial to residential zoning. Since 1999 there has been more residential growth in the area, so the commercial zoning of the shopping center parcel should be retained. This could also facilitate tele-community to reduce traffic on Kalaniana'ole Hwy. • Is the long range effect of added traffic, population, sewer and the lack of water pressure being addressed considering the 9 acre development zoned R5 in the back of Kalama Valley? The soil there is very unstable. 	<ul style="list-style-type: none"> • Koko Villas <ul style="list-style-type: none"> ○ Owner proposed development of a 3.2 acre expansion area requiring zone change from P-2 to R-5 but did not file application • Community Growth Boundary amendment to include P-2 areas on slopes of Koko Crater proposed by community members
<p>3.8 Paiko Ridge</p>	<ul style="list-style-type: none"> • Keep Paiko Ridge undeveloped. • Need stronger assurances that undeveloped areas will remain undeveloped, such as Paiko Ridge • I hope that Paiko Ridge will remain undeveloped and would urge that applications for amendments needed for development would be resisted and denied. Preserve ridges. • Do not want additional ridge developments in Niu Valley. • There is a long stone wall that goes from one end to the other & can be seen from space. • Acquire with clean water and land fund. 	<ul style="list-style-type: none"> • Paiko Ridge is in the Conservation District and lies outside the Community Growth Boundary. Policy is to continue this zoning without any change to the CGB. Proposed use as a solar farm will depend on the specifics of the proposal. • Investors purchased these two large parcels from a local trust and have advertised them for residential development nationally although the properties are in the Conservation District, are zoned P-1, and shown in a preservation area in the East Honolulu Sustainable Communities Plan.

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
	<ul style="list-style-type: none"> • Being saved ancient area preserved. Developing on this ridge will expose residents on either side of the ridge to: unsettling ground, drainage issues, traffic on the valley already having two schools and shopping center, preserving this area. • 3.8 Paiko Ridge - no development; no solar panel farm (concern re: reflections as well as how to handle equipment when it's ready for disposal. • Alternative energy guidelines such as locations Koko Villas + Paiko Ridge. • No more ridge developments! • Rock Wall - There is an archeological treasure on Paiko which needs to be thoroughly investigated and formally recognized: A miles-long ancient Hawaiian rock wall approximately 3 feet wide by 4 feet tall which runs the entire length of the ridge. It is relatively unknown & must be considered in any planning of Paiko. • Keep Paiko Ridge free from development forever. • 2.2.5 Protect and preserve natural areas - ADD Paiko Ridge! • 3.1.3.8 Marina - Cut out shuttle boat service. 	<ul style="list-style-type: none"> • Negotiations have occurred with the latest owner regarding the possibility of a land trust purchasing the parcels or their development rights. • There is a proposal for developing a solar panel farm on the parcels. • Current policy supporting consideration of a shuttle boat transport service in Hawaii Kai Marina should be dropped.
<p>3.9 Residential Area Transition</p>	<ul style="list-style-type: none"> • Compatible infill should be allowed. • Residential character should be maintained. • Support affordable housing in Hawaii Kai. • Concern re: adding any new residential units. • What does in-fill mean and how does it get zoned? 	<ul style="list-style-type: none"> • Policy to be considered in the Draft plan would support aging in place and multigenerational housing by facilitating ohana and accessory dwelling unit housing as a form of in-fill development. • East Honolulu is going through significant change due to the aging of the population

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
	<ul style="list-style-type: none"> • No more development of Koko Villas. • Support aging in place - should be able to add kitchen facilities. • Affordable housing is difficult to find. Support ohana housing, but concerned re: adding housing to shopping centers. • Homes are too expensive and do not support requirement for safe rooms. • Need strategy for affordable rental housing for families w/ school age children to encourage young families, couples, & working people in the area and near transit. • Will there be allowances for multigenerational housing? • Niu Valley is no longer an aging community - grandchildren have returned to live with grandparents. • Area is aging. • Older people in my area are selling and young families with small children moving in - question validity of projections. • 2 and 3 generation families in one house increasing. • Aina Haina is at capacity - DOE stupid to close Wailupe School. • ARCHES need to be spaced apart 1,000' at least. • What is strategy for elderly housing in East Honolulu? • New housing - has not been for senior citizens - has been built on every little piece of land & 	<p>and the shrinking of household size as children grow up and move out.</p> <ul style="list-style-type: none"> • Many aging residents would prefer to "age in place," staying in their homes in East Honolulu. • The barriers to aging in place are the cost of renovations and modifications needed and the lack of a support structure to provide needed services that allow independent living. • One answer to providing needed services is multi-generational living, but there are regulations that discourage this by making it difficult to build separate kitchens, ohana units or accessory dwelling units. • Ideally, aging residents wanting or needing to move would be able to make an easy transition from their large family size units into smaller independent living units, assisted living units, or skilled nursing units. Affordable choices located in East Honolulu are difficult to find. • How many ARCH facilities are located in East Honolulu and how many beds do they have? How many senior independent living housing units? How many assisted living units? How many skilled nursing units? • Would allowing housing to be built above the first floor in East Honolulu shopping centers be appropriate or helpful? • Would allowing more ohana units and/or

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
	<p>creates sense of overcrowding. - Has increased traffic & related problems: - speeding, parking space issues.</p> <ul style="list-style-type: none"> • Ohana housing is possible. • Housing still allowed? How many acres of zoning of the areas? • Loosen policies for Ohana units but make sure it is limited to long term residents not vacation rentals only where accommodated by infrastructure and parking. • Changing demographic of Niu Valley to include families with younger children - Those that would utilize a playground. • Revise “The Plan” section 3.3.2 General Policies, 3.3.3 Guidelines to reflect the above revisions. 	<p>accessory dwelling units in East Honolulu be appropriate or helpful?</p>
<p>3.10 Mom & Pop Stores / Home Occupations / Residential Vacation Rentals</p>	<ul style="list-style-type: none"> • How to accommodate commercial and residential needs. • No bed & breakfasts, hotels, TVU’s, transient housing! • Support home businesses -vacation units need better enforcement. • Keep residential neighborhoods for homes - prohibit B&Bs / vacation rentals. • Bed & breakfast should not be operated in residential areas. • Home office could be supported if there are limits on noise, number of cars, customers, etc. without strict limits it would seriously detract [from] community ambiance. • No TVUs, B&Bs or wedding events. 	<ul style="list-style-type: none"> • Policy to be considered in the Draft plan would again allow neighborhood grocery stores/convenience stores and would support home occupations. • Although the B&B/TVU issue remains unresolved, a policy may be considered to allow a one room B&B in an owner occupied home. <p><i>Background</i></p> <ul style="list-style-type: none"> • New Mom and Pop Neighborhood Grocery Stores have been banned since 1986. Would it be appropriate or useful to allow them again in residential areas? • Home occupations and home office work

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
	<ul style="list-style-type: none"> • Home based businesses should be encouraged - telecommuting! But not instead of residences so, business with people living there. • One unit B&B in owner occupied home OK. • Cumulative effect of 3.10 B&Bs. • Private homes ocean front properties permitting weddings commercially residential zoned: How do they legally exist? • <u>No</u> development on the “Great Lawn”. Support a cultural center with hula mound. No hotels, no TVUs wedding establishments or B&Bs. • No lodges, motels, hotels allowed in the East Honolulu corridor. This is a <u>residential</u> corridor. 	<p>has become more common, and is hailed by some as more sustainable because of the reduced automobile commuting. Should such uses in residential areas be supported?</p> <ul style="list-style-type: none"> • There is a large underground bed and breakfast and transient visitor unit economy in Honolulu, including East Honolulu. Would it be appropriate to allow bed and breakfast or transient visitor units to be operated legally?
<p>3.11 Lands with Soils / Slide / Rockfall Hazards</p>	<ul style="list-style-type: none"> • 3.11 - developments on areas with slide problems need to be reviewed carefully. • There are no safe areas in East Honolulu to build anymore. • 9 or so acres in the back of Kalama Valley - very unstable soil and there is a report by the water dept. about why we could not have a water tank added back there. • Need stringent control of construction on valley hillsides in East Honolulu. • Need protection from falling rocks and “weeping” vertisol on hillsides. 	<ul style="list-style-type: none"> • There is a history of soils problems, slides, and rock falls in East Honolulu. • The EH SCP says that areas with steep slopes or unstable soils should "not be developed with uses unsuitable to their designations or in ways that may tend to exacerbate those hazards." • There are proposals for development in areas with known soils and slide problems. • The City requires extensive geo-technical studies to determine the extent of hazard and the mitigations and modifications required to assure that the hazard is minimized. • The City has refused to approve subdivisions or permits where it was felt the hazards could not be adequately minimized.

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
4.1 BWS Base Yard Site	<ul style="list-style-type: none"> • BWS does not belong in Koko District Park or at Wailupe School. They need to look at Waimanalo which has more land. • Prevent more capacity of BWS reservoir at Kalani Iki Ridge due to vertisoil hillside roadway. 	<ul style="list-style-type: none"> • BWS wants to develop a base yard in East Honolulu to improve response times for repairs and maintenance work • Koko District Park is not being considered after meeting with community showed strong opposition. • Hawaii Kai WWTP being considered?
4.2 Hurricane Shelter Shortage	<ul style="list-style-type: none"> • Housing is expensive already - don't need to add safe rooms. 	<ul style="list-style-type: none"> • Islandwide, most public emergency shelters could not withstand a Category 3 Hurricane • What is the number, square footage, and hurricane protection rating of shelters in East Honolulu? • Are there sufficient shelters to provide 10 sq. ft. per person for 30% of the East Honolulu population? • (Proposed Plan Change) Survey existing shelters for retrofit needs and upgrade to withstand Category 3 hurricanes • (Proposed Plan Change) Require new City buildings public facilities appropriate for use as shelters to be designed and built to withstand a Category 3 hurricane • (Proposed Plan Change) Provide incentives for private organizations to create hurricane resistant shelter areas and for homes to include hurricane resistant safe rooms

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
4.3 Complete Streets	<ul style="list-style-type: none"> • Complete streets - support. • How can roads be made more bike friendly and safer for bikers? • Bike lanes? There are none & it is getting worse. What is being done? 	<ul style="list-style-type: none"> • Legislation defining a Complete Streets policy and implementation has been passed by both the State and the City & County of Honolulu. All DPs and SCPs have policies requiring implementation of complete streets. • Design streets to support walking, biking, and use of transit in addition to automobile travel (Complete Streets).
4.4 Island-wide Solid Waste Site Selection	<ul style="list-style-type: none"> • This is not an area for a dump or development. • Regarding waste disposal let's modernize. There are many alternatives to a dump. Let's get a zero waste plan going. 	<ul style="list-style-type: none"> • The City is looking for a replacement for Waimanalo Gulch Landfill in 'Ewa • A solid waste site will be selected by the Council based on an island wide site evaluation • Site selection is not made through the Development Plan / Sustainable Communities Plan review, and approval process. • The Site Selection Committee did include an East Honolulu site among the candidate sites. • The General Plan provides some guidance regarding solid waste disposal.

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
4.5 Kalanianaʻole Highway	<ul style="list-style-type: none"> • Traffic impact analysis of any development must not only include immediate vicinity traffic impacts, but also include the impact on the total capacity of Kal Hwy. <ul style="list-style-type: none"> ○ Example: Adding a care home at 5621 Kal Hwy must not only analyze congestion at West Halemaumau but also at Ainakoa. • Capacity of Kalanianaʻole Hwy should be considered before addition of new development. • Level of Service should also consider pedestrians & bicyclists. • No train through East Honolulu. • Kalanianaʻole Highway design capacity? To manage “urban growth” - what does this mean? • Need acknowledgement from City DTS and State DOT that Kalanianaʻole Hwy is at capacity. • No train going to Hawaii Kai through the residential corridor of East Honolulu. • Preserve P-2 zoning at “great lawn” on Kalanianaʻole Hwy. • Kalanianaʻole Hwy repair we Halemaumau Aina Haina side going Ewa. Can’t wait for the whole hwy to be resurfaced. 	<ul style="list-style-type: none"> • The EH SCP does not "utilize the design capacity of Kalanianaʻole Highway . . . as a means to manage urban growth." • The EH SCP manages urban growth by identifying a Community Growth Boundary beyond which no urban uses are to be approved, and by identifying areas within the Community Growth Boundary that are meant to be retained in open space. • There are no current plans to use Kalanianaʻole as a transit corridor or to extend a fixed guideway rail system to Hawaii Kai. • What is Level of Service for AM and PM peak now? 2035? • What is flow per hour for AM and PM peak now? 2035? • What does the Oahu Regional Transportation Plan 2035 say?
Other Issues/Questions	<ul style="list-style-type: none"> • Need to strengthen plan language supporting vision elements. • Support green roofs, green streets. • Appreciate the ability to make these comments. 	

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
	<ul style="list-style-type: none"> • Do not support full extension of Hawaii Kai Dr. - maintain quiet of the valley. • Is this ordinance law or guidelines? • Need to address “energy” & solar & wind for example. Need to ensure “energy” will not displace view sheds and open space. • JAAMS - possible community center. • Why was Mayor Harris allowed to override the EHSCP and not require developer of Lei O Lani to put up for the lanes on Hawaii Kai Dr. Extension? • Why is it viewed as important to create jobs in East Honolulu? • Niu Valley Tennis Courts <ul style="list-style-type: none"> ○ Rails on paved walkway - resurface courts ○ Senior citizens using these courts. Student from Niu Middle School unsafe with surface in this condition. • Niu Valley Playground - Niu Valley deserves a shopping center & playground. We have many children in living in Niu. Support the development of a playground in Niu Valley. Justification: The original design of the Niu Valley neighborhood park did not include a playground. Supposedly because the Middle School cut off was grade 7. Subsequent to that design Niu Valley Middle School has been expanded to include grade 6. Ostensibly, had grade 6 been originally included, the sentiment of some community members is that a playground would have been planned & built. 	

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
	<ul style="list-style-type: none"> • Need playground equipment for Niu Valley parkland. • How do we engage broader community input (e.g. silent majority)? • Hawaii Loa Ridge - Park in (designated?) area, register. • Tsunami inundation zones should be respected. Under no circumstances should development be allowed on now vacant properties in inundation zones, such as the “gateway” parcel along Kalanianaʻole Highway in Hawaii Kai. • Why can’t enforceable noise pollution laws be passed? • Question growth projections decrease in 2025 & 2035? • Infill development should have over 10 foot setback. • Get past the spot zoning that takes place that allows for development plans to not do traffic studies. • When will the playground be fully approved? • A playground for Niu in the status report. • Have the State & C&C agree on land use. • No expansion of the Honolulu Waldorf School (Mohalapua). • Public Facility Investment Priorities Re: Recreational opportunities for community. Re: Increase community - based park inventory. • Niu Valley needs a playground yesterday. When the city address this? 	

ISSUE	COMMENTS/QUESTIONS	POLICY PROPOSAL
	<ul style="list-style-type: none"> • Preservation of the “great lawn”. • Why is Hawaii Kai designated as a landfill site - given the sustainable communities plan? • Carrying capacity of our infrastructure needs to inventoried then followed up each time a variable changes - e.g. sewer back-ups, traffic counts, population density, etc. • Change plan name to “Maunalua SCP” • No new development on open land. 	

P:\PolicyDocuments\DPSCP\East Honolulu\FIVE YEAR REVIEW\REVIEW REPORT\REPORT DRAFT\APX C 2012 Comments.doc

APPENDIX G: CLIMATE CHANGE WORKGROUP DOCUMENTATION

Workshop on Climate Adaptation and Hazard Management in East Honolulu*

Thursday, January 28, 2016

Aina Haina Elementary School Cafeteria

6:30-8:30 p.m.

Workshop Purposes:

- Provide basic information about potential impacts of climate change on Oahu;
- Relate climate adaptation to other community planning activities;
- Discuss examples of potential “low regrets” adaptation activities;
- Identify information gaps to explore;
- Identify next steps

Agenda:

6:15-6:30	Sign-in
6:30-6:40	Welcome; Review purposes of meeting [Kem Lowry, UH Manoa, Facilitator]
6:40-7:00	Presentation on Impacts of Climate Change on Oahu [Dr. Dolan Eversole, UH Sea Grant]
7:00-7:15	Presentation Q&A
7:15-7:40	Participant self-introductions---and identification of current activities in which you are involved that are related to community planning generally and climate change in particular

*Support for this independent workshop has been provided by the Honolulu Department of Planning and Permitting, the University of Hawaii Sea Grant Program, and the state Office of Planning.

East Honolulu Climate Change Adaptation Workshop #1

January 28, 2016

Kem Lowry, Facilitator

Actual Attendance Sheet

	Name	Organization	Phone	Email
1	Choe, Francis	Councilmember Trevor Ozawa	768-5045	fchoe@honolulu.gov
2	D'Olier, Mitch	Malama Maunalua	292-8777	mitch@kaneoheranch.com
3	Garvin, Rene	Hawaii Kai Strong and Hawaii Kai NB no. 1	396-9032	reneg@lava.net
4	Glei, Matt	Hawaii Kai Strong	222-1715	hawaiikaistrong@yahoo.com
5	State Rep. Mark Hashem	State House	586-6510	rephashem@capitol.hawaii.gov
6	Hiraoka, Sherri	Aina Haina Prepared	358-0479	sherri@townscapeinc.com
7	Ishihara, Janice	The Kahala Hotel and Resort	739-8843	jjshihara@kahalaresort.com (Kahala is actually in the PUC plan area and she left early)
8	Knudsen, Greg	Hawaii Kai NB no.1	395-3725	knudsen123@gmail.com
9	Raney, Dave	Sierra Club Marine Action Team	218-6006	d.raney108@gmail.com
10	Reilly, Elizabeth	Livable Hawaii Kai Hui	864-8081	hawaiikaihui@aol.com
11	Salbosa, Lasha-Lynn	Hawaii Kai NB no.1		lasha.lynn@gmail.com
12	Tengan, Danny	Aina Haina Prepared	620-5403	ainahainaprepared@gmail.com
13	State Rep. Gene Ward	State House	586-6420	repward@capitol.hawaii.gov

East Honolulu Climate Change Adaptation Workshop #1

January 28, 2016

Kem Lowry, Facilitator

Actual Attendance Sheet

14	Yim, Jasmine	Interested residents	595-5222	jas.j.yim@gmail.com
15	Yim, Roger			rogeryim67@gmail.com
16	Yim, Dillon (son)			
	DPP Staff:			
17	Bob Stanfield	Branch Chief, Dev. Plans & Zone Change Branch	768-8051	bstanfield@honolulu.gov
18	Nicola Szibbo	Planner, Policy Planning Branch	768-8042	nicola.szibbo@honolulu.gov
19	Thomas Blair	Planner, Policy Planning Branch	768-8030	thomas.blair@honolulu.gov
20	Noelle Cole	Planner, Dev. Plans & Zone Change Branch	768-8055	noelle.cole@honolulu.gov
20	Jeff Lee	DPP Planner Intern		jeffrey.lee3@honolulu.gov
21	Carlos Kelton	DPP Planner Intern		charles.kelton@honolulu.gov

7:40-7:55

Brief overview of climate adaptation

7:55-8:20

Small group discussion on information needs on climate adaptation in East Honolulu and priority topics and resource people for future meetings

8:20-8:30

Reports from small groups; next steps

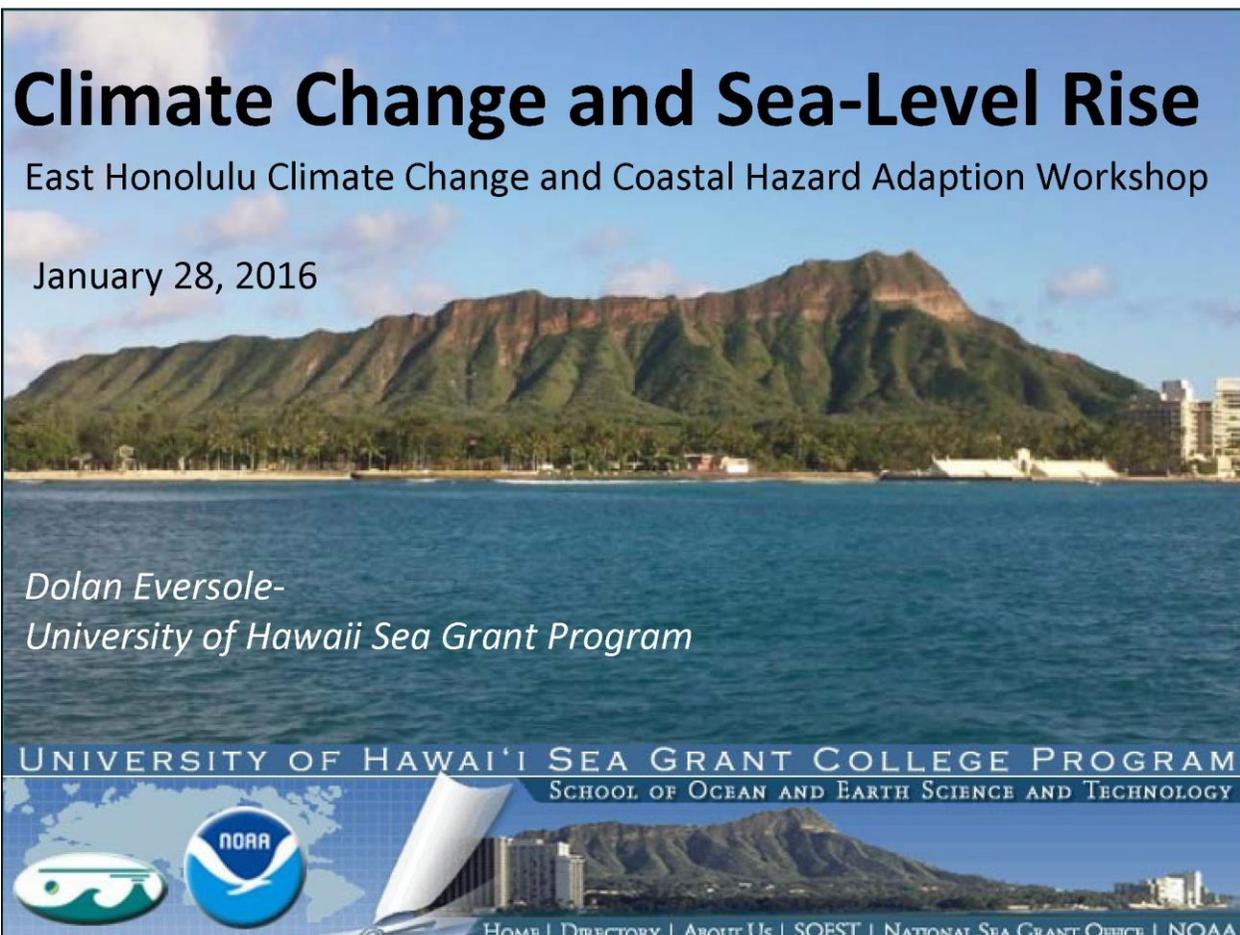
8:30

Adjourn

Climate Adaptation and Hazard Management in East Honolulu Workgroup Meeting #1

January 28th, 2016, 6:30pm-8:30pm
'Aina Haina Elementary School Cafeteria

- 1. Welcome and purposes of the meeting, Kem Lowry, UH facilitator**
 - Provide basic information about the potential impacts of climate change on O'ahu
 - Relate climate adaptation to other community planning activities;
 - Discuss examples of potential "low regrets" adaptation activities;
 - Identify information gaps to explore;
 - Identify possible next steps.
- 2. Presentation: [Climate Change and Sea Level Rise](#), Dolan Eversole, University of Hawaii Sea Grant Program**



Climate Change and Sea-Level Rise

East Honolulu Climate Change and Coastal Hazard Adaption Workshop

January 28, 2016

*Dolan Eversole-
University of Hawaii Sea Grant Program*

UNIVERSITY OF HAWAI'I SEA GRANT COLLEGE PROGRAM
SCHOOL OF OCEAN AND EARTH SCIENCE AND TECHNOLOGY



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- Several key studies and reports provide the technical justification for climate adaptation action in Hawaii:
 - [Intergovernmental Panel on Climate Change](#) [IPCC] is widely accepted compilation of scientific findings on climate change
 - The National Oceanic and Atmospheric Administration (NOAA) [National Climate Assessment](#) (NCA) is the primary U.S. government compilation
 - [Climate Change Impacts](#) report quantifies the potential costs if we don't adapt
 - [PIRCA](#) 2012 is Hawaii's version of the NCA in Hawaii prepared by the UH Sea Grant Program
- [Hawaii Act 83, 2014 \(Hawaii Climate Adaptation Initiative Act\)](#) established the Interagency Climate Adaptation Committee led by the State Department of Land and Natural Resources (DLNR) and the State Office of Planning (OP) and charged with the responsibility to develop a sea-level rise vulnerability and adaptation report to the 2018 State Legislature.
- Sea level rise (SLR), storm surges and groundwater inundation will result in more frequent episodic flooding and coastal erosion
- Adaptation to increased flooding in terms of accommodation, protection and relocation of structures will be necessary.

3. **Q&A response to Dolan Eversole Presentation**

- The 'Coral Triangle', which includes the Marshall Islands, is the most threatened country by increased inundation in Southeast Asia. They are experiencing 10x what we are currently seeing here.
- SLR is calculated from tidal gauge data close to real-time by the US Army Corps of Engineers (USACE) [online tool](#).
- SLR is going to begin to have observable impacts potentially by mid-century, but we have bigger problems to worry about first. Preparing for the increased likelihood of Category 3 or Category 4 hurricanes should be a high adaptation priority. The Aulani Hotel is the only structure built to withstand a category 3 hurricane. We need to play our part along with the rest of the world in mitigating global climate change by reducing greenhouse gas emissions. Regardless of how well the worldwide effort to control greenhouse gas emissions goes, we in Hawaii will have to decide how to adapt to the climate change impacts on Hawaii's weather, sea levels, rainfall and temperatures that global warming is already causing and will cause for years to come.

4. **Participant Self-Introductions**

5. **Presentation: [Types of Climate Adaptation Projects for Coastal Flooding](#),
Dr. Kem Lowry**

- Adaptation: projects/programs intended to reduce community vulnerability to the impacts of climate change such as flooding, heat waves, coastal erosion, and improve community resiliency (how quickly and economically the community recovers from destructive impacts).
- The types of climate adaptation strategies:
 - **Accommodation:** Adapting in place by flood-proofing existing or planned structures, diverting flooding, etc.
 - **Protection:** Building dikes, berms or other hard structures to protect valued infrastructure or other community assets; using wetlands or other green infrastructure to absorb floodwaters or divert from flood prone areas.
 - **Relocation:** Moving valued infrastructure or other community assets away from areas affected by flooding or other climate related impacts.
 - **Urban systems resilience.** Rather than focus just on projects, develop strategies for making entire urban systems, such as drainage or energy, more resilient.
 - **Prevention:** Develop hazard maps and associated zoning, and building codes for specific climate threats such as flooding.
 - **Procedural:** Develop checklists and guidelines that make it easier to examine potential climate impacts on specific development projects prior to construction.

6. **Q&A response to Kem Lowry Presentation**

- Do we have adequate data and models to predict potential climate impacts?
- The scientific community is working to collect the data needed to understand what is happening and to refine the models that are used to project future conditions. Observed outcomes match or exceed what the models project would happen. Our ability to project likely outcomes should improve with time.

7. **Discussion on Information Needs and Priority Topics and Resource People for Future Meetings**

- How are people are getting permits for new development in the flood zone?
We need to know how regulations and permitting can improve climate resilience.
- Why are we developing around the rail line where there are areas exposed to SLR?

- Why are the sites exposed, and how are we incorporating this vulnerability into long-range planning?
- How is the USACE dealing with the Manoa Watershed with regard to green infrastructure? What we can learn from this example?
- How do SLR and climate adaptation issues overlap with flooding in Maunalua Bay? There is a major siltation problem in the Bay, where the water becomes all brown. How can we use green infrastructure to reduce the turbidity and sedimentation in the bay?
- How are coastal setbacks defined and regulated?
- What are legal vs. illegal protective shoreline structures (i.e. sanctioned seawalls versus unsanctioned)?
- How do we better prepare our infrastructure for hazard events (preemptively)?
- We need more planning at the watershed level.
- Our wastewater treatment plant is right on the shoreline in East Honolulu. How can we better plan for its long-range location? All of our power plants are on the shoreline.
- I'm interested in the Kuapa Pond and the restoration and protection of our cultural resources for the long term, not just 30 or 50 years. Values are different between planning for your lifetime and your children's children. How do we identify and prioritize projects that will have important future impacts?
- All of our commercial development is on the highway in major "hit" [vulnerable] zones. How can we encourage developers, realtors, and the business sector to participate in this process?
- How do active transportation modes fit into climate adaptation and sea level rise planning? How do we design in ways that increase pedestrian and bicycle infrastructure in Hawaii Kai?
- How does urban design and landscape architecture fit into disaster resilience?
- How can we encourage groundwater recharge?
- BWS is a major player in all of this (future water supply questions). How do we involve them?
- Is desalination an option for water supply? Is gray water recycling an option?

There was some group sentiment to use one of the next meetings to examine the use of green infrastructure to address storm water management in East Honolulu watersheds.

8. Workshop adjourned at 8:30pm

Workshop on Climate Adaptation and Hazard Management in East Honolulu*

Thursday, March 31, 2016

Hawaii Kai Library

6:30-8:30 p.m.

Workshop Purposes:

- Provide basic information about potential climate change-related flooding impacts on E. Honolulu
- Identify and rate specific flooding areas
- Identify location of particularly vulnerable populations, infrastructure and other community assets

Agenda:

- 6:15-6:30: Sign in
- 6:30-6:45: Welcome, brief introductions and review purposes of meeting [Kem Lowry, UH Manoa, Facilitator]
- 6:45-7:00: Presentation on flooding impacts on Oahu [Matt Gonsler, UH Sea Grant]
- 7:00-7:10: Presentation of city flooding-related maps [Thomas Blair, Department of Planning and Permitting, City and County]
- 7:10-7:50: Small group discussion specific flooding vulnerabilities in E. Honolulu

- *Where is flooding occurring? At what sites? How frequent are these events? Is the frequency increasing? Decreasing?*

*This is not an official city meeting, but the city's Department of Planning and Permitting and the state Office of State Planning are providing support.

- *In the heaviest rainfall or other flooding events, how severe is the flooding at the most flooded sites? [Use 1-5 scale with 5 being very severe]*
- *What community infrastructure, key facilities, such as schools, medical facilities, community centers, or other community assets are most threatened by flooding? Are specific care homes, child-care facilities or other sites where vulnerable people or groups congregate threatened? Where are specific populations, infrastructure and community assets most at risk?*
- *Overall, how would you rate the level of potential impact of flooding in 2020 on beaches, housing, infrastructure and other coastal uses in East Honolulu?*

7:50-8:20: Small groups report findings.

8:20-8:30: Summary and next steps [Bob Stanfield, DPP]

East Honolulu Climate Change Adaptation Workshop #2 Attendees

March 31, 2016

Kem Lowry, Facilitator

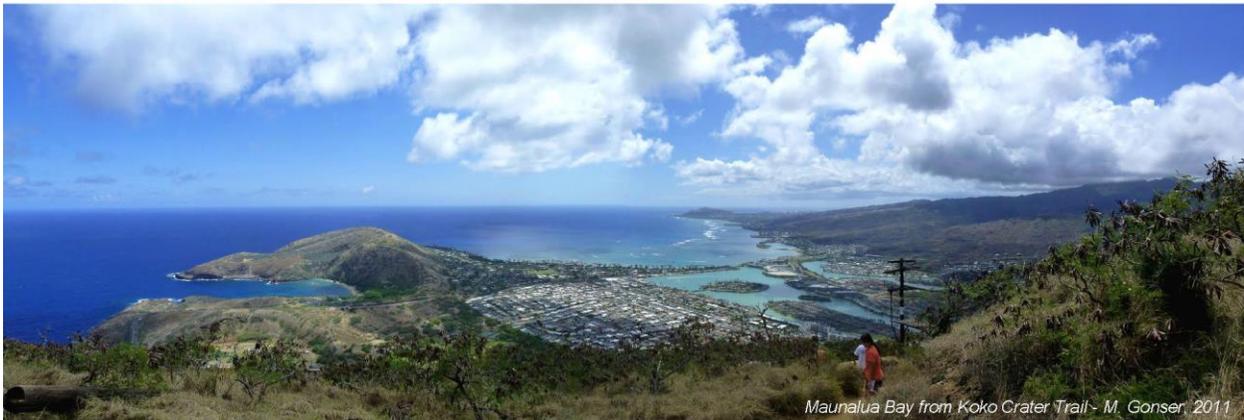
Name	Organization	Phone	Email
Bettinger, Keith		347-2612	
Glei, Matt	Hawaii Kai Strong	222-1715	hawaiikaistrong@yahoo.com
Hinano Rey, Lisa	4 Real Environmental Consulting	398-4979	hinanorey@gmail.com
Hiraoka, Sherri	Aina Haina Prepared	358-0479	sherri@townscapeinc.com
MaryLou		395-4874	
Raney, Dave	Sierra Club	218-6006	d.raney108@gmail.com
Reilly, Elizabeth	Livable Hawaii Kai Hui	864-8081	hawaiikaihui@aol.com
Shen, Suwan	UH DURP		suwans@hawaii.edu
Spirandelli, Daniele	UH DURP		danieles@hawaii.edu
Taylor, Jennifer	Malama Maunalua	396-2172	Jennifertaylor-us@yahoo.com
Tengan, Danny	Aina Haina Prepared	620-5403	ainahainaprepared@gmail.com or dstengan@gmail.com
White, Paul	MTKKCA Community Assoc.	396-2172	phwhite@pacbell.net
Gonser, Matt	UH Sea Grant		gonserm@hawaii.edu
Lowry, Kem	Meeting Facilitator - EWC		lowry@hawaii.edu

Climate Adaptation and Hazard Management in East Honolulu Workgroup Meeting #2

March 31st, 2016, 6:30pm - 8:30 pm
Hawaii Kai Library

1. Welcome and Introductions, Kem Lowry
2. Presentation: [Flooding](#), Matthew Gonser, UH Sea Grant College Program

Workshop on Climate Adaptation And Hazard Mitigation Management in East Honolulu



Flooding

31 March 2016 | Hawai'i Kai Library | Matthew Gonser, AICP | Extension Agent | gonserm@hawaii.edu

University of Hawai'i Sea Grant College Program



- SLR exacerbates coastal issues: beach erosion, flooding and property damage.
- Moana Surfrider had to put out sandbags in 2014. On the same day, the other side of Waikiki was experiencing flooding issues as well – but it was waves coming up through the storm drains.
- The issue stems with backstops – in Mapunapuna they have flapper valves.
- Ponding can easily happen from compounded earth, but rain gardens can capitalize on flow.

- Local knowledge can influence and contribute to the planning process.
- In East Honolulu 16 of 18 streams are channelized.
- Ideally the streams would have more curves for slowing the water, but now their hydrology is altered and velocity of water has increased.
- Altered plumbing codes can expedite green infrastructure implementation.
- Impervious surfaces are a problem.
- There are current trade offs between space constraints of land.
- Statewide we participate in NFIP program.
- Maui County and Hawaii County participate in the FEMA CRS program.
- Flood measures taken by the City of Roseville, CA has enabled them to take a 45% discount on flood insurance.
- Coastal community planning can incorporate hazard-resilient coastal and waterfront Smart Growth.

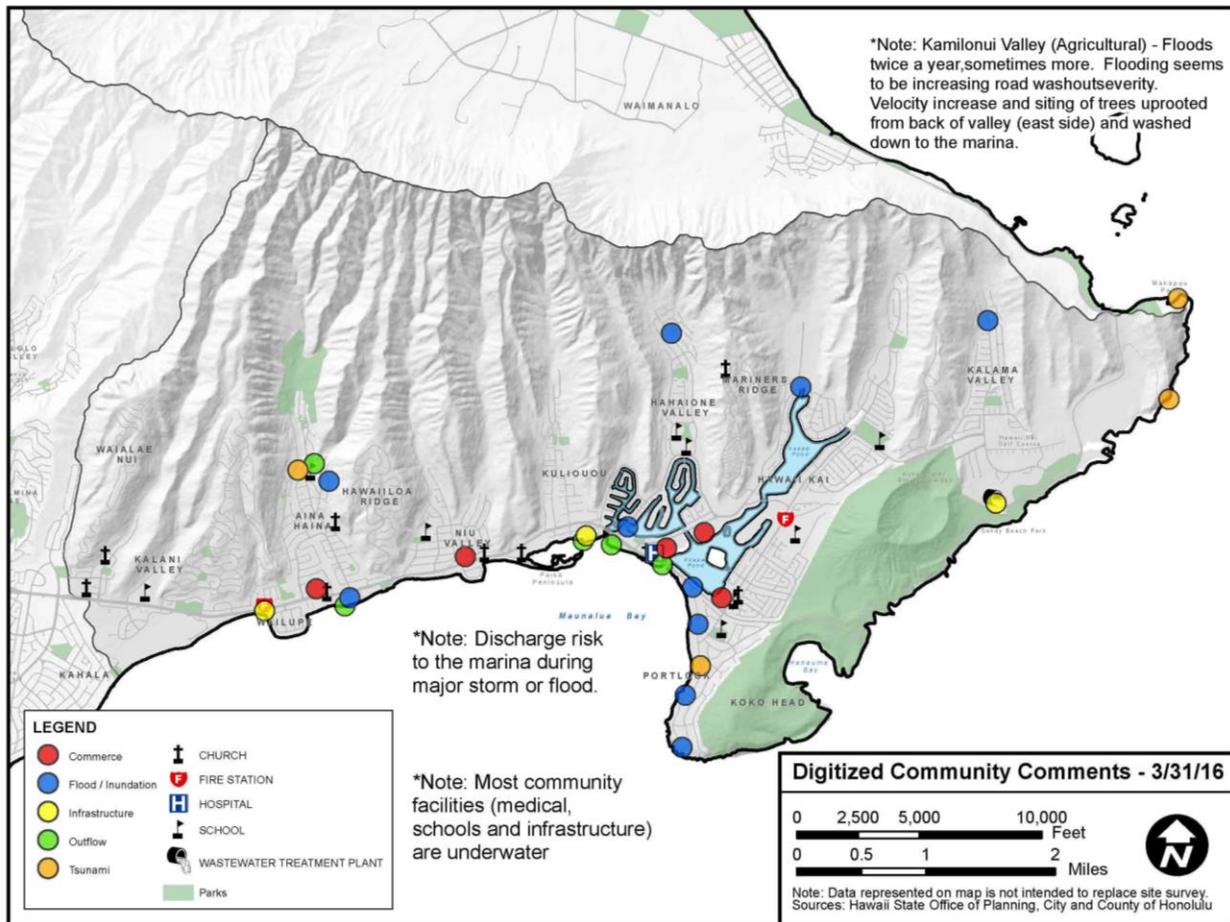
3. Q&A response to Matthew Gonser Presentation

- Can green infrastructure really become a reality? We can't put holes in the ground. We can't make Ala Moana green.
- There are solutions at the landscape scale that we can do, for instance, narrowing lanes to accommodate vegetated buffer strips.
- If we find additional lanes for cars on the highway, maybe we can find strips for vegetation too.
- All new redevelopment has to hold water on site; and if it can't be held on site it has to go through a biofilter.
- We are not seeing Low-impact development (LID) here. When there is development they do not follow LID rules.
- Everything is already built in East Honolulu and very little will be redeveloped, with maybe the exception of maybe Koko Marina.
- Standards for LIDs may not have been updated fast enough.
- Smart growth (increased density) and infill must be cognizant of risks and appropriate to sub-urban setting.

4. Presentation: Introduction to Online Mapping Tools, Thomas Blair, City and County of Honolulu, DPP

- [NOAA SLR maps](#)
- [FEMA interactive flood maps](#), [FEMA FIRM maps](#) or [City GIS map flood layer](#)
- [NOAA tsunami maps](#) or [City tsunami maps](#)
- [Coastal erosion maps\(SOEST\)](#)
- SLR, coastal erosion, and flooding in Maunalua Bay, 2100 (Fletcher, Chip)

5. Conceptual Mapping Exercise for East Honolulu:



[Download digitized results of mapping exercise](#)

Group 1 Mapping Exercise

- In '46 the tsunami went up to the elementary school. They go up the streams. In '88 I lost my house to the flood. There was so much water that came down it flooded the ditch. All developers in the early 1900s were required to build a 3' wide by 3' high ditch. It wasn't real cement; it was cheap. The adobe clay undermined the foundation. I looked down and there was a big sink hole. So much water had come down it had damaged the culvert.
- In terms of commerce and shopping, there is a big care home next to the park on Summer Street. In the '88 flood they evacuated the seniors. The '88 flood gouged roads up the valleys. We must consider where we house our seniors.
- In Kalama Valley, we get sudden downpours in these 3' x 3' foot ditches. 2-3 feet of water comes in a sudden downpour. In the 1988 flood, it dug the earth up so deep that manholes looked like towers, the earth was ripped out.

- In a disaster circumstance, Costco, Longs, Safeway go down. The WWTP also presents a major health issue. In 1946 there was a 4.5 m tsunami, and that may have swamped the WWTP.
- In terms of agriculture, during the rain events, the infrastructure and agriculture gets compromised. The trees and shrubbery are ripped out, you can walk to the back of the valley and see where it gets ripped out.
- When the upper watershed experiences unusual rain events, are they made more extreme by man-made intervention?
- Rainfall events of 2015 seem unprecedented. There is a specific case with a private landowner, where the water is running down and creating a 'fanning' effect (like a delta). The water gets choked in an area of unnatural activity. There is 10 years worth of post-construction debris up there, and the water issues are made worse by the art of compaction. The upland post-construction debris site impacts the watershed.
- The agricultural road gets washed out about twice a year making it impossible to drive in or out for up to 4 days at a time. Also four watersheds empty into the marina. Water quality of the marina is a product of upland sources and sedimentation.
- The Chevron and the 76 gas stations are in vulnerable zones (the 76 is in the extreme tsunami hazard zone, the Chevron is in the regular zone).
- We are worried about both flooding depth and flood debris. It's a combination of 3 days of flash flooding, but it changes.
- Development on the ridges channels water from up on top. All valleys are in danger. We don't know when the water is going to "top out" and come down the side of the ridge, versus the front of the ridge when it is raining or know when ridges will fail. In '89 the Kaiser drain was blocked. Maintenance of the stream channels is an issue

Group 2 Mapping Exercise

- We took as a given that all of our services will be wiped out. All commercial areas are along Kalaniana'ole Highway or Kuapa Pond which are vulnerable. Costco and Safeway will be knocked out. Our group focused on the potential toxic impacts of sediment and pollution.
- Wailupe and Kuliouou are major contributors to what is coming out into the bay. Sediment and pollution drain into the bay, and the circulation pattern becomes eddy-like, it takes 99 years to flush pollutants out. The flushing pattern accelerates mudweed growth which further hinders flushing. Clearing out the mudweed can drastically reduce the flushing time. It also means that any pollution that enters into the Bay is a threat since it will not flush out.

- The blue areas we marked as heavy rain events. In 2014 Portlock experienced street flood and some upland flooding.
- Waters came halfway up the hill to Poipu. We also put a blue dot on the area we have begun calling the Great Lawn near Keahole Street. We had 8-10 days of rain in 2014. This area had lots of water just sitting on the ground for long periods of time. Maybe it was percolation of groundwater. Our assumption is that it is low-lying and proposed development in that area would be under threat but it has not been formally studied.
- Is the sewer treatment plant is permitted to flush into the bay?
- We need to reduce the water and energy coming out of the channels, and the velocity of streams, since there is no meander. We need best practices for slowing the water flow, decreasing the velocity, and capturing sediment. The conservation lands in the back of the valleys could be helpful in managing storm water better.
- We need to install catch basins in upland areas and divert water away from marina. Kaiser created a rain garden and diverted and mitigated some of the flooding. We know that the impact of critical infrastructure is huge in comparison to the efforts of private citizens on small pieces of land, even if everyone took individual action. There also has to be a cost-benefit analysis to determine how infrastructure is retrofitted.
- There is new research underway on bleach resistant corals. What is the cost of a reef gone and what effect would that have on flood patterns? If we have a fragile, unhealthy ecosystem and increased mudweed etc.
- Koko Head Elementary will be inundated; it's an evacuation spot but too low. It is shown as in the "extreme" tsunami hazard zone, but I think it is more vulnerable than that. Also when they were repaving Kalaniana'ole Hwy a few years ago they were digging up pipes and discovered 1 MGD of freshwater was being discharged to stormwater.
- Streams with bridges are choke points. All bridges on Kalaniana'ole are choke points for debris.
- 'Built' does not mean permanent. 'Built' areas can always be retrofitted. Sea Grant helped funding 10 mega filters at parking lots which reduced pollutant loads to Maunalua Bay by a significant percent.

6. Presentation: Summary of DPP position, Bob Stanfield, City and County of Honolulu, DPP:

- Worldwide, the model for how communities do land use and infrastructure planning is being transformed.

- John Wihbey's recent article, "[Embracing Uncertainty](#)" in the April 2016 issue of the LandLines online magazine describes this change in planning:
 - The classic community plan has been optimistic, pursuing a vision of some desired future, a new utopia with good jobs, affordable homes, green space and all the children above average
 - The new plans are more pessimistic or pragmatic, exploring what may happen beyond the control of community leaders and planners
 - Wihbey talks about planners working with their communities to develop scenarios of what might happen and discuss how the community could adapt, recover, and prosper under each scenario.
 - I see this as the planning equivalent of the drills that the Community Emergency Response Teams (CERT) go through as they figure out how they would respond to a hurricane, earthquake, or tsunami.
- This new kind of planning is going by a variety of names:
 - Resiliency Planning
 - Pre-disaster Planning
 - Climate Change Adaptation Strategy Planning
 - Disaster Recovery Planning
- The bottom line is that they all are attempts to assess risk, reduce vulnerability, and improve resiliency.
- We are beginning to incorporate this new kind of planning into our DPs and SCPs as we adopt policies and guidelines promoting vulnerability reduction, resiliency improvement, and adaptation to impacts of climate change.
- Historically we in Hawaii have always had exposure to coastal hazards and have suffered major disasters over the years. The question is not if we will have future disasters, but when. Every year is another roll of the dice. We cannot expect to always have a lucky roll.
 - Just based on the historic pattern of disasters and the estimated likely impacts, we do have major vulnerabilities.
 - Climate change will increase our vulnerability to disastrous impacts across a wide range of impact areas.
 - As a community, we need to:
 - agree on what is most critical to address first,
 - reach consensus on how to best reduce vulnerability and increase resilience,
 - adopt the needed rules, regulations, and standards, and
 - fund the needed projects

- DPP is participating in State processes that are looking at how to reduce vulnerability to coastal hazards and adapt to climate change
 - OP/CZM Ocean Resources Management Plan actions are focused on coastal hazards (both existing and projected due to climate change)
 - Honolulu building code review by Gary Chock
 - Maui pre-disaster planning (triage for redevelopment after disaster, how to build back smarter)
 - Maui strategic retreat study for coastal developments
 - ICAC is focused on flooding and coastal erosion caused by sea level rise due to climate change. They are preparing statewide mappings of projected flooding and coastal erosion, and will submit a report with recommendations to the 2018 State Legislature.
- DPP has adopted resiliency/pre-disaster/and climate adaptation policies and guidelines in three of the City's long range plans (DPs/SCPs).
- At a future meeting, we will ask for this group's reaction to policies and guidelines proposed to be included in the Public Review Draft of the EHSCP.
- DPP is considering revision of building codes to improve resiliency and adapt to climate change impacts.
- The City is evaluating protective measures for the Ala Wai watershed and Waikiki proposed by the USACE.
- BWS is helping fund a UH study which will assess the impact of climate change on future rainfall amounts and rainfall intensity patterns for Oahu. The resulting Water Budget projection for Oahu will be useful for assessing water supply/drought conditions and drainage capacity issues
- UH is conducting a wastewater infrastructure vulnerability study to help assess what should be done to reduce vulnerability and increase resiliency of Honolulu's wastewater infrastructure.
- OMPO is assessing highway infrastructure vulnerability to coastal hazards as impacted by climate change.
- Planning for the Primary Urban Center is likely to raise the issue of how to adapt Honolulu's most valuable economic, cultural, and governmental areas to reduce vulnerability and increase resiliency.
- [Rotterdam's Climate Change Adaptation Strategy](#) is an inspiring example of how a community can adapt itself to create a climate proof city. The essence of their approach is to:
 - reduce the community's vulnerability to flooding, extreme rainfall, drought, and high temperature, and

- profit from the opportunity to redesign and adapt their city by creating a safer, more attractive, lively, and economically strong city.

7. Workshop adjourned at 8:30pm

Workshop on Climate Adaptation and Hazard Management in East Honolulu*

Thursday, May 12, 2016

Hawaii Kai Library

6:30-8:30 p.m.

Workshop Purposes:

- Provide information about potential use of green infrastructure in East Honolulu
- Discuss DPP options for incorporating climate adaptation elements in revised Sustainable Community Plans

Agenda:

- 6:15-6:30: Sign in
- 6:30-6:45: Welcome, brief introductions and review purposes of meeting [Kem Lowry, UH Manoa, Facilitator]
- 6:45-7:15: Presentation on green infrastructure [Judith Stilgenbauer, ASLA, School of Architecture, UH Manoa]
- 7:15-7:40: Questions and discussion
- 7:40-8:15: Presentation on DPP recommendations for incorporating specific vision elements related to climate adaptation in the East Honolulu Sustainable Community Plan.
- 8:15-8:30: Summary and next steps

*This is not an official city meeting, but the city's Department of Planning and Permitting and the Office of State Planning are providing support.

East Honolulu Climate Change Adaptation Workshop #3

May 12, 2016

Kem Lowry, Facilitator

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Chung, Daniel	Koko Marina Shopping Center		
Clark, Robert	HK Marina Community Assoc.		
Cole, Noelle	City & County of Honolulu	768-8055	noelle.cole@honolulu.gov
D'Olier, Mitch	Malama Maunalua	292-8777	mitch@kaneoheranch.com
Garvin, Rene	Hawaii Kai Strong	396-9032	reneg@lava.net
Glei, Matt	Hawaii Kai Strong	222-1715	hawaiiikaistrong@yahoo.com
Gonser, Matt	UH Sea Grant		
State Rep. Mark Hashem	State Representative	586-6510	rephashem@capitol.hawaii.gov
Hiraoka, Sherri	Aina Haina Prepared	358-0479	sherri@townscapeinc.com
Holzman, David	Portlock HOA		
Ishihara, Janice	The Kahala Hotel and Resort	739-8843	jishihara@kahalaresort.com
Knudsen, Greg	Hawaii Kai NB no.1	395-3725	knudsen123@gmail.com
Lowry, Kem	Meeting Facilitator		
Lum, Heather	Kuliouou-Kalani Iki NB no. 2		
McGilvray, Frazer	Malama Maunalua		

East Honolulu Climate Change Adaptation Workshop #3

May 12, 2016

Kem Lowry, Facilitator

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Schatz, Steve	Malama Maunalua		
State Senator Sam Slom	State Senator		
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Taylor, Leighton	Malama Maunalua		
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Todani, Susan	Kamehameha Schools		
Tsukamoto, Jean	Malama Maunalua		
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State Rep. Gene Ward	State Representative	586-6420	repward@capitol.hawaii.gov

Climate Adaptation and Hazard Management in East Honolulu Workgroup Meeting #3

May 12th, 2016, 6:30pm - 8:30 pm

Hawaii Kai Library

- 1. Welcome and Introductions, Kem Lowry**
- 2. Presentation: Green Infrastructure, Judith Stilgenbauer, ASLA, School of Architecture, UH Manoa**
 - Require green roofs as part of building code.
 - East Honolulu has steep, short watersheds with a difference in rainfall from 200 inches to 20 inches / year. No room to really slow water flow to the sea.
 - Changing standards is a good step forward. Not sure how to do this. The watershed was blocked in Manoa and the current standards don't prevent flooding.
 - Invasive species are still a problem. Also fruit trees versus ornamentals are a concern because of rodents etc
 - East Honolulu protected by reef – can use living shorelines as a soft defense system. Other areas of Oahu would be difficult due to exposure from wave action.
 - Rebuild by Design vs. Anticipate by Design. Host a design competition in the same way New York has after getting hit with disasters. Results can affect policy as much as what actually gets built
- 3. Q&A response to Judith Stilgenbauer presentation:**
 - Doesn't development need to plan to hold 10 year storm water by code? I somewhat recall it came up in a recent meeting by George Atta on the Paiko Ridge development (over >4 acres).
 - Building wetland is like an "if they build it they will come" scenario. Rebuilding wetland could reintroduce wildlife and potentially regulations from the US Fish and Wildlife Service (USFWS) back into the urban area.
 - We must overcome fear of the unknown. We can deal with problems as they come. Softscape can bring back birds but it *may* attract rats (which are already here). Fear of unknown should not be a reason to not consider it.
 - How do we make these "Transition decisions"? How do we get from where we are to wetlands, or from Waikiki to Venice?
 - City must become more of a developer. Acknowledge there is a problem and spend to retrofit. Look at the lifecycle of the building and those in vulnerable

areas. When do you buy the easements or land? Timely retreat. Inventory buildings and compare with vulnerability map.

- When you fix something or touch something do it right, do it for 100 years. But improvements to existing infrastructure and homes are only piecemeal.
- Gary Chock is submitting recommended changes to the building code in 2018.
- A managed retreat is an option to SLR. But to do it you need to plan 50-75 years out. We also need to be more intervention minded, not just piecemeal.
- It is an operational strategy that we need. Not a hard-line master plan of what is saved or moved.
- Some of this can be done when shopping centers redevelop like they need to.
- 20 or so years ago Queen Emma Trust hosted a design competition which proposed to reintroduce green space back into the middle of Waikiki. It would serve partly an ecological function. Didn't pan out as the mayor host a competing design competition for the same area for what became International Marketplace.
- What can be done to hardened East Honolulu canals? Find land adjacent to the canals that are undeveloped. The more decentralized the stormwater management the better. You can introduce new policy to set back development certain distances from the canal. Require plantings adjacent to the canal to intercept runoff. Many of these are beyond the reach of USACE.
- We can use parks. Not a lot of undeveloped adjacent parcels other than parks.

4. Presentation: Next Steps, Bob Stanfield, DPP

- This working group does not begin and end with the Sustainable Communities Plan. You are welcome to continue meeting to discuss these important issues and would be willing to have a presence at those meetings.
- DPP is not ready to propose policies and guidelines for the regulations that should be imposed on private development subject to SLR impacts or for what climate adaptive neighborhood plans and designs should be implemented to protect, adapt or relocate uses along our coastlines.
- However, we are ready to propose "no regrets common sense" policies and guidelines for what to do in response to climate change based on the limited information we do have.
- More specifically, for East Honolulu, we are proposing to encourage East Honolulu communities to be more disaster resilient and to protect and conserve water resources by recommending adoption of the following policies/guidelines as part of a revised East Honolulu Sustainable Communities Plan.

1. Disaster Resilience
 - a. Consider coastal erosion and flooding due to SLR in setting required shoreline setback
 - b. Require developers of public and private projects in the shoreline area to analyze the impact of sea level rise on their project and incorporate appropriate measures to reduce vulnerability and increase resilience during the life of the project
 - c. Require developers of new public and private projects to insure their projects have:
 - i. Adequate Outdoor Warning Signal coverage;
 - ii. Adequate Evacuation Routes; and
 - iii. Adequate Emergency Shelter Access.
 - d. Survey and retrofit DOE and other public buildings to make up for the shortfall in hurricane resistant emergency shelters.
 - e. Design and build any new City buildings which could provide public shelter to withstand a Category 3 hurricane.
 - f. Provide incentives for private organizations to provide hurricane resistant shelters and for homes to include safe rooms.
2. Water Resources Protection and Conservation
 - a. Use xeriscaping, favoring Hawaiian plants
 - b. Protect against water contamination
 - c. Support water infiltration, and efficiency and conservation of water use.
 - d. Develop, where practical, alternative water supplies, and encourage use of technologies conserving water and using renewable energy.
 - e. Require use of Low-Impact Development (LID) Best Practices by new projects and redevelopment of existing projects to promote aquifer recharge and retention of storm waters, and to reduce storm water sedimentation and pollutant flows
 - f. Reduce sedimentation and pollutant flows by:
 - i. Addressing stream erosion problems
 - ii. Encouraging and requiring best management practices for erosion reduction and storm water handling; and
 - iii. Establishing vegetated stream buffer zones

5. Workshop adjourned at 8:30pm

Climate Change and Sea-Level Rise

East Honolulu Climate Change and Coastal Hazard Adaption Workshop

January 28, 2016

*Dolan Eversole-
University of Hawaii Sea Grant Program*



Intergovernmental Panel on Climate Change (IPCC)

IPCC <http://www.ipcc.ch/>

SPM: <http://www.climatechange2013.org/>

Climate Change 2013: *The Physical Science Basis*

IPCC Working Group I Contribution to AR5

The Twelfth Session of Working Group I (WGI-12) was held from 23 to 26 September 2013 in Stockholm, Sweden. At the Session, the Summary for Policymakers (SPM) of the Working Group I contribution to the IPCC Fifth Assessment Report (WGI AR5) was approved and the underlying scientific and technical assessment accepted.

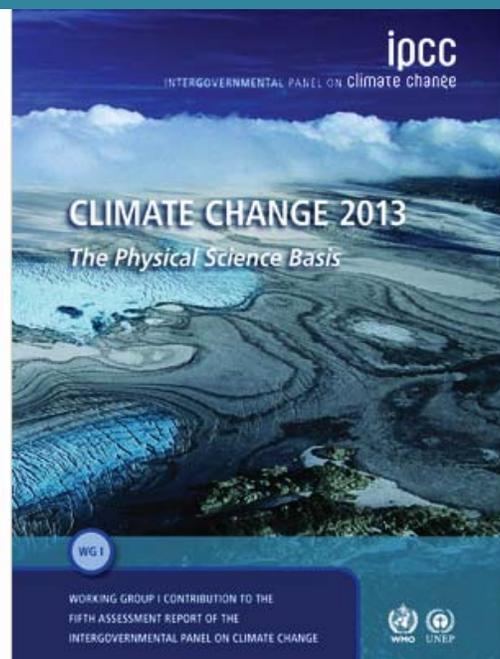
SUMMARY FOR POLICYMAKERS



FULL WGI AR5 REPORT



PDF - 1535 Pages - 375 MB



NATIONAL CLIMATE ASSESSMENT (NCA)

www.globalchange.gov/sites/globalchange/files/Regional_HI_V2.pdf

Regional Highlights from the Third National Climate Assessment
Climate Change Impacts in the United States, 2014

HAWAII AND PACIFIC ISLANDS

KEY MESSAGES

Warmer oceans are leading to increased coral bleaching events and disease outbreaks in coral reefs, as well as changed distribution patterns of tuna fisheries. Ocean acidification will reduce coral growth and health. Warming and acidification, combined with existing stresses, will strongly affect coral reef fish communities.

Freshwater supplies are already constrained and will become more limited on many islands. Saltwater intrusion associated with sea level rise will reduce the quantity and quality of freshwater in coastal aquifers, especially on low islands. In areas where precipitation does not increase, freshwater supplies will be adversely affected as air temperature rises.

Increasing temperatures, and in some areas reduced rainfall, will stress native Pacific Island plants and animals, especially in high-elevation ecosystems with increasing exposure to invasive species, increasing the risk of extinctions.

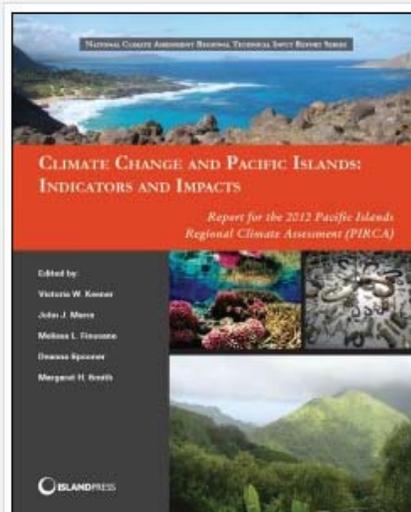
Rising sea levels, coupled with high water levels caused by storms, will incrementally increase coastal flooding and erosion, damaging coastal ecosystems, infrastructure, and agriculture, and negatively affecting tourism.

Mounting threats to food and water security, infrastructure, health, and safety are expected to lead to increasing human migration, making it increasingly difficult for Pacific Islanders to sustain the region's many unique customs, beliefs, and languages.

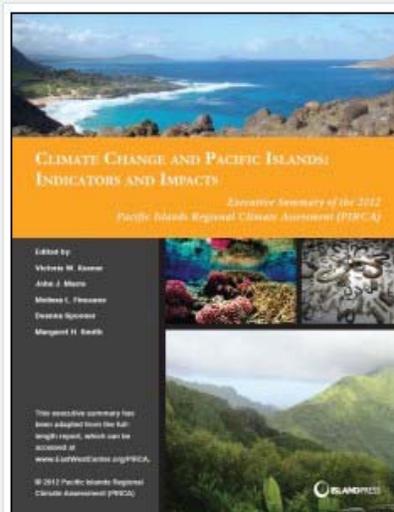
PACIFIC ISLAND REGIONAL CLIMATE ASSESSMENT (PIRCA)

www.pacificrisa.org/projects/pirca/

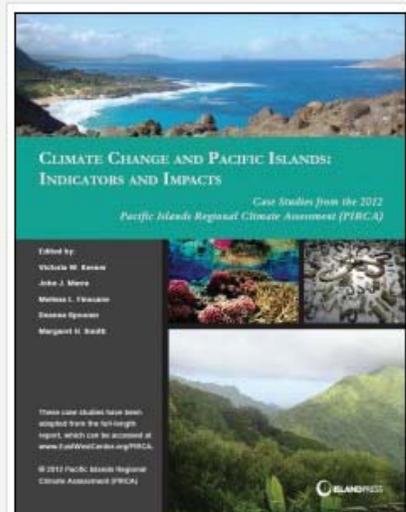
Download the 2012 PIRCA and supplementary documents here:



PIRCA 2012 Full Report
9.4 MB



PIRCA 2012 Executive Summary
14.0 MB



PIRCA 2012 Case Studies
9.9 MB

HAWAI'I CLIMATE CHANGE OBSERVATIONS

AND IMPACTS

<http://seagrants.soest.hawaii.edu/CCIH>



CLIMATE CHANGE IMPACTS IN HAWAI'I

A summary of climate change and its impacts to Hawai'i's ecosystems and communities

2014



Summary of Local Impacts of Climate Change to Hawai'i



The rate of **warming air temperature** in Hawai'i has quadrupled in the last 40 years to over 0.3°F (0.17°C) per decade. This warming could cause thermal stress for plants and animals, and heat-related illnesses in humans as well as expanded ranges for pathogens and invasive species.



A **decrease in the prevailing northeasterly trade winds**, which drive orographic precipitation on windward coasts, has been recorded in Hawai'i over the last 40 years.



Hawai'i has seen an overall **decline in rainfall** in the last 30 years, with widely varying precipitation patterns on each island. It is projected that Hawai'i will see more drought and heavy rains causing more flash flooding, harm to infrastructure, runoff, and sedimentation.



Declining precipitation trends have caused a **decrease in stream base flow** over the last 70 years, and could reduce aquifer recharge and freshwater supplies and influence aquatic and riparian ecosystems and agriculture.



Sea surface temperatures have warmed between 0.13°F and 0.41°F (0.07°C and 0.23°C) per decade in the Pacific for the last 40 years. This trend is projected to accelerate, warming by 2.3°F to 4.9°F (1.3°C to 2.7°C) before the end of the century. This warming can influence ocean circulation and nutrient distribution.



Global **ocean acidity has increased** by 30% due to marine uptake of CO₂, correlating to a pH change of 0.1. Acidification is expected to continue, with additional pH changes between 0.1 and 0.4 by the end of the century. Ocean acidification could trigger a wide range of impacts on marine biota, including inhibiting shell and skeleton growth in corals, shellfish, and plankton.



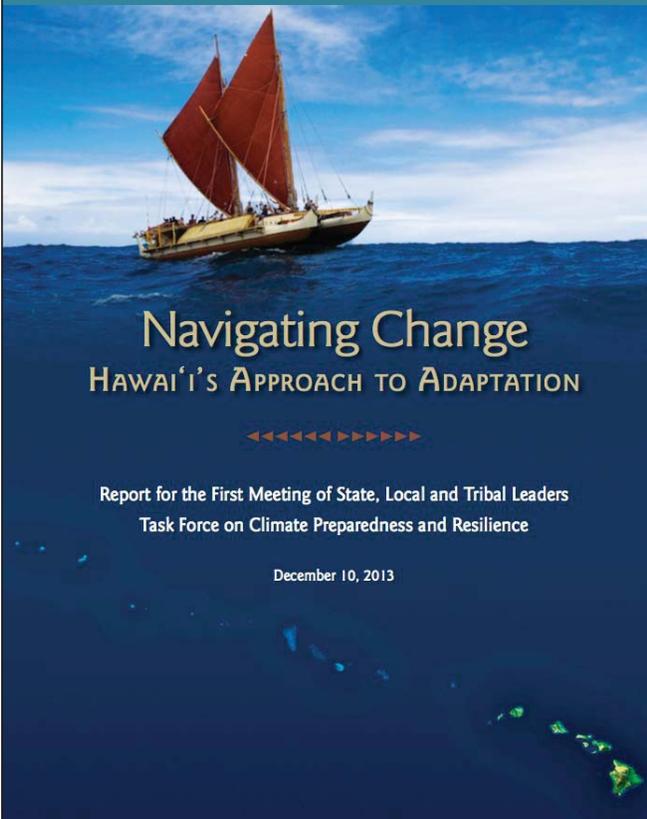
Sea level has risen over the last century on each island at rates varying from 0.5-1.3 inches (1.5-3.3 centimeters) per decade, which has contributed to shoreline recession. Accelerating rates of sea-level rise have been detected in global sea level data. Rates of rise are projected to continue to accelerate, resulting in a 1-3 foot (approximately 0.3-1 meter) rise, or more, by the end of the century. Sea-level rise will exacerbate coastal inundation, erosion and hazards, leading to the degradation of coastal ecosystems, beach loss, and increasing damage to infrastructure in low-lying areas.



Threats to human health posed by Hawai'i's warming climate may include increased heat-related illness and wider ranges of vector-borne diseases such as dengue fever.

HAWAI'I CLIMATE ADAPTATION

<http://governor.hawaii.gov/wp-content/uploads/2014/01/Navigating-Change-12914.pdf>



Executive Summary

This report describes the State of Hawai'i's unique position and perspective as a member of President Obama's State, Local and Tribal Leaders Task Force on Climate Preparedness and Resilience. Hawai'i's team of state, federal, and academic partners sought out knowledge and practices from a variety of local and regional sources. In response to the Task Force's charge to advise the Administration on how the Federal Government can best support resilience efforts, the Navigating Change Report also proposes initial recommendations in the areas of actionable information, coordination, and implementation.

Hawai'i's Vulnerability and Vantage Point

As the most geographically isolated islands on Earth, Hawai'i is especially vulnerable to the impacts of climate change:

- **Freshwater.** Hawai'i is 100% dependent on rainfall for our very survival. Rainfall and stream flows are declining.
- **Coastlines.** Hawai'i's shorelines (more than 750 miles) are its natural borders, but they are vulnerable to beach erosion and sea level rise.
- **Ocean Resources.** Pacific Islanders are ocean peoples. Rising temperatures and acidification kill the reefs, damage fisheries and jeopardize the island way of life.
- **Security.** Climate change is a matter of security for Hawai'i. Climate change will disrupt and then threaten economic systems—food, water, energy, biodiversity, and health. Hawai'i's people will be at risk.

Hawai'i shares a unique vantage point of the world as an archipelago of islands:

- An **indigenous host culture** with more than 1000 years of traditional knowledge and adaptation practice
- An **island understanding** of finite resources and the need for an integrated, collaborative approach—on islands, the feedback loops are direct, immediate and widely experienced
- An **Asia-Pacific regional connection** to islands, states and nations with shared issues

Hawai'i's Leadership in the Face of Climate Change

Hawai'i is already a leader on climate change both nationally and internationally. The Hawaiian Islands are a learning laboratory for scalable, innovative mitigation and adaptation policies and techniques, and a model for local and regional collaboration.

- Hawai'i was the first sub-national government to sign onto the Majuro Declaration for Climate Leadership
- Hawai'i was the first state in the nation to adopt a barrel tax on imported petroleum to support clean energy
- Governor Abercrombie signed Climate

Change Adaptation Priority Guidelines into law for multi-sector resilience

- Hawai'i hosts several research institutions and regional collaborations around climate change

Hawai'i's Top Recommendations: An Opportunity to Strengthen Resilience with Federal Partners

- 1. Provide actionable information for local decision-making and the island context**
 - First Step: Support Task Force members' engagement of local stakeholders to develop specific recommendations and expedite the development and delivery of priority technical assistance
 - 2. Facilitate ongoing coordination and alignment of efforts after the Task Force dissolves**
 - Convene an International Climate Change Resilience Forum at the East-West Center to coordinate domestic and international resilience efforts, especially in the Asia-Pacific region. "Think Globally, Act Locally"
 - Establish a National Climate Change Network to coordinate federal efforts and facilitate state-to-state, local-to-local best practice sharing in real time
 - 3. Support implementation for "smart adaptation"** Recognize islands and indigenous perspectives, and the unique, biocultural needs of local communities in order to develop site-specific and appropriate place-based information, investments, incentives and barrier removal
- Hawai'i's Next Steps**
Governor Abercrombie will convene a Resilient Hawai'i Forum in early 2014 to engage more stakeholders, including Native Hawaiian organizations, natural resource managers, the military, tourism officials, agricultural representatives, researchers and government at all levels to identify specific recommendations. These recommendations will be forwarded to the Task Force and County and State officials for consideration.

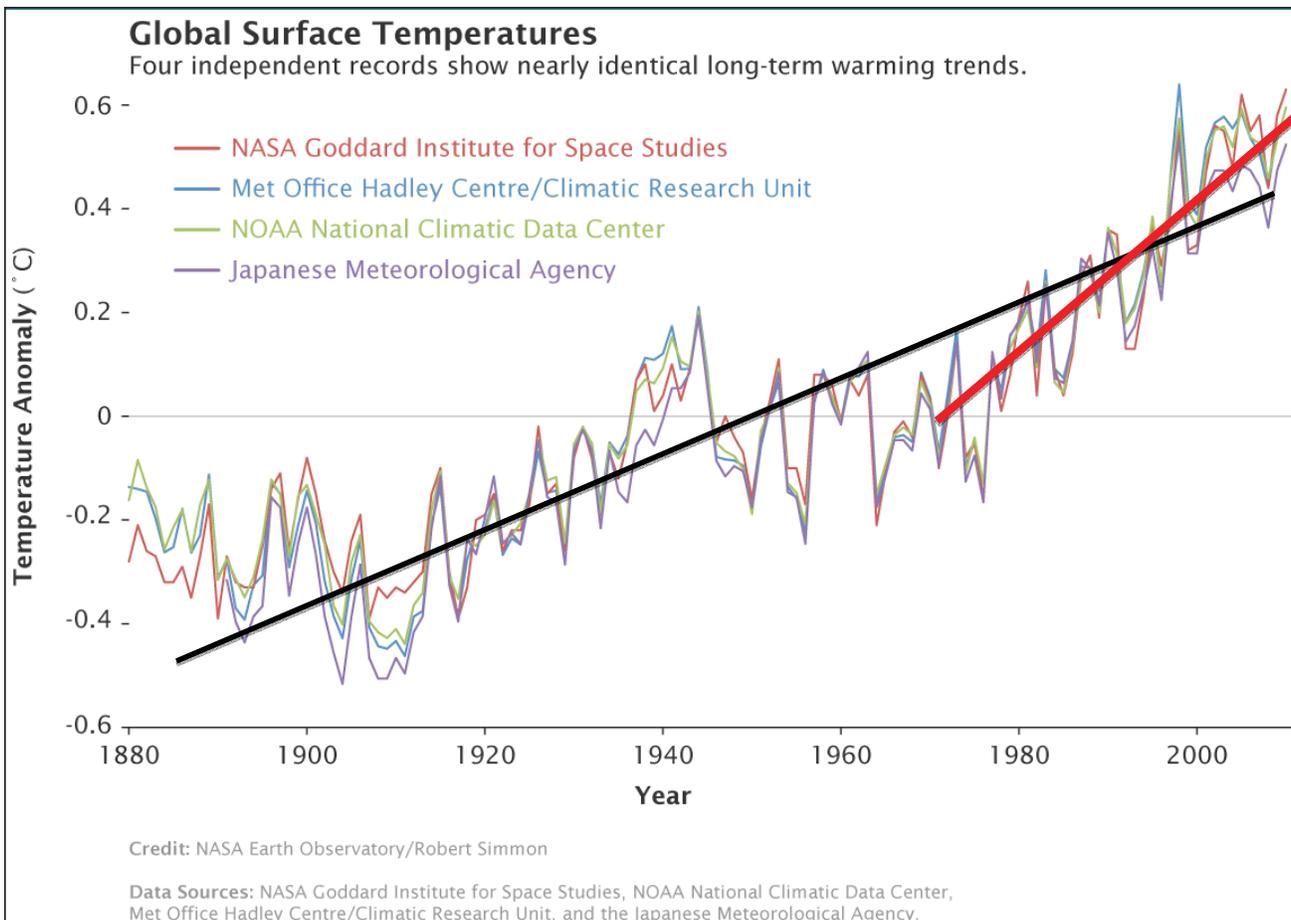
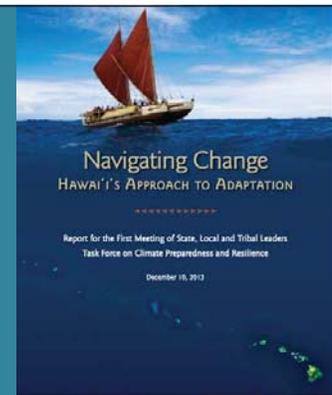
HAWAI'I CLIMATE ADAPTATION PLAN

2014 Legislative Accomplishments:

House Bill 1714 (Act 83) (Hawai'i Climate Adaption Plan)

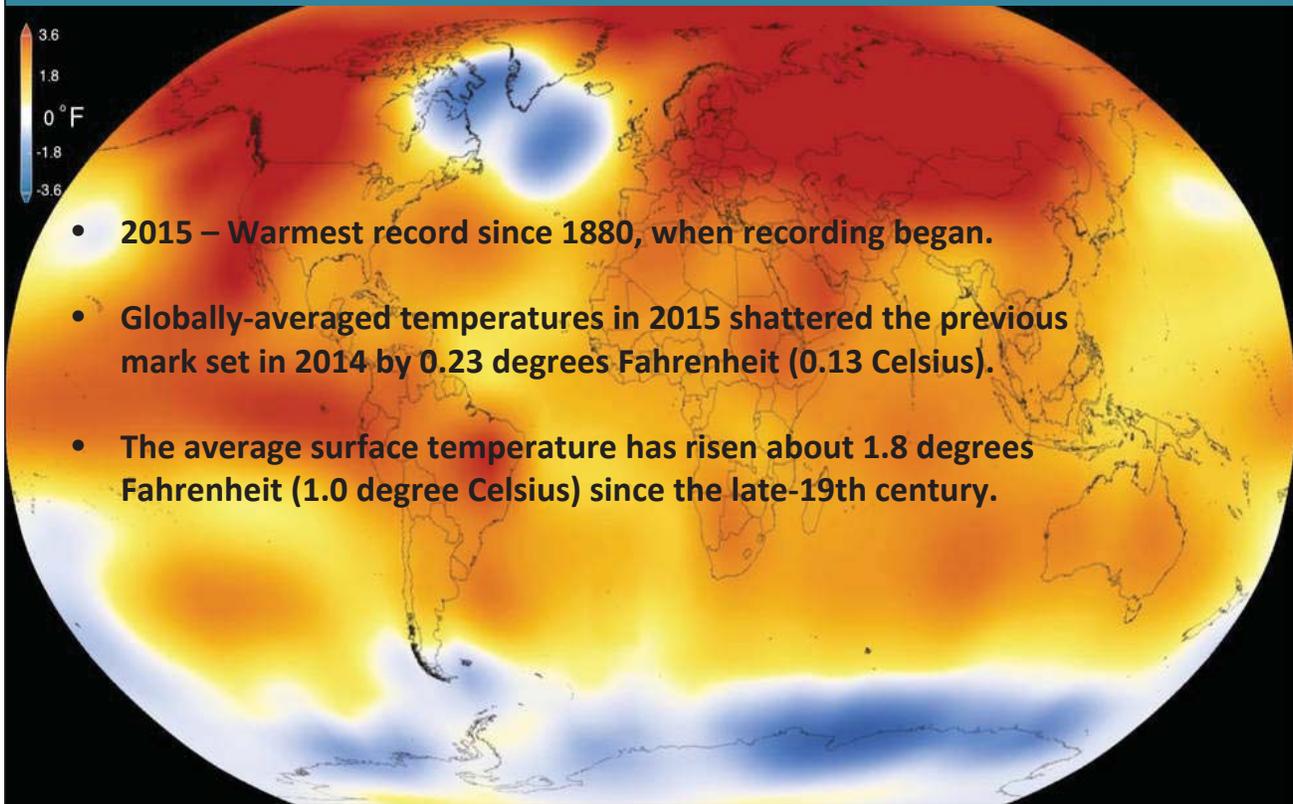
SLR Study: Establishes an interagency climate adaptation committee under the Department of Land and Natural Resources (DLNR) to develop a sea-level rise vulnerability and adaptation report addressing statewide impacts to 2050.

Adaptation Plan: Act 83 also authorizes the Office of Planning (OP) to coordinate the development of climate adaptation plans and policy recommendations and to use the committee's report as framework for addressing other climate threats and climate change adaptation priorities.

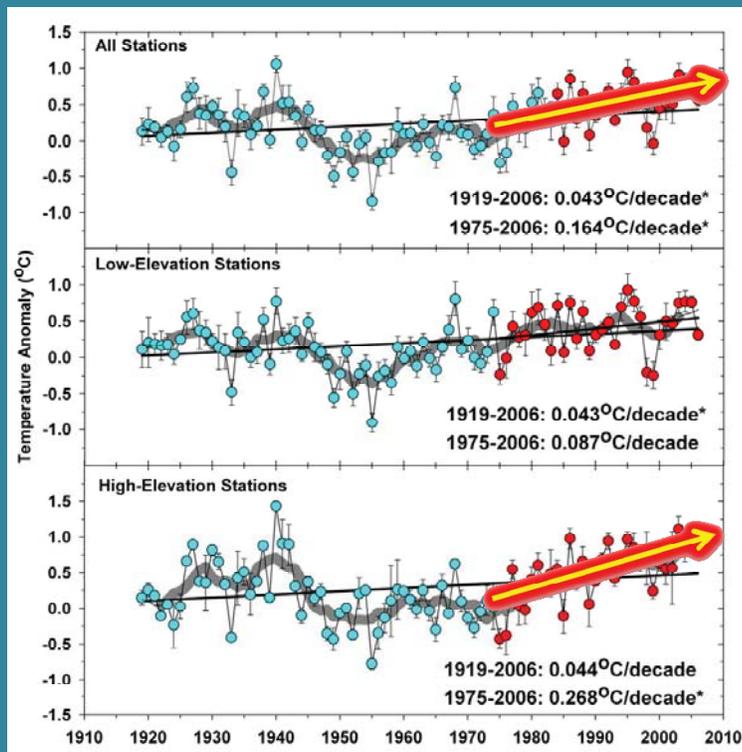


2015 Sets new global temperature record

NASA and NOAA record measurements



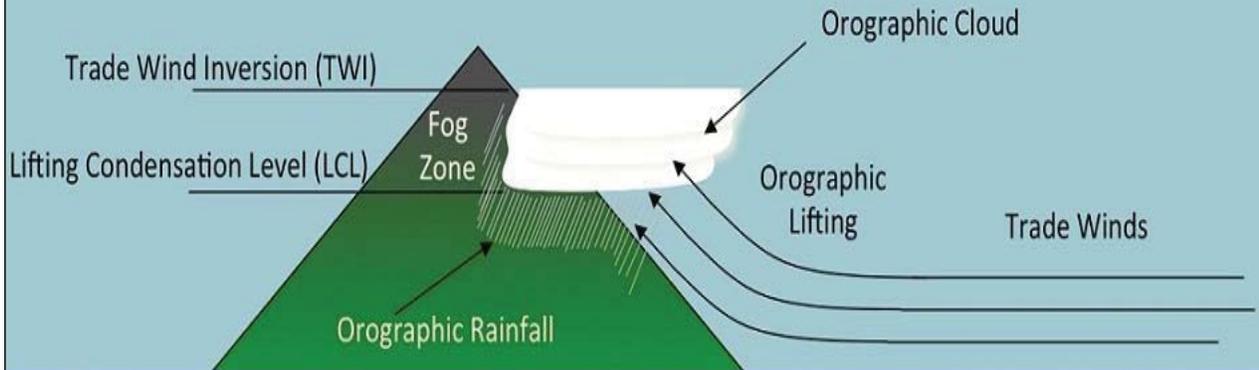
Hawai'i Temperature Index



30-yr change = +0.9°F

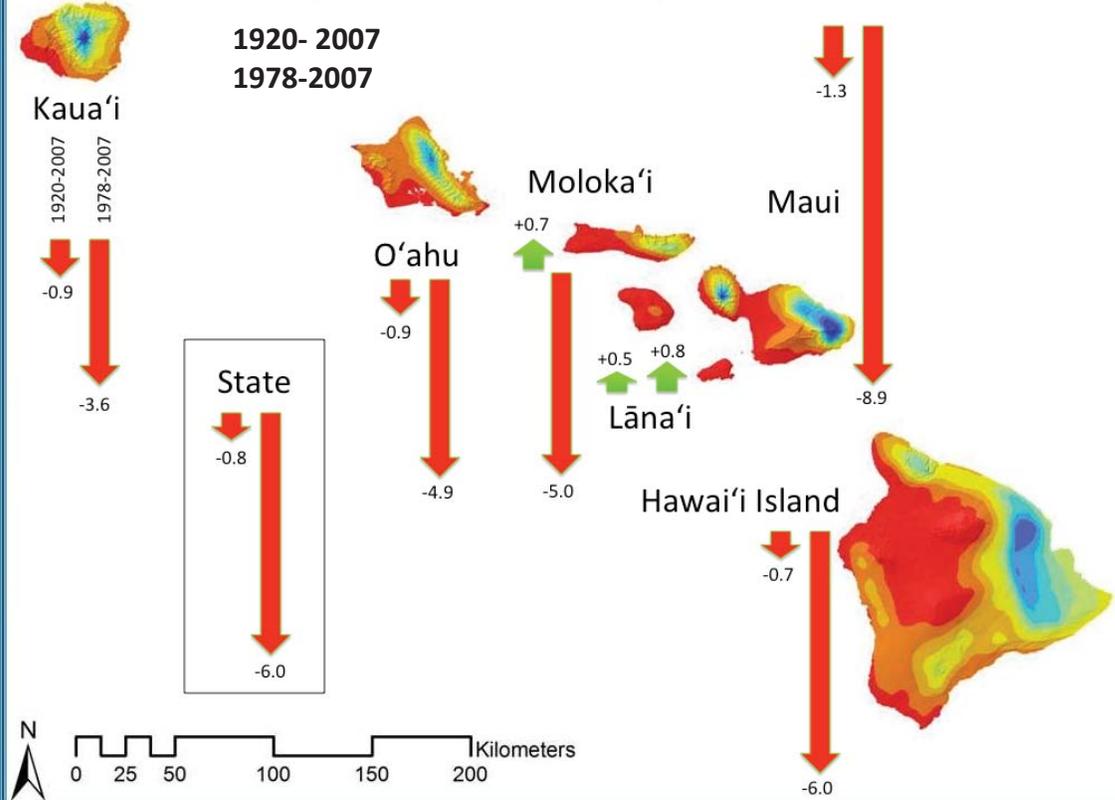
30-yr change = +1.4°F

The Orographic Cloud



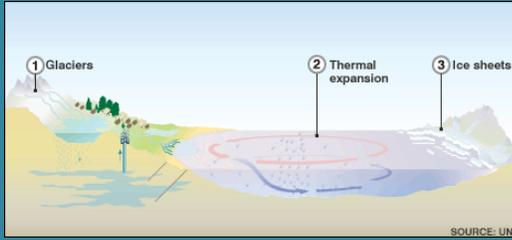
Giambelluca et al. 2011. The Rainfall Atlas of Hawai'i. <http://rainfall.geography.hawaii.edu>.

Precipitation Trends (% per decade)

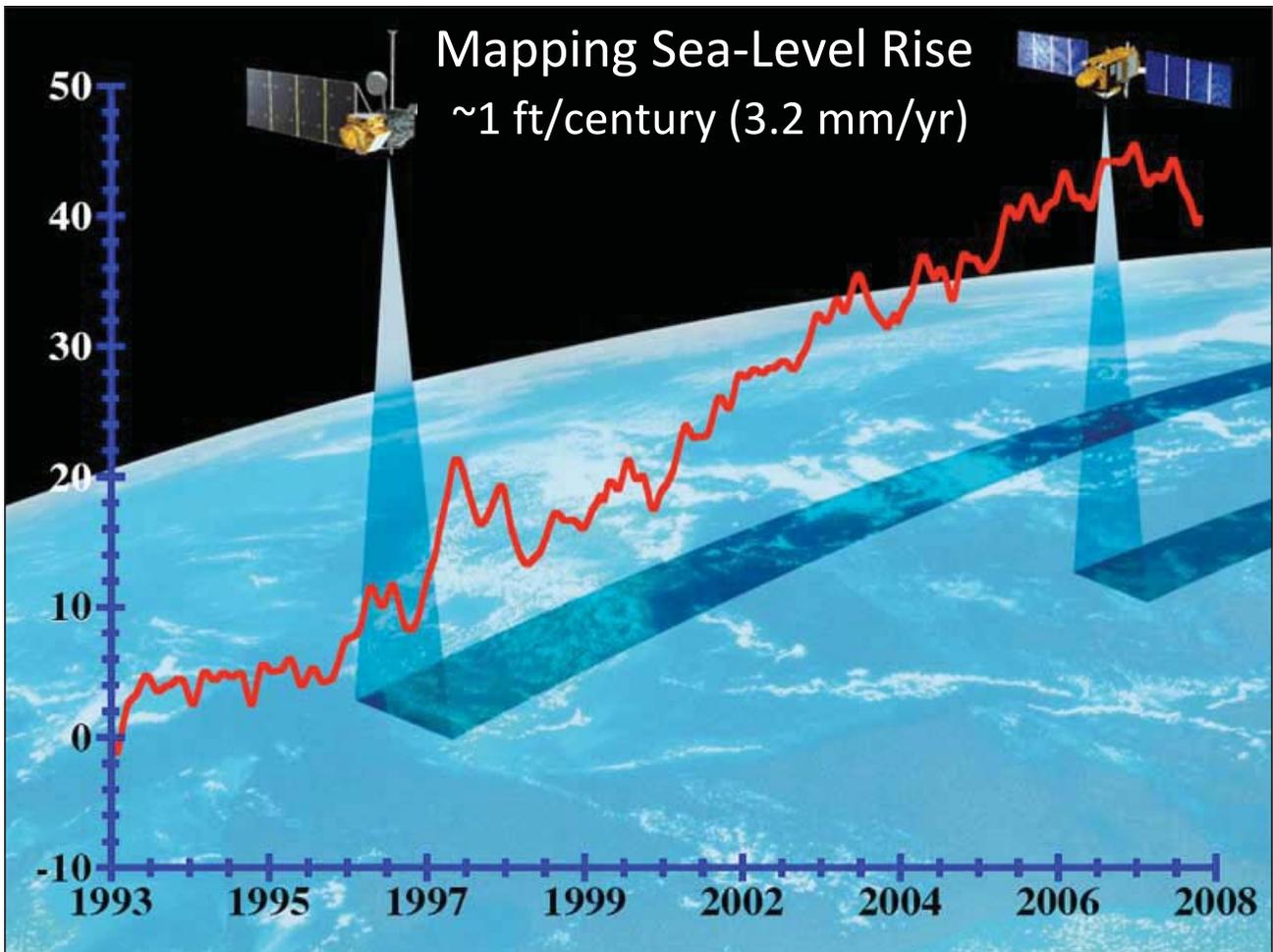
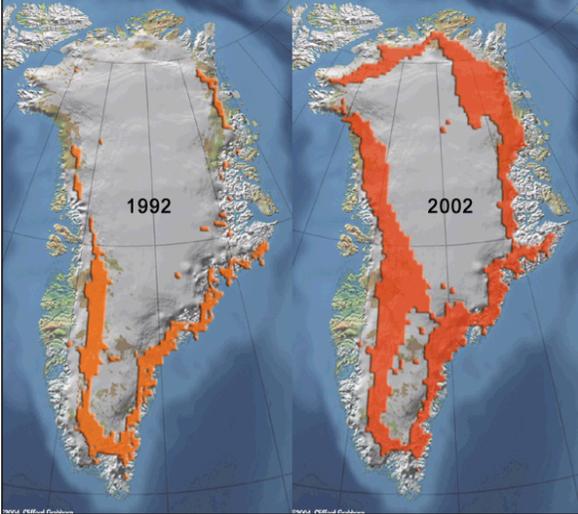


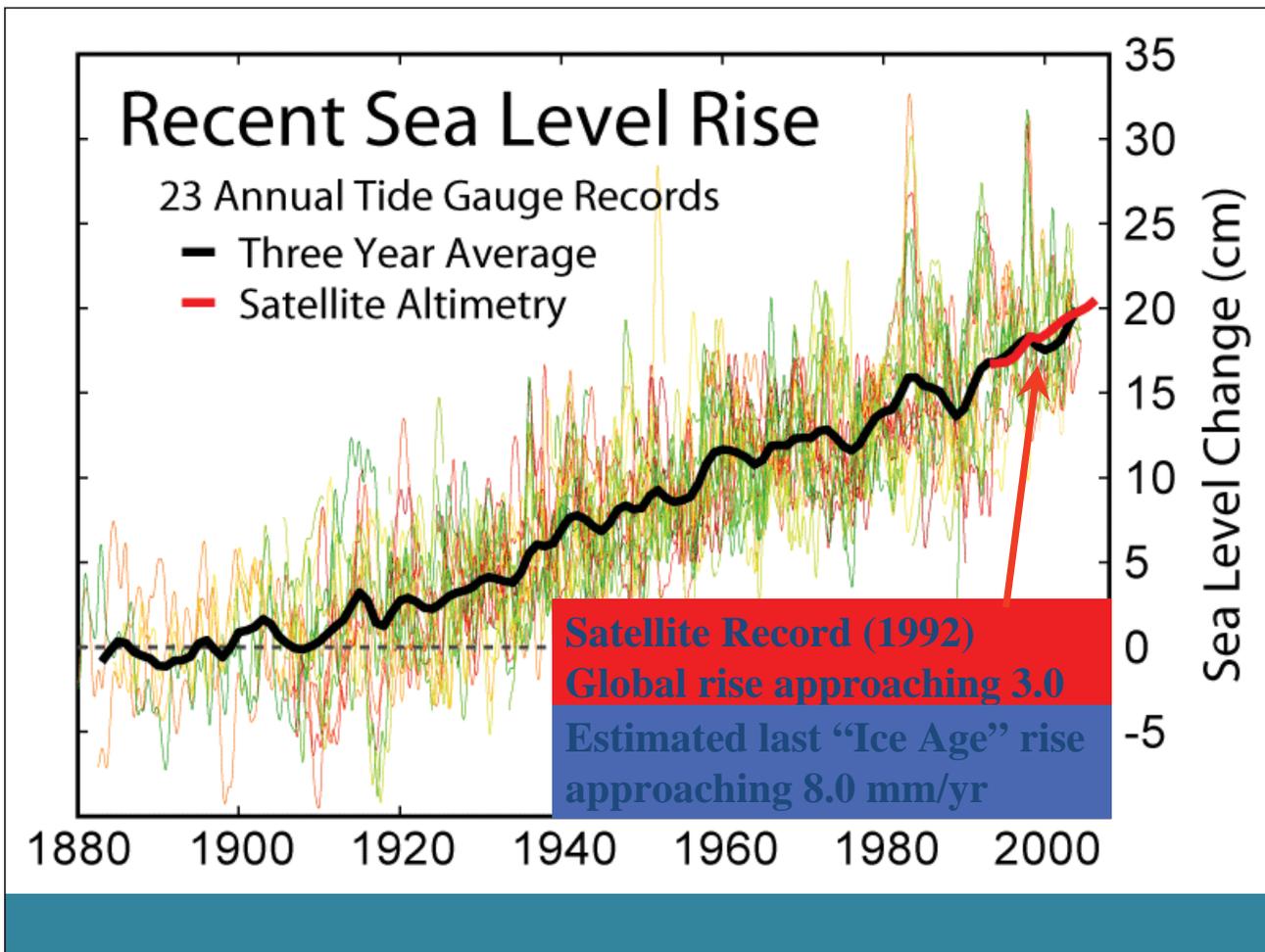
Giambelluca et al. 2011. Regional climate trends in Hawai'i. American Geophysical Union Fall Meeting, Abstract GC21B-0898.

Contributions to Sea-Level Rise

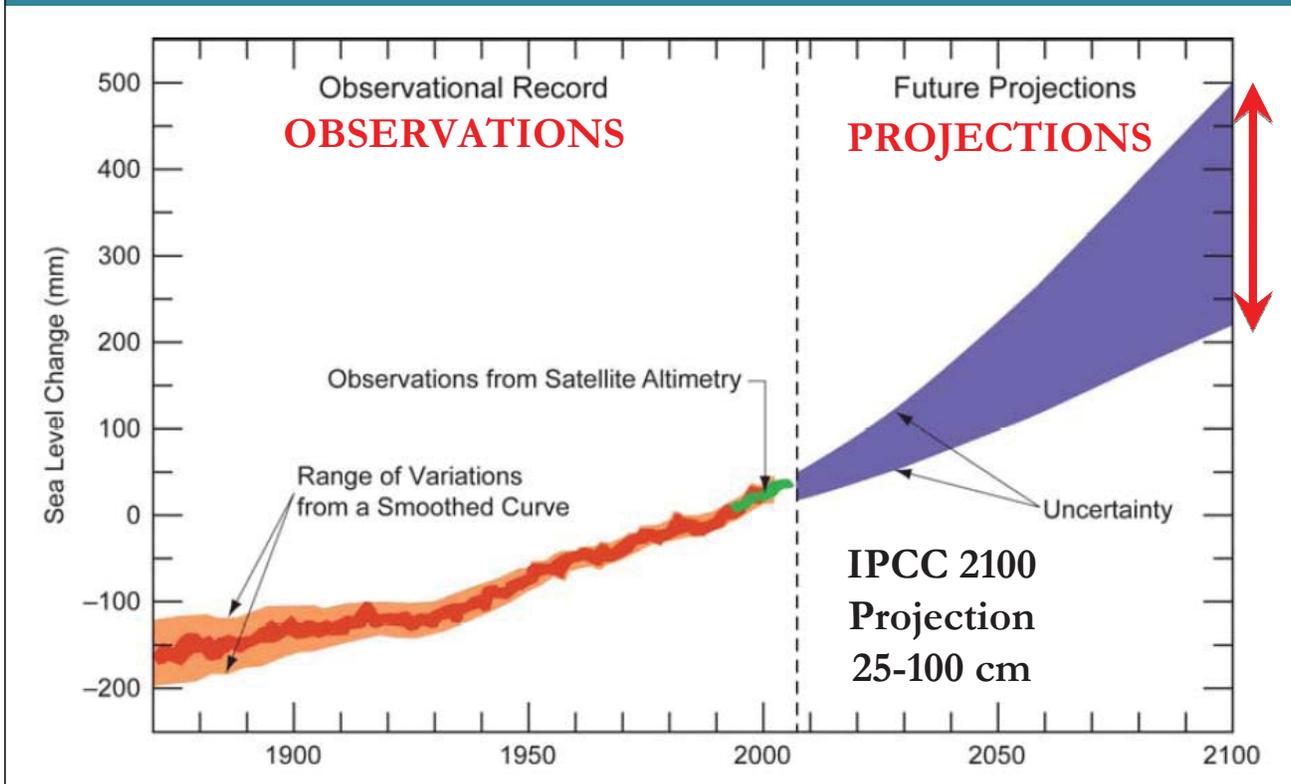


Greenland Ice Sheet Melt 1992 to 2002



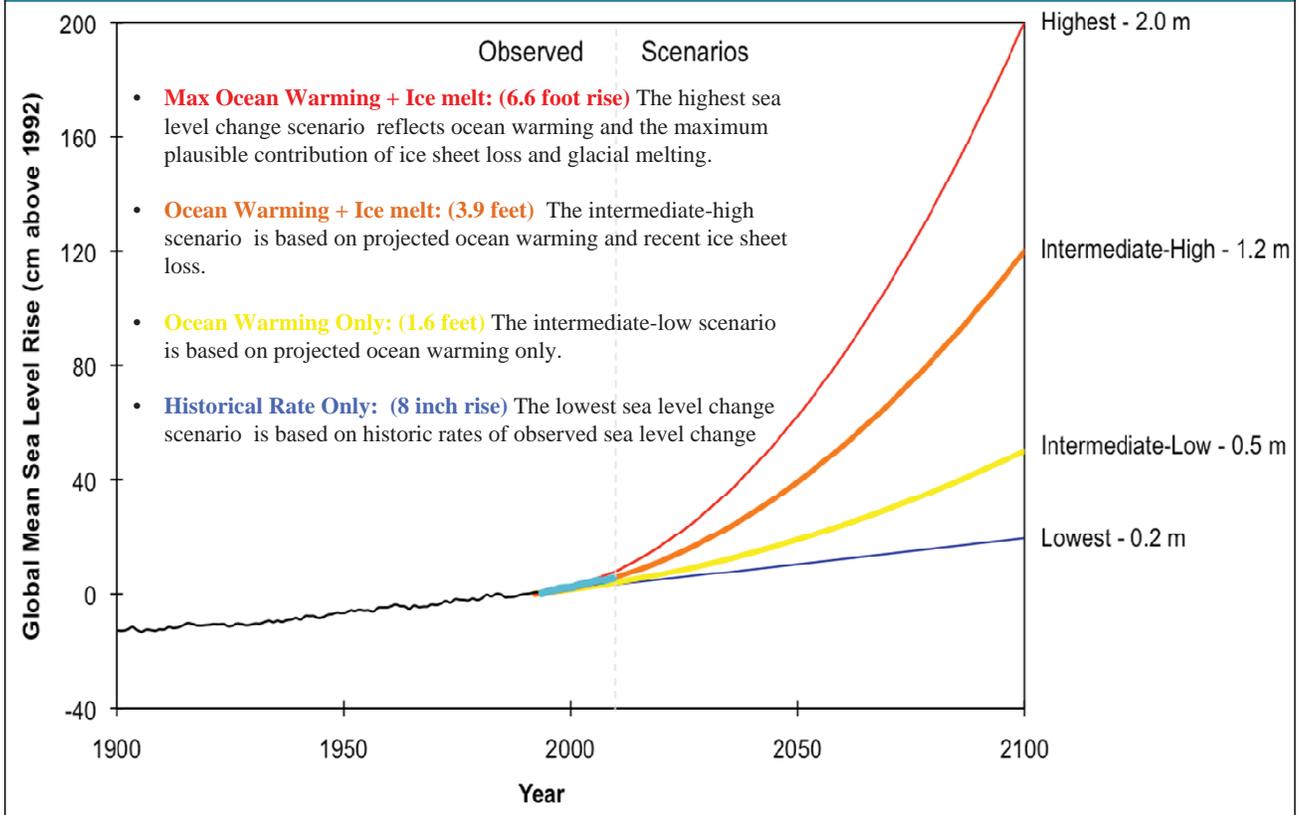


IPCC Sea-level Projection



NOAA SLR Scenarios

Climate Program Office



President Obama 2015 Executive Order 11988

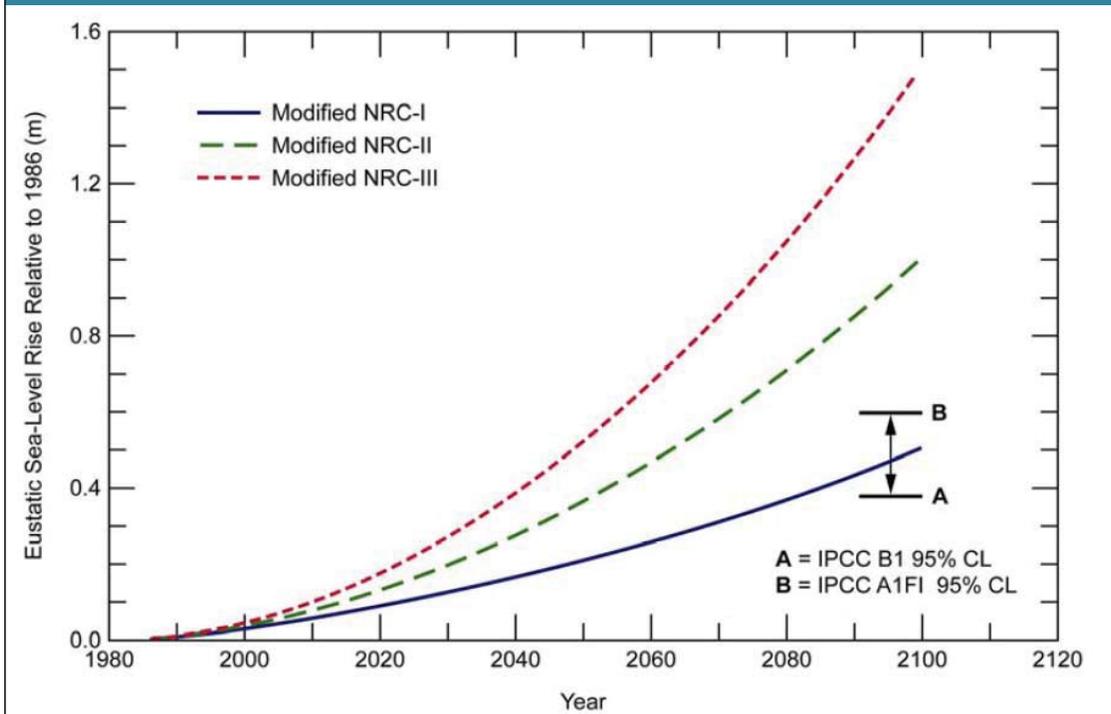
Establishing a Federal Flood Risk Management Standard

Federal agencies have **3 options for establishing the flood elevation** and hazard area they use in siting, design and construction of federal projects.

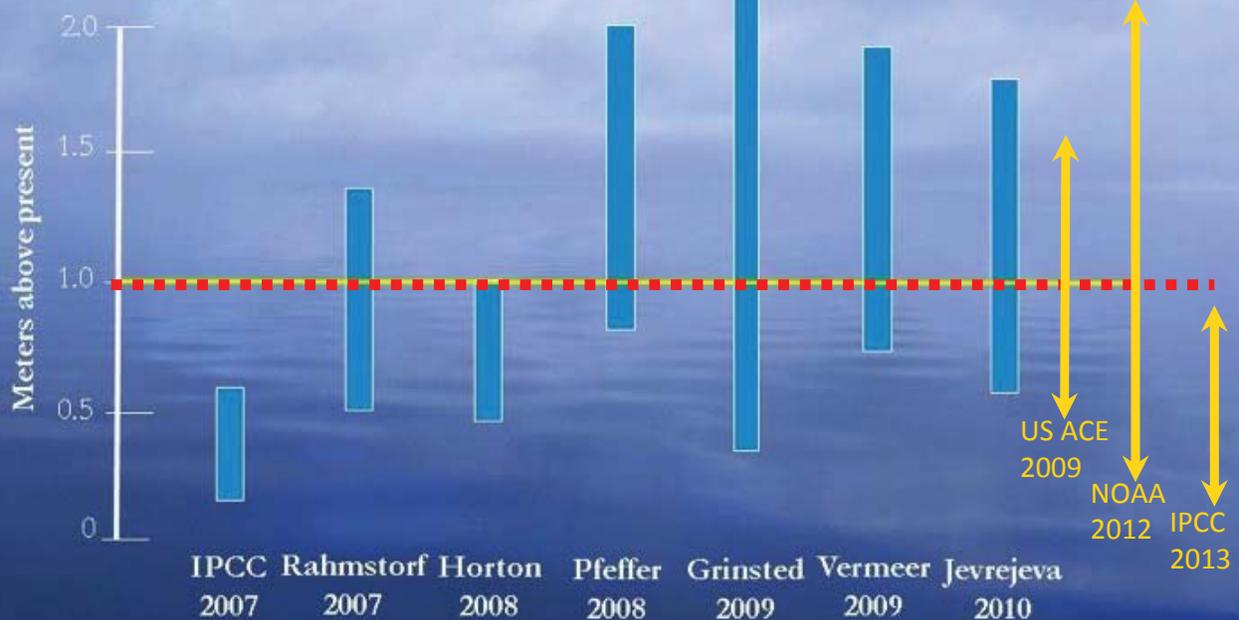
1. They can use data and methods “informed by *best-available, actionable climate science*”;
2. *Build 2 feet above the 100-year flood elevation* for standard projects and
3. *3.3 feet above for critical buildings* such as hospitals and evacuation centers;
4. or build to *the 500-year flood elevation*.

U.S. Army Corps

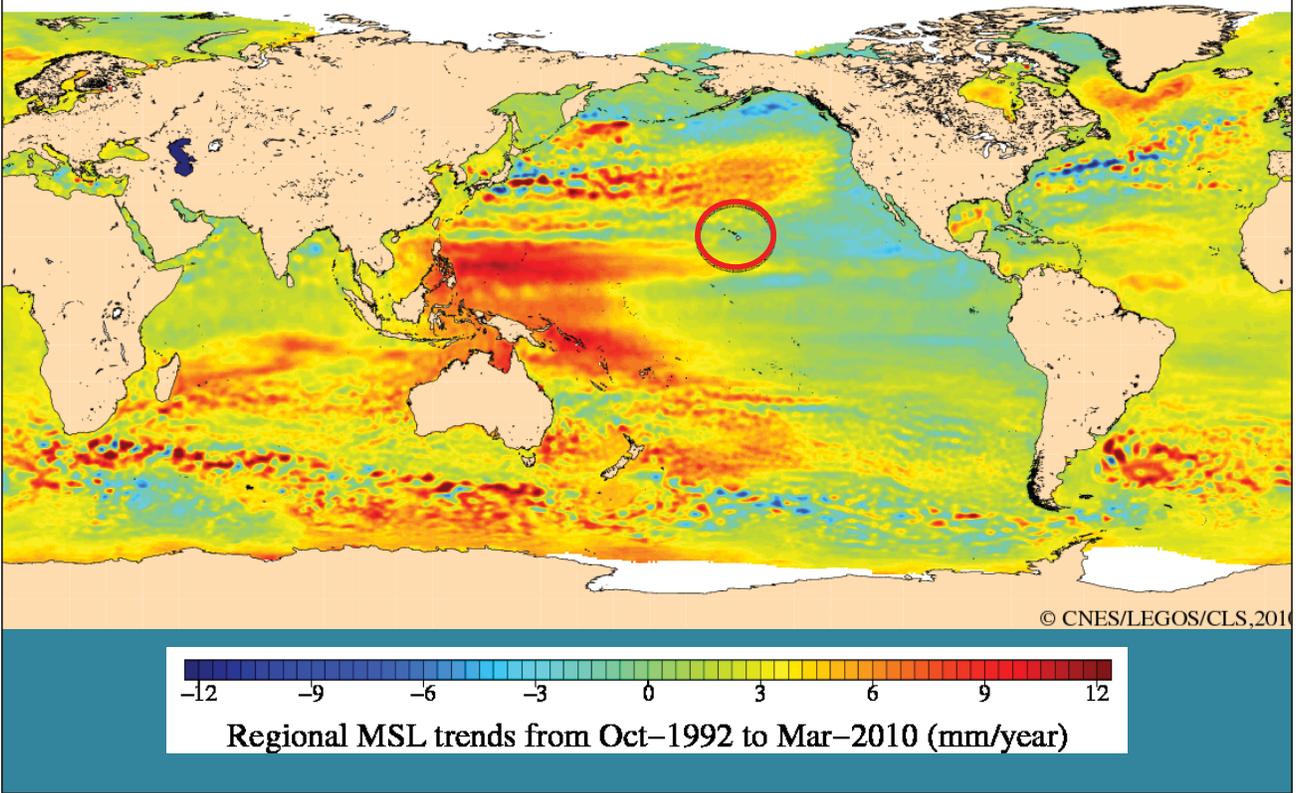
The U.S. Army Corps of Engineers (USACE) recently issued an engineering circular (EC 1165-2-211 of July 2009). USACE recognizes the research efforts of the IPCC and echoes its conclusion that global mean sea-level will reach **0.5m to 1.5 m by the year 2100**.



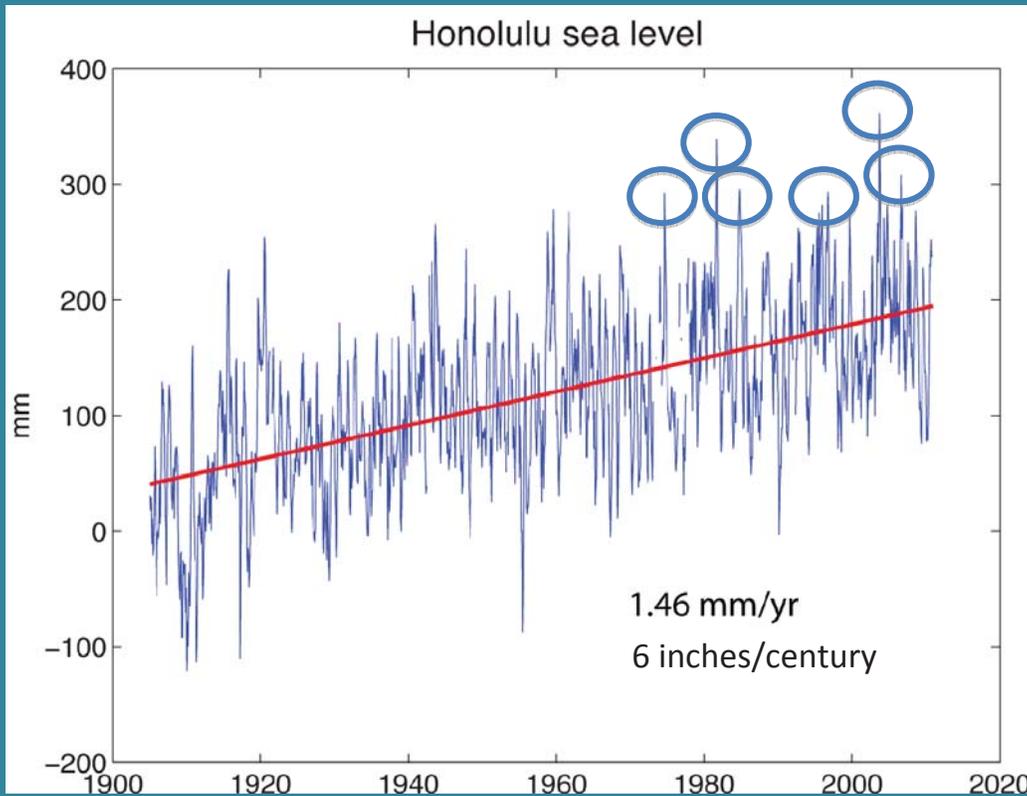
Sea level Estimates - 2100



Satellite Altimetry – global average 3.2 mm/yr



Honolulu Sea Level



Mahalos to UH Oceanography Professor Mark Merrifield, UH Sea Level Center, Joint Institutes for Marine and Atmospheric Research

BRUNN RULE: 1:100 Ratio

Studies show a 50-300 x erosion multiplier where sea level rises along sandy shorelines.

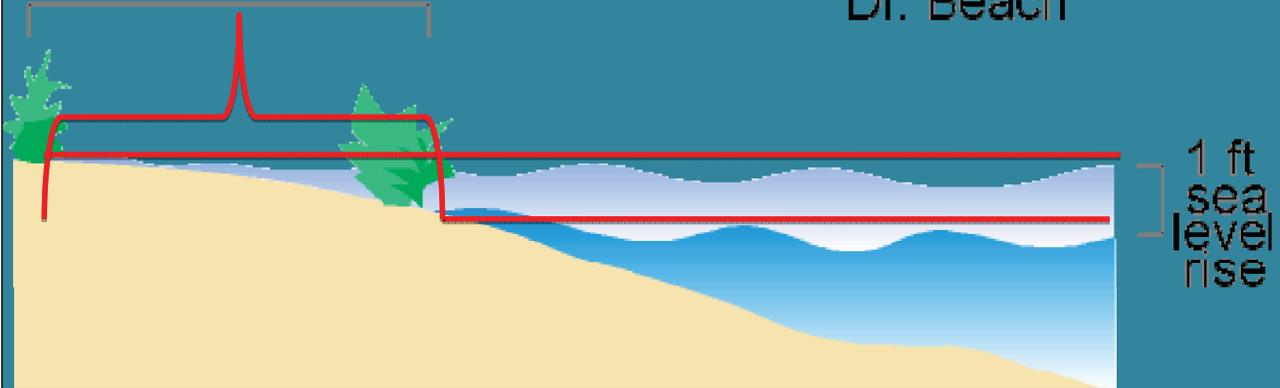
1m Sea Level Rise = 100 m erosion multiplier



150x Erosion Multiplier

150 ft shoreline retreat

- Dr. Stephen Leatherman
"Dr. Beach"





NOAA Sea-level Rise and Coastal Flooding Impacts Viewer

<http://csc.noaa.gov/digitalcoast/tools/slrviewer>

Sea Level Rise and Coastal Flooding Impacts

Sea Level Rise Confidence Marsh
 Vulnerability Flood Frequency

Sea Level Rise 6 ft SLR

Legend

- Water Depth
- Low-lying Areas
- Area Not Mapped
- Visualization Location
- Leveed Areas

Overview

Use the slider bar above to see how various levels of sea level rise will impact this area.

Levels represent inundation at high tide. Areas that are hydrologically connected are shown in shades of blue (darker blue = greater depth).

Low-lying areas, displayed in green, are hydrologically "unconnected" areas that may flood. They are determined solely by how well the elevation data captures the area's hydraulics. A more detailed analysis of these areas is required to determine the susceptibility to flooding.

Understanding The Map
 Additional Information

Streets Download Share Map
 Zoom to: State or Territory

500 m
 5000 ft

POWERED BY esri

Sea-Level Rise: Oahu's low-lying coastal areas could flood badly as sea levels rise, UH researchers say

Low-lying areas of the coast can expect serious flooding as rising seas push up the water table, creating an effect called "groundwater inundation," the UH researchers warn.

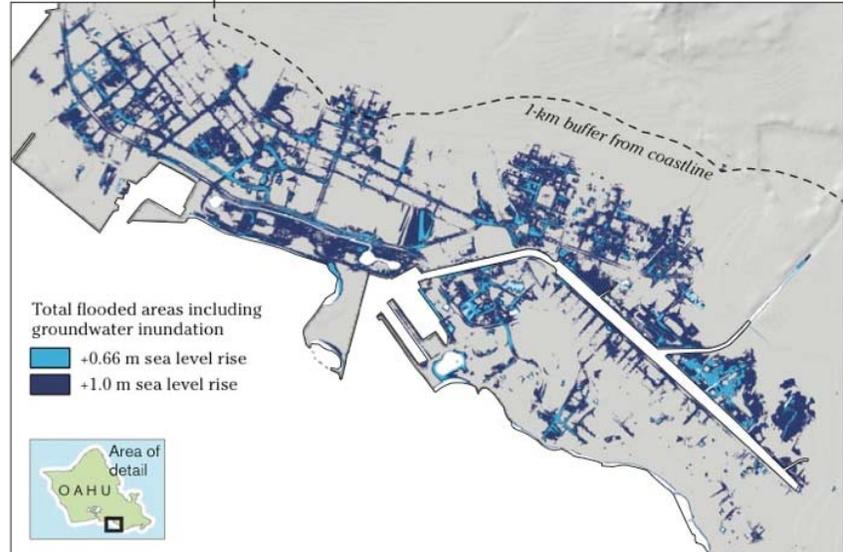
Kakaako, Ala Moana, Waikiki and Moiliili flooded with a 3-foot sea level rise. The flooded area is about **10 percent of the land a kilometer or less from the sea or waterways like the Ala Wai Canal.**

Of the flooded area, 58 percent is attributable to groundwater rather than seawater, Rotzoll and Fletcher say.

Global estimates suggest that more than 20 million people live below normal high-tide levels and more than **200 million people are vulnerable to flooding during temporary sea-level extremes,** they say.

THE INUNDATION BLUES

About 10 percent of the land within 3,280 feet of the ocean is flooded between Kakaako and Kapahulu in this scenario, which envisions a 1-meter or 3.3-foot sea level rise by the end of the century.

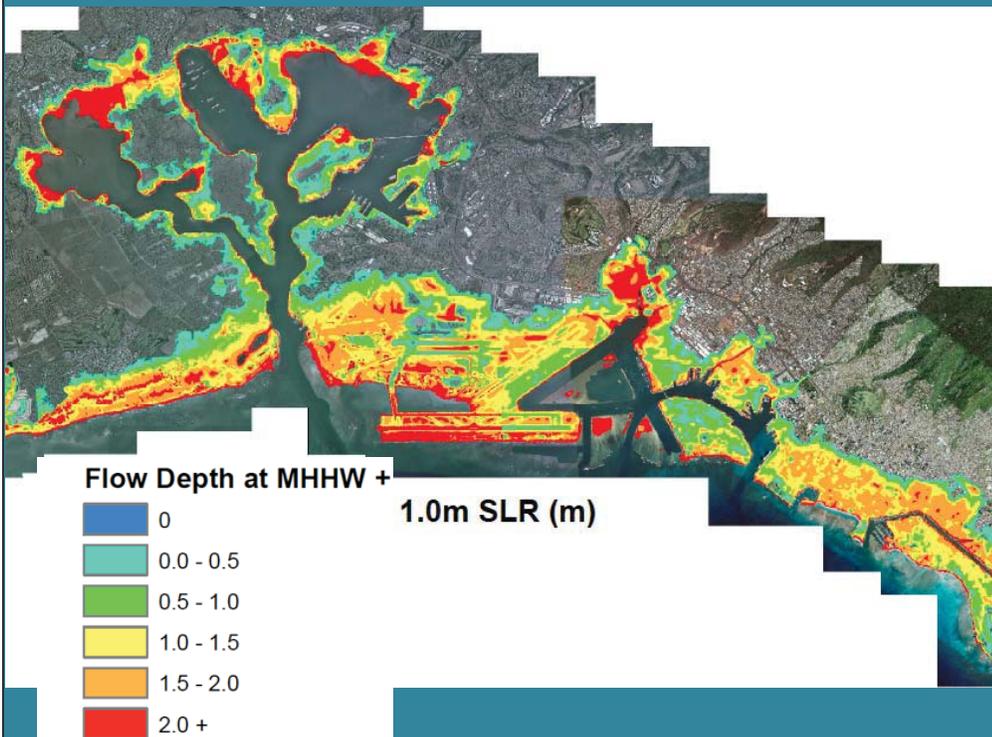


Source: University of Hawaii

STAR-ADVERTISER

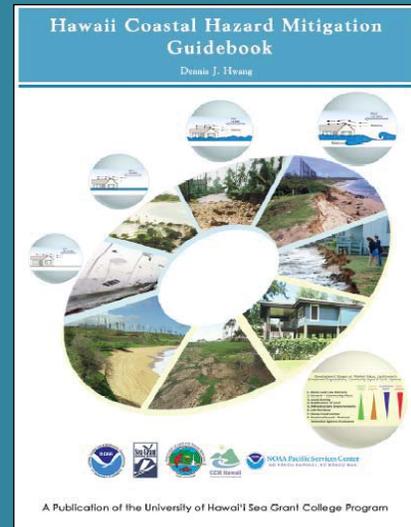
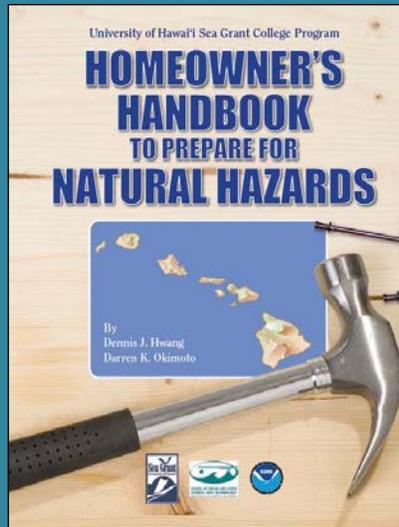
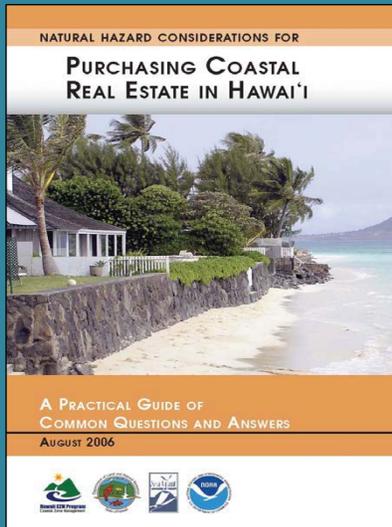
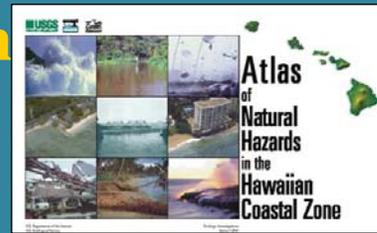
Honolulu SLR Inundation Study

HURRICANE Storm Surge Current Conditions (+3 ft SLR)

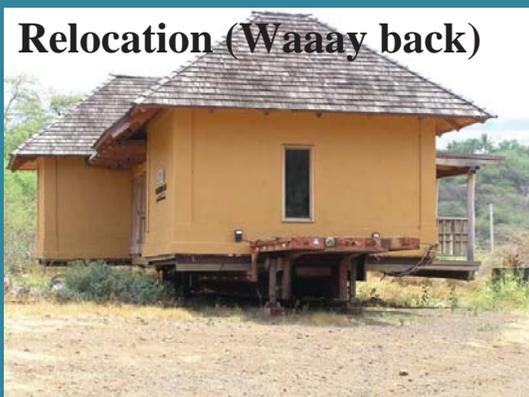
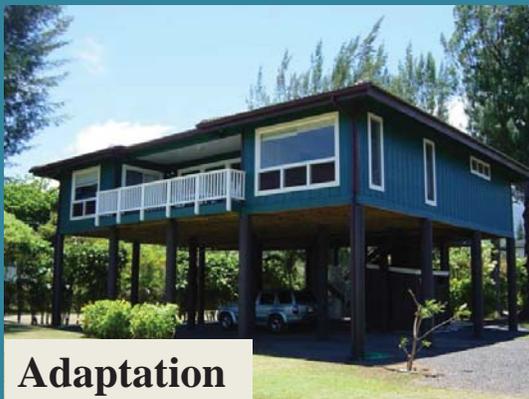


Hawaii Coastal Hazard Assessment Products

Emphasizing early hazard recognition



Adaption options for sea level rise



How can we adapt to sea level change?

Engineering



Land Acquisition

Last resort but probably best long-term planning tool.

“City adds \$1M to Pupukea preservation. A private buyer will work with the city and state on public uses.”

Pupukea-Pamalu

“Waimea Valley deal guarantees public access. The city's \$5.1 million would help to keep the North Shore valley free of development.”



Kakaako- Looking *For* Ward

Thursday, October 11, 2012

22 towers dot plan for Ward Centers

Howard Hughes Corp. envisions redeveloping nearly the whole Ward Centers area with 22 residential towers and twice as much retail, restaurants and entertainment venues.

The new plan, dubbed Ward Village, would double the amount of retail, dining and entertainment venues on their property. It also **calls for 22 skinnier towers that preserve more public views of the mountains and ocean** compared with General Growth's plan for 20 towers.

Another major plan revision is the intention by Hughes Corp. to orient the long side of nearly all its towers on a mauka-makai axis to further maximize public mountain and ocean views between buildings.

Eight towers still would front Ala Moana Boulevard, but they would be set back 60 to 70 feet from the street instead of 15 feet, according to Nick Vanderboom, Hughes Corp. vice president of development.



Rebuild by Design

<http://www.rebuildbydesign.org/>



LIVING BREAKWATERS

SCAPE / Landscape
Architecture
Staten Island, New York



Hunts Point Lifelines

PennDesign/OLIN
Bronx, New York



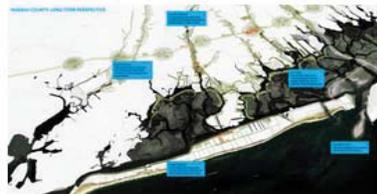
Resist, Delay, Store, Discharge: A Comprehensive Strategy for Hoboken

OMA
Hoboken, New Jersey



New Meadowlands: Productive City + Regional Park

MIT CAU + ZUS +
URBANISTEN
The Meadowlands, New Jersey



Living with the Bay: A Comprehensive Regional Resiliency Plan for Nassau County's South Shore

Interboro Team
Long Island, New York



BIG U

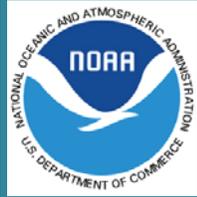
BIG TEAM
New York, New York



SLR and the Future of Urban Honolulu



Photo courtesy of Hawaii Tourism Authority (HTA) / Rick Gamble



Aloha and Mahalo

*Dolan Eversole-
University of Hawaii Sea Grant Program
eversole@hawaii.edu*





TYPES OF CLIMATE ADAPTATION PROJECTS FOR COASTAL FLOODING

East Honolulu Climate Adaptation Workshop



What is Climate Adaptation?

- Projects/programs intended to reduce community vulnerability to the impacts of climate change such as flooding, heat waves, coastal erosion, etc.
- Climate adaptation projects including household activities [e.g. household retrofitting] and community efforts [e.g. designation of new hazard zones]

Types of Adaptation Strategies

- Accommodation
- Protection
- Retreat/Restoration
- Prevention
- Procedural

Accommodation of Flooding



Accommodation: Flood Insurance Relief for Elevating Structures

\$90,000 over 10 Years if You Build 3 Feet above Base Flood Elevation*



Flooding Accommodation via Green Infrastructure



Flood Adaptation as Protective Infrastructure



Flood Adaptation as Green Protection



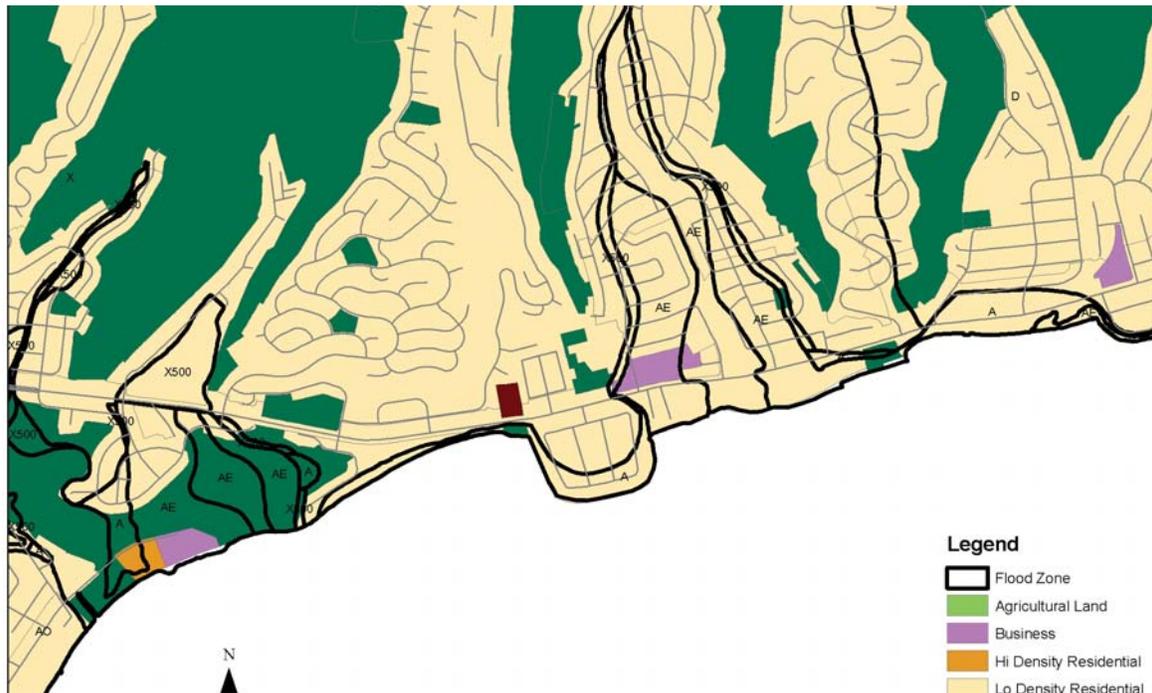
Flood Adaptation as Retreat



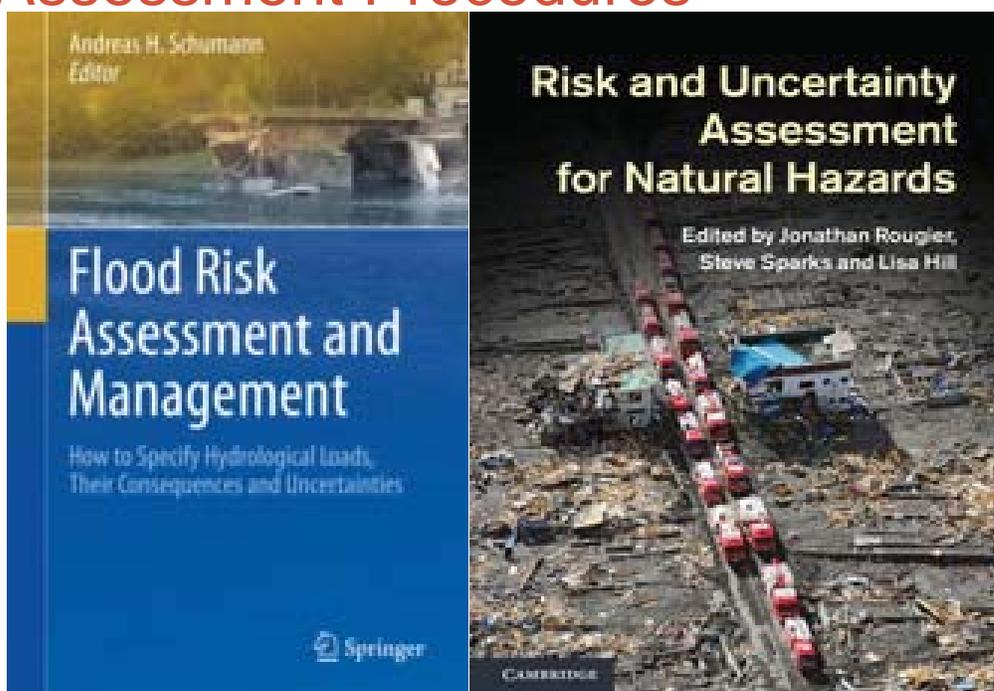
Flood Adaptation as Retreat & Relocation



Flood Adaptation as Prevention



Adaptation as Applying Revised Assessment Procedures



Other Flood Adaptation Practices

- Research, studies, pilot projects
- Community land use and infrastructure plans [such as Sustainable Community Plans]
- Community outreach and participation

Flood Adaptation as Green Protection



Events – Hazards – Impacts



High sea level causes beach erosion, flooding, and property damage

Waikiki Beach at Moana Surfider - C. Conger 2009

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Events – Hazards – Impacts



High sea level causes inland inundation and impacts coastal infrastructure

Ala Wai Blvd near McCully St Bridge - C. Conger 2009



Kalia Rd at Saratoga Rd - B. Romine, 2015

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Coastal & Inland Flooding



Ala Wai Canal at McCully St Bridge - M. Gonser, 2015



University of Hawai'i at Mānoa - M. Gonser, 2015

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Coastal Flooding



Maunalua Bay Boat Ramp - T. Oje, 2015



Maunalua Bay Boat Ramp - T. Oje, 2015

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Inland Flooding



Wailupe Pl. - R. Walker, 2005

<http://archives.starbulletin.com/2005/01/30/news/story3.html>

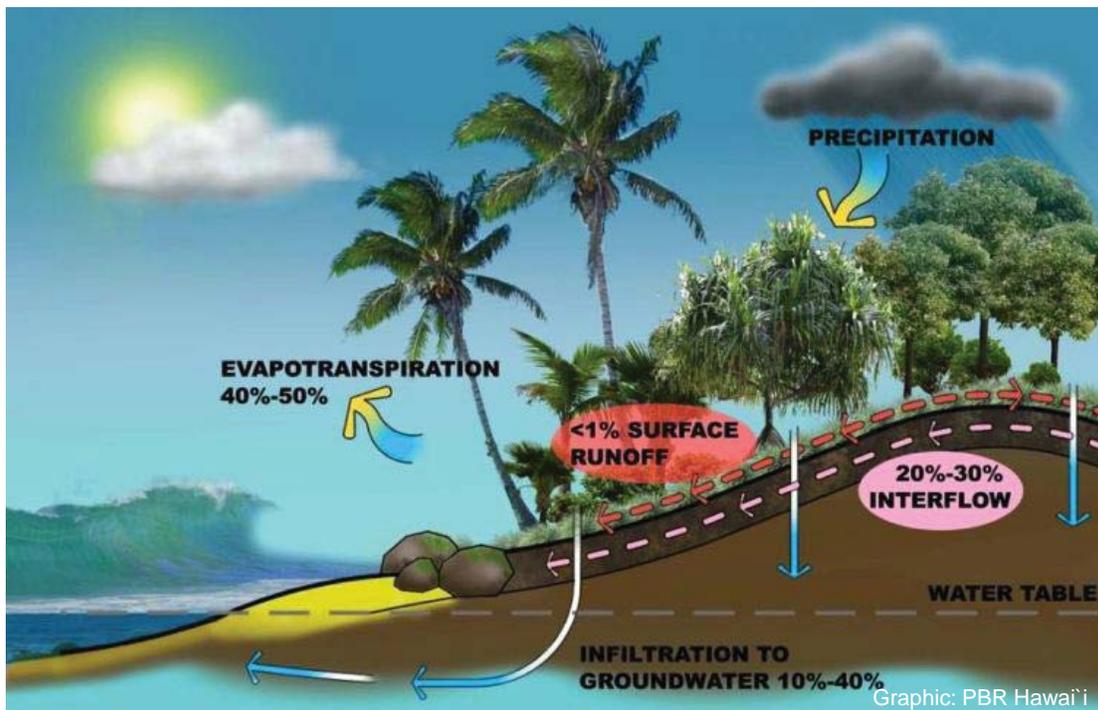


East Honolulu Storm Chanel - J. Wanger, 2009

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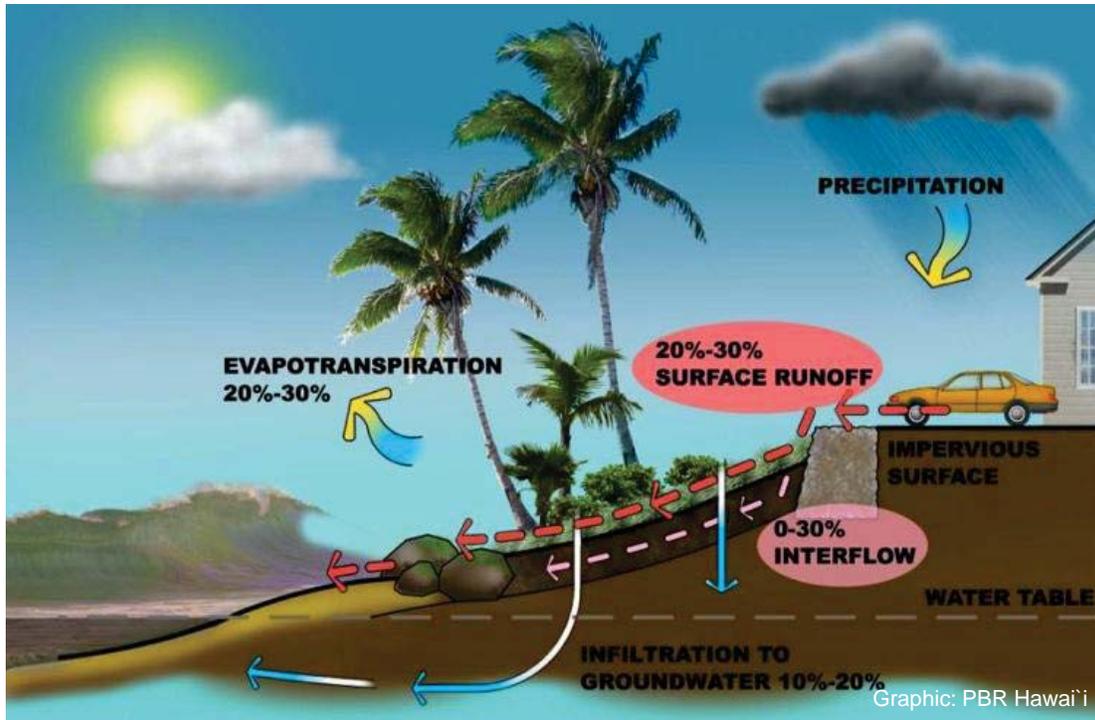
Natural Hydrology



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Altered Hydrology



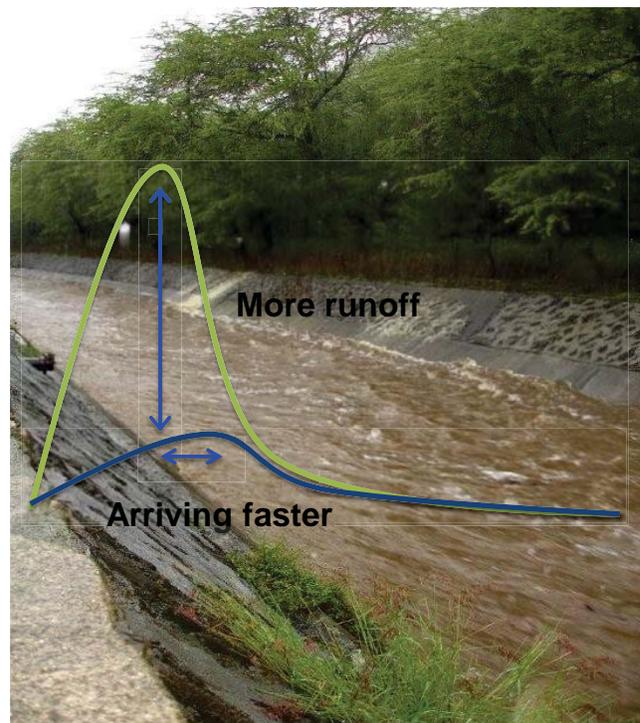
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Water Quantity

Problems with Altered Hydrology:

- Modified (lined, channelized) Streams = too much water volume/velocity = erosion, flooding, etc.
- Impervious surfaces (residential, commercial & roads) = disturbed hydrologic cycle
- Sediment, heavy metals, oils, and nutrients (i.e., pollutants)



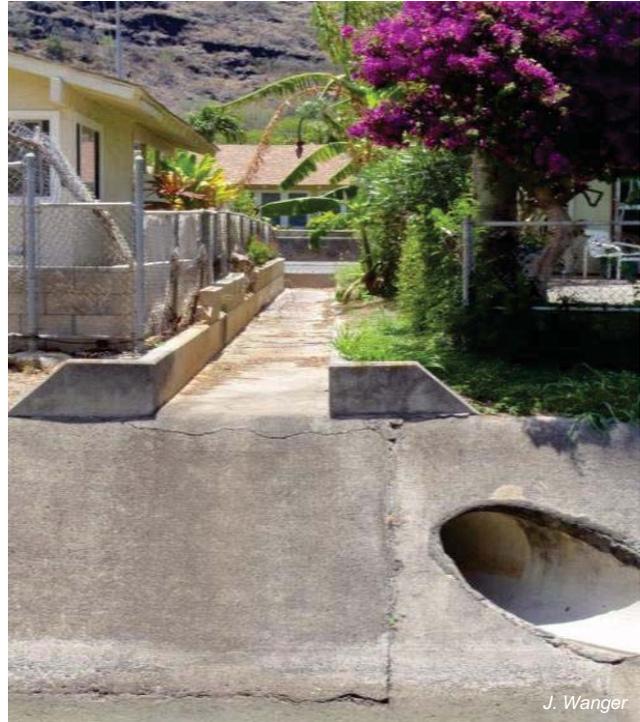
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Water Quantity

Problems with Altered Hydrology:

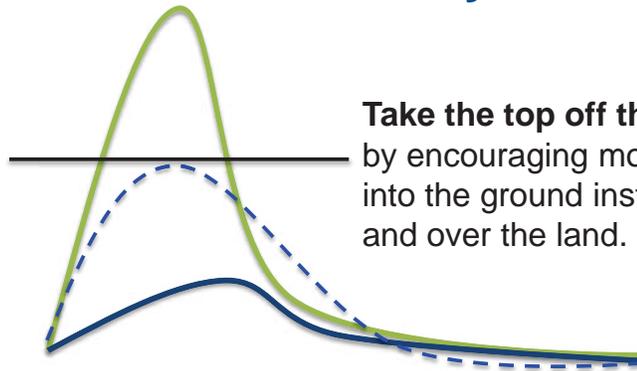
- Excessive concrete designed to convey water away
- Landscape areas disconnected from flow of water (or, impervious surfaces connected)
- Water treated as a problem rather than a resource



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Water Quantity Management



Take the top off the curve
by encouraging more water to soak into the ground instead of running off and over the land.



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Water Quantity Management

Landscape/Development Characteristics of Hawai'i (O'ahu):

- Short, steep watersheds
- Many highly impervious watersheds
- Dense development in coastal plains
- Very sensitive environments
- Climate change predictions of rainfall and sea levels
- Space constraints and/or tradeoffs



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East Honolulu Flood Zones

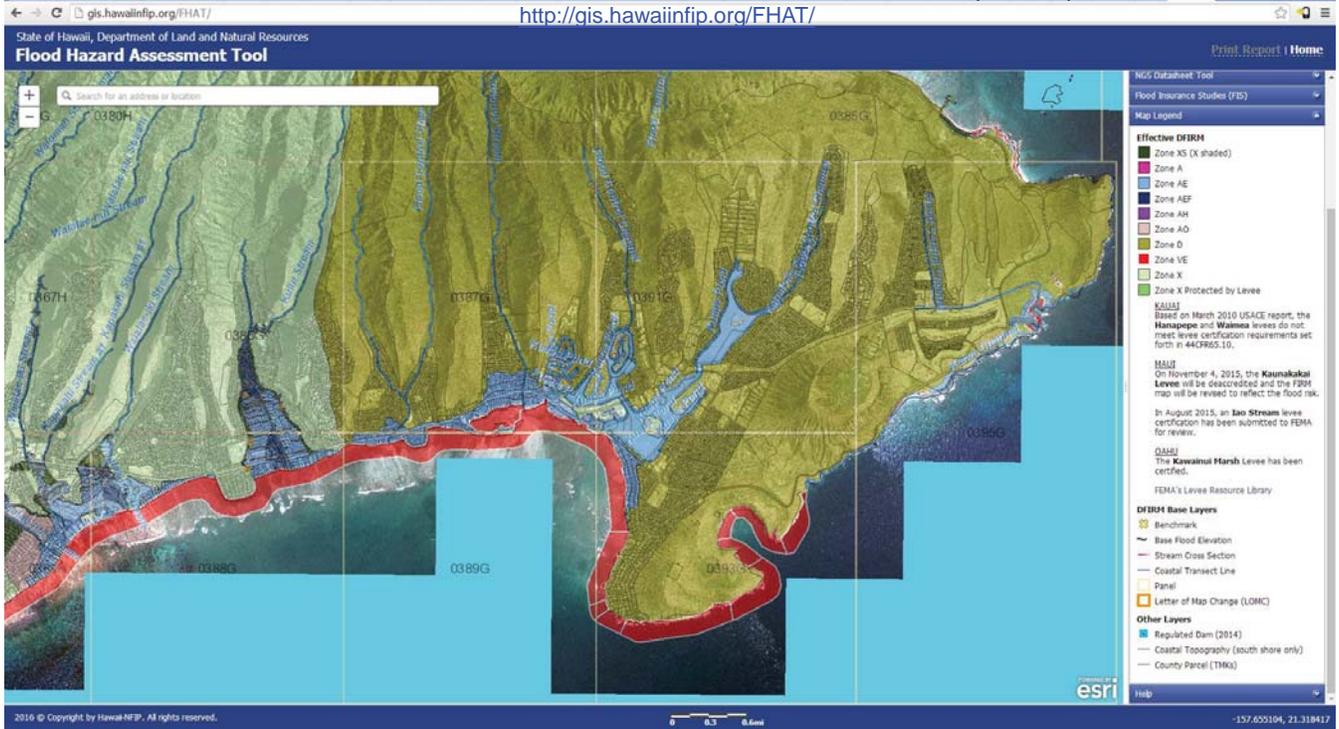


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East Honolulu Flood Zones

State of Hawai'i Flood Hazard Assessment Tool (FHAT)

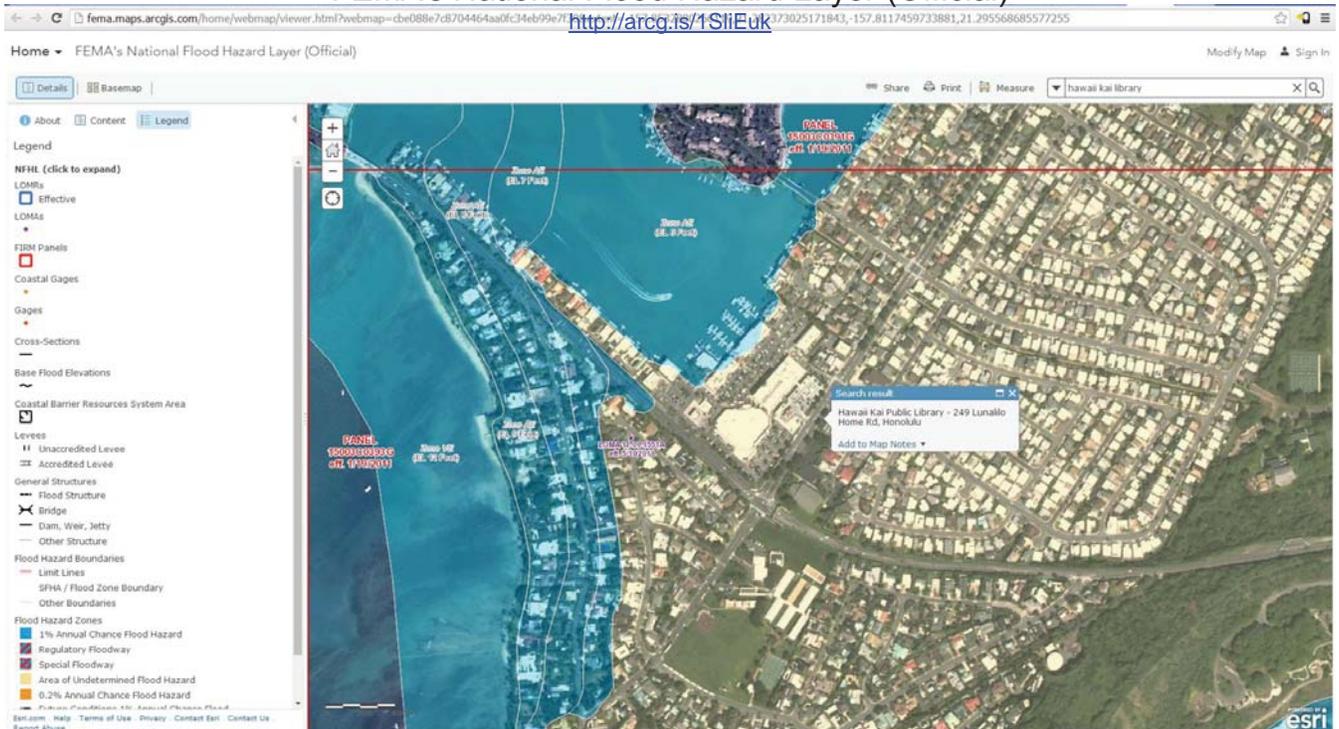


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East Honolulu Flood Zones

FEMA's National Flood Hazard Layer (Official)



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East Honolulu Flood Zones

A - Areas subject to inundation by the 1-percent-annual-chance flood event generally determined using approximate methodologies. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

AO - Areas subject to inundation by 1-percent-annual-chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between one and three feet. Average flood depths derived from detailed hydraulic analyses are shown in this zone. Mandatory flood insurance purchase requirements and floodplain management standards apply.

AE - Areas subject to inundation by the 1-percent-annual-chance flood event determined by detailed methods. Base Flood Elevations (BFEs) are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

VE - Areas subject to inundation by the 1-percent-annual-chance flood event with additional hazards due to storm-induced velocity wave action. Base Flood Elevations (BFEs) derived from detailed hydraulic analyses are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

0.2 PCT ACE – the “500” year flood zone; ACE = annual chance exceedance

Special Flood Hazard Area (SFHA) - *The land area covered by the floodwaters of the base flood is the Special Flood Hazard Area (SFHA) on NFIP maps. The SFHA is the area where the National Flood Insurance Program's (NFIP's) floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies. The SFHA includes Zones A, AO, AH, A1-30, AE, A99, AR, AR/A1-30, AR/AE, AR/AO, AR/AH, AR/A, VO, V1-30, VE, and V.*

<http://www.fema.gov/national-flood-insurance-program-policy-index>

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FEMA NFIP Community Rating System

The creditable activities of the CRS are organized under four categories:

- 1. Public Information**
 - a. Elevation Certificates
 - b. Map Information Services
 - c. Outreach Projects
 - d. Hazard Disclosure
 - e. Flood Protection Information
 - f. Flood Protection Assistance
- 2. Mapping and Regulations**
 - a. Additional Flood Data
 - b. Open Space Preservation
 - c. Higher Regulatory Standards
 - d. Flood Data Maintenance
 - e. Stormwater Management
- 3. Flood Damage Reduction**
 - a. Floodplain Management Planning
 - b. Acquisition and Relocation
 - c. Flood Protection
 - d. Drainage System Maintenance
- 4. Flood Preparedness**
 - a. Flood Warning Program
 - b. Levee Safety
 - c. Dam Safety

Under the FEMA National Flood Insurance Program (NFIP) Community Rating System (CRS), **flood insurance premium rates are discounted to reflect “the reduced flood risk resulting from the community actions** meeting the three goals of the CRS:

- 1. Reduce flood damage to insurable property;**
- 2. Strengthen and support the insurance aspects of the NFIP; and**
- 3. Encourage a comprehensive approach to floodplain management.”**

<http://www.fema.gov/national-flood-insurance-program-community-rating-system>

Participation in the CRS makes use of an existing **incentive-based program that helps communities and their floodplain management programs** adapt to changing conditions, while making use of the best available science.

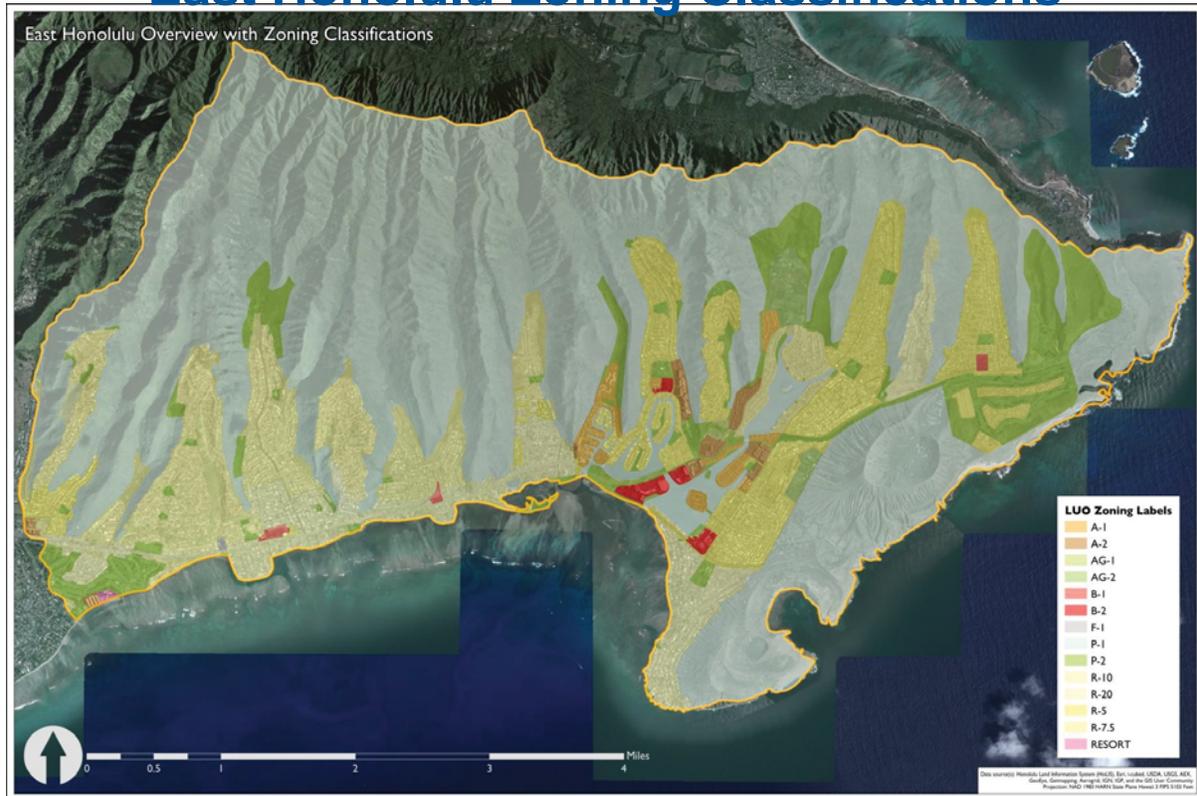
Maui and Hawai‘i Counties are both Class 8 communities and receive 10% discounts on insurance premiums for structures in a SFHA and 5% discounts

for those outside a SFHA.

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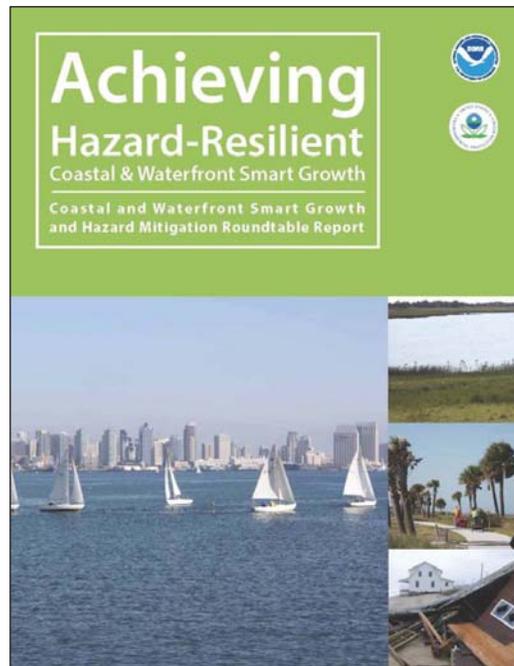
East Honolulu Zoning Classifications



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Hazard-Resilient Coastal & Waterfront Smart Growth



University of Hawai'i Sea Grant College Program



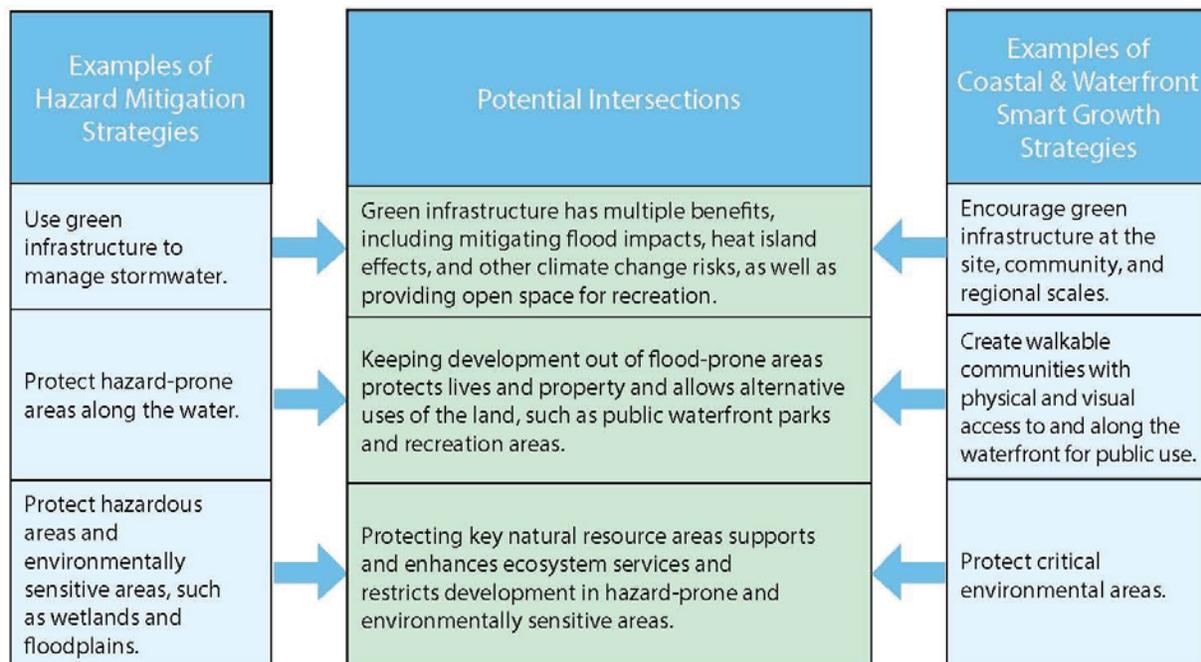
Hazard-Resilient Coastal & Waterfront Smart Growth

Smart Growth Principles	Smart Growth Coastal and Waterfront Elements
1. Mix land uses.	1. Mix land uses, including water-dependent uses.
2. Take advantage of compact building design.	2. Take advantage of compact community design that enhances, preserves, and provides access to waterfront resources.
3. Create a range of housing opportunities and choices.	3. Provide a range of housing opportunities and choices to meet the needs of both seasonal and permanent residents.
4. Create walkable communities.	4. Create walkable communities with physical and visual access to and along the waterfront for public use.
5. Foster distinctive, attractive communities with a strong sense of place.	5. Foster distinctive, attractive communities with a strong sense of place that capitalizes on the waterfront's heritage.
6. Preserve open space, farmland, natural beauty, and critical environmental areas.	6. Preserve open space, farmland, natural beauty, and the critical environmental areas that characterize and support coastal and waterfront communities.
7. Strengthen and direct development toward existing communities.	7. Strengthen and direct development toward existing communities, and encourage waterfront revitalization.
8. Provide a variety of transportation options.	8. Provide a variety of land- and water-based transportation options.
9. Make development decisions predictable, fair, and cost effective.	9. Make development decisions predictable, fair, and cost effective through consistent policies and coordinated permitting processes.
10. Encourage community and stakeholder collaboration in development decisions.	10. Encourage community and stakeholder collaboration in development decisions, ensuring that public interests in and rights of access to the waterfront and coastal waters are upheld.

<http://coastalsmartgrowth.noaa.gov/resilience.html>, Table 1, p.6



Hazard-Resilient Coastal & Waterfront Smart Growth



<http://coastalsmartgrowth.noaa.gov/resilience.html>, Table 2, p.8



Hazard-Resilient Coastal & Waterfront Smart Growth

Plan in advance for emergency public transportation.	Well-connected street grids and transit systems may provide more options for evacuation during disasters.	Provide a variety of transportation options, including public transportation.
Elevate buildings to protect them from flooding.	Elevated buildings may counter efforts to encourage walkability and preserve historic character, and they may be difficult for elderly and disabled people to access.	Preserve and protect the sense of community and place, historical and cultural heritage, accessibility, and social equity.
Relocate development out of hazard-prone areas.	Infill development may increase risk if existing development is in a hazard-prone location, while relocation may encourage disinvestment in existing communities.	Direct development toward existing communities' investments and encourage waterfront revitalization.

Table 2: Samples of potential intersections between coastal smart growth and hazard mitigation strategies identified by participants during the roundtable. The columns on the right and left list different strategies and the middle column identifies potential intersections between them. The color of the boxes indicates how they could potentially complement (green) or counter (yellow) the goals of one another during implementation.

<http://coastalsmartgrowth.noaa.gov/resilience.html>, Table 2, p.8

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Workshop on Climate Adaptation And Hazard Mitigation Management in East Honolulu



Maunaloa Bay from Koko Crater Trail - M. Gonser, 2011

Flooding

31 March 2016 | Hawai'i Kai Library | Matthew Gonser, AICP | Extension Agent | gonserm@hawaii.edu

University of Hawai'i Sea Grant College Program



**APPENDIX H: 2019 COMMUNITY WORKSHOPS ON THE PUBLIC
REVIEW DRAFT DOCUMENTATION**

EAST HONOLULU

Land Use & Watershed planning are closely connected in Hawai'i

A **COMMUNITY MEETING** is being held to share information about the Public Review Draft of the East Honolulu **Sustainable Communities Plan Update** and the kickoff of the **Watershed Management Plan**. Join us to learn about these projects and share with us the issues that are important to your community.

Please join us for the community meeting:

Monday, March 4, 2019

Koko Head Elementary School Cafeteria

6:30 - 8:30 pm

The meeting will include a presentation and an opportunity for attendees to provide their input.

If you require any special assistance, please contact Melissa White (mwhite@ssfm.com) by two days prior to the event.

East Honolulu Sustainable Communities Plan (EHSCP)

The EHSCP provides the vision, implementing policies, and guidelines for the planning district, which spans from Kāhala to Hawai'i Kai. It also guides City land use approvals, infrastructure improvements, and private sector investment decisions. The City & County of Honolulu Department of Planning & Permitting (DPP) is updating the EHSCP and will be releasing the Public Review Draft in early 2019.

The EHSCP Public Review Draft will be released and uploaded to following webpage in early 2019:
<http://www.honolulu.gov/Planning/DevelopmentSustainableCommunitiesPlans/EastHonoluluPlan.aspx>

For more information contact:

Thomas Blair, DPP

thomas.blair@honolulu.gov / (808) 768-8030

LAND USE PLANNING

WATERSHED PLANNING

East Honolulu Watershed Management Plan (EHWMP)

The EHWMP is one of eight district plans prepared by the City & County of Honolulu Board of Water Supply (BWS) and DPP. Together, the eight plans comprise the O'ahu Water Management Plan. The EHWMP is intended to be an environmentally holistic, community-based, and economically viable watershed management plan that is action oriented and incorporates ahupua'a-based management principles. The plan will identify key water resource issues and recommend policies, strategies, and projects to ensure adequate and sustainable water supply for East Honolulu for the next twenty years.

Learn more at <http://www.boardofwatersupply.com/water-resources/watershed-management-plan/east-honolulu-plan>

For more information contact:

Barry Usagawa, BWS

busagawa@hbws.org / (808) 748-5900

Melissa White, SSFM (lead consultant)

mwhite@ssfm.com / (808) 628-5861



EAST HONOLULU WATERSHED MANAGEMENT PLAN

PURPOSE: COMMUNITY MEETING #1

DATE: MONDAY, MARCH 4TH, 2019

LOCATION: KOKOHEAD ELEMENTARY SCHOOL

TIME: 6:30 P.M. - 8:30 P.M.

SIGN-IN SHEET

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EAST HONOLULU WATERSHED MANAGEMENT PLAN

PURPOSE: COMMUNITY MEETING #1

DATE: MONDAY, MARCH 4TH, 2019

LOCATION: KOKOHEAD ELEMENTARY SCHOOL

TIME: 6:30 P.M. - 8:30 P.M.

SIGN-IN SHEET

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EAST HONOLULU WATERSHED MANAGEMENT PLAN

PURPOSE: COMMUNITY MEETING #1

DATE: MONDAY, MARCH 4TH, 2019

LOCATION: KOKOHEAD ELEMENTARY SCHOOL

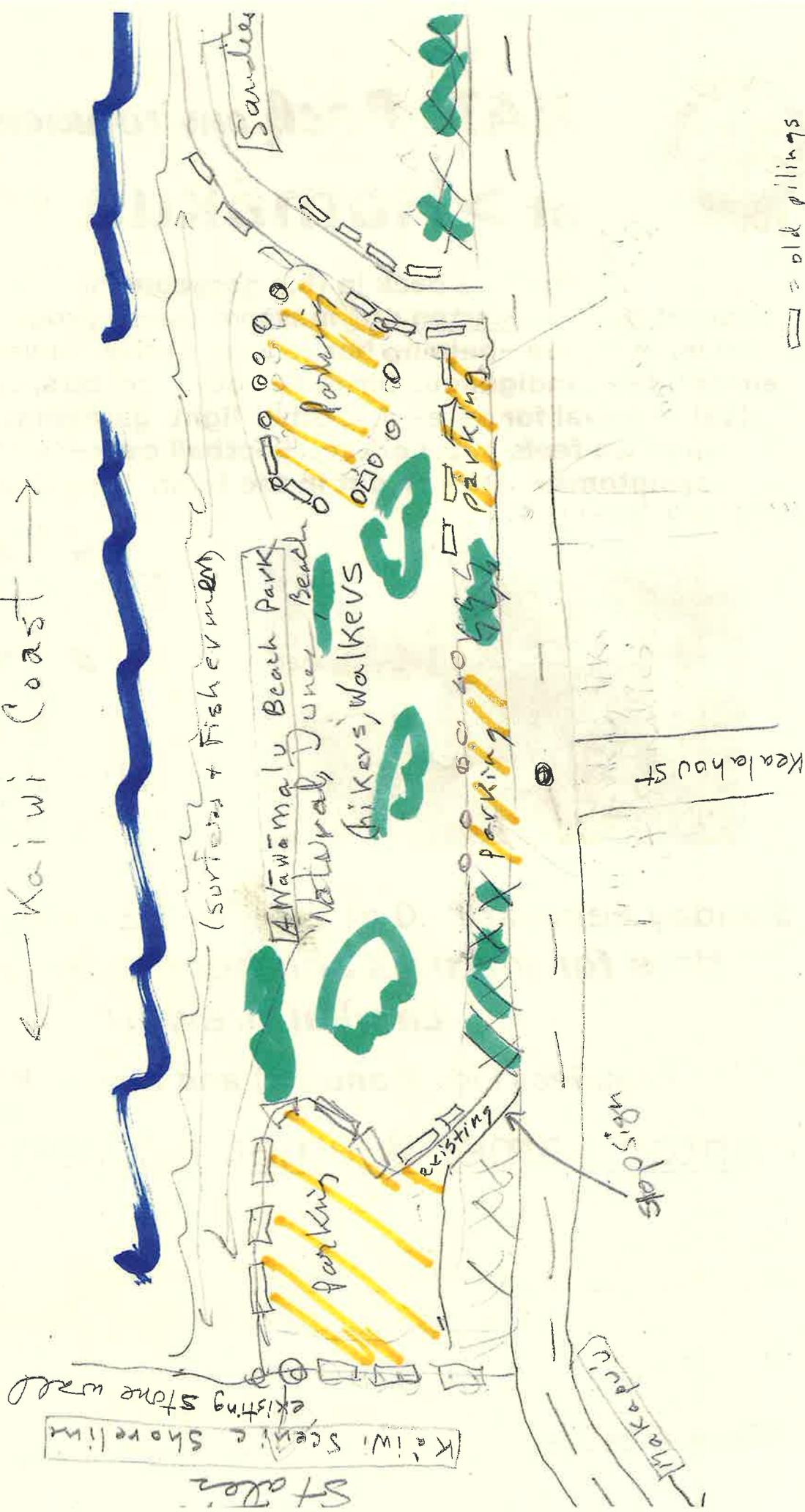
TIME: 6:30 P.M. - 8:30 P.M.

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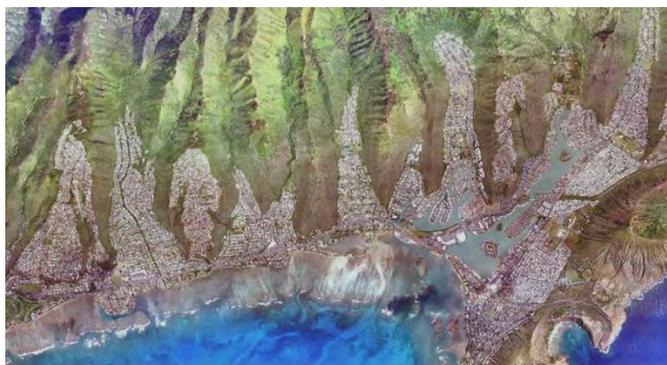
Alenuihāhā Chanel

← Kaiwi Coast →



Briefing Materials Handbook for the

EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN PUBLIC REVIEW DRAFT



City and County of Honolulu
Department of Planning and Permitting

February 2019

EXECUTIVE SUMMARY

The **East Honolulu Sustainable Communities Plan – Public Review Draft** (the “**Plan**”) is organized in five chapters and an appendix, as follows:

- Chapter 1: East Honolulu’s Role in O’ahu’s Development Pattern defines the region’s role and identity within the overall framework of islandwide planning and land use management;
- Chapter 2: The Vision for East Honolulu’s Future summarizes the community-based vision for the future of the region, discusses key elements of that vision, and presents illustrative maps and tables;
- Chapter 3: Land Use Policies and Guidelines provides the land use policies needed to implement the vision for East Honolulu described in Chapter 2;
- Chapter 4: Public Facilities and Infrastructure Policies and Guidelines provides the infrastructure policies needed to implement the vision for East Honolulu described in Chapters 2 and 3;
- Chapter 5: Implementation identifies the means through which the policies will be applied, including zone changes, and infrastructure budgeting and development outlined by the **Plan**; and
- Appendix A includes:
 - Three conceptual maps (Open Space, Urban Land Use, and Public Facilities) which illustrate the vision and policies of the **Plan**; and
 - A glossary of terms used in the **Plan** and on those maps.

The following summary provides an overview of the vision, land use and infrastructure policies of the **Plan** and the means of implementation.

The **Plan** and supplemental information is available on the Department of Planning and Permitting’s website at:

<http://www.honoluluapp.org/Planning/DevelopmentSustainableCommunitiesPlans/EastHonoluluPlan.aspx>

EAST HONOLULU’S ROLE IN O’AHU’S DEVELOPMENT PATTERN

- Limited development and population growth so that East Honolulu’s share of O’ahu’s population remains stable at approximately five percent;
- Maintenance as a predominantly residential area characterized by generally low-rise, low-density development; and
- Moderate growth of business centers, retail and service commercial uses, and satellite institutional and public uses geared to serving the needs of households.

THE VISION TO 2040

- Population remains stable at approximately 50,000 through 2035 and 2040;
- An estimated 24 percent of O‘ahu residents will be 65 years and older by 2040 with approximately 37 percent of East Honolulu residents that will be 65 years and older, the highest on O‘ahu; and
- Job stabilization and slight growth from 10,240 civilian jobs in 2010 to 10,400 jobs.

ELEMENTS OF THE VISION

- **Protect Community Resources** by:
 - Protecting scenic views, particularly the Ka Iwi Scenic Shoreline;
 - Providing and improving access to shoreline and mountain recreational areas;
 - Creating more complete streets comprised of landscaped pathways along roadways and drainage ways;
 - Promoting stewardship of natural resources;
 - Anticipating and mitigating against potential climate change and sea level rise impacts;
 - Preserving significant historic, cultural, and archaeological features;
 - Protecting and preserving existing agricultural areas; and
 - Containing all urban development within the existing Community Growth Boundary.
- **Adapt to Changing Community Needs** by:
 - Improving and replacing the region's aging infrastructure, as needed;
 - Preparing the community and infrastructure for anticipated impacts from natural disasters and climate change;
 - Adapting the housing supply, public spaces, and street orientation to meet the expected aging of the population; and
 - Focusing commercial centers on serving the region's neighborhoods.

IMPLEMENTING POLICIES AND GUIDELINES

Land use development policies and implementing guidelines are provided for:

- Open space preservation, natural resources, and scenic views;
- Recreational access to shoreline and mountain areas;
- Island-based and community-based parks and recreation;
- Historic and cultural resources;
- Residential communities and commercial redevelopment;
- Anticipating and mitigating against potential climate change and sea level rise impacts.

Infrastructure policies and implementing guidelines are provided for:

- Transportation systems;
- Water systems development;
- Wastewater treatment;
- Electrical power and communications systems;
- Solid waste handling and disposal;
- Drainage systems;
- School facilities;
- Public safety facilities; and
- Other community facilities.

The means for implementing the **Plan** are provided through:

- Focusing residential and non-residential development to areas within the Community Growth Boundary (CGB);
- Guiding development within areas of critical concern with Special Area Plans, as needed, although none currently exist in East Honolulu;
- Incorporating the **Plan** vision and policies in the review of zone changes and other land use approvals and in establishing conditions for these land use approvals which will help ensure the vision and policies are implemented;
- Incorporating the **Plan** vision and policies in the review of projects to be added to the Public Infrastructure Map and funded through the Capital Improvement Program budget; and
- Conducting an evaluative review of the **Plan** vision, policies and implementation at regular intervals after the adoption of the revised **Plan**, and reporting on implementation progress as required by the City Charter.

Table 2-1: Potential Housing within CGB on Lands Zoned for Residential Use

Project Areas	Probable Units ¹	Possible Units ²	Description
Wai'alaie Nui	14		Ord. 96-69 limits site to 14 units
Wai'alaie Iki	9		Owner-build lots
'Āina Haina	10		Lots in upper 'Āina Haina (2); lower 'Āina Haina (8)
Hawai'i Loa Ridge	26		Owner-build lots
Niu Valley		30	3 large adjacent lots with 6 existing units
Kuli'ou'ou		8	Large vacant lot
Kamilo Iki Valley		16	Large vacant lot
Hawai'i Kai	28		Remaining units from Ord. 99-54 & Ord. 00-70
Nā Pali Hāweo (Kamehame)	16		Owner-build lots
Lower Kalama Valley	21		2015/CL-5 (14) & 499 Kealahou (7)
Infill Vacant Lots	50		Vacant standard-size lots within the Plan area
'Ohana or ADU units	50		Assumes 2-3 units per year between 2020 & 2040
Total	224	54	
Cumulative Total	278 units		

¹ Includes unbuilt units with approved building permits, units approved as part of a larger development or cluster project, vacant standard-size lots within approved subdivisions, and 'Ohana/ADU units at 2-3 per year.

² Estimates based on lot size built to underlying zoning density after accounting for steep lands and clustering of units.

Table 2-3: Percentage of Area Population 65 Years and Older

Area	1980 ¹	1990 ¹	2000 ¹	2010 ¹	2015 ¹	2040
East Honolulu	9.3%	11.7%	18.2%	21.6%	23.5%	37%²
All O'ahu	7.3%	10.9%	13.4%	14.5%	16.2%	23.7%³

Sources: ¹ U.S. Census & ACS 5-Year Est., 2015. ² DPP Projections, 2018. ³ DBEDT 2045 Series, 2017.

TABLE I-3: GROWTH PROJECTIONS BY DP AREA

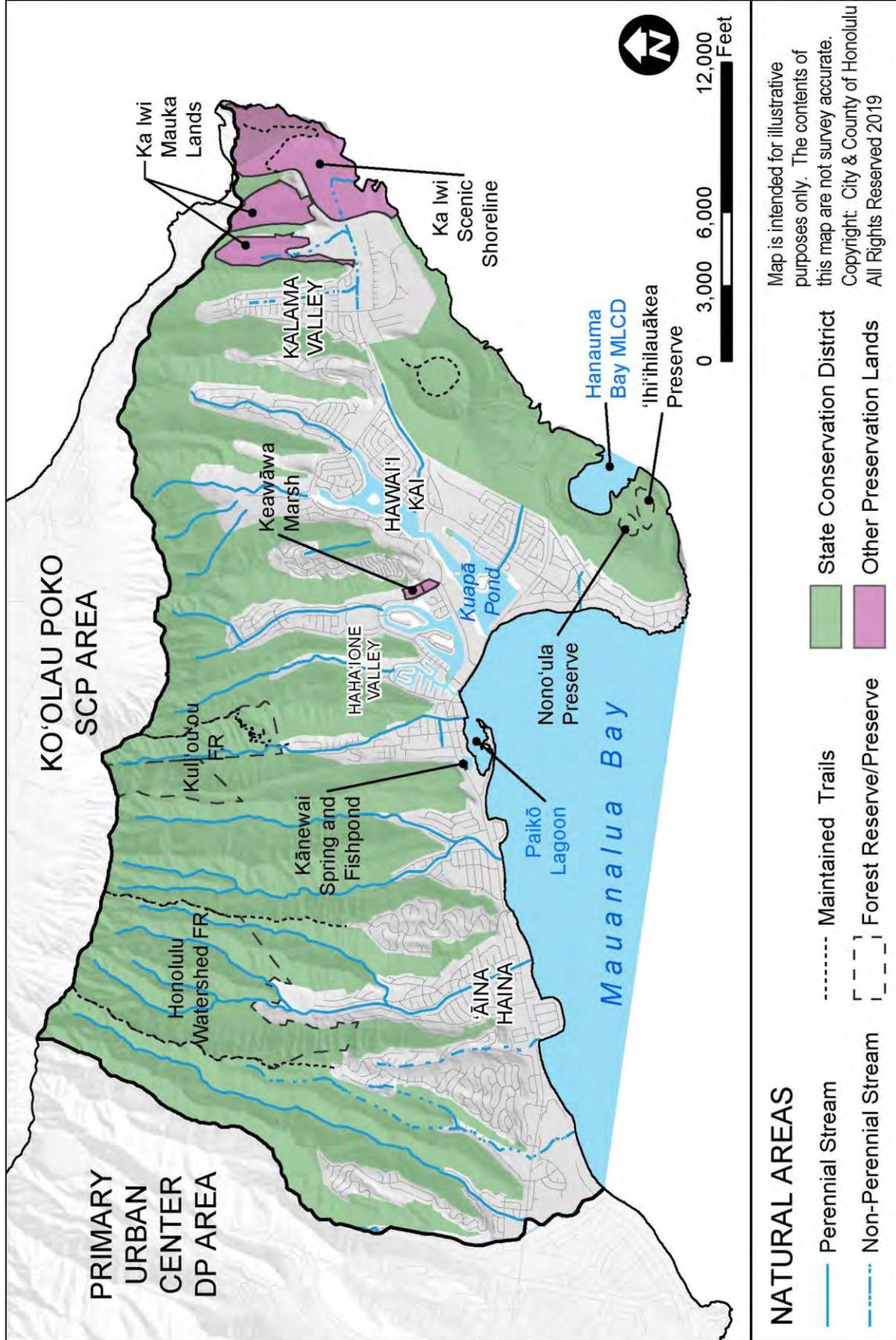
DEVELOPMENT PLAN AREA	RESIDENT POPULATION										VISITOR UNITS									
	Number					Share					Number					Share				
	2010	2020	2025	2040	2040	2010	2020	2025	2040	2040	2010	2020	2025	2040	2040	2010	2020	2025	2040	2040
Primary Urban Center	435,118	444,795	449,881	467,074	465	44%	44%	44%	43%	43%	30,961	26,457	27,364	30,117	92%	76%	76%	76%	76%	76%
Ewa	101,397	130,702	146,096	172,679	11%	13%	14%	16%	16%	16%	1,154	6,323	6,541	7,198	3%	18%	18%	18%	18%	18%
Central Oahu	168,643	174,351	179,984	192,369	18%	17%	17%	18%	18%	18%	212	177	183	202	1%	1%	1%	1%	1%	1%
East Honolulu	49,914	51,514	50,627	49,985	5%	5%	5%	5%	5%	5%	370	310	320	352	1%	1%	1%	1%	1%	1%
Koolau Poko	115,164	115,868	114,626	113,258	12%	12%	11%	10%	10%	10%	68	58	60	71	0%	0%	0%	0%	0%	0%
Koolau Loa	16,732	17,427	17,704	18,104	2%	2%	2%	2%	2%	2%	586	1,230	1,272	1,218	2%	4%	4%	4%	3%	3%
North Shore	17,720	18,570	18,906	19,641	2%	2%	2%	2%	2%	2%	28	23	25	27	0%	0%	0%	0%	0%	0%
Waianae	48,519	50,480	51,590	53,589	5%	5%	5%	5%	5%	5%	217	181	187	206	1%	1%	1%	1%	1%	1%
OAHU TOTAL	953,207	1,003,700	1,029,400	1,086,700	100%	100%	100%	100%	100%	100%	33,596	34,800	36,000	39,400	100%	100%	100%	100%	100%	100%
Annual Growth Rate		0.3%	0.3%	0.5%								0.2%	0.3%	0.9%						

DEVELOPMENT PLAN AREA	HOUSING UNITS										TOTAL JOBS									
	Number					Share					Number					Share				
	2010	2020	2025	2040	2040	2010	2020	2025	2040	2040	2010	2020	2025	2040	2040	2010	2020	2025	2040	2040
Primary Urban Center	174,569	184,343	189,377	204,112	52%	51%	50%	49%	49%	437,011	458,299	473,329	493,054	73%	71%	71%	71%	71%	68%	68%
Ewa	30,726	40,899	46,425	57,505	9%	11%	12%	14%	14%	28,294	44,567	46,028	73,607	5%	7%	7%	7%	10%	10%	10%
Central Oahu	50,998	54,482	57,168	63,679	15%	15%	15%	15%	15%	56,174	64,965	67,095	78,524	9%	10%	10%	10%	11%	11%	11%
East Honolulu	18,774	19,991	19,945	20,283	6%	6%	6%	6%	6%	10,252	10,357	10,696	10,406	2%	2%	2%	2%	2%	1%	1%
Koolau Poko	36,894	38,328	38,477	39,154	11%	11%	10%	9%	9%	46,181	47,271	48,822	47,578	8%	7%	7%	7%	7%	7%	7%
Koolau Loa	4,884	5,262	5,432	5,756	1%	1%	1%	1%	1%	7,316	8,287	8,558	9,144	1%	1%	1%	1%	1%	1%	1%
North Shore	6,678	7,228	7,478	8,011	2%	2%	2%	2%	2%	5,888	6,055	6,254	6,059	1%	1%	1%	1%	1%	1%	1%
Waianae	13,376	14,363	14,906	16,136	4%	4%	4%	4%	4%	9,098	9,364	9,671	9,382	2%	2%	2%	2%	2%	2%	2%
OAHU TOTAL	336,899	364,900	379,200	414,600	100%	100%	100%	100%	100%	600,214	649,200	670,500	727,800	100%						
Annual Growth Rate		0.5%	0.4%	0.9%							0.5%	0.3%	0.8%							

NOTE: All projected "Oahu Total" counts are rounded to the nearest 100. Percentage shares by DP area may not sum to 100% due to rounding. Areas with negative increases should be interpreted as stable communities with little or no growth expected. The negative population is caused by declines in household size that negated any population increases from housing unit gains.

Source: DPP, Annual Report on the Status of Land use on O'ahu, Fiscal Year 2017

Exhibit 3-3 Natural Areas



NATURAL AREAS

- Perennial Stream
- - - - Non-Perennial Stream
- Maintained Trails
- - - - Forest Reserve/Preserve
- State Conservation District
- Other Preservation Lands

Map is intended for illustrative purposes only. The contents of this map are not survey accurate. Copyright: City & County of Honolulu All Rights Reserved 2019

PROPOSED CHANGES TO THE PLAN

PAGE

PREFACE AND EXECUTIVE SUMMARY

1. Modified section layout to be consistent with the other Development Plan areas ES-1 to 8
2. Updated **Exhibit ES-1** with map from the proposed GP revisions..... ES-2
3. Simplified layout to bullets similar to other Development Plan areas..... ES-9 to 12

CHAPTER 1: EAST HONOLULU’S ROLE IN O’AHU’S DEVELOPMENT PATTERN

4. Updated **Exhibit 1-1** with map from the GP 1-2
5. Added following guidelines:
 - a. Age-friendly community policies with a focus on complete streets 1-3
 - b. Create resilient, disaster-ready communities 1-3
 - c. Reduce exposure to natural hazards, including those related to climate change and sea level rise 1-3
 - d. Adopt and implement the ahupua’a concept..... 1-4
 - e. Improve downstream water quality; implement LID standards..... 1-4

CHAPTER 2: THE VISION FOR EAST HONOLULU’S FUTURE

6. Adjust vision throughout the **Plan** to 2040. Add second planning horizon, “Beyond 2040” bullet consistent with other Development Plan areas 2-1
7. Impacts of climate change will become more evident beyond 2040 2-1
8. New structures and facilities are designed to adapt to and mitigate the potential impacts of climate change. Incorporate LID standards 2-3
9. Update Section 2.2 outline 2-3
10. Change “Urban Community Boundary” to “Community Growth Boundary” throughout 2-3+
11. Update Exhibit 2-1 to have consistent style with other exhibits 2-5
12. Add Ka Iwi Coast lands as areas in State Urban outside of the CGB..... 2-6
13. Removed **Figure 2-2 Suspect Areas for Land Movement** and replace with reference to U.S. Geological Survey 2-7
14. Revise **Table 2-1** Housing capacity 2-7
15. Change preservation boundary to preservation lands 2-8+
16. Update **Exhibit 2-2 Scenic Resources** to include Na Ala Hele Trails 2-9

17. Add to description of preservation lands to include: areas of historical significance, recreational lands with visual landmarks and significant vistas, and recommendation to limit building heights.....2-10 & 11
18. Add **Section 2.2.2 Ahupua‘a Management** 2-11
19. Rename **Section 2.2.3 to Ka Iwi Scenic Shoreline** 2-13
20. Shorten name of **Section 2.2.4 Ridge-and-Valley Neighborhoods** 2-13
21. Rename **Section 2.2.5 Mauka-Makai Recreational Access** 2-15
22. Remove description of beach access in East Honolulu being “less problematic.” Add how erosion and SLR can reduce lateral access..... 2-15
23. Add description that there are approximately 19 shared driveways along Portlock Road that have access to the coastline 2-15
24. Add Maunalua Bay and Ka Iwi Scenic Shoreline to Natural Areas 2-15
25. Access to natural areas should be provided to the public insofar as to not adversely impact the habitats they foster. 2-16
26. Recognize the stewardship needs for natural areas and the contributions of residents and community organizations to the environment and protection of resources in perpetuity 2-16
27. Rename **Section 2.2.7 to Housing Stability and Age-Friendly Communities** 2-16
28. Update description of unevenness of aging even within East Honolulu..... 2-17
29. Add **Table 2-2** to reflect minimal projected population growth in East Honolulu 2-17
30. Add **Table 2-3** to reflect the changing demographics and the growth in the gap of elderly projected to live in East Honolulu in comparison to the remainder of O‘ahu..... 2-17
31. The community is rapidly aging and East Honolulu must strive to create “an inclusive and accessible urban or suburban environment that encourages active and healthy aging” in accordance with the goals and visions from **Making Honolulu an Age-Friendly City: Action Plan**. 2-18
32. Consider allowing residential uses in business districts above the first floor to create more affordable housing, particularly for seniors 2-18
33. Add **Section 2.2.9 Climate Change Adaptation**..... 2-20 to 22
34. East Honolulu will mitigate and minimize the vulnerability of social and physical infrastructure while increasing community resiliency. 2-20
35. The City will work cooperatively to develop and implement land use policies, hazard mitigation actions, and design and construction standards that mitigate and adapt to the impacts of climate change and SLR. 2-20

36.	City shoreline maps and regulations will be updated based on guidance from the City Climate Change Commission. Proposed projects should reflect up-to-date data from the most current versions of the <u>Sea Level Rise Guidance</u> and <u>Climate Change Brief</u>	2-21
37.	“Build back better and smarter” after a disaster.....	2-21
38.	Add Exhibit 2-3 SLR Projections	2-22

CHAPTER 3: LAND USE POLICIES AND GUIDELINES

39.	Add to the General Policies for Open Space Uses:	
	a. Provide and maintain recreational access to open space in shoreline and mountain areas	3-1
	b. Promote and support the long-term viability of agriculture	3-1
	c. Protect endangered species habitats.....	3-1
	d. Protect aesthetic and biological value of wetlands, natural streams, and other drainage ways.....	3-1
	e. Linear system of landscaped pathways to enhance, create more complete streets, and assist with stormwater retention	3-1
	f. Prevent development of areas susceptible to natural hazards such as soil movement, rock falls, coastal erosion, and sea level rise	3-2
40.	Removed Principles and merged with Policies and Guidelines	3-2+
41.	Added HRS references.....	3-2+
42.	Added Wiliwilinui Ridge Trail	3-2
43.	Added golf courses to Exhibit 3-1. Removed trails not managed but within State inventory from Exhibit 3-1 per DLNR Nā Ala Hele recommendation. Instead documented in Table 3-1	3-3 & 4
44.	Mitigate erosion and social impacts of congestion.....	3-5
45.	Acquire/maintain public access easements to trails or a NGO to do same	3-6
46.	Control the number and range of feral animals and alien species	3-6
47.	Create a City Resource Management Program.....	3-6
48.	Better balance trail demands across East Honolulu and alleviate congestion through the opening and sanctioning of additional trails, particularly in Mariners Ridge, Niu Valley, and Kamilo Nui Valley	3-6
49.	Move Shoreline Areas from Section 3.1.3.6 to Section 3.1.2.2	3-6
50.	Shoreline access is protected under HRS 115-1	3-7
51.	Over the Plan ’s long-term horizon, East Honolulu will face increased threats from coastal hazards and flooding as a result of climate change	3-7 to 9

52. With the projected rate of SLR and shoreline erosion, setbacks will have to be reviewed and increased routinely to mitigate further damages..... 3-8
53. Members of the Portlock are dedicated to ensuring the existing nineteen driveways remain open to the public for shoreline access..... 3-8
54. Citizen reporting of shoreline access issues (incl. veg) to the DLNR.....3-9 & 10
55. Recognize SLR and erosion impacts to lateral access..... 3-10
56. Recognize and codify mauka-makai shoreline access into the ROH..... 3-10
57. Further alteration of the shoreline is discouraged.....3-10 & 25
58. Protect, adapt, or relocate the highest priority vulnerable infrastructure..... 3-10
59. Analyze all hazard, erosion, and projected SLR rates for new projects..... 3-10
60. Protect, adapt, and relocate structures, public facilities, and natural and cultural resources through the formation of community-based redevelopment districts..... 3-10, 11, 39, 46
61. Use most current information from Climate Change Commission 3-10
62. Develop design and construction standards to mitigate impacts from climate change and SLR 3-11
63. Assess all hazards in land development application process 3-11
64. Map repetitive loss areas and develop and implement a “build back better and smarter” strategy 3-11
65. Develop short- and long-term resiliency and recovery plans 3-11
66. An economic feasibility study for viability of agriculture in Kamilo Nui 3-11
67. Include the existing Leolani within the Community Growth Boundary 3-12
68. Preserve the Community Growth Boundary through 2040 3-12
69. Implement agricultural BMPs to mitigate stormwater runoff 3-13
70. Change drainageways to drainage corridors 3-13+
71. Add **Exhibit 3-2 National Wetlands Inventory** and benefit discussion..... 3-13
72. Restore ecological function through LID standards, green infrastructure, landscape features, natural improvements to park and preservation lands, and incentives to homeowners to reduce runoff.....3-13,15 & 50
73. Clean up contaminated areas..... 3-15
74. Incorporate landscaped pathways and bikeways adjacent to stream channels where appropriate and feasible 3-15
75. Retain stormwater runoff onsite..... 3-15
76. Protect preservation lands located within the CGB to prevent further degradation of nearshore water quality 3-15
77. Identify potential natural improvements to park and preservation lands..... 3-15

78. Remove **3.1.3.4 Community-Based Parks** and combine with **Section 3.3** ... 3-16
79. Remove **3.1.3.5 Golf Courses** and combine with **Section 3.2.3.3** 3-16
80. Rename **3.1.2.5 Natural Resources and Preserves** from Wildlife 3-16
81. Add discussion of new natural areas by adding Kānewai Spring and Fishpond, Ka Iwi Coast, Keawāwa Marsh and Wetlands, Kuli'ou'ou and Honolulu Watershed Forest Reserves, and Maunalua Bay 3-16 to 18
82. Revise **Exhibit 3-3 Natural Areas** by removing wetlands (now on a separate map) and adding natural areas mentioned above 3-17
83. Include ongoing discussion of Rim Island 2 in Kuapā Pond with calls for a biological study 3-19
84. Views across the marina should be maintained..... 3-20
85. Install and maintain landscaping along marina edge, where appropriate 3-20
86. Encourage Best Management Practices for marina uses to prevent further degradation of water quality to both the marina and Maunalua Bay 3-20
87. Incorporate DPR changes to Botanical Gardens 3-22, 26, & 27
88. Identify trail amenity improvements and Ka Iwi Mauka Lands purchase 3-24
89. Add **3.2.1.4 Aquatic Recreation** section and identify State jurisdiction..... 3-25
90. Remove **3.2.1.4 Golf Courses** and combine with **Section 3.2.3.3** 3-26
91. Expand access to existing parks by improving paths and linkages for people to walk and bike 3-26 & 33
92. Preserve Ka Iwi Scenic Shoreline..... 3-26
93. Incorporate DPR's recommendations including: prohibiting access to trails and paths outside of Koko Crate Botanical Garden from within the garden, restrict horseback riding to areas away from plant collections, and continue develop the garden as a conservation site of global importance for Hawai'i and other tropical dryland areas 3-26 & 27
94. Prohibit alterations to the shoreline 3-26
95. Reduce light pollution's adverse impact on wildlife and human health 3-28
96. Add **Table 3-4 East Honolulu Golf Courses** 3-29
97. The main purpose of community-based parks is to provide active recreation space 3-30
98. Private recreation facilities also meet some of the demand for parks..... 3-30
99. Add Private Recreation Facilities to **Table 3-6** 3-31
100. Remove ~~Increase the inventory of community-based parks~~ 3-33
101. Remove ~~Have new residential development provide land for open and recreation purposes in lieu of a park fee for dedication purposes~~ 3-33

102.	Remove Table 3-5 Significant Cultural and Historic Sites so as to not publish the location of sensitive sites.....	3-35
103.	Describe Hāwea Heiau complex and Pahua Heiau.....	3-35
104.	Include sight lines that are significant to the value of the site	3-36
105.	Discuss the development of ohana units, or accessory dwelling units (ADUs), both historically and their benefits.....	3-37
106.	Create an accessible and age-friendly urban and suburban environment.....	3-39
107.	Form a community-based redevelopment district.....	3-39
108.	Incorporate the recommendations of the Climate Commission’s Hawai’i Sea Level Rise Vulnerability and Adaptation Report	3-39
109.	Improve management and enforcement of transient vacation units	3-39
110.	Seek to reduce the number of vehicle miles traveled per person and implement the <u>O’ahu Bike Plan</u>	3-40
111.	Require Low-Impact Development (LID) standards for redevelopment and incentivize green infrastructure projects to retain stormwater.....	3-40 & 49
112.	Remove-It is intended that no new Medium-Density Apartment projects will be developed in the region	3-41
113.	Rename Section 3.5.3.2 Special Needs Housing and Senior Housing	3-41
114.	Add Universal Design Standards and a description.....	3-42
115.	Remove Table 3-6 Commercial Centers	3-43
116.	A religious community in Niu Valley Center is diminishing commercial use	3-44
117.	Commercial zones in East Honolulu appear sufficient in view of the projected population stabilization.....	3-44
118.	Description of past and potential future commercial changes	3-44
119.	Remove The communities served by these Neighborhood Commercial Centers are expected to experience minimal population growth through 2040 in the event that more mixed-use is allowed in the area.....	3-46
120.	Low-rise multi-family residential permitted use above in B-1 & B-2 districts....	3-46
121.	Non-residential development protect, adapt or relocate due to SLR, including Kāhala Resort.....	3-46 to 48
122.	Enhance the Hawai’i Kai Towne Center as a focus of activity by offering a greater diversity of uses	3-47
123.	Enhance the Koko Marina Shopping Center as a recreation/entertainment oriented commercial complex.....	3-47
124.	Parking areas require a landscaped screen in setbacks with shade trees throughout the parking lot for aesthetics and stormwater retention	3-49

125. Provide incentives for owners to develop rain gardens, permeable parking lots and driveways 3-50

CHAPTER 4: PUBLIC FACILITIES AND INFRASTRUCTURE POLICIES AND GUIDELINES

126. The completion of the Hawai'i Kai Drive connection would require the acquisition of a 56-foot right-of-way and the resolution of drainage issues 4-2

127. 2040 ORTP discussion 4-2

128. Potential bus route switch if there is a move to hub-and-spoke system 4-3

129. Implement the findings and recommendations found in the **Statewide Pedestrian Master Plan**, the **Honolulu Complete Streets Design Manual**, the **Bike Plan Hawai'i**, the **O'ahu Bike Plan**, and the **Honolulu Age-Friendly City Action Plan**. 4-3 to 4

130. Revise **Exhibit 4-1 Bikeway System** to match style and update..... 4-5

131. Increase safety and comfort for alternative modes of travel4-6 & 7

132. Implement lane restriping during repaving projects 4-7

133. Improve sidewalks along Kalaniana'ole Highway consistent with the **Statewide Pedestrian Master Plan** 4-7

134. Ensure street furniture is comfortable and does not impede sidewalk movement..... 4-7

135. Ensure all lighting is shielded and pointed downward. Any lighting changes should improve night sky visibility while creating safe places 4-7

136. Discourage gated communities 4-8

137. Support the Safe Routes to School program 4-8

138. Include more landscaping along roadways to improve aesthetics, and to manage stormwater, sediment, and toxic pollutant runoff 4-8

139. The BWS is scheduled to develop a **Watershed Management Plan** for East Honolulu 4-9

140. Projected decreases in rainfall due to climate change will also encourage adaptations 4-10

141. Require LID standards for redevelopment and incentivize green infrastructure projects to retain stormwater4-11 &15

142. 100 percent renewable portfolio standard by 2045..... 4-14

143. Antennas history and concerns over health and aesthetics..... 4-15

144. Encourage co-location of antennas and reduce visual impacts 4-16

145. The Upper Hawai'i Kai land was purchased for preservation and protection... 4-17

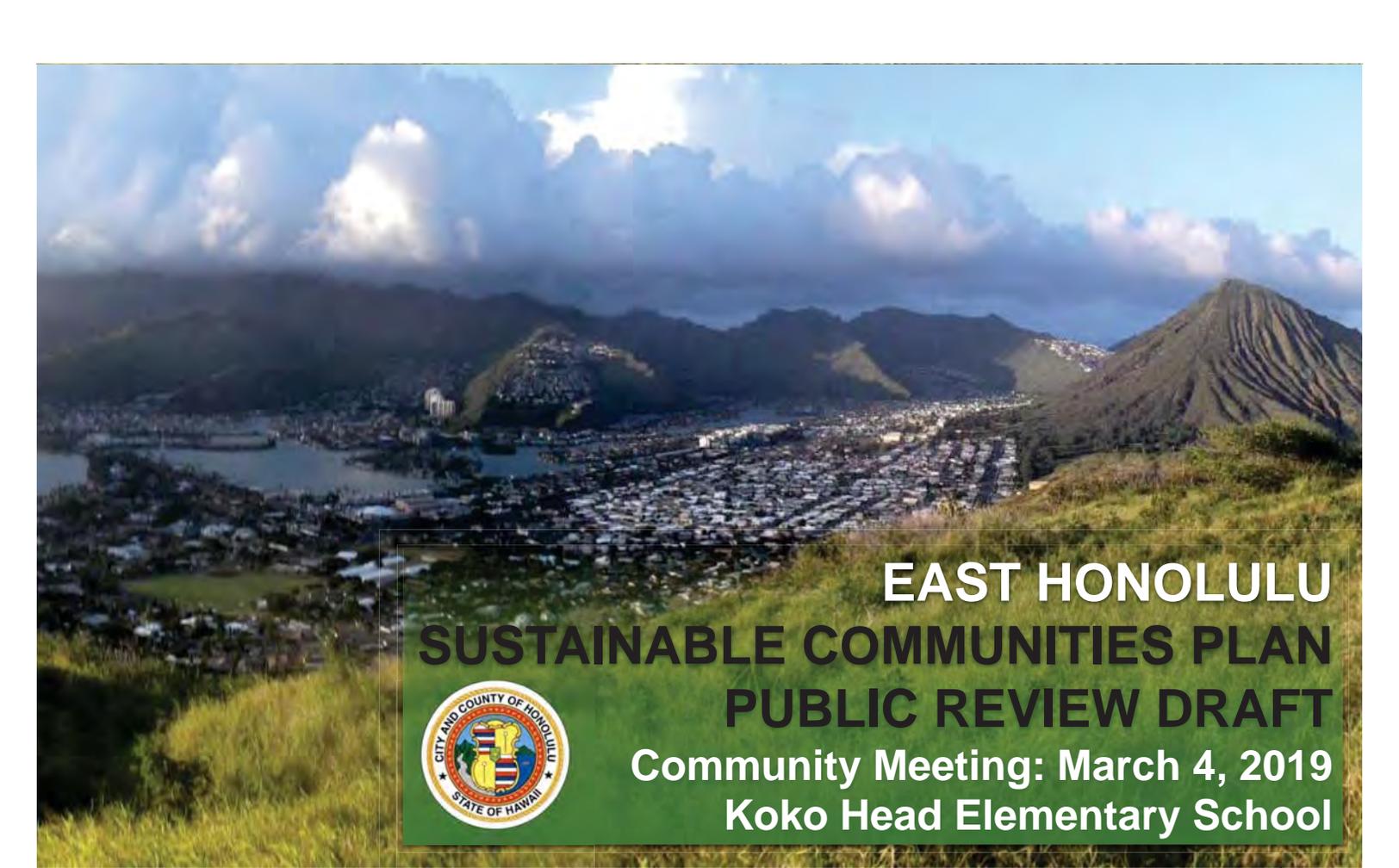
146.	Description of recent flood control projects.....	4-19
147.	Create a Watershed Partnership to manage ahupua'a.....	4-19
148.	Restore channelized streams, install detention basins, implement LID standards, and plant and maintain vegetation along drainage ways. Drainage ways should also provide passive recreation benefits.	4-19
149.	Remove stormwater as an irregular source of water and man-made vegetated drainageways as the preferred solution to drainage	4-19
150.	Identify repetitive loss areas from flooding and implement greater restrictions to rebuilding in these areas	4-19
151.	Wailupe Valley Elementary School has closed while enrollment at other elementary schools has remained constant or declined	4-20
152.	Update Table 4-1 and Table 4-2 School Enrollment numbers	4-21 & 22
153.	The DOE can collect school impact fees from new residential development to mitigate expenses related to a change of facilities	4-22
154.	A Satellite City Hall to serve East Honolulu has been established in the Hawai'i Kai Corporate Plaza.....	4-23
155.	A police substation has been established near Fort Ruger	4-23
156.	There are twelve emergency shelters and refuge centers located in East Honolulu which double as public buildings and parks. Add Table 4-3	4-24 & 25
157.	Analyze the possible impact of SLR for new public and private projects in shoreline areas and measures to reduce risks and increase resiliency	4-24
158.	Identify critical public and private infrastructure to protect, adapt, or relocate the highest priority projects	4-25
159.	Coordinate and determine how to: Mitigate the anticipated threats from sea level rise, plan for future infrastructure improvements, and maintain existing connections, especially Kalaniana'ole Highway, where future flooding is anticipated to occur	4-26
160.	The DPR should coordinate with the DOE on the development and use of athletic facilities	4-26
161.	Support the structural design of school buildings, so that these facilities may be used as shelters capable of withstanding Category 3 hurricanes	4-26
162.	Supplement the public emergency shelters by identifying private structures that could be used as public shelters meeting FEMA standards	4-26
163.	Remove Establish a Satellite City Hall and Maintain Police and Fire/Ambulance Stations and develop an additional substation	4-27

CHAPTER 5: PUBLIC FACILITIES AND INFRASTRUCTURE POLICIES AND GUIDELINES

- 164. Respect the intent and purposes of the agriculture uses as described in **Section 2.2.1** and delineated in this **Plan** 5-2
- 165. Have adequate required infrastructure in place before or upon completion of the project..... 5-2
- 166. Analyze the possible impact of sea level rise for new public and private projects near shoreline areas and incorporate, where appropriate and feasible, measures to reduce risks and increase resiliency to impacts of sea level rise and coastal hazards 5-2
- 167. Discussion on the formation of a community-based redevelopment district 5-3
- 168. Add list of Agencies with functional planning responsibilities 5-4
- 169. Zone change applications for urban uses outside of the CGB are likely to not be supported by the Director 5-6
- 170. Define a significant zone change.....5-6 & 7
- 171. Updated references of regulatory codes and standards 5-10 & 11
- 172. In June 2006 the Department of Planning and Permitting initiated a study **Development Plans Implementation Program**. Revision and updating of the implementation tools was previously a part of the 1999 **Plan** as well as several other Development Plan areas. This revision and updating will now take place within the study..... 5-11
- 173. Add **Section 5.7 Implementation Matrix** 5-14 to 38

APPENDIX A: CONCEPTUAL MAPS

- 174. Consistency with other plans, maps are general and conceptual.....A-1
- 175. Remove Agriculture Boundary. Description of areas to be consistent with other Development Plan areas..... A-2 to A-17
- 176. There have been no State Land Use District boundary amendments in East Honolulu since the publication of the 1999 **Plan**A-3
- 177. The two changes include the expansion of Niu Valley and the Leolani development near Kamilo Nui Valley, completed after publication of the 1999 **Plan**..... A-3 & 4
- 178. Unsanctioned maintained trails have been removed from the map with the exception of the Mariners Ridge TrailA-7
- 179. Elementary schools have been added to the map to demonstrate the multi-purpose uses they may contain A-8 to A-17
- 180. The Public Facilities Map and corresponding text diff from PIM revisionsA-9
- 181. Revise and update Maps A-1, A-2, and A-3A-13 to 17



**EAST HONOLULU
SUSTAINABLE COMMUNITIES PLAN
PUBLIC REVIEW DRAFT**
Community Meeting: March 4, 2019
Koko Head Elementary School



Presentation Agenda



Overview of General Plan and DPSCPs



Contents of Plan



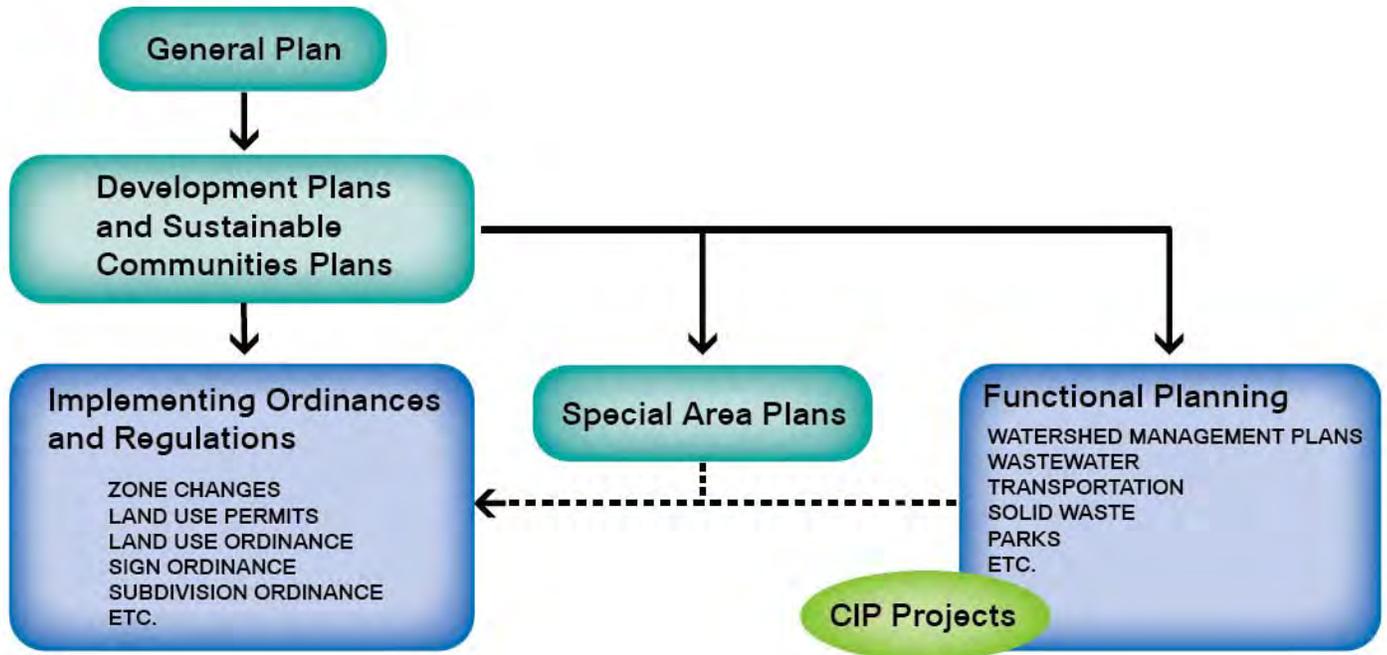
Process Since the 1999 Plan



Current Process



Proposed Significant Changes



East Honolulu's Role in O'ahu's Development Pattern

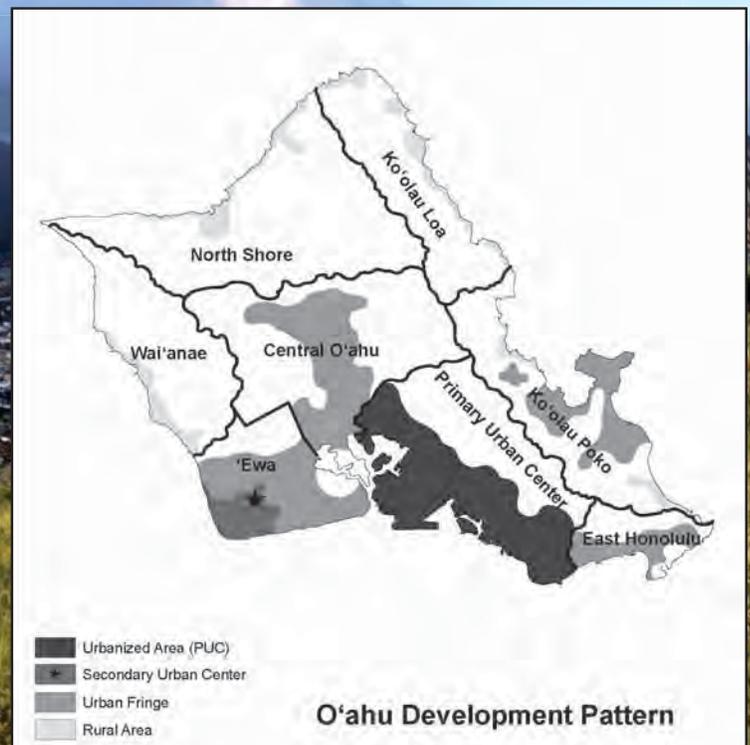
Designated Urban Fringe

Limited development and population growth

Predominantly residential area, generally low-rise

Maintain the existing Community Growth Boundary

Population stabilization around 50,000



Content of the East Honolulu Plan

Chapter 1

- East Honolulu's Role in O'ahu's Development Pattern defines the region's role and identity;

Chapter 2

- The Vision for East Honolulu's Future summarizes the community-based vision for the future of the region;

Chapter 3

- Land Use Policies and Guidelines provides the land use policies needed to implement the vision;

Chapter 4

- Public Facilities and Infrastructure Policies and Guidelines provides the infrastructure policies needed to implement the vision;

Chapter 5

- Implementation identifies the means through which the policies will be applied, including zone changes, and infrastructure budgeting;

Appendix A

- Conceptual Maps

Process Since the 1999 Plan Adoption

Workshop I – January 2005

- Community orientation and outreach

2006-2011

- Research, draft Plan revisions and recommendations

Workshop II – September 2012

- Community outreach restart

Workshop III – Spring 2016

- 3 Climate adaptation workshops

January / February 2019

- **Publication of the Public Review Draft**

Workshop IV – March 4, 2019

- **Announcement of the Publication and Comment Period**

Public Review Process – Going Forward

Public Review Draft and Community Meeting

Neighborhood Board Presentations (Feb. 26, March 21, April 4)

Public Comment Period (June 28)

Proposed Revised Plan and Review Report (Fall 2019)

Planning Commission and Public Hearing (Fall 2019)

City Council (Winter 2019 and beyond)

The Vision to 2040

Protect Community Resources

Adapt to Changing Community Needs

Population remains stable at approximately 50,000

Revitalize existing commercial centers while limiting their expansion

Maintain low-rise, low-density, residential character

Avoid flood damage and slippage from development of slopes

Use capacity of Kalaniana'ole Highway to manage growth

Preserve scenic views

Promote access to mountain and shoreline resources

The Vision to 2040 – New

Become more age-friendly and focus on complete streets

Create resilient, disaster-ready communities

Address, minimize, and adapt to potential impacts of climate change and sea level rise

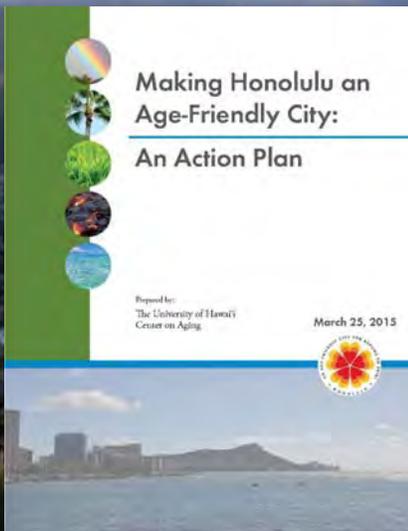
Implement ahupua'a concept and low-impact development standards



Image: Hawaii Bicycling League



Making Honolulu an Age-Friendly City



Adopted as Ordinance 18-36

Percentage 65+	1980	1990	2000	2010	2015	2040
East Honolulu	9.3%	11.7%	18.2%	21.6%	23.5%	37%
All O'ahu	7.3%	10.9%	13.4%	14.5%	16.2%	23.7%

7 Principles of Universal Design

Mixed-Use Development

Accessory Dwelling Units (ADUs)

Complete Streets

Creating a Resilient, Disaster-Ready Community

Protect Community Resources

Limit development of steep slopes

Implement Low-Impact Development (LID) Standards

Incentivize green infrastructure investments

Protect existing preservation lands inside and outside the CGB

Natural improvements and stormwater retention

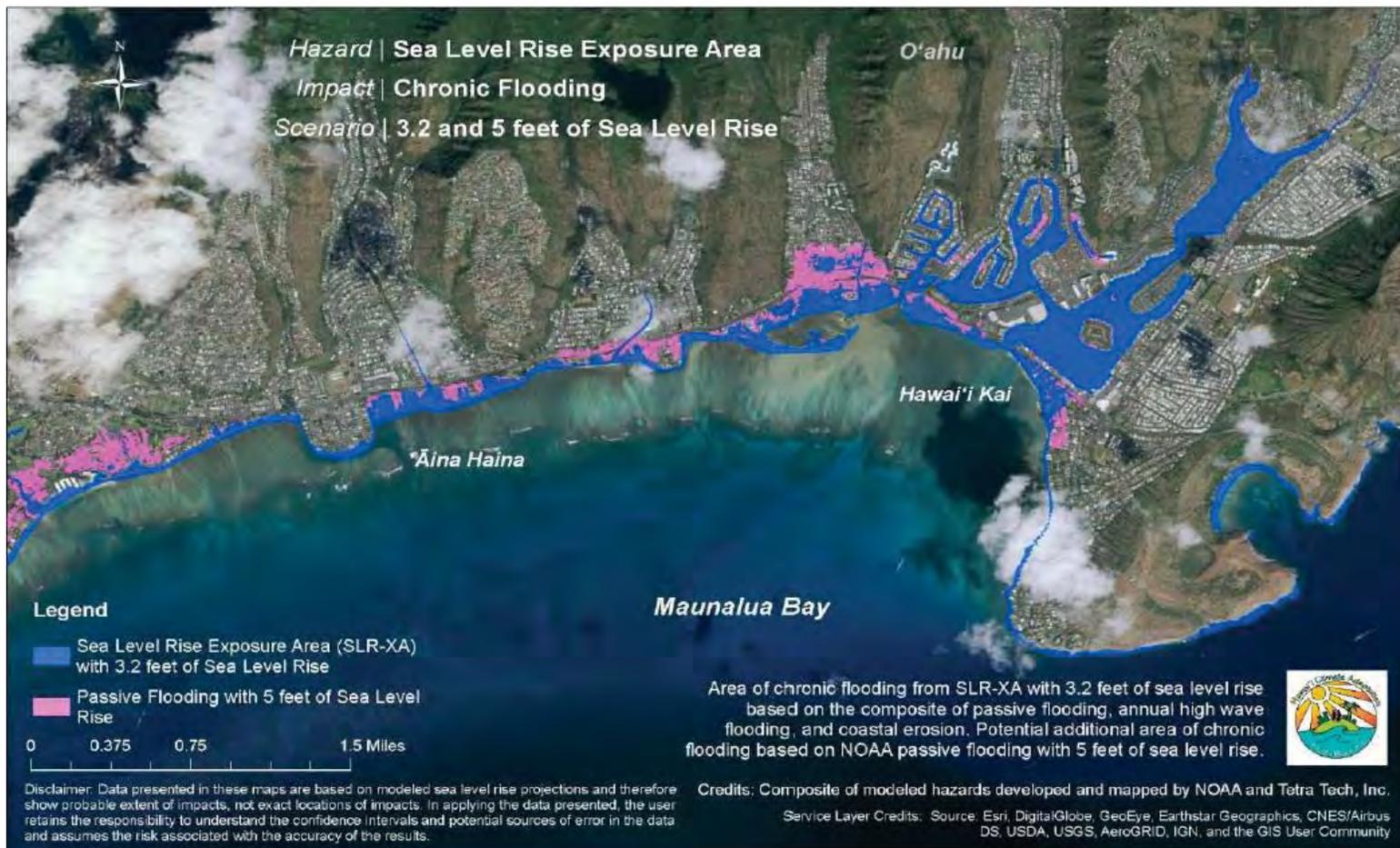
Adapt to Changing Community Needs

Form a community-based redevelopment district

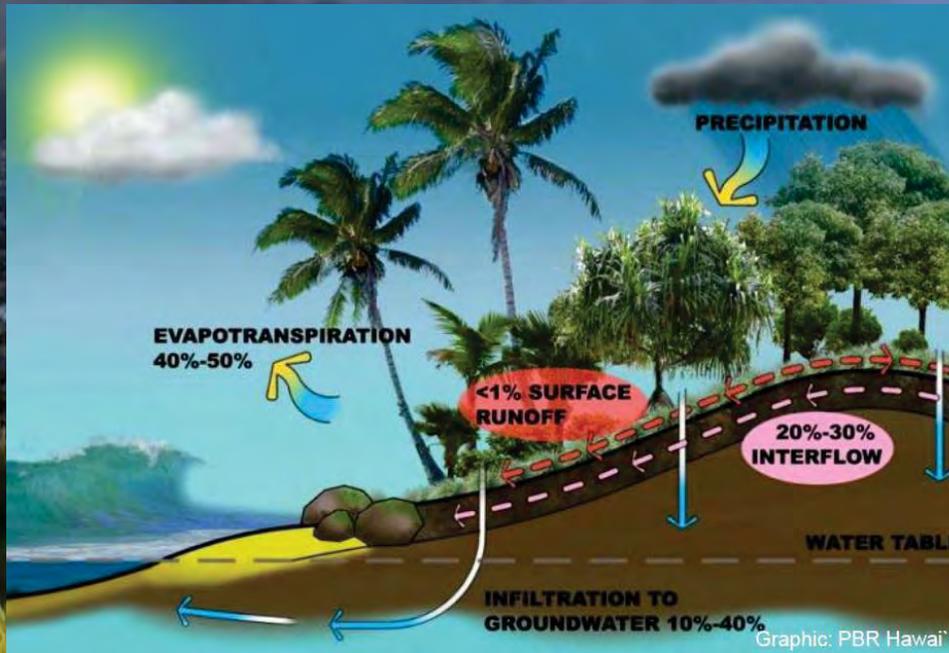
Identify repetitive loss areas

Use current guidance from the City Climate Change Commission and State plans

Protect, adapt, or relocate structures, facilities and resources vulnerable to Sea Level Rise



Ahupua'a Health and Low-Impact Development



Reduce area of impermeable surfaces

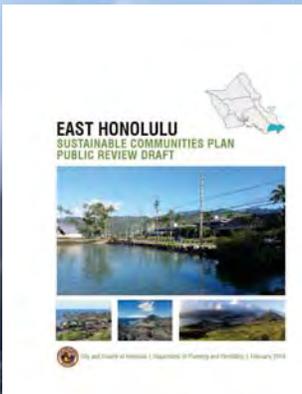
Retain water on-site

Plant more trees

Use park and preservation lands for ecological functions

Green corridors with recreation elements

Contact Information and Timeline



Thomas.Blair@Honolulu.gov
Phone: (808) 763-9054
Fax: (808) 768-6743

Dept. of Planning & Permitting
650 South King Street, 7th Fl.
Honolulu, Hawaii 96813

Public Comment Period (June 28)

Proposed Revised Plan and Review Report (Fall 2019)

Planning Commission and Public Hearing (Fall 2019)

City Council (Winter 2019 and beyond)

East Honolulu Sustainable Communities Plan Public Review Draft Workshop



Join us for a community info session on the proposed Plan revisions!

**Saturday, May 18, 9 AM to 12 PM at the
Aina Haina Elementary School Cafeteria**

The Department of Planning and Permitting (DPP) wants to hear from you! Community input is an important part of the Plan update process.

**The Public Comment Period is open
until June 28, 2019**

Comments, suggestions, and questions on the Plan can be submitted to the DPP:

E-mail: Thomas.blair@honolulu.gov
Phone: (808) 768-8030
Fax: (808) 768-6743
Department of Planning & Permitting
650 South King Street, 7th Floor
Honolulu, Hawaii 96813

What happens next?

Based on comments received, a Revised Final Plan and a Review Report will be prepared and submitted to Planning Commission. The Commission will hold a public hearing and submit a recommendation to the City Council for its consideration and final adoption of the Plan by Ordinance.

Estimated timeline:

- Summer 2019: Planning Commission public hearing and recommendation
- Fall 2019: Anticipated Transmittal to the City Council



**The Plan and project information is available on
DPP's website at:**

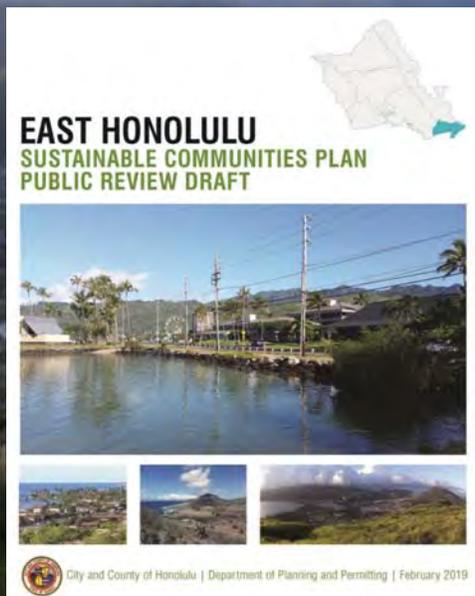
<http://www.honolulu.dpp.org/Planning/DevelopmentSustainableCommunitiesPlans/EastHonoluluPlan.aspx>

EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN PUBLIC REVIEW DRAFT

Community Workshop: May 18, 2019
‘Āina Haina Elementary School



Workshop Agenda



30 min Presentation

45 min Table Groups

15 min Report Back

30 min Question and Answer

Boards and Individual Questions

Presentation Agenda



Context and Overview



Plan Contents



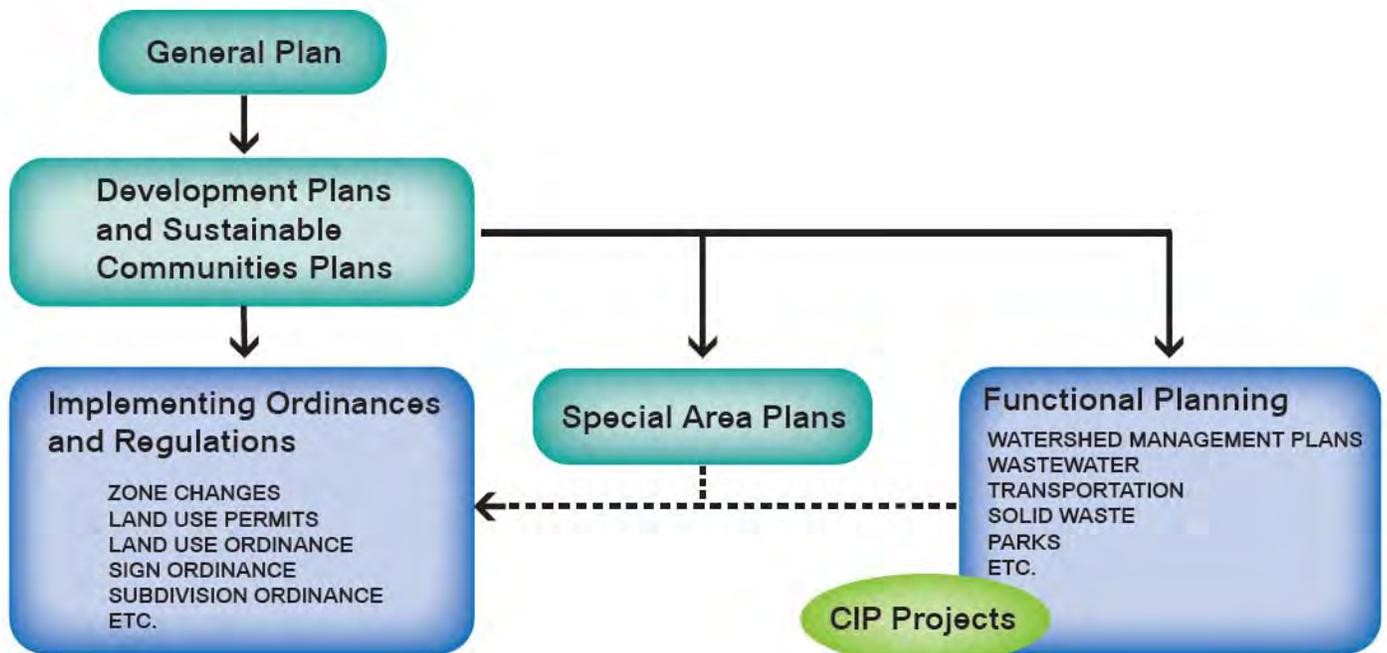
Process of Revisions



Proposed Changes



Other Concerns



East Honolulu's Role in O'ahu's Development Pattern

Designated Urban Fringe

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Maintain the existing Community Growth Boundary

Population stabilization around 50,000

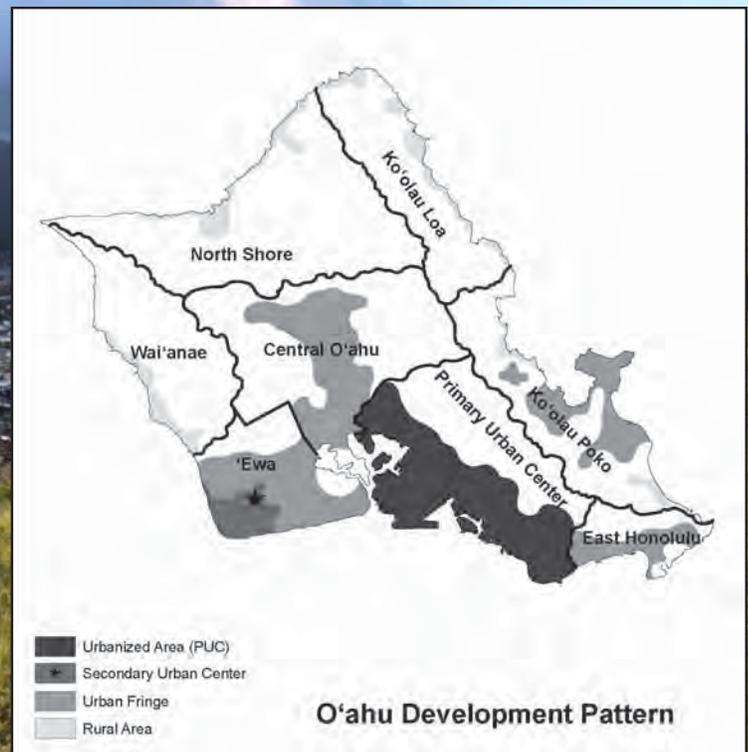


Table 2-2: Population and Projections by Development Plan Area

DP Area	2000 Pop	2000 % Share	2010 Pop	2010 % Share	2035 Pop	2035 % Share	2040 Pop	2040 % Share
PUC	419,333	47.9%	435,118	45.6%	458,200	42.8%	467,100	43.0%
'Ewa	68,696	7.8%	101,397	10.6%	173,800	16.2%	172,700	15.9%
Central O'ahu	148,208	16.9%	168,643	17.7%	189,500	17.7%	192,400	17.7%
East Honolulu	46,735	5.3%	49,914	5.2%	48,900	4.6%	50,000	4.6%
Ko'olau Peko	117,999	13.5%	115,164	12.1%	110,800	10.3%	113,300	10.4%
Ko'olau Loa	14,546	1.7%	16,732	1.8%	18,000	1.7%	18,100	1.7%
North Shore	18,380	2.1%	17,720	1.9%	19,200	1.8%	19,600	1.8%
Wai'anae	42,259	4.8%	48,519	5.1%	52,900	4.9%	53,600	4.9%
Population Total	876,156	100%	953,207	100%	1,071,200	100%	1,086,700	100%

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Planning Commission (Fall 2019)

City Council (Winter 2019 and beyond)

The Vision to 2040

Protect Community Resources

Adapt to Changing Community Needs

Manage urban growth

Preserve open space, natural features, and scenic resources

Enhance mountain and shoreline access

Protect historic and community resources

Provide adequate infrastructure and facilities

Major Additions to The Vision

Become more age-friendly and focus on complete streets

Implement ahupua'a concept and low-impact development standards

Address, minimize, and adapt to potential impacts of climate change and sea level rise

Create resilient, disaster-ready communities



Image: Hawaii Cycling League



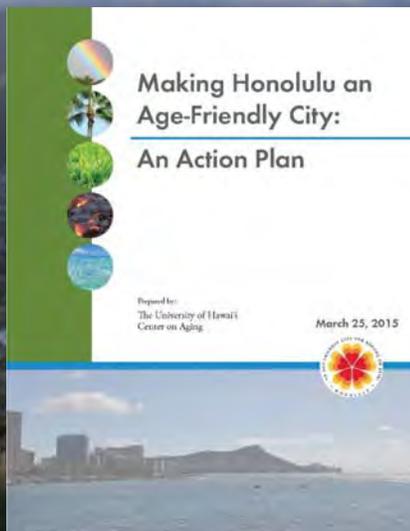
Image: Image from <https://davidlakota.files.wordpress.com/2013/01/ahupuaa-3.jpg>

Making Honolulu an Age-Friendly City

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East Honolulu	9.3%	11.7%	18.2%	21.6%	23.5%	37%
All O'ahu	7.3%	10.9%	13.4%	14.5%	16.2%	23.7%

“Redesign and repurpose infrastructure and programs to become a more age-friendly community with a focus on complete streets.” (page 1-3)

Making Honolulu an Age-Friendly City



Adopted as Ordinance 18-36
Photos courtesy of Making
Honolulu an Age-Friendly City



Making Honolulu an Age-Friendly City

“East Honolulu will strive to create “an inclusive and accessible urban or suburban environment that encourages active and healthy aging” in accordance with the goals and visions from **Making Honolulu an Age-Friendly City: An Action Plan.**” (2-18)

Universal Design – Apply the seven principles of Universal Design to projects to support the seniors who wish to age-in-place, as articulated in the **Making Honolulu an Age-Friendly City: An Action Plan.** (pages 2-18, 3-39, & 3-42)

Adopted as Ordinance 18-36
Photos courtesy of Making
Honolulu an Age-Friendly City



Making Honolulu an Age-Friendly City

UNIVERSAL DESIGN

Create an inclusive and accessible urban or suburban environment that encourages active and healthy aging, specifically age-in-place principles, that address or include the following: equitable, flexibility, simple and intuitive, perception information, tolerance for error, low physical effort, and size and space. (2-18, 3-39, and 3-42)

7 PRINCIPLES OF UNIVERSAL DESIGN:



Equitable



Flexibility



Simple &
intuitive



Perception
information



Tolerance
for error



Low physical
effort



Size &
space

Graphic adapted from: Claudine Casabonne, How Pinterest can teach you about Universal Design;

Image courtesy of the Making Honolulu an Age-Friendly City: An Action Plan

Making Honolulu an Age-Friendly City

Accessory Dwelling Units (ADUs)

Mixed-Use Development

Mixed Uses in Business Districts – Allow low-rise, multi-family residential use as a permitted accessory use above the first floor in the B-1 Neighborhood Business District and the B-2 Community Business District to meet the need for affordable housing for seniors, for those who are downsizing, for students and young families who are just starting out, and for others. (2-18 and 3-46)



Making Honolulu an Age-Friendly City



“Ensure street furniture is comfortable and does not impede sidewalk movement. See the **Complete Streets Design Manual**.” (4-7)

“Support the Safe Routes to School program and projects to improve pedestrian and bicycle links around schools.” (4-8)



City and County of
HONOLULU
Complete Streets Design Manual

Ahupua'a Health & Low-Impact Development – NEW



Limit development of steep slopes



Implement Low-Impact Development (LID) Standards



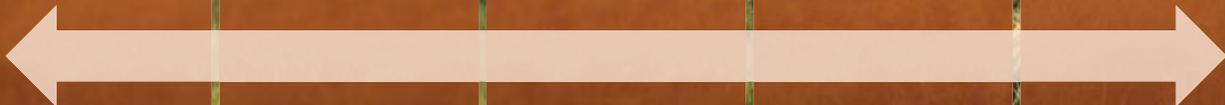
Incentivize green infrastructure investments



Protect existing preservation lands inside and outside the CGB



Natural improvements and stormwater retention



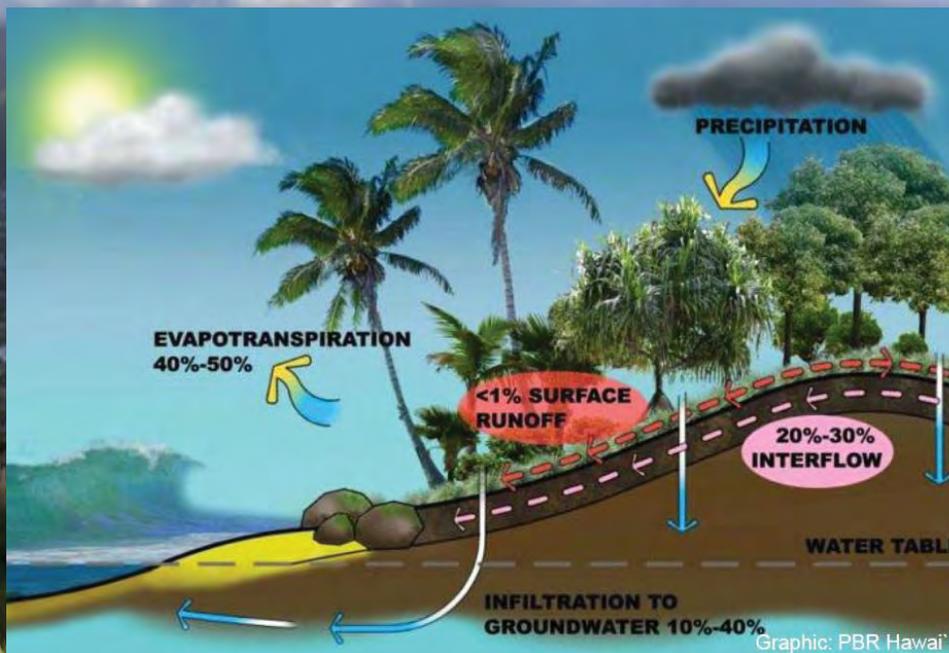
Ahupua'a Health & Low-Impact Development – NEW

“Join with Federal, State, and City agencies and local landowners and stakeholder organizations to create a Watershed Partnership to effectively manage the East Honolulu ahupua'a to retain stormwater and keep sediment and pollutants from entering streams and being transported to the ocean.” (4-19)

“New structures and facilities are also designed to respond to the needs for ecological restoration through low-impact development standards, increased energy efficiency, and potable water conservation.” (2-3)

“Provide incentives for owners of existing homes to develop rain gardens, permeable driveways, and other strategies that hold stormwater on-site instead of discharging it into storm drains or streams.” (3-40)

Ahupua'a Health & Low-Impact Development



Graphic: PBR Hawai'i

Reduce area of impermeable surfaces

Retain water on-site

Plant more trees

Use park and preservation lands for ecological functions

Green corridors with recreation elements

Ahupua'a Health & Low-Impact Development

“Include more landscaping along roadways to improve aesthetics, to manage stormwater, sediment, and toxic pollutant runoff, and to filter oils and sediment from the roadway improving downstream water quality.” (4-8)

“**Retention** – Retain stormwater, sediment, and toxic pollutant runoff through the installation of linear landscaping features and permeable pavement along roadways, particularly Kalaniana'ole Highway

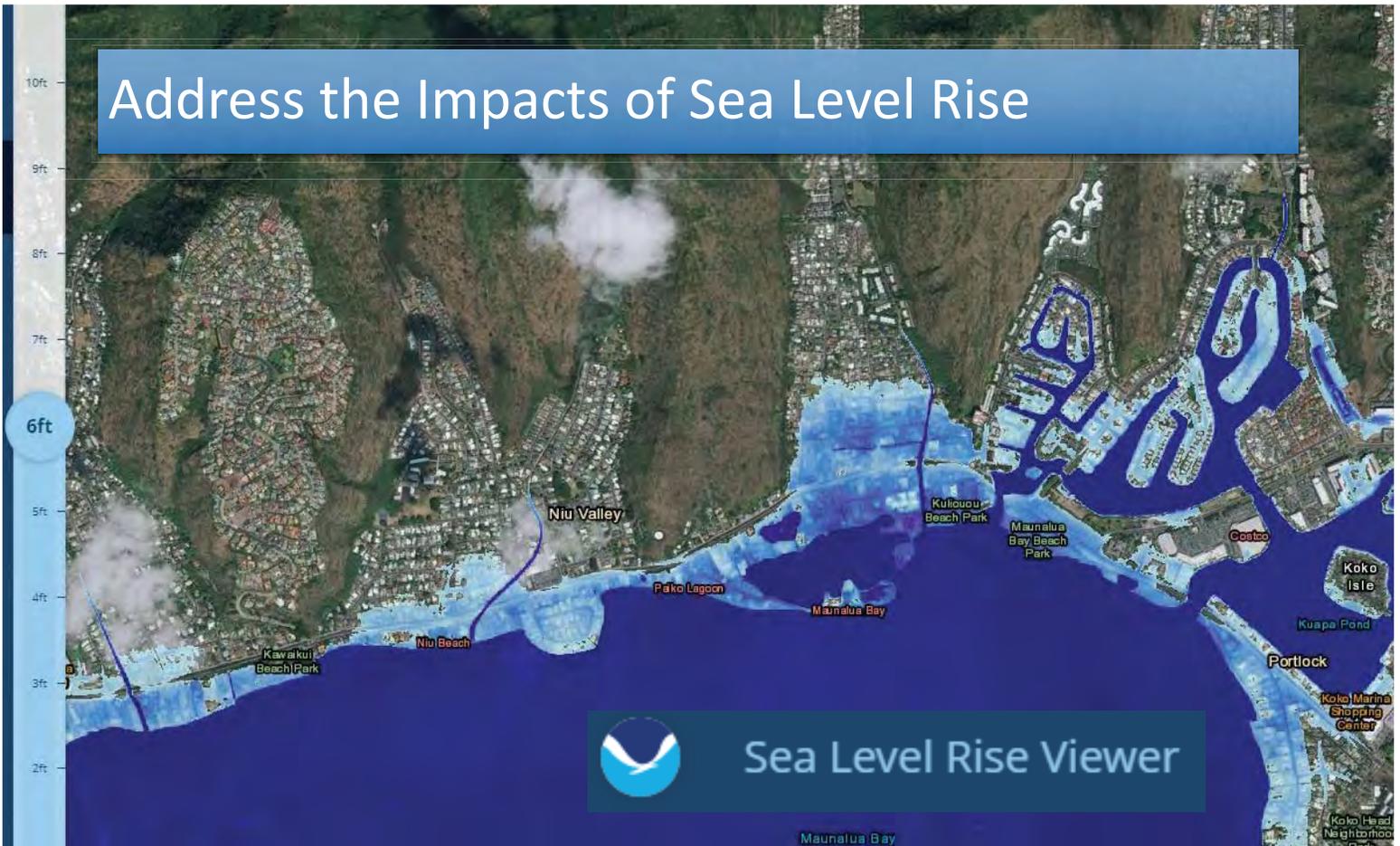
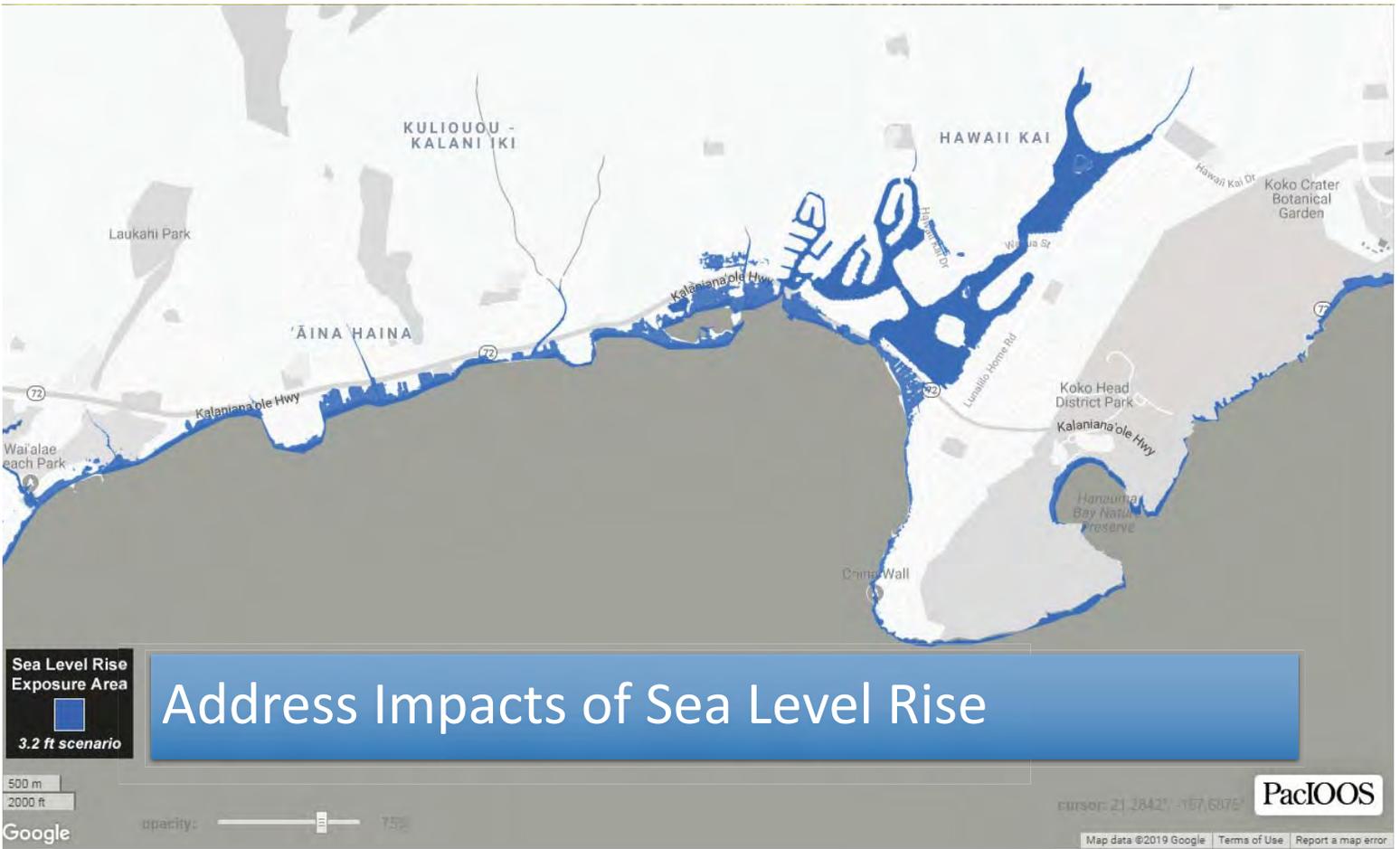
Natural Improvements – Identify potential natural improvements to park and preservation lands within the Community Growth Boundary to improve its ecological function and retain an open, undeveloped character” (3-15)

Ahupua'a Health & Low-Impact Development

“Environmental and community organizations have a stewardship role in engaging the larger community, applying political pressure, fundraising for the purchase of lands for preservation, and routine beach cleanup events” (2-16)

“Protect aesthetic and biological value of wetlands, natural streams, and other drainage ways.” (3-1)

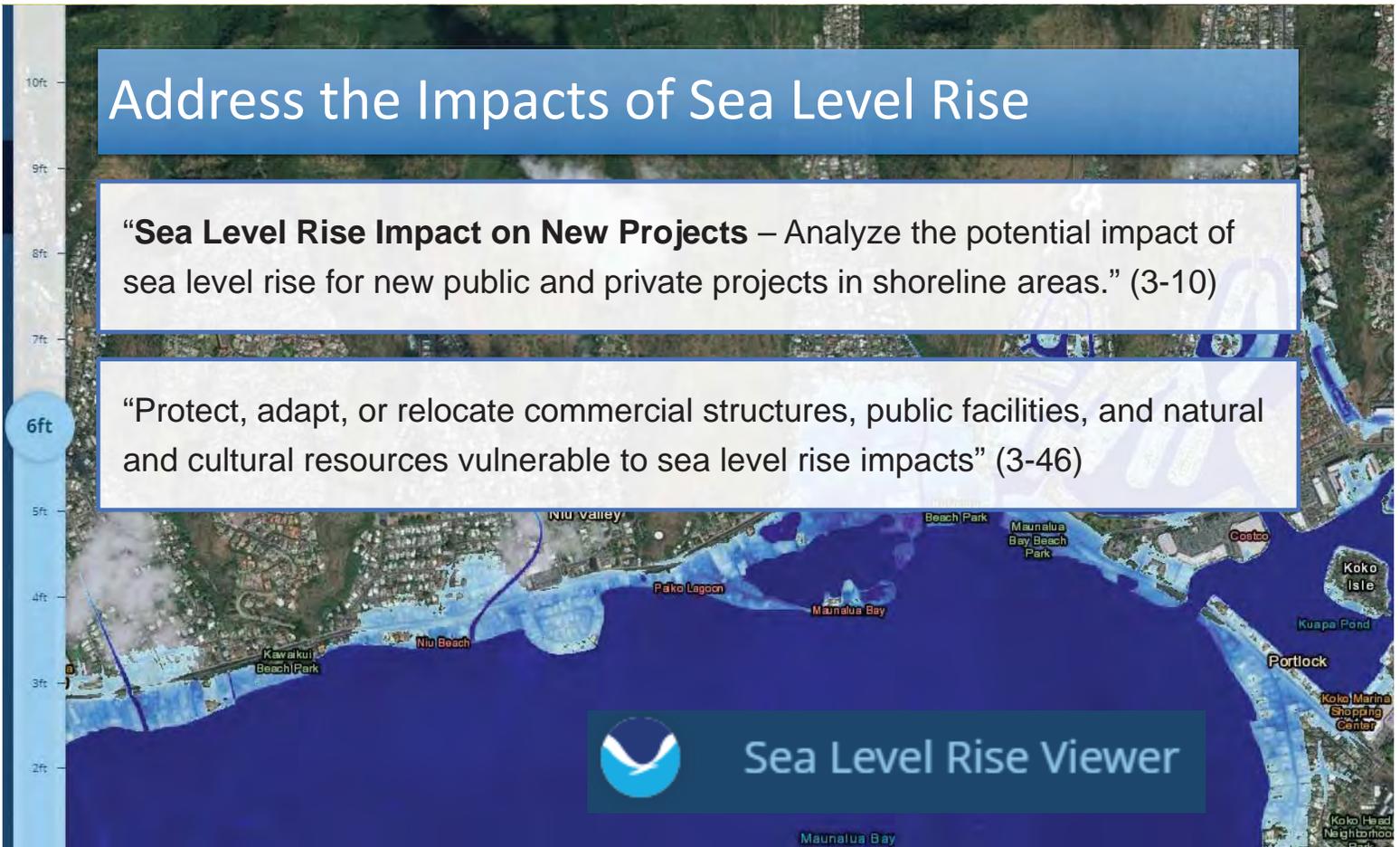
“Improve downstream water quality, particularly in sources leading to Maunalua Bay, through the restoration of channelized streams and wetlands, the installation of upland detention basins, implementation of low-impact development standards, and the encouragement of planting and maintenance of vegetation along drainage ways.” (4-19)



Address the Impacts of Sea Level Rise

“**Sea Level Rise Impact on New Projects** – Analyze the potential impact of sea level rise for new public and private projects in shoreline areas.” (3-10)

“Protect, adapt, or relocate commercial structures, public facilities, and natural and cultural resources vulnerable to sea level rise impacts” (3-46)



Address the Impacts of Sea Level Rise

“**Sea Level Rise** – Protect, adapt, or relocate commercial structures, public facilities, and natural and cultural resources vulnerable to sea level rise impacts, including coastal flooding, inundation, and erosion as feasible.” (3-46)

“**Resorts and Institutional** – If redeveloped, the resort area in Kāhala needs to take into account the projected impacts of climate change and sea level rise over the length of the building’s lifespan.” (3-48)

“**Protect Infrastructure** – Identify critical public and private infrastructure subject to sea level rise exposure and to mitigate these impacts through elevation, relocation, or other adaptation measures.” (3-10)

Creating a Resilient, Disaster-Ready Community

“Create resilient, disaster-ready communities that are strategically and physically prepared for disasters and environmental stressors.” (1-3)

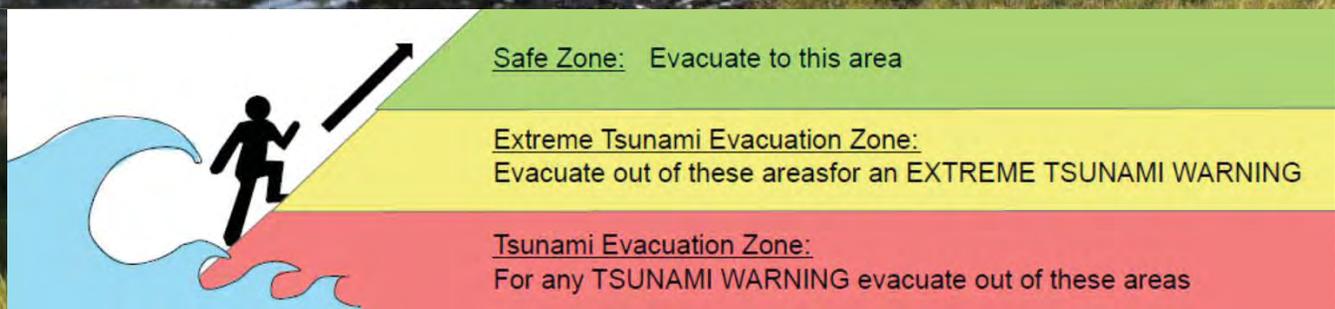
Community-based redevelopment district (3-11 and 3-29)

Identify repetitive loss areas (3-11, 4-20)

“Build Back Better and Smarter” (2-21, 3-11)

Develop disaster plans (3-11)

Use current guidance and data (2-21, 3-10, and 3-39)



Creating a Resilient, Disaster-Ready Community

“**Hazard Assessment** – Incorporate assessments of all hazards into the land development application process. (3-11)

“Prevent development of areas susceptible to natural hazards such as soil movement, rock falls, coastal erosion, and sea level rise” (page 3-2)

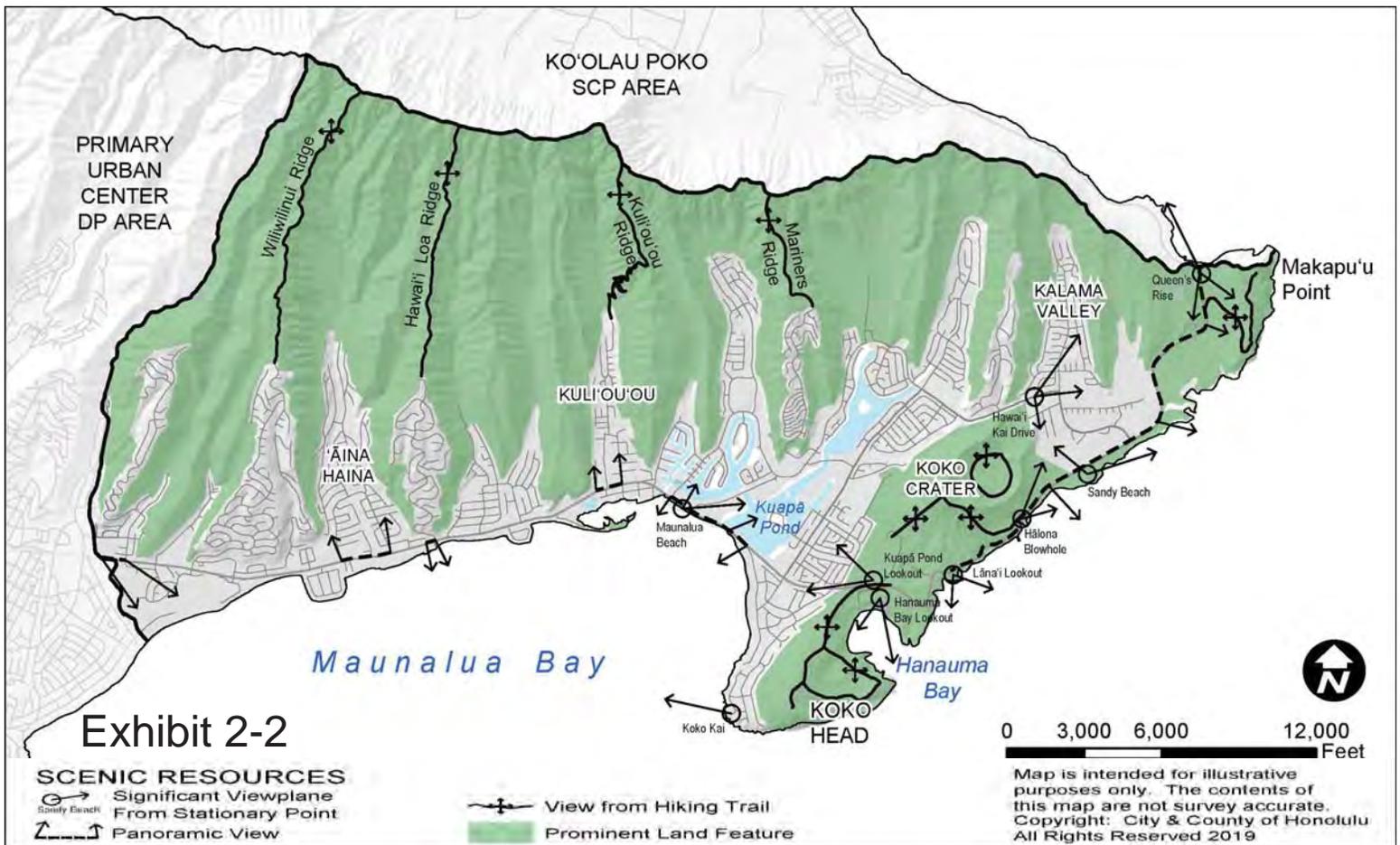
“Work cooperatively to develop and implement land use policies, hazard mitigation actions, and design and construction standards that mitigate and adapt to the impacts of climate change and sea level rise.” (page 2-20)

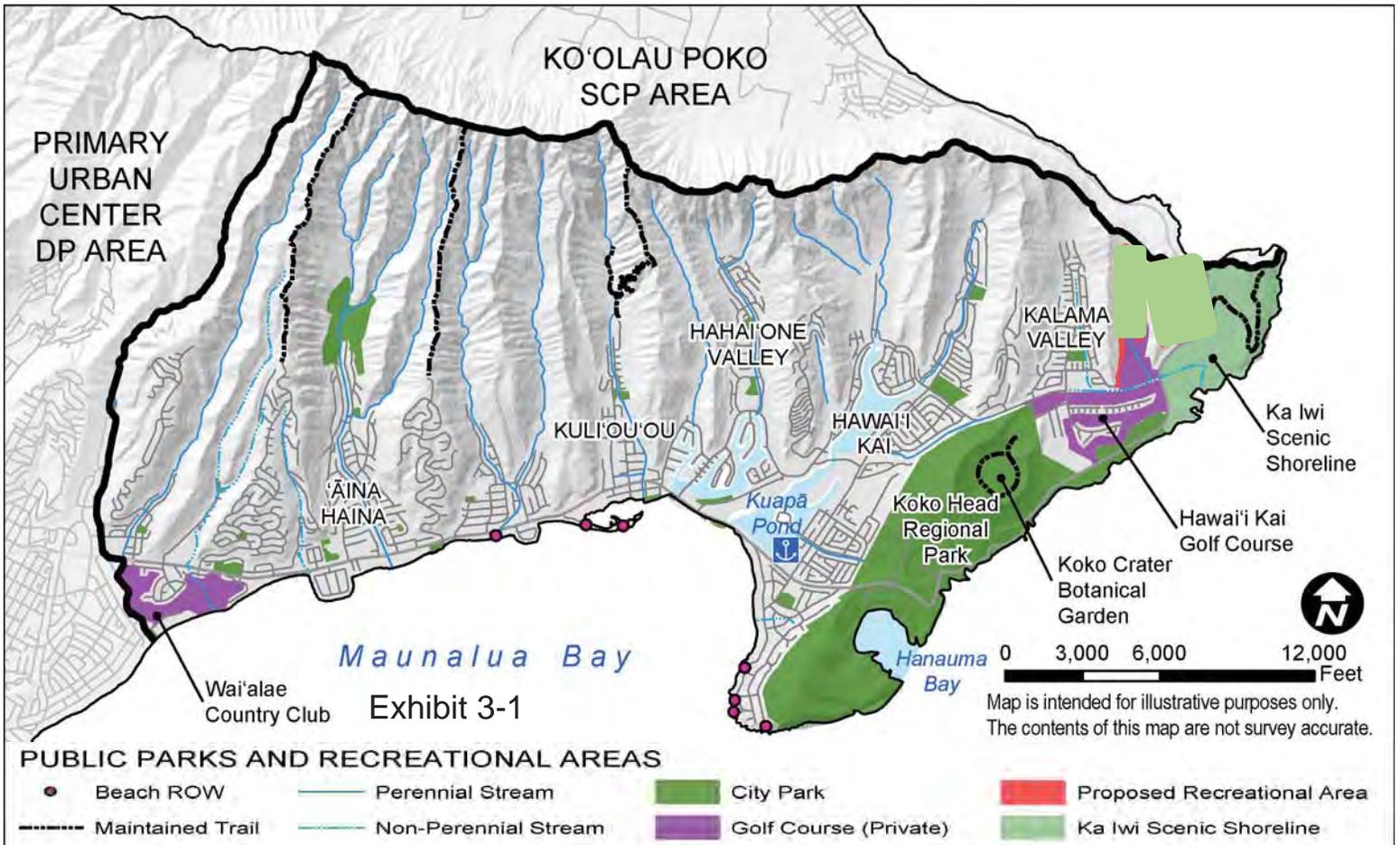
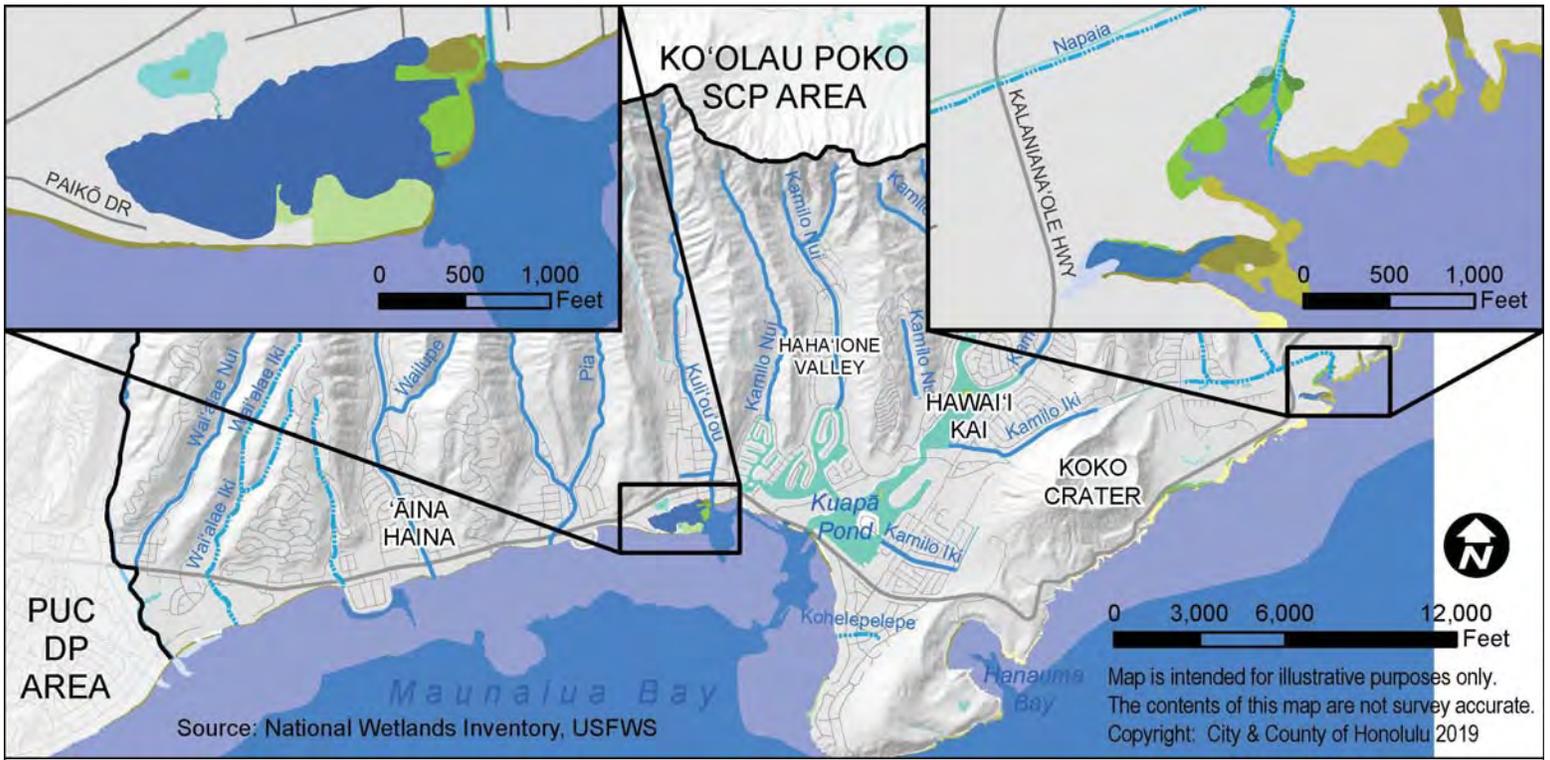
Other Proposed Changes in the Public Review Draft

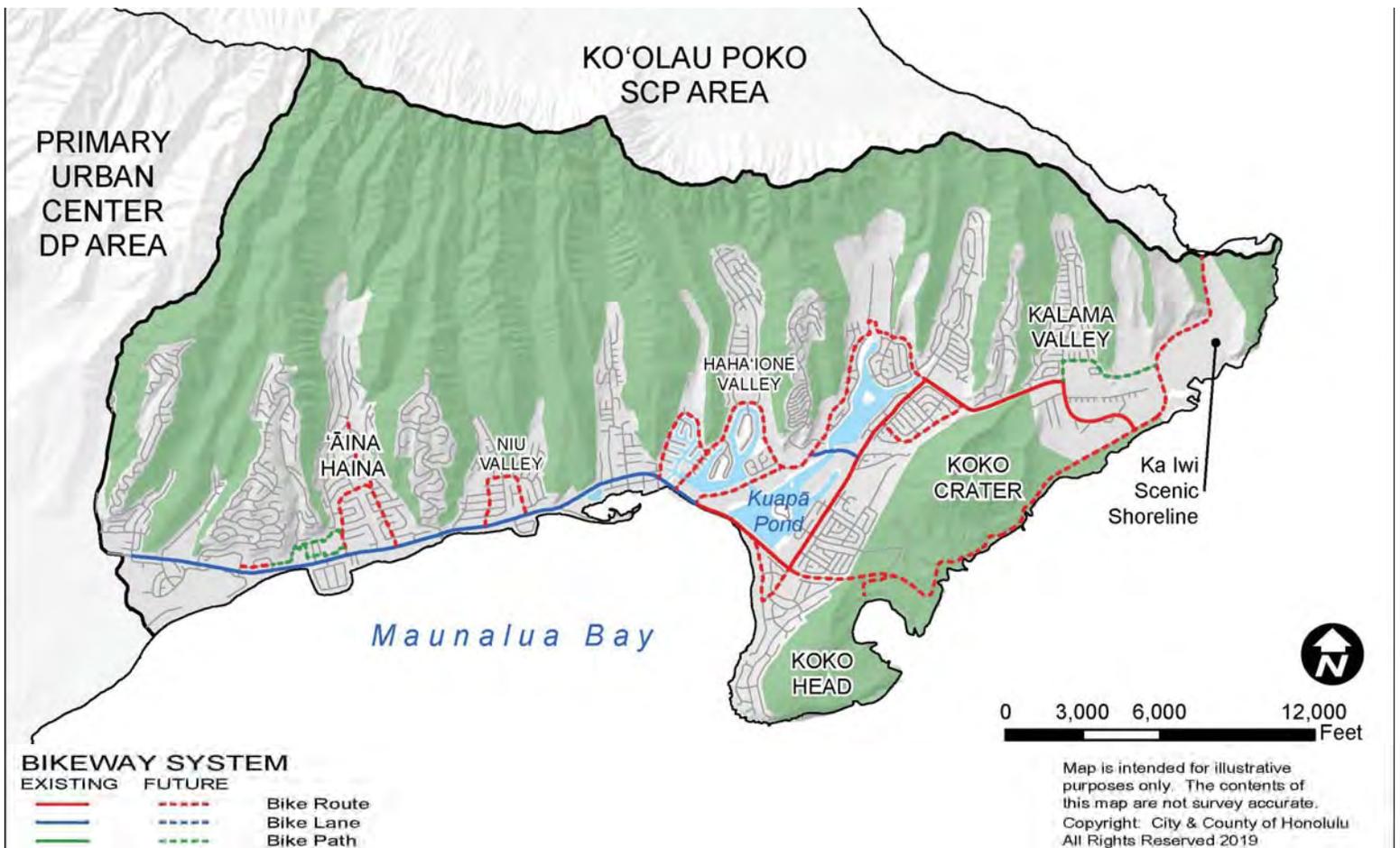
“Preserving significant historic and pre-historic features including Native Hawaiian cultural and archaeological sites.” (2-10)

“Retaining visual landmarks and significant vistas including the Ka Iwi Scenic Shoreline, views of Maunalua Bay and other shoreline areas from Kalanianaʻole Highway, and views from ridge hiking trails.” (2-11)

“Limiting building heights to low-rise and mid-rise structures to protect panoramic views and the existing character of the built environment.” (2-11)







Other Proposed Changes – Parks

“Prohibit access to any trails or paths outside Koko Crater Botanical Garden from within the garden.

Protect the fragile topography of Koko Crater by restricting recreational uses such as horseback riding to areas apart from the conservation plant collections.

Continue to develop Koko Crater Botanical Garden as a conservation site of global importance for rare and endangered species from Hawai‘i and other tropical dryland areas.”

(3-27)

“**Recreation Corridors** – Incorporate landscaped pathways and bikeways adjacent to stream channels and drainage corridors, where appropriate and feasible.” (3-15)

“Expand access to existing park lands by improving neighborhood linkages along shared paths for people walking and biking” (3-26)

Other Proposed Changes – Mauka-Makai Access

“Access Easements – Acquire and maintain public access easements, or encourage the transfer of easements to the State or NGOs that preserve access to open space areas.

Resource Management – Create a City Resource Management Program to address the demands from outdoor recreational activities and the associated stresses to the natural and built environment.

More Trails – Balance trail demands across East Honolulu and alleviate congestion through the opening and sanctioning of additional trails” (3-6)

“Codify Access – Recognize and codify mauka-makai shoreline access into the Revised Ordinances of Honolulu (ROH).” (3-10)

Other Proposed Changes in the Public Review Draft

Access needs to be balanced with ability to mitigate impact (2-16)

Promote and support long-term viability of agriculture (3-1)

Protect endangered species habitats (3-1)

Protect value of wetlands, streams, and drainage ways (3-1)

Reduce light pollution’s adverse impact (3-28, 4-7)

Prohibit shoreline alterations that disrupt natural processes (3-26)

Improve management and enforcement of TVUs (3-39)

Contact Information and Timeline

EAST HONOLULU
SUSTAINABLE COMMUNITIES PLAN
PUBLIC REVIEW DRAFT



City and County of Honolulu | Department of Planning and Permitting | February 2018

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End of Public Comment Period **(June 28)**

Proposed Revised Plan and Review Report (Fall 2019)

Planning Commission and Public Hearing (Fall 2019)

City Council (Winter 2019 and beyond)

<http://www.honoluludpp.org/Planning/DevelopmentSustainableCommunitiesPlans/EastHonoluluPlan.aspx>

5/18 EH SCP Public Review Draft Workshop #2 Notes

All notes below are summarized comments made and responses given during the workshop Q+A session. The flow of the conversation is captured here, but there may be multiple parties speaking.

- Question: The ahupua'a section is good. But why are the timelines for the EH SCP and the BWS plan not the same?
 - Comment/Question: There will be some catalytic watershed projects coming up at the end of the year- should the plan be pushed back to sync with that?
 - Response: The Plan is not complete once it leaves DPP. It still needs to go through a lengthy public process and there is still more time for comment and changes. There are a lot of plans in motion and we cannot wait for them all or we would never move ahead.
 - Comment: I think that the BWS information needs to be included.
 - Comment: I take issue with not waiting for the BWS plan. This is a serious flaw in the City's planning process. "Cannot sensibly plan for land without planning for water." Water is life and yet the planning profession has typically separated these planning processes.
 - Comment: I think you are hearing an "ask" from the community to bust the silos and have a comprehensive process with coordinated timing and comments
 - Question: How to ensure congruency between different plans such as BWS and DP when they have different timelines?
 - Question: Could the process be pushed back so the DP doesn't go forward to Planning Commission before BWS plan is finished?
-
- Comment: The graphic from the presentation that shows the "seven principles of Universal Design" should be somewhere in the Plan. When reading the PRD I tried to look it up online and came up with a lot of different definitions. We need to know how the City is using that term. The definition of 2 design principles should be clear.
-
- Comment: Wailupe Valley Ridge wall in 'Āina Haina is crumbling. We have a slopes recommendation in the Plan, but the recommendations do not get translated into the permitting and regulatory process.
 - Comment: An unstable soils map should be included in the Plan.
 - Note: It was removed from the Plan because it referenced a 1995 study.
-
- Question/Comment: What is the views preservation survey on KITV? The announcement is confusing to the community. It should go through the neighborhood boards.
 - Response: The view study that was announced is for areas within the PUC (outside of the EH planning area)
 - Comment: The Neighborhood Board office is great at passing along information to the boards. They are a good resource and can be utilized for things like this.
-
- Comment: I want to bring up the relationship of affordable housing vs. height variances and how to balance that to avoid conflict.

- Question: Whose Plan is it? Does it belong to the City, to DPP, to the community...who?
 - Response (from former DPP employee): It is DPP's Plan until it goes to Council and then it is Council's Plan. DPP has "ownership" until it goes to Council.
 - Question/Comment: What are the height limits to B-1 and B-2? There was a situation with Kāhala Hotel where there was a typo saying 150' height. It was always supposed to be no higher than the palm trees.
 - Response: (Someone looked it up and limit was found to be 70')

 - Comment: How can DPP say that they cannot find the TVUs? I just look online and find them. No teeth, no will to do anything with it. There needs to be enforcement. Need to hire enforcement officers.
 - Comment: Language in the plan regarding TVUs not strong enough
-
- Question: What is the role of DPP in State legislation or regarding school property if they are planning to redevelop? Can the community be part of the process? Coordination language is not strong enough.
-
- DPP needs to be an advocate for the Plan. Implementation is important.
-
- Comment: If we are talking Age-Friendly and more walkable neighborhoods, I would say that EH is auto dependent. The "road diet" concept needs to be in the plan. If you look at Kaimukī the accident incidence is much lower because the roads are so narrow and people are forced to slow down or even let opposing traffic pass.
 - To make neighborhoods more walkable and encourage more mixed-use, why not allow small home based businesses/stores in residential areas?
 - Comment: There are not enough crosswalks. How do we get more crosswalks?
-
- Comment: Implementation is the real problem in all of this. We can have great plans and make zoning recommendations, but without the implementation nothing happens. It is up to the community to advocate to their council persons. The community should try to identify the low hanging fruit that is ripe for implementation. What the Plan needs is public/private partnership to make the implementation packages happen in a reasonable amount of time. A former DPP employee suggests that the community have a kickstarter and partner with DPP.
 - Comment: DPP is an unfunded mandate. DPP does not have the staff level to fulfill its job. We all have to care about how government is working. Money is being sucked away and not going to where it is needed.
 - Comment: It would help if DPP was more vocal in advocating for the Plan and supporting what is in the document.
 - Comment: Things fall through the cracks. For Wailupe, DPP lost the letter from SHPD that would have prevented development. (Discussion ensues on what happened).
 - Comment: This plan cannot be all things. It is not the only thing. You should not delay the process to wait for all the plans that could be relevant to complete it.
-

- Question: The Emergency Management folks were supposed to have completed a new FEMA report. Where are they in that process, and where is that information? A community member responded that the FEMA report is still under review.
 - Comment: All the commercial areas in Hawaii Kai are in Disaster/Flood zones. We need to redevelop to be ready for disasters.
-
- Question: Why is the kiss and ride in Hawai'i Kai given a TOD designation in the PRD? (There is some confusion the exhibit in question is not immediately found).
 - Comment: I'll find it later, but the Plan should specifically note that it does not comport with the definition of TOD as it is understood in the PUC. It needs clarification.
-
- Comment: Proper place names matter. Maunaloa is the real name of Hawai'i Kai.
 - Comment: Hawaiian language spelling errors in the plan.
 - Comment: Geographic boundaries should be more prominent, and explicit within the first few pages of the plan.
-
- Comment: The Plan needs to say that Kalaniana'ole Highway is at capacity. It does not say that anywhere in the PRD. With the renovation planned by Sea Life Park it will just draw more and more traffic and tourist buses from Waikiki.
 - Comment: Particular concern around large greyhound buses (problematic in Kailua, can learn a lesson from there) and pedestrian safety.
 - Comment: The section 4-1 Transportation needs to start over. It does not mention that Kalaniana'ole Highway is at capacity. It does not mention that the contra-flows block the left turn lanes, which has "caused havoc." Bus routes are being reduced, crosswalks are being cut. Contraflow was used to get building permits in Hawai'i Kai and it does not say that here. This section needs more specific guidance. The writing does not complete the thought.
 - Comment: relating to section 4: should state where to look for guidance and policies in the book. Use less words to describe. Document is confusing. Request for clear, concise and strong wording.
-
- Comment: The historic and natural resources section should include more information. EH had the largest fish pond in Polynesia. The plan should reflect sustainability- there is a hunger for that in the community. In the 1950's the Wailupe fishponds were still operational and feeding people, look at the old newspapers. The fishponds are a monument to engineering and sustainability and should be highlighted and reflected. Ocean resources should be addressed. The limu is dying. Pesticides are being sprayed in the streams and mauka/makai areas are full of invasive species. We are the endangered species capital. You can look at the landscape and see a pretty green hill and blue water or depending on what you know, you could see a forest full of invasive species and a dying ocean. The PRD gives the impression that there is not many cultural resources in the area. If it is status quo the native resources and species will not be restored. Community access and resource management needs to be solid in the Plan. Ahupua'a sustainability needs to be in the Plan. These are the breadbasket valleys and this is something that the community can help fine tune in the Plan.

- Comment: Didn't the City partner on some of the fishpond restoration? Think about documenting the public/private partnerships in the Plan.
 - Comment continued: All of these valleys have burial cliffs. There is a miles long lava tube that is a major geological feature of this side of the island.
 - Response: We did have a table in the last Plan outlining cultural resources and were asked by DLNR to take it out (to prevent people from seeking them out). We are not sure how much to put in or whether to name locations.
 - Response/Comment (former DPP employee): The City's responsibilities have typically been low on cultural resources but I have seen this process work. The City's responsibility is to make sure that the proper process is adhered to in the EIS stage. As far as I know, the minute a bulldozer comes upon any type of 'iwi or artifact, they are supposed to drop everything and bring in SHPD and its experts to create a management plan.
 - Comment: OK, but why wait until the bulldozer is already there? Isn't that backwards?
 - Comment: I'm telling you that they lost that letter from SHPD (referring again to Wailupe). There are lost files and missing numbers. There are problems with training and awareness. All staff members should be trained on the Plan.
 - Comment: There is a lack of communication between the planning side and the permitting side.
-

- Comment (partially addressed to a rep from Kam Schools that was there): The trails that are available are being stressed. Is it possible to gain access again to the trails on private property? The City should allow for liability insurance.
 - Comment: We need to stress the partnership between the community and the government. Often the community comes to the government and the government does not take the steps forward to them.
 - Comment: Section 2-25 refers to visitor parking, and how the communities should cooperate with DOT. Community requests the statement be changed to reflect an emphasis on putting community and neighborhood first. Community and the State and City governments should be worded as a partnership.
 - Comment: The image on the cover does not represent the community. It shows the ferris wheel in the background that is only there once a year. And I'm not against the organizer. We have a lot of iconic landscapes in EH. Would you be open to receiving better photos from community members to use?
 - Response: Yes if anyone would like to freely share photos that would be fine. We wouldn't want to have to list attribution on the cover.
-

- Comment: Page 4-21 on school facilities/enrollment has information that is out of date already. The possibility of school facilities emptying out and being redeveloped should be mentioned.
- Comment: Where did this encouraging joint use of school facilities come from? A school is one thing but if you are letting people use the facilities all the time with all the noise and traffic I can tell you that the community would not support that. That is not what people bought in to decades ago. I am not in favor of that.
- Comment: Passive parks should forever stay passive parks.

- Comment: Will Dept of Education land be commercialized? I read something in Senator Chang's newsletter.
-

- Comment: Look at the language on Ka Iwi Scenic shoreline. It is not for tourists; serve the land and Hawai'i's people first, then the visitor.

- Comment: Keawawa Wetland should be named as a resource.
-

- Question: Are there sections of the plan that need community input in particular?
- Response: All of them

**APPENDIX I: STATEMENT OF CONFORMANCE WITH THE
GENERAL PLAN**

APPENDIX I

EAST HONOLULU SUSTAINABLE COMMUNITIES PLAN CONFORMANCE WITH THE GENERAL PLAN

The revised East Honolulu Sustainable Communities Plan (Plan) is consistent with, and supports the Objectives and Policies of, the City and County of Honolulu's General Plan as set forth below. Each quoted General Plan policy is accompanied by one or more citations of sections of the Plan that address the subject policy and, as appropriate, comments regarding the Plan's intentions.

I. Population

Objective A: “To control the growth of Oahu's resident and visitor populations in order to avoid social, economic, and environmental disruptions.”

Policy 4: “Seek to maintain a desirable pace of physical development through City and County regulations.”

Citation: Chapter 2, Section 2.2.1, Community Growth Boundary, and Agricultural and Preservation Lands; Chapter 5, Implementation.

Comment: The Plan continues the Community Growth Boundary, which serves as a planning tool to manage growth within the region and which is implemented through the City's land use regulations particularly the Land Use Ordinance.

Objective C: “To establish a pattern of population distribution that will allow the people of Oahu to live and work in harmony.”

Policy 3: “Manage physical growth and development in the urban-fringe and rural areas so that:

- a. An undesirable spreading of development is prevented; and
- b. Their population densities are consistent with the character of development and environmental qualities desired for such areas.”

Citation: Chapter 1, East Honolulu’s Role in O’ahu’s Development Pattern; Chapter 2, Section 2.1.1, Protect Community Resources; Section 2.2.6, Protection and Preservation of Natural Areas; Section 2.2.7, Housing Stability and Age-Friendly Communities; Chapter 3, Section 3.5, Residential Use.

Comment: The **Plan** provides policies restricting future growth to infill development (including ohana units) within the Community Growth Boundary and supports development densities in keeping with the desired community character.

Policy 4: "Direct growth according to Policies 1, 2, and 3 above by providing land development capacity and needed infrastructure to seek a 2025 distribution of Oahu's residential population as follows:

DISTRIBUTION OF RESIDENTIAL POPULATION			
LOCATION	SHARE OF 2010 ISLANDWIDE POPULATION	SHARE OF 2040 ISLANDWIDE POPULATION	PERCENT CHANGE
Primary Urban Center	45.6%	42.8%	-2.8%
‘Ewa	10.6%	16.2%	5.6%
Central Oahu	17.7%	17.7%	0.0%
East Honolulu	5.2%	4.6%	-0.6%
Koolaupoko	12.1%	10.3%	-1.8%
Koolauloa	1.8%	1.7%	-0.1%
North Shore	1.9%	1.8%	-0.1%
Waianae	5.1%	4.9%	-0.2%
Total	100%	100%	0.0%

Citation: Chapter 2.1, Vision Statement; Section 2.2.7, Housing Stability and Age-Friendly Communities; Chapter 5, Section 5.6.2, Relation to General Plan Population Guidelines.

Comment: By 2040, East Honolulu’s share of O’ahu’s population is estimated to be about 4.6%. This lower estimation results in part through the long term cumulative impact of changing demographics within East Honolulu communities that reflect a steady, albeit gradual increase in the number of elderly residents. This is also based on land use policies, recent market trends, and remaining development capacity in each of the eight development and sustainable communities plan areas.

II. Economic Activity

Objective C: “To maintain the viability of agriculture on Oahu.”

Policy 1: “Assist the agricultural industry to ensure the continuation of agriculture as an important source of income and employment.”

Policy 2: “Support agricultural diversification in all agricultural areas on Oahu.”

Citation: Chapter 2, Vision Statement, Section 2.2.1.1, Agricultural Lands; Chapter 3, Section 3.1.2.3, Agricultural Areas.

Comment: The **Plan** supports the continued use of Kamilonui Valley, the area above Kaiser High School and other small agricultural parcels in East Honolulu for agricultural use, especially in that they also contribute to the region’s open space and support small-scale diversified agriculture. The **Plan** adds supporting language for community gardens though this is not contribute to industry.

Objective G: “To bring about orderly economic growth on Oahu.”

Policy 2: “Permit the moderate growth of business centers in the urban-fringe areas.”

Citation: Chapter 2, Vision Statement, Section 2.2.8, Refocus Commercial Centers; Chapter 3, Section 3.5.3.1, Residential Development; Section 3.6, Non-Residential Development

Comment: The **Plan** permits the redevelopment of commercial centers within their existing sites that would serve their surrounding neighborhoods. This policy allows development of the currently unrealized potential of their existing sites, while encouraging them to focus on serving the needs of the surrounding residential community. The **Plan** also proposes that multi-family residential be an allowed use above the ground floor commercial uses, within existing height limits.

III. Natural Environment

Objective A: “To protect and preserve the natural environment.”

Policy 1: “Protect Oahu's natural environment, especially the shoreline, valleys, and ridges, from incompatible development.”

Policy 6: “Design surface drainage and flood-control systems in a manner which will help preserve their natural settings.”

Policy 8: “Protect plants, birds, and other animals that are unique to the State of Hawaii and the island of Oahu.”

Citation: Chapter 2, Section 2.2.1, Community Growth Boundary, and Agricultural and Preservation Lands; Section 2.2.2, Ahupua'a in Land Use and Natural Resource Management; Section 2.2.3, Kaiwi Scenic Shoreline; Section 2.2.4, Ridge-and-Valley Neighborhoods; Chapter 3, Section 3.1, Open Space Preservation and Development; Chapter 4, Section 4.6, Drainage Systems.

Comment: The main objectives of establishing and maintaining the Community Growth Boundary include: avoiding development of hazardous areas; preserving the natural gulches and ravines as drainageways and storm water retention areas; protecting habitats of endangered water birds; and protecting the natural and scenic resources of the Kaiwi Scenic Shoreline and supporting park areas.

Objective B: “To preserve and enhance the natural monuments and scenic views of Oahu for the benefit of both residents and visitors.”

Policy 1: “Protect the Island's well-known resources: its mountains and craters; forests and watershed areas; marshes, rivers, and streams; shoreline, fishponds, and bays; and reefs and offshore islands.”

Policy 2: “Protect Oahu's scenic views, especially those seen from highly developed and heavily traveled areas.”

Citation: Chapter 2, Section 2.1, Vision Statement; 2.2.3, Kaiwi Scenic Shoreline; 2.2.6, Protection and Preservation of Natural Areas; Chapter 3, Section 3.1, Open Space Preservation and Development; 3.2.1.2, Kaiwi Coast, 3.2.1.3, Beach and Shoreline Parks, Section 3.4, Historic and Cultural Resources.

Comment: The **Plan** continues the established Community Growth Boundary and indicates important public views that are to be preserved.

IV. Housing

Objective A: “To provide decent housing for all the people of Oahu at prices they can afford.”

Policy 11: “Encourage the construction of affordable homes within established low-density communities by such means as 'ohana' units, duplex dwellings, and cluster development.”

Citation: Chapter 2, Section 2.1.2, Adapt to Changing Community Needs; Section 2.2.8 Refocus Commercial Centers; Section 3.5.3.2 Special Needs Housing and Senior Housing; Section 3.6, Non-Residential Development.

Comment: The **Plan** allows for infill housing development of ‘ohana’ type units, but without occupancy restrictions other than minimum lease length, and proposes multi-family residential be an allowed use above the ground floor commercial uses, within existing height limits as a means to adapt to the changing demographics and family structure of East Honolulu communities.

Objective B: “To reduce speculation in land and housing.”

Policy 1: “Encourage the State government to coordinate its urban-area designations with the development policies of the City and County.”

Policy 2: “Discourage private developers from acquiring and assembling land outside of areas planned for urban use.”

Citation: Chapter 2, Section 2.2.1, Community Growth Boundary, and Agricultural and Preservation Lands; Chapter 5, Section 5.6.3, Review and Revision of Development Codes.

Comment: The **Plan** states that the Community Growth Boundary will not be expanded within the 2040 planning horizon. Much of the lands outside of the boundary are either publically owned or owned by large landowners who have valuable holdings within the community growth boundary that could be developed or redeveloped at a cheaper cost.

Objective C: “To provide the people of Oahu with a choice of living environments which are reasonably close to employment, recreation, and commercial centers and which are adequately served by public utilities.”

Policy 1: “Encourage residential developments that offer a variety of homes to people of different income levels and to families of various sizes.”

Policy 4: “Encourage residential development in areas where existing roads, utilities, and other community facilities are not being used to capacity.”

Policy 5: “Discourage residential development where roads, utilities, and community facilities cannot be provided at reasonable cost.”

Citation: Chapter 1, East Honolulu’s Role in O’ahu’s Development Pattern; Chapter 2, Section 2.2.7, Housing Stability and Age-Friendly Communities; Chapter 3, Section 3.5, Residential Use; Section 3.5.3.2, Special Needs Housing and Senior Housing; Section 3.6, Non-Residential Development; Chapter 4, Public Facilities and Infrastructure Policies and Principles; Chapter 5, Section 5.5.1, Adequate Facilities Requirement

Comment: The **Plan** proposes that multi-family residential be an allowed use above the ground floor commercial uses, within existing height limits. This will allow for people to live closer to services they require reducing personal automobile use.

V. Transportation and Utilities

Objective A: “To create a transportation system which will enable people and goods to move safely, efficiently, and at reasonable cost; serve all people, including the poor, the elderly, and the physically handicapped; and offer a variety of attractive and convenient modes of travel.”

Policy 1: “Develop and maintain an integrated ground-transportation system consisting of the following elements and their primary purposes:

- a. Public transportation - for travel to and from work, and travel within Central Honolulu;
- b. Roads and highways - for commercial traffic and travel in non-urban areas;
- c. Bikeways - for recreational activities and trips to work, schools, shopping centers, and community facilities; and
- d. Pedestrian walkways - for getting around Downtown and Waikiki, and for trips to schools, parks, and shopping centers.”

Policy 7: “Promote the use of public transportation as a means of moving people quickly and efficiently, of conserving energy, and of guiding urban development.”

Policy 8: “Make available transportation services to people with limited mobility: the young, the elderly, the handicapped, and the poor.”

Policy 9: “Promote programs to reduce dependence on the use of automobiles.”

Citation: Chapter 1, East Honolulu’s Role in O’ahu’s Development Pattern; Chapter 2, Section 2.2.5, Mauka-Makai Recreational Access; Section 2.2.7, Housing Stability and Age-Friendly Communities; Chapter 3, Section 3.1, Open Space Preservation and

Development; Section 3.1.2.4, Runoff, Natural Gulches, and Drainage Corridors; Section 3.2, Island-Based Parks and Recreational Areas; Section 3.5, Residential Use; Section 3.6, Non-Residential Development; Chapter 4, Section 4.1, Transportation Systems.

Comment: The **Plan** calls for greater implementation of the City’s Complete Streets policy as well as the recommendations for Age-Friendly Communities and Safe Routes to Schools. The **Plan** also calls for improvements to safety and comfort of alternative transportation modes with the understanding that these improvements can increase the carrying-capacity of roadways and highways for all users within the existing footprint. The potential move to the hub-and-spoke transit system is addressed. Better design and pedestrian connections between shopping centers and the park-and-ride are discussed.

Objective B: **“To meet the needs of the people of Oahu for an adequate supply of water and for environmentally sound systems of waste disposal.”**

Policy 1: “Develop and maintain an adequate supply of water for both residents and visitors.”

Policy 2: “Develop and maintain an adequate supply of water for agricultural and industrial needs.”

Policy 4: “Encourage a lowering of the per-capita consumption of water and the per-capita production of waste.”

Policy 5: "Provide safe, efficient, and environmentally sensitive waste-collection and waste-disposal services."

Policy 6: "Support programs to recover resources from solid-waste and recycle wastewater."

Citation: Chapter 4, Section 4.2, Water Allocation and System Development; Section 4.3, Wastewater Treatment; Section 4.5, Solid Waste Handling and Disposal; Chapter 5, Section 5.5.1, Adequate Facilities Requirement.

Comment: Workshops were held to discuss green infrastructure and how to improve downstream water quality and implement low-impact development. The process of updating the **Plan** has included greater partnerships with the Board of Water Supply as they updated the Watershed Management Plan, more than typically occurs during a development plan update process, which perhaps confused the community where many saw one update where there were in fact two processes with different timelines. Call for policies that incentivize rain gardens, permeable driveways and other strategies that hold stormwater on-site.

Objective D: **“To maintain transportation and utility systems which will help Oahu continue to be a desirable place to live and visit.”**

Policy 2: “Use the transportation and utility systems as a means of guiding growth and the pattern of land use on Oahu.”

Policy 5: “Require the installation of underground utility lines wherever feasible.”

Citation: Chapter 1, East Honolulu’s Role in O’ahu’s Development Pattern; Chapter 4, Section 4.4.1, Electrical and Communications Systems; Chapter 5, Section 5.5.1, Adequate Facilities Requirement.

Comment: The **Plan** seeks greater implementation of Complete Streets policies. The Plan goes further than other development plans in trying to ready the community and its facilities for the anticipated impacts of climate change and sea level rise.

VI. Energy

Objective A: **“To maintain an adequate, dependable, and economical supply of energy for Oahu residents.”**

Policy 3: “Support programs and projects which contribute to the attainment of energy self-sufficiency on Oahu.”

Policy 4: “Give adequate consideration to environmental, public health, and safety concerns, to resource limitations, and to relative costs when

making decisions concerning alternatives for conserving energy and developing natural energy resources.”

Citation: Chapter 2, Section 2.2.9, Climate Change Adaptation; Section 4.4, Electrical and Communications Systems.

Comment: The **Plan** discusses the State’s Renewable Portfolio Standard. The **Plan** encourages the consolidation of communications technology infrastructure (i.e. antennas) and continually calls for continued undergrounding of other infrastructure. In looking toward the potential impacts of sea level rise, the **Plan** tries to identify that there may be service disruptions unless underground utilities factor into the impacts of a rising water table.

Objective B: “To conserve energy through the more efficient management of its use.”

Policy 3: “Carry out public, and promote private, programs to more efficiently use energy in existing buildings and outdoor facilities.”

Policy 4: “Promote the development of an energy-efficient transportation system.”

Citation: Chapter 3, Section 3.5 Residential Use; Section 3.6, Non-Residential Development; Chapter 4, Section 4.1.3, Bikeway Systems; Section 4.4, Electrical and Communications Systems.

Comment: The **Plan** discusses the impacts of light pollutions on wildlife and human health. The **Plan** also calls for implementation of Complete Street principles which will reduce the amount of energy used by single- or zero- occupant automobile trips.

VII. Physical Development and Urban Design

Objective A: “To coordinate changes in the physical environment of Oahu to ensure that all new developments are timely, well-designed, and appropriate for the areas in which they will be located.”

Policy 1: “Plan for the construction of new public facilities and utilities in the various parts of the Island according to the following order of priority: first, in the primary urban center; second, in the secondary

urban center at Kapolei; and third in the urban-fringe and rural areas.”

Policy 2: “Coordinate the location and timing of new development with the availability of adequate water supply, sewage treatment, drainage, transportation, and public safety facilities.”

Policy 3: “Phase the construction of new developments so that they do not require more regional supporting services than are available.”

Policy 5: “Provide for more compact development and intensive use of urban lands where compatible with the physical and social character of existing communities.”

Citation: Chapter 2, Section 2.2.1, Community Growth Boundary, and Agricultural and Preservation Lands; Chapter 5, Section 5.4, Functional Planning; Section 5.5.1, Adequate Facilities Requirement.

Comment: The **Plan** refers to the fact that East Honolulu is mostly built out and that most new development will be infill or redevelopment. Most of the new development that occurs is anticipated to be more compact. Some of the calls for more mixed-use are a result of the rollout of ADUs being too gradual and insufficient to provide housing for the population as household sizes drop and the population ages.

Objective D: “**To maintain those development characteristics in the urban fringe and rural areas which make them desirable places to live.**”

Policy 1: “Develop and maintain urban-fringe areas as predominantly residential areas characterized by generally low rise, low density development which may include significant levels of retail and service commercial uses as well as satellite institutional and public uses geared to serving the needs of households.”

Citation: Chapter 1, East Honolulu’s Role In O’ahu’s Development Pattern; Chapter 2, Section 2.1, Vision Statement; Section 2.2.1, Community Growth Boundary, and Agricultural and Preservation Lands; Chapter 3, Section 3.4, Historic and Cultural Resources;

Section 3.5, Residential Use; Section 3.6, Non-Residential Development.

Comment: The **Plan** calls for the redevelopment of the aging commercial centers with the commercial uses around the marina to better orient services around the marina to encourage greater sense of place and improve pedestrian activity. Improve pedestrian links to neighborhood commercial centers.

Objective E: **“To create and maintain attractive, meaningful, and stimulating environments throughout Oahu.”**

Policy 3: “Encourage distinctive community identities for both new and existing districts and neighborhoods.”

Policy 5: "Require new developments in stable, established communities and rural areas to be compatible with the existing communities and areas."

Policy 7: "Promote public and private programs to beautify the urban and rural environments."

Policy 8: "Preserve and maintain beneficial open space in urbanized areas."

Citation: Chapter 1, East Honolulu’s role in O’ahu’s Development Pattern; Chapter 2, Section 2.1, Vision Statement; Section 2.2.1, Community Growth Boundary, and Agricultural and Preservation Lands; Section 2.2.3, Kaiwi Scenic Shoreline; Chapter 3, Section 3.1, Open Space Preservation and Development; Section 3.2, Island-Based Parks and Recreational Areas; Section 3.4 Historic and Cultural Resources; Section 3.5, Residential Use, Section 3.6 Non-Residential Development.

Comment: Reorienting parks, streets, facilities, and commercial areas to be more pedestrian- and age-friendly would create a greater sense of place.

VIII. Public Safety

Objective A: "To prevent and control crime and maintain public order."

Policy 2: "Provide adequate criminal justice facilities and staffing for City and County law-enforcement agencies."

Citation: Chapter 4, Section 4.8, Civic and Public Safety Facilities.

Comment: The **Plan** does not see a need to increase police presence in East Honolulu as many already feel it is a quiet and safe bedroom community.

Objective B: "To protect the people of Oahu and their property against natural disasters and other emergencies, traffic and fire hazards, and unsafe conditions."

Policy 1: "Keep up-to-date and enforce all City and County safety regulations."

Policy 7: "Provide adequate fire protection and effective fire prevention programs."

Policy 8: "Provide adequate search and rescue and disaster response services."

Citation: Chapter 4, Section 4.8, Public Safety Facilities; Chapter 5, Section 5.1.1, Public Facility Investment Priorities.

Comment: The **Plan** has added new sections to address climate change and sea level rise. Many of these recommendations and mitigations also make the community resilient to other disasters. The three workshops held in 2016 were on disasters and resiliency.

IX. Health and Education

Objective A: "To protect the health of the people of Oahu."

Policy 1: "Encourage the provision of health-care facilities that are accessible to both employment and residential centers."

Citation: Chapter 1, East Honolulu's Role in O'ahu's Development Pattern; Chapter 4, Section 4.8, Public Safety Facilities.

Comment: As the population in East Honolulu ages, the **Plan** recognizes that housing and healthcare services are going to be needed, particularly palliative and hospice care facilities.

Objective B: **“To provide a wide range of educational opportunities for the people of Oahu.”**

Policy 3: “Encourage the after-hours use of school buildings, grounds, and facilities.”

Policy 4: “Encourage the construction of school facilities that are designed for flexibility and high levels of use.”

Citation: Chapter 2, Section 2.2.3, *Kaiwi Scenic Shoreline*; Chapter 4, Section 4.7, *School Facilities*.

Comment: The **Plan** continues to call for partnerships in the use of educational facilities, specifically as the use of park land and emergency shelters. Encourage educational opportunities along the Kaiwi Scenic Shoreline.

X. Culture and Recreation

Objective B: **“To protect Oahu's cultural, historic, architectural, and archaeological resources.”**

Policy 1: “Encourage the restoration and preservation of early Hawaiian structures, artifacts, and landmarks.”

Policy 2: “Identify, and to the extent possible, preserve and restore buildings, sites, and areas of social, cultural, historic, architectural, and archaeological significance.”

Policy 4: “Promote the interpretive and educational uses of cultural, historic, architectural, and archaeological sites, buildings, and artifacts.”

Citation: Chapter 2, Section 2.1, *Vision Statement*; Section 2.2, *Key Elements of the Vision*; Chapter 3, Section 3.4, *Historic and Cultural Resources*.

Comment: The revisions remove some of the citations to sensitive archaeological sites while recognizing the importance they play and

highlighting some of the more prominent sites that are not as fragile. The **Plan** recognizes the communities that have played a role in protecting some of these resources.

Objective D: "To provide a wide range of recreational facilities and services that are readily available to all residents of Oahu."

Policy 1: "Develop and maintain community-based parks to meet the needs of the different communities on Oahu."

Policy 2: "Develop and maintain a system of regional parks and specialized recreation facilities."

Policy 11: "Encourage the after-hours, weekend, and summertime use of public schools facilities for recreation."

Citation: Chapter 2, Section 2.1, Vision Statement; Section 2.1.1, Protect Community Resources; Chapter 3, Section 3.1.2.6, Marina; Section 3.1.3 Relationship to Map A-1, Open Space; Section 3.2, Island-Based Parks and Recreational Areas; Section 3.2.3.3, Golf Courses; Section 3.3, Community-Based Parks; Chapter 4, Section 4.7, School Facilities.

Comment: While the number of parks are seen as sufficient in the region, connections to them can be improved as well as what those facilities provide (i.e. community gardens, stables). The **Plan** also emphasizes mauka and makai connections to trails and beaches need to be preserved and enhanced.

XI. Government Operations and Fiscal Management

Objective A: "To promote increased efficiency, effectiveness, and responsiveness in the provision of government services by the City and County of Honolulu."

Policy 1: "Maintain City and County government services at the level necessary to be effective."

Policy 4: "Prepare, maintain, and publicize policies and plans which are adequate to guide and coordinate City programs and regulatory responsibilities."

Citation: Chapter 4, Public Facilities and Infrastructure Policies and Guidelines; Chapter 5, Section 5.6.3, Review and Revision of Development Codes.

Comment: The **Plan** calls for greater cooperation amongst agencies and the community.

Objective B: **"To ensure fiscal integrity, responsibility, and efficiency by the City and County government in carrying out its responsibilities."**

Policy 2: "Allocate fiscal resources of the City and County to efficiently implement the policies of the General Plan and Development Plans."

Citation: Chapter 5, Section 5.1, Public Facility Investment Priorities; Section 5.4, Functional Planning; Section 5.5.1, Adequate Facilities Requirement.

Comment: The addition of the implementation matrix to the **Plan** is an attempt at bridging the gap in implementation of the proposed policies and guidelines. Allocating sufficient fiscal resources would greatly improve how staff can follow up on these policies with the parties outlined in the matrix.