HONOLULU CITY COUNCIL

KE KANIHELA O KE KALANA O HONOLULU

CITY AND COUNTY OF HONOLULU

ORDINANCE _____

BILL **24 (2024), CD1**

A BILL FOR AN ORDINANCE

TO ADOPT THE REVISED PRIMARY URBAN CENTER DEVELOPMENT PLAN FOR THE CITY AND COUNTY OF HONOLULU.

BE IT ORDAINED by the People of the City and County of Honolulu:

SECTION 1. The purpose of this ordinance is to repeal the existing Development Plan for the Primary Urban Center, Chapter 24, Article 2, Revised Ordinances of Honolulu 2021, and to adopt a new Article 2 incorporating the revised Primary Urban Center Development Plan.

This development plan ordinance adopts a revised development plan for the Primary Urban Center that presents a vision for the Primary Urban Center's future development consisting of policies, guidelines, and conceptual schemes that will serve as a policy guide for more detailed zoning maps and regulations, and for public and private sector investment decisions.

This ordinance is enacted pursuant to the powers vested in the City and County of Honolulu by Chapter 46 and § 226-58, Hawai'i Revised Statutes (HRS).

SECTION 2. Article 2, Chapter 24, Revised Ordinances of Honolulu 2021 ("Primary Urban Center"), is repealed.

SECTION 3. Chapter 24, Revised Ordinances of Honolulu 2021 ("Development Plans"), is amended by adding a new Article 2 to read as follows:

"Article 2. Primary Urban Center

§ 24-2.1 Definitions.

Unless the context otherwise requires, the following definitions govern the construction of this article.

Department or Department of Planning and Permitting. The department of planning and permitting of the city.

Development. Any public improvement project, or any public or private project requiring a zoning map amendment.

Development Plan or Sustainable Communities Plan. A plan document for a given geographic area that consists of conceptual schemes for implementing and accomplishing the development objectives and policies of the general plan for the several parts of the city.

Director. The director of planning and permitting.

PUC DP. The Primary Urban Center Development Plan attached hereto as Exhibit A and made a part hereof.

Environmental Assessment or EA. A written evaluation prepared in compliance with the environmental council's procedural rules and regulations implementing HRS Chapter 343 to determine whether an action may have a significant environmental effect.

Environmental Impact Statement or EIS. An informational document prepared in compliance with the environmental council's procedural rules and regulations implementing HRS Chapter 343, which discloses the environmental effects of a proposed action, effects of a proposed action on the economic and social welfare of the community and State, effects of the economic activities arising out of the proposed action, measures proposed to minimize adverse effects, and alternatives to the action and their environmental effects.

Finding of No Significant Impact or FONSI. A determination based on an environmental assessment that the subject actions will not have a significant effect, and therefore will not require the preparation of an environmental impact statement.

Functional Plan. The public facility and infrastructure plans prepared by public agencies to further implement the vision, policies, and guidelines set forth in the Primary Urban Center Development Plan.

General Plan. The general plan of the city as defined by Charter Section 6-1508.

Planning Commission. The planning commission of the city.

Project Master Plan. A conceptual plan that covers all phases of a development project. The project master plan consists of that portion of an environmental assessment or environmental impact statement that illustrates and describes how the

project conforms to the vision for Primary Urban Center, and the relevant policies and guidelines for the site, the surrounding lands, and the region.

Significant Zone Change. A zone change that involves at least one of the following:

(1) Any change in zoning of 10 or more acres of land to a low-density apartment zoning district from a less intensive zoning district;

(2) Any change in zoning of two or more acres of land to a medium-density or high-density apartment zoning district from a less intensive zoning district;

(3) Any change in zoning of five or more acres of land to the resort, business, industrial, apartment mixed use, business mixed use, or industrial mixed use zoning district from a less intensive zoning district; or

(4) Any development that would have a major social, environmental, or policy impact, or major cumulative impacts due to a series of applications in the same area.

Special Area or Adaptation Area. A designated area within the Primary Urban Center Development Plan area that requires detailed planning efforts beyond what is contained in the Primary Urban Center Development Plan.

Special Area Plan. A plan for a special area or adaptation area.

Unilateral Agreement. A conditional zoning agreement made pursuant to § 21-2.80 or any predecessor or successor provision that imposes conditions on a landowner or developer's use of the property at the time of the enactment of an ordinance for a zoning change.

Vision. The future outlook for the Primary Urban Center region extending out to the year 2040 and beyond that entails the creation of a community growth boundary; an open space network to protect and enhance the region's environmental, cultural and scenic resources; smart, livable, neighborhoods with a range of housing choices; an efficient and balanced transportation network; and provision of adequate infrastructure and community facilities to address the anticipated impacts of climate change and to meet the Primary Urban Center's future needs.

§ 24-2.2 Applicability and intent.

(a) The Primary Urban Center Development Plan includes the coastal plain that extends along Oʻahu's southern shore from Waiʻalae-Kāhala in the east to Pearl City in the west, and from the shoreline to the westerly slopes of the Koʻolau mountain range.

(b) It is the intent of the Primary Urban Center Development Plan to provide a guide for orderly and coordinated public and private sector development in a manner that is consistent with applicable general plan provisions, including the full development of the Primary Urban Center through higher-density redevelopment in urban areas designated for such uses, and the concentration of economic activity and government services.

(c) The provisions of this article and the Primary Urban Center Development Plan are not regulatory. Rather, they are established with the explicit intent of providing a coherent vision to guide all new public and private sector development within Primary Urban Center. This article shall guide any development for Primary Urban Center, public investment in infrastructure, zoning and other regulatory procedures, and the preparation of the city's annual capital improvement program budget.

§ 24-2.3 Adoption of the Primary Urban Center Development Plan.

(a) This article is adopted pursuant to Charter Section 6-1509 and provides a self-contained development plan document for the Primary Urban Center. Upon the effective date of this ordinance, all proposed developments will be evaluated against how well they fulfill the vision for the Primary Urban Center enunciated in the Primary Urban Center Development Plan and how closely they satisfy the policies and guidelines selected to implement that vision.

(b) The plan entitled, "Primary Urban Center Development Plan," attached to this ordinance as Exhibit A, is hereby adopted by reference and made a part of this article.

(c) Chapter 24, Article 1, entitled "Development Plan Common Provisions," in its entirety, is no longer applicable to the Primary Urban Center Development Plan area. This article and the Primary Urban Center Development Plan, as adopted

by reference in this article, supersedes any and all common provisions previously applicable to the Primary Urban Center area.

§ 24-2.4 Existing zoning and subdivision ordinances, approvals, and applications.

(a) All existing subdivisions and zoning approved prior to the effective date of this ordinance for projects, including but not limited to those subject to unilateral agreements, continue to remain in effect following the enactment of this ordinance.

(b) Subdivision and zoning ordinances applicable to the Primary Urban Center Development Plan area enacted prior to the effective date of this ordinance continue to regulate the use of land within demarcated zones of the Primary Urban Center Development Plan area until such time as the subdivision and zoning ordinances may be amended to be consistent with the revised Primary Urban Center Development Plan.

(c) Notwithstanding adoption of the Primary Urban Center Development Plan, applications for subdivision actions and land use permits accepted by the department for processing prior to the effective date of this ordinance continue to be subject only to applicable ordinances and rules and regulations in effect at the time the application is accepted as complete for processing.

§ 24-2.5 Consistency.

(a) In the performance of their prescribed powers, duties, and functions, all city agencies shall conform to and implement the policies and provisions of this article and the Primary Urban Center Development Plan. Pursuant to Charter Section 6-1511.3, public improvement projects, subdivision, and zoning ordinances must be consistent with the Primary Urban Center Development Plan.

(b) Any questions of interpretation regarding the consistency of a proposed development with the provisions of the Primary Urban Center Development Plan and the objectives and policies of the general plan will ultimately be resolved by the council.

(c) In determining whether a proposed development is consistent with the Primary Urban Center Development Plan, the responsible agency shall primarily take into consideration the extent to which the development is consistent with the vision, goals, policies, and guidelines set forth in the Primary Urban Center Development Plan.

(d) Whenever there is a question regarding consistency between existing subdivision or zoning ordinances, including any unilateral agreement, and the Primary Urban Center Development Plan, the existing subdivision or zoning ordinances shall prevail until such time as they may be amended to be consistent with the Primary Urban Center Development Plan.

§ 24-2.6 Implementation.

The Implementation of this article relating to the Primary Urban Center Development Plan will be accomplished by:

(1) Initiating amendments to zoning maps and the Revised Ordinances of Honolulu to achieve consistency with the vision, goals, policies, and guidelines of the Primary Urban Center Development Plan;

(2) Guiding public investment in infrastructure through functional plans that support the vision of the Primary Urban Center Development Plan;

(3) Guiding development in special areas of critical concern through the formation of special area plans; and

(4) Incorporating the Primary Urban Center Development Plan priorities through the public infrastructure map, and the city's annual budget process.

§ 24-2.7 Zone change applications.

(a) All zone change applications relating to land in the Primary Urban Center Development Plan area will be reviewed by the department for consistency with the general plan, the Primary Urban Center Development Plan, and any applicable special area plan.

(1) The director shall recommend either approval, approval with changes, or denial. The director's written review of the application will become part of the zone change report, which will be sent to the planning commission and the city council.

(2) A project master plan shall be part of an EA or EIS for any project involving a significant zone change. The director shall review the project master plan for its consistency with the Primary Urban Center Development Plan.

(3) Any development or phase of development already covered by a project master plan that has been fully reviewed under the provisions of this article does not require a new project master plan; provided that the director determines the proposed zone change is generally consistent with the existing project master plan for the affected area.

(4) If a final EIS has already been accepted for a development, including one accepted prior to the effective date of this ordinance, then a subsequent project master plan is not required for the development.

(b) Projects that involve a significant zone change will be required to submit an EA to the department prior to an application for a zone change being accepted. Any development or phase of a development that has already been assessed under the National Environmental Policy Act (NEPA), HRS Chapter 343 (Hawai‘i Environmental Policy Act or HEPA), Chapter 25, or the provisions of this article, and for which a FONSI has been filed or a required EIS has been accepted, is not subject to further EA or EIS requirements under the article, unless otherwise required by NEPA or HEPA.

(c) The department shall review the EA, and based on review of the EA, the director shall determine whether an EIS will be required or whether a FONSI will be issued.

(d) If an EIS is required, the EIS must be accepted by the director prior to the acceptance of a zone change application.

(e) Zone changes must be processed in accordance with this section and all applicable requirements under Chapter 21.

§ 24-2.8 Annual capital improvement program review.

Annually, the director shall work jointly with the director of budget and fiscal services and applicable city agencies to review all projects in the city's capital improvement program, and budget for compliance and consistency with the general plan, the Primary Urban Center Development Plan and other development plans, any applicable special area plan provisions, and the appropriate functional plans. The director shall prepare a written report of findings to be submitted to the council in accordance with Charter Section 6-1503.

§ 24-2.9 Ten year review.

(a) The department shall conduct a comprehensive review of the Primary Urban Center Development Plan, adopted by reference in Section 24-2.3(b), every ten years subsequent to the effective date of this ordinance, and shall report its findings and recommended revisions, if any, to the council.

(b) The Primary Urban Center Development Plan will be evaluated to assess the appropriateness of the plan’s regional vision, goals, policies, guidelines, and implementing actions, as well as its consistency with the general plan.

(c) Nothing in this section should be construed as prohibiting the processing of a revision to the Primary Urban Center Development Plan at any time in the event either the director or council recommends consideration of such a revision, pursuant to the Charter.

§ 24-2.10 Authority.

Nothing in this article shall be construed as an abridgment or delegation of the responsibility of the director, or of the inherent legislative power of the council, to review or revise the Primary Urban Center Development Plan pursuant to the Charter and the procedures set forth in this article.

§ 24-2.11 Severability.

If any provision of this article or the application thereof to any person or property or circumstances is held invalid, such invalidity does not affect the validity of the other provisions or applications of this article that may be given effect without the invalid

provision or application, and to this end the provisions of this article are declared to be severable.

§ 24-2.12 Conflicting provisions.

Any provision contained in this article as it pertains to land within the Primary Urban Center Plan area, prevails should there be any conflict with the common provisions or any other provisions under Chapter 24."

SECTION 4. Effective date of the Primary Urban Center Development Plan. The City Clerk is hereby directed to date the Primary Urban Center Development Plan attached as Exhibit A to this ordinance with the effective date of this ordinance.

SECTION 5. In SECTION 3 of this ordinance, the Revisor of Ordinances shall, pursuant to the Revisor of Ordinances' authority under § 1-16.3(b)(1), Revised Ordinances of Honolulu 2021, replace the phrase "effective date of this ordinance" with the actual effective date.

A BILL FOR AN ORDINANCE

SECTION 6. This ordinance takes effect upon its approval.

INTRODUCED BY:

Tommy Waters (br)

DATE OF INTRODUCTION:

April 11, 2024
Honolulu, Hawai'i

Councilmembers

APPROVED AS TO FORM AND LEGALITY:

Deputy Corporation Counsel

APPROVED this _____day of _____, 20 ___.

RICK BLANGIARDI, Mayor
City and County of Honolulu

EXHIBIT A



CD1 Version– November 2024

PRIMARY URBAN CENTER
DEVELOPMENT PLAN

Department of Planning and Permitting, City and County of Honolulu







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O'AHU'S

GATHERING PLACE

Primary Urban Center Development Plan

Honolulu Department of Planning and Permitting, CD-1 Version
November 2024

Prepared with the City and County of Honolulu by:

raimi+ associates

In collaboration with:
Opticos Design, Inc.
Strategic Economics, Inc.
Townscape, Inc.
University of Hawai'i Sea Grant Program
Wilson Okamoto Corporation



Letter from the Mayor

(Place holder)

Acronym Key

A

ADU—Accessory Dwelling Unit
AHR—Affordable Housing Requirement
ALICE—Asset Limited, Income Constrained, Employed

B

BID—Business Improvement District
BRT—Bus Rapid Transit
BWS—Honolulu Board of Water Supply

C

CAP—Climate Action Plan
CAS—Climate Adaptation Strategy
CCSR—Office of Climate Change, Sustainability, and Resilience
CERT—Community Emergency Response Team
CIP—Capital Improvement Program
CPTED—Crime Prevention through Environmental Design
CWA—Clean Water Act
CWRM—Commission on Water Resource Management

D

DBEDT—Hawai‘i Department of Business, Economic Development and Tourism
DAGS—Hawai‘i Department of Accounting and General Services
DCS—Department of Community Services
DDC—Department of Design and Construction
DEM—Department of Emergency Management
DFM—Department of Facilities Maintenance
DLM—Department of Land Management
DLNR—Hawai‘i Department of Land and Natural Resources
DOBOR—Division of Boating and Ocean Recreation
DOE—Hawai‘i Department of Education
DOH—Department of Health
DOT/State DOT—Hawai‘i Department of Transportation
DP—Development Plan
DPP—Department of Planning and Permitting
DPR—Department of Parks and Recreation
DTS—Department of Transportation Services

E

ENV—Department of Environmental Services

F

FAA—Federal Aviation Administration
FAR—Floor Area Ratio

G

GP—O‘ahu General Plan

H

HART—Honolulu Authority for Rapid Transportation
HCC—Honolulu Community College
HCCC—Honolulu Climate Change Commission
HCDA—Hawai‘i Community Development Authority
HESD—Honolulu Emergency Services Department
HFD—Honolulu Fire Department
HPD—Honolulu Polic Department
HPHA—Hawai'i Public Housing Authority
HOU—Office of Housing

I

IMX—Industrial Mixed-Use

J

JTMC—Joint Traffic Management Center

K

KCC—Kapi‘olani Community College

L

LID—Low Impact Development
LUO—Land Use Ordinance

M

MEP—Maximum Extent Practicable
MOCA—Mayor's Office of Culture and the Arts

N

NAVFAC—Navy Facilities Engineering Systems Command
NASED—New Aloha Stadium Entertainment District

O

OCCC—O‘ahu Community Correctional Center
OER—Office of Economic Revitalization
OHPC— O‘ahu Historic Preservation Commission
OPSD—Hawai‘i Office of Planning and Sustainable Development
OMPO—O‘ahu Metropolitan Planning Organization
ORTP—O‘ahu Regional Transportation Plan
OTS—O‘ahu Transit Services

P

PUC DP—Primary Urban Center Development Plan

R

R&D—Research & Development

S

SCP—Sustainable Communities Plan
SHPD—State of Hawai'i Historic Preservation Division
SLR—Sea Level Rise
SLR-XA—Sea Level Rise Exposure Area
SMA—Shoreline Special Management Area
SOEST—UH School of Ocean and Earth Science Technology

T

TIP—Transportation Improvement Program
TDR—Transfer of Development Rights
TOD—Transit-Oriented Development
TSMO—Transportation Systems Management & Operations

U

UH—University of Hawai‘i

W

WMP—Watershed Management Plan
WWTP—Wastewater Treatment Plant

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ʻŌlelo Hawaiʻi

ahupuaʻa: Land division usually extending from the uplands to the sea.

ʻāina: Land, earth.

honua: Land, earth, world, fundamental.

hui: club, association, partnership.

kai: Sea, seawater, area near the sea.

kupuna: Grandparent, ancestor, relative or close friend of the grandparent's generation (plural kūpuna).

keiki: Child, offspring, descendant, youngster.

lānai: Porch, veranda, balcony.

mālama: To care for, attend, preserve, protect.

moʻolelo: Story, tale, myth, history, tradition.

ʻohana: Family, relative, kin group, related.

ʻōlelo: Language, speech, word, talk.

uka: Inland, upland, toward the mountain, shoreward (if at sea).

wai: Water (fresh water).

***Definitions derived from the Ulukau Electronic Library, Pukui/Elbert Hawaiian Dictionary.**

Common usage directional terms:

diamond head (side): generally eastward

ewa (side): generally westward

mauka: towards the mountains, inland

makai: towards the sea, coastal

Introduction

Preface

What is the role of the PUC DP?

The role of the Primary Urban Center Development Plan (referred to throughout as the PUC DP or Plan) is to implement the comprehensive vision of the O'ahu General Plan (GP) through policies and guidelines that reflect the unique conditions, geography, and concerns of the Primary Urban Center region. The population distribution in the GP calls for the PUC to retain the majority of the island's population (about 43 percent) through 2040. The PUC DP provides further development guidance for the region in support of the GP, and is updated through a detailed public process that ultimately informs zoning, infrastructure investments, and other City codes and standards.

Purpose and Authority

The General Plan and Development Plans

The GP is the island's primary policy document that describes key long-term objectives of the community. It addresses a broad range of important topics such as land use, transportation, economic development, infrastructure, and natural resource management. While the GP puts forward Policy direction for the whole island of O'ahu, the island is further divided into eight primary planning regions, including the Primary Urban Center. Each of these planning regions has its own long-range document, either a Development Plan (DP) or Sustainable Communities Plan (SCP), so termed depending on whether a region is actively planned for growth (DP), or is a rural or mature community expecting little expansion (SCP). The eight planning regions on O'ahu include: The Primary Urban Center, Central O'ahu, 'Ewa, Wai'anae, North Shore, Ko'olau Loa, Ko'olau Poko, and East Honolulu. Of the eight planning regions, only the PUC and 'Ewa have DPs, with the remainder of the areas covered by SCPs. A Revised O'ahu General Plan was adopted by the City Council in January 2022.

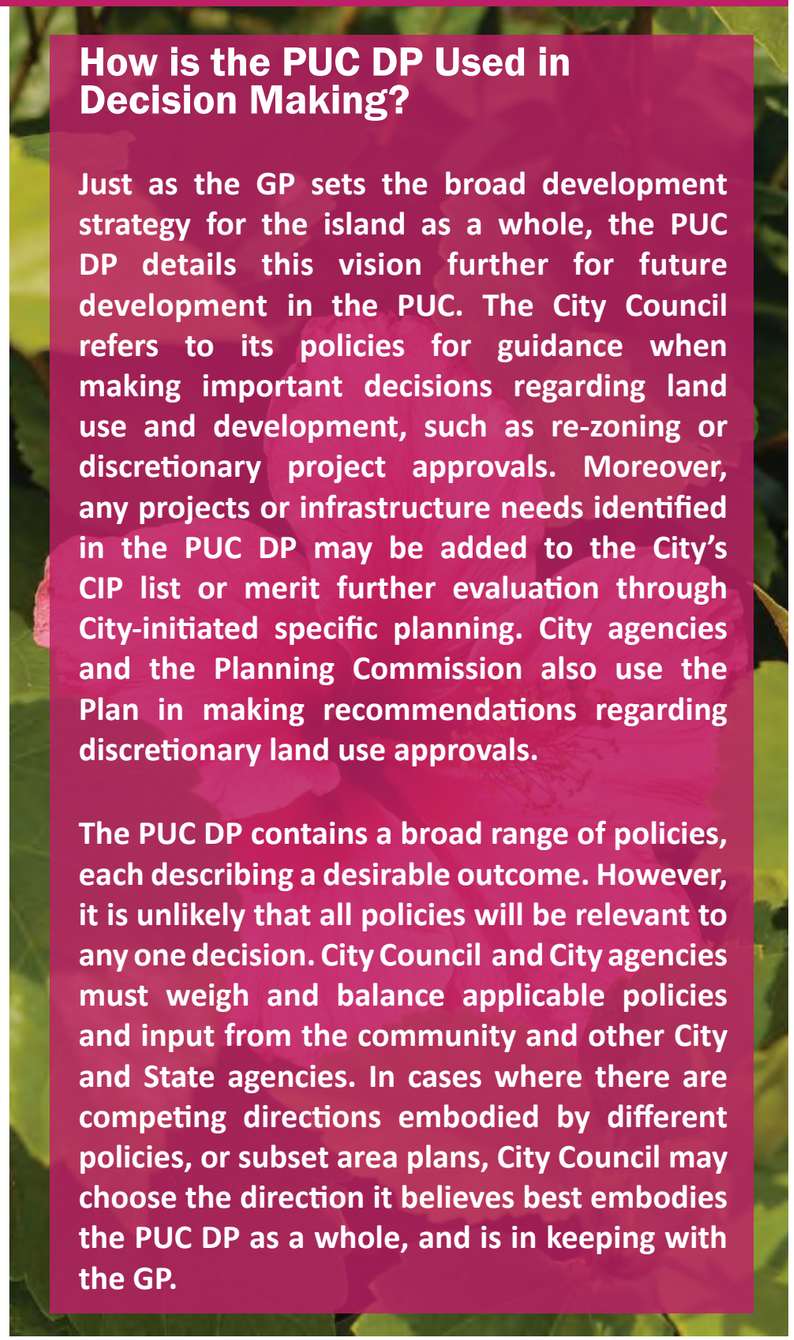
Authority of the Development Plan

Development Plan authority, like that of the General Plan, derives from the Honolulu City Charter, which requires their preparation to guide "the improvement and development of the city." While these plans are not themselves regulatory documents, they establish the broad policy context for the land use and budgetary actions that determine how the urban environment evolves. All public improvement projects, zoning changes, and other discretionary land use approvals are required to be consistent with both the General Plan and the DP or SCP of the region that they are located.

All DPs and SCPs are developed through a process of community outreach, interviews, research, and engagement over a sustained period, and are adopted by ordinance. The DPs and SCPs have a planning horizon of approximately 25 years and are updated on a rolling basis, or as specified in their respective adopting ordinances.

Land Use Planning and Management

The City and County of Honolulu (City) has a three-tier planning system that guides the island's growth and development. In addition to the two tiers already described of (1) the GP and (2) the eight DPs and SCPs, a third tier (3) is composed of implementing regulations including the



How is the PUC DP Used in Decision Making?

Just as the GP sets the broad development strategy for the island as a whole, the PUC DP details this vision further for future development in the PUC. The City Council refers to its policies for guidance when making important decisions regarding land use and development, such as re-zoning or discretionary project approvals. Moreover, any projects or infrastructure needs identified in the PUC DP may be added to the City's CIP list or merit further evaluation through City-initiated specific planning. City agencies and the Planning Commission also use the Plan in making recommendations regarding discretionary land use approvals.

The PUC DP contains a broad range of policies, each describing a desirable outcome. However, it is unlikely that all policies will be relevant to any one decision. City Council and City agencies must weigh and balance applicable policies and input from the community and other City and State agencies. In cases where there are competing directions embodied by different policies, or subset area plans, City Council may choose the direction it believes best embodies the PUC DP as a whole, and is in keeping with the GP.

City's Land Use Ordinance (LUO) that details the specific uses and development standards that are allowed on each property; the Capital Improvement Program (CIP) that funds projects and infrastructure; and functional plans required by the City Charter. All tiers work together to coordinate land use management on O'ahu within the purview of the City.

Additional supporting plans include the Transit-Oriented Development Neighborhood Plans that provide specialized guidance for rail station area neighborhoods; adopted policy guidance documents like Honolulu's Age-Friendly City Action Plan, and the City's O'ahu Resilience Strategy, and Climate Action Plan; and other functional and facilities plans. The City also partners with the semi-autonomous Honolulu Board of Water Supply (BWS) to align policies with the Watershed Management Plans (WMPs) that correspond to the island's eight planning regions and contribute to the O'ahu Water Management Plan.

Update Process

Why Update this Plan?

Honolulu's City Charter provides that the regional plans (DPs and SCPs) are to be updated to respond to changes in community priorities and conditions on the ground on a schedule to be determined by the Director of the Department of Planning and Permitting (DPP). The adopted Ordinances for the regional plans have typically stipulated the interval between the start of each new review cycle as five years. However, this and other more recent plans recommend a ten-year interval as a more desirable and feasible timeline.

The PUC DP was last adopted in 2004, and today's PUC faces a set of challenges that have evolved since then.

A few crucial changes among many others:

- Rents in Honolulu increased by almost 42 percent between 2010 and 2021, placing the city among the top ten most expensive rental markets in the United States [1].
- Climate change hazards and their impacts are increasing in frequency and intensity, including sea level rise (SLR) impacts in the PUC, projected to be disproportionately higher than elsewhere in the State due to the high density and high value of development on the region's low-lying coastal lands.
- Highways are anticipated to become more congested, as the number of daily trips made by residents island-wide is expected to increase by 27% from 2007 levels to the year 2035[2].

The issues above and others make this a timely update. The goal of this Plan is to help ensure that the PUC has the policies in place to fulfill the vision of the GP in the face of changing conditions, and to ensure that the PUC remains a thriving community for its residents, workers, and visitors. This Plan, as previously stated, has a planning horizon of roughly 25 years. A notable exception is the policy discussion on planning for climate change and SLR impacts, which necessitates both a near and longer-term look ahead.

Engagement Summary

The participation of the PUC community has proven crucial to the Plan's development. The primary objectives of the engagement process are to:

- Make a plan based on community priorities and input.
- Encourage broad demographic and geographic representation.
- Invite a diversity of community voices to be heard.
- Provide a range of opportunities for input.
- Ensure community support for, and ownership of, the Plan.

To facilitate community participation, the City hosted a series of pop-up events, community workshops and other meetings, and regularly updated the project website to notify the community of upcoming activities and events. The engagement process was far-reaching as follows:

- Dozens of stakeholder and agency interviews were conducted.
- 30+ "pop-up workshop" booth events in various locations around the PUC were held.
- A statistically valid community survey with over 1,000 responses was an early direction-setting part of the outreach process.
- Multiple online surveys including topics on neighborhood character, sea level rise planning, and COVID-19 recovery were conducted throughout the outreach phase.
- A "Vision Forum" and subsequent community input informed the development of the "Guiding Principles" for the PUC DP.
- A round of land use and scenario workshops were held to look a future growth scenarios.
- Plan review workshops, including a Neighborhood Board review process were held.
- Feedback received during the comment period for the Public Review Draft led to changes in the Proposed Plan, as transmitted to the Honolulu Planning Commission.

1 ACS 5-Year Public Use Microdata Sample, 2017-2021 and 2006-2010
2 CMP Study of Congestion Levels on O'ahu (OMPO, 2011)

Housing

Provide an adequate supply of housing for residents by:

1. Concentrating new housing growth in complete neighborhoods near transit, jobs, goods, and services.
2. Enabling and encouraging a greater variety of housing types in the PUC, including middle-density and midrise residential, mixed-use development, and co-housing that supports long-term affordability goals.
3. Strengthening the City's Affordable Housing Requirements and seeking additional affordable housing as a community benefit.

Placemaking + Growth

Create complete neighborhoods in the PUC by:

1. Refining transit-oriented planning that enables livable, walkable, neighborhoods with active gathering places between home and work.
2. Reinvigorating bus transit-served commercial corridors with moderate density, mixed-use, infill.
3. Transforming single-use commercial districts into walkable mixed-use destinations as appropriate.
4. Balancing change in Waikīkī and elsewhere with climate change adaptation planning and avoidance of hazards and environmentally sensitive areas.

Healthy Communities

Support a healthy community by:

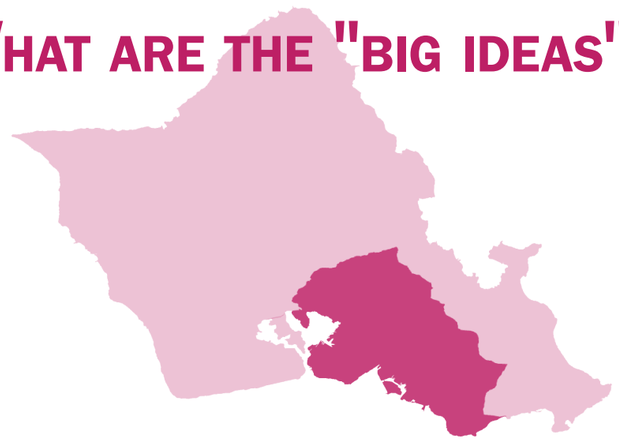
1. Implementing Age-Friendly recommendations for the built environment especially for safety, accessibility, and to promote physical activity.
2. Expanding the community gardens program, adjusting land use standards for community gardening, and promoting access to local produce.
3. Promoting equitable development, meaningful community benefits, and supporting sustainable building practices.

Parks + Public Open Space

Connect people to their PUC parks by:

1. Prioritizing a connected system of multiuse paths, linear parks, protected bike lanes, and pedestrian malls or promenades as an evolution of the "Lei of Parks" concept.
2. Promoting innovative urban open spaces like parklets, flexible use plazas, and public/private partnerships in dense and developing areas.
3. Creating a network of Green Streets.
4. Improving the ecological function of parks and beaches.

What are the "big ideas"?



Sea Level Rise + Coastal Hazards

Respond to the growing threat of sea level rise to buildings, homes, and infrastructure across the PUC by:

1. Creating tools for increased adaptation requirements and design standards over time for the Sea Level Rise Exposure Area (SLR-XA) and SLR.
2. Developing interagency adaptation approaches for shoreline and nuisance flooding impacts at the coastline and in backshore areas.
3. Engaging the community in near- and long-term adaptation choices (i.e. regulatory changes, impact avoidance measures, and natural or engineered mitigations and adaptations).

Mobility + Connectivity

Develop solutions to traffic congestion and provide greater mode choice for trips in the PUC by:

1. Implementing high-frequency bus service between destination hubs, including rail.
2. Right-sizing parking policies and adopting traffic management strategies in the PUC's densest areas.
3. Implementing bicycle networks on Complete Streets with a focus on protected/separated lanes to increase multimodal travel options.
4. Increasing availability of electric vehicle charging stations.

Economic Development

Grow a diversified economy in the PUC by:

1. Maintaining key industrial uses near the harbor, airport, and other important locations.
2. Supporting Downtown as a center of innovation, education, creativity, and as a livable neighborhood.
3. Supporting a sustainable tourism economy, and supporting Waikīkī as a liveable neighborhood.
4. Encouraging flexible work spaces and adequate commercial space in new mixed-use developments, and increasing accommodation for telework and home occupations in existing neighborhoods.

Water Resources

Promote integrated watershed management goals by:

1. Implementing a One Water framework mauka to makai for interagency infrastructure collaboration, especially for adapting to climate change and SLR.
2. Pursuing an integrated approach to storm water infiltration and flood management through multiple solutions including green streets, low impact development, retention basins, and stream improvements.
3. Continuing to improve the coordination of wastewater infrastructure and land use planning.

Vision + Context

Honolulu's Primary Urban Center

The PUC is home to about 440,000 people and is the most populous of O'ahu's eight regional plan areas. The PUC stretches from Wai'alae-Kāhala to Pearl City, extending along a portion of O'ahu's southern coast -mauka to makai- from the top of the mountain watersheds, to the shoreline.

The PUC includes major economic activity hubs, from the Downtown and Civic Centers, to the island's primary resort area, Waikīkī. It is also home to neighborhoods old and new, reflecting O'ahu's diverse community and rich culture. The PUC has a beautiful natural setting including geographic landmarks such as the Diamond Head and Punchbowl craters, as well as many well-used parks, beaches, and cultural, educational, and governmental institutions.

This updated iteration of the PUC DP provides a proactive approach to shaping growth that incorporates guidance through specific land use policies, transit-oriented planning, and directed infrastructure investment. Land use policies in the DP prize community-focused design and character; elevate considerations of equitable development; remain responsive to market conditions and preferences; and respond to environmental conditions such as climate change and sea level rise impacts, resource management imperatives, and protection of sensitive ecological areas.

How to Use this Plan

The Plan plays a critical role in regard to the location and nature of growth in the PUC. Specifically, this is accomplished through four primary Plan tools:

1) the Plan presents specific *goals*, *policies,* and *actions* regarding growth, infrastructure, mobility, and many other critical topics;

2) the Plan includes broad visioning and character guidance for key *focus areas*;

3) A map of *place types* (the illustrative land use map) and corresponding descriptions, communicate the desired development form and intensity of the various designations; and

4) a series of topic-specific *performance indicators* are included to help track progress on key objectives over time. Together, these four elements sketch a framework for the continued maturation and growth of the PUC, and each is described further below.

Goals + Policies + Actions

The Plan uses a broad framework of *goals, policies, and actions*. Goals are statements of the desirable big-picture outcomes. Each goal is supported by several policies that give further definition to the goals and break them into smaller parts. Each policy then includes proposed actions to move towards fulfillment of the policy and underlying goal statement. In this way, the Plan includes and establishes clear policies and actions to guide growth to appropriate locations, communicate community preferences to developers, and to provide guidance for the City's infrastructure planning, transportation investments, outdoor amenities, and environmental planning for resources and resiliency.

Focus Areas Vision + Guidance

The Plan articulates neighborhood-specific visions and priorities that can be used by communities to seek the benefits, amenities, and services they need. Focus Areas illustrate where growth is expected to occur, or continue to occur, at varying scales, and/or highlights areas where investment is encouraged to meet the community's vision for vibrancy, housing choice, transportation choice, open space, and livability.

Place Types

The Plan establishes a palette of place types that describe the general density, intensity, and character of different land use types, and is depicted on the Plan's illustrative land use maps. The place types on the PUC DP maps are not zoning; however they effectively communicate the desired character and form for the built environment, including the retention of stable areas.

Indicators

Each Chapter includes indicators that can communicate progress towards the Plan goals. While not every policy is quantifiable, the short set of chosen metrics address big themes in the Plan and can help stakeholders to check in year over year on how well the Plan is being implemented, and identify where course corrections may be needed.

Guiding Principles

The Vision to 2040 and beyond

When creating this Plan the project team put forward a set of guiding principles to shape the Plan goals and policies with the intent of reflecting back important values of the community. To that end this set of principles was refined in an iterative process through feedback at workshops and via outreach activities. The following is a summary of the key principles that inform this Plan. While not policies in and of themselves, these principles are the broad themes woven throughout, and that collectively provide a vision for how to grow in the PUC.

1 Support Complete Neighborhoods.



Support the PUC's vibrant and distinct neighborhoods. Create new, and enhance existing neighborhoods with an appropriate mix of housing, well-maintained parks, and community meeting places. Create greater access to the retail, services, schools, and employment that support the daily life of residents. Encourage compatible architecture in historic areas and enhance neighborhood character throughout the PUC.

2 Focus on Sound Infrastructure.



Plan for and invest in functional, resilient, and well-maintained infrastructure. Coordinate infrastructure investments and new growth. Look for opportunities to "dig once" when replacing aging infrastructure and upgrading streets.

3 Grow Sustainability Practices.



As development in the PUC advances, make decisions and take measurable actions to reduce carbon emissions, retain stormwater onsite, promote green construction and landscaping practices, increase the urban tree canopy, reduce the urban heat island effect, and increase natural areas. Focus higher-density development in appropriate areas including: TOD areas near rail or high-frequency bus service, along walkable mixed-use corridors, and in centers of activity and commerce.

4 Provide High-Quality Parks + Outdoor Spaces.



Maintain and create quality parks, open spaces, and natural areas. In highly urban areas, provide trees, public gathering spaces, linear parks, and community gardens. Encourage community involvement and creative design for public and recreation spaces in new development. Recognize and advance the ecological value of parks as serving multiple functions, such as migratory habitat for wildlife, and stormwater sequestration.



5

Increase Agency Coordination.



Bolster inter-governmental collaboration and partnerships between City agencies and State agencies to solve cross-cutting challenges such as housing affordability, transportation safety and accessibility, sea level rise and climate change actions, and economic development.

6

Create Housing Solutions.



Champion policies that result in safe, healthy, resilient, and affordable housing options. Actively seek to expand the diversity of housing choices in the PUC to relieve housing shortfalls and meet the needs of residents. Continue to expand efforts and programs to address the causes of homelessness.

7

Expand Economic Diversity.



Retain sufficient industrial land and office uses to support and expand economic activity in the PUC, especially near the airport, harbor, and downtown business districts. Encourage and attract emerging industries through allowing for increased mixed-uses, co-working environments, and flexible spaces. Promote the PUC's vital role in commercial, industrial, transportation, and government functions, and as the Pacific's leading business and travel destination.

8

Create a Healthy, Age-Friendly PUC for Kūpuna to Keiki.



Support strategies from the City's Age-Friendly Honolulu Action Plan to provide abundant services and safe gathering places that serve all ages. Encourage new development to pursue universal design principles for the benefit of all age groups and users. Create policies and guidelines to support public health and to invest in neighborhoods equitably. Foster a sense of community and care for our neighbors.



9

Enhance Multi-Modal Transportation.



Improve the quality and safety of the pedestrian environment and continue to expand safe facilities for all users. Acknowledge and plan for evolving mobility choices, including bicyclists, shared mobility, electric vehicles, and autonomous vehicles. Continue to provide excellent transit service through TheBus, TheHandi-Van, and rail service. Maintain a balanced freight network.

10

Prepare for Sea Level Rise + Climate Change.



Mitigate the root causes of climate change and plan for and adapt to sea level rise and other climate change hazards, in accordance with guidance from the City's Climate Change Commission, and best available science. Work cooperatively to evaluate options and implement best practices. Put in place a Climate Adaptation Strategy and outline capital improvements, infrastructure assessments, and other measures needed to address the long term effects of climate change.

11

Care for our Island Heritage.



Respect Native Hawaiian culture and knowledge and celebrate the rich cultural diversity of the PUC. Protect Native Hawaiian cultural, historic, and pre-contact sites and monuments to recognize the unique history, landmarks, and natural environment of the PUC and preserve it for future generations.

12

Mālama Honua.



Care for the earth by supporting resource conservation. Recognize the gifts of the ‘āina as finite and in need of protection and restoration, including, natural resource and habitat areas, streams, beaches, and forest watersheds that lead to the ocean. Protect important views to provide a respite and connection to nature. Protect drinking water, ocean resources, and conservation lands.

Growth + Development

Growth + Development

GOAL GD-1:
Direct Higher Density Growth to Mixed-Use Transit Oriented Development (TOD) Areas.

Policy GD-1.1: Focus higher intensity mixed-use development and supporting public infrastructure around rail stations.

Policy GD-1.2: Create mixed-use TOD neighborhoods with meaningful character and a sense of place.

Policy GD-1.3: Facilitate the evolution of shopping malls and big box retail near rail stations from isolated single-use centers into true gathering places.

Policy GD-1.4: Refine the discretionary TOD permitting process to balance higher-density entitlements with commensurate community benefits.

GOAL GD-2:
Invest in Bus Transit-Supportive Corridors and Adjacent Mixed-Density Neighborhoods.

Policy GD-2.1: Support mixed-use infill development and increased bus service along key underutilized commercial corridors.

Policy GD-2.2: Promote moderate-scaled residential infill while preserving affordability in mixed-density neighborhoods.

Policy GD-2.3: Invest in long-term growth in commercial corridors and mixed-density neighborhoods outside of the Sea Level Rise Exposure Area (SLR-XA).

Policy GD-2.4: Provide green space and landscaping improvements in mixed-density in-town neighborhoods, especially those lacking parks.

GOAL GD-3:
Plan for Context-Appropriate Infill and Redevelopment in Lower-Density Places.

Policy GD-3.1: Allow gradual addition of house-form multiunit dwellings and small apartment buildings near lower-intensity commercial corridors.

Policy GD-3.2: Continue to improve multimodal access and connectivity in lower-density neighborhoods.

Policy GD-3.3: Maintain the lower intensity character of valley/ridge and near-town neighborhoods.

Policy GD-3.4: Improve infrastructure capacity planning for areas of low to moderate growth to meet demand for ADUs and modest infill development.



GOAL GD-4:
Avoid Development in Sensitive or Protected Areas and on Steep Slopes.

Policy GD-4.1: Continue to discourage new development beyond the Urban Growth Boundary and on very steep slopes.

Policy GD-4.2: Decrease building and structure encroachments on streams and wetlands (except for those essential to flooding control).

GOAL GD-5:
Manage Growth and Public Investment for the Benefit of All PUC Residents.

Policy GD-5.1: Make equitable public investment a priority in all functional planning through ongoing evaluation of corridors and neighborhoods with deficiencies in basic services and amenities.

Policy GD-5.2: Manage the broader, indirect impacts of high-density development and growth on adjacent communities through focused effort and sustained attention.

Policy GD-5.3: Support and maximize high-quality affordable housing on public lands.

Policy GD-5.4: Align infrastructure expansions with growth areas.

Key Outcomes

The PUC DP establishes a direction for future growth that builds upon Honolulu's unique character, culture, climate, and setting. The vision for the PUC has the majority of new growth focused in active, transit-rich areas, while the character and scale of other neighborhoods is maintained through smaller improvements and lower-density infill. The majority of growth in the PUC will be guided to align with rail transit service and new investments that improve transportation choices for residents. Transit-oriented development in rail station areas will be a key contributor in delivering new affordable housing units through the City's affordable housing requirements, allowing more residents to live and work in town.

Planned growth in desired locations will be made possible through key public infrastructure projects and greater agency coordination. DP policies guide growth in order to avoid adverse environmental impacts, increase compactness in the core of the PUC around retail, jobs, and services, and support this growth with multimodal transportation options. O'ahu's General Plan calls for the full build-out of the PUC in order to reduce the effects of sprawl into rural areas. To achieve this aim, it is important that urban environments be developed so that they are livable, attractive, affordable, and offer a high quality of life for residents.

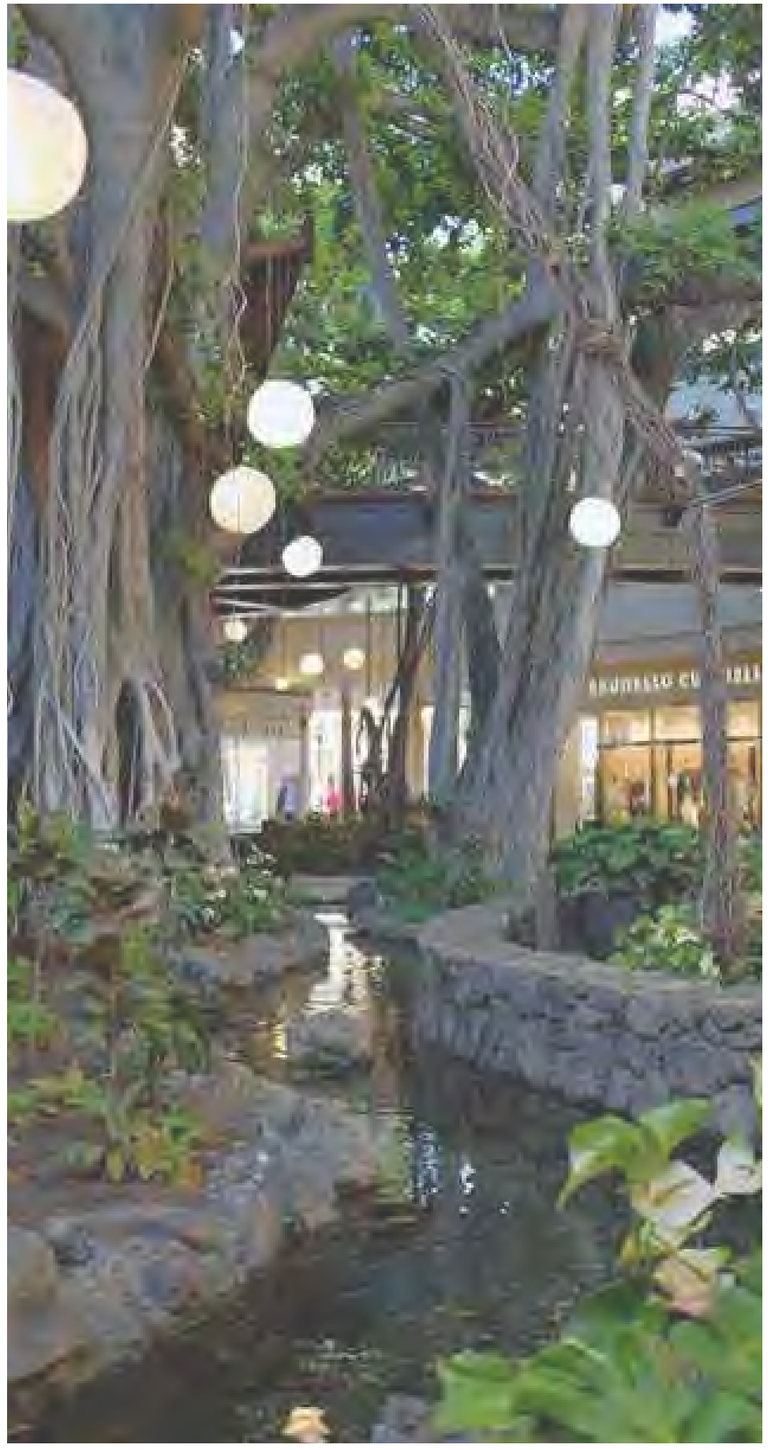
Setting the Stage

The PUC experienced considerable growth with the addition of almost 30,000 people in 5,000 households between 2000 and 2015, yet in the past several years, the PUC has mirrored the island-wide trend of a net outflow of population. However, a variety of factors are expected to contribute to the stabilization and continued growth in the PUC, including a current housing shortfall and high housing demand for new residential units, economic growth across a variety of sectors including professional and business services and healthcare, new opportunities for growth and mixed-uses along the rail transit corridor, and new attention to other mixed-use/commercial corridors within the PUC. Currently, there are many ongoing and planned development projects in the PUC, including:

- Mixed-use and residential projects located in the Ala Moana TOD Neighborhood Plan area;
- Redevelopment of Mayor Wright public housing into a mixed-income, mixed-use neighborhood, and other major Hawai'i Public Housing Authority (HPHA) projects;
- A series of plans and proposals on publicly owned lands, most notably the redevelopment of Aloha Stadium into the New Aloha Stadium Entertainment District (NASED);
- The proposed relocation of the O‘ahu Community Correctional Center (OCCC) to Hālawa and potential redevelopment of its current Kalihi site; and,
- The completion of redevelopment in Kaka‘ako, including mixed-use and residential highrises, commercial spaces, and additional public open space.

Looking Ahead

Modern-day urban challenges such as worsening automobile traffic and housing shortfalls, have renewed interest in walkable places and compact lifestyles. Mixed-use places where daily destinations are within walking distance to one another make it possible to live, work, learn, and recreate in the PUC while minimizing reliance on private automobiles. Ongoing transportation investment in rail and connecting public transportation modes will spur the development of mixed-use places and infill along the rail line and contribute to a network of vibrant PUC corridors. The Plan's policies address this anticipated growth so that it contributes to complete communities with a balance of uses, amenities, outdoor spaces, and good connectivity. Additional policies concerning placemaking, the environment, building form and character, historic and cultural preservation, and the overall look and feel of places around the PUC are also outlined to support and maintain the unique sense of place in communities across the PUC.



Urban Pattern Shifts Over Time in the PUC

Early urban development patterns in Honolulu mostly remained compact and focused around the areas that now comprise Chinatown, Downtown, and the Civic Center. In the early 20th century, the PUC expanded outward following a series of now-defunct streetcar lines, which reinforced a fine-grained, mixed-use pattern of transit and services.

Beginning in the 1950s, development patterns in the PUC became increasingly sprawling and characterized by rapid growth. In 1953, Honolulu's first limited access highway opened, the Mauka Arterial, which extended along a portion of what is now the H-1. The widespread adoption of the private automobile made it possible to expand residential neighborhoods in less connected areas and increase development on steeper terrain and further away from other uses. These new subdivisions were far more homogenous in their land use mix compared to older neighborhoods. Streetcar lines that existed near Downtown and near-town locations at this time were not extended to the new development areas.

Freeway construction continued with the creation of Interstate H-1 and extensions to Pearl City and Wai'alae in the early 1960s. As a result, development in the 1970s through the early 2000s continued by and large to separate uses, with residential neighborhoods and commercial shopping centers growing in geographically separated, auto-oriented patterns with little emphasis on mixed-uses and walkability. The 1970s and 1980s also saw the development of large public housing projects, an intensified Waikīkī, and more new subdivisions to the west.

A counterpoint and partial response to the tendency toward sprawl in the past half-century or more, has been the long-standing -(since the 1970s)- General Plan strategy to "keep the country, country" by focusing growth in the primary and secondary (Kapolei) urban centers of the island. The directive to maintain the rural areas and build out a compact urban core is a policy that is followed to the present day. This Plan's policies strongly support minimal growth in rural, agricultural, and preservation areas on O'ahu by continuing to direct growth in population, and growing and retaining jobs, in the PUC.

New development in the PUC will overwhelmingly be in the form of infill or redevelopment. While the DPP expects development in O'ahu's "second city" region to the west (Ewa-Kapolei) to continue at a faster pace for the Plan's twenty to twenty-five year time horizon, the new development opportunities in the PUC's rail corridor are nonetheless subject to substantial growth over time. This potential is reflected in the PUC DP's land use policies and supported by the Honolulu TOD Demand Analysis and Market Projections prepared for the City by Strategic Economics (2019). It is important that the new growth occuring in the PUC position residents in areas that are supported by transit, jobs, and services, and reduce the need for further sprawl. Such a growth pattern will support the PUC to continue to grow in the longer term in a livable and sustainable fashion.



Relationship between the PUC DP and Growth

The City's Development Plans play a critical role with regards to the location and nature of growth on O‘ahu. Accordingly, the PUC DP presents "place types" (land uses and intensities), neighborhood character vision, and growth policies that together sketch a framework for the continued maturation and growth of the PUC:

1. **Growth Approach.** The Plan establishes clear policies and actions to guide growth to appropriate locations, communicate community preferences to landowners and developers, and lead the way for well-ordered infrastructure planning.
2. **Place Types.** The Plan establishes a palette of place types that describe character and form for the built environment, including areas suitable for growth, and the retention of stable areas. These types identify the pattern of land use and development intensity throughout the PUC and define the overarching strategies to shape and direct future development and continued maturation.
3. **Focus Areas Visioning.** The Plan articulates neighborhood-specific vision and priorities, which can be used in guiding communities to obtain the benefits, amenities, and services they prioritize. These visions point to areas where growth can occur or improvements can be made to meet the community's desire for vibrancy and livability.

Taking a Proactive Approach to Growth

This Plan seeks to provide a proactive approach to growth that:

- Incorporates stronger guidance through transit-oriented planning, geographically specific land use policy, and directed infrastructure investment;
- Prizes community-focused design and character and elevates considerations of equity;
- Remains responsive to market conditions and preferences; and
- Responds to environmental conditions such as climate change and SLR through integrated planning, proactive resource management, and conservation.



Looking mauka on Kalākaua Avenue.

How Does the Development Plan Get Us There?

Catalyzing the most intense growth around key rail stations.

By supporting on-going TOD and transit-focused planning with detailed implementation actions, the Plan focuses the highest intensities and majority of new growth around frequent transit, daily services, and activity centers. Bus and rail-oriented development is critical as the PUC intensifies, while simultaneously adapting to sea level rise and other climate related constraints. Concentrating higher-intensity growth in this manner takes advantage of mobility access and supports mixed-use neighborhood development with meaningful character and a sense of place.

Enabling affordable housing and mixed-use redevelopment along existing transit-served corridors.

The PUC DP supports stimulating infill and redevelopment along existing corridors such as King and Beretania Streets, highlighting moderate-density mixed-use corridors outside of the TOD areas. The Plan calls for expanded infrastructure capacity in most *Focus Areas* (Chapter 3) to support this growth. As redevelopment creates opportunities for improved housing quality and affordability, compatibility with surrounding uses is maintained through density transitions and context-sensitive design. Neighborhood-scale mixed-use development is envisioned along vibrant “main streets” such as Kapahulu and Wai'alae Avenues, as well as through infrastructure investments in underdeveloped commercial corridors.

Constraining growth to sustainable, minimal-hazard locations.

The PUC DP policies focus on growth that it is environmentally sound, equitable, and well suited to Honolulu’s climate. The Plan’s land use designations guide development away from hazards and sensitive natural environments. The long-standing Urban Growth Boundary policy discourages building beyond currently designated residential areas, protecting upper forest areas and avoiding excessive development on steep slopes. The Plan also calls for establishing buffers to control flooding and improve maintenance and habitat along stream edges. Projected sea level rise impacts are incorporated into the PUC DP's framework, and gradual changes to land use regulations are expected to control growth in areas heavily impacted by rising sea levels and chronic flooding.

Managing growth for the benefit of all residents.

Ongoing implementation of the TOD Neighborhood Plans and the PUC DP will seek to generate improvements for communities, prioritize equitable public investments, and coordinate infrastructure closely with new development. The PUC DP further identifies *Focus Areas* (Chapter 3) for future planning efforts that are scaled appropriately to the degree of change anticipated in a given neighborhood, corridor, or center. The Plan promotes targeted improvements such as increasing parks access, sidewalks, drainage, and safety enhancements, and by pursuing increased funding for neighborhood-scale projects such as public art, gateways, and facade improvements.

Related Policies

Policy PL-3.5: Conduct focused corridor and area planning to guide improvements.

Policy H-1.1: Enable or incentivize residential infill development in transit-accessible planned growth areas.

Policy H-1.3: Encourage a greater variety of housing types, including low or middle-density multi-family housing, ADUs and 'ohana units, mid-rise apartment buildings, and shared housing models.

Policy PPOS-1.3: Seek opportunities to create new parks in high-density and growing areas of the PUC.

Policy MC-1.2: Continually improve the efficiency and connectivity of public transit service in PUC neighborhoods through improved travel times and frequency.

Policy SLR-2.1: Plan for priority growth outside of higher impact areas and vet proposed solutions for higher impact areas with the community

Policy SLR-3.3: Monitor ongoing impacts within the SLR-XA across infrastructure agencies to update development regulations that implement adaptation.

Policy ED-1.1: Accommodate and encourage commercial job growth in dense, transit-rich locations.

Fig. 1.1: Vision Map, Growth + Development, West

Major Centers

Regional Center
An Island-wide destination with major activity and intensity

Town Center
Emerging major nodes of activity, growth, and investment. Serves a larger radius than Neighborhood Center

Existing Economic Anchors
Downtown, Waikiki Resort, Ala Moana Center

Mixed-Use Growth Focus Areas

New Streets
Proposed public rights-of-way, intended to break down large blocks near transit

Major Infill/Redevelopment Focus Area
Areas projected for significant growth - near rail stations, bus priority corridors, or regional commercial centers

Secondary Infill/Redevelopment Focus Area
Corridors and districts suitable for urban mixed-use infill, but at a scale and intensity lower than major infill areas

Industrial Preservation and Expansion
Areas with existing industrial or flex uses that are to be retained for similar uses, or expanded vertically where appropriate.

Housing Focus Areas

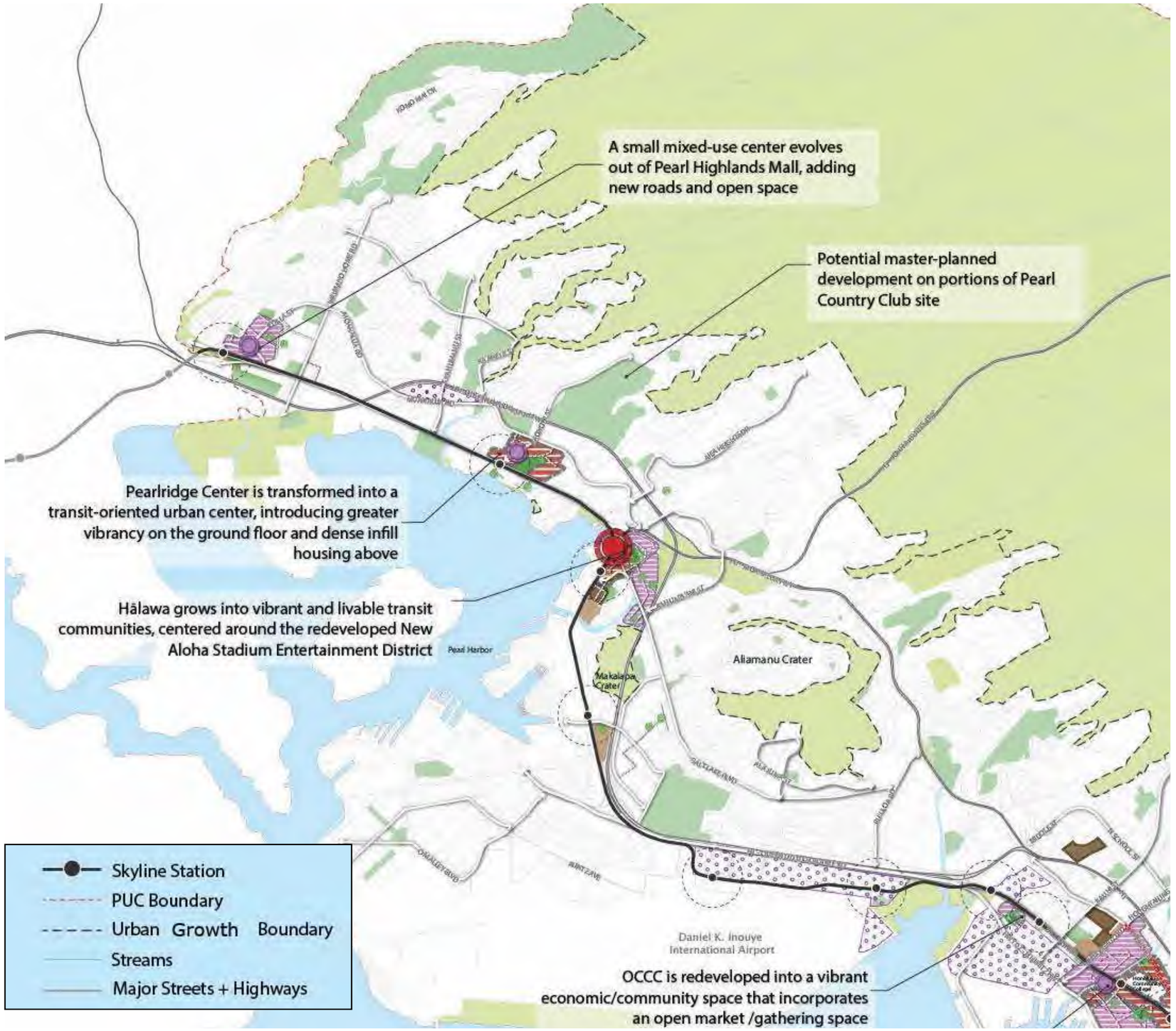
Planned HPHA Public Housing Redevelopment
Properties owned by the public housing agency which are scheduled for reconstruction/upgrading

Midrise Residential Infill Opportunities
Surrounding character and building heights support existing and new lowrise apartments

Transit Improvements

Current/Planned Bus-Priority Service
Upgrades to bus frequency, boarding areas, and signals

Phase 2 Skyline Extension (Civic Center to Ala Moana)
Not Shown: proposed future rail connection to UH Manoa



Chapter 1. Growth + Development Indicator:

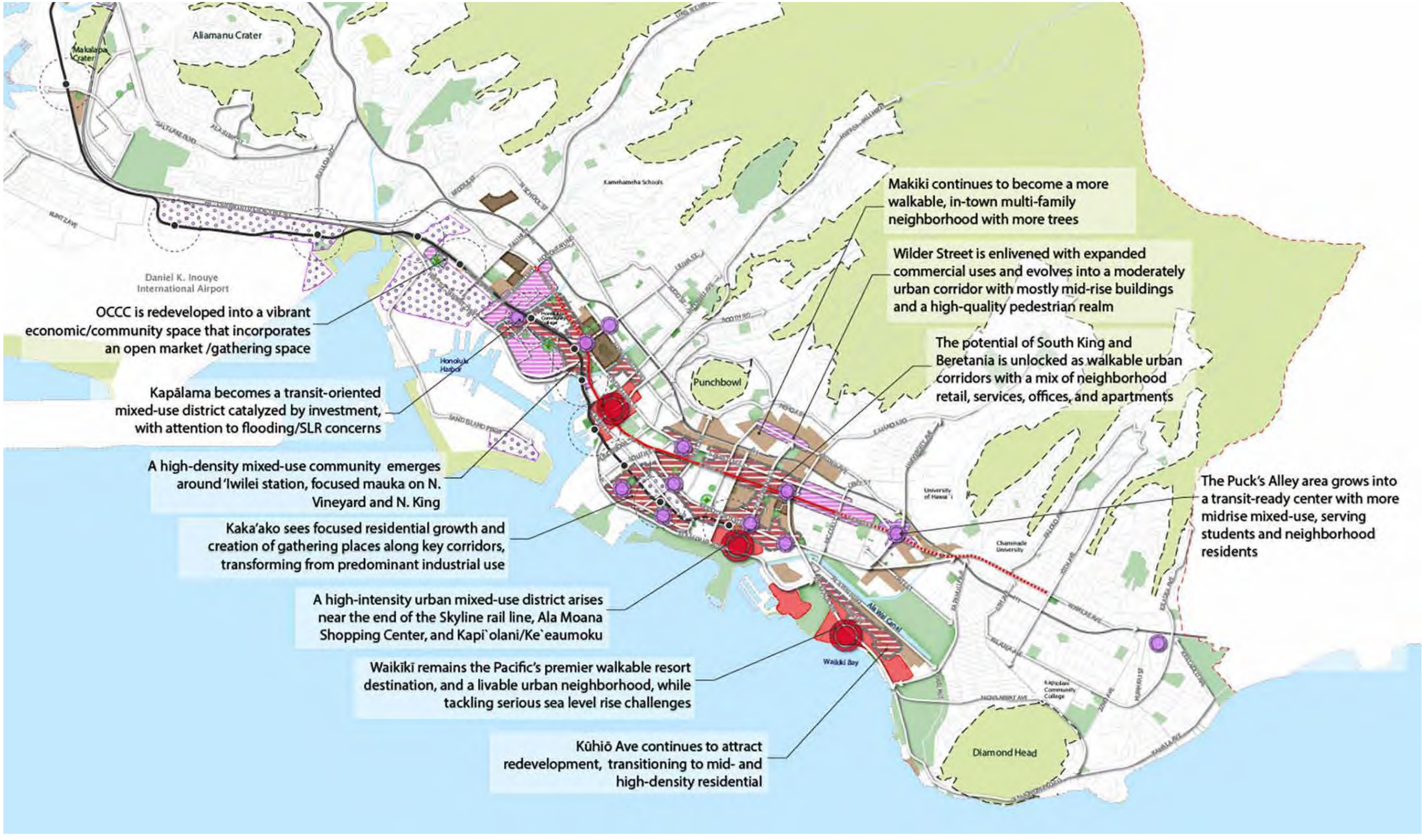
PUC Actual Population Share and General Plan (GP) Allocation

GP PUC Share to 2040 (43%), Actual 2020 share (45%)*

Why This Indicator? The General Plan sets the respective population shares for each development area based on the City's directed growth policies. These include to fully develop the PUC, to establish a "second city" in Ewa-Kapolei, and to keep the more rural areas stable. It may seem counter-intuitive that the PUC's population share would remain roughly stable for the PUC DP's approximately 20 year horizon. However, due to new development projected in the PUC, it is not expected to lose population share to the faster-growing Ewa area. Rather, both DP areas are expected to absorb the bulk of O'ahu's population growth during the Plan horizon.

*Data from DPP's *Annual Report on the Status of Land Use on Oahu, FY 2021*

Fig. 1.2: Vision Map, Growth + Development, East



Goal GD-1. Direct Higher Density Growth to Mixed-Use Transit-Oriented Development (TOD) Areas.

Policy GD-1.1: Focus higher intensity mixed-use development and supporting public infrastructure around rail stations.

The completion of rail will give a significant boost to the mobility and housing choices available in the Primary Urban Center. The significant public investment in rail attracts urban development that can benefit from the proximity to rapid transit and its ridership, revitalizing neighborhoods. Increases in redevelopment in these areas also provides an opportunity to create benefit for both new and existing area residents in the form of greater amenities, uses, and designs that best serve the community. Since densification is projected in both the near and midterm for TOD rail areas, continued investment and planning holistically for phased infrastructure is essential.

Priority Actions:

Long-Range Land Use/Master Planning within Station Areas. Continue working with public and private property owners to develop long-range plans for the location and scale of growth within TOD Special District areas.

Timeline



Partners:

- DPP
- State Agencies
- Major land owners

Advanced Infrastructure Planning. Continue to identify & prioritize catalytic investments necessary to stimulate growth in TOD areas through infrastructure master planning.



Partners:

- DPP
- ENV
- DFM
- DDC
- DTS
- BWS
- State partners
- HECO

Implement TOD Neighborhood Plans. Support the vision and implementation of the adopted TOD Neighborhood Plans. Plans within the PUC include: 'Aiea - Pearl City, Hālawa, Airport, Kalihi, Downtown, Civic Center - Kaka'ako (HCDA), and Ala Moana.



Partners:

- DPP
- State Agencies
- Major land owners

Other Actions:

- *Thoughtfully integrate rail transit stations into planned adjacent developments.*



Midrise housing built near a planned rail station.

TRANSIT-ORIENTED DEVELOPMENT POLICY FRAMEWORK:

1. **Enable a mix of land uses;**
2. **Enable higher densities;**
3. **Encourage travel by non-automobile transport;**
4. **Encourage a mixture of market-rate and affordable housing;**
5. **Encourage public-private partnerships in such development;**
6. **Utilize form-based zoning, exemptions, or other alternatives from existing development regulations, and develop other incentives;**
7. **Encourage activity at defined community corridors, nodes, and centers;**
8. **Encourage public input in the design of each transit station so each station reflects unique community design themes, history or landmarks.**

Goal GD-1. Direct Higher Density Growth to Mixed-Use Transit Oriented Development (TOD) Areas.

Policy GD-1.2. Create mixed-use TOD neighborhoods with meaningful character and a sense of place.

A livable urban community is one with abundant variety and choices – choice of convenient transportation modes, a variety of shopping and dining options, choice in housing types and designs, and a variety of public gathering places. As the City's TOD Neighborhood Plans demonstrate, implementing TOD is not "one size fits all." Transit-oriented places should be unique and sensitive to the existing neighborhood character. A successful transit-oriented district provides opportunities for improved mobility, accessibility, and more active public spaces. TOD Neighborhoods should include informal opportunities for gathering and socializing, recreation, and participating in community life.

Priority Actions:

Prioritize Complementary and Active Uses. Encourage and attract complementary retail uses and amenities on sites adjacent to or integrated with the rail stations, particularly, food markets, pharmacies and medical services, education facilities, and other daily services.

Timeline



Partners:

- DPP

"Key Streets" Policy Implementation. Key Streets are streets in the direct vicinity of a rail station, and identified in the TOD Neighborhood Plans as vital areas to support active mobility and economic activity. Continue implementing the Key Streets requirements for active ground floor uses on key transit-adjacent streets. Extend Key Streets requirements to require active uses at additional intersections over time.



Partners:

- DPP
- DTS
- DDC

Other Actions:

- *Encourage large developments to include outdoor public areas and amenities such as meeting rooms, classrooms/studios, and room for arts institutions.*
- *Ensure that TOD zoning allows for co-working spaces, live/work dwellings, and other flexibility in land uses.*
- *Permit creative and temporary uses, including interim uses, pop-up restaurants & food trucks, and public art (as compliant with any Special District guidelines).*
- *Incorporate TOD density bonuses into future capacity planning and modeling for adjacent areas.*



Pickleball courts provide opportunities for neighborhood gathering and recreation.

Goal GD-1. Direct Higher Density Growth to Mixed-Use Transit Oriented Development (TOD) Areas.

Policy GD-1.3: Facilitate the evolution of shopping malls and big box retail near rail stations from isolated single-use centers into true gathering places.

As brick-and-mortar retail demand and commercial uses continue to shift, providing older retail centers in TOD plan areas with additional land use flexibility and a framework for enhancing their character to ensure that they are positioned for success over the next 20 years and beyond is an important consideration. Introducing new residential, civic, and office uses into commercial and warehouse districts adjacent to rail will enliven TOD neighborhoods in traditionally commercial areas and create live, work, and play mixed-use environments.

Priority Actions:

Active Frontage Requirements. Fulfill active frontage and Pedestrian-Oriented Design requirements for redevelopment of commercial uses in the TOD Special District to eliminate expansive blank walls and to maintain an active streetscape.

Timeline



Partners:

- DPP

Other Actions:

- *Work with developers to effectuate redevelopment of big-box retail within new, higher-density developments such as multistory retail or mixed-use retail with office or residential above.*
- *Allow a broad range of high-density residential and commercial uses in the TOD Special District above existing regional malls.*
- *Integrate employment and service uses beyond retail in older commercial centers, such as tech, health care, arts and culture, or other active commercial space uses.*
- *Consider allowing more flexible uses for commercial retail centers outside of the TOD Special District.*

RETHINKING THE POTENTIAL OF MALLS

Many of the major shopping malls and commercial centers in the PUC were built in an era of more abundant and less expensive land, and less traffic congestion. However, the concept of retrofitting single-use (retail) malls has been gaining traction in recent years. Larger malls and aging commercial centers at different points in their lifespans will likely continue to diversify their uses to include more full service dining, grocery and other daily retail and entertainment uses, or residential towers. Smaller malls and centers could adapt their auto-oriented environments into more active neighborhood centers over time through design retrofits that prioritize pedestrian friendliness, compact buildings, and attractive public gathering spaces.



Construction on Kapi'olani Boulevard.

Goal GD-1. Direct Higher Density Growth to Mixed-Use Transit Oriented Development (TOD) Areas.

Policy GD-1.4: Refine the discretionary TOD permitting process to balance higher-density entitlements with commensurate community benefits.

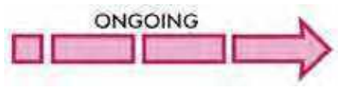
In anticipation of completion of the rail line, the City has been conducting community-scale planning for development and improvements along the transit route for the past decade or more through the TOD Neighborhood Plans. A key component of this planning work has been to establish a program whereby taller and denser development than the baseline allows would be permitted under TOD zoning in exchange for tangible improvements to the project site and surrounding areas (known as "height/density bonuses" for commensurate "community benefits"). During the TOD Neighborhoods planning process, communities identified items such as affordable housing, improved parks and public spaces, street and roadway investments, and multimodal transportation facilities as some of their highest priorities. The City may negotiate those or other similar infrastructure improvements as community benefits, if a project is seeking height and/or density bonuses above the baseline. These projects are realized through project reviews, community vetting, and are subject to City Council approval.

Priority Actions:

Enhanced Community Benefits Processes. Seek to continually improve outcomes by:

- Conducting a periodic assessment of community benefits generated by TOD projects.
- Consider establishing a minimum valuation per square foot of community benefits that is expected from new residential, commercial, and hotel development, and adjust as needed.
- Refer to fulfilling the recommendations of the respective TOD Neighborhood Plan when evaluating proposed community benefits.

Timeline



Partners:

- DPP
- Community groups/ partners

Equitable Development Scorecard. Adopt or develop a community-based equitable development scorecard to quickly and efficiently advise community members of potential impacts of proposed developments. Develop clear expectations for community benefits levels and establish a more standard framework for granting bonuses.

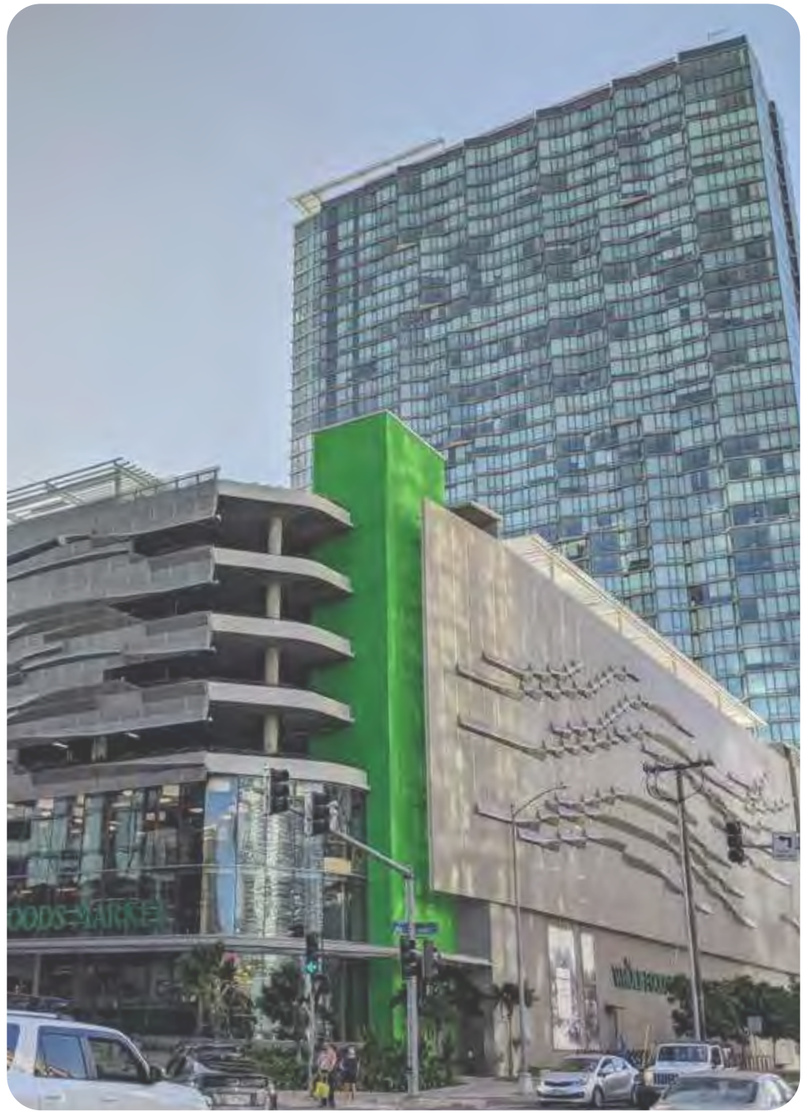


Partners:

- DPP
- State agencies
- Community groups/ partners

Other Actions:

- *Include a community benefits prioritization list in future Special Area Plans to guide the benefits desired from new development in these areas and corridors.*



High density tower in Kaka'ako with grocery and other commercial space.

Goal GD-2: Invest in Bus Transit-Supportive Corridors and Adjacent Mixed-Density Neighborhoods.

Policy GD-2.1: Support mixed-use infill development and increased bus service along key underutilized commercial corridors.

Mixed-use corridors with housing, offices, and retail, support multi-modal transportation, can minimize commute times, and provide flexibility for changing economic landscapes and space-type needs. Honolulu has historically included many scales of mixed-use environments, and many parts of the city already include mixed-use areas. As the PUC grows, mixed-use corridor development offers opportunities to accommodate growth without expanding into natural and rural areas, while delivering new housing and business opportunities and nearby services and amenities in established communities. Mixed-use places typically occur along important corridors or at the edges of residential-use neighborhoods. Updates to the zoning code will help revitalize existing mixed-use places while encouraging the development of new mixed-use areas.

Priority Actions:

Bus Priority Planning. Continue to plan for bus-priority and enhanced transit in the mid-to-long term along mixed-use corridors such as North and South King Streets, Beretania Street, University Avenue, and the full length of Kapi'olani Boulevard. Work to increase bus frequency and upgrade transit shelters along Town and Near-Town Corridor place types.

Timeline



Partners:

- DTS
- DDC
- DPP
- OTS

Catalytic Improvements. Identify and implement catalytic investments along and adjacent to mixed-use corridors including streetscape improvements, pedestrian/bicycle improvements, new parks and green infrastructure, sewer upgrades, and signage. Use catalytic transit, roadway, and mobility improvements to propel mixed-use development, and identify both quick-build and long-term projects.



Partners:

- DTS
- DPP
- DDC
- ENV
- DFM
- DPR
- BWS



King and Beretania Streets are PUC thoroughfares that could support infill housing.

Other Actions:

- *Advocate for the inclusion of key census tracts along PUC bus-priority corridors in the next round of the 'Federal Opportunity' Zones program.*
- *Consider requiring transit supportive densities in bus-priority areas through minimum performance standards.*

Goal GD-2: Invest in Bus Transit-Supportive Corridors and Adjacent Mixed-Density Neighborhoods.

Policy GD-2.2: Promote moderate-scaled residential infill while preserving affordability in mixed-density neighborhoods.

Existing mixed-density neighborhoods, such as Makiki and Mōʻiliʻili in the urban core continue to densify over time. These neighborhoods generally include moderate-to-high density apartments along with older lower-density residential, with few mixed uses away from major thoroughfares. In these neighborhoods, larger buildings are juxtaposed with walk-up apartments and single-family homes, in a wide range of styles and ages, with varying scale, height, and bulk. Although no recent area planning has taken place in these neighborhoods, these locations nonetheless possess features that are attractive for redevelopment. Opportunities include underutilized parcels, reasonable proximity to commercial centers, educational institutions, and medical facilities, above average transit service, minimal hazard exposure from sea level rise, and wastewater infrastructure that is adequate for moderate numbers of new units and businesses. Due to these assets, these neighborhoods will attract development interest over time. It is crucial that this growth is guided so as not to decrease quality of life for existing residents, but to add to visual cohension, improve sidewalk and public infrastructure conditions, and increase neighborhood amenities.





Mixed-density PUC neighborhoods offer mid-scale housing options.

Priority Actions:

Small lots. Continuously review standards to enable small lot redevelopments in lower-intensity residential place types and to support infill on small lots.

Timeline



Partners:

- DPP

Other Actions:

- *Develop incentives for renovation and rehabilitation of multifamily walkups and small apartment buildings.*
- *Recommend relocation assistance and option to return as a condition when multi-family buildings are redeveloped.*

Goal GD-2: Invest in Bus Transit-Supportive Corridors and Adjacent Mixed-Density Neighborhoods.

Policy GD-2.3: Invest in long-term growth in active commercial corridors and mixed-density neighborhoods outside of the SLR-XA.

Frequent exposure to flooding degrades buildings and utilities through structural damage and corrosion. Any residential or commercial structures or buried utilities that experience frequent or sustained flooding, particularly from contaminated floodwaters, face long-term challenges. The scale of the risk posed by SLR to the PUC is now evident through exposure mapping at the state and county level. Retrofitting existing buildings and requiring re-development to meet enhanced resiliency standards will be essential, as will strategies to reduce future adaptation needs by investing in directed growth areas outside of the SLR-XA. Accordingly, the City should prepare to invest in infrastructure in areas that are less impacted by passive flooding, as well as investing in adaption actions for areas that are already dealing with these challenges. Larger individual projects often serve as a catalyst for nearby projects, and sufficient infrastructure and neighborhood planning should be in place to guide new growth areas.

Priority Actions:

Infill Development Incentives. Develop focused planning incentives, infrastructure fee waivers, tax abatement, or subsidies for infill development and building rehab and reuse.

Infill Design Guidelines. Develop design guidelines and development standards for Town and Near-Town Mixed-Density Areas to ensure that new affordable and mid-rise apartments on mixed-use/commercial streets have pedestrian-oriented active frontages.

Timeline





Partners:

- DPP

Partners:

- DPP
- BWS
- DFM
- DDC
- DTS



Bus Arriving at Downtown.

Other Actions:

- *Coordinate infill redevelopment projects on City-owned properties.*
- *Identify and create a geographic catalog of underutilized sites for infill opportunities.*

Goal GD-2: Invest in Bus Transit-Supportive Corridors and Adjacent Mixed-Density Neighborhoods.

Policy GD-2.4. Provide green space and landscaping improvements in mixed-density in-town neighborhoods, especially those lacking parks.

Many mixed-density neighborhoods have substantial numbers of older buildings and have not experienced much recent private investment. Therefore, it is crucial that both public and private investments be made deliberately to improve the character and quality of life in established neighborhoods by paying attention to deficiencies in open space quantity and quality. Coordinated multi-agency facilities planning is cruicial to help the City prioritize key improvements such as repaved streets, new sidewalks, or street trees. The Complete Streets program, planning for Green Streets, and other planned improvements to the public realm should include among their considerations the open space deficiences of existing neighborhoods. The City also requires new residential developments to provide improvements such as street trees and landscaping, and should discourage in-lieu fees in favor of providing these open space improvements, with attention to maintenance programs.

Priority Actions:

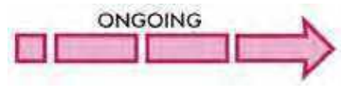
Design Guidance. Encourage commercial projects located on corner lots to include courtyards, plazas or other semi-public/public usable open spaces that can serve as conveniences to residents, visitors, or passersby. Projects on street corners are encouraged to place building façades near the lot line at the corner, if not occupied by usable open space.

Neighborhood Green Streets. Identify locations for public capital improvements, particularly sidewalk widening, coordinated tree planting projects, utility undergrounding, curb extensions and swales. Include neighborhood green space access as a criteria consideration for placement and design.

Other Actions:

- *Revisit thresholds at which larger redevelopment projects must provide a net increase of green space (including roof decks, green roofs, and similar) and discourage the use of in-lieu fees.*

Timeline



Partners:

- DPP



Partners:

- DTS
- DFM
- DDC
- ENV
- DPP
- CCSR
- BWS



An apartment complex with common open space.

Neighborhood Green Streets should be designed with best management practices for storm water. Green Streets are intended to serve as a primary channel for storm water capture, reducing polluted runoff while providing natural areas for community enjoyment. Large rain gardens, planters, and permeable paving define this street typology. In addition, bike lanes and upgraded street elements that reduce paved asphalt traffic lanes provide the opportunity to introduce porous surfaces either in the form of pavers or landscaping. Apart from mitigating storm water runoff for water quality and flood control purposes, Green Streets features also assist in cooling ambient temperatures.

Goal GD-3: Plan for Context-Appropriate Infill and Redevelopment in Lower-Density Places.

Policy GD-3.1: Allow gradual addition of house-form multi-unit dwellings and small apartment buildings near lower-intensity commercial corridors.

While most new growth in the PUC is being steered toward TOD areas, there are also generally stable and lower-intensity neighborhoods where much more moderate and gradual growth is appropriate. These areas are generally (1) mixed-density residential districts in the urban core where the majority of existing development is significantly less intense than the potential maximum allowable under zoning, or (2) areas surrounding commercial corridors in less-dense neighborhoods. "Missing middle" development can be a low-impact method of increasing housing supply in these areas, and an important economic opportunity for small property owners.

Priority Actions:

Encourage and Enable Missing Middle Housing. Adjust maximum allowable densities and provide incentives to promote the gradual addition of house-form multi-unit dwelling types within one or two blocks of mixed-use corridors.

Timeline



Partners:

- DPP

MISSING MIDDLE HOUSING:

For additional details and examples see Policy H-1.2 in Chapter 4, Housing.



Small apartment buildings are appropriate in lower-to-moderate density areas.



Houseform apartments can gently add density to lower-density areas.

Goal GD-3: Plan for Context-Appropriate Infill and Redevelopment in Lower-Density Places.

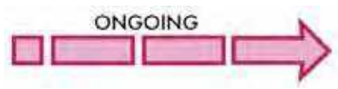
Policy GD-3.2: Continue to improve multimodal access and connectivity in lower-density neighborhoods.

Places where walking and biking are safe, efficient, and convenient methods of moving between destinations are attractive to residents. Policies and improvements that promote walkability and bikeability can also be applied to lower intensity mixed-use corridors. A combination of infrastructure improvements and amenities can foster an environment where walking is safer and more comfortable, and in doing so, support commercial activity with increased foot traffic. Additionally, all residential neighborhoods can benefit from well-planned traffic calming and safety measures to encourage walking and other forms of non-vehicular travel. Special priority should be given to school crossings and other higher-traffic uses.

Priority Actions:

Mobility Improvements. Implement mobility improvements such as marked areas for parking, and striping on roadways for bicycles (and scooters, as allowed).

Timeline



Partners:

- DTS
- DDC
- DPP

Traffic Calming. Continue to support traffic calming improvements, especially along wider streets with fast moving traffic.



Partners:

- DTS
- DDC

Other Actions:

- *Pursue Complete Streets improvements and bicycle infrastructure for corridors serving lower-density neighborhoods.*
- *Allow bikesharing expansion onto key neighborhood streets that serve lower-density neighborhoods.*



A low-stress protected bicycle path on Pensacola Avenue. (Source: DTS)

SPOTLIGHT ON THE KALIHI TOD NEIGHBORHOOD PLAN "LIVING STREET ZONES" CONCEPT ["KE ALA O KE OLA"]

The Kalihi rail station area has a wide range of existing uses (industrial, commercial, single-family homes). The area is characterized by small parcel sizes, and narrow streets with an abundance of curb cuts. The desire to maintain parking and keeping down the cost of improvements are all considerations when planning for improvements. The Kalihi TOD NP identifies "living street zones" for this area. Living Street Zones are planned near the station area where circulation improvements are needed and desired, but standard sidewalks and curb configurations are less feasible (and where the street zone may be shared by both the City and private owners). Living street zones will include traffic calming techniques and designs that will give all users equal access to the right-of-way, and are compliant with the American Disabilities Act (ADA).

Goal GD-3: Plan for Context-Appropriate Infill and Redevelopment in Lower-Density Places.

Policy GD-3.3. Maintain the lower intensity character of valley/ridge and near-town neighborhoods.

Near-Town place type neighborhoods are located, for example, in older residential parts of 'Aiea and Pearl City, Salt Lake, Kaimukī, and Kapahulu. These neighborhoods generally are found between low-density Valley/Ridge place type neighborhoods and more dense urban neighborhoods, often surrounding a suburban scale main street or commercial center.

Valley/Ridge place type neighborhoods are generally low-density residential areas that consist almost entirely of single-family and townhouse development. They are located on the PUC's slope-and-valley topography areas farthest from the coastal plain and sometimes directly abutting conservation areas.

Both of these place types (Near Town and Valley/Ridge) are overwhelmingly developed with residential uses and provide much of the PUC's reservoir of housing. Unique conditions in some of these neighborhoods include sites with steep topography where development may result in hazardous conditions or adverse visual impacts on important public views. While some areas of near-town neighborhoods may be good candidates for limited residential infill (see Chapter 3, Focus Areas), the overall strategy is to preserve the less-intense character of these existing residential areas as they evolve over time.



Valley/ridge neighborhoods are characterized by lower-intensity uses with occasional commercial centers or main streets.

Priority Actions:

Addressing house-form multi-family. Where conditions permit, consider allowing up to four-plexes that can meet lower-intensity development standards and provide on-site parking. Prevent overdevelopment of suburban single-family house lots through enforcement of bedroom limits, floor-area ratio limits, and lot coverage maximums.

Timeline



Partners:

- DPP

Support community-led improvements. Engage with improvement efforts led by the community and/or business associations whenever possible to improve conditions in areas that are expected to see little growth or large-scale planning efforts in the near term.

Timeline



Partners:

- DPP

Other Actions:

- *Support local neighborhood organizations that help to maintain neighborhood parks and recreational facilities.*
- *Enforce short-term rental rules and regulations.*

Goal GD-3: Plan for Context-Appropriate Infill and Redevelopment in Lower-Density Places.

Policy GD-3.4: Improve infrastructure capacity planning for areas of low to moderate growth to meet demand for ADUs and modest infill development.

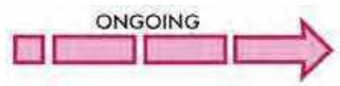
Lower-density neighborhoods within the PUC can gently add density and satisfy some of the area's housing demand through the addition of accessory dwelling units (ADUs). However, some areas where there has been interest in this type of construction, have also been constrained by infrastructure limitations. Assessing the utility, street, and other necessary infrastructure capacity to stimulate ADU projects should be done on a rolling basis. Supporting regular assessments would provide homeowners with the requisite zoning with greater opportunities to develop an ADU, 'ohana unit, duplex, or townhouse on their property.

Priority Actions:

Address ADU constraints. Continue to identify and develop solutions to areas with higher-than-average ADU rejection rates due to infrastructure constraints. Continue to incentivize ADU and ‘ohana unit development through:

- Reduced or waived permitting fees
- ADU Loan program
- Pre-approved ADU designs

Timeline



Partners:

- DPP
- ENV

Regular Infrastructure Modeling. Work collaboratively to run wet infrastructure (water, wastewater, and stormwater) modeling/projections on a regular cycle.

Timeline



Partners:

- ENV
- DPP
- BWS
- DFM



An ADU demonstration unit at the State Capitol in 2017.

Goal GD-4. Avoid Development in Sensitive or Protected Areas and on Steep Slopes.

Policy GD-4.1: Continue to discourage new development beyond the Urban Growth Boundary and on very steep slopes.

Growth should be avoided where the development is encroaching upon significant conservation areas, public scenic protections, ecological value areas, or where development is likely to be impacted by hazardous natural conditions. The PUC's spectacular environmental setting provides a backdrop to daily activities, a home to many residents, a place to engage with nature, and a crucial set of natural resources. However, topographical and ecological constraints should be given due consideration when determining areas that are suitable for development.

Priority Actions:

Maintain the Urban Growth Boundary. Avoid adjustments to the Urban Growth Boundary. Consider makai extents to the boundary where warranted in future DP iterations.

Timeline



Partners:

- DPP

Slope Development. Develop additional strategies to address previously developed slopes and valley walls where deposits of unstable soils are susceptible to slow-moving shifts and slides. Develop additional standards and best practices to address new development in sloped areas.



Partners:

- DPP
- ENV
- DDC
- DTS



The high mountain reaches of the PUC should remain undeveloped.

Goal GD-4. Avoid Development in Sensitive or Protected Areas and on Steep Slopes.

Policy GD-4.2: Decrease building and structure encroachments on streams and wetlands, except for those essential to flooding control.

The streams of the PUC provide significant open space, biological, scenic, and ecological value, though many would benefit from significant improvements. In particular, the need to protect stream habitats and enhance their capacity to handle stormwater requires more tailored policies and enforcement than in the past, spurred on by increasing storm frequency and severity. Maintaining a careful symbiosis between nature and the urban fabric in the PUC is essential to building a sustainable future, and further degradation of streams and stream quality in the PUC should be avoided. In addition, increasing stream maintenance, protections, and where appropriate, multi-use pathways, can lead to better recreational and scenic enjoyment of the PUC's stream corridors.

Priority Actions:

Re-think Stream Encroachment Practices. Establish riparian zones for perennial streams. Discourage new structures that encroach upon streams and wetlands other than those for drainage, flood control, recreation facilities, and maintenance purposes. Establish a clear mechanism for maintaining the integrity of these environments, potentially through stormwater quality rules or flood zone restrictions.

Timeline



Partners:

- DPP
- DFM
- DDC
- BWS
- State partners

Other Actions:

- *Prohibit excessive pavement and building lot coverage to decrease the volume and rate of stormwater discharge.*



Buildings are close along the edges of Pālolo and other streams in the PUC.

Goal GD-5. Manage Growth and Public Investment for the Benefit of All PUC Residents.

Policy GD-5.1: Make equitable public investment a priority in all functional planning through ongoing evaluation of corridors and neighborhoods with deficiencies in basic services and amenities.

Some areas of the PUC that have not seen significant investment in years face an uneven quality of the urban environment. Many other areas will face increasing infrastructure challenges related to SLR, climate change, or from the mixed impacts that new high-density development can have on established communities. The City can move toward better outcomes by directing new private investment to contribute to improvements needed or expressed as important by PUC communities through finer grained neighborhood planning processes. The City can also use public investments to improve infrastructure quality and maintenance in areas with deficiencies in these basic services. Comprehensive infrastructure planning underway such as the implementation of the O'ahu Pedestrian Plan will help to better understand the needs of under-resourced urban areas and to broaden the reach of the public investment that serves all residents.



A neighborhood street that is deficient in drainage facility in Mapunapuna.

Priority Actions:

Leverage Plans and Funding. Seek federal Community Development Block Grants, Opportunity Zone funding, and other federal funds, to fulfill components of community-based neighborhood plans wherever feasible.

Timeline



Partners:

- DPP
- DCS
- BFS

Regular Infrastructure Assessments. Use comprehensive infrastructure planning efforts such as the O'ahu Pedestrian Plan, transportation network planning, and storm water master planning to identify and act upon needs-based improvements to City assets and services.

Timeline



Partners:

- BWS
- DTS
- DFM
- DDC
- ENV
- DPP
- HECO



A residential PUC neighborhood that lacks sidewalk.

Other Actions:

- *Seek equitable community-driven solutions to costly infrastructure challenges posed by climate change and sea level rise.*

Goal GD-5. Manage Growth and Public Investment for the Benefit of All PUC Residents.

Policy GD-5.2: Manage the broader, indirect impacts of high-density development and growth on adjacent communities through focused effort and sustained attention.

Growth in the PUC may fluctuate in the short-term, but it is expected to remain the island's principal area of density -and therefore growth, change, and renewal- over the long-term. The General Plan policies stipulate the "full development" of the PUC and directed growth to the second urban center of Kapolei in order to prevent sprawl into more rural areas of the island. Given this emphasis, it is vital to leverage new development or redevelopment for the benefit of all PUC residents, and to continue to invest in the PUC's existing neighborhoods. Key to this aim is working with community members in preserving areas for long-established uses within new planned developments, and providing design guidance and standards for more graceful transitions between different scales of development.

Priority Actions:

Community Planning Funds. Consider a new round of neighborhood vision planning or create a revolving fund for community led projects.

Timeline



Partners:

- DPP
- Neighborhood Boards

Preserve Historic Assets. Use planning tools to preserve important historic assets as change occurs.



Partners:

- State Agencies
- DPP
- Historic Preservation Commission

Transition Guidelines. Develop design strategies to improve transitions between different development areas with divergent uses.



Partners:

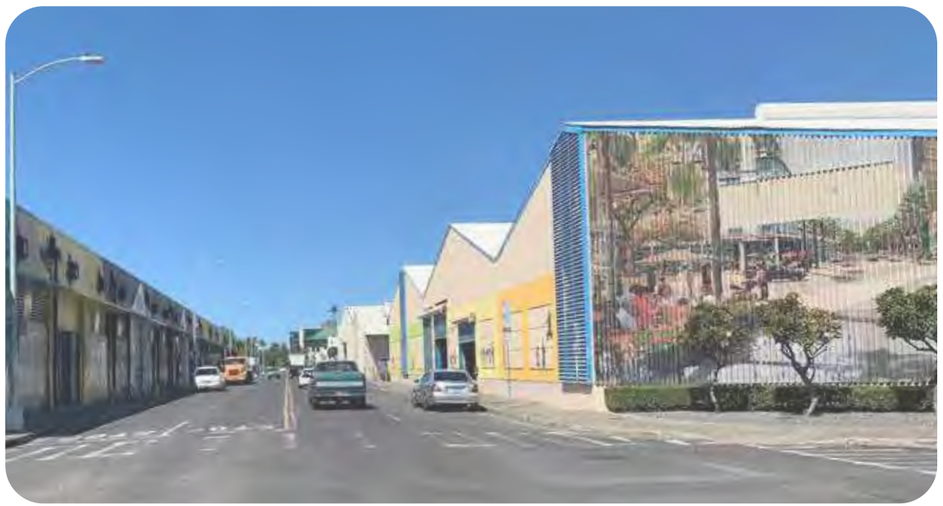
- DPP
- HCDA

Other Actions:

- *Periodically reassess major indicators of areas identified as vulnerable for ongoing policy assessment.*
- *Bolster engagement and capacity building of residents and businesses impacted by redevelopment through continued outreach on planning and development related issues.*



Appropriate transitions should be made between high and low-rise areas.



Some existing industrial/flex areas should be preserved as single-use in the PUC, and not lost to mixed-use redevelopment.

Goal GD-5. Manage Growth and Public Investment for the Benefit of All PUC Residents.

Policy GD-5.3: Support and maximize high-quality affordable housing on public lands.

The lack of affordable housing units is a serious and ongoing concern for the local community. Various public agencies and departments own sizeable parcels of land within the PUC, including around future rail stations. This presents a major opportunity to align interests and create "win-win" affordable housing development. Increasing affordable housing inventory along transit lines will enable more residents struggling in the housing market to secure stable housing and increase their access to jobs, goods, and vital services.

Priority Actions:

Continued City and State Collaboration. Continue collaborative joint planning between public agencies to ensure that development maximizes affordable housing production.

Timeline



Partners:

- DPP
- OPSD
- DAGS
- HCDA
- HPHA
- DHHL

Acquire Properties for Affordable Housing. Focus efforts to acquire and redevelop underutilized properties along Near-Town and Town place type corridors for 100% affordable housing projects.

Timeline



Partners:

- DLM
- DPP
- DAGS
- HPHA



A City-owned affordable rental development for seniors.

Other Actions:

- *Support redevelopment of OCCC into a mixed-use block that includes a new park, affordable housing, and community services.*
- *Maximize space for community-serving uses (such as retail, personal services, recreational amenities, schools, daycare for children, senior care, and health facilities) in affordable developments.*

Goal GD-5. Manage Growth and Public Investment for the Benefit of All PUC Residents.

Policy GD-5.4: Align infrastructure expansions with growth areas.

It is essential to integrate infrastructure planning with future planned or expected development. City-initiated changes to zoning and large public projects that allow for additional growth and intensification should be coordinated with ongoing and planned infrastructure investments. Proactively aligning new investment with future growth and redevelopment areas should support new growth while still ensuring that the needed improvements affecting existing area residents do not lag behind.

Priority Actions:

Prioritized Infrastructure Upgrades. Prioritize infrastructure improvements in areas identified for growth in the short and mid-term (based on growth projections, market projections, plans, and known projects). Assess infrastructure capacity in all focus areas relative to anticipated future growth.

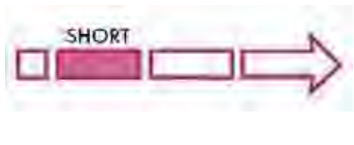
Timeline



Partners:

- BWS
- ENV
- DTS
- DPP
- DFM

Improved CIP review. Improve the long term functional planning and phasing plans for capital improvements by creating new standard procedures for conformance.



Partners:

- BFS
- BWS
- ENV
- DTS
- DPP
- DFM

Short-Term Wastewater Improvements. Complete short-term wastewater system upgrades:

- Prepare adequate capacity in advance for Mayor Wright's redevelopment and other major affordable housing projects along North King Street
- Finish Hono'uli'uli Basin upgrades to address capacity constraints in Pearlridge.



Partners:

- ENV

Other Actions:

- *Complete medium and long-term wastewater upgrades, focusing on:*
  - » *Improving sewer capacity around the Stadium, including distributed systems or a gravity plant to bypass and eliminate the need for the Navy plant;*
  - » *Improving service lines around Wai'alae Avenue, especially on the makai side;*
  - » *Conducting capacity assessment for the entire King Street corridor and expand if needed to accommodate future growth.*

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Placemaking + Character

Placemaking + Character

GOAL PL-1:
Enhance the PUC's Unique Places.

Policy PL-1.1: Encourage development projects and a public realm that reflects Hawai'i's culture and arts.

Policy PL-1.2: Improve the sense of entry at key gateways in the PUC by aligning public improvements and private development.

Policy PL-1.3: Protect and care for historical structures in the PUC.

Policy PL-1.4: Preserve cultural and archaeologically significant resources in the PUC.

Policy PL-1.5: Continue to preserve significant panoramic public views of natural landmarks through Special District provisions.

Policy PL-1.6: Enhance key mauka-makai view corridors.

GOAL PL-2:
Promote Excellent Building and Site Design that Responds to Honolulu's Climate and Environment.

Policy PL-2.1: Encourage sustainable building and site design practices that respond to the tropical climate.

Policy PL-2.2: Integrate greenery and green infrastructure into new developments, especially large sites.

Policy PL-2.3: Actively pursue Honolulu's tree canopy goals, especially in interior neighborhoods lacking trees.

GOAL PL-3:
Support Vibrant Commercial/Mixed Use Corridors and Neighborhood Centers in the PUC.

Policy PL-3.1: Activate "main street" corridors with pedestrian amenities, frequent gathering places, and expressions of community identity.

Policy PL-3.2: Support an attractive and pedestrian-friendly public realm along well-used PUC corridors.

Policy PL-3.3: Ensure pedestrian-oriented design in all corridors and centers, especially in Town Corridor, Urban Corridor, Downtown, and Resort areas.

Policy PL-3.4: Improve multimodal connections and pedestrian pathways within and between the PUC's mixed-use corridors, town neighborhoods, parks, and public institutions.

Policy PL-3.5: Conduct focused corridor and area planning to guide improvements.

Key Outcomes

Apart from parks and conservation areas, there are few empty spaces in the PUC. New phases and ongoing growth in the PUC will primarily take the form of infill development, redevelopment of aging properties, and other expansions of existing uses. New development in the PUC will include mixed uses in more locations- especially around activity and employment centers- in a manner that will allow currently single-use commercial areas to evolve into diverse neighborhoods that support walking, biking, and well-designed public spaces. New growth should build off of and enhance key socializing and gathering places in the PUC.

Complementing and contributing to the rich tapestry of places in the PUC should be among the goals of every project. Care should be taken to uphold protections for significant public views, and create attractive public environments. Significant historical and cultural resources should be protected. Inclusion of public art, gateway markers for distinct areas, and flexible gathering spaces should be encouraged, as should the rehabilitation and repurposing of exisiting buildings, when feasible.

DP policies encourage the use of green building best practices and especially the integration of connected indoor and outdoor spaces, reflecting Hawai'i's climate, architectural character, and year- round outdoor lifestyle. Climate sensitive design can additionally help combat urban heat island effects by increasing permeable areas, trees, vegetation, and use of shading structures to cool ambient temperatures. Street tree assessments should also consider heat abatement as a benefit and a strategy for tree placement.

Connections to key destinations such as commercial centers and parks will be increased through greater emphasis on pedestrian improvements and bicycle networks. The comfort of the public realm will be improved through Complete Streets, the greening of key streets, and other supportive programs. The Plan's policies are also employed to promote equitable development outcomes in the PUC by recommending ongoing assessments of areas lacking basic infrastructure services and by improving coordination of directed growth with public realm enhancements.

Embracing Place Types to simplify communication around development character is a further goal of this Plan, in order to encourage development and public improvements that support resident needs. For example, place type recommendations in the PUC DP suggest the character, scale, and affordability of existing low- and moderate-density residential neighborhoods be supported with gradual addition of house-form multi-unit dwellings near commercial corridors and neighborhood main streets. Likewise, denser redevelopment should be facilitated for major thoroughfares with excellent transportation.



Chapter 2. Placemaking + Character Indicator:

TOD Neighborhood Plan Areas in the PUC with Adopted Zoning, (out of 6)

As Of 2023: 1 ('Aiea-Pearl City)

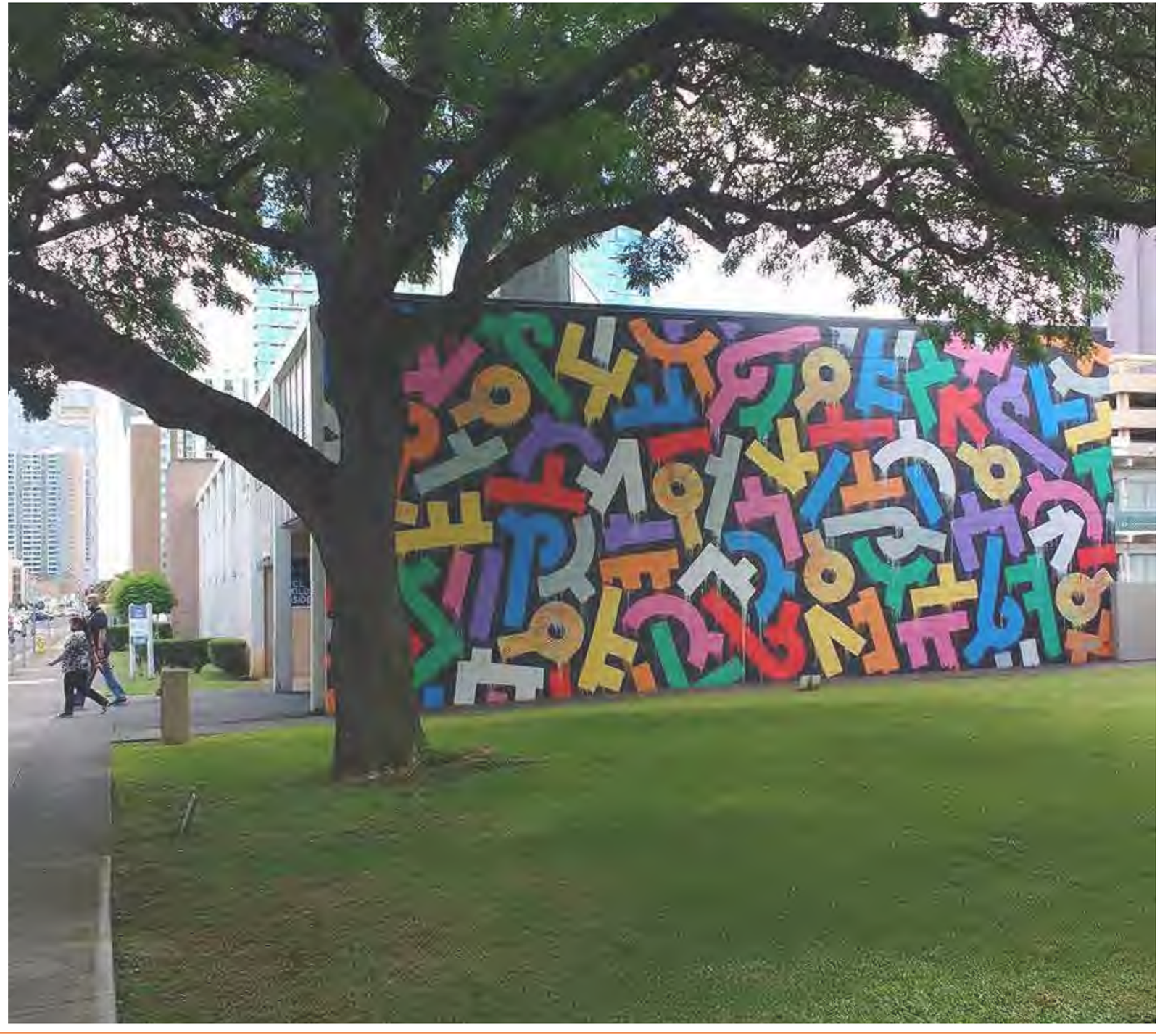
Why This Indicator? Planning for mixed-use development along Honolulu's rail corridor has been ongoing along with the rail's construction. A culmination of the adopted TOD Neighborhood Plans is the adoption of corresponding zoning changes, collectively the TOD Special District. The TOD SD will support higher densities and more diverse uses in rail station neighborhoods, creating live/work/play communities. Interim policies are already in place on a project-by-project basis for TOD NP areas not yet rezoned.

Setting the Stage

The PUC is made up of countless places that are clearly distinct from the areas around them. This Plan categorizes these distinctions into “Place Types,” which capture the characteristics that makes a location distinct, as well as the shared attributes that may be found across similar areas in other locations. Although many different factors influence an area’s unique sense of place, the PUC DP's Place Types focus primarily on physical characteristics, such as building types, sizes and uses, and street grid patterns.

Analyzing these characteristics across the PUC defines a palette of Place Types that make it easier to identify and understand the physical building blocks that make up Honolulu's urban form. Place Types represent the similar physical patterns that can be observed across the PUC. For example, street networks can be well-connected grids or winding cul-de-sacs; buildings can be located closer together or farther apart; front yards may be large, small, or non-existent; and land uses may be mixed vertically, horizontally, or separated altogether.

The Place Types in this Plan take into account existing conditions while providing an aspirational vision for the future. When Place Types accurately represent the areas where they are applied, they help to guide the pace of growth and change and provide a shared language to engage with the planning process. In practical terms, Place Types that are applied to areas with similar existing conditions indicate that near-term change in that place will be minimal, while Place Types that are considerably different than the existing conditions indicate areas where greater transformation is expected or planned.



How Does the Development Plan Get Us There?

Enhancing the unique identities of PUC neighborhoods, corridors, and centers.

This Plan seeks to enhance the PUC's neighborhoods and centers by encouraging the incorporation of local culture and identity in development projects in the public realm through: art in parks and plazas, the installation of design features at PUC gateways, and by continuing to protect significant mauka-makai public views and views of natural landmarks through height limits and Special Districts provisions. The following Focus Areas chapter of the Plan also identifies catalytic projects and investments along commercial corridors and areas of growth that will help revitalize the character of neighborhood-serving streets (Near-Town and Town Corridors place types) and enhance the daily lives of residents with improved infrastructure and mobility.

Support for a diversity of places throughout the PUC.

The Plan supports active, mixed-use neighborhood places of gathering, and promotes walkable, mixed-use corridors and centers that serve adjacent residential areas. New incentives and TOD zoning enable mixed-use infill and redevelopment near transit. A finer-grained implementing mechanism for the PUC DP is Special Area Planning. The PUC DP carries forward the vision of adopted TOD Neighborhood Plans that have been developed in recent years, and identifies additional areas that could benefit from future smaller-scale plans.

Fostering a walkable, well-designed, and well-connected PUC.

The Plan's policies emphasize incremental improvement of the built environment and public realm through a combination of public investment and private projects. By identifying clear form guidelines, accessible, comfortable, and consistent improvements can be made.

Respect for the environment.

The Plan's policies encourage building, site, and public realm design that is specific to Honolulu's climate and context, fostering a public realm that is both pleasant and sustainable. Guidance includes promoting building and site design that responds to the local conditions, topography, and ecology. Plan policies further suggest that assessments be made to better align public infrastructure investments for mobility and green infrastructure in areas currently lacking in these services.

Embracing Place Types.

The Plan contains clear strategies and illustrative maps to guide growth to appropriate locations, communicate community preferences to development interests, and to assemble the framework of various public infrastructure planning. Higher density development is intrinsically linked to more affordable housing through the City's affordable housing rules, as is reinvesting in and restoring public places, parks, and streets.

Related Policies

Policy GD-1.2: Create mixed-use TOD neighborhoods with meaningful character and a sense of place.

Policy GD-2.4: Provide green space and landscaping improvements in mixed-density in-town neighborhoods, especially those lacking parks.

Policy GD-3.3: Maintain the lower intensity character of valley/ridge and near-town neighborhoods.

Policy PPOS-1.2: Implement a "10-minute walk" standard for park accessibility in the PUC.

Policy MC-1.4: Improve pedestrian connectivity and safety throughout the PUC.

Policy HC-2.1: Encourage housing designed for kūpuna in mind, and in a variety of household sizes.

Policy ED-1.2: Enhance the ability of new and small businesses to thrive and grow in the PUC.

Fig. 2.1: Land Use Map/Place Types, West PUC

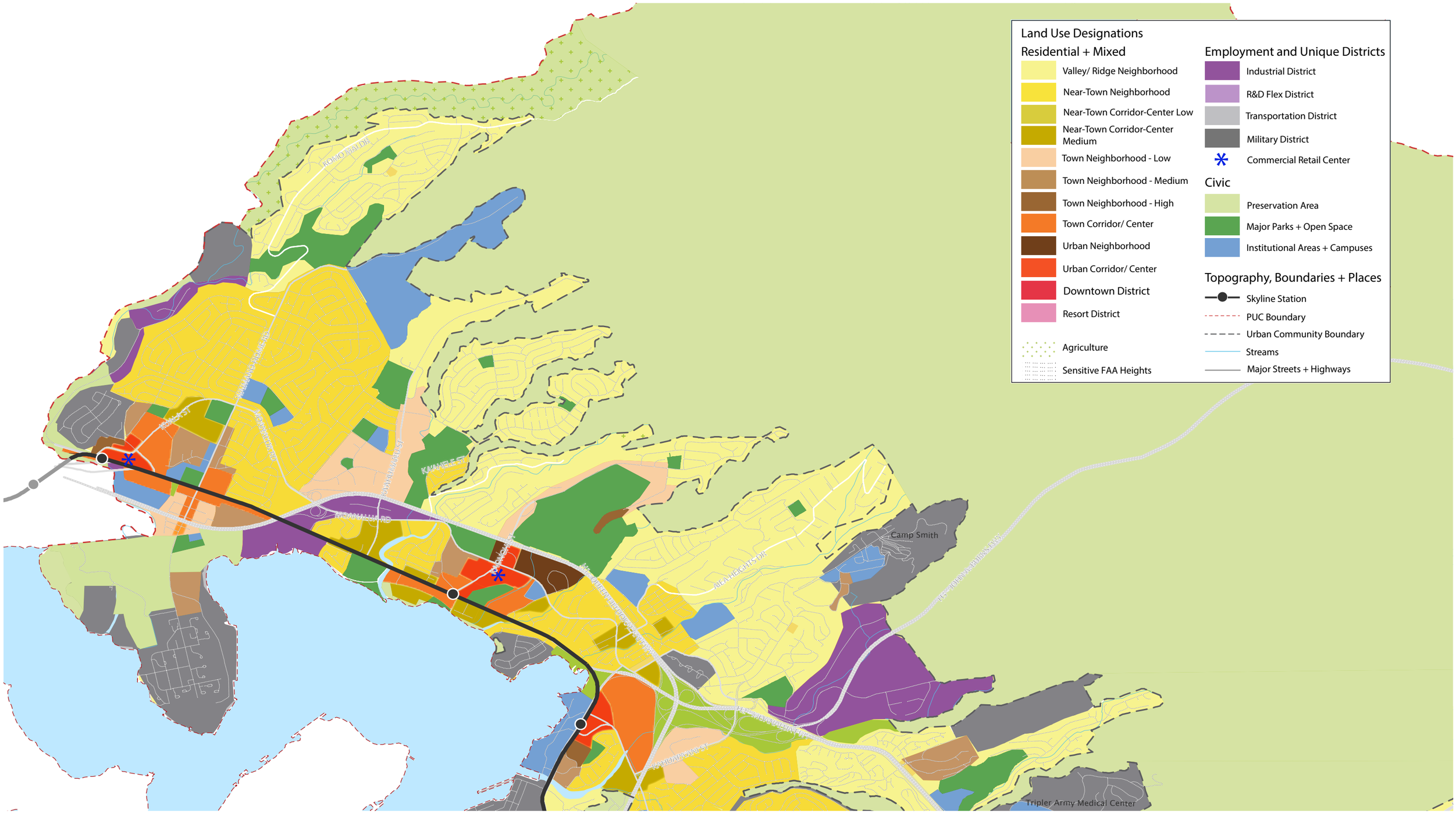

Land Use Designations
Residential + Mixed
Valley/ Ridge Neighborhood
Near-Town Neighborhood
Near-Town Corridor-Center Low
Near-Town Corridor-Center Medium
Town Neighborhood - Low
Town Neighborhood - Medium
Town Neighborhood - High
Town Corridor/ Center
Urban Neighborhood
Urban Corridor/ Center
Downtown District
Resort District
Agriculture
Sensitive FAA Heights
Employment and Unique Districts
Industrial District
R&D Flex District
Transportation District
Military District
Commercial Retail Center
Civic
Preservation Area
Major Parks + Open Space
Institutional Areas + Campuses
Topography, Boundaries + Places
Skyline Station
PUC Boundary
Urban Community Boundary
Streams
Major Streets + Highways
ROMO TRAIL DR
KAMEHAMEHA HWY
KAMEHAMEHA HWY
KAMEHAMEHA HWY

Fig. 2.2: Land Use/Place Types Map, Central PUC

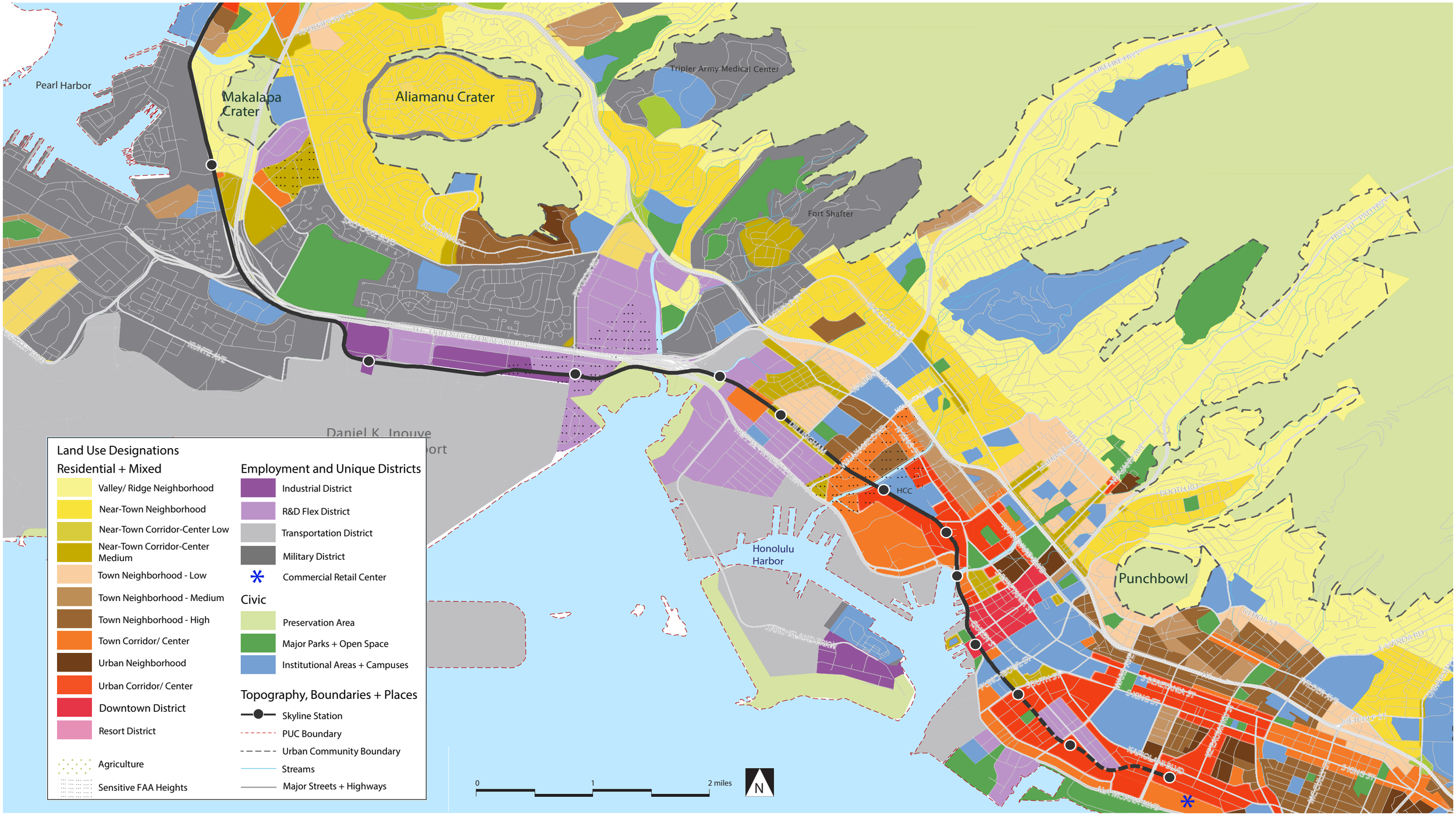
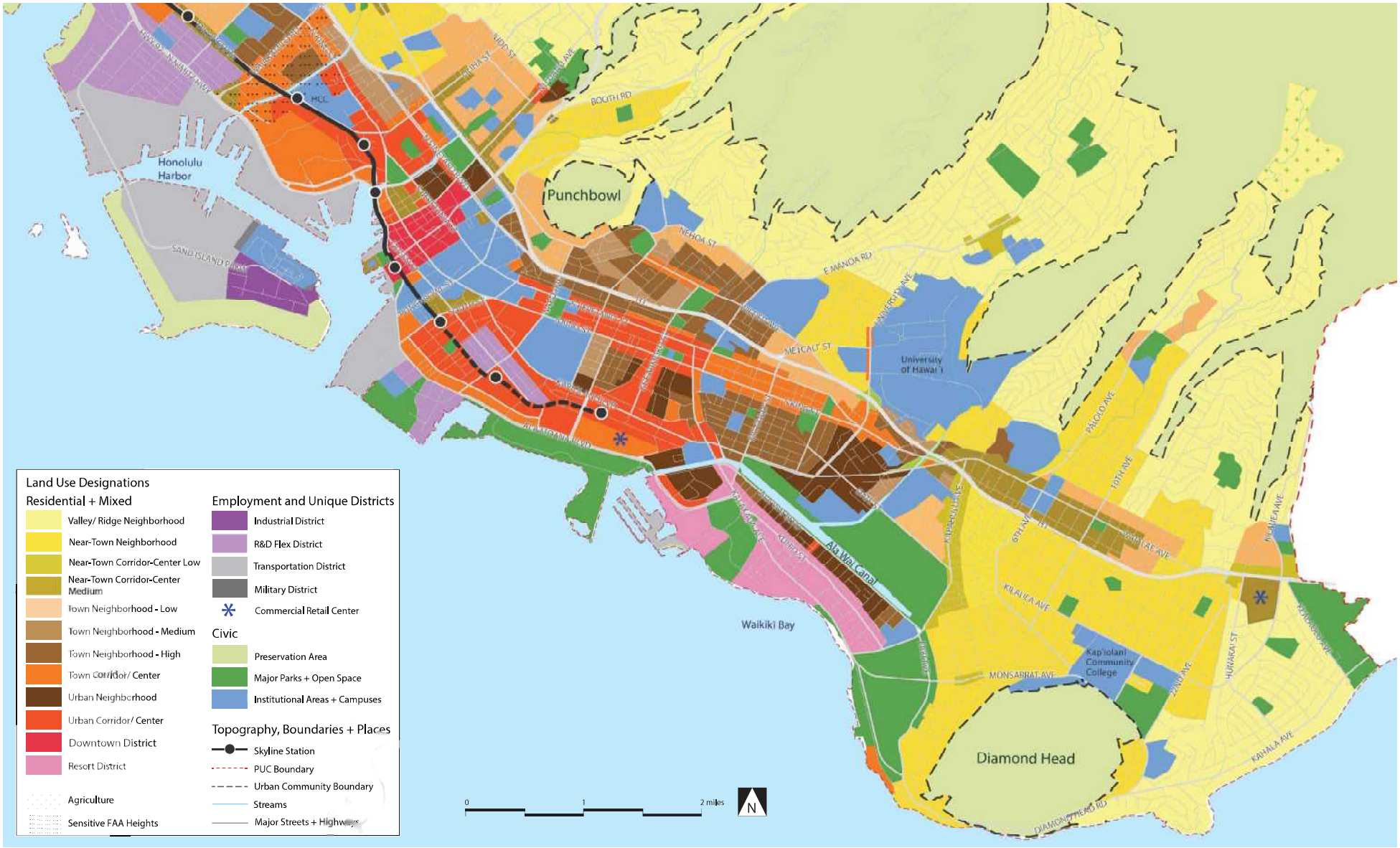


Fig. 2.3: Land Use/Place Types Map, East PUC



Place Types - Summary Matrix

Residential + Mixed Use Place Types

Place Type	Valley/Ridge Neighborhood	Near-Town Neighborhood	Near-Town Corridor-Center Low
			
Description	A residential neighborhood, usually characterized by dramatic topographical features and separated from adjacent neighborhoods by ridge lines extending makai from the Koʻolau Range. These neighborhoods are made up mainly of house-scale buildings with front yards, accessed primarily by car and limited bus transit. The unique topographical constraints in these neighborhoods make them generally unsuitable for much additional growth.	A residential neighborhood made up primarily of house-scale buildings with front yards, typically located on the flat coastal plains or at the foot of Valley/Ridge neighborhoods. These neighborhoods have generally well connected street networks and proximity to mixed-use areas. They are denser and more suitable for potential future growth than Valley/Ridge Neighborhoods, providing a transition between the Valley/Ridge Neighborhoods and more intense neighborhoods of the PUC.	A small group of neighborhood-oriented businesses, with a mix of active storefronts located near the sidewalk or behind a small setback, sometimes located within small strip-style shopping centers. A Near-Town Corridor/Center Low is mixed-use, consisting of a mix of attached and house-form buildings up to 3 stories in height. This place type supports walkability in lower-density residential neighborhoods by making it convenient for nearby residents to walk or bike to access everyday goods and services.
Character	Residential neighborhood	Residential neigbhorhood adjacent to mixed-use areas	Neighborhood-scale corner stores and small main streets
Building Form	Low-rise detached houses and duplexes	Low-rise houses, duplex, triplexes and fourplexes	Small attached and detached lowrise buildings in a walkable, ‘main street’ format
Building Height	~1 to 3 stories	~1 to 3 stories	~1 to 3 stories
Transit Access [1]	Limited Transit	Limited Transit	Transit Supportive
Use(s)	Residential	Residential	Primarily retail and service uses with some residential and live/work above or behind
Examples in PUC	Mānoa Valley	Kaimukī	Monsarrat Avenue

Residential + Mixed Use Place Types

Place Type	Near-Town Corridor-Center Medium	Town Neighborhood - Low	Town Neighborhood -Medium
			
Description	A neighborhood-scale main street featuring neighborhood-serving retail and services, with active storefronts located at or near the sidewalk. A Near-Town Corridor/Center is mixed-use, consisting primarily of attached multi-story buildings, with some house-form buildings, extending along both sides of the street for several contiguous blocks. A robust public realm and access to transit make this a highly walkable environment, providing easy access to nearby residents and an amenity for residents of mixed-use buildings along the main street.	A generally walkable, mixed-density residential neighborhood made up of primarily single and multi-unit house-scale buildings and small apartments within walking distance of a transit-rich mixed-use area. These neighborhoods provide a transition in scale and intensity between the lower-intensity residential neighborhoods and more dense residential neighborhoods and mixed-use areas.	A more closely spaced neighborhood with walk-ups, apartment buildings and mid-rise buildings located close to the sidewalk, within walking distance of transit corridors or mixed-use areas. These neighborhoods provide an environment with urban low- and medium-rise residential buildings to provide a transition in scale and intensity between lower-intensity, mixed-density residential neighborhoods and more intense neighborhoods or mixed-use areas.
Character	Neighborhood-scale main street	Mixed-density neighborhood	Mixed-density neighborhood
Building Form	Attached and detached lowrise buildings in a walkable, ‘main street’ format	Duplex, multiplex, rowhouse, courtyard apartments, low-rise walkups	Duplex, multiplex, rowhouse, courtyard apartments,mid-rise apartments/walkups
Building Height	~3-6 stories, occasionally 7 or 8 at key intersections	~2 to 4 stories	~2 to 6 stories
Transit Access	Transit Supportive	Transit Supportive	Transit Supportive
Use(s)	Mix of retail and other active uses fronting sidewalks with residential above or behind	Primarily residential with occasional neigbhorhood-serving retail or service uses at key intersections	Primarily residential with occasional neigbhorhood-serving businesses
Examples in PUC	Waiʻalae Avenue	Kapahulu neighborhood	McCully

[1] Transit Access Scale: Limited Transit, Transit Supportive, Transit Oriented, Transit Rich.

Residential + Mixed Use Place Types

Place Type	Town Neighborhood - High	Town Corridor/Center	Urban Neighborhood
			
Description	A walkable neighborhood with walk-ups, apartment buildings, mid-rise buildings and some high-rises. This place type provides a dense residential neighborhood environment that supports high-rise buildings but is made up of a wide variety of other large multi-unit building types. These neighborhoods are within walking distance to high-intensity and transit-rich mixed-use areas.	An urban, highly walkable corridor or center anchored by transit with a mix of building forms including mid-rise and occasional high-rise buildings. A robust public realm enables multi-modal access to transit for residents of the district and those in adjacent neighborhoods.	A highly walkable high-rise and mid-rise residential neighborhood activated by occasional neighborhood-serving, pedestrian-oriented commercial uses on the ground floor and at key intersections. These neighborhoods are within easy walking distance to the PUC's most intense mixed-use areas.
Character	Vibrant mixed-density neighborhood	Vibrant mixed-use corridor or center	Vibrant residential neighborhood
Building Form	Walkups, midrise and highrise apartments/condos	Mid-rise and high-rise commercial blocks with occasional high-rises with public space at key corners	Mid-rise and high-rise apartments/ condos
Building Height	~Up to 12 stories, occasionally 15 stories	~6-12 stories, occasionally 15 at key intersections	~10 to 30 stories with occasional taller buildings at key intersections
Transit Access	Transit Supportive	Transit Oriented	Transit Supportive
Use(s)	Primarily residential with occasional neigbhorhood-serving retail or service uses at key intersections	Mix of retail and other active uses fronting sidewalks with residential and office above or behind	Primarily residential with occasional neigbhorhood-serving retail or service uses at key intersections
Examples in PUC	Mō`ili`ili	Beretania Street	Ala Moana

1 Transit Access Scale: Limited Transit, Transit Supportive, Transit Oriented, Transit Rich.

Residential + Mixed Use Place Types

Placetype	Urban Corridor/Center	Downtown	Resort District
			
Description	An intensely urban, highly walkable district or corridor anchored by high-capacity transit with a mix of building forms including mid-rise and high-rise buildings. A robust public realm enables multi-modal access to transit for residents of the district and those in adjacent neighborhoods. It is a vertically mixed-use place comprised of primarily-attached multi-story buildings and high-rises. Likely anchored by a destination that attracts people from across the city and includes a mix of uses that activate the district beyond traditional working hours.	An intensely urban, highly walkable high-rise district featuring attached multi-story buildings, with robust transportation connections providing access to employment from across the PUC. Anchored by a concentration of jobs with supporting retail and services, its proximity to the civic center and concentration of office uses makes the district a regional destination.	The PUC's sole resort district is Waikīkī. An intensely urban, highly walkable district on the makai side of Waikīkī (distinct from Waikīkī's apartment district). It is anchored by a variety of uses that focus on tourism, like hotels, restaurants and commercial frontages. It works as a regional, national and international destination and consists of a variety of high-rise and medium-rise detached buildings. It is a transit-rich district and offers an active public realm attractive beyond traditional working hours.
Character	Vibrant mixed-use corridor or center	The most intense high-rise district that concentrates employment	Vibrant disctrict focused on tourism
Building Form	Mid-rise and high-rise commercial blocks	Mid-rise and high-rise commercial blocks	Attached block-scale buildings
Building Height	~10 to 30 stories with occasional taller buildings at key intersections	~Up to 40 stories	~Up to 40 stories
Transit Access	Transit Oriented	Transit Rich	Transit Rich
Use(s)	Mix of retail and other active uses fronting sidewalks with residential and office above or behind	Mix of office-serving retail and services fronting sidewalks with office above or behind	Resort, with resort-serving retail and services
Examples in PUC	Kapi'olani Boulevard	Downtown	Waikīkī resort district

Specific-Use and Employment District Place Types

Open Space Types

Place Type	Industrial	Flex	Transportation	Military	* Commercial Center	Institutional Areas and Campuses	Major Parks and Open Space	Preservation Area
								
Description	Heavy industrial use areas often separated from other uses or places; uses such as manufacturing, production, repair, and distribution.	Light industrial areas with a mix of uses and building scales that are generally compatible with nearby neighborhoods.	Airports, ports, railyards, and other transportation service uses that require significant space for staging, maintenance, and maneuvering activities.	Areas controlled by the military.	Commercial Centers/regional mall buildings and parking facilities that are anchored by retail and may include other uses.	Schools, hospitals, universities and other institutions, adjunct uses, government facilities, and City-owned recreation facilities.	Areas for outdoor recreation within the PUC, including most parks and recreation facilities.	Protected natural areas such as upper watersheds, beaches, natural and cultural landmarks, ecological areas.
Purpose	Heavy manufacturing, supply and service yards, large infrastructure operations.	Supports light industrial uses that provide employment and needed services for residents and businesses, and may include live-work.	Provides facilities for logistics and operations for connectivity between regions on O'ahu or to off-island destinations.	Military uses and operations, including bases, housing, infrastructure, and other.	Denote existing commercial centers.	Provide spaces and flexibility for important community-serving institutions.	Provide space for active and passive recreation to support health and quality of life.	Protects local ecosystems and cultural resources.
Use(s)	Industrial	Light manufacturing and industrial, research and development, makerspace, flex, and automotive services	Transportation	Military	Continued focus on regional and island-service retail and service uses	Educational and Institutional uses	Recreational uses	Conservation and Recreational uses
Abbreviation	IND	FX	TR	MI	n/a	INT	P-OS	PA

Place Types Guidelines

VALLEY/RIDGE NEIGHBORHOODS

Limit bulky single-family dwellings. Prevent over development of single-family house lots through continued monitoring of certain dwelling elements in proposed projects, including number of bedrooms, wet bars, laundry rooms, bathrooms, lot coverage maximums, tailored to the residential lot dimension.

Limit overdevelopment of nonresidential buildings. Limit the scale and form of non residential uses such as churches, daycare facilities, and private schools. While these uses are generally consistent with the purpose of a residential zone, they tend to be less compatible with surrounding uses as their building scale becomes larger.

Home businesses. Support home businesses that meet Land Use Ordinance requirements and create jobs and opportunities for entrepreneurship.

Short-term rentals. Strictly limit short-term rentals in residential areas.

On-going maintenance and improvement. Encourage property owners to improve (and maintain) their front yards and façades.

Light and air. Continue to require yards and setbacks sufficient for light and air access.

Shade canopy and drainage. Support additional planting of shade canopy trees to create a pleasant ambience for residents, motorists, and pedestrians, and encourage increased permeable surfaces.

Integrate into the natural environment. Strongly encourage building and site design that embraces the natural context of ridge and valley development, accepting natural constraints and ecological conditions, and considering adequate access to public recreation areas.





NEAR-TOWN NEIGHBORHOODS

Limit bulky single-family dwellings. Prevent over development of single-family house lots through continued monitoring of certain dwelling elements in proposed projects, including number of bedrooms, wet bars, laundry rooms, bathrooms, lot coverage maximums, tailored to the residential lot dimension.

Complementary development. Ensure new development projects are compatible in scale and provide adequate transitions to adjacent residential properties.

Limit overdevelopment of nonresidential buildings. Limit the scale and form of nonresidential uses (such as churches, daycare facilities, private schools). While these uses are generally consistent with the purpose of a residential zone, they tend to be less compatible with surrounding uses as their building scale becomes larger.

Additions. For any additions or expansions, encourage varied façades and /or architectural features that reduce the apparent structural bulk. Additions, such as a new bedroom or bathroom, should use complementary building materials and forms.

Additional Dwelling Units and ‘Ohana Units. Promote Accessory Dwelling Units (ADUs) and 'Ohana Units where allowed by zoning and supported by waste water infrastructure.

Short-term rentals. Strictly limit short-term rentals in residential neighborhoods.

Increase permeable surfaces. For renovations and re-developments, require reductions in pavement coverage in front yards and otherwise increase permeable surfaces, and encourage the use of drought-tolerant landscaping.

On-going maintenance and improvement. Encourage property owners to improve and maintain their front yards and façades.

Fencing. Encourage low rock walls, wooden fencing, trellises, landscaping/shrubbery, or other high-quality fencing. Avoid front yard fences made from concrete blocks or chain links.









NEAR TOWN CORRIDOR/CENTER LOW

Commercial focus. In any redevelopment or renovation, maintain the focus on neighborhood retail and services.

Community identity. Take steps to enhance civic pride and activity through design and attractive gathering places.

Orientation and enclosure. Orient new construction towards streets, public spaces, or shared private spaces. Encourage greater street enclosure and reduced street-facing setbacks during redevelopment.

Respect adjacent building scale. Maintain current zoning height limits (typically 2, 3 or occasional 4 story heights).

Civic, institutional, and office use. Support location of office, civic, community, educational, and other public uses in this Place Type.

Context-appropriate transitions. For developments adjacent to residential areas, encourage using landscaping, buffers, building type and form modulations, and other techniques to reduce sharp transitions.

Residential infill. Encourage house-form residential infill (duplex to fourplex, townhouse, courtyard and similar low-rise attached residential types).

Improve façades. Encourage higher transparency for commercial ground floors, limiting the amount of area that may be covered with advertisements or other impediments that reduce visibility. Strongly encourage site-scale public realm improvements and support façades improvements to aging buildings.

NEAR TOWN CORRIDOR/CENTER (MEDIUM)

Commercial use. In redevelopments or renovations, at a minimum, seek to maintain the current amount of retail/commercial square footage.

Mixed-uses. Allow and encourage a complimentary mix of land uses, including residential, to foster walkable neighborhoods.

Business retention. Provide incentives for retaining existing small and/or local businesses, such as exempting the use from the total FAR allowed.

Height minimums. Encourage a minimum height of two stories for new buildings**.**

Quality façades. Encourage improvements to the appearance and quality of shopfronts and signage, and transparency standards. Build out to the sidewalk on corridor corner lots.

Emphasize transitions. Balance the form, design, and character of new low and moderate-intensity development to minimize impacts on neighboring properties.

Adaptive reuse. Encourage the reuse and repurposing of historic buildings, architectural elements, or façades when safe and feasible.





TOWN NEIGHBORHOOD LOW

Encourage "missing middle" housing. Allow house-form multi-unit dwellings in this Place Type. Balance the form, design, and character of missing middle development to minimize impacts on neighboring properties.

Appropriate infill. Allow for context-sensitive infill that acts as a buffer between low-density housing and more intense uses. Use Town Low development as a transition between Near-Town neighborhoods and Near-Town corridors.

Improve design and architecture. Encourage the use of high-quality building materials and architecture that relates to surrounding character. Unify adjacent apartments visually by matching character of other new development.

Ongoing improvement. Encourage property owners to maintain and improve their front yards and façades.

Orientation. Orient new residential construction towards streets, public spaces, or shared private spaces, by placing parking to back or side of the lot.

Public to private transition. Support landscaped entrances and elevation of ground floor residential uses. Reduce gating or "walling off" of residential properties from the street, or soften with landscaping.

Additional Dwelling Units and 'Ohana Units. Promote ADUS and 'Ohana Units where allowed by zoning and supported by waste water infrastructure.

Short-term rentals. Strictly limit short-term rentals in residential areas.





TOWN NEIGHBORHOOD MEDIUM

Midrise podium infill. Support midrise podium development of typically four to six stories. Taller buildings may be permitted per zoning.

Middle-density dwellings. Encourage innovative middle-density dwellings, such as alley-loaded tuck-under townhouses and stacked walk-up townhouses.

Walk-up redevelopment. Support redevelopment of existing walk-up apartments into new walk-ups as feasible. Encourage new apartments to present quality frontages on collector or other primary streets, and contribute to a walkable, transit-friendly environment.

Ensure neighborly building-to-building relationships as redevelopment occurs.

- Encourage shared public space between neighboring developments
- Ensure the use of high-quality building materials and architecture that relates to surrounding character
- Unify adjacent apartments visually by matching character of other new development.

Address poor building-to-street relationships as redevelopment occurs.

- At least one primary entrance should open directly onto the primary street frontage (or an adjoining public space)
- Encourage consistent street walls that frame the street/sidewalk.
- Breaks in the street wall are appropriate for open spaces, pathways, greenways, or other similar spaces.

Public to private transition. Support landscaped entrances and elevation of ground floor residential uses. Work to reduce gating or "walling off" of multifamily residential complexes from the street.

Ongoing improvement. Encourage property owners to maintain and improve their front yards and façades.

Orientation. Orient new residential construction towards streets, public spaces, or shared private spaces, by placing parking to back of the lot.

Some mid- and high-rise towers are physically isolated from other buildings and from the public street, accessible only from the parking garage or across a parking lot. There may be little to unify the buildings visually, and little in terms of shared public space where neighbors can become acquainted. Because of the juxtaposition of buildings of dramatically different scales, transitional neighborhoods lack a consistent character. Steps should be taken during design review to relate adjacent properties, simplify mobility connections, and create a cohesive pedestrian space.







TOWN NEIGHBORHOOD HIGH

Midrise and highrise development. Support development of apartments primarily between six and twelve stories in this Place Type.

Ensure neighborly building-to-building relationships as redevelopment occurs.

- Encourage shared public space between neighboring developments
- Ensure the use of high-quality building materials and architecture that relates to surrounding character
- Unify adjacent apartments visually by matching character of other new development.

Improve building-to-street relationships as redevelopment occurs.

- At least one primary entrance should open directly onto the primary street frontage (or an adjoining public space)
- Encourage consistent street walls that frame the street/sidewalk.
- Breaks in the street wall are appropriate for open spaces, pathways, greenways, or other similar spaces.
- Shade sidewalks and enhance pedestrian comfort.

Flexibility for smaller lot sizes. Support flexibility in standards for joint-development parcels, such as regarding minimum lot sizes and dimensions for Apartment Mixed Use (AMX) and Business Mixed Use (BMX) Districts.

Ongoing improvement. Encourage property owners to maintain and improve their front yards and façades.

Minimum on-site open space. Require a minimum amount of common and private open space in higher density residential and mixed-use projects. Carefully and deliberately integrate these spaces into project design and require maintenance by the property management organization.

Orientation and enclosure. Orient new construction towards streets, public spaces, or shared private spaces. Encourage greater street enclosure and reduced street-facing setbacks during redevelopment.

Support Crime Prevention Through Environmental Design (CPTED). Increase natural surveillance by encouraging pedestrian activity and clear sightlines; use walkways, signage, paving, and landscaping to create natural access control and distinguish between public and private areas.

TOWN CORRIDOR/CENTER

Moderate intensification. Allow for moderate intensification in this Place Type. The character of the new development may be significantly more urban or intense than surrounding properties.

Ensure pedestrian-oriented design. Maximum length of individual new buildings or building masses along public street frontage should be limited without major massing breaks. Utilitarian building elements such as service yards, parking lots, or utilities should be located on side streets or alleys/rear streets. Driveways and parking facilities should be visually screened, hidden, or otherwise reduced in impact.

Tower height. Design towers to add visual interest. Ensure towers have distinct bottom, middles, and tops.

Ground floor design. Façades should be adjacent to sidewalks with maximum ground-floor transparency, tall ceiling to floor heights, frequent entrances, appropriate structural bay widths and depths, and loading access to support retail uses.

Active streetscape. Street furniture and amenities should be provided. Consider sidewalk variances for café dining and similar uses that activate the public realm along primary streets. Frontages facing service streets, alleys, rear lot lines, or private open space are not typically expected to have active uses.

Ground floor uses. Engaging ground-floor uses should be located along a notable portion of the building frontage. These include but are not limited to neighborhood commercial, residential and office amenity spaces (such as exercise, food service, and customer service) and lobbies, and civic or community uses. Discourage ground floor residential on the primary corridor, unless provided with significant elevation (4+ feet) and setback (20+ feet). Modestly elevated ground floor residential may be appropriate on residential side streets.

Transitions. Use landscaping, setbacks, alleys, and building massing to reduce impacts of new higher-intensity development.

Minimum on-site open space. Provide common and private open space in higher density residential and mixed-use projects (70 to 100 sf/unit). Deliberately integrate these spaces into project design and require maintenance by the property management organization.

Height minimums. Encourage a minimum height of three stories on new buildings.





URBAN NEIGHBORHOOD

High-rise development. Support apartment buildings generally up to 24 stories for this Place Type.

Residential focus. Residential uses are the primary use for any development or redevelopment. Conditionally allow commercial spaces at intersections or intermittently, as appropriate.

Focus on ground-level comfort. Building entrances should be connected efficiently and obviously to the sidewalk (including through plazas and open spaces). Provide shade, wayfinding, art, and other elements to enhance the pedestrian experience.

Active streetscape. Maximum ground-floor façade transparency is preferred. Support ground floor unit frontages or other community uses/common areas on the ground floor.

Quality façades. Encourage high-quality materials and discourage flush windows. Discourage unshielded exterior A/C units for individual units.

Ensure consistent street walls. Breaks in the street wall are appropriate for open spaces, pathways, greenways, or other similar spaces.

Minimum on-site open space. Require a minimum amount of common and private open space in higher density residential and mixed-use projects. Carefully and deliberately integrate private and common open space into project design and require maintenance by the property management organization.

Engage the corners. Encourage building and site design that enhance corners of major streets. Parking should not be located at key corners, while building entrances should be located close to the corner. Encourage façades at corners to include unique design and special materials, and allow additional height for architectural features. Corner open spaces should include landmarks or specimen trees.

Support Crime Prevention through Environmental Design (CPTED). Encourage projects to: increase natural surveillance by encouraging pedestrian activity and clear sightlines; use walkways, signage, paving, lighting, and landscaping to clearly distinguish between public and private areas.



URBAN CORRIDOR/CENTER

High-intensity mixed-use. The highest intensity mixed-use character in the PUC, outside of Downtown, is directed to these places. Supports the ongoing transformation of key urban TOD corridors.

Community improvements. Require development improvements to the surrounding public realm, open space, and mobility in these areas.

Tower height. Employ towers as modern landmarks through careful design, massing and siting. Ensure towers have distinct bottom, middles, and tops.

Preserve public views. Projects in high-intensity areas should employ view studies, tower spacing, setbacks, and orientation to preserve significant public views.

Ground floor use. Some amount of public commercial use (retail, restaurant/dining, entertainment, medical/small office) is expected of residential projects. Façades with high window volumes (shopfronts, forecourts, galleries) are encouraged.

On-site public open space. Encourage publicly accessible open spaces (plazas, courtyards, pathways, greenways) in higher density residential and mixed-use projects. Carefully and deliberately integrate these spaces into project design.

Ensure pedestrian-oriented design. Maximum length of individual new buildings or building masses along public street frontage should be limited without major massing breaks. Utilitarian building elements should be located on side streets or alleys/rear streets. Driveways should be screened, hidden, or otherwise reduced in impact.

High-quality structured parking. Parking should be located in structured facilities or screened with decorative screening green walls/landscaping, murals, and/or retail façades.







DOWNTOWN DISTRICT

Regional visual landmark. Allow the tallest landmark buildings in the Downtown, with the highest along Alakea Street, Bishop Street, and Fort Street Mall.

Employment core and transitional uses. Encourage new office development, as well as mixed office/commercial or residential development (on separate floors) and office conversions as feasible, safe, and appropriate.

View corridor protection. Ensure high-rise tower massing that preserves the maximum amount of mauka-makai viewsheds.

Provide improved facilities for the public. Work with development projects and existing businesses to provide safe and clean public restrooms and well-maintained public gathering places.

Highly active ground floors. Recommend that ground floor frontages and façades be treated with detail, interest, and activity. Provide 360 architecture & urban design, eliminating blank walls.

Screen parking. Use false façades (windows, balconies, and other building façade elements) to hide structured parking podiums.



RESORT DISTRICT

Promote SLR adaptation through redevelopment. Provide flexibility for hotel/resort redevelopment regarding sea level rise adaptation designs (parking requirements, floor to ceiling heights, ground floor design and street setbacks). Enforce shoreline setbacks and public access requirements.

Highly active, detailed frontages. Ensure larger internal spaces or parking areas are wrapped by storefronts, stand-alone businesses or other pedestrian-oriented features. Ensure high-quality materials and details on buildings facing the street, especially on the most visible first few floors.

Pedestrian friendly streetscape. Design hotel frontages and streetscapes to accommodate all modes of transportation, with priority for higher volumes of pedestrians.

Indoor-outdoor spaces. Expand plazas, shared spaces, and outdoor amenities, particularly mixed indoor/outdoor buildings and courtyards. Improve line of sight from the sidewalk into internal public spaces.

Parking impact on the public realm. Diminish the impact of parking and drop off/pick up on the public realm by reducing the width of curb cuts and driveways, and wrapping or screening parking garages.



FLEX (R&D) DISTRICT

Residential and industrial mix. Maintain small-scale multifamily uses amongst non-noxious light industrial uses.

Loft development. Support affordable residential loft development in lower-intensity flex areas to maintain living spaces for artists, fabricators, and similar creative workforce housing.

Live/work housing. Protect and allow live/work residential spaces that help meet the changing needs of work and work from home demand.

Emerging industries. Support a diverse mix of light industrial, information, makerspace, boutique food/wine/ beer processing, local food, and technology uses in order to provide jobs and tax revenues for the PUC by allowing and supporting emerging economic uses.



INDUSTRIAL DISTRICT

Employee amenities. Encourage the development of amenity uses and spaces in industrial areas, especially for employee gathering and socializing. Provide shade in plazas, pathways, and parking lots to provide heat relief.

Environmental hazard cleanup. Monitor potential environmental contamination (soil, waste, water, air) and ensure compliance with federal cleanup requirements.

Connectivity. Encourage connectivity improvements through very large properties.

Manage traffic impacts. Mitigate excessive traffic impacts on neighboring properties that impact their ability to conduct normal industrial business operations.

Transportation conditions. Encourage industrial re-developments to support repaving and repairing of adjacent streets and sidewalks.



Goal PL-1: Enhance the PUC's Unique Places.

Policy PL-1.1: Encourage development projects and a public realm that reflects Hawai'i's culture and arts.

Buildings and public spaces that incorporate elements of Native Hawaiian and local island culture help to reinforce community identity. In addition to beautifying the public realm, art enriches the physical environment by engaging residents and reinforcing a sense of place. When created in partnership with the community, public art and cultural uses can celebrate the community's heritages and contribute to meaningful connections between residents and the PUC's neighborhoods. Key actions include continued support for existing art-in-public-spaces programs and identifying new opportunities for arts and cultural spaces and involvement in planning initiatives.

Priority Actions:

Public Places. Pursue a program for Art in Public/Civic Spaces such as parks, medians, roundabouts, beaches, and especially outdoor gathering spaces. Create incentives for developers to incorporate public art around new rail stations. Public art in Special Districts should be consistent with applicable guidelines. Continue to support the Art in City Buildings Program through increased coordination.

Timeline



Partners:

- DPP
- MOCA
- DPR
- DOE
- HCDA
- HART/DTS

Architectural Details. Encourage expressions of art and culture in architectural details, especially for large buildings.



Partners:

- public and private projects

Event space. Create new event space for public use as compatible with other land use provisions.



Partners:

- public and private projects

Other Actions:

- *Identify opportunities to incentivize public art and support cultural activities in private development, such as via the TOD discretionary permitting process.*
- *Involve local artists whenever possible in area planning efforts to encourage innovative outreach strategies and promote consideration of public art and space for cultural and arts activities during the design of developments and in special area plans.*
- *Support collective painting of murals and installation of other public art to activate public spaces, for day and night.*



The Hawai'i Convention Center was designed with roof "sails" to maximize natural ventilation from the tradewinds, and an indoor-outdoor aesthetic.



A mural depicting the endangered i'iwi bird.

Goal PL-1: Enhance the PUC's Unique Places.

Policy PL-1.2: Improve the sense of entry at key gateways in the PUC by aligning public improvements and private development.

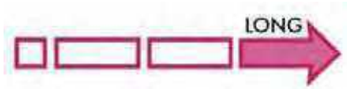
Providing visual interest, gateways and markers can support placemaking efforts within the PUC. Entryways and special location markers incorporating artistic and cultural elements provide opportunities to reflect upon the community's past, present, and future.

Priority Actions:

Key PUC Gateway Improvements. Select meaningful points entering into and within the PUC to be enhanced with unique design features, such as monuments, gateway markers, art, or wayfinding improvements. These may include, but are not limited to:

- Arriving and Departing from the Daniel K. Inouye International Airport
- Debarking from the cruise terminal at Pier 2 to Downtown
- Waikīkī on Ala Moana Blvd and Kalākaua Ave
- Chinatown and Downtown historic areas
- Civic Center and Arts District
- Key waterfront areas
- As the Kalaniana'ole Highway becomes H1
- Rail station areas
- Other key commercial corridors

Timeline



Partners:

- DPP
- DDC
- DFM
- DTS
- DPR
- BIDs
- Community Associations

SUGGESTED FEATURES FOR PUBLIC ART AND COMMUNITY GATEWAYS:

- **Commission and support local community artists.**
- **Coordinate with other area or streetscape improvements for coherent character.**
- **Interactive, such as pieces that invite user participation or provide sensory stimulation.**
- **Interpretive, to deepen understanding and appreciation of the area's history/cultural assets.**
- **Functional art that doubles as seating, wayfinding, or lighting.**



Columns at each rail station depict mo'olelo of the area. (Source: HART)

Goal PL-1: Enhance the PUC's Unique Places.

Policy PL-1.3: Protect and care for historical structures in the PUC.

Historic buildings and places help to tell the story of the PUC. Protecting and enabling these community resources to thrive helps keeps that story alive for future generations. Strategies and policies can help protect the integrity of historic places by encouraging rehabilitation where necessary and accommodating new uses in historic structures. Special Area design guidelines help preserve the integrity of historic places while they continue to grow and evolve. For example, reusing elements of Honolulu's historic architecture in modern building renovations and rebuilds (such as signage or façade details) supports a sense of place specific to the locale.

Priority Actions

Transit Oriented Development Areas. Actively integrate transit-oriented development with historic preservation in the vicinity of rail stations.

Timeline



Partners:

- DPP
- HART
- OHPC
- OPSD

Expanded Historic Preservation. Work with the O'ahu Historic Preservation Commission, the State Historic Preservation Division, and historical preservation non-profits to identify additional historic resources in future plan areas and existing historic districts.

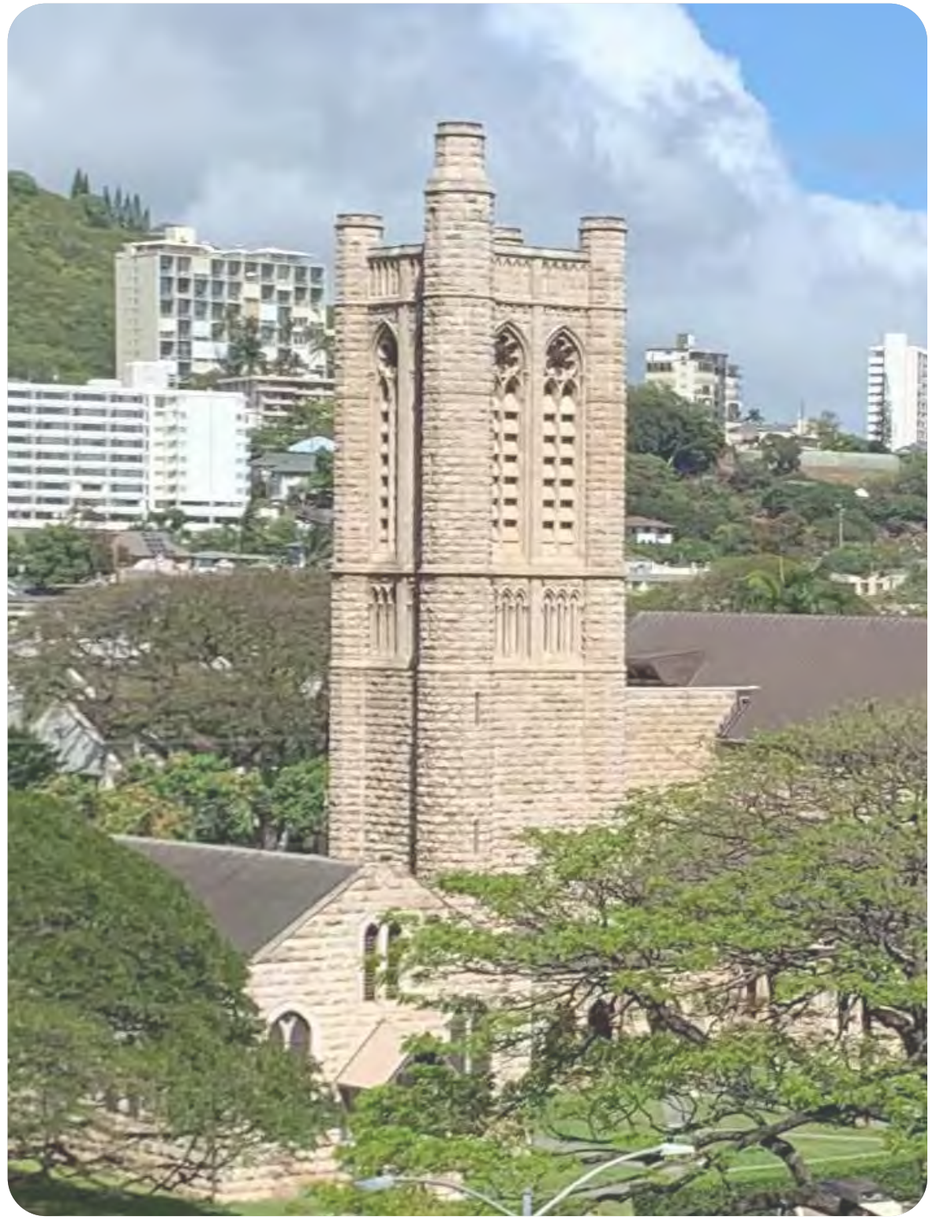


Partners:

- DPP
- OHPC
- SHPD

Other Actions:

- *Track updates to the State Inventory of Historic Places on annual basis and notate properties in GIS.*
- *Expand existing density transfer programs to provide incentives for property owners to preserve, restore, and adaptively reuse historic/character buildings in transit areas.*
- *Support HART with implementation of its stipulated historic preservation preservation-related programs.*



The Cathedral Church of Saint Andrew broke ground in 1867.

Goal PL-1: Enhance the PUC's Unique Places.

Policy PL-1.4: Preserve cultural and archaeologically significant resources in the PUC.

Physical and cultural landmarks provide provide historical and environmental continuity and context within the PUC. Policies should help protect and enhance these elements in partnership with community stewardship groups.

Priority Actions:

Regulatory Protections. Enforce preservation and zoning restrictions in Special Districts and consider visual impacts from adjacent/nearby development on cultural and other significant PUC resources. Continue to evaluate the need for additional Special Districts.

Timeline

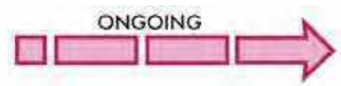


Partners:

- DPP
- OHPC
- SHPD

Hawaiian Cultural Resources. Protect Native Hawaiian cultural and archaeological resources in the PUC through the environmental quality control process, state guidance, and working with community groups.

Timeline



Partners:

- OHPC
- DPP
- SHPD
- OEQC
- Community Partners



Thomas Square Park is on the National Register of Historic Places.



The Duke Kahanamoku statue is a Waikīkī landmark (Source: MOCA)

Goal PL-1: Enhance the PUC's Unique Places.

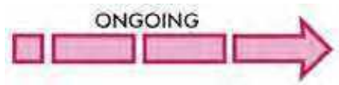
Policy PL-1.5: Continue to preserve significant panoramic public views of natural landmarks through Special District provisions.

Natural views of open space, water, and significant landforms are important components of the PUC's environment. View corridors providing vistas of the surrounding natural areas help to reinforce the delicate relationship that exists between urban communities and an island of finite resources. Strategic control of building heights and massing helps to preserve views and the integrity of Honolulu's skyline, while street design improvements provide an opportunity to frame views along linear view corridors.

Priority Actions:

Significant Views. Follow Special Design District height guidance and the zoning map to preserve significant views of natural landmarks from public spaces. Continue to require view studies and design alterations to ensure public views preservation.

Timeline



Partners:

- DPP

Views in TOD Districts. Integrate significant public views protection into TOD Special District rules.

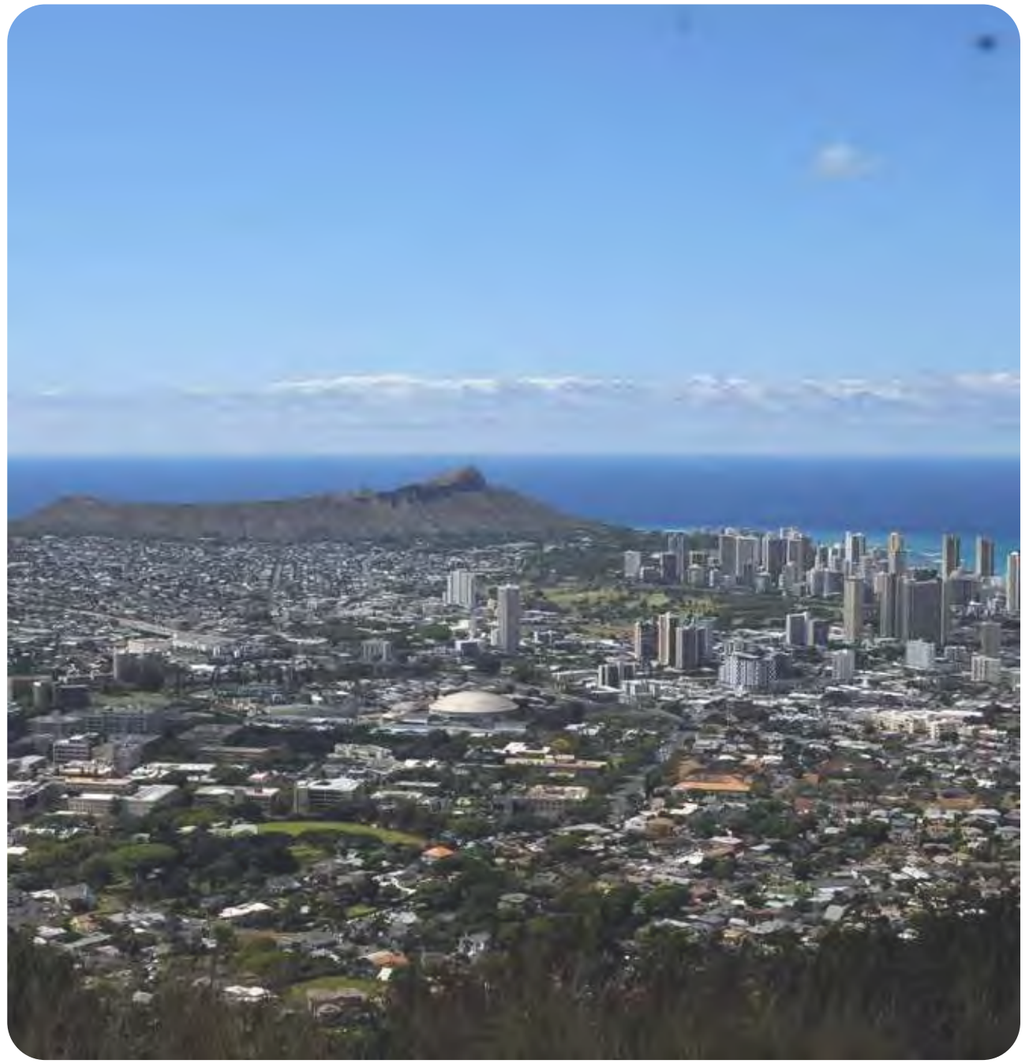


Higher Building Policy. Refine the tower design review process, standards and guidelines. Review high-rise buildings (over 150') for avoid interruption of important public views. Encourage unique and exemplary design to promote an attractive skyline.



Other Actions:

- *Discourage structures built high on slopes that are visually obtrusive, especially when they interrupt the silhouette of a ridgeline.*



Tools that preserve views of natural landmarks and mauka-makai view corridors include special districts, height limits, and the application of PUC DP policies in design review processes.

Goal PL-1: Enhance the PUC's Unique Places.

Policy PL-1.6: Enhance key mauka-makai view corridors.

Attention should be focused on enhancing significant mauka-makai view corridors during streetscape improvements such as widened sidewalks, and encouraging the undergrounding of utilities whenever feasible.

Priority Actions:

Reduce Public Views Obstruction. Review modification of building height and/or envelope on a case-by-case basis if a proposed building would degrade a mapped view corridor or identified significant public view.

Streetscape for Views Protection. Consider mapped PUC DP public views when making streetscape changes and enhancements. Consider street trees that are compatible with views retention (whose mature canopies will not substantially block significant views) when selecting new trees.

Timeline

ONGOING

Partners:

- DPP

Timeline

ONGOING

Partners:

- DPP
- DFM
- DDC
- DTS
- DPR

Other Actions:

- *Encourage undergrounding of utilities on major view corridors.*

KEY MAUKA-MAKAI VIEW CORRIDORS:

Ke'eaumoku Street (mauka)
Pensacola Street (mauka)
Bishop Street (mauka)
Cooke Street (mauka)
Ward Avenue (mauka-makai)
Pi'ikoi Street (mauka-makai)
Kamake'e Street (mauka-makai)
Kalākaua Avenue (mauka)
Liliha Avenue (mauka)
Ka'onohi Street (makai)
McCully Street (mauka)
River Street (mauka-makai)
South Street (mauka)



Mauka views create a sense of spaciousness in urban neighborhoods.



A mauka view corridor along River Street.

Goal PL-2: Promote Excellent Building and Site Design that Responds to Honolulu's Climate and Environment.

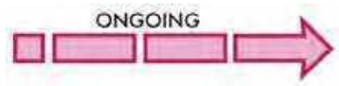
Policy PL-2.1: Encourage sustainable building and site design practices that respond to the tropical climate.

Building and public realm design has historically been guided by local climate and the availability of different building materials. Today, air conditioning technology and globalized supply chains have removed many constraints for building any style of building, in any setting. Nonetheless, taking a page from design that responds to the PUC's particular climate and context - for example, providing roof overhangs for shading, siting structures to take advantage of prevailing breezes, including indoor/outdoor environments for year-round use, and providing cooling landscaping areas - creates benefits such as a distinctive aesthetic quality, greater user comfort, reduced energy usage/embodied energy, and, importantly, improved connection and response to environmental conditions. Honolulu's relatively mild climate makes these design benefits easy to attain, and environmental performance can also be supported through building design requirements or incentives that promote efficient buildings.

Priority Actions:

Preferred Checklists for New Development. Allow use of green rating systems or specialized checklists for new residential and commercial buildings when feasible and desired, and continue to refine efficiency standards for new construction. Include adaptive reuse to residential.

Timeline



Partners:

- CCSR
- DPP

Utilizing Tropical-Zone Building Code. Continue updating the building code to encourage or allow passive design features appropriate for the PUC's tropical climate.

Timeline



Partners:

- CCSR
- DPP



The UH Culinary Institute is positioned to optimize daylighting. (Source: UH)

Other Actions:

- *Establish and/or identify tax credits, abatements, incentives, or other funding sources to encourage preferred green building patterns and practices.*
- *Encourage inclusion of indoor-outdoor spaces in developments to take advantage of Honolulu's tropical climate and help to activate the public realm.*
- *Encourage architecture that incorporates elements to provide shade and protection from rain for surrounding sidewalks and public spaces in areas where buildings abut the sidewalk.*

Indoor-outdoor living is an important quality of life component in the PUC. Thoughtful design approaches can make outdoor spaces comfortable for active and passive activity in a variety of weather conditions and seasons. While Honolulu's island climate is generally mild, rain, heat, and humidity can sometimes discourage outdoor activity and active transportation choices such as walking and riding a bike. Shaded and covered sidewalks and walkways, and buildings and landscaping designed to capture breezes, can help to minimize the impacts of these and other weather conditions.

Goal PL-2: Promote Excellent Building and Site Design that Responds to Honolulu's Climate and Environment.

Policy PL-2.2: Integrate greenery and green infrastructure into new developments, especially large sites.

Apart from beautification and additional space for recreation or repose, making room for greenery and green infrastructure in urban developments serves a number of other purposes too. From helping to improve local micro-climates, to mimicking natural functions like drainage, to improving local air quality, green space should be considered a flexible building block for great public spaces.

Priority Actions:

Green Infrastructure Design Principles. Design outdoor spaces to serve dual purposes as attractive amenities with funtional elements. Incorporate green infrastructure design principles in the design of stormwater management systems to the extent feasible. Seek on-site solutions that leverage natural systems and processes.

Timeline

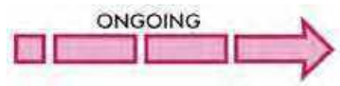


Partners:

- DFM
- DTS

LID in the Right of Way. Incorporate green streets design principles, including bioswales, planter boxes and rain gardens into street redesign projects to the extent feasible or as needed.

Timeline



Partners:

- DFM
- DTS
- BWS

Other Actions:

- *Study the feasibility of creating an ecological benefits program to encourage urban development that supports and creates habitat for native flora and fauna.*
- *Incentivize the incorporation of biophilic design elements into new/renovated buildings that are visible from the sidewalk including features inspired by nature, green walls, and courtyards.*



The parking structure of the Frank Fasi municipal building is domed with a grassy park area.

Goal PL-2: Promote Excellent Building and Site Design that Responds to Honolulu's Climate and Environment.

Policy PL-2.3: Actively pursue Honolulu's tree canopy goals.

Trees are critical urban infrastructure and necessary for the health of our communities. However, many of the PUC's mixed-density neighborhoods have an insufficient amount of tree canopy cover and shade which, combined with a high proportion of asphalt, generates excess heat, creating uncomfortable conditions. The City's goal is to increase the tree canopy across O'ahu's communities to 35 percent by 2035. This will be accomplished through a combination of policy and planning, people and implementation, and practice and maintenance.



Street trees cool Honolulu's Downtown.

Priority Actions:

Street Tree Planting Program/Master Plan. Support the 2019 Urban Tree Plan by identifying sustainable funding for street tree planting and maintenance, and identifying priority areas for street tree planting to achieve the 100,000 Tree Initiative.

Timeline



Partners:

- DPR
- CCSR
- DFM
- DDC
- DTS
- DPP

Development Review for Urban Trees. Establish tree canopy requirements for parking lots, commercial, residential, and institutional uses. Include tree, landscaping, and vegetation buffering requirements in the final site plan approval checklist. Require a tree protection management plan prior to preliminary plan approval. Follow best practices to retain trees in new developments to slow loss of canopy cover.



Partners:

- DPR
- CCSR
- DPP

Partnerships for Trees. Pursue strong non-profit partnerships to support planting and early tree care, and outreach and education to the community on the importance of trees to community health.



Partners:

- DPR
- CCSR
- DPP

Other Actions:

- *Continue working to improve the DPR/CCSR Urban Forest platform and facilitate City data collection. Track trees planted and maintained and/or removed to ensure sound management of City trees.*
- *Update the Urban Forestry Management Plan.*
- *Regularly update the Urban Tree Canopy Assessment (on a five-year cycle).*
- *Continue to support and improve the effectiveness of the City's Exceptional Tree Program.*

Goal PL-3: Support Vibrant Commercial/Mixed-Use Corridors and Neighborhood Centers in the PUC.

Policy PL-3.1: Activate “main street” corridors with pedestrian amenities, frequent gathering places, and expressions of community identity.

Physical improvements can help to activate streets and provide spaces for community activity and gatherings that occur on a regular basis. Appropriate standards can promote this compatibility between various uses and encourage a flexible and active public realm. Through policies that respond to the specific needs of distinct corridors and activity centers within the PUC, this plan supports the wide variety of places necessary for a thriving economy and a high quality of life for residents, workers, and visitors.

Priority Actions:

Engage with Community Groups in Area/Corridor Planning. Work closely with community-based groups in area planning efforts to develop clear strategies to activate and program underused civic spaces, underutilized corridors, and other public gathering places.

Active Space Requirements. Create requirements along Near-Town and Town corridors for active, flexibly-designed ground floors that support retail, commercial, live/work, or other active uses that sustain a high-quality pedestrian experience.

Timeline



Partners:

- DPP
- DES
- DPR



Partners:

- DPP

Other Actions:

- *Prioritize under-resourced areas for Public Realm Improvement Plans/Complete Streets efforts (publicly funded infrastructure upgrades for utilities, streetscapes, and roadways).*
- *Identify catalytic urban green space opportunities, including linear and pocket parks, and permit/promote temporary open spaces and plazas.*
- *Regularly assess infrastructure conditions (sidewalk and roadways) in key PUC corridors.*
- *Support the formation of BIDs (Business Improvement Districts), and support other forms of neighborhood stewardship.*



A "parklet" celebrates the Kalihi neighborhood.



Numerous street fairs, festivals, parades, and community gatherings take place in the PUC each year.

Goal PL-3: Support Vibrant Commercial/Mixed-Use Corridors and Neighborhood Centers in the PUC.

Policy PL-3.2: Support an attractive and pedestrian-friendly public realm along well-used PUC corridors.

Urban design and connectivity impact more than just the relative convenience of getting around the PUC. Policies that promote walkability and vibrant streetscapes that support mixed-use places, locating residences, offices, shops, restaurants, civic uses, and transit near one another, make walking the short distance between destinations more convenient than driving. Places that provide an inviting public realm can support active lifestyles for the people who live and work there and reduce the need for short car trips.

Priority Actions:

Updated Corridor Standards. Adopt corridor build-to standards that are appropriate for context and intended form, including:

- Review standards for required yards.
- Increase the allowable eave projection into required setbacks.
- Continue to reduce minimum lot sizes and dimensions for AMX and BMX Districts.
- Encourage buildings to be oriented to public sidewalks and actively engage the street and adjust minimum and maximum setbacks.
- Encourage public outdoor uses in mixed-use developments.

Timeline



Partners:

- DPP

Improvements by Development Projects. Encourage (and/or require) projects to incorporate design elements, such as street trees, street furniture, appropriate walkway widths and building orientation, etc.



Partners:

- DPP
- DTS
- DDC
- DPR
- CCSR

Coordinated Improvements. Continue to leverage needed street and infrastructure construction or right-of-way redesign projects across agencies to improve the public realm (Complete Streets).



Partners:

- DPP
- DTS
- DDC



Pedestrian improvements enhance safety and support the retail environment.

Other Actions:

- *Prioritize collision hot spots for Complete Streets improvements, such as bulbouts, medians, signal changes, or similar.*
- *Establish coordinated bicycle/pedestrian improvements along high-frequency TheBus corridors that connect to rail.*
- *Encourage additional outdoor, curbside, restaurant and commercial seating where feasible and practical.*

Goal PL-3: Support Vibrant Commercial/Mixed-Use Corridors and Neighborhood Centers in the PUC.

Policy PL-3.3: Ensure pedestrian-oriented design in all corridors and centers, especially in Town Corridor, Urban Corridor, Downtown, and Resort areas.

A combination of infrastructure improvements and amenities can create a safer and more comfortable walking environment. Solutions should be context-sensitive and tailored to different areas within the PUC. Creating pedestrian-friendly mixed-use places allows nearby residents to benefit from services and amenities within walking distance while also minimizing impacts on local traffic congestion from short car trips. Continuing to expand public realm improvements and multimodal improvements such as Complete Streets projects, bikeway networks, and bus priority projects along key mixed-use corridors and centers will promote walking and transit ridership and improve access to daily services throughout the PUC.

Priority Actions:

Additional Frontage Design Standards. Where they do not currently exist, implement design standards or guidelines for commercial and mixed-use zones to ensure a high-quality public realm along most street-facing façade for new construction and renovations, such as:

- Elevating ground-floor residential space a minimum distance above the sidewalk level to provide privacy and ensure usable residential spaces.
- Encourage ground-floor residential uses to have façade treatments to engage the pedestrian environment
- Limit the maximum length of individual new buildings or building masses along public street frontage to create human-scaled buildings with access to fresh air and daylight.
- Locating utilitarian building elements such as service yards, parking lots, or utilities on side streets or alleys/rear streets or within screened mechanical rooms.
- Limiting the number and width of new garage entries and driveway curb cuts crossing the sidewalk to encourage a comfortable pedestrian environment.
- Requiring that parking and vehicle areas be located behind or under buildings.

Timeline



Partners:

- DPP

Prioritization of Capital Improvements. Review and revise scoring criteria for capital improvement funding to elevate projects that support the vision of a walkable mixed-use environment.



Partners:

- DPP
- DDC
- DTS

Other Actions:

- *Determine the feasibility of requiring parking and trip demand management strategies to minimize need for parking in more intense and urban place types.*
- *Incorporate pedestrian-scale street and sidewalk lighting in all major projects located in Town, Urban, Downtown, and Resort place types.*
- *Provide funding and coordination for a frontage improvement program for key corridors.*

KEY CORRIDORS

Buildings oriented to the pedestrian realm. **Building façades should be parallel to the right-of-way and should open directly onto the sidewalk or onto a pedestrian walkway.**

Transparency for active uses. **Buildings with active uses should have a high degree of façades transparency with large windows and/or glass doors. Long blank walls should be avoided along ground-floor frontages.**

Articulated building massing and façades. **Buildings should provide varied front yard depths within a narrow range; recessed or otherwise articulated entries; a variety of colors, materials and/or textures; varied roof forms; and coherent building fenestration.**

Employ distinct entries for residential uses. **Façades of residential uses should incorporate porches, lanais, porticoes, bay windows, and/or other architectural features that provide a sense of entryway and visual interest from the public space.**

Goal PL-3: Support Vibrant Commercial/Mixed-Use Corridors and Neighborhood Centers in the PUC.

Policy PL-3.4: Improve multimodal connections and pedestrian pathways within and between the PUC's mixed-use corridors, town neighborhoods, parks, and public institutions.

In order to provide mobility options for residents and visitors in the PUC, this plan provides policy guidance to promote a broad range of place types where walkability is prioritized. Areas with small block lengths and frequent intersections provide more options for pedestrian routes and minimize the distance that pedestrians must walk to move through an area. Places with these characteristics are considered more walkable than places with long block lengths and widely-spaced intersections. Dead-end streets, cul-de-sacs, and looping streets diminish an area's walkability by severing connections to the wider street grid, while through-streets tend to increase walkability with greater route options. New developments can help to support better connectivity between existing places by attending to connections to surrounding sites.

Priority Actions:

Comprehensive Wayfinding. Continue to develop comprehensive wayfinding signage scaled for a variety of users including people walking, riding bikes and driving.

Enhanced Pedestrian Connections to Transit. Pursue strategies such as:

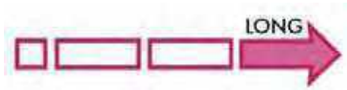
- Continue to invest in pedestrian facilities at urban TOD stations.
- Support street calming on secondary and service streets within transit-oriented areas.
- Acquire easements for pedestrian connections in rail station areas and bus transit corridors with poor existing connectivity.
- Develop overhead pedestrian walkways at all rail stations where traffic calming or road diets are not feasible.
- Provide sidewalk approaches to all bus stops in the PUC.

Linear Parks as Connectors. Seek out new locations for linear parks (such as the Diamond Head/Fort Ruger Pathway); potential locations include: Punchbowl, Mānoa Stream, Waimano Home Road, and within the redeveloped Pearl Country Club Golf Course). Prioritize multi-modal access when building/acquiring new parks or upgrading existing parks.

Timeline

Partners:

- DTS
- DPP



Partners:

- DTS
- DDC
- DPP
- HART



Partners:

- DPR
- DPP
- DTS
- DDC
- DFM



Traffic-calming improvements along North King Street (Source: Ulupono Initiative)

Other Actions:

- *Identify areas with high volumes of pedestrian traffic to prioritize streetscape and safety improvements. This includes Safe Routes to School projects and improved accessibility to other public places such as libraries, hospitals, parks, and community centers.*
- *Introduce standards or guidelines for additional connections through superblocks when redevelopment on those blocks occurs (within Town, Urban, Downtown and Resort Place Types).*

Goal PL-3: Support Vibrant Commercial/Mixed-Use Corridors and Neighborhood Centers in the PUC.

Policy GD-3.5: Conduct focused corridor and area planning to guide improvements.

The PUC contains corridors and neighborhoods that may have lacked significant investment or development in recent years. Often, the building blocks for improved mixed-use character are present, but need reinforcing and refreshing. Underbuilt properties along corridors and centers farther from rail that fall outside of projected sea level rise impacts are likely to attract development interest in the future. In order to support placemaking alongside redevelopment activity, the City can provide needed planning for improvement and enhancement. Neighborhood or area planning tools can provide specific future guidance for places expected to experience varying levels of change and beautification.

Priority Actions:

Area Planning. Depending on level of interest/ engagement by the community and the pace/amount of future growth, lead future Special Area Plans to manage corridor growth (especially for Near-Town Corridors):

- Engage with active local planning organizations
- In any future planning effort, seek to improve the built environment near main streets that intersect with H-1
- Develop design guidelines and implement public realm improvements. (See Focus Areas Chapter for more information).

Timeline



Partners:

- DPP
- City Council
- Neighborhood Boards



Areas experiencing more growth can benefit from Special Area Plans.

Significant Public Views

Corridor Views - Preserve by employing appropriate landscaping and tower setbacks for key streets:

A. Ke'eaumoku mauka & makai
B. Pensacola Street mauka
C. from KCC (Kilauea Avenue) both ways
D. Bishop STreet mauka
E. Cooke Street mauka
F. Ward Avenue mauka & makai
G. Pi'ikoi Street mauka & makai
H. Kamakee Street mauka
I. Kalākaua Avenue makai
J. University Avenue makai
K. Liliha Street mauka & makai
L. Ka'ahumanu Street makai
M. 'Aiea Heights Drive makai
N. Kaonohi Street makai

Panoramic Views: Preserve through height limits, bulk/ envelope restrictions, dimensional standards

0. from Kapi'olani Community College toward Waikīkī
1. from Ala Wai Canal Promenade toward Ko'olau Range
2. from H1 / Liliha toward Punchbowl
3. from Kaka'ako Waterfront Park toward Ko'olau Range
4. from Fort DeRussy toward Ko'olau Range
5. from Punchbowl Lookout toward Diamond Head
6. from Diamond Head rest stop to Tantalus / Punchbowl
7. from Magic Island to Diamond Head
8. from Ke'ehi Lagoon Park toward Punchbowl
9. from H1 toward Ke'ehi / Mapunapuna
10. from Pearl Harbor Visitor Center toward Wai'anae Range
11. from Magic Island toward Wai'anae Range
12. from Sand Island to Punchbowl
13. from Tantalus to Diamond Head
14. from Kaheka Street toward Ko'olau Range
15. from Ala Moana Regional Park toward Ko'olau Range
16. from future Aloha Stadium (Hālawa)
17. from Waimano Home Road toward Wai'anae Range
18. from Punchbowl Street toward Punchbowl
19. from Fort Street Mall toward Aloha Tower
20. from Alakea Street toward Punchbowl
21. from Maunalani Community Park toward Diamond Head and Maunalua Bay
22. from Kāhala Community Park toward Diamond Head

Fig. 2.4: Significant Public Views, West

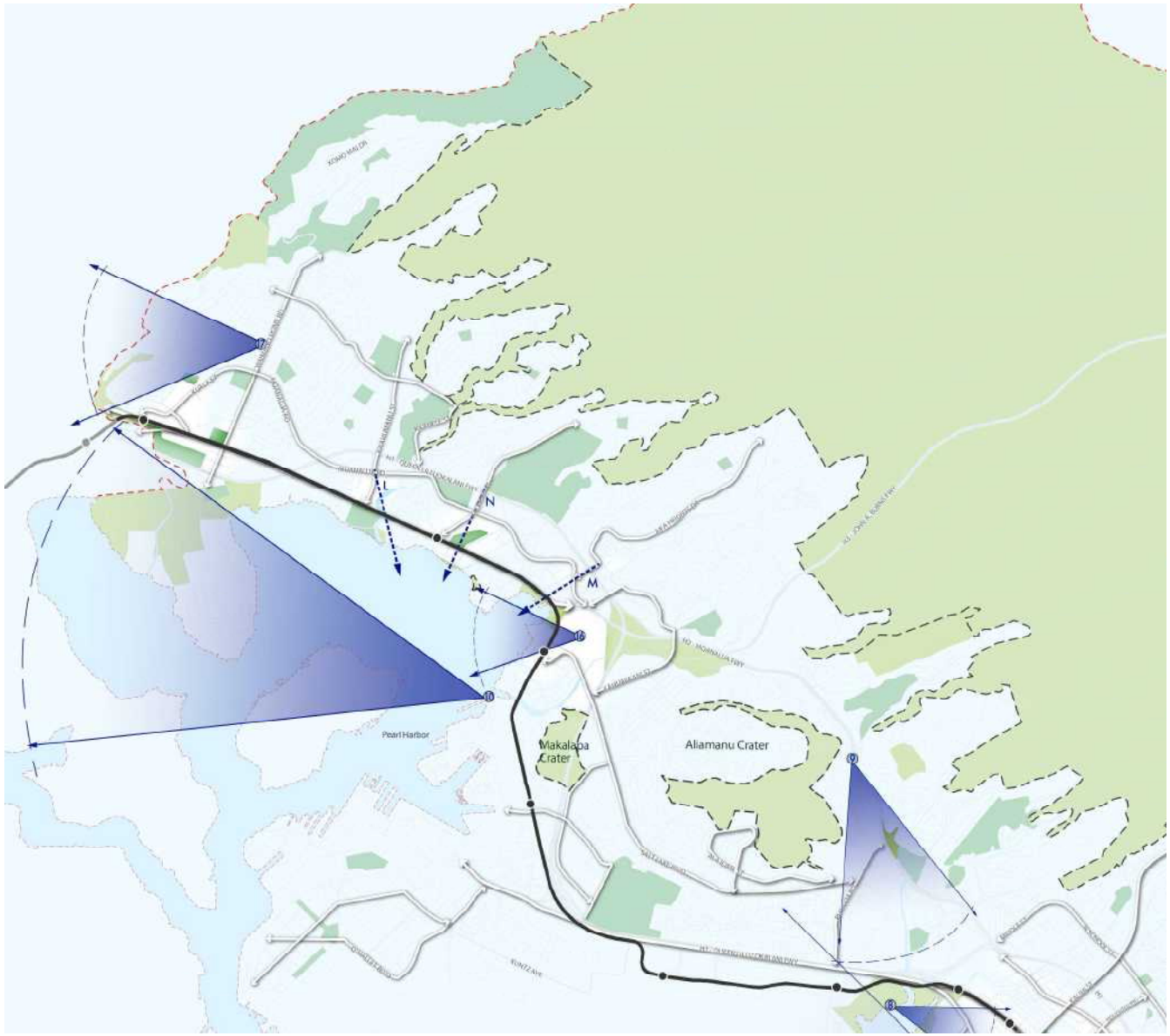
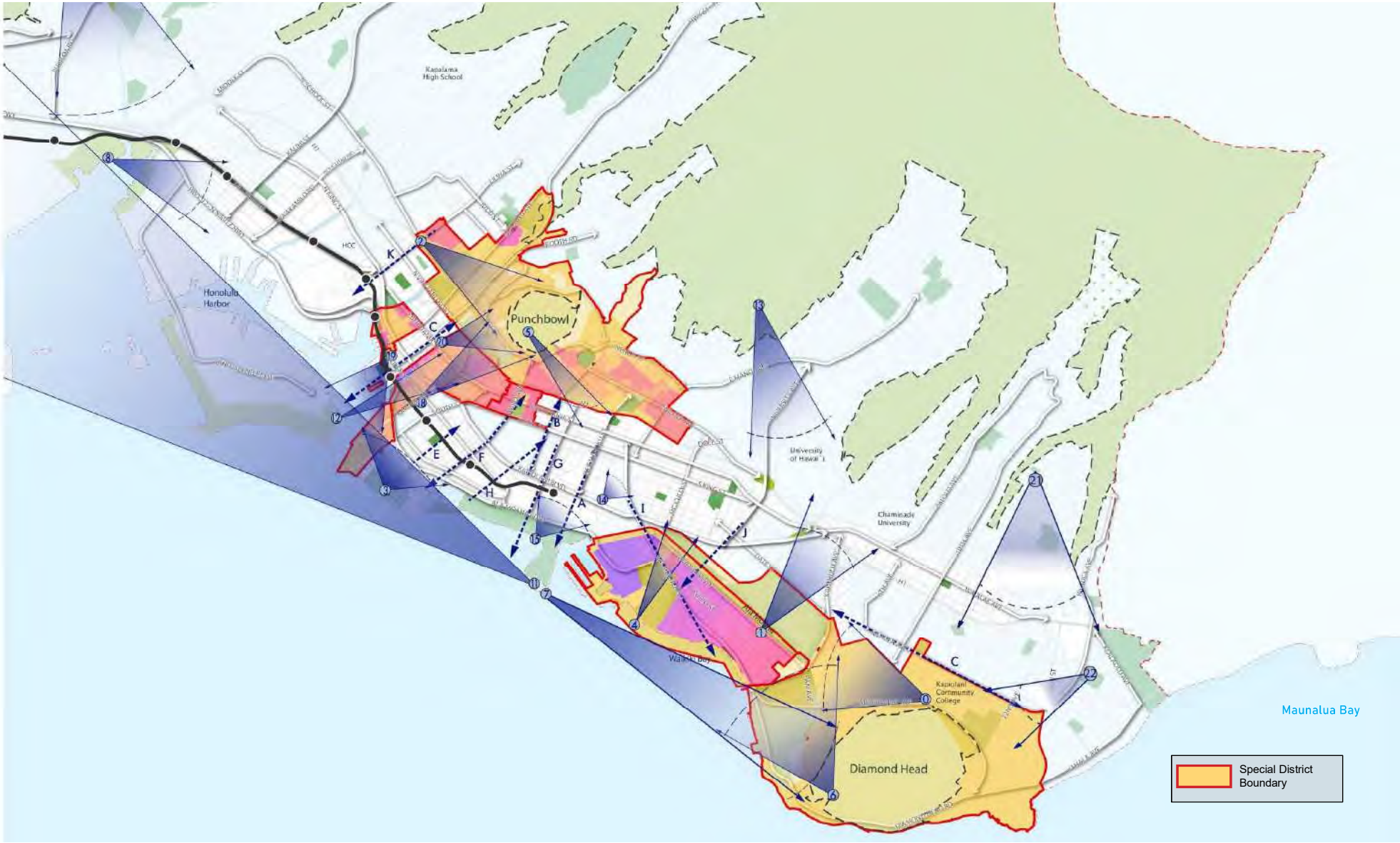


Fig. 2.5: Significant Public Views, East



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Focus Areas

Focus Areas



How to Use This Chapter

This chapter describes in detail how specific areas in the PUC may change over time. The following defines characteristics for each of these places across the PUC by:

- Locating ***growth*** areas that are shaping change and transformation in the PUC;
- Providing ***vision*** (land use and character guidance) and describing existing or upcoming ***catalytic projects*** for key areas; and
- Identifying areas of ***stabilization*** where less change is expected during the Plan horizon but where improvements and enhancements are recommended.

Recent community planning for this Plan and for the TOD Neighborhood Plans has provided opportunities for residents and frequenters of the PUC to provide feedback on the desired character of growth and change, along with the desired degree of that change. The guidance that follows reflects specific change-related goals for different neighborhood areas within the PUC. Implementation and catalytic projects for specific communities and focus areas highlight actions to deliver the vision described by the Place Type associated with those locations.

The PUC DP policies reflect a proactive approach to shaping the location, form, and type of future growth and redevelopment to benefit the PUC's communities. The following list summarizes a clear vision and guidance for how specific areas are likely to change in the future, and opportunities to improve the urban form. This chapter's content is intended to help guide communities to seek amenities, benefits, and services for their focus area and to help steer public and private investments into the appropriate locations. Potential catalytic projects are identified, along with locations desiring improved vibrancy, elevating important issues relating to neighborhood livability.

Residential neighborhoods, commercial corridors, and centers of activity play different roles within the urban landscape. The physical character and variety of places in the PUC reflects the unique histories and the communities that have developed here. Identifying urban form characteristics using the palette of Place Types, as described in the preceding chapter, P*lacemaking + Character (page 37)*, makes it possible to define appropriate policies and strategies for these different places.

In this chapter, guidelines are presented for specific areas of the PUC, each experiencing different levels of growth and change; from densely urbanizing TOD corridors, to well-loved neighborhood-serving commercial streets. Guidelines are presented for the purpose of guiding growth and change over time, preserving and enhancing existing character, and improving the utility, resilience, connectivity, and look and feel of the public realm.

Each focus area section is organized as follows:

1. **Vision:** What are the key conditions and future possibilities in this area?
2. **Applicable Place Types:** What is the envisioned land use, intensity, and character of the area's districts, corridors, and neighborhoods?
3. **Applicable Area Plans/Special Design Districts:** Does this area have special guidance in the form of an Area Plan or LUO Special Design District? (*Note this category does not apply to all identified Focus Areas)
4. **Guidance (i.e., what strategies align with the vision?) regarding:**
   - Urban Design
   - Land Use and Development
   - Multimodal Environment
5. **Catalytic Projects/Plans:** What major improvements or projects are already planned or in motion for this area? (*Note this category does not apply to all identified focus areas)
6. **Additional Actions:** Additional implementation actions appropriate for the area.



Degree of Change

Each focus area spread begins with a sidebar that further describes the level of growth and development expected in the area. These range from the most intense change at the top ("transform") to the least, at the bottom ("preserve"):

| TRANSFORM | EVOLVE | INFILL |

| ENHANCE / INVEST | PRESERVE |

Area Adaptation Actions Recommended

This symbol appears for areas where short-term, mid-term, or long-term SLR actions are recommended.

Fig. 3.1: Focus Areas, West (location key)

East PUC

Waikīkī pp. 82-87

Ala Moana & Kaka'ako pp. 88-93

South King/Beretania Sts. pp. 94-99

Wai'alae Avenue pp. 100-103

Kapahulu Avenue pp. 104-107

McCully-Mō'ili'ili & Date St. pp. 108-111

Makiki pp. 112-115

Central PUC

Downtown pp. 116-119

Chinatown pp. 120-123

Upper Nu'uanu Ave. & Liliha St. pp. 124-127

Iwilei / N. Vineyard Corridor pp. 128-131

Kapālama pp. 132-135

N. King & N. School Streets pp. 136-139

West PUC

Hālawa (Stadium District) pp. 140-143

Pearl Highlands & Pearlridge pp. 144-147

'Aiea Town Center & Ka'ahumanu St. pp. 148-151

Lehua Ave. & Waimano Home Road pp. 152-155

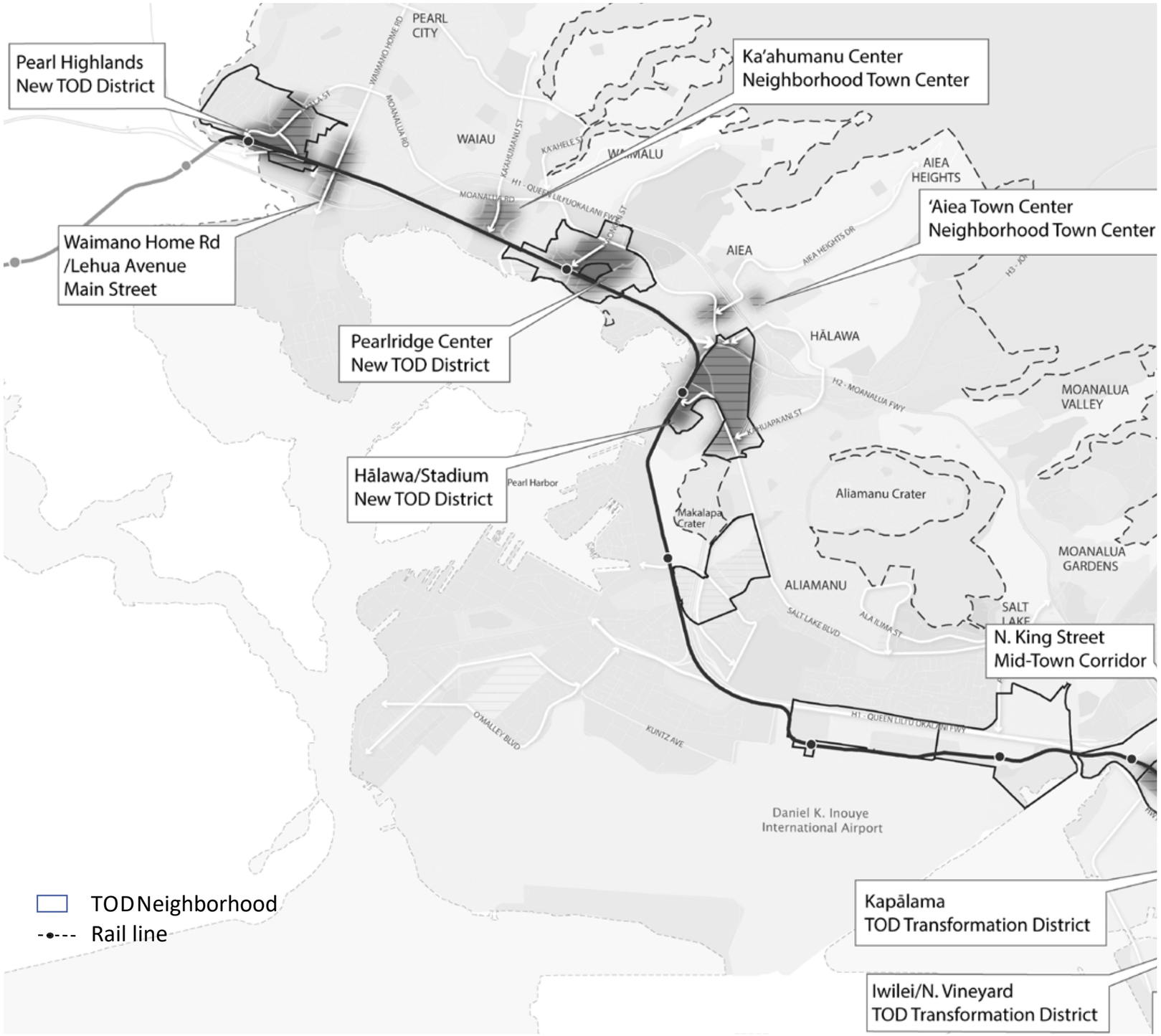
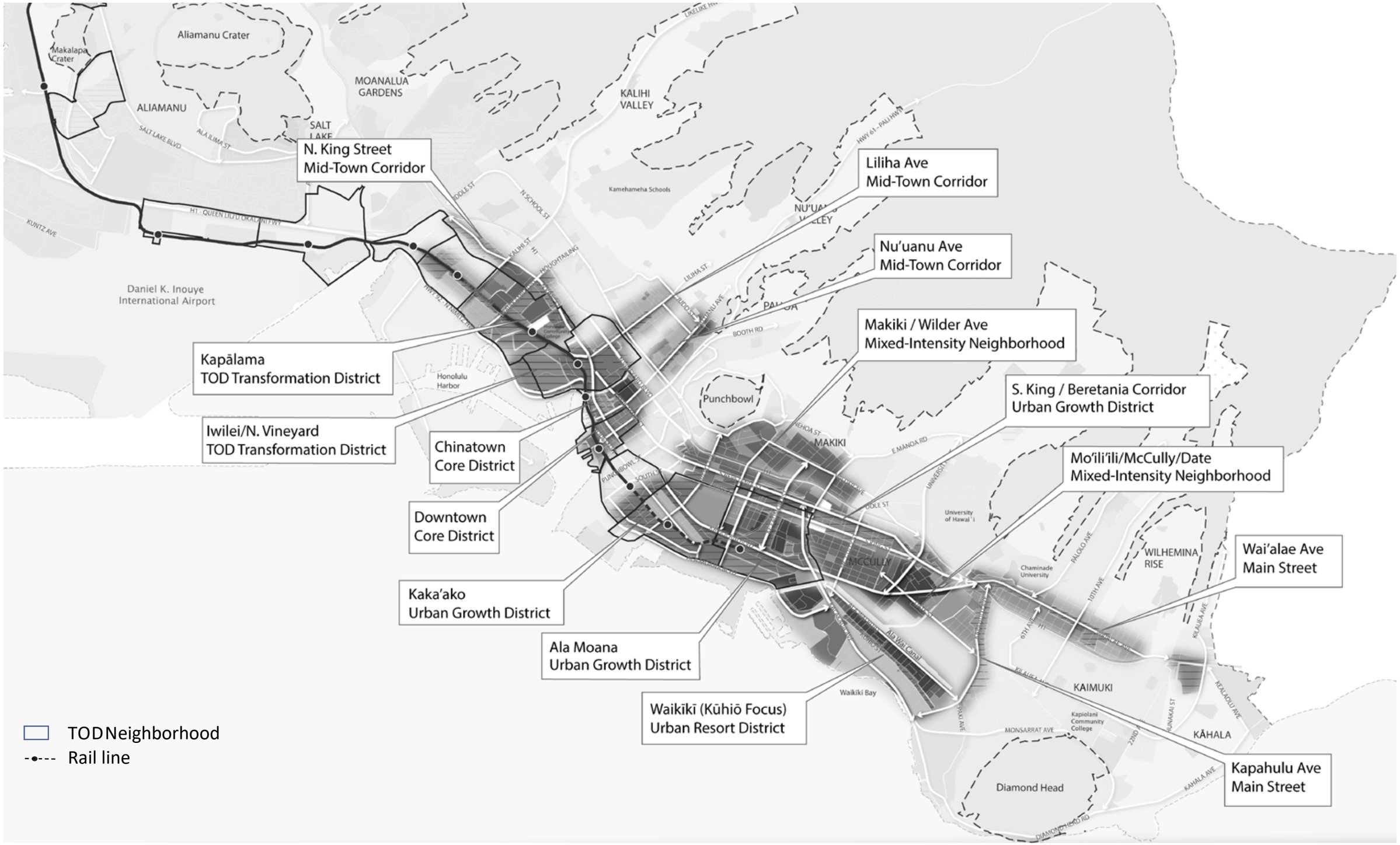


Fig. 3.2: Focus Areas, East (location key)



Focus Areas - East PUC:

Urban Resort District and Livable Neighborhood

Waikīkī

EVOLVE | the lively resort corridor of Kalākaua for greater coastal resiliency, and the urban mixed-use corridors of Ala Moana Boulevard and Kūhiō Avenue, for greater coastal resiliency and additional neighborhood serving amenities/ services.

INFILL | continued higher-density residential development in the apartment precinct of Waikīkī for long-term use.

ENHANCE/INVEST | Adapt infrastructure, parks/beaches, buildings with resilient design measures and strategies.

PRESERVE | views of the Ko'olau mountains, Diamond Head, and Punchbowl from within Waikīkī, as well as the unique blend of urban resort activity and a dense, walkable neighborhood.

FOCUS AREA: EAST PUC: RESORT/NEIGHBORHOOD

Waikīkī

The Pacific's premier walkable resort destination, and a livable urban neighborhood.

Vision

Waikīkī balances two contrasting but mutually supportive uses. The resort area is a major economic center of the PUC, providing employment, industry, and a constant influx of street-level activity. The apartment residential area (generally mauka of Kūhiō Avenue except for the area with street frontage immediately mauka of Kūhiō Avenue, from Kuamo'o Street to Paokalani Avenue), is a lively residential neighborhood, home to many long-time and new residents. The edges where these two places meet and complement one another are the urban corridors of Ala Moana Boulevard and Kūhiō Avenue; both corridors offer services, entertainment, dining, and retail uses that cater to residents and visitors.

Waikīkī remains a primary economic engine for the City and State and accordingly continues to attract new development and redevelopment, even as the area must adapt to the effects of climate change. Over time, the area's resort area will continue to evolve – redeveloping older buildings, reinforcing infrastructure and adapting structures with resilient design measures, improving pedestrian orientation, and maintaining high levels of street-frontage activity and interest. The apartment residential neighborhood is expected to continue a transition to mid-and-higher density redevelopment, while still retaining some smaller low-rise and walk-up buildings that lend the residential neighborhood its character. Neighborhood-serving commercial uses on the mauka side of Kūhiō Avenue should be considered for Seaside Avenue. The street already has commercial uses at the intersection with Kūhiō Avenue, is about one-quarter mile in length, and is located in the approximate center of the high-density Apartment Precinct, placing it within convenient walking distance for many residents of this area. Extension of limited commercial uses further along the street would not only put services within closer reach of residents, but also help create a more relaxed neighborhood-focused "center" for Waikīkī.



Paddlers on the Ala Wai canal.

Applicable Area Plans or Special Districts:

- Waikīkī Special District (LUO)

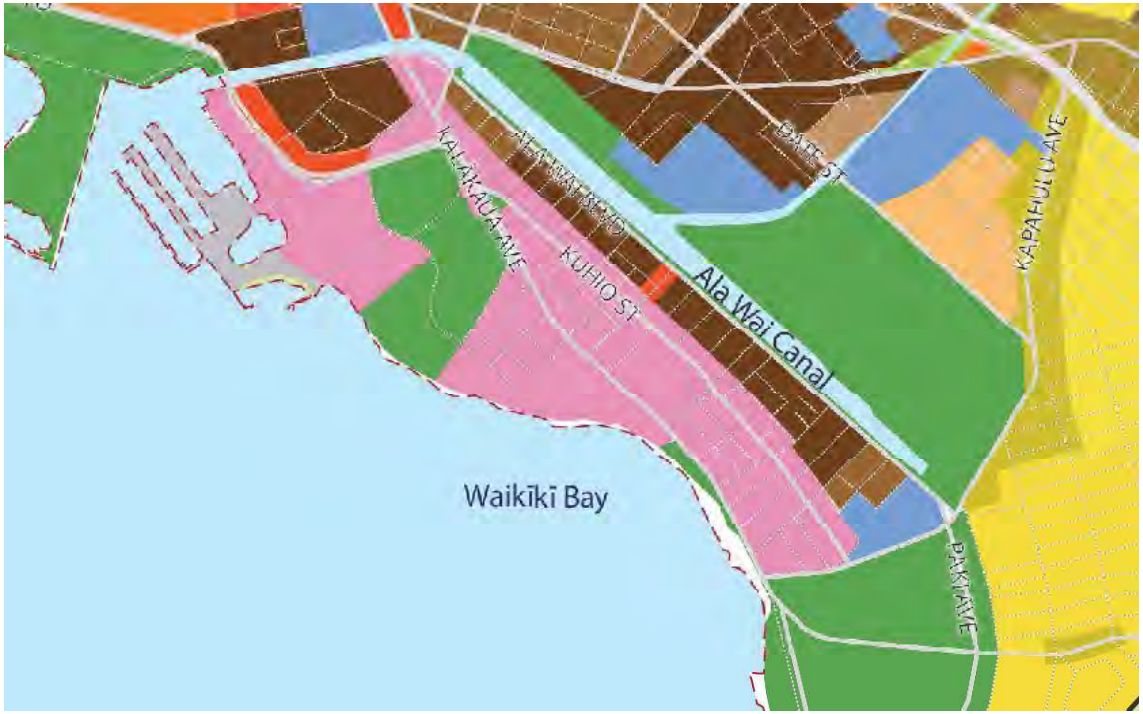


Shopping experience in Waikīkī.



Waikīkī urban form along Kalakaua Ave.

Focus Area Vicinity Map: Waikīkī



**Close-up of Fig. 2.3 Land Uses/Place Type Map, East PUC (p.44); does not show zoning*

Key Place Types for Waikīkī

R **Resort** (High-intensity resort and retail, generally makai of Kūhiō Avenue and zoning lots with street frontage immediately mauka of Kūhiō Avenue, from Kuamo'o Street to Paokalani Avenue.)

U-C **Urban Corridor** (Up to high-intensity mixed-use that transitions the resort and neighborhood areas along Kūhiō and Ala Moana Boulevard, and is neighborhood-serving along Seaside Avenue.)

U-N **Urban Neighborhood** (Medium to high-intensity residential in the Apartment Precinct.)



Guidance

Urban Design

Create lively and attractive public streets and spaces. Ensure that all development projects provide active frontages and high-quality ground-floor design. As perhaps the busiest and most visited place in the PUC, it is important that the experience of being in Waikīkī is pleasant and memorable.

Reflect Hawai'i's arts and culture in the built environment. Feature vibrant elements of traditional to contemporary Hawaiian visual arts and culture through design components and details in architecture and the public realm, and in education and programming for visitors.

Protect essential views by employing clear and effective height limits. A maximum building dimension parallel to the shoreline should be established to prevent blocking mauka-makai views. Conditionally allowing greater heights between Kuamo'o Street and Paoakalani Street if accompanied by exceptional community-enhancing and climate change adaptive design, should be considered. Restrict allowed building heights or envelope/bulk if a proposed building would degrade the key view corridor between Diamond Head and Punchbowl. Another defining quality of the Waikīkī neighborhood is the clear view of the Ko'olau range along the Ala Wai Canal Promenade, which should be vigorously maintained.

Maintain connections to adjacent districts. Connections to and from the Waikīkī neighborhood can be strengthened in a number of ways. A new pedestrian and bicycle bridge will connect Ala Wai Boulevard to University and continued effort should be made to develop a beachfront promenade extending from Diamond Head to Downtown, connecting the chain of existing parks and promenades with funding and maintenance participation from adjacent properties. Waikīkī's relationship and connectivity to the Convention Center should be enhanced.

Land Uses and Development

Maintain a strong full-time residential population in Waikīkī. Waikīkī should remain a neighborhood that is both affordable and desirable to live in. Seek out and leverage opportunities to increase affordable workforce housing and senior housing options for residents. Mixed hotel-type developments should not be supported in the apartment precinct of Waikīkī where residential uses are primary. Invest in community programs and supportive services to enhance neighborhood quality of life.

Enable continued redevelopment and revitalization of Waikīkī's urban resort area. Support continued redevelopment of existing hotel/lodging uses in the Resort place type, provided that sufficient resilience and adaptation measures are included. Clearly lay out recommended compliance and regulatory pathway(s) for non-conforming hotels that were grandfathered in to the Waikīkī Special District's residential zones (Apartment Mixed-Use and Apartment). Support a balanced mix of destination retail, experiential retail, dining, and entertainment uses on the street level along Kalākaua Avenue, and transition to more neighborhood-serving uses along Kūhiō Avenue.

Prepare Waikīkī for rising sea levels. Work collaboratively with proposed developments to actively plan for sea level rise impacts. Strictly reduce permit variances to shoreline standards.

Complete development of a comprehensive Area Adaptation Plan, including identification and prioritization of area-wide resilience improvements, projected costs, and potential funding sources.

Secure long-term funding for climate change adaptation. Advocate for continued funding from State and Federal sources for Waikīkī adaptation projects. Consider an infrastructure adaptation district for property owners in the resort area. Establish partnerships to manage maintenance and operation of district improvements over the long term.

Multimodal Environment

Continue to invest in expanded multimodal facilities and improved connectivity within and into/out of Waikīkī. Improve pedestrian/bicycle connections to Kapi'ōlani Regional Park, to Ala Moana Regional Park, and the Convention Center, including a protected or buffered lane along the length of Kalākaua Avenue. Where no bike lanes exist, increase the stencilling of "sharrows" on streets in Waikīkī to inform drivers that roads are available to all types of users. The planned Ala Pono pedestrian bridge project will provide another access point to the peninsula. Support circulator buses and/or shuttle services that connect Waikīkī with Ala Moana. Pedestrian access should be the priority in Waikīkī's street design through wide sidewalks, midblock crossings, paving and landscaping treatments, and traffic calming strategies, including limiting vehicle access where appropriate.

Additional Actions:

Short-term action:

Building on the Waikīkī Beach Special Improvement District Association/ Department of Land and Natural Resources "Envision Waikīkī Beach" effort, refine a comprehensive vision and supporting regulatory framework for the district. Waikīkī is due for a focused Area Plan and Adaptation Plan that goes beyond the periodic revisions to Special Design District regulations. This new Area Plan will strive to balance the ongoing vitality of the resort economy, redevelopment opportunities, circulation and access, and livability for residents. Preparations for climate change and sea level rise adaptation actions must be at the heart of any long-term vision for Waikīkī. Some intensification, i.e. higher Floor Area Ratios (FAR) and heights, could be explored in the context of coastal adaptation efforts. Existing disaster recovery planning efforts should be considered.

Long-term action:

Continue to support and partner with the Ala Wai Watershed Collaboration.

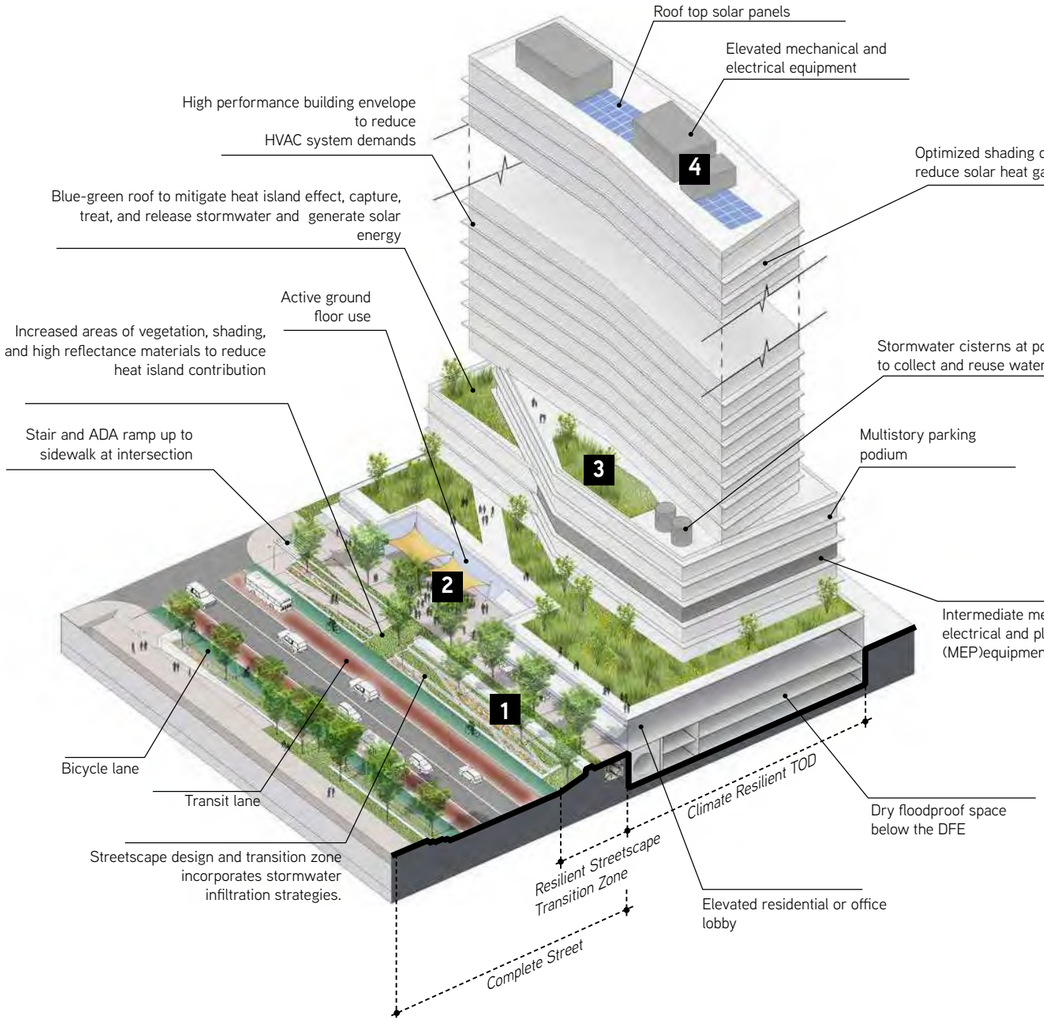


Area Adaptation Actions Recommended

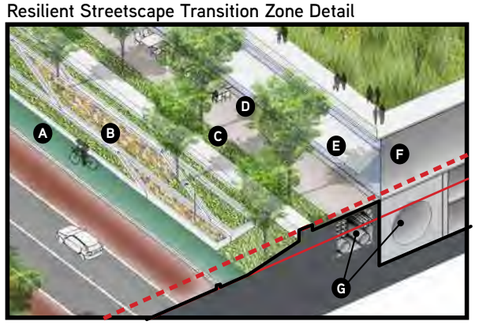


Tourists and locals enjoying beach time at Waikīkī.

*Climate Adaptation Design Guidelines for Towers**



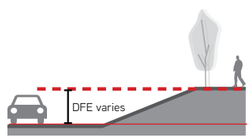
Resilient Streetscape Transition Zone Detail



All Resilient Transition Zones must be ADA compliant

Design Flood Elevation

Standard Design Elevation



- A Bike Lane
- B Transitional planters
- C Tree lawn
- D Street furniture
- E Active ground floor use
- F Raised ground floor
- G Supporting Infrastructure



Climate Adaptation in Waikīkī

Waikīkī is a highly engineered landscape owing to the 1930's era Ala Wai Canal project that drained and filled a natural wetlands for development. As a result, the area has a high water table and the engineered beaches require extensive maintenance. It is the PUC's only large scale resort and a key driver of the island economy. It is also highly urbanized as both a resort, and a residential neighborhood. With all of this complexity, it is little wonder that Waikīkī is often heavily featured in conversations on rising sea levels and climate change adaption on O'ahu. City and state visioning and planning efforts are under way to move the needle on this conversation, and to provide first steps in design guidance and to frame continuing agency coordination. See also Chapter 8, Sea Level Rise + Coastal Hazards Planning.

**The figure to the left is from the City's Climate Adaptation Design Principles for Urban Development, that align with Action 14 of the O'ahu Resilience Strategy.*

Catalytic Projects

Identified projects that are expected to have a notable impact on this focus area:

1. **Ala Pono Bridge:** Planned pedestrian and bicycle bridge over the Ala Wai Canal, connecting from Ala Wai Boulevard to University Avenue.

2. **Waikīkī Beach Master Plan:** Protecting and nourishing the Halekulani, Royal Hawaiian, and Kūhiō Beaches using relocated sand and beach stabilizing structures.

3. **Ala Wai Flood Risk Management Project:** Partnership between the City and the US Army Corps of Engineers to study and evaluate flood risk management for the Ala Wai watershed that outflows to Waikīkī and to counter potential catastrophic flooding that could be a threat to life and property. Currently in the design deliberation phase with an ongoing community process at the time of writing, this project will result in flood management measures that may include flood retaining walls along the Ala Wai and additional flood structures and detention basins in limited upstream locations.

4. **Waikīkī Promenade:** Completion of multiple improvements that would offer uninterrupted pedestrian access around the entire perimeter of Waikīkī.

5. **Adapt Waikīkī 2050 Plan:** The City is developing a first of its kind Special Area Plan for adaptation in Waikīkī that will focus on: Addressing near-term topics of alignment of City infrastructure adaptation under the One Water framework; Recommending adjustments to Special District design provisions for greater resilience; Ensuring protection of significant public viewsheds; and maintaining the viability of Waikīkī as both a resort and an urban neighborhood. The project is estimated to run from mid 2023 to 2026 and will include community and stakeholder engagement.

- *Also of note:* The State OPSD has partnered with the University of Hawai'i Community Design Center (UHCDC) and UH Sea Grant to study various adaptation pathways for Waikīkī's future led by faculty research and incorporating applied student learning. Titled the ***Waikīkī Resilience & SLR Adaptation Project (WRAP)***, community engagement and collaboration with stakeholder agencies will feature in this project.

2040 Growth Projections

Waikīkī Existing Dwelling Units: 18,680 units

Base Growth Scenario: 1,000-1,500 units

This scenario matches the market-constrained projections, and represents incremental redevelopment of some vacant and/or underutilized parcels, many located in the Urban Mixed Corridor place type.

High Growth Scenario: 2,500-3,000 units

This assumes a more extensive and comprehensively planned redevelopment of many older properties along Kūhiō Avenue and the mauka Urban Neighborhood, assuming appropriate district adaptation improvements.



Beachgoers near the Royal Hawaiian Hotel.

Focus Areas - East PUC:

Urban Growth Districts

Ala Moana & Kaka‘ako

TRANSFORM | transform into high density mixed-use regional transit-oriented districts.

INFILL | medium & high-density residential uses over active ground floors.

ENHANCE/INVEST | improve access to day-to-day neighborhood touch points and cultural and community amenities. Invest in sea level rise adaptation projects ad ensure delivery of community benefits.

PRESERVE | light industrial uses centered on Kawaiaha'o Street, and smaller-scale housing in the Sheridan neighborhood.

Ala Moana & Kaka‘ako

High-intensity urban mixed-use districts with excellent access to later phases of rail.

Vision

Currently, Ala Moana and Kaka‘ako are the two PUC neighborhoods most transformed by their location near future Skyline transit stations. Both adjacent neighborhoods continue to grow into high density mixed-use regional centers, focusing growth around pedestrian oriented streets and multimodal transit. Development of opportunity sites along key corridors will result in additional housing and creation of day-to-day neighborhood touch points, such as full-service grocery stores, cafes and eateries, and cultural and community amenities that serve both new and existing residents. The permitting structure of the TOD Special District areas will help to generate community benefits, such as open space, connectivity improvements, and increases in affordable housing. The design and ground-level character of new high-rise buildings should be tailored to the human scale, and offer improved connections and neighborhood gathering places. Activities such as pop-ups, street food events and markets, and public art are encouraged. Height protections for upper Ala Moana's Sheridan neighborhood and Kaka‘ako's light industrial core, along with preservation of area landmarks and adaptive re-use of buildings, will continue to preserve some of the historic fabric of the area, adding to the vibrant urban mix.



Atrium space at the Ala Moana shopping center.

Applicable Area Plans or Special Districts:

- Ala Moana Neighborhood TOD Plan
- HCDA Kaka'ako Community Development District plans and rules



Focus Area Vicinity Map: Ala Moana - Kaka'ako



**Close-up of Fig. 2.3 Land Uses/Place Type Map, East PUC (p.44); does not show zoning*

Key Place Types for Ala Moana & Kaka'ako

FX **Flex/R&D** (Preservation of non-residential uses along parts of Queen and Kawaiaha'o Streets.)

U-C **Urban Corridor/Center** (Highest-intensity mixed use along the rail transit line, along South Street and around Ke'eaumoku Street/Kapi'olani Boulevard.)

T-C **Town Corridor/Center** (Medium to high-intensity mixed use along the makai side of Ala Moana Boulevard.)

TN-M **Town Medium** (Lower-intensity single and multi-family residential in the Sheridan neighborhood.)

TN-H **Town High** (Moderate-intensity residential transitions between Town-Medium and Urban Neighborhood east of Pensacola Street.)

U-N **Urban Neighborhood** (Moderate to high-intensity residential primarily between Ke'eaumoku St. and Kalākaua Avenue.)

Guidance

Urban Design

Create an environment welcoming to street-level uses. Promote street-level activity, comfortable public spaces, and a diverse array of uses that appeal to both residents and visitors. Strengthen relationships between places by improving midblock connectivity, increasing usable open space, and preserving significant public views. Ensure that buildings use variations in massing, materials, and human-scaled street frontages to soften the impacts of new high-rise development.

Maintain significant public views. Significant public views as outlined in this Plan, TOD Neighborhood Plans, and Special District provisions are to be maintained throughout the PUC. However, special attention needs to be paid to preserving these views in rapidly intensifying areas with tall towers like the Ala Moana and Kaka'ako neighborhoods. Projects should be assessed on a case by case basis for siting and configuration to best preserve significant public views.

Land Uses and Development

Continue implementation of TOD neighborhood projects. Seek exemplary community benefits within a few blocks of planned Skyline stations and along major corridors such as Kapi'olani Boulevard, Ke'eaumoku Street, Ala Moana Boulevard, and Auahi Street as major TOD development projects continue advancing. Support growth with new community centers, gathering spaces, parks, or similar spaces for programming, neighborhood life, and other events/resources.

Address impacts of flooding, SLR, and poor drainage. Require strong adaptive design and mitigation measures for development in the SLR-XA and impacted areas. Continue to formulate appropriate development standards and adaptation requirements.

Preserve some low-intensity and low-rise uses. Discourage tall tower redevelopment in the Sheridan neighborhood, and preserve affordability. Preserve low-rise industrial in the Kawaiaha'o industrial district. Encourage rehabilitation and adaptive reuse of existing building elements as feasible, and assets with historic character in the Ala Moana-Kaka'ako area.

Control the expansion of resort-type uses in Ala Moana. Due to its proximity to Waikīkī and to visitor attractions such as the Ala Moana Center and the Hawai'i Convention Center, Ala Moana will remain an attractive and appropriate location for boutique hotels and traveler accommodations. However, Ala Moana should remain a neighborhood oriented to full time residents and not overwhelmed as an extension of the Waikīkī resort area. Projects providing full time residential housing should be prioritized.



A Building well-connected to the public right of way.



Encourage the preservation of local landmarks during redevelopment.

Multimodal Environment

Improve street crossings to break up superblocks. Make improvements along Kalākaua Avenue, including sidewalk, crossing, and signalization upgrades to increase safety and comfort from South King Street to Kapiʻolani Boulevard. Promote the reconstruction of Victoria Street into a green street that joins Kapiʻolani Boulevard through to South King Street, increasing pedestrian connectivity through the Blaisdell Center complex and for McKinley High School. Improve pedestrian conditions near area senior centers and transit stops.

Surround the neighborhood with high-frequency transit. Support bus transit connections to the first Skyline phases, and support the installation of bus-priority service along nearby South King and Beretania Streets. Include continued upgrades to frequency of buses and quality of boarding/station areas, transit shelters, and wayfinding signage for residents and visitors.

Additional Actions:

Short-term action:

Implement the Ala Moana TOD Neighborhood Plan and Kaka'ako TOD Overlay Plan. Continue to plan for future phase Skyline connections.

Long-term action:

Coordinate with the State as the Kakaʻako Community Development District transitions back to the City's jurisdiction.

Long-term action:

Support a coordinated district-wide effort to plan for sea level rise and to establish district partnerships for necessary funding.

Area Adaptation Actions Recommended



Restaurants on the ground floor of a mixed-use low rise building.



Restaurants on the ground floor of a mixed-use low rise building.

Catalytic Projects

The following are identified projects that are expected to have a notable impact on this focus area.

1. **Kaiāulu ʻo Kakaʻako Master Plan implementation:** A development plan for lands owned by Kamehameha Schools that envisions a mixed-used urban village on nine contiguous city blocks. The area is ultimately anticipated to have up to 2,700 dwellings, some of which have been already completed. Auahi, as a retail street, and Cooke, as a linear park-to-park connector, will form the crossroads of the neighborhood.
2. **HECO Kakaʻako Site Transformation:** Potential redevelopment of a large HECO property facing Ward Avenue with residential and office uses.
3. **Pohukaina Mixed-use Project:** Proposed redevelopment of the Fisher Hawaii location into highrise workforce housing, ground floor retail, and a public elementary school.
4. **Ala Wai Harbor Revitalization:** Desired improvements to harbor facilities, new amenities, and improvements for water quality and flooding prevention.
5. **Ala Moana Park Improvements and Master Plan**. A vision to upgrade the facilities, infrastructure, park surfaces, and drainage at Ala Moana Regional Park.

2040 Growth Projections

Ala Moana Existing Dwelling Units: 9,050 units
Base Growth Scenario: 3,000-3,500 units

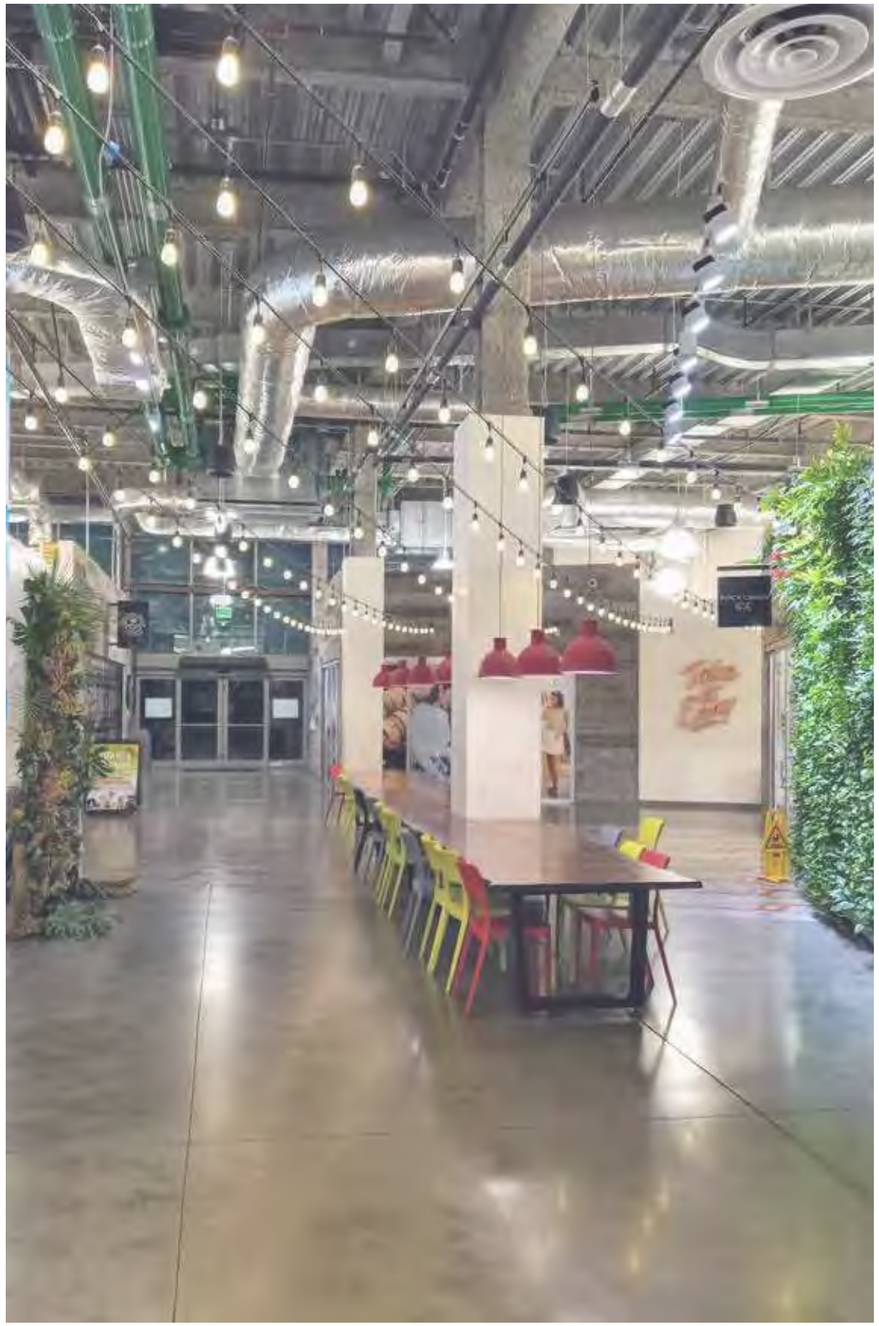
This projection largely mirrors market expectations, encompassing most approved and planned/pipeline projects along Kapiʻolani Boulevard and around the Ala Moana Center.

Kakaʻako Existing Dwelling Units: 4,900 units
Base Growth Scenario: 3,000-3,500 units

This projection is derived from remaining to be built projects in the Ward Village Master Plan (The base projection number includes several block-scale redevelopments in Ward Village that were recently completed).

Combined Growth Scenario: 6,000-7,000 units

This projection is derived from remaining to be built projects in the Ward Village Master Plan (The base projection number includes several block-scale redevelopments in Ward Village that were recently completed).



A redeveloped shopping center in Kaka'ako retains an industrial aesthetic.

Focus Areas - East PUC:

Urban Growth Districts

South King & Beretania Corridors

EVOLVE | towards moderate density mixed-use corridors, as a pair of highly walkable Complete Streets.

INFILL | medium & high-density residential uses over and behind retail and community uses; employ a mix of mid-rise and high-rise building forms.

ENHANCE/INVEST | in corridor façades, streetscape and pedestrian amenities, and bus rapid transit. Require active ground floor uses.

South King/Beretania Corridors

Regional thoroughfares evolve as walkable urban corridors with a mix of neighborhood retail, services, offices, apartments, and served by bus rapid transit.

Vision

The South King and Beretania corridors will be augmented by moderate density, mixed-use infill development. This highly walkable pair of Complete Streets will be serviced by frequent transit and framed by a mix of mid-rise and high-rise building forms defined by dynamic architecture. As the area grows over time, it will maintain its commercial prominence by increasingly integrating neighborhood shopping and services with multifamily housing. Ground floors will have active, engaging, pedestrian-oriented frontages. Auto-oriented commercial uses should be gradually replaced by vertical mixed development. Streamlined and upgraded bus routes will run at high frequencies along the length of these urban arterials. Catalytic public investments and policy incentives will help overcome barriers to high-quality, pedestrian-supportive infill.

The west end of the corridor will continue to contain the highest intensity and activity as it steps down from the nearby TOD Special District centered on Ala Moana. The east end of the corridor will be characterized by medium intensity infill development and softer transitions to the adjacent lower-intensity residential neighborhoods. Neighborhoods between the South King and Beretania corridors and the H-1 freeway will continue to develop as a mix of medium and high-intensity residential uses. Public realm enhancements aimed at creating a more unified streetscape experience along the length of the corridor, knit together improvements to existing parks (Capital Mall, Thomas Square, Cartwright, Pawa'a In-Ha, and Old Stadium Parks, Mō`ili`ili Field, and Kalo Place Mini Park). Circulation improvements are recommended for public schools (William McKinley High, Queen Ka’ahumanu Elementary, Prince Jonah Kuhio Elementary, George Washington Middle), and "green street" improvements are recommended for Young Street.



Applicable Area Plans or Special Districts:

- Thomas Square / Honolulu Academy of Arts Special District (LUO)
- Hawai'i Capital Special District (LUO)



Focus Area Vicinity Map: South King & Beretania Corridors



**Close-up of Fig. 2.3 Land Uses/Place Type Map, East PUC (p.44); does not show zoning*

Key Place Types for South King/Beretania

U-C **Urban Corridor** (High-intensity mixed use between South Street and Punahou Street.)

T-C **Town Corridor** (Medium to high-intensity mixed use from Punahou Street to beyond University Avenue.)

TN-H **Town High** (High-intensity residential in the Kinau Street area.)

TN-M **Town Medium** (Mixed-density in the McCully neighborhood.)

TN-L **Town Low** (Low/medium-intensity residential in the Coyne Street area.)

Guidance

Urban Design

Create engaging streetscapes. Street-facing façades should largely abide by the intent of TOD active frontage/streetscape design guidelines (for "key streets"). This includes promoting street-level activity, high visibility for ground floor uses, comfortable public spaces, and a diverse mix of uses. Ensure that buildings use variations in massing and materials to soften the impacts of higher-rise development.

Foster vibrant commercial corridors. In addition to neighborhood-serving goods and services, support small business uses and co-working spaces. Encourage local retail, and culture and arts uses in projects. Allow ground-floor townhouses and live/work units in the eastern portion of the focus area.

Land Uses and Development

Stimulate redevelopment and infill along these underutilized commercial corridors. Support projects that aggregate parcels to create a larger contiguous parcel by offering incentives such as density bonuses, setback reductions, or other. The high volume of existing commercial activity, significant transportation capacity (3 to 5 travel lanes), and minimal exposure to sea level rise-induced flooding are assets that can support future growth.

Work with affordable housing developers, housing agencies, and others to promote affordability. Ensure that high-density projects serve the needs of the community and address the affordable housing deficit. For projects with ten or more for-sale units and subject to affordable housing provisions, encourage projects to have low parking ratios and improve connectivity to transit. Support additional housing projects for seniors, especially near existing medical facilities, and for students near University of Hawai'i at Mānoa.

Multimodal Environment

Strengthen connectivity between Downtown/Civic Center and the University of Hawai'i at Mānoa. Add and improve safe pedestrian crossings, including at midblocks to break up longer segments. Continue to expand connectivity to the separated bicycle lane on S. King St. and consider an additional protected bicycle lane on Beretania Street. Upgrade Young Street as a slower, greener, multimodal street.

Invest in Bus Rapid Transit or 'bus-priority' service. Increase bus-priority service along both South King and Beretania Streets, including continued upgrades to frequency of buses, bus quality, express buses, and improved boarding. Bus shelter areas should be provided on these corridors to further support mixed-use infill and commuter transit use.

Continue to develop parking management solutions. Support and facilitate construction of shared public parking garages, shared private parking programs, flexible on-street parking spaces, and infrastructure upgrades that support the vitality of retail. Avoid large surface parking lots and encourage rear-loaded parking, off of the corridors.



Master planned redevelopment of the Blaisdell Center would bring new transformative cultural arts and public space to the S. King Street corridor.

Focus Area Note: Beyond Rail Oriented Development

Transit-served mixed-use development within the PUC need not be limited to rail transit. Bus routes with express lanes or expedited service also benefit from and support a mixed-use environment that is within proximity to these high-frequency stop locations. High-capacity bus routes in Honolulu can support medium intensity mixed-use growth in areas of the PUC beyond those that are within walking distance to existing and planned Skyline stations.



Lively farmer's market at the Blaisdell Center.

Additional Actions:

Short-term action:

Develop a Corridor Plan with specific design guidelines, roadway planning, sewer upgrades, and mix of uses. No recent area plans have addressed the future growth potential of these corridors and a Special Area Plan would be timely. A focused Corridor Plan would catalyze the necessary short-term infrastructure and streetscape improvements to support long-term reinvestment and revitalization of these important regional thoroughfares.

Long-term action:

- Create a phasing plan for sewer capacity upgrades to serve the corridors' projected growth under higher redevelopment scenarios.
- Previous conversion to one-way arterials has created quick-moving and hard-to-cross streets. Taking steps to restore a sense of pedestrian orientation to these corridors can stimulate a more comfortable and active street-level for area residents and to support commercial uses.



A high-rise residential building.



South King street, an engaging and vibrant corridor and an established commercial corridor.

Catalytic Projects

The following are identified projects that are expected to have a notable impact on this focus area:

1. **Neal S. Blaisdell Center Improvements:** While the City's comprehensive Master Plan redevelopment effort stalled in 2019 due to a lack of available funding, renovation improvements are moving forward for the Arena, Concert Hall, Exhibition Hall, and Hawai'i Suites meeting rooms, all to be completed in 2024. These improvements will preserve historic assets and enhance the Blaisdell Center's role as a multi-functional community gathering place and a central hub for the arts.

2. **Straub Medical Center Redevelopment:** An extensive redevelopment and modernization of the Straub campus will bring improvements to the medical facilities in four phases. Phase 3 will bring a significant public green space with open views to Thomas Square Park to the corner of South King Street and Ward Avenue.

2040 Growth Projections

South King/Beretania Existing Dwelling Units: 7,250 units

Base Growth Scenario: 2,000-2,500 units

In line with market projections, this scenario assumes significant infill along the King/Beretania corridor, but overall a higher share of the PUC's growth goes into other focus areas.

High Growth Scenario: 3,500-4,500 units

This scenario anticipates a more extensive redevelopment of the corridor. Comprehensive sewer upgrades are a necessary prerequisite.



Biki users riding in protected bike lanes (Source: DTS)

Focus Areas - East PUC:
Vibrant Main Streets

Wai'alae Avenue

INFILL | gradually infill with attached multi-story midrise buildings to support a vibrant corridor.

ENHANCE/INVEST | in improvements to mobility to promote traffic calming and walkable access to services, and façade improvements to enhance streetscape character.

PRESERVE | design compatibility between corridor buildings and adjacent smaller scale residential.

Wai'alae Avenue

Kaimukī's vibrant neighborhood-scale, mixed-use, Main Street.

Focus Area Note: Wai'alae & Kapahulu Avenues

Wai'alae and Kapahulu are two lengthy corridors that form the major commercial spine of the eastern PUC. These neighborhood-oriented streets are some of Honolulu's earliest (and formerly "suburban") street car corridors, and are characterized by a generally walkable urban pattern with a predominant mixture of single and two-story retail and services in mixed-use buildings. Both of these main streets offer the foundation for continued walkable, mixed-use infill at a scale that does not overwhelm adjacent residential areas. Similarly, there is potential for increased middle-density housing surrounding the corridors to synergize with existing services and amenities. These streets will continue to be attractive to small businesses, with potential for modest infill in the intermediate future.

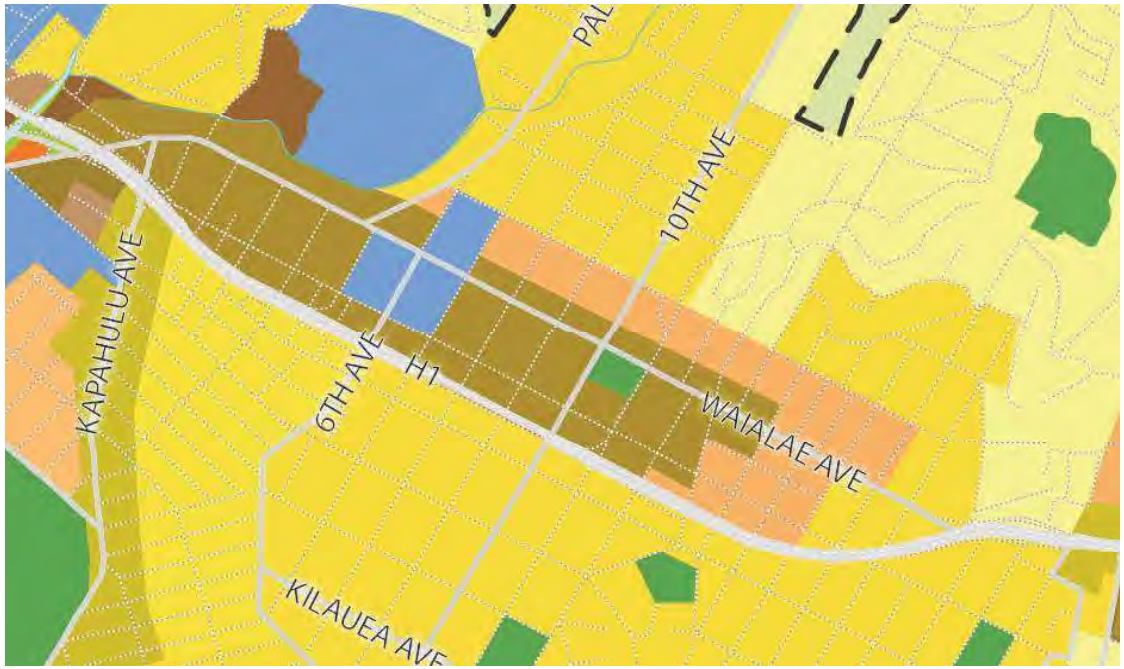
Vision

Wai'alae will be enhanced as a neighborhood-scale, mixed-use main street, characterized by community-serving retail and services. Active storefronts located at or near the sidewalk ensure pedestrian activity and support multifamily residential nearby. The areas along Waiʻalae Avenue should gradually infill with primarily-attached low multi-story buildings and some house-form buildings. Neighborhoods immediately adjacent to the corridor may add context-appropriate "missing middle" housing types. Low-rise residential and commercial uses will increase intensity moderately along commercial portions of Wai'alae Avenue approaching Kapiʻolani Boulevard. On the opposite end of Waiʻalae Avenue, Kāhala Mall and surrounding commercial properties may evolve over a long period of time to incorporate a mix of low-scaled uses. Overall, this business district and the corridor itself should remain as a mixed-use shopping, dining, and services hub surrounded by residential areas where neighbors can walk to stores and daily errands, interacting with others frequently.



Transparent store front in Kaimukī's vibrant neighborhood.

Focus Area Vicinity Map: Wai'alae Avenue



**Close-up of Fig. 2.3 Land Uses/Place Type Map, East PUC (p.44); does not show zoning*

Key Place Types for Wai'alae Avenue

NT-CM **Near Town Corridor/Center-Medium** (Medium intensity mix mauka of Wai'alae Avenue and the H-1 Freeway at the base of Pālolo Valley from 11th Avenue to Kapahulu Avenue; and at Kāhala Mall, not shown on map.)

NT-CL **Near Town Corridor/Center-Low** (Low-intensity parcels across from Kāhala Mall, immediately mauka of Wai'alae Avenue; the Times Supermarket parcel located immediately mauka of Wai'alae Avenue; and mauka of Wai'alae Avenue, east of Kilauea Street, up to Malia Street, not shown on map)

TN-M **Town Neighborhood-Medium** (mid-intensity residential in areas of corridor approaching Kapi'olani Boulevard.)

TN-L **Town Neighborhood- Low** (low multi-story residential on Diamond Head side of Wai'alae Avenue.)

NT-N **Near Town Neighborhood** (lower-density residential neighborhood.)

Guidance

Urban Design

Promote the pedestrian experience. Enhance Wai‘alae Avenue’s walkable and historic quality by encouraging consistent details such as narrow shop frontages, awnings/canopies, transom windows, recessed entrances, and ground-level elements to create a pedestrian-friendly environment. Investments in sidewalks and streetscapes will offer benefits to property owners and nearby residents, especially incremental replacement of asphalted front setback areas with landscaping or permeable paving.

Sustain the continued vibrancy of the Main Street environment. Allow for flexibility in ground floor uses supportive of local small businesses. Encourage contiguous zero lot line commercial frontages facing Wai‘alae Avenue. Support start-ups, pop-ups, local entrepreneurs, and other new and innovative neighborhood-serving businesses.

Land Uses and Development

Preserve the unique surrounding urban form of Kaimukī. Support “missing middle ” housing that is sensitively designed to be compatible with neighboring properties and serves the local housing market. Encourage revitalization of historic structures and ensure that denser redevelopments reflect existing context, form, and architecture.

Multimodal Environment

Continue to upgrade the safety and comfort for all modes. Seek to complete bicycle facilities identified in the O'ahu Bike Plan, especially connecting to and from Wai‘alae Avenue. Improve bus stops and shelters along the corridor for commuters. Maintain adequate public parking necessary to support local retail and employers.



Pocket parks activate the street environment.

Additional Actions:

Short-term action:

Gather community input to provide Complete Streets improvements (comprehensive upgrades to the shopping/strolling experience, such as bulbouts, crossing improvements, additional street trees, bioswales, landscaping, etc). Encourage the undergrounding of utilities/power lines to clear visual clutter and improve safety.

Long-term action:

Promote permanent transit improvements along Wai'alae Avenue. Consider a Waiʻalae to Waikīkī/Ala Moana streetcar service and/or other bus priority upgrades to increase foot traffic.

2040 Growth Projections

Wai'alae Corridor Existing Dwelling Units: 1,300 units

Base Growth Scenario: 500-1,000 units

This projection has a wide range and is assuming a slight increase in surrounding neighborhood density along with redevelopment of some existing auto-oriented uses on the corridor.



Restaurants creating a pedestrian-friendly environment.



Crosswalk connected to sidewalk to enhance pedestrian safety.

Focus Areas - East PUC:
Vibrant Main Streets

Kapahulu Avenue

INFILL | gradually infill with multi-story buildings at key nodes to support a vibrant corridor. Preserve significant public views to the adjacent Diamond Head Special District.

ENHANCE/INVEST | in pedestrian comfort between buildings, streetscape conditions, and calming traffic.

PRESERVE | design compatibility between corridor buildings and adjacent residential areas.

Kapahulu Avenue

As a vibrant 'Main Street,' Kapahulu Avenue evolves into greater pedestrian orientation, supported by adjacent missing middle housing.

Vision

Kapahulu Avenue will continue to be improved as a neighborhood-scale, commercial corridor with neighborhood-serving retail and services and active storefronts located at or near the sidewalk. The short-term focus should be on buffering the spaces between buildings and cars, creating a more welcoming space for public strolling and socializing, and curbing fast moving traffic. Gradually over the long-term, the corridor and supporting residential blocks will evolve, growing up to three stories and occasionally four stories at key nodes, with attached low multi-story buildings and some house-form buildings. Blocks immediately on either side of Kapahulu Avenue will redevelop to more mixed-density residential over time, however, further distanced blocks will continue to be made up of both single-unit and multi-unit house-sized buildings.



A multi-story midrise residential building.

Applicable Area Plans or Special Districts:

- Diamond Head Special District (LUO)



Murals on businesses add community character.

Focus Area Vicinity Map: Kapahulu Avenue



**Close-up of Fig. 2.3 Land Uses/Place Type Map, East PUC (p.44); does not show zoning*

Key Place Types for Kapahulu Avenue

NT-CL **Near Town Corridor/Center-Low** (low multi-story mixed-use fronting on Kapahulu Avenue.)

NT-N **Near Town Neighborhood** (lower-density residential neighborhood.)

TN-L **Town Neighborhood- Low** (lower-density and missing middle residential in neighborhoods adjacent to Kapahulu Avenue.)

Guidance

Urban Design

Promote the pedestrian experience. Maintain high-quality, wide sidewalks, and expand wherever possible to at least 10 feet wide. Encourage narrow shop frontages, awnings/canopies, transom windows, recessed entrances, and detailed ground-level elements to create a pedestrian-friendly environment and respect the historic character of the surrounding architecture. Work with properties to improve façades, transparency, signage, and to replace asphalted front setback areas with landscaping or sidewalk. Encourage implementing 2-story building heights for a welcoming street enclosure. Encourage 'rounded' corner architecture at prominent intersections, such as on both sides of Winam Avenue, both to soften the irregular angles of the curved street, and to further build upon the street's existing character.

Land Uses and Development

Promote gradual, context-sensitive mixed-use infill. Support retail or other active commercial uses along Kapahulu Avenue. Facilitate appropriately-scaled infill along the corridor with low to medium-intensity mixed use development, both vertical and horizontal. Ensure that new buildings provide façade articulation and visual interest.

Multimodal Environment

Continue enhancing a walkable public realm. Seek opportunities for seating, parklets, shade/cooling, and other resting spots for pedestrians. Where space allows, invest in street trees in the public right of way. Consider utilizing bulb-outs to add planted infiltration areas where sidewalks are narrow.

Additional Actions:

Long-term action:

Monitor underground saltwater intrusion impacts on infrastructure, especially near the Ala Wai Canal.



Biking the Lei of Parks.

Catalytic Projects

The following are identified projects that are expected to have a notable impact on this focus area.

1. **Complete Streets improvements:** Comprehensive improvements to the shopping/strolling experience, i.e. bulbouts, crossing improvements, undergrounding utilities, additional street trees, bioswales, landscaping, etc.

2. **BWS Water Reclamation/Recycling Plant:** A potential pilot infrastructure project that would be located on small portion of Ala Wai Golf Course property.

2040 Growth Projections

Kapahulu Avenue Existing Dwelling Units: 900 units
Growth Scenario: 250-750 units

This projection assumes a slight increase in neighborhood density and redevelopment of key underutilized corridor-fronting parcels.



An inviting storefront for pedestrians.

Focus Areas - East PUC:

Mixed-Intensity Neighborhoods

McCully-Mō‘ili‘ili

INFILL | existing lowrise walkups redevelop over time into midrise walkup housing.

ENHANCE/INVEST | streetscape improvements, pilot green infrastructure and flood prevention projects, and open space upgrades.

PRESERVE | affordability of moderately priced smaller scale rental housing and significant public views of the Ko‘olau Range from the Ala Wai Canal promenade.

McCully-Mō‘ili‘ili

Mixed-intensity neighborhood where improvements to the built environment and continued housing affordability are balanced as properties redevelop.

Vision

McCully-Mō'ili'ili is a largely lower-intensity multifamily residential neighborhood where existing lowrise walkups will be redeveloped over time as new lowrise or midrise housing. While gradually evolving towards a consistent mid-intensity multifamily character, this area will remain a key location of moderately priced and affordable rental housing for the PUC. Very fine small-lot parcelization patterns continue to serve as a source of protection against rapid displacement. However, low lying backshore areas below King Street will see an increased risk of flooding over time, and drainage solutions should be pursued; large scale flood control public works solutions for the Ala Wai Canal/ Waikīkī drainage region should also improve conditions in these neighborhoods. The area mauka of Date Street will become a vibrant mixed-density neighborhood, containing a mix of large house-size buildings, walk-up apartments, and occasional midrise multi-family buildings. Lower-rise buildings that maintain existing zoning heights are appropriate in the area across from Ala Wai Golf Course, retaining significant public views of the Ko‘olau Range from the Ala Wai Canal promenade. The McCully-Mō'ili'ili area should be pegged for streetscape improvements, pilot green infrastructure (flood prevention) projects, and other open space upgrades.

Focus Area Note: Design for Affordability

Mixed-density neighborhoods comprised of a variety of older walkup and midrise apartments provide the lion’s share of the PUC's affordable rental housing. When redevelopment of this "naturally occuring affordable housing" stock occurs, displacement risk cannot be overlooked. However there is also potential to realize successful and characterful middle-density housing that continues to fulfill the affordable housing needs of the community when exsting buildings do age out and are replaced. Redevelopment near revitalizing transit corridors should include opportunities for community input early in the process, and deliberately include measures to contain housing and rental costs. Effort should be made to so that new construction units are inherently more affordable. Some examples of "affordable by design" concepts from both the public and private sector include:

- *Adjusted parking req./ parking maximums*
- *Efficiency-sized units*
- *Designing common (shared) open space*
- *Resource and energy efficient designs*
- *Missing Middle Housing (i.e., smaller scale, low-rise multi-unit housing that can be achieved on smaller parcels and is less costly to build).*

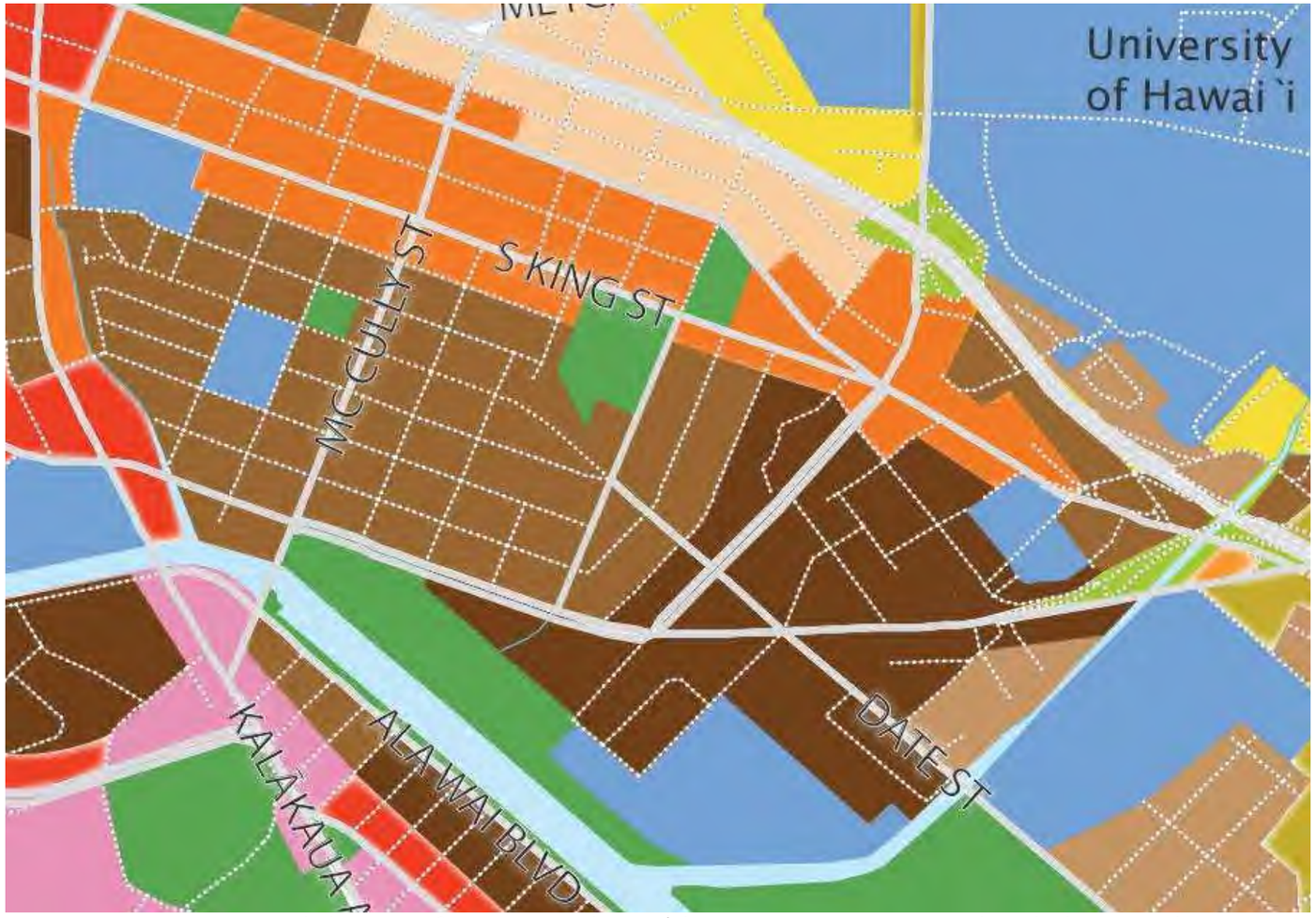


Public arts in Mōʻiliʻili.



A street intersection with Biki station, bike lane, and pedestrian crosswalk.

Focus Area Vicinity Map: McCully-Mōʻiliʻili



**Close-up of Fig. 2.3 Land Uses/Place Type Map, East PUC (p.44); does not show zoning*

Key Place Types for McCully-Mōʻiliʻili

T-C **Town Corridor/Center** (Mid to high-intensity mixed-use redevelopment near the intersections of King Street with McCully Street and University Avenue.)

TN-M **Town Medium** (Low intensity multifamily residential throughout most of the neighborhood.)

TN-H **Town High** (Moderate intensity residential around Prince Jonah Kūhiō Elementary School.)

U-N **Urban Neighborhood** (Moderate to high-intensity residential south of Kapi'olani Boulevard around Ala Wai Elementary and Date Street.)



Colorful and inviting frontage on a neighborhood business.

Guidance

Urban Design

Encourage neighborly frontages. Visually deemphasize vehicle parking impact on the primary frontage of buildings through consolidating driveways, fencing or screening, installation of decorative garage doors or other false façades, or tandem parking strategies. Redevelopment of lowrise walkups on the edge of transit districts or facing key neighborhood streets (McCully Street, Isenberg Street, Date and Citron Streets, University Avenue) should effectively screen parking or locate it behind buildings.

Land Uses and Development

Maintain the neighborhood's housing affordability. Monitor and assess effectiveness of affordability requirements in new developments and incentivize retention of affordably priced rental units in redevelopments. Promote missing middle and middle-density housing types by permitting flexibility on parking and elevator standards, with the provision of accessibility improvements on ground floors. Support midrise residential infill development with an emphasis on addressing the lack of rental housing that serves workforce incomes. Encourage affordable-by-design concepts such as simplified façade treatments, layouts to maximize usable space, stacking of walls with plumbing, and passive design techniques for easier cooling. Deliberately seek to connect non-profit and public housing developers to potential housing opportunity sites.

Address drainage and flooding concerns. The McCully-Mō'ili'ili neighborhood faces varying degrees of exposure to projected sea level rise-induced chronic flooding. As such, proposed projects located in the SLR-XA should conduct analysis of sea level risk, and demonstrate integration of adaptation measures.

Multimodal Environment

Support improvements to residential streets. Create "green streets" through addition of stormwater interventions, large-canopy trees, and other landscaping for shade and cooling. Support the expansion of bikesharing on key neighborhood streets and improvements to bike network connectivity, including completion of the "Lei of Parks" multimodal pathway concept with clear linkages along a single pathway from Kapi'olani Park to Ala Moana Regional Park. Complete missing sidewalks in the pedestrian network.

Additional Actions:

Short-term action:

Small-scale climate adaptation projects on streets and blocks most vulnerable to water-related hazards, to include pilot green infrastructure, pumping, and flood retention projects.

Mid-term action:

Improve sewer capacity along Date Street.

Mid-term action:

Initiate a long-term visioning and area planning effort for the McCully-Mō'ili'ili neighborhood (and vicinity) that balances housing affordability, redevelopment guidance, and sea level rise resilience.

Area Adaptation Actions Recommended

Catalytic Projects

The following are identified projects that are expected to have a notable impact on this focus area.

1. **Bowl-o-Drome Redevelopment:** A project by the Department of Hawaiian Homelands at the site of the former Bowl-o-Drome bowling alley. The project includes mixed residential and commercial development for the benefit of DHHL applicants.

2. **Kaimukī High School project:** Proposed by the Department of Education, a project that would redevelop the 34 acre site, generating income for the construction of modern school facilities. The project may include desired public benefits, such as affordable or teacher housing.

3. **Pilot Mōʻiliʻili Community Resilience Hub:** A new community facility type called for in the O'ahu Resilience Strategy that would provide a coordination hub for disaster preparedness and following a disaster for services such as: 1) Emergency shelter or cooling center; 2) A central community gathering site and distribution center; 3) Backup renewable energy and energy storage; 4) Water and food stores; and, 5) Medical supplies.

2040 Growth Projections

Existing Area Dwelling Units: 11,500 units
McCully-Mō'ili'ili—Growth Scenario: 750-1,250 units

This projection slightly builds upon a market-constrained outlook, assuming policy incentives encourage greater redevelopment of aging housing stock. However, a worsening of flooding impacts could impact neighborhood livability and desirability over time.

Date Street and Upper Kapiʻolani Boulevard—Growth Scenario: 500-750 units

This projection is slightly higher than a market-constrained outlook, assuming renewed redevelopment interest in the Date Street area.



A residential building under construction in the neighborhood

Focus Areas - East PUC:

Mixed-Intensity Neighborhoods

Makiki

EVOLVE | Wilder Street into a more dense mixed-use corridor with more neighborhood serving commercial uses and street activity.

INFILL | incrementally intensify in Town High areas with high-rise residential, and infill "missing middle" housing in Town Medium areas.

ENHANCE/INVEST | in mixed-use corridor streetscape and sidewalk improvements, transit improvements, and open space upgrades.

PRESERVE | affordable retail spaces.

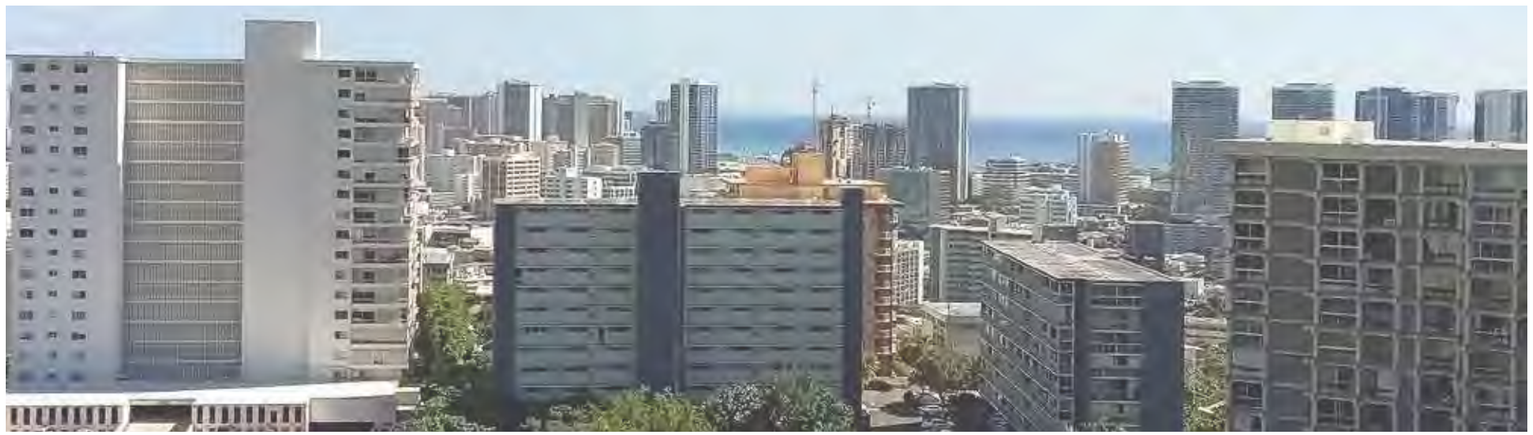
Makiki

A gradual transformation into a more dense, in-town neighborhood with a mixed-use corridor at its heart.

Vision

Makiki will continue an evolution towards a vibrant mixed-density neighborhood, taking advantage of moderately-scaled infill to generate improvements in housing quality and diversity, street and sidewalk conditions, and overall corridor character. The eclectic nature of the neighborhood will be preserved as it intensifies, characterized by a mix of large house-size buildings, walk-up apartments, and mid-rise/high-rise buildings. More intense residential infill will be balanced with preservation of significant public views to and from Punchbowl. Makiki will incrementally intensify into Town High areas with high-rise residential (generally between 10 and 15 stories), and infill of "missing middle" housing in Town Medium areas, taking advantage of the area's relative lack of projected sea level rise constraints.

The Wilder Avenue corridor will become more active and enlivened by expanding commercial uses, evolving into a moderately urban and walkable mixed-use corridor with a high-quality public realm, and anchored by bus transit. Over time, crossing points under and over H-1 will be reshaped into more effective multimodal connections, smoothing access to Thomas Square and the restored Neal S. Blaisdell Center campus.



Makiki neighborhood makai view from Punchbowl.

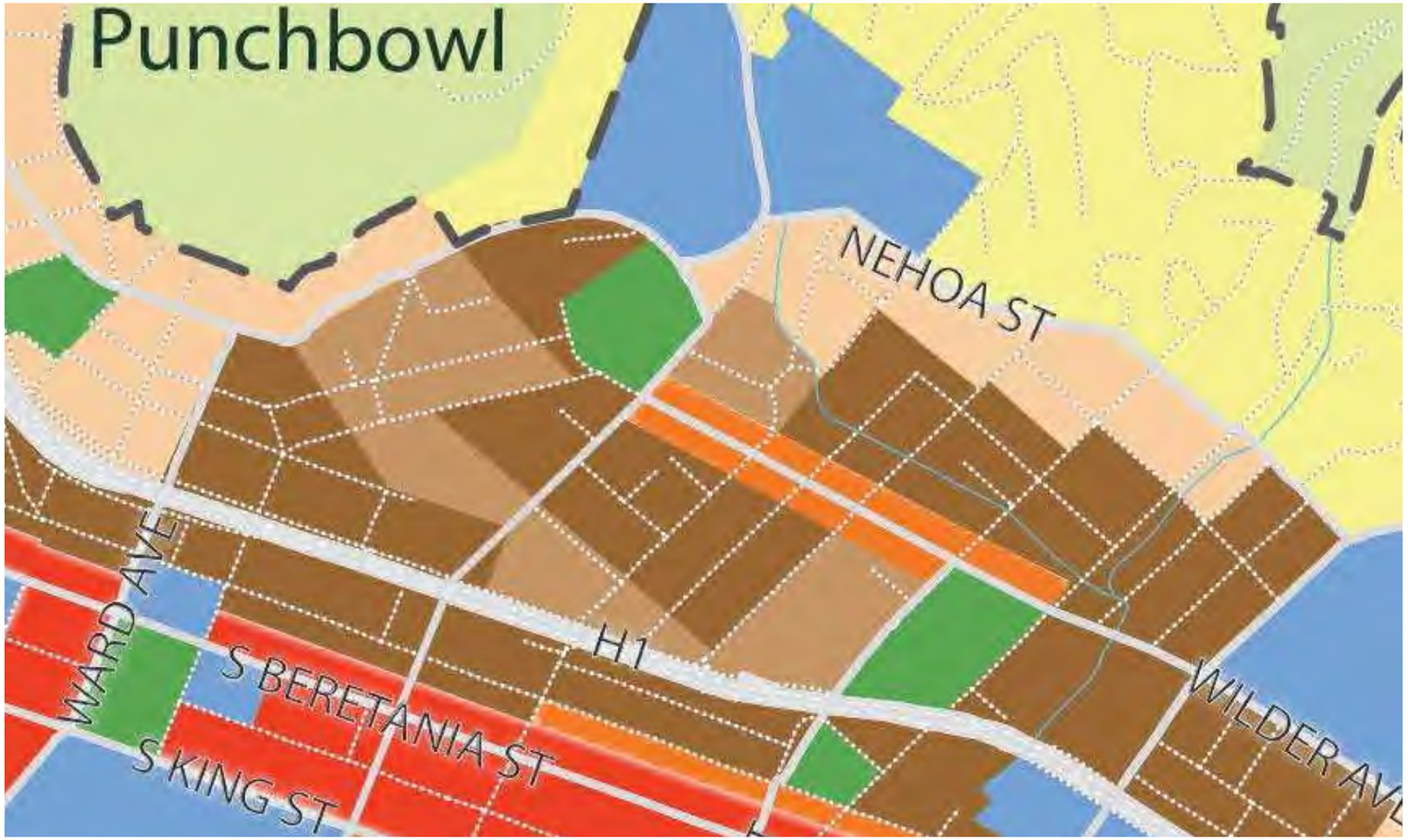
Applicable Area Plans or Special Districts:

- Punchbowl Special District (LUO)



Makiki has a wide mixture of building types and uses.

Focus Area Vicinity Map: Makiki



**Close-up of Fig. 2.3 Land Uses/Place Type Map, East PUC (p.44); does not show zoning*

Key Place Types for Makiki

T-C **Town Corridor/Center** (Medium to high-intensity mixed-use along Wilder Street between Ke'eaumoku Street and Pensacola Street.)

TN-H **Town High** (High-intensity residential on both sides of Wilder Street and a portion of Ward Avenue.)

TN-M **Town Medium** (low-rise residential that preserves the viewshed between Punchbowl and Diamond Head, and transitions between single-story residential and higher density apartments.)

TN-L **Town Low** (Low-rise residential along the edges of Makiki and throughout the Punchbowl neighborhood.)

Guidance

Urban Design

Rehabilitate older residential buildings. Use new infill development to Improve the exterior façades and pedestrian orientation of the neighborhood. Support rehabilitation of existing residential buildings.

Preserve and increase outdoor space as the neighborhood grows. Encourage projects located on corners to include courtyards, plazas or other semi-public/public usable open spaces that can serve as conveniences to area residents. Ensure all redevelopment projects result in a net increase of recreational and green space (including roof decks, green roofs, balconies, and similar).

Land Uses and Development

Make Wilder Street a gathering place. Strongly encourage more retail and active frontages on Wilder Street through streetscape improvements, mixed-use infill, and alowing expanded commercial use. Create the opportunity for a neighborhood main street to emerge.

Balance view preservation with infill development. Based on viewshed analysis and the intent of the Punchbowl Special District Design Guidelines, apply simplified height restrictions in Makiki that maintain adequate preservation of the Punchbowl to Diamond Head view corridor. Maintain views of mountain and ocean by reducing maximum façade length parallel to the coastline to 90 feet or less.

Multimodal Environment

Support improvements to residential streets. Support green streets through addition of large-canopy trees, landscaping, shade, and cooling. Support bike-sharing expansion into key neighborhood streets and improved bicycle facilities, including completion of the “Lei of Parks”, linking area parks from Kapi'olani Park to Ala Moana Regional ParK with a multimodal pathway.

Additional Actions:

Long-term action:

Monitor and expand wastewater infrastructure capacity where necessary.

Focus Area Note: Green Streets

Green Streets are streets designed to integrate with storm water best management practices. They are intended to serve as a primary channel for storm water capture, improve water quality by treating runoff, and provide community enjoyment and beautification. Inclusion of large rain gardens, planters, and permeable paving define this street typology. Bike lanes may also be used to as an opportunity to reduce asphalt and introduce porous surfaces either in the form of pavers or increased landscaping. Dense interior neighborhoods like Makiki should be prioritized for green streets and tree canopy improvements to help mitigate high temperatures and the urban heat island effect.



Pedestrian crossing the street near Thomas Square Park.

Catalytic Projects

The following are identified projects that are expected to have a notable impact on this focus area.

1. **Complete Streets** and other improvements to enhance pedestrian, bicycle, vehicle, and mobility infrastructure on Wilder Street, Ward Avenue, Pensacola Street, and Prospect/Nehoa Streets.

2. **Recommeneded: Special Area Plan.** A Special Area Plan is recommended for Makiki including concepts for the addition of commercial space and community gathering places along Wilder Avenue, encouraging development of a neighbohood-serving main street.



Makiki neighborhood mauka view.

2040 Growth Projections

Existing Dwelling Units: 14,000 units

Base Growth Scenario: 1,000-1,500 units

This scenario aligns with the market constraints, whereby gradual high-rise infill occurs in certain portions of the neighborhood.

High Growth Scenario: 2,000-2,500 units

This scenario represents worsening sea level rise in the PUC that shifts growth mauka from the waterfront to Makiki. More widespread redevelopment of mid-rise and high-rise apartments occurs on underutilized lots.

Focus Areas - Central PUC:

Core Districts

Downtown

EVOLVE | and transition some amount of office use to residential or other uses where feasible and appropriate and to match demand. Create a better balance between day and night-time uses.

INFILL | a mix of high-rise living opportunities with employment-oriented buildings.

ENHANCE/INVEST | in improvements to existing public spaces, especially Bishop Street, Fort Street, and Irwin Park.

PRESERVE | the dense cluster of office and employment uses that define the area.

Downtown

Downtown continues to be the central business center of the PUC with a substantial residential population and easy access to daily amenities.

Vision

As the PUC evolves, Downtown should remain as the dominant landmark on O'ahu's skyline. Downtown will maintain its role as the region's central business district, offering space for offices, government, educational uses, and commercial activity. Downtown will continue to successfully blend highly amenitized high-rise living opportunities with more employment-oriented uses. Increasing the resident population in Downtown will help to balance the day to night uses in the neighborhood, and boost the area's role as an arts and culture district.

The waterfront will feature improved walking and biking connections that link active uses such as the Aloha Tower complex, with Skyline stations and other transit connections. Bishop Street and Fort Street will likewise provide improved mauka-makai connections between transit and area offices.

The Downtown-to-waterfront link should be further renewed with improvements to Irwin Memorial Park and other open spaces for community gathering and recreation, new wayfinding signage, and easier pedestrian crossings of Nimitz Highway. Continued activation of the Aloha Tower complex will increase the Downtown's appeal as a regional destination with enjoyable levels of activity.



A busy downtown pedestrian crosswalk.

Applicable Area Plans or Special Districts:

- Downtown Neighborhood TOD Plan
- Hawai'i Capital Special District (portion)



Fort Street Mall is a pedestrian-only street.



Bus transit provides convenience for many Downtown workers.

Focus Area Vicinity Map: Downtown



**Close-up of Fig. 2.3 Land Uses/Place Type Map, Central PUC (p.43); does not show zoning*

Key Place Types for Downtown

DT **Downtown** (High-intensity office, retail, and residential.)

I-C **Institutional / Campus**



Multiple transportation modes in Downtown.

Guidance

Urban Design

Prioritize pedestrian experience on all sides of all buildings. Downtown should be highly walkable and continue to be prioritized as a pedestrian environment. Increase open, transparent, and active ground floor uses. Encourage block cut-throughs for pedestrians and minimize parking intrusion on the sidewalk. Encourage corner retail uses, frequent entrances, and provide resting and gathering places for pedestrians in the form of well-designed public plazas.

Define the PUC's city views with well-designed towers while maintaining significant natural viewsheds. Although some surrounding neighborhoods have embraced tower development, Downtown should maintain its visual prominence on the skyline compared to surrounding areas. New highrise buildings will be strongly encouraged to provide lasting and meaningful public architecture and contribute to a visually interesting downtown. Maximize visual access to the waterfront by ensuring that high-rise tower massing preserves important mauka-makai viewsheds, framing views of the surrounding city and landscape. Support high-rise tower design that minimizes shadows and maximizes views by limiting building bulk and providing for a maximum diagonal dimension.

Land Uses and Development

Maintain Downtown as the PUC's leading office employment district, with a lively mix of other uses. Encourage new office development tailored to market needs, as well as infill mixed-use development. Encourage dining, entertainment, and arts uses for the area's residents and to maintain neighborhood activity after offices close.

Support Downtown as an educational hub. Facilitate major universities and other higher education institutions locating in Downtown. Maintain strong pedestrian connections between institutions and various attractions and provide linkages to public transit.

Support redevelopment of the blocks between Kukui Street and Vineyard Boulevard. Encourage thoughtfully-designed projects that maximize workforce housing, offer greater internal connectivity, and activate the façades facing Beretania, Maunakea, Kukui, and River Streets.

Multimodal Environment

Create continuous multimodal connections through Downtown. Improve the makai pedestrian/bicycle connection across Nimitz Highway to Aloha Tower and the waterfront. Provide elevated connections to the Kuloloia (Downtown) rail station and complete buffered bicycle lanes throughout Downtown. Complete green streets improvements along Bishop Street. Revitalize and build upon the amenity of the River Street promenade to create a memorable and well-used pedestrian district that links to area parks, botanical gardens and vistas to the waterfront.

Maximize physical access to the waterfront. Where feasible, expand and widen sidewalks and pedestrian pathways in publically accessible locations along the piers. Ensure that new buildings along Nimitz Highway be designed and sited to maximize access to publically accessible waterfront areas from the rest of the Downtown district. Provide attractions, signage, and information to encourage cruise ship passengers to explore Downtown and create better flow for pedestrians to the Aloha Tower complex.

Catalytic Projects

The following are identified projects that are expected to have a notable impact on this focus area.

1. **HECO Opportunity Site:** Redevelopment of the existing HECO site provides an opportunity for new visually striking towers immediately adjacent to the Kuloloia (Downtown) Skyline station.

2. **Fort Street and Irwin Park Enhancements:** Investment in an improved Fort Street and Irwin Park could serve as gathering place for Downtown workers, HPU students, and nearby residents, and create a gateway marking the arrival to Downtown.

3. **Waterfront Connections:** Support public waterfront improvements envisioned during development of the Honolulu Harbor Master Plan 2050 (HDOT-H). Including: Better pedestrian connection between the cruise terminals, the Aloha Tower complex (piers 5 to 8), and into the Downtown; A continuous pedestrian pathway between piers 5 to 8; Transit services between mauka locales and the Aloha Tower complex; and transit between waterfront destinations: Pier 2, Aloha Tower, and Pier 38. (See also the following Chinatown focus area section for more on the River Street Promenade).

2040 Growth Projections

Downtown Existing Dwelling Units: 3,500 total units (650 Downtown, 2,850 Vineyard/ Kukui blocks)

Growth Scenario: 750-1,250 units

Both market and policy projections concur that the number of new residential units will be low on the makai side of Beretania Street; the more meaningful growth potential is found within the blocks located between Vineyard Boulevard and Kukui Streets.



Commercial and office buildings in downtown.

Focus Areas - Central PUC:

Core Districts

Chinatown

INFILL | with moderate mixed uses near the future Hōlau (Chinatown) Skyline station.

ENHANCE/INVEST | in pedestrian safety, public spaces and plazas, and retail viability and appearance.

PRESERVE | the district's unique cultural features and historic architecture through Special District provisions.



Historical building in Chinatown.

Chinatown

A vibrant, walkable, historic district with an accessible and activated waterfront and Riverwalk.

Vision

The enduring scale and fabric of the Chinatown district will be protected and enhanced, remaining as a lively, walkable, mixed-use retail district with a distinct form and historic character. Chinatown's mostly low-rise core is surrounded by higher-rise transitions to Downtown and growing residential districts. Streets, walkways, and sidewalks will continue to be improved for multimodal transit users. Façade and ground floor uses will remain active, providing a highly pedestrian-oriented experience. Dedicated pedestrian spaces such as Kekaulike Street and River Street will be beautified and expanded where feasible, with other streetscape upgrades made in consultation with local merchants.

The experience of being in Chinatown should be stimulating and active, expressed through a mix of historic and new façades, strong building-to-street relationships, and a wide range of services, shops, food and drink, small offices, and affordable housing. Chinatown successfully blends lowrise, midrise, and highrise mixed-use developments to create a unique urban setting and a place to shop and enjoy culture and arts events and activities.

Applicable Area Plans or Special Districts:

- Downtown Neighborhood TOD Plan
- Chinatown Special District (LUO)
- Chinatown Action Plan (special area study)



Commercial frontages within a historic façade.

Focus Area Vicinity Map: Chinatown



**Close-up of Fig. 2.3 Land Uses/Place Type Map, Central PUC (p.43); does not show zoning*

Key Place Types for Chinatown

U-C **Urban Corridor/Center** (High-intensity mixed-use, located on the corners or edges of the historic Chinatown district.)

U-N **Urban Neighborhood** (Moderate-high density mixed residential and commercial uses located near the Downtown.)

NT-CM **Near Town Center/Corridor Medium** (The heart of Chinatown's historic district remains relatively low-rise.)



Historical buildings in Chinatown.

Guidance

Urban Design

Preserve the height and scale of development in the core of Chinatown's historic district by maintaining Special District design controls. Actively encourage the enhancement and adaptation of historic buildings, façades, and architectural elements. Beautify streets with attention to safety, pedestrian comfort, and inclusion of landscaping and/or shading where space permits.

Foster active and vibrant streetscapes. Encourage ground level shop fronts in all projects, and encourage new buildings to reinforce street corners with public space or articulated frontages. Support conversion of front parking courts into plaza space or semi-private open space. Support enhancements to internal courtyards and other indoor-outdoor spaces. Because of the neighborhood's historic status and pedestrian orientation, encourage public art, façade and streetscape beautification projects, and attention to design details in new projects.

Land Uses and Development

Repurpose vacant and underutilized properties. Improve city-owned underutilized space by constructing rental units, including studio units, and support the development of senior housing and community center at River Street and Vineyard Boulevard by improving the streetscape. Activate vacant frontages in Chinatown with interim uses, such as short-term "pop-up" shops or temporary activities, and work to locate new long-term tenants.

Preserve the neighborhood's historic resources. Continue to preserve and repair façades of historic Chinatown buildings. Support preservation of historic and cultural buildings and assets for preservation and re-use.

Enhance Sun Yat-sen Park. Improve the park as one of few green spaces in the neighborhood. Improvements might include beautification, connectivity with surrounding uses, and wayfinding information.

Multimodal Environment

Continue Complete Streets projects. In coordination with community organizations such as the Chinatown Business Improvement District, incorporate feedback and guidance from Chinatown merchants in the redesign of street intersections and parking areas. Continue enhancements to Hotel Street (this might include reserving one or both lanes for biking and walking on evenings and weekends, or allowing part of the street to be used for outdoor dining or merchandise display). Continue implementation of rail access improvements on Kekaulike Street. Support implementation of a district parking management plan.

Additional Actions:

1. Continue working with major public (State) and private property owners to develop long-range plans for the location and scale of growth and investment.
2. Build upon the recent addition of a dog park and other and facilities improvements to revitalize ʻAʻala Park. Future improvements could include space for community gardening, and improvements and connections to the pedestrian pathway along Nuʻuanu Stream.

Catalytic Projects

The following are identified projects that are expected to have a notable impact on this focus area.

1. **Halewai'olu Senior Residences:** A midrise project to bring affordable senior housing units, a community center, and new retail space near the intersection of River Street and Nu'uanu Avenue.

2. **Refresh of River Street & Nu'uanu Stream Corridor Promenades:** Proposed revitalization and improvements to River Street and to the Nu'uanu Stream corridor can add a dramatic benefit to the pedestrian amenities in Chinatown and improve connections to surrounding areas (including connection to the Foster Botanical Garden).



Customers entering a store in Chinatown.



Retail storefronts in Chinatown.

2040 Growth Projections

Existing Dwelling Units: 1,500 units
Growth Scenario: 500-750 units

Focus Areas - Central PUC:

Mid-Town Corridors

Upper Nu'uanu Avenue & Liliha Street

EVOLVE | with gentle and gradual intensification of the corridors and surrounding residential areas.

INFILL | with appropriately scaled mixed-use development in the form of attached multi-story midrise buildings and missing middle house-form buildings.

ENHANCE/INVEST | in mobility improvements to promote walkable access to services and improvements to sidewalks and façades to enhance streetscape character.

Upper Nu‘uanu Avenue and Liliha Street

Future improvements to corridor character and urban design combined with new neighborhood-serving uses creates dynamic and pleasant mid-town corridors.

Vision

The Nu‘uanu Avenue corridor just above the H-1 freeway will largely maintain its existing scale and character, but will gradually introduce more active uses to develop a horizontally mixed-use main street with neighborhood-serving retail and services. Active frontages and residential entries should be located at or near the sidewalk. The corridor may add multi-story midrise buildings and some house-form buildings to help reinforce the sense of place along the street.

Liliha Street will embrace its potential as a neighborhood-scale, mixed-use main street with inclusion of additonal neighborhood-serving retail. The broader Liliha Street corridor will slowly add primarily-attached multi-story mid-rise residential buildings and some house-form buildings.

Surrounding neighborhoods continue to be defined by mixed-density residential uses, primarily single-unit and multi-unit house-size buildings and improvements to transit facilities and sidewalks will support the neighborhood's vitality. Façade and sidewalk improvements and architectural detail will improve the Liliha corridor's pedestrian appeal.



Neighborhood retail stores in Liliha.

Applicable Area Plans or Special Districts:

- Punchbowl Special District (LUO)



Residential complex connected to an enhanced streetscape.

Focus Area Vicinity Map: Upper Nu'uanu Avenue & Liliha Street



**Close-up of Fig. 2.3 Land Uses/Place Type Map, Central PUC (p.43); does not show zoning*

Key Place Types for Upper Nu‘uanu Street and Liliha Avenue

NT-CM **Near Town Corridor/Center Medium** (Low/midrise mixed use on Upper Nu‘uanu Avenue and Liliha Street.)

U-N **Urban Neighborhood** (Pocket of highrise residential by the Nu’uanu Avenue and Judd Street intersection.)

TN-L **Town Neighborhood Low** (multi-story missing middle and walkup residential surrounding both corridors.)

Guidance

Urban Design

Reinforce a pleasant streetscape. Encourage building frontages to be placed within a short distance of the front property line. Support projects with high-quality active ground floors.

Create sensitive transitions between scales. Create transitions between housing scales by using setbacks, landscaped transition zones, high-quality fencing, and/or screening, or design treatments such as matching the form or roof style of adjacent properties, and/or stepping down in size. Promote screening or orienting rear-facing balconies away from direct line-of-sight where possible to maintain privacy between residences. Ensure setbacks for portions of the building above the second floor or podium when adjacent to single-family residential.

Land Uses and Development

Support high-quality low and occasional medium-intensity infill development. Support new retail and commercial uses facing the street but do not require mixed use. Promote middle-density housing adjacent to the corridor and promote quality and more diverse housing choice that is affordable. Preserve commercial space and retain local businesses. Revisit allowed densities in the area as wastewater infrastructure capacity expands.

Multimodal Environment

Complete Streets improvements. Construct bulbouts, crossing improvements, new signalization/signage, and similar small-scale traffic calming interventions. Continue adding shade trees, building off of the existing extensive shade canopy on Nu'uanu Avenue.



Low rise residential buildings with screening.

Additional Actions:

Long-term action:
Upgrades to sewer infrastructure along Liliha Street.

2040 Growth Projections

Total Existing Dwelling Units: 3,200 total units
Nu'uanu—Growth Scenario: 250-500 units
This projection assumes a mild increase in the redevelopment of older housing stock in the area, particularly walkups.

Liliha—Growth Scenario: 250-500 units
This scenario envisions a few, larger mixed-use redevelopments along lower Liliha Avenue.



Using solar panels to generate energy and provide shading for a parking lot.

Focus Area Note: On Transitional Neighborhoods in the PUC

The PUC contains a number of central commercial corridors that remain under-utilized. Most of these corridors (including Liliha Street, North King Street, North School Street and Dillingham Boulevard) are predominantly commercial with occasional residential uses, though typically lower rise. Often, the building blocks for strong pedestrian character are present on these streets, but need reinforcing or refreshing for greater pedestrian comfort.

As areas in the PUC grow, preserving affordability and reinvesting in historically under-invested areas is a major concern. The City should proactively address areas where potential for growth overlaps with issues of displacement and populations with high economic burden.

Existing neighborhoods and communities should be involved and prioritized when planning major new development, and in particular, securing comparable or higher levels of affordability. Public investments in transitioning areas should be made deliberately for the sake of the community at large, and to improve the overall geographic distribution of public investments and benefits.

Focus Areas - Central PUC:

TOD Transformation Districts

Iwilei/North Vineyard

TRANSFORM | vacant and underutilized lands adjacent to the Kūwili (Iwilei) Skyline station into a vibrant TOD District.

INFILL | intensely urban, highly walkable mixed use development mauka of rail.

ENHANCE/INVEST | in new public parks and street connections. Major investments are required in utility, street, sidewalk, and drainage/pumping infrastructure.

Iwilei/North Vineyard Corridor

A high-density mixed-use district emerges around transit and North Vineyard / North King Streets in Iwilei, negotiating the area's infrastructure and adaptation constraints.

Vision

A new high-intensity mixed-use district will gradually emerge around the Kūwili Skyline station, extending from the Downtown. This focus area will be rich with a variety of uses that provide activities during both the day and evening, and support transit ridership. Industrial activities will be retained along the harbor front as a critical logistics and transportation hub.

The renovation and expansion of Mayor Wright Homes will provide a key catalytic project to the area, providing new parks, newly constructed affordable housing units, and new neighborhood services. A similar transformation may be expected to take place closer to the Skyline station as predominantly non-residential land uses are redeveloped into mixed-use high-intensity, pedestrian-oriented neighborhoods.

The addition of residential units to Iwilei will support the concept of 'highest and best use,' as this housing will be built within walking distance of the various jobs and amenities in Chinatown and Downtown.

While Iwilei is poised as one of the few remaining large-scale opportunity areas for substantial growth in the core of the PUC, this will largely be dependent on the combined public and private ability to finance and construct adequate improvements. Real challenges to future growth and change must be overcome with concerted efforts; extensive sea level rise impacts and steep infrastructure needs will present a barrier to realizing the area's potential. Connectivity and open space must also be prioritized and upgraded throughout the area.



Repurposed factory buildings.

Applicable Area Plans or Special Districts:

- Kalihi Neighborhood TOD Plan
- Iwilei-Kapālama Infrastructure Planning (various)



Parking structure screened by a decorative façade.

Focus Area Vicinity Map: Iwilei / North Vineyard Corridor



**Close-up of Fig. 2.3 Land Uses/Place Type Map, Central PUC (p.43); does not show zoning*

Key Place Types for the Iwilei/North Vineyard Corridor

U-N **Urban Neighborhood** (High-intensity residential neighborhood between Liliha Street and Nu'uanu Avenue.)

U-C **Urban Corridor/Center** (Highest-intensity mixed use at the station and Dillingham corridor.)

T-C **Town Corridor/Center** (Medium to high-intensity mixed use along Waiakamilo and makai of the Skyline station areas.)

TN-M **Town Neighborhood Medium** (multifamily residential neighborhood around N. Vineyard steps down in intensity between Liliha Street and Kapālama Canal.)

Guidance

Urban Design

Leverage new buildings to provide a more vibrant public realm. Encourage active ground floor uses on key streets. Define active uses as those that attract walk-in visitors and have a high degree of visibility/ transparency, such as stores, restaurants, cafes, markets, theaters, personal services.

Support the gradual transition from single-use character to a mixed-use environment. Accommodate parking for big-box retailers and other large commercial uses in parking structures or wrapped within new developments to enhance walkability and foster intensity within the TOD neighborhood plan area. Provide transitions and buffers from noise and unsightly industrial uses. Buffers may involve decorative screening or natural landscape materials such as trees, shrubs, vines, or living walls.

Land Uses and Development

Support mixed-use projects. Permit both horizontally or vertically mixed-use proposals, as well as single-use projects if meeting the goals and intent of the Kalihi Neighborhood TOD Plan. Encourage adaptive reuse for historic warehouse buildings being converted to new uses.

Support redevelopment of major public opportunity sites. Support renovation of existing public housing (estimated net 2,000 to 2,500 new housing units on properties controlled by HPHA, primarily Mayor Wright Homes and Kalanihuia Homes). Support a mixed-use catalytic project across from 'A'ala Park, incorporating existing civic services.

Maintain the working harbor. Preserve port activities and jobs makai of Nimitz Highway, and collaborate on long-range improvement efforts at the Harbor.

Provide adaptation and infrastructure improvements to unlock significant growth. Plan for district drainage and adaptation improvements through implementation of a comprehensive plan to address drainage issues. Seek opportunities for equitable and sustainable public-private partnerships to adapt to sea level rise and provide more extensive infrastructure upgrades.

Multimodal Environment

Create new physical and visual connections throughout the area. Support new streets and pedestrian paths to break up superblocks in Iwilei and improve accessibility to the Kūwili (Iwilei) station, Dole Cannery, Kukui Gardens, and Mayor Wright Homes. Retain area views of the waterfront.

Additional Actions:

Short-term action:

Continue working with major public and private property owners to develop long-range plans for the location and scale of planned area growth and investment.

Short-term action:

Continue to identify & prioritize catalytic infrastructure projects.

Long-term action:

Coordinate with HECO to, in the short-term, incorporate the electricity substation into the urban district through screening. In the longer term, work with HECO to relocate the substation away from the immediate rail station area.



Area Adaptation Actions Recommended

Catalytic Projects

The following are identified projects that are expected to have a notable impact on this focus area:

1. **Liliha Civic Center TOD:** HHFDC/DAGS owned property slated for a mixed-use development with housing units over government/social service offices.

2. **Mayor Wright Renovation and Expansion:** Redevelopment of the 15-acre Mayor Wright Homes site owned and operated by HPHA into a mixed-income, mixed-use complex, replacing the 364 units built in 1952 with 2,136 new affordable and market-rate units in a mixture of low-rise, mid-rise and high-rise (2,500 units) with new ground-floor retail.

3. **Multiple high-rise residential developments at the corner of Liliha Street and Vineyard Boulevard.** Redevelopment of low-rise apartments into high-rise housing are expected to occur on several corners.

2040 Growth Projections

Existing Dwelling Units: 850 units

Base Growth Scenario: 2,250-2,500 units

This scenario aligns with the Mayor Wright renovation project, assuming this major effort is completed but little else changes in the area during the plan horizon.

High Growth Scenario: 3,500-4,000 units

This scenario assumes that on top of several HPHA renovations, there is a major district-scale drainage and resilience effort in the Dole Cannery basin that enables additional residential mixed-use growth that meets the potential TOD market demand.



Enjoying leisure time at a public garden. (Source: Foster Botanical Garden)



A townhouse development.

Focus Areas - Central PUC:

TOD Transformation Districts

Kapālama

TRANSFORM | vacant and underutilized lands adjacent to the Kapālama station into a vibrant TOD District.

INFILL | intensely urban, highly walkable mixed use development.

ENHANCE/INVEST | in a multitude of community benefits and supporting amenities including parks and streets.

Kapālama

This mixed-use district is catalyzed by transit oriented development and sustained infrastructure investment, overcoming the area's various development constraints.

Vision

The arrival of the Skyline will support dramatic redevelopment of vacant and underutilized lands adjacent to the Niuhelewai (Kapālama) station, while providing benefit to the community in the form of increased affordable housing, commercial and public gathering spaces, and improved connectiviy. Public entities and non-profit organizations such as state agencies and Kamehameha Schools, will continue to be active participants in long-term planning efforts. Substantial investments in utility, street, sidewalk, and drainage infrastructure will be made.

Over the next decade, thousands of new dwelling units and new retail and office uses are projected to be accommodated along an intensely urban, highly walkable district, anchored by frequent transit and a mix of mid-rise and occasional high-rise buildings. The area in and around the triangle formed by Dillingham Blvd, Waiakamilo Rd, and North King Street will have the highest development intensity and activity in Kapālama. Highrises up to 15 or 20 stories, nearing that of the adjacent 'Iwilei TOD District, will characterize that neighborhood.



Public art along the Kapalama Canal.

Applicable Area Plans or Special Districts:

- Kalihi Neighborhood TOD Plan
- Iwilei-Kapālama Infrastructure Planning (various)
- Kapālama Canal Catalytic Project (study)



Mauka view of a residential and mixed-use district from Kapalama Canal.

Focus Area Vicinity Map: Kapālama



**Close-up of Fig. 2.2 Land Uses/Place Type Map, Central PUC (p.43); does not show zoning*

Key Place Types for Kapālama

FX **Flex/R&D** (Preservation of the industrial use makai of Dillingham Boulevard.)

T-C **Town Corridor/Center** (Medium to high-intensity mixed use along Dillingham Boulevard.)

U-C **Urban Corridor/Center** (Highest-intensity mixed use at the station, along North King Street and Waiakamilo Road.)

TN-H **Town Neighborhood- High** (Moderate/higher-intensity residential around Kalākaua District Park and emerging on the west side of Kapālama Canal.)

Guidance

Urban Design

Leverage new buildings to provide a more vibrant public realm. Require or permit active ground floor uses on key streets. Define active uses as those that attract foot traffic and have a high degree of visibility/transparency, such as stores, restaurants, cafes, markets, theaters, and personal services. Ensure that buildings are close to the sidewalk in order to define the public realm and active uses. Occasional setbacks are appropriate to allow for outdoor dining, plazas, or other active public spaces.

Land Uses and Development

Support a new high intensity mixed-use district. Allow the highest heights and intensities in the Kapālama station area and on North King Street, stepping down toward the waterfront and industrial areas.

Focus on providing housing and amenities for residents. Ensure that a full complement of neighborhood amenities is developed in close proximity to the Skyline, including stores, public facilities, social services, and parks. Support redevelopment of major public opportunity sites with maximal amounts of affordable units.

Multimodal Environment

Take advantage of redevelopment to reshape mobility networks. Support new streets and pedestrian paths to break up blocks in Kapālama and improve accessibility to the canal and the area's parks. Create green streets to connect open spaces to each other.

Additional Actions:

Short-term action:

Complete a district drainage and adaptation improvement plan focusing on properties along the Kapālama Canal.

Mid-term action:

Develop policies for implementing district financing to support the Kapālama-Iwilei Infrastructure Master Plan.



Area Adaptation Actions Recommended

Mid-term action:

Prepare a public facilities plan to create a detailed program for park locations, including acquisition and development and funding (improvements and maintenance).



Enjoying the wharf setting at Pier 38.

2040 Growth Projections

Existing Dwelling Units: 3,000 units

Base Growth Scenario: 2,000-2,500 units

Reflects existing market-constrained projections. Under this scenario, the various state master redevelopment plans are completed but do not catalyze further growth.

High Growth Scenario: 4,000-5,000 units

In addition to publicly funded projects, this scenario sees a series of coordinated infrastructure and adaptation improvements stimulate consistent redevelopment on Dillingham Boulevard, Waiakamilo Road, and the ewa half of North King Street.



Colorful neighborhood storefront.

Catalytic Projects

The following are identified projects that are expected to have a notable impact on this focus area.

1. **Various smaller urban parks and plazas:** Master planned new developments close to the Skyline station should construct high-quality public areas and outdoor spaces.

2. **Honolulu Community College (HCC) Master Plan:** Owned by the UH system, the HCC campus has several underutilized portions that could be built on, providing students with local housing and amenities. Future uses would also include office and R&D space.

3. **Kamehameha Schools Kapālama Kai Master Plan:** A master plan for over 100 acres of industrial and marginal commercial land along the canal that aligns commercial properties, educational outcomes and community building to direct a 20-year vision for this area. Up to 4,000 to 5,000 units of mixed-use housing is envisioned. Redevelopments of the Kokea Shopping Center and the Kapālama Shopping Center are anticipated as some of the first phases under this effort.

4. **Kapālama Mixed Use Master Plan:** Planned redevelopment of the DHHL-owned property located where the canal meets Nimitz Highway. Existing uses are characterized by warehouse and strip retail, and sea level rise must be addressed through project design.

Focus Areas - Central PUC:

Mid-Town Corridors

North King / North School Streets

INFILL | and rehabilitate buildings into low-scale, neighborhood-serving mixed-uses.

ENHANCE/INVEST | in pedestrian comfort between buildings and buffering from traffic. Improve streetscape conditions, and support spaces for successful retail viability.

PRESERVE | historic landmark buildings, established local businesses, and housing affordability.

North King/North School Streets

Invest in the enhancement of the North King Street corridor and its businesses.

Vision

The oldest portion of the North King Street corridor will thrive by celebrating its historic buildings, local businesses and 'mom and pop' shops, and variety of neighborhood-serving establishments. Buildings along the corridor will be rehabilitated and occasionally redeveloped with neighborhood-scale mixed-use buildings. Adjacent neighborhoods may be redeveloped into medium intensity residential in a mix of public and private development. Housing affordability and sidewalk and mobility improvements are major community priorities.



A coffee shop with outdoor seating.

Applicable Area Plans or Special Districts:

- Kalihi – Pālama Action Plan



A busy street intersection in Kalihi near the historic Palama Fire Station.

Focus Area Vicinity Map: North King & North School Streets



**Close-up of Fig. 2.2 Land Uses/Place Type Map, Central PUC (p.43); does not show zoning*

Key Place Types for N. King / N. School Sts.

NT-CM **Near Town Corridor/Center-Medium** (Low to midrise mixed-use on portions of the N. King St. and N. School St. corridors.)

T-C **Town Corridor/Center** (more intense mixed uses on N. King approaching the Kapālama canal.)

NT-N **Near Town Neighborhood** (Lower-density residential surrounds N. School St. mauka of H-1.)

TN-L **Town Neighborhood Low** (low-to-mid intensity multifamily residential throughout Kalihi-Pālama.)

TN-H **Town Neighborhood High** (mid to higher intensity multifamily residential off Waiakamilo Road, south of N. King St.)

Guidance

Urban Design

Protect, maintain, and creatively utilize the area's historic features. Support rehabilitation of unique and historic buildings to strengthen the heritage character of the corridor, and for the enjoyment of community residents, visitors, and future generations. Strengthen existing landmarks and use redevelopments to create new notable features and landmarks.

Promote lively and healthy small businesses. Encourage eateries, shops, and other active uses. Increase commercial storefronts that include street-oriented uses and greater transparency to interior uses.

Land Uses and Development

Stimulate limited mixed-use infill development. Precede major projects with consistent investments, incentives, and improvements to streetscapes, public spaces, wayfinding, and infrastructure. Support major public housing and redevelopment projects with proactive upgrades of wastewater and stormwater systems.

Multimodal Environment

Improve the public realm character. Create pedestrian walkways and bikeways that connect neighborhood centers. Continue ongoing Complete Streets improvements, including, bulb-outs/crossing improvements, undergrounding utilities, additional street trees and landscaping.



Mixed low and high density housing.

Catalytic Projects

1. **Revitalization of historic and cultural centers:** Support the preservation/rehabilitation of cultural and historic centers such as Pālama Theater, Pālama Settlement, Kaumakapili Church, and Wallace Rider Farrington High School.

2040 Growth Projections

Existing Dwelling Units: 1,000 units
Growth Scenario: 250-500 units

If the large Kamehameha Homes property at North King Street and Kalihi Street is redeveloped during the PUC DP horizon per a long-term HPHA project, this projection would be revised upwards by 2,000 units.



(Source: Ulupono Initiative)

Focus Areas - West PUC:

TOD Transformation Districts

Hālawa (Stadium)

TRANSFORM | to a complete new mixed-use district surrounding a new Aloha Stadium.

INFILL | a focused core of dense high-rise residential development, supported by new activity centers including office, hotel, and entertainment.

ENHANCE/INVEST | in infrastructure improvements for sewer/water, open space and the public realm, roadways, sidewalks and streetscapes, and new community-serving facilities.

PRESERVE | the popular swap meet use at the Aloha Stadium site.

Hālawa (Stadium District)

Hālawa grows into one of O'ahu's most interesting and livable transit communities, centered around a redeveloped Aloha Stadium district.

Vision

The Hālawa area will undergo a transformation, spurred by a complete redevelopment of the Aloha Stadium site with a new stadium, Skyline station, and complementary mixed-use development. The state-led New Aloha Stadium Entertainment District project will combine dense mixed-income housing with entertainment, sports, retail, hotel, and office uses surrounded by walkable residential neighborhoods. In the core of the district, compact mixed-uses will frame pedestrian-oriented blocks and surround community-oriented open spaces. Office, residential, retail, restaurant, and entertainment uses will activate the area with around the clock activity. The intensified and reshaped station area will complement the anchor uses of Aloha Stadium and serve existing nearby activity hubs such as the Pearl Harbor Visitors Center, the nearby Joint Base Pearl Harbor-Hickam, as well as Hālawa's surrounding neighborhoods of 'Aiea and Foster Village.



Hālawa rail station area.

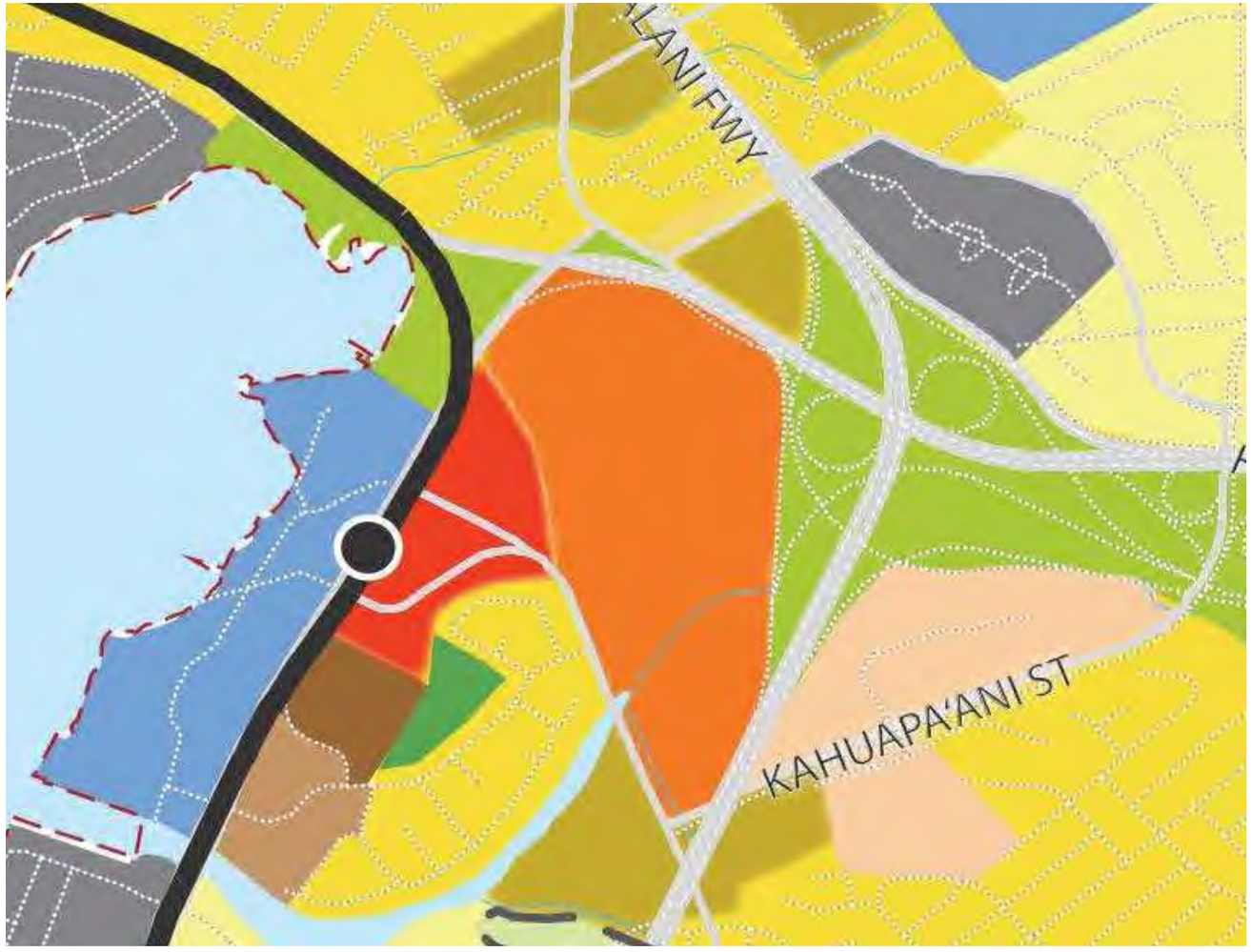
Applicable Area Plans:

- Hālawa Area TOD Plan
- New Aloha Stadium Entertainment District plans (HCDA)



Redevelopment of the Aloha Stadium site, to include a new entertainment district with commercial and residential uses, will proceed in stages and it has been identified as a priority project for the state. (Image Source: The NASED Project)

Focus Area Vicinity Map: Hālawa (Stadium District)



**Close-up of Fig. 2.1 Land Uses/Place Type Map, West PUC (p.42); does not show zoning*

Key Place Types for Hālawa (Stadium)

U-C **Urban Corridor/Center** (High to very high-intensity mixed use adjacent to station.)

T-C **Town Corridor/Center** (Medium to high-intensity mixed use replacing the existing stadium parking lot.)

NT-CM **Near-Town Corridor/Center Medium** (medium intensity mixed use at Kahuapa'ani Street.)

TN-M **Town Neighborhood Medium** (Lower intensity multi-family at the HPHA housing complex.)

NT-N **Near Town Neighborhood** (New development should respect transitions to existing residential.)

Guidance

Urban Design

Create engaging streets and permanent public gathering spaces where none previously existed. Line Salt Lake Boulevard with walkable street-level retail and commercial uses. Concentrate ground-floor retail space appropriately around central open spaces. Provide a multi-functional landscaped or hardscaped open space near the Aloha Stadium station designed for community events.

Establish a strong visual and aesthetic connection between the Skyline station and the stadium. Create an appealing gateway of mixed-use and entertainment uses between the Hālawa (Aloha Stadium) Skyline station to the redeveloped Aloha Stadium. Pay attention to wayfinding and incorporate engaging design features.

Land Uses and Development

Maximize affordable housing. Ensure projects contribute to the demand for affordable housing. Encourage a mixed use- mixed income format of housing types, with appropriate transitions to existing residential areas.

Enhance and balance the district, carrying its history forward. Create both daytime and nighttime activities. Seek out community-oriented retail and amenities. Encourage food, entertainment, and cultural uses (such as a museum) that support the stadium and community. Support the ongoing swap meet operations in a reorganized location near the edge of the district.

Multimodal Environment

Proritize multi-modalism in the Stadium site redesign. A new grid of streets throughout the stadium site will increase vehicular as well as pedestrian and bicycle connectivity. Direct pedestrian connections should be made throughout the site, especially in commercial areas and superblocks should be avoided. A pedestrian connection to Hālawa Stream, as a new blue corridor pathway and recreation area should be pursued. Support future residents with new trails and vista points for exercise and recreation.

Connect the environs to and from the Skyline Station. Extend the Pearl Harbor Historic Trail to the rail station area to improve regional bicycle access. Extend pedestrian and bicycle improvements to adjoining development areas from the station area.



The Aloha Stadium Swap Meet is a neighborhood gathering place.

Catalytic Projects

The following are identified projects that are expected to have a notable impact on this focus area:

1. **Aloha Stadium Redevelopment:** The existing Aloha Stadium, having reached the end of its useful life, will undergo redevelopment, along with its entire site, becoming the heart of a new mixed use district (the New Aloha Stadium Entertainment District, or NASED) in Hālawa. The future stadium will likely have a different location and footprint. New housing on the site may be accompanied by other catalyzing uses such as a new hotel and complementary shopping and entertainment.

2. **Area-wide utilities and upgrades**. Substantial amounts of infrastructure investment and improvement are needed. Key investment areas include:
   - Sewer and water infrastructure
   - Open space and public realm (including at least one major new multi-functional open space)
   - Roadways, sidewalks and tree-lined streetscapes
   - New community-serving facilities and programs
   - Hālawa Stream improvements and pathway.

2040 Growth Projections

Existing Dwelling Units: 250 units

Base Growth Scenario: 1,500-2,000 units

Under a scenario where the market is catalyzed by TOD, a moderately-sized new residential district emerges.

High Growth Scenario: 4,000-5,000+ units

The area's enormous potential for extensive affordable housing and commercial development is realized with sustained infrastructure investment and successful public/private partnerships.



Image source: Hālawa area TOD Plan

Focus Areas - West PUC:

TOD Transformation Districts

Kalauao (Pearlridge) Station

TRANSFORM | the regional mall environs into a livable, urban mixed-use community with housing, employment, retail, and recreation.

INFILL | moderate to high-density residential and mixed-use buildings.

ENHANCE/INVEST | in multimodal access to the station area, streetscape comfort, and safety.

Waiawa (Pearl Highlands) Station

EVOLVE | with modest intensification and diversification of the existing commercial center.

INFILL | moderately-scaled residential and mixed-use buildings.

Pearlridge and Pearl Highlands

Vision

Over time, Pearlridge Rail Station area will expand into a livable, urban mixed-use community with new housing, employment, retail, and recreational choices. The regional shopping center at Pearlridge Station will undergo a noticeable conversion from single-use commercial into a transit-oriented urban center, introducing new vibrant uses and housing. Key infrastructure investments and improvements are undertaken at the Pearlridge station area.

A similar, if less intense, transformation will occur at the Pearl Highlands rail station area. This area will serve as a major transit hub for commuting residents originating ewa and mauka of the TOD neighborhoods. Over time, the Pearlridge area will fulfill the community's vision of a moderately dense mixed-use district, evolving beyond a regional commercial center.



High density residential buildings around Pearlridge station area.

Applicable Area Plans or Special Districts:

- 'Aiea-Pearl City Neighborhood TOD Plan
- 'Aiea-Pearl City Livable Communities Plan (special area study)



Elevated rail line along Kamehameha Highway.

Focus Area Vicinity Map: Pearlridge & Pearl Highlands



**Close-up of Fig. 2.1 Land Uses/Place Type Map, West PUC (p.42); does not show zoning*

Key Place Types for Pearlridge and Pearl Highlands Stations

- **I** — **Industrial** (Some industrial uses are preserved.)
- **U-C** — **Urban Corridor/Center** (Varied-intensity mixed use immediately adjacent to the Skyline stations.)
- **T-C** — **Town Corridor** (Medium to high-intensity mixed use within a moderate walking distance from the stations.)
- **NT-CM** — **Near-Town Corridor Medium** (Low-medium intensity mixed use ½ mile or farther from rail stations.)

Policies

Urban Design

Create new connections to the waterfront. Seek to open up views and sightlines to the water. Promote improvements to pedestrian friendliness as mall areas are redeveloped. Upgrade multimodal access to the shoreline, including through the Pearl Harbor Historic Trail.

Identify and enhance key corridor features. Create permanent open space at key locations including intersections, waterways, and pedestrian crossings, and maintain views to Pearl Harbor. Protect important landmarks such as the Loko I'a Pā'aiau Fishpond. Preserve open mauka to makai views in public spaces, particularly along key streets, natural drainageways, and open ridgelines.

Land Uses and Development

Transform existing commercial centers into community destinations. As residences grow, build community centers and gathering places (including a new senior center) in the area and encourage workforce housing. Protect and enhance historic or cultural assets (such as the Watercress Farm).

Diversify the mix of uses. Support job-generating uses such as office, R&D, medical, and institutional. Invest, improve, and infill along the corridor with medium and medium-high-intensity mixed-use development. Extend this pattern envisioned at the Pearl City rail transit station eastward, creating more jobs for the residential community.

Multimodal Environment

Improve mobility and quality of services. Balance the needs of passengers and workers arriving via transit, on foot, and via auto. Ensure direct pedestrian access to station platforms.

Additional Actions:

Medium-term action:

Upgraded flood control projects and protection of infrastructure along the water's edge should accompany new growth. Flooding impacts are projected primarily makai of the rail alignment. Major development at the Kalauao (Pearlridge) rail transit station will need to plan for and adjust site planning to reflect future flood conditions.



Area Adaptation Actions Recommended



Pedestrian friendly residential mixed-use neighborhood.

2040 Growth Projections

Existing Dwelling Units: 2,850 units (850 units at Pearl Highlands, 2,000 at Pearlridge)

Pearlridge Mall—Base Growth Scenario: 1,000-1,500 units

This scenario is more conservative than the potential maximum TOD demand forecast, assuming that only select TOD redevelopment projects occur during the plan horizon.

High Growth Scenario: 2,500-3,000 units

Under this scenario (which is largely incumbent upon market conditions), major portions of Pearlridge Shopping Center are successfully redeveloped in this timeframe.

Pearl Highlands—Growth Scenario: 500 units

This scenario represents limited redevelopment of portions of the Pearl Highlands Shopping Center and adjacent properties into multifamily housing, as envisioned by the 'Aiea-Pearl City Neighborhood TOD Plan.

Catalytic Projects

1. **Former Kamehameha Drive-in property:** Potential redevelopment of the former Kamehameha Drive-in property to a mixed-use residential and commercial development within a quarter mile of the Kalauao (Pearlridge) Transit Station.
2. **Substantial infrastructure investment and improvement are needed in:**
   - Sewer capacity upgrades;
   - Roadways and public realm (sidewalks and tree-lined streetscapes);
   - New community-serving facilities and programs.



Open views and sightlines to the water.

Focus Areas - West PUC:

Suburban Town Centers

'Aiea Town Center

INFILL | gradually with appropriate low-intensity mixed-use and residential development over time.

ENHANCE/INVEST | in façade and streetscape improvements, create a new activity center at the Sugar Mill site, and strengthen 'Aiea as a regional destination.

PRESERVE | small-town character

Ka'ahumanu Street

INFILL | low-scale residential and commercial development, in either vertical or horizontal mixes.

ENHANCE/INVEST | in Complete Streets treatments, streetscape comfort and safety, and façade and frontage upgrades.

PRESERVE | neighborhood-oriented uses.

‘Aiea Town Center and Ka‘ahumanu Street

Foster a lively small-town character and sense of place.

Vision

‘Aiea Town Center and the Ka‘ahumanu Street corridor are enhanced as neighbohood-serving community centers and anchors, primarily commercial in nature, but with more surrounding residential uses being introduced over time. The existing neighborhood character and scale should be respected, allowing low-intensity mixed uses to develop gradually. The key intersections should be beautified and enhanced as neighborhood gateways and social places. Nearby residential neighborhoods can gradually introduce middle-density housing types.



‘Aiea Town Center serving retail needs of the community.

Applicable Area Plans:

- 'Aiea-Pearl City Livable Communities Plan (special area study)



Outdoor public art at the 'Aiea Public Library.



Watercress farm sitting amid commercial development.

Focus Area Vicinity Maps: 'Aiea Town Center & Ka'ahumanu Street





**Close-ups of Fig. 2.1 Land Uses/Place Type Map, West PUC (p.42); does not show zoning*

Key Place Types for ‘Aiea Town Center and Ka‘ahumanu Street

NT-CM **Near-Town Corridor/Center Medium** (Low-medium intensity mixed use along corridors in both centers.)

NT-N **Near-Town Neighborhood** (Low intensity mixed residential surrounding neighborhood centers.)

I **Industrial** (Warehousing, logistics, and light manufacturing uses mauka of Moanalua Road; to be preserved.)

Guidance

Urban Design

Enhance identity and character. Maintain integrity of the significant view corridor of Pearl Harbor from ʻAiea Heights Drive. Retain and add new landscaping and trees, and place utilities underground wherever feasible. Visually enhance the ʻAiea Shopping Center site along ʻAiea Heights Drive and Moanalua Road. Identify locations in the community that can be converted from paved, underutilized or undeveloped sites to landscaped public open space uses. Support architectural influences and streetscapes reflective of the historic small-town character. Establish a distinctive gateway feature at one of the entrances to 'Aiea Town (such as at the top of Lower 'Aiea Heights Drive).

Ensure high-quality design. Encourage the use of exterior building materials such as wood siding and stucco which conveys a small-town atmosphere. Extensive use of materials such as plastic, steel, and glass products (except for windows or doors) should be discouraged. Encourage incorporating architectural detailing and ornamentation on building exteriors reflective of the town's agricultural history. The incorporation of such architectural detailing, especially at the ground level, would contribute to a sense of pedestrian scale as well as be visually appealing. Locate building façades close to the street.

Land Uses and Development

Establish a real center of activity in ʻAiea. Reinforce and enhance area character by encouraging civic and community uses, and ground floor activity in new development. A mixture of land uses consisting of commercial, retail, residential, and public facilities is essential toward promoting a sense of community as well as serving as the organizing hub of the neighborhood.

Multimodal Environment

Support a pedestrian-oriented center/corridor. Encourage projects to provide clear pedestrian-oriented connections to activities and destinations. Locate off-street parking to minimize views from streets. Enhance the intersection of Moanalua Road and ʻAiea Heights Drive to serve as the gateway to ʻAiea, with safer crossings, additional wayfinding or architectural elements, and landscaping. Provide visual dividers along sidewalk edges such as landscaping to buffer pedestrians from vehicular traffic along major streets.



Maintain significant view corridor of Pearl Harbor.

Catalytic Projects

The following are identified projects that are expected to have a notable impact on this focus area.

1. **‘Aiea Sugar Mill Site:** Fulfill plan concepts for the mill site to include community-serving anchors, open space, and senior housing.
2. **‘Aiea Stream improvements:** Complete improvements along the banks of 'Aiea Stream as it passes through the town center.

2040 Growth Projections

Existing Dwelling Units: 500 units (400 in ‘Aiea, 100 in Ka‘ahumanu)

‘Aiea Town—Growth Scenario: 500 units

This scenario includes current senior housing units at the mill site, and assumes some infill around the town center.

Ka‘ahumanu Street—Growth Scenario: 250-500 units

This scenario allows for selected infill of commercial properties along the street with new residential and office uses.



Community-serving retail stores at the historic Waimalu Shopping Center.

Focus Areas - West PUC:

Suburban Town Centers

Upper Lehua Avenue/Lower Waimano Home Road

EVOLVE | into a true regional town center for the western PUC.

INFILL | low to midrise mixed-use development with vibrant ground floor uses.

ENHANCE/INVEST | in infrastructure improvements as needed, and façade/ streetscape improvements to enliven the corridor.

Upper Lehua Avenue/Lower Waimano Home Road

Revitalize upper Lehua Avenue to lower Waimano Home Road, to realize a true main street for Pearl City.

Vision

The community will realize a long-expressed desire to enliven the primary corridor in Pearl City of lower Waimano Home Road to upper Lehua Avenue, stretching mauka-makai on either side of the H-1 freeway. Through development and improvements, the lower portion of Waimano Home Road, and (especially) the upper portion of Lehua Avenue will build on the walkable mixed-use places envisioned around the nearby Waiawa (Pearl Highlands) TOD station, at a smaller neighborhood scale.

This historic area will reach its potential to become a true regional town center for the western edge of the PUC; a modestly urban place with a quality public realm anchored by transit. The lower Waimano Home Road/upper Lehua Avenue corridor and the crossing of Kamehameha Highway will become more active and inviting by evolving into a slightly denser and walkable mixed-use place, with low and mid-rise building forms, and engaging street-facing façades.



Mid-rise residential building.

Applicable Area Plans or Special Districts:

- Aiea-Pearl City Livable Communities Plan (special area study)



Community serving grocery store.

Focus Area Vicinity Map: Lower Lehua / Lower Waimano Home Road



**Close-ups of Fig. 2.1 Land Uses/Place Type Map, West PUC (p.42); does not show zoning*

Key Place Types for Lehua Ave/Waimano Home Road (Pearl City)

- **T-C** **Town Corridor/Center** (Medium intensity mixed use along the corridor and at the regional shopping center.)
- **NT-CM** **Near-Town Corridor** (Low-medium intensity mixed use along Lehua Avenue, makai of the H-1 Freeway.)
- **TN-L** **Town Neighborhood Low** (low-rise residential surrounding the corridor.)
- **TN-M** **Town Neighborhood Medium** (mid-rise attached and detached residential surrounding the corridor.)

Guidance

Urban Design

Continue to reinforce a pleasant streetscape. Encourage building frontages to be placed within a short distance of the front property line to lend a comfortable pedestrian feel. Support projects with high-quality ground floors and consolidate surface parking behind buildings.

Seek to improve the public realm. Improve the comfort and safety of crossing under H-1. Consider activating the vacant corner of Lehua Avenue and the Pearl Harbor Bike Trail and keep the area free from debris.

Land Uses and Development

Promote medium-intensity mixed-use infill along the corridor. Larger buildings may be appropriate if affordable housing is maximized. Invest in the built environment through public and private cooperative improvements.

Fill vacant storefronts. Activate vacant frontages with interim uses, such as short-term "pop-up" shops or activities, and work to locate new long-term tenants.

Multimodal Environment

Invest in the corridor. Continue narrowing Lehua Street and enhancing multimodal facilities. Add landscaping and complete the tree canopy of Waimano Home Road. Pursue signal improvements at the intersection of Lehua Avenue and Kamehameha Highway. Monitor crash frequencies at the intersection with Kamehameha Highway, and install safety interventions.



An overhead bridge that promotes travelling on foot.

Additional Actions:

Mid-term action:

Plan for new community facilities on Lehua Avenue such as a senior recreation center, swimming pool, or resilience hub. Look for opportunities to aquire or partner with the Navy on underutilized areas that can be developed for community purposes.

Catalytic Projects

1. **Hale Laulima Rehab:** Long-term renovation of HPHA Housing along Hoʻomalu Street.
2. **Consider a Green Street or linear park along Waimano Home Road:** Seek to soften the corridor's auto-orientation by adding street trees, widening sidewalks, adding a median, or by converting a lane into a linear open space between Kamehameha Highway and Moanalua Road.
3. **Infrastructure improvements:** Extend sewer and mobility infrastructure upgrades from the adjacent rail station district into this focus area.

2040 Growth Projections

Existing Dwelling Units: 750 Units

Growth Scenario: 750-1,250 units

This estimate is slightly higher than current market-constrained projections, taking into account the catalyzing impact of developments and investments in the adjacent Pearl Highlands Rail Station Area. This growth would be expected to occur in the 2030-2040 timeframe.



Maintain the Pearl Harbor Bike Trail.

FUTURE PLANS RECOMMENDATIONS: Developing these planning tools provide specific guidance for areas expected to experience varying levels of growth and change.

A. Recommended Special Area Plans

Develop additional plans akin to TOD Neighborhood Plans (such as Specific or Corridor Plans) for areas of major focused growth areas that do not have recent plans:

- South King & Beretania Streets
- Waikīkī (to be pursued in tandem with an Area Adaptation Plan)
- TOD plan expansion along North King Street (from Liliha Street to Kalihi Street)

B. Recommended Corridor Improvement Plans

Prioritize Special Area Planning efforts in areas outside of TOD likely to experience moderate growth, not exposed to sea level rise, and in need of enhancement.

- Pearl City (Complete Streets on Waimano Home Road and Lehua Street)
- North School and North King Streets Makiki (Complete Streets on Wilder)
- Mo'ili'ili (Complete Streets on Date
- McCully Street and surrounding area
- Liliha Street /Nu'unanu Avenue
- Kapahulu Avenue
- Wai`alae Avenue in Kaimukī

C. Recommended Coastal Hazards Planning

Prioritize Area Adaptation Planning to include any combination of: drainage planning, infrastructure planning, or design guidelines, in areas already experiencing (or projected to experience) heightened coastal hazards due to climate induced sea level rise or flooding.

Near Term
- Waikīkī
- Iwilei-Kapālama
- Māpunapuna/Kalihi Kai

Medium Term
- Ala Moana/Kaka'ako
- Pearl City-'Aiea Shoreline

Longer Term
- McCully-Mōili'ili
- Wai'alae-Kāhala Shoreline

Housing

Housing



GOAL H-1:
Encourage Development of a Wide Range of Housing Types in Proximity to Transit.

Policy H-1.1: Enable or incentivize residential infill development in transit-accessible planned growth areas.

Policy H-1.2: Refine the desired residential land use mix in TOD and key focus areas.

Policy H-1.3: Encourage a greater variety of housing types, including low or middle-density multi-family housing, ADUs and ‘ohana units, mid-rise apartment buildings, and shared housing models.

GOAL H-2:
Expand the Availability of Quality Affordable Housing for PUC Residents.

Policy H-2.1: Expand the supply of income-restricted affordable housing through requirements, incentives and public-private partnerships.

Policy H-2.2: Produce new income-restricted units through public sector development and non-profit partnerships.

Policy H-2.3: Preserve affordable housing options and improve conditions by encouraging reinvestment and redevelopment of aging multi-family housing and investing in public infrastructure.

Policy H-2.4: Expand homeless services and supportive housing in the PUC.

Key Outcomes

Quality housing options at affordable price points is vitally important to the PUC's residents. However, the availability of such housing remains a large unmet need for many. Policies in this Chapter address that gap by focusing heavily on increasing affordable housing production, as well as forward-looking strategies to reduce housing costs.

Plan policies promote a wide range of housing types for various income levels, household sizes, and differing needs. By enabling and incentivizing residential infill development in mixed-use and transit-accessible areas and by encouraging a greater variety of housing forms, residents will have increased choice when deciding where to live. These choices should include low to mid-density multifamily housing such as courtyard apartments and townhomes; ADUs and 'ohana units; expanded cohousing options; live-work housing; and mid-rise apartments.

Affordable housing requirements, development incentives to spur the renovation of aging rental apartments, and the unbundling of parking costs from residential units, are examples of actions that the City can continue to pursue to help increase the production of housing that the PUC's individual and family households can afford.

Policies in this Chapter (and the *Growth + Development*, *Placemaking + Character*, *Focus Areas*, and *Healthy Communities* chapters), also highlight quality of life issues in existing residential neighborhoods; this includes support for more age-friendly and accessible housing options, and strategies for sustainable builiding practices that improve safety and resource efficiency.



Setting the Stage

The PUC plays a critical role in housing for Hawai'i's residents, accounting for about half of all housing on O'ahu, and nearly one-third of housing for the State. It is the most populated region on the island and remains an important location to continue to focus future housing growth that is in close proximity to existing public transportation, jobs, schools, and services. The PUC has a diverse population and is home to more renters when compared to other parts of O'ahu. PUC households also tend to be smaller than islandwide averages, and are somewhat less likely to include children (27 percent of households compared to 35 percent overall in 2015).

Housing in the PUC covers a full spectrum, from detached homes, to dense highrise towers. About 40 percent of the PUC's housing units consist of detached ("single family") homes, while roughly 30 percent are in buildings with greater than 50 units.

Some PUC neighborhoods have experienced a building boom in recent years. This recent growth primarily consists of high-rise residential housing in the Kaka'ako and Ala Moana neighborhoods, that often include ground-level commercial uses.

Significant potential for additional new housing growth exists within the PUC, especially with the continued infill and redevelopment of TOD neighborhoods. However, high construction and infrastructure costs continue to present challenges for residential development outside of all but the strongest market locations, and market prices for new developments in the PUC have been high.

The Affordability Gap

Honolulu continues to experience a serious shortfall of housing that is affordable to large numbers of residents. Housing affordability has consistently been among the top concerns in the ongoing engagement efforts for this Plan, and in related efforts for the TOD Neighborhood Plans. Affordable housing often requires subsidies, incentives, and other public sector strategies to be acheived in a high-priced housing market such as Honolulu. Therefore, policies in the PUC DP place special focus on acheiving affordable housing production and building upon current strategies employed at the City, other public sector, and private/public partnership level.

Current Efforts

The City and State continue to seek solutions to the challenge of housing affordability and have instituted various policies and programs including:

- The City's Affordable Housing Requirement that applies to all new for-sale housing developments of 10 or more units and provides a percentage of income-restricted units;
- Section 201H regulations that offer expedited processing and a variety of exemptions from fees and other City and State requirements to projects that provide affordable units;
- The City's Affordable Housing Fund provides funding to developers or rental housing targeting households at or below 60 percent Area Median Income (AMI) for at least 60 years (Res. 21-192);
- Efforts to expand and increase the number of ʻohana units and accessory dwelling units (ADUs);
- Incentives and grants to encourage small lot development/ redevelopment of rental housing with modified requirements, targeting households with incomes at or below 100 percent AMI;
- Offering City-owned properties at reduced cost for affordable housing projects;
- Efforts to align infrastructure to increase in-town, transit accessible housing in mixed-use areas;
- City administration of federal funds for rental assistance to lower income families, various loan programs for income-qualified applicants, and development/rehabilitation of affordable and special needs housing;
- The State-run Hawai'i Community Development Authority's (HCDA) Reserved Housing Requirement in Kakaʻako that requires new residential projects to provide a share of affordable units; and
- The City's Rental & Utilitiy Relief Program, that uses federal CARES Act dollars to provide aid to households in financial distress as a direct result of the COVID-19 pandemic for up to 12 months. This temporary program has the additional benefit of helping to stabilize property owners who have lost income to nonpayment.

While these combined efforts are helping to move the needle on housing affordability and stability, new approaches are, and will be, continually needed.

Related Policies

Policy GD-3.1: Allow gradual addition of house-form multi-unit dwellings and small apartment buildings near lower-intensity commercial corridors.

Policy GD-2.2: Promote moderate-scaled residential infill while preserving affordability in mixed-density neighborhoods.

Policy PPOS-1.3: Seek opportunities to create new parks in high-density and growing areas of the PUC.

Policy MC-1.2: Continually improve the efficiency and connectivity of public transit in PUC neighborhoods through improved travel times and fequency.

Policy HC-1.4: Expand access to healthy foods from local growers and expand the community gardens program.

Policy HC-2.1: Encourage housing designed with kūpuna in mind, and in a variety of household sizes.

Policy HC-2.2: Design parks and open space to provide increased physical activity for all ages.

Policy SLR-2.1: Plan for priority growth areas outside of higher impact areas, and vet proposed solutions for higher impact areas with the community.

The Policies in this Chapter are intended to enable a shared vision for the PUC that provides quality housing that is affordable to households across income levels and available in a variety of building types and configurations to meet diverse needs and preferences. These housing policies provide forward-looking guidance to further increase the viability and consistency of affordable housing production. A key component in achieving this vision is improved access to frequent and effective public transportation for PUC residents to easily conduct daily activities.

How Does the Plan Get Us There?

Leveraging greater development intensity (height and density) for more affordable housing units and other community benefits.

In TOD areas, a framework has been established to allow development projects to obtain density and height bonuses in exchange for "commensurate" community benefits that may include additional affordable housing units. To further guide developers, and to simplify and standardize the community benefits determination process, more-specific affordable housing targets should be set for TOD neighborhoods, as well as setting standards to offer additional incentives for producing income-restricted rental housing in other areas, a particular need in the PUC where a high proportion of residents are renters.

Investing in infrastructure and coordination between agencies.

PUC DP policies encourage the development of new funding sources, financing tools, and partnerships that result in improved coordination between County and State agencies on large-scale TOD station area infill, and between county agencies on new construction and master planning. Significantly, adapting to the impacts of climate change will prompt shifts in planning for infrastructure resilience and long-term growth areas in an increasingly coordinated fashion between infrastructure agencies, and within the community planning context. Location of affordable housing and directed growth areas should be part of this conversation with the community.

Incentivizing residential infill development in the PUC, especially in mixed-use, transit-accessible areas.

PUC DP policies promote gentle densification (two to four-plex units) and up to middle-density apartment housing adjacent to many existing commercial corridors, as appropriate. Additionally, a call to focus more resources on the renovation of aging low-rise apartment buildings into modern buildings, will also gradually add housing into existing neighborhoods in suitable locations without overwhelming existing character and context. Transit accessiblity and active transportation networks that are integrated into neighborhoods enable more compact development that can, in turn, reduce the prevalence of urban sprawl.

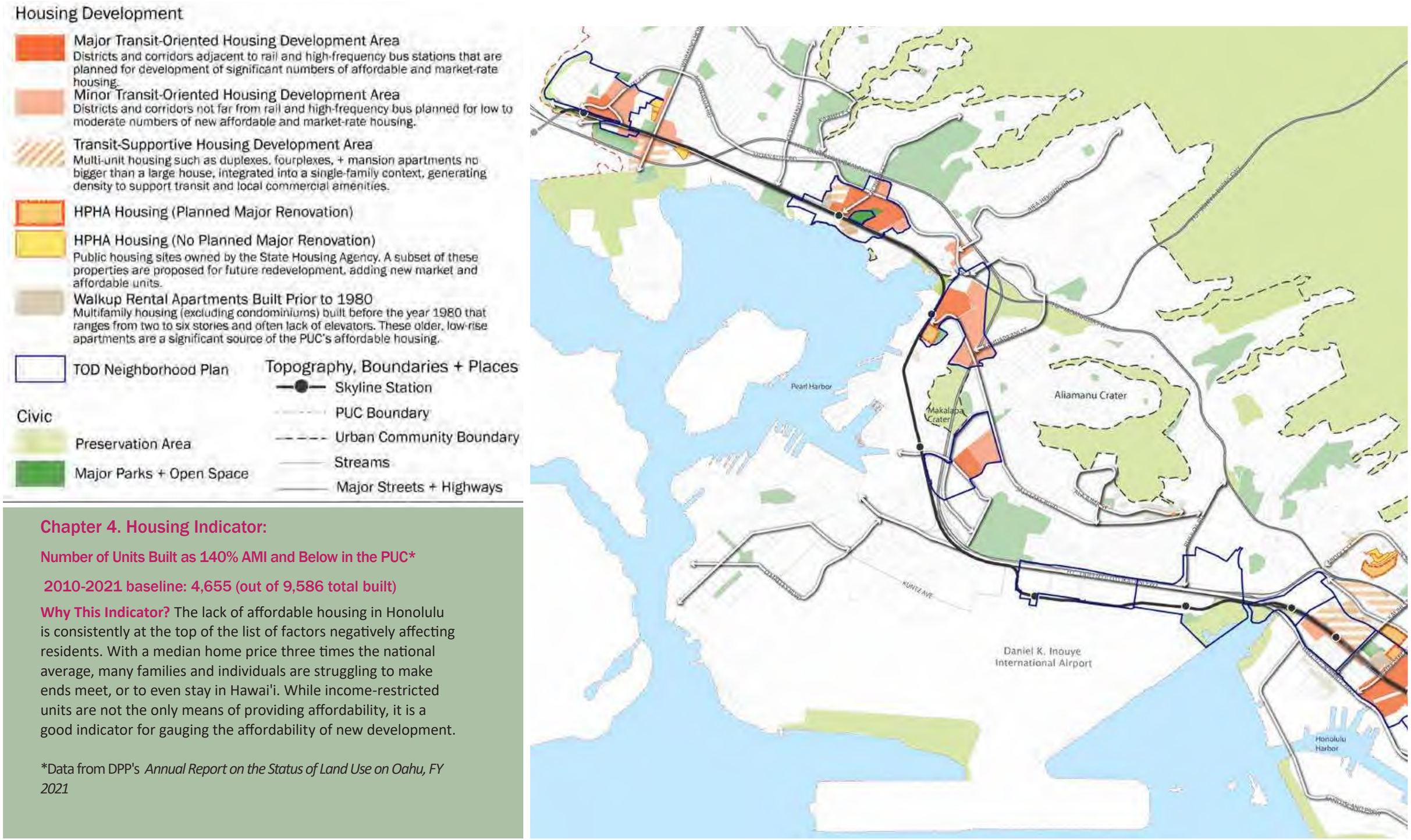
Promoting innovative housing types to meet the needs of all PUC residents.

Housing in the PUC should provide adequately diverse options to meet the basic needs of the area's residents. This includes offering housing in various unit sizes to accommodate a variety of household and family sizes, increasing accessible and age-friendly housing types with a focus on Universal Design principles to support residents of all ages and abilities, and expanding opportunities for more specialized housing types such as live-work housing, cohousing developments, and supportive housing.

Creating more income-restricted affordable housing.

Over the long-term, units with extended or permanent price restrictions provide the greatest affordability to PUC residents. In 2018, the City established an Affordable Housing Requirement and this Plan calls for evaluating its effectiveness over time, monitoring current efforts and amending as necessary to maximize success. Some near-term actions recommended in this Plan include extending the duration of affordability restrictions, particulary for rental housing, and initiating a housing trust fund. Other actions include identifying and acquiring assets for affordable housing and streamlining the 201H permitting process to reduce process redundancies.

Fig. 4.1: Housing Development Areas Framework, West



Chapter 4. Housing Indicator:

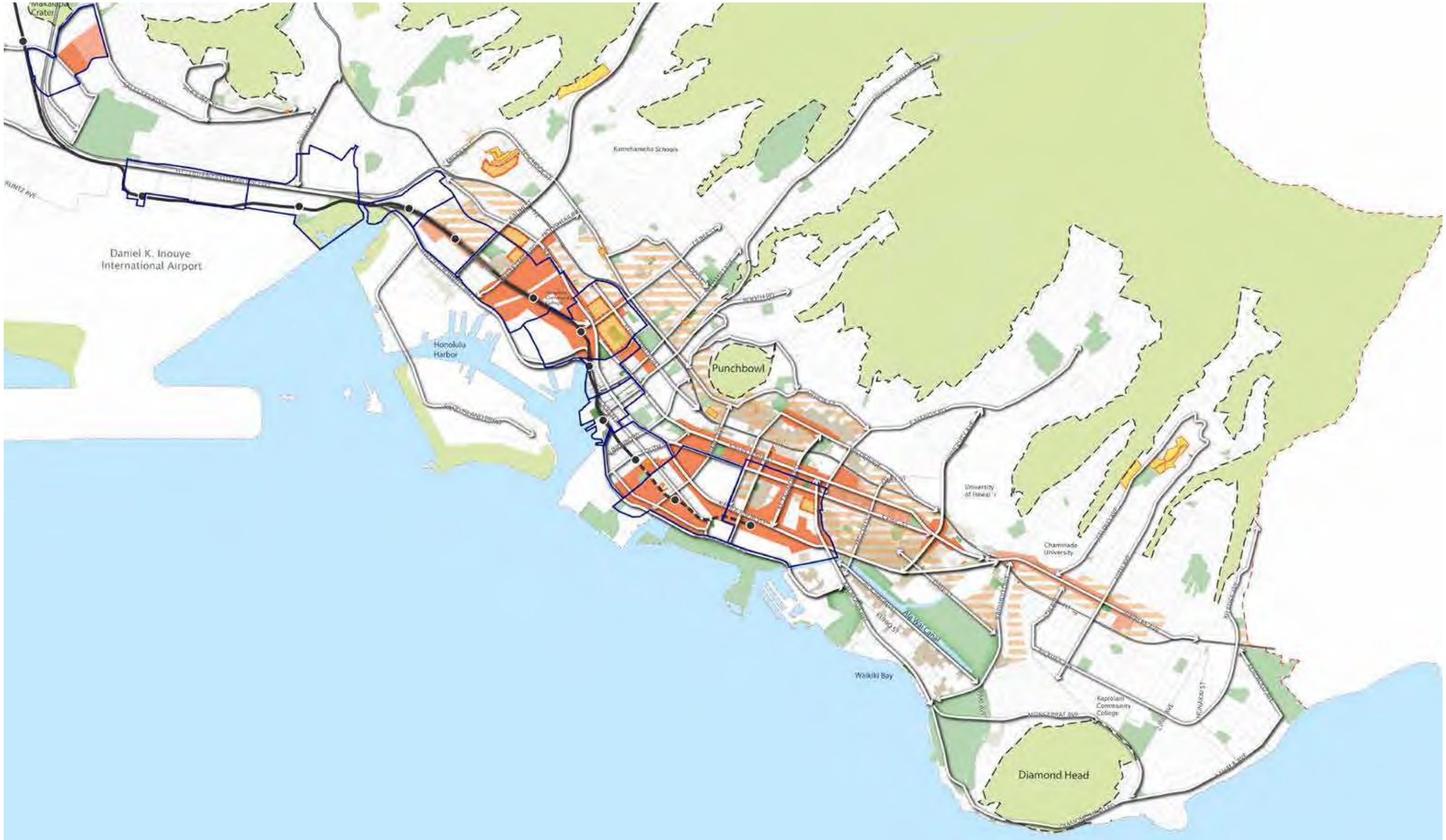
Number of Units Built as 140% AMI and Below in the PUC*

2010-2021 baseline: 4,655 (out of 9,586 total built)

Why This Indicator? The lack of affordable housing in Honolulu is consistently at the top of the list of factors negatively affecting residents. With a median home price three times the national average, many families and individuals are struggling to make ends meet, or to even stay in Hawai'i. While income-restricted units are not the only means of providing affordability, it is a good indicator for gauging the affordability of new development.

*Data from DPP's *Annual Report on the Status of Land Use on Oahu, FY 2021*

Fig. 4.2: Housing Development Areas Framework, East



Goal H-1: Encourage Development of a Wide Range of Housing Types in Proximity to Transit.

Policy H-1.1: Enable or incentivize residential infill development in transit-accessible planned-growth areas.

Promoting residential development in transit-rich and pedestrian-friendly locations within the PUC can help reduce household transportation costs and commuting times, and that can have a major impact on affordability and quality of life. The PUC can accommodate a significant amount of future housing demand in locations that are well-served by public transit such as around Skyline stations, and along high frequency bus corridors that offer convenient access to jobs, retail, services and other neighborhood amenities.

Priority Actions:

Coordinate Infrastructure Improvements with Planned Growth Areas. Continue to coordinate between City and State agencies to focus major infrastructure investments in planned growth areas.

Timeline:



Partners:
- DPP
- DTS
- ENV
- DFM
- BWS
- HDOT
- HCDA

Seek New Infrastructure Funding Strategies. Explore new funding sources, financing tools, and partnerships to help deliver the sewer, water, and other infrastructure upgrades necessary to enable new infill housing.



Partners:
- DPP
- DTS
- ENV
- DFM
- BFS

Illegal Short-term Rental Units Enforcement. Continue to monitor and enforce a dedicated enforcement program to reduce the numbers of illegal short term rental units that can negatively impact existing neighborhoods and reduce numbers of units available to full-time residents.



Partners:
- DPP

Other Actions:

- *Implement permitting strategies that reduce barriers and encourage development on smaller sized lots.*
- *Proactively identify specific corridors/neighborhoods outside of the SLR-XA for prioritizing affordable housing, and developing incentives.*
- *Support the location of specialized housing types in transit-supported areas, including senior housing or other cooperative housing types, live-work housing, and student housing.*



Housing for students near University Avenue

Goal H-1: Encourage Development of a Wide Range of Housing Types in Proximity to Transit.

Policy H-1.2: Refine the desired residential land use mix in TOD and key focus areas.

Major goals of transit oriented development are to provide a lively mix of diverse housing and active street front uses that are supported by well-planned transit and a high quality public realm. Meeting these multiple goals together is important enough that the City provides discretionary review for TOD projects that can include height and density bonuses for commensurate community benefits. For maximum effect and simplicity for developers, it is important to provide clear standards and guidelines for acheiving a mix between different types of housing units such as for-sale or rental units, market and affordable housing units, commercial space, and other product types, including mixes within single projects and neighborhood targets. The TOD Neighborhood Plans include these considerations and should be actively referenced during the community benefits determination process.

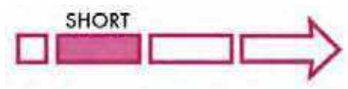


Townhomes near a planned Skyline station in Kaka'ako

Priority Actions:

Mix of Uses. Refine specific targets (minimums and/or maximums) for TOD neighborhoods, by land use, and compare the proposed mix of land uses in new developments. Refer to TOD Neighborhood Plans that contain land use mix targets and locations.

Timeline:



Partners:

- DPP
- Community Partners

Refine Development Expectations. While situations differ, clearly communicate specific guidance for developers on including commensurate community benefits for height and density bonuses as part of the TOD permitting processes.



Partners:

- DPP
- City Leadership
- State Agencies
- Community Partners

Housing Affordability through Community Benefits. To the extent possible, take action to standardize specific thresholds of affordable housing in TOD areas subject to density bonuses.



Partners:

- DPP
- City Leadership
- Community Partners

TOD Incentive Zoning and Community Benefits

The City encourages delivery of income-restricted housing units through commensurate community benefits for TOD projects in return for height and density bonuses. However, the provision of affordable housing is not the only way that projects can attain these bonuses. Developers may also provide open space, bicycle and pedestrian facilities, connectivity improvements, or other specific benefits. Robust community participation should be encouraged at each stage of the project to ensure that commensurate benefits appropriate for the site location are being achieved when density bonuses are awarded.



Senior housing in Ala Moana

Goal H-1: Encourage Development of a Wide Range of Housing Types in Proximity to Transit.

Policy H-1.3: Encourage a greater variety of housing types including low/mid-density multifamily housing, expanded ADUs and ‘ohana units, mid-rise apartment buildings, and shared housing models.

A wider variety of housing types are needed to meet the needs of existing and future households in the PUC. The City can employ a variety of strategies to encourage development that provides a greater range of housing choices, including "missing middle" housing (smaller-scale duplexes to fourplexes, courtyard housing, and townhomes) and mid-rise apartment development. There is also potential to build on ongoing efforts to expand ‘ohana units and additional dwelling units (ADUs) in single family residential areas. Separately, transit-ready and walkable areas of the PUC, especially the TOD areas, present an opportunity to encourage creative new housing models such as shared housing for seniors, housing with communal elements (co-housing), or live-work uses.



Mid-density housing in Waikīkī

Priority Actions:

Support Missing Middle Housing. Allow duplexes to fourplexes, courtyard apartments, townhomes, and small apartments in low-density areas near commercial centers and transit, and subject to infrastructure adequacy. Consider expanding allowable residential density up to fourplex in other areas, subject to infrastructure adequacy. Address regulatory considerations such as dimensional lot/site requirements, front and side setbacks, and parking standards.

Timeline:



Partners:

- DPP
- ENV
- BWS
- DFM
- DTS

Property Owner Education and Assistance. Improve technical assistance such as FAQs, checklists, and standard permit templates to enable homeowners to develop ‘Ohana and ADU units.



Partners:

- DPP
- ENV
- DDC



A mixed-scale residential neighborhood in Mō‘ili‘ili

Other Actions:

- *Continue to identify areas where development of ‘Ohana Units and ADUs is constrained by sewer or other infrastructure needs and develop capacity planning.*
- *Support location of a facility for manufacturing modular housing and ADUs in the PUC.*
- *Encourage pilot projects with shared/co-operative housing or other alternative co-housing models.*

What is Missing Middle Housing?

Missing middle housing refers to various types of multi-unit, house-scale building types intended to be located in low-rise residential neighborhoods. Allowing the development of missing middle building types such as triplexes, fourplexes, bungalow courts, multiplexes, townhouses, and live-work units can help to gently densify neighborhoods where growth is desired, and support neighborhood-scale mixed uses. Missing middle housing types achieve medium-density yields and provide housing options between the scales of single-family homes and mid-rise apartments. They can offer diverse housing choices in neighborhoods where single-family homes also exist. This type of housing does not disrupt the physical character of low-rise neighborhoods, while offering an increment of greater density.

A common characteristic of missing middle construction is house-sized building footprints. The largest of the missing middle types (6 to 12-plex) could have a typical main body width of about 50 to 60 ft., which is comparable to a large estate home. This makes these types ideal for urban infill, even in older neighborhoods that were originally developed as single-family, but could be designated to allow slightly higher densities where considered feasible and desirable.

Because missing middle building types are meant to fit more units on a lot without increasing allowable building size, it is important to test zoning standards to ensure that elements such as minimum lot size, maximum density, maximum lot coverage, and minimum parking standards for multi-unit buildings do not present barriers to these building types where they are desirable. In the PUC, missing middle housing works best in walkable, Near-Town and Town Place Types (See Chapter 3 on Place Types), where lower parking ratios are feasible.



Source: Opticos, Inc.







"Missing Middle" examples in Kapahulu, Punchbowl, and Mānoa (from top)

Goal H-2: Expand the Availability of Quality Affordable Housing for PUC Residents.

Policy H-2.1: Expand the supply of income-restricted affordable housing through requirements, incentives and public-private partnerships.

A critical strategy to address the need for quality affordable housing is to expand the delivery of new income restricted units built by both the public and the private sector. The City has a number of recent regulations designed to achieve this objective, including the Affordable Housing Requirement (AHR) and the use of height and density bonuses in TOD areas. Moving forward, it will be important for the City to monitor the effectiveness of the AHR and other regulations in delivering affordable housing, and to proactively consider additional strategies to expand the number of income-restricted units in the PUC. These should include new incentives, new funding sources and new partnerships. Compared to most other U.S. cities, the duration of affordability restrictions in the City tend to be much shorter; over the longer run it may be advisable to extend durations to maintain increases in the overall supply of income-restricted units.

Priority Actions:

Affordable Housing Program Monitoring and Evaluation. Monitor number of units produced at different income levels, location, and other affordability characteristics. Evaluate effectiveness of the AHR at the end of each 5-year period and revisit as necessary, including quality and size of units. Extend the minimum duration of affordability restrictions for development projects subject to AHR whenever feasible.

Timeline:

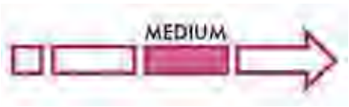


Partners:

- DPP
- DCS
- BFS
- DLM
- HOU

Increased Funding for Affordable Housing. Continue to explore new policies and funding mechanisms, such as a housing trust fund or Empty Homes Tax to generate revenue for the creation of income-restricted affordable housing whil also encouraging unused properties be put back in the rental market for local residents.

Timeline:



Partners:

- DPP
- DCS
- BFS
- OCCSR
- DLM
- HOU



Studio affordable housing development in Kaka'ako

Other Actions:

- *Implement additional incentives for developing income-restricted rental housing (current incentives include development fee reductions, density bonuses, tax abatements, and parking reductions).*
- *Evaluate a potential linkage fee for hotels, other commercial uses, and industrial uses that do not currently contribute to affordable housing.*
- *Explore new policies and programs to keep costs of living in housing affordable long-term, such as a zero-net energy building stretch code and a Residential Energy Conservation Ordinance (RECO) that allows renters to understand ongoing utility costs of a unit before making rental decisions.*

Goal H-2: Expand the Availability of Quality Affordable Housing for PUC Residents.

Policy H-2.2: Produce new income-restricted housing through public sector development and non-profit partnerships.

Providing housing at affordable prices and rents in the PUC can help to ease the housing cost burden for residents and help to meet both current and future demand. While private development will contribute meaningfully, public agencies and non-profit developers have always played a crucial role in producing quality affordable housing. Ideally these are located in mixed-use, transit-served places to provide co-benefits such as reducing household transportation costs and lessening commute times to jobs, services, and schools.

Priority Actions:

Coordinate with State Agencies to supply Affordable Housing on Public Land. Continue coordination with HPHA and other State agencies to support development of income-restricted affordable housing and improvement of existing affordable housing on state land.

Timeline:



Partners:

- DPP
- DCS
- BFS
- DLM
- HOU
- OPSD
- HCDA
- HPHA
- Nonprofit partners

Centralize Housing-Related Functions among City Agencies. Coordinate among City agencies to centralize housing-related functions in one Department and define metrics to track city progress on affordability goals.



Partners:

- DPP
- DCS
- BFS
- DLM
- HOU

Other Actions:

- *Expand and formalize non-profit partnerships to deliver income-restricted affordable housing on City properties.*
- *Pursue opportunities to locate affordable housing on City-owned properties, including along the rail line.*
- *Continue to adjust 201H permitting processes to streamline requirements for affordable housing developers, including alignment of state and local requirements to reduce redundancies.*
- *Regularly coordinate with HPHA on planned developments and catalytic projects including Kukui Gardens, Mayor Wright, Pu'uwai Momi, Lanakila/School St., Kūhiō Park Terrace, Hale Laulima, and Kaiulani in Kalihi Valley.*



Affordable rental apartments in Hālawa

Goal H-2: Expand the Availability of Quality Affordable Housing for PUC Residents.

Policy H-2.3: Preserve existing affordable housing options and improve conditions by encouraging reinvestment/redevelopment of aging multi-family housing and investing in public infrastructure.

Much of the current rental housing in the PUC that is affordable to households with modest incomes is not income-restricted affordable housing, but instead older residential units, including many walk-up apartments, built in the 1950's to 1970's. This "naturally occurring" or market-determined affordable housing may be offered at affordable rents, but can also be in aging buildings that are in need of significant upgrades, repairs, or replacement. It will be important to find ways to encourage re-investment or redevelopment of these properties while simultaneously preserving affordable rental options within the PUC for residents. Developing and monitoring the success of incentives programs and policies for reinvestment in aging properties will be important for ensuring the quality and continuing viability of the PUC's affordable housing stock.



A two story walk-up in the Punahou neighborhood

Priority Actions:

Monitoring and Evaluation. Monitor and evaluate program effectiveness of pilot programs or incentives targeting the maintenance and rehabilitation of aging multi-family housing, including number of units produced/preserved, location, size of units, and affordability of units, as well as overall cost of grants, exemptions, and fee waivers.

Timeline:



Partners:

- DPP
- DCS
- BFS
- DLM

Non-Profit Partnerships for Rehabilitation. Partner with non-profit developers to selectively acquire and substantially rehabilitate/ redevelop existing older housing stock into permanently income-restricted housing through acquisition by a non-profit/resident co-op or incentivizing a new deed restriction by the owner, and seek compliance with AHR.



Partners:

- Office of Housing
- DLM
- BFS
- DPP
- Nonprofit developers

Other Actions:

- *Conduct periodic assessments and surveys of displacement and housing quality in Town Medium and Town Low (primarily A-1 and A-2 zones).*

Policy Highlight:

An example of a pilot program created to incentivize redevelopment of aging multi-family housing is Ordinance 19-8 (created by passage of Bill 7 in 2019). This program allows some modification of development standards and other incentives for rental apartment projects that provide units for households with incomes at 100 percent of AMI, for a time limited window. It is envisioned that incentives such as these will enable redevelopment and rehabilitation of existing apartments into upgraded, more modern structures, while keeping development costs down.

Goal H-2: Expand the Availability of Quality Affordable Housing for PUC Residents.

Policy H-2.4: Expand homeless services and supportive housing in the PUC.

Homelessness is a critical issue for the island, especially in the PUC. The City has been actively engaged in a variety of ongoing efforts to address homelessness, including mobile navigation centers, pop-up shelters, and efforts to expand access to temporary and permanent supportive housing. The City also coordinates with other public and private entities as part of the Partners in Care organization. While economic distress and housing affordability do factor into some causes of sheltered and unsheltered homelessness, it is important to recognize that homelessness, including chronic homelessness, has many root causes and is a community health issue as well as a housing issue. Therefore, supportive services are often an important component in addressing homelessness and helping to keep individuals and families stably housed.



"Kauhale" community supportive projects are being developed around O'ahu

Priority Actions:

Develop temporary and permanent supportive housing. Support State efforts in the building of community-style housing with central shared hygiene and other facilities, and access to on-site supportive services and medical treatment.

Timeline:



Partners:

- HOU
- State Agencies
- EMS
- DCS
- Non-profit Partners

Work to prevent individuals and families from falling into homelessness. A key strategy for State and City agencies will continue to be coordinating gap services and targeting federal assistance for those hardest hit by the pandemic recession or other economic shocks. These efforts, including rental assistance, utility assistance, providing help to small businesses, and other similar programs, can help keep families in their homes and from falling into homelessness.



Partners:

- HOU
- DCS
- BFS
- State & Federal Agencies
- Non-profit Partners



The Iwilei Resource Center is Honolulu's newest medical respite center.

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Parks + Public Open Space

Parks + Public Open Space



GOAL PPOS-1:
Provide Adequate Parks Coverage to meet Resident Needs.

Policy PPOS-1.1: Pursue a long-term vision and strategy for the PUC parks and open space network.

Policy PPOS-1.2: Implement a “10-minute walk” standard for park accessibility in the PUC.

Policy PPOS-1.3: Seek opportunities to create new parks in high-density and growing areas of the PUC.

Policy PPOS-1.4: Find creative opportunities in the urban context for a greater variety of park and open space types.

Policy PPOS-1.5: Improve the ecological function of parks.

GOAL PPOS-2:
Increase Connectivity and Access to and between Parks, Beaches, and Trails.

Policy PPOS-2.1: Create safe park-to-park connections through continuous and dedicated pedestrian/bicycle ways.

Policy PPOS-2.2: Use green streets to connect major recreation and public areas, provide missing green space, and beautify viewshed corridors.

Policy PPOS-2.3: Better connect residents to the beaches and trails in the PUC, such as through an enhanced beach access program.

GOAL PPOS-3:
Provide High-Quality Parks for all PUC Residents.

Policy PPOS-3.1: Invest in park facilities, equipment, and programs that serve all ages.

Policy PPOS-3.2: Support park revitalization with additional funding for maintenance, partnerships, and staff.

Policy PPOS-3.3: Promote parks that are safe for the community through environmental design strategies and after-hours activity.

Policy PPOS-3.4: Expand existing programs that advance shared use and park stewardship efforts.

Policy PPOS-3.5: Ensure long-term maintenance/preservation of open spaces in subdivisions, cluster housing, and master planned developments.

Key Outcomes

The PUC DP policies build upon and enhance the area's well-used system of parks and public open space including regional parks, community and neighborhood parks, beaches, community gardens, botanical gardens, and public hiking trails.

Establishing a comprehensive parks plan, a "10- minute walk to park" guideline, and creating new parks in growing/high-density areas and those already lacking in open space, will provide the adequate park space to meet current and future resident needs. In addition, existing parks and open space will be enhanced and revitalized by park safety improvements, expanded stewardship programs and increased partnerships. The City should maintain efforts to retain existing parks and public open space.

An increase in the urban tree canopy and creative park and open space forms, such as linear parks, vegetated multi-use paths, or other flexible public open spaces, will help to solve recreation needs and improve ecological function in dense urban areas.

An expansion of the community gardens program is also a key improvement for parks, as is increasing the connections and access within and between parks, beaches, and trails.



Dogs at play on the Civic Center green



Koloa maoli (Hawaiian ducks) may sometimes be spotted in fountains and ponds around town (Photo Source: DFWS)



The Mānoa Falls is a popular hike destination in the PUC.

Setting the Stage

Parks and open spaces in the PUC include City regional parks, district parks, community parks, neighborhood parks, mini parks, beach parks, botanical gardens, and community gardens. In addition, there are State parks, hiking trails, public hunting areas, scenic byways, and privately managed parks and gardens. City designated parks and beach parks are managed by the Department of Parks and Recreation (DPR), while State designated parks and recreation areas are managed by the DLNR Division of State Parks; coastal programs supporting conservation management are part of the Office of Conservation and Coastal Lands. Trails in the State Nā Ala Hele Trail and Access Program are managed by the State DLNR Division of Forestry and Wildlife, rounding out the many park and recreation offerings in the PUC.

The PUC is home to Hawai‘i’s oldest parks and playgrounds, including several historic parks listed on the National or Hawai‘i Register of Historic Places. As of 2018, the PUC had approximately 751 acres of City parks, 1,470 acres of State parks, and more than 44 miles of State hiking trails. Major operations and maintenance challenges for existing City and State parks include aging facilities, vandalism, overnight use by persons experiencing homelessness, dumping, beach erosion (particularly in Waikīkī), and enforcement of park closure hours.

A 2004 City report titled *The Standards and Design Precepts for Future Park Development* (“Park Standards Report”) provides the most recent recommendations for comprehensive park standards. The Parks Standards Report recommendations include two acres per 1,000 resident population for community-based parks. This ratio for community-based parks has also been referred to in other area documents including the HCDA’s Kaka‘ako Mauka Area Plan (2011), and the TOD Neighborhood Plans. The Park Standards Report recommendations for overall park inventory, including State and Federal facilities, state that it would be desirable to attain a ratio of 25 acres of park land per 1,000 de facto population (i.e. residents plus average daily visitor count). Using these guidelines, the Park Standards Report identified a deficit in park space for the county, including in the PUC.

By another measure, the Trust for Public Land’s (TPL) ParkScore annually ranks the parks of the 100 largest U.S. cities by a variety of criteria. The TPL ParkScore places Honolulu slightly behind the middle of the pack (#57 in 2021) of the 100 cities analyzed. Areas of excellence include parks access as measured by a 10-minute walk, and number of senior centers. Honolulu was also better than average on access and equity. Key areas of improvement relative to other municipalities is spending per capita, and provision of certain amenities, such as playgrounds and dog parks. PUC DP policies call for an increase in investment in parks, park maintenance, and staff support.



The orchid house at the Foster Botanical Garden

As of 2020, approximately 43 percent of the City's population resides in the PUC, which makes up about one-sixth of the City's land area. Future parks and public spaces in the PUC will contend with scarcity of additional large open sites. It is the City's policy to continue to focus a significant amount of planned housing development in the PUC near existing transportation, commercial areas, and schools.

As such, new strategies for increasing public open space, interactions with the natural environment, and day-to-day opportunities for recreation will be needed in creative ways beyond the traditional park forms. New strategies and partnerships for park space will be further challenged to meet the needs of both the existing and new resident population while also considering the City's already stretched capacity for park maintenance.

Promising parks forms include linear parks, such as the "catalytic" project planned for the Kapālama Canal that will serve as park space, promenade, flood mitigation, and a place-making feature rolled into one; flexible open space that can accommodate community gathering spaces, performance space, marketplaces, and serve as neighborhood centers; an expanded tree canopy and urban trails for community beautification, cooling, walking and jogging, and exercise equipment; and increased spaces with amenities for all ages such as shaded gathering spots, areas for repose and reflection, community gardens, and children's play equipment.



Thomas Square Park

How Does the Development Plan Get Us There?

Strategic implementation of an overall parks vision.

Beginning with a Parks Master Plan effort, the City will look to incorporate greater regional parks planning into the Development Plans and Sustainable Communities Plans, and to tie the island's parks/open space network together into a cohesive whole. Increased collaboration between local stakeholders, community entities, and agencies in planning and construction will strive to complete identified parks projects in the PUC. Improved parks linkages and mobility can be fostered through completing the Lei of Parks multi-use path that connects prominent parks from Diamond Head to Downtown, connecting existing waterfront multi-use paths, and increasing protected bicycle lanes. Expanded access to parks and open space will be achieved by implementing a "10-minute walk" guideline and by requiring development to provide high-quality recreation and open spaces to support residents in growing TOD areas.

Revitalize and better connect existing parks.

Parks continue to face significant maintenance challenges, and therefore adding capacity and resources to the Department of Parks and Recreation will assist with better maintenance of facilities in existing parks. Existing stewardship programs and partnerships should be expanded, including for shared use of open space and recreation facilities where feasible. Policies support exploring opportunities for innovative strategies and mechanisms to support park enhancement and revitalization efforts. Better connecting residents to mauka and shoreline recreation areas will increase the use and safety of these spaces.

Promote alternative open space forms and recreational opportunities.

To adequately meet resident's needs, this Plan promotes resourceful strategies such as new linear parks, stream paths, and walking/jogging paths, and partnering with new developments to provide flexible public open space; creativity should be used in providing inspiring, usable open spaces for all ages and a range of activities.

Related Policies

Policy GD-1.2: Create mixed-use TOD neighborhoods with meaningful character and a sense of place.

Policy GD-2.4: Provide green space and landscaping improvements in mixed-density in-town neighborhoods, especially those lacking in parks.

Policy PL-1.5: Continue to preserve significant panoramic public views of natural landmarks through Special District provisions.

Policy PL-2.2: Integrate greenery and green infrastructure into new developments, especially large sites.

Policy HC-1.3: Avoid/mitigate the Urban Heat Island Effect and reduce heat stress.

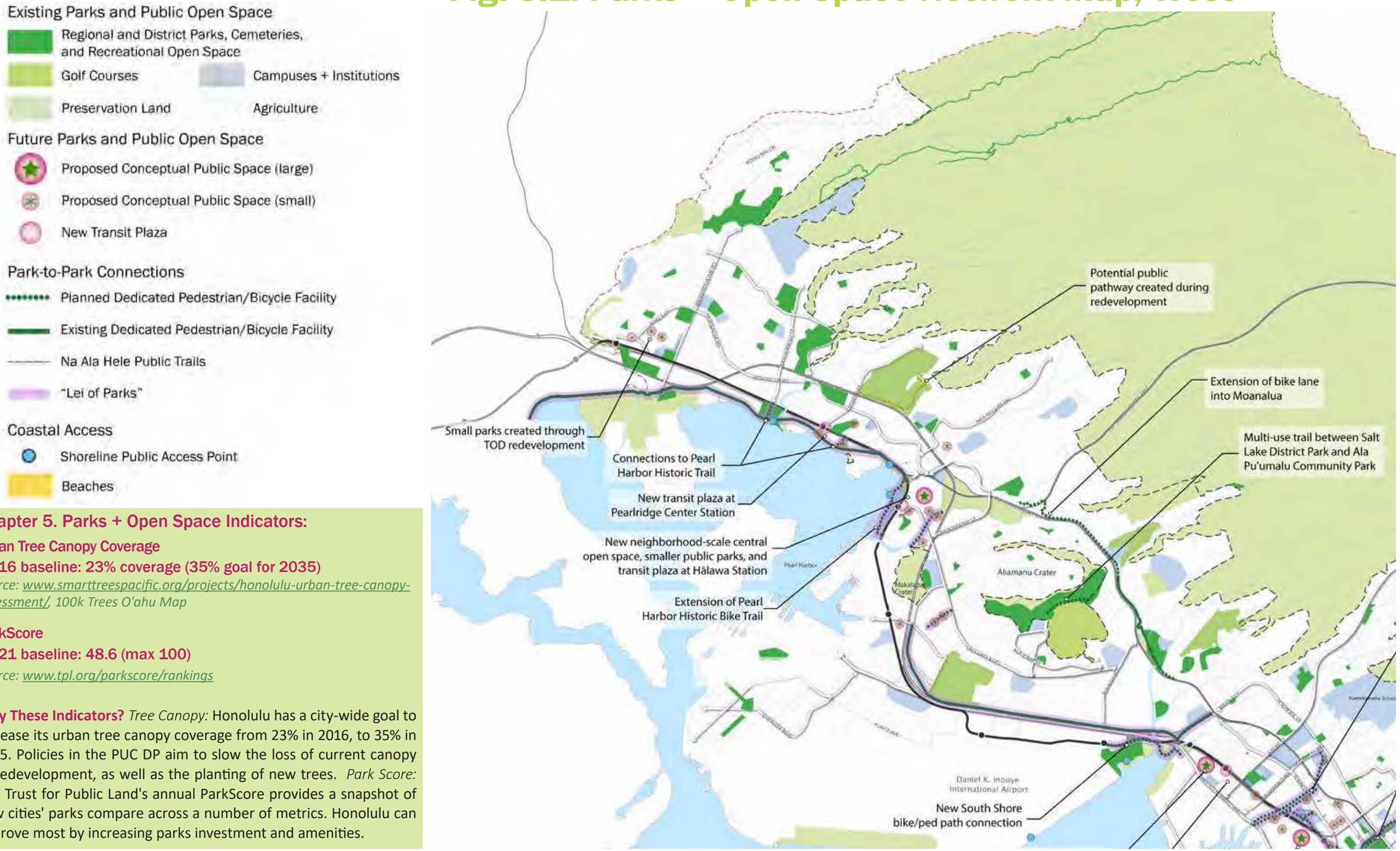
Policy HC-2.3: Enhance safety, accessibility, and navigability in public gathering places and transportation networks.

Policy SLR 3.4: Support State agencies in applying appropriate interventions and environmental measures for adapting/preserving beaches and shoreline impacted by sea level rise and erosion.

Policy WR-2.2: Enhance the ecological function of streams.

Next page: Coco palms, Monkeypod trees, and Banyan trees in the distance at Kapi'olani Park

Fig. 5.1: Parks + Open Space Network Map, West



Chapter 5. Parks + Open Space Indicators:

Urban Tree Canopy Coverage

2016 baseline: 23% coverage (35% goal for 2035)

Source: www.smarttreespacific.org/projects/honolulu-urban-tree-canopy-assessment/, 100k Trees O'ahu Map

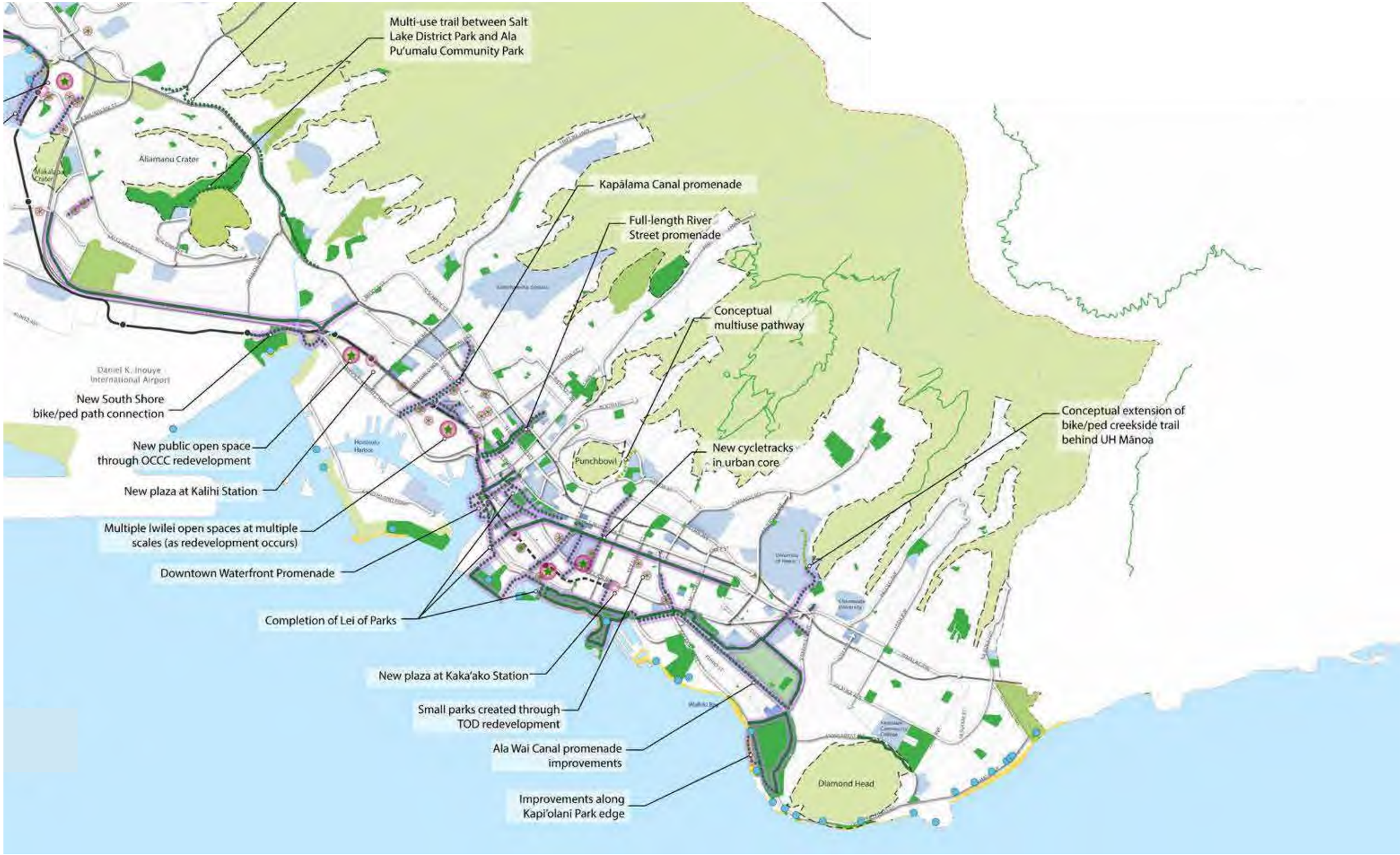
ParkScore

2021 baseline: 48.6 (max 100)

Source: www.tpl.org/parkscore/rankings

Why These Indicators? *Tree Canopy:* Honolulu has a city-wide goal to increase its urban tree canopy coverage from 23% in 2016, to 35% in 2035. Policies in the PUC DP aim to slow the loss of current canopy to redevelopment, as well as the planting of new trees. *Park Score:* The Trust for Public Land's annual ParkScore provides a snapshot of how cities' parks compare across a number of metrics. Honolulu can improve most by increasing parks investment and amenities.

Fig. 5.2: Parks + Open Space Network Map, East



Policy PPOS-1.1: Create and pursue a long-term vision and strategy for the PUC parks & open space network.

The City will benefit from the creation of a guiding parks master plan document developing a comprehensive vision that builds upon previous planning efforts (including the 2004 Parks Standard Report, TOD Neighborhood Plans, several district-wide parks plans, and the Age-Friendly Honolulu Action Plan). A comprehensive action plan for parks and open space would identify goals, objectives and - to the extent possible – the location and sizes of new parks in deficient neighborhoods, as well as maintenance and improvement capital programs for existing parks, allowing better integration of parks site planning in the DPs and SCPs.

Priority Actions:

Develop a comprehensive action plan for maintaining, improving, and expanding park space across the PUC. Partner with local organizations and the community to develop a comprehensive master plan for PUC parks and open space improvements, including connections to hiking trails, and State facilities, botanical and community gardens, public shoreline access points, municipal golf courses, and historic parks.

Timeline



Partners:

- DPR
- DPP
- DLNR
- DOFAW
- HCDA

Other Actions:

- *Consider adopting an official standard for parks acreage, park service, and park forms for the urban context.*
- *Implement recommendations in existing District Master Plans (such as Ala Moana Regional Park Plan) and consider where new District Master Plans should be pursued.*



Beach parks are well-used in the PUC



View of the Wai'anae Mountains from Ka'ahele Neighborhood Park in Pearl City

Goal PPOS-1: Provide Adequate Parks Coverage to meet Resident Needs

Policy PPOS-1.2: Implement a “10-minute walk” standard for park accessibility in the PUC.

Honolulu has joined many other cities nationwide in pursuing the goal of providing a less than 10-minute walk to a park for all residents. In 2020, nearly 80 percent of residents in the City and County of Honolulu lived within a 10-minute walk of a park, which is significantly above the national average of 55%. However, the City is aiming for proximate access for everyone and thus it is critical to identify where parks are needed and how best to fill these gaps in the urban park network. While a 10-minute walk-shed is not a comprehensive measurement of all park services, it is a good indicator of areas that are lacking in basic coverage of public parks.

Priority Actions:

Prioritize new parks in underserved areas. Use 10-minute walkshed mapping and work with agencies, non-profits, and the community to identify areas or neighborhoods where parks and open space are not accessible via a 10-minute walk. Prioritize new parks based on the long-term fulfillment of the ten-minute standard.

Timeline



Partners:

- DPP
- DPR
- Community groups

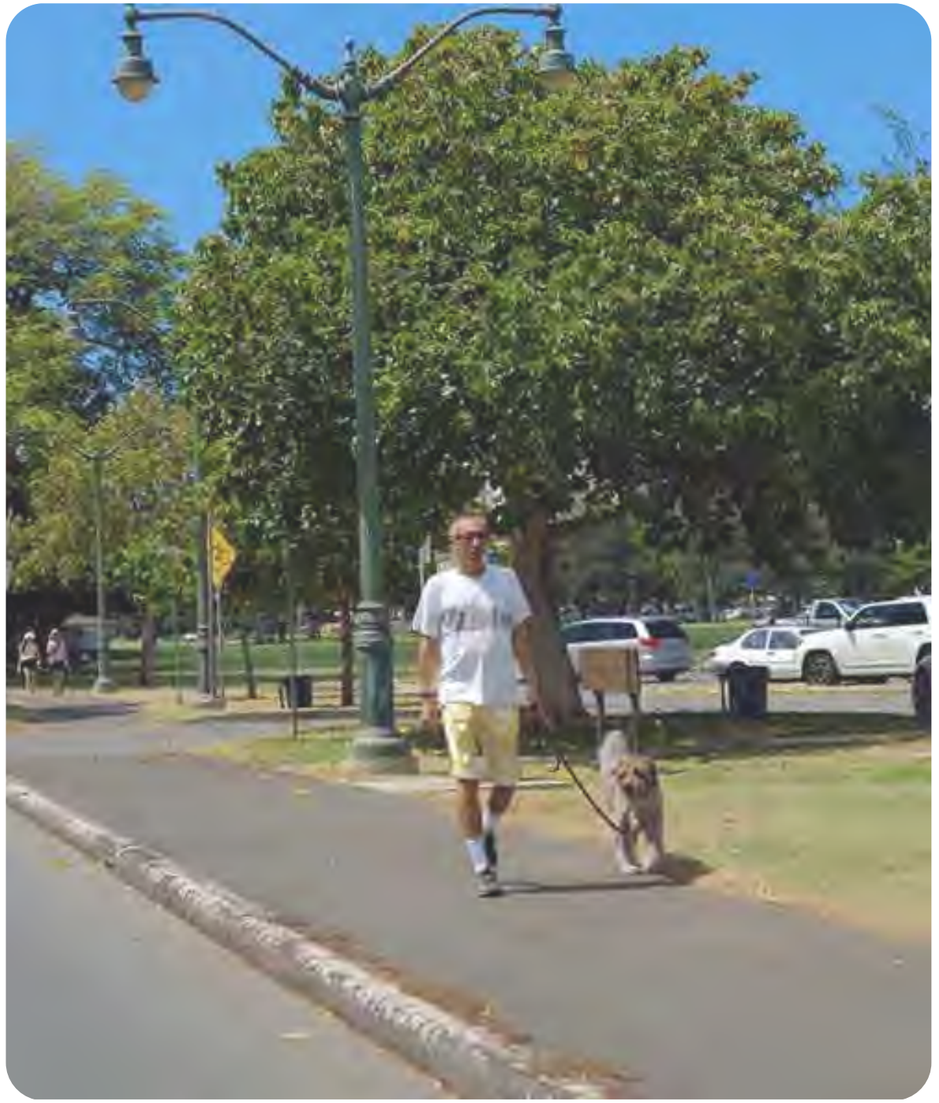
Other Actions:

- *Seek to maximize usage of existing open spaces (i.e. schools, parks, campuses) through shared usage and alternating time-of-day uses.*

TRUST FOR PUBLIC LAND (TPL) WALK STANDARD

The TPL launched a nationwide campaign in 2017 to promote the goal of a 10-minute walk to a park for all urban residents. Honolulu joined in supporting the campaign.

Progress is measured through a ‘ParkScore.’ The TPL’s ParkScore index evaluates park access and quality. It measures acreage (median park size and parkland as a percentage of city area), investment and amenities (spending per resident and amenities), and access (percentage of residents within a 10-minute walk of a park, or ½-mile). The City received an overall ParkScore ranking of 48.6 out of 100 in 2021. 70 percent of residents in the City and County of Honolulu in the same year lived within a 10-minute walk of a park. The City scored fair on the median park size and percent of area dedicated to parks (54 and 45 points respectively), but low (37 out of 100 points) on park spending per resident.



Walkable parks access is important for leisure and exercise.

Goal PPOS-1: Provide Adequate Parks Coverage to meet Resident Needs

Policy PPOS-1.3: Seek opportunities to create new parks in high-density and growing areas of the PUC.

With dense development planned around rail stations, it is essential to provide park space for future residents, in addition to meeting the needs of existing residents. Unlike other regions of the island such as ʻEwa and Central Oʻahu, there are fewer opportunities in the PUC to expand or acquire park sites using the Park Dedication Ordinance. Increasing the use of privately-owned, publicly accessible recreation space (both indoor and outdoor) is one strategy to begin to address the park space deficiency for the PUC area. It will be important to work with community partners and across City agencies in planning, implementing, and tracking public parks and open spaces in the PUC.



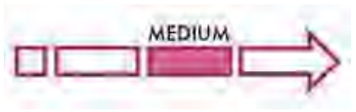
Variety of facility types is important to all areas (Source: DPR)

Priority Actions:

Develop and implement a coordinating Plan for new parks and open space in TOD Districts. A TOD Special District Open Space Plan or Open Space Guidelines would distinguish between major community open spaces that require collaboration between private and public development, and smaller spaces that happen opportunistically on a project-by-project basis. The plan should include funding strategies.

Revise the Park Dedication Ordinance to incentivize park space over in-lieu fees. Potential changes might include adjustments to the in-lieu fee valuation, expanding service radii for spending parks fees, adding a credit for indoor recreational or private community spaces, or allowing off-site publicly accessible open space within a certain distance to count towards residential common usable open space.

Timeline



Partners:

- DPP
- DPR
- State DLNR
- Private partners

Timeline



Partners:

- DPP
- DPR
- Development community

Other Actions:

- *Create publicly accessible and usable open space area requirements for TOD areas.*
- *Create a program to require and/or incentivize POPOS (Privately-Owned Public Open Space) for new development in growth areas, including plazas, pocket parks, and rooftops, and track their numbers.*

PRIORITY PARK IMPROVEMENTS IN TOD NEIGHBORHOOD PLANS:

- **Improvements to Sheridan Community Park and Pawaʻa In-Ha Park**
- **A new Community Park for the mauka/ʻewa corner of Kapiʻolani Boulevard and Pensacola St;**
- **Promenades along the Harborfront and Nuʻuanu Stream Corridor, Makiki Stream, Hālawa Stream, and Waiawa Stream**
- **Kapālama Canal Linear Park and Kapālama Drainage Canal Multi-Use Pathway**
- **One to two new Community Parks in Kalihi**
- **Promenade at Keʻehi Lagoon; and Beach Park on the penninsula**
- **A new Park and Plaza at the Pearl Harbor Rail Station**
- **Major new open space at the New Aloha Stadium District**
- **New park space at the Pearl Harbor waterfront and improvements to the Pearl Harbor Historic Trail**
- **Other new pocket parks, plazas, play courts, and flexible public spaces**

Goal PPOS-1: Provide Adequate Parks Coverage to meet Resident Needs

Policy PPOS-1.4: Find creative opportunities in the urban context for a greater variety of park and open space types.

Even as overall numbers on O'ahu are not currently increasing, some developing neighborhoods in the PUC area continue to densify with an increase in population to serve. At the same time, new public open spaces become increasingly difficult to develop due to land scarcity in largely built environments. New creative strategies and partnerships for providing nature, recreation, and relaxation in the urban center beyond the traditional park need to be explored, including along canals, under or over freeways, on hillsides, by converting gray space to green space, and in other flexible spaces and formats. Large-scale innovative park creation efforts should also be considered as potential long-term capital projects.

Priority Actions:

Construct new linear parks and walking paths. Identify opportunities to introduce new linear parks within and between high-density urban areas (such as the planned Kapālama Canal "catalytic project"). Prioritize creation of walking paths and loops near residential neighborhoods (look to Fort Ruger Path as a precedent).

Support continued Quick Build and temporary open spaces. Support quickbuild (low cost, easily deployable) efforts by DTS to improve the public realm and support the creation of temporary open spaces (such as temporary street closures for recreation). Continue converting unused hardscape areas into green spaces where minimal effort is required.

Other Actions:

- *Develop a formal policy, approval process, and/or design guidance for landowners who wish to build parklets fronting their property.*
- *Look for remnant parcels that could be repurposed into parks.*

Timeline



Partners:

- DPP
- DPR
- DLNR
- Private partners

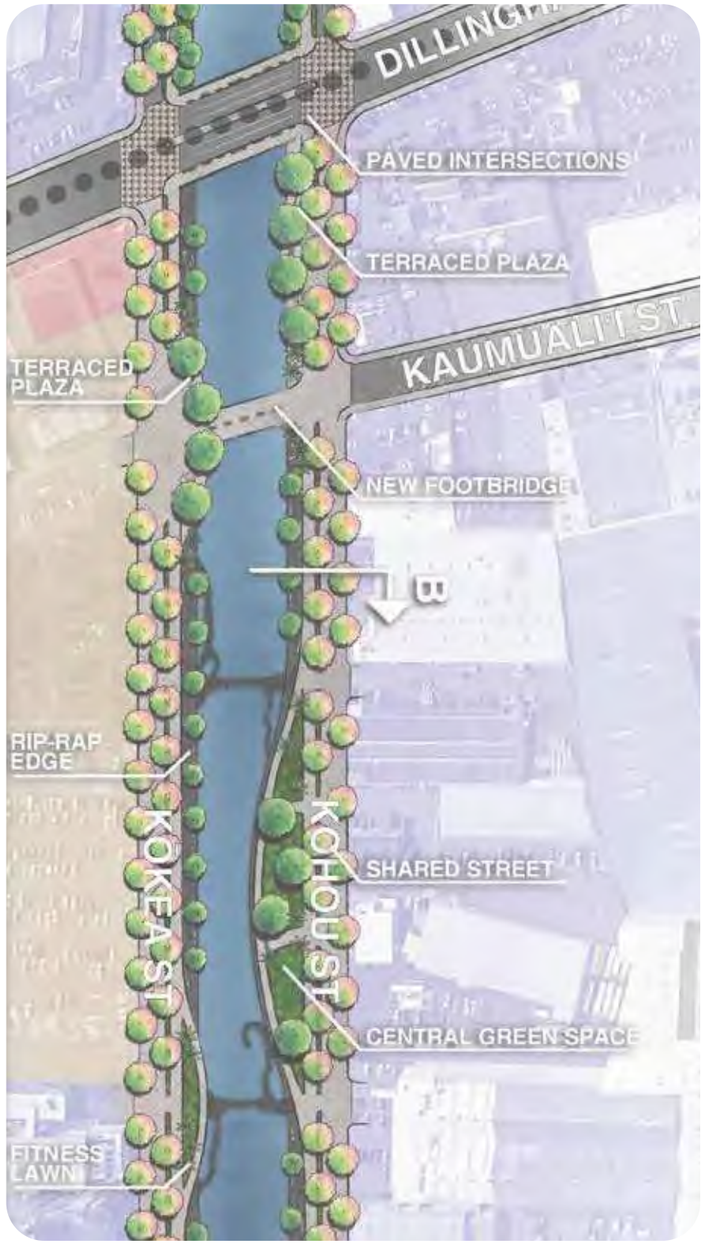


Partners:

- DPP
- DPR
- DLNR
- DTS



A public "parklet" near shops in the PUC



Canal improvements (Source: Kapālama Canal Master Plan)

Policy PPOS-1.5: Improve the ecological function of parks.

Parks and open spaces are not only places for recreation and enjoyment, but they can also play a key role in providing stormwater flooding protection, habitat areas, mitigation of elevated urban temperatures, and pollution control. For example, with proper planning and investment, parks and recreation areas in shoreline settings can be part of solutions to mitigate sea level rise impacts, restore marsh habitat, or improve beach ecology. Ongoing maintenance of parks and future design enhancements of existing parks should include attention to simple improvements to assist stormwater infiltration and groundwater recharge, provide greater opportunities for community gardening for residents to grow their own food, and provide habitat for native ecology.

Priority Actions:

Enhance the ability of parks to capture stormwater. Better utilizing parks for stormwater management can range from increasing LID features in existing parks, to the design of new parks and open spaces with water retention features in areas susceptible to flooding.

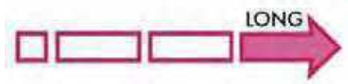
Timeline



Partners:

- DPP
- DPR
- DFM

Explore the long-term potential of shoreline and nearshore parks to assist in adapting to sea level rise. Increasingly, shoreline parks will serve as de facto coastal flood protection for inland areas, despite not being designed originally for this purpose. Sea level rise raises the importance of managing shoreline parks as critical flood and stormwater protection for inland communities and facilities while preserving public shoreline access. Shoreline areas should incorporate appropriate vegetation to restore sand dunes and minimize coastal erosion.



Partners:

- DPP
- DPR
- State Parks
- DLNR

Other Actions:

- *Include parks in area stormwater and drainage planning for streets and neighborhoods.*
- *Encourage inclusion of native plants, non-invasive plants, and plants well-suited to the climatic setting in new development projects, parks, and streets to provide ecological benefits and lower irrigation needs.*



Planting in the Lili'uokalani Botanical Garden (Source: DPR Community Forestry Program)



The Board of Water Supply's Hālawa Xeriscape Garden models water smart plants (Photo Source: BWS)

Working with Water

- **Stormwater.** Incorporating LID techniques into individual projects and open spaces can help to manage stormwater onsite, eliminate standing water, reduce impervious surfaces, and improve overall water quality by reducing pollutant runoff. Parks and open spaces can also be used to manage volumes of water through green infrastructure interventions that improve water quality and drainage. A partnership between stormwater managers, parks, and Complete Streets could explore options for chronic flooding sites in Honolulu.

- **Living Shorelines and Wetlands.** Given the serious challenges that climate change and sea level rise pose to our coastal communities, a number of solutions and a variety of approaches will be needed. Living coastlines and other softening such as wetland restorations should be considered where appropriate to help buffer the coastlines with natural materials instead of hard structures. Care should be taken to ensure plantings are non-invasive and appropriate to the location. A co-benefit of this approach is improved habitat areas.

Plant Selection

- **"Unthirsty" Plants**. The Honolulu Board of Water Supply has been operating the Hālawa Xeriscape Garden since 1989 to showcase and demonstrate how to create attractive residential gardens with plants that use less water. Much of urban Honolulu lies on the flat coastal plain within the island's driest climate zone, and with climate change impacts that include a potentially drier climate, selecting plants that reduce irrigation needs in parks and public spaces too, is an ecologically friendly choice.

- **Native Plants**. Hawai'i, in its remoteness, has developed a unique and rich biodiversity. However, much has been lost to habitat disturbance, the introduction of invasive species, and the disruption of traditional land use management practices. Incorporating native plants in the proper growing conditions in parks and public projects can help raise awareness of conservation efforts, celebrate the unique Hawaiian landscape, and reestablish habitat for native species.



Kailua example of low pohuehue vine cover on sand dunes



Hala is a native coastal and lower valley tree

Spotlight on Native Species in the PUC

Some native species make their homes in the PUC's coastal areas, upper forests, and even in urbanized areas. A few of the species that call the PUC home include:



Hawaiian Monk Seal. The beloved Hawaiian monk seal is a critically endangered animal with a small population found mostly in the Northwestern Hawaiian Islands and a much smaller distribution on the main islands. In recent years, some monk seals have been known to have their pups near the PUC's Kaimana Beach.



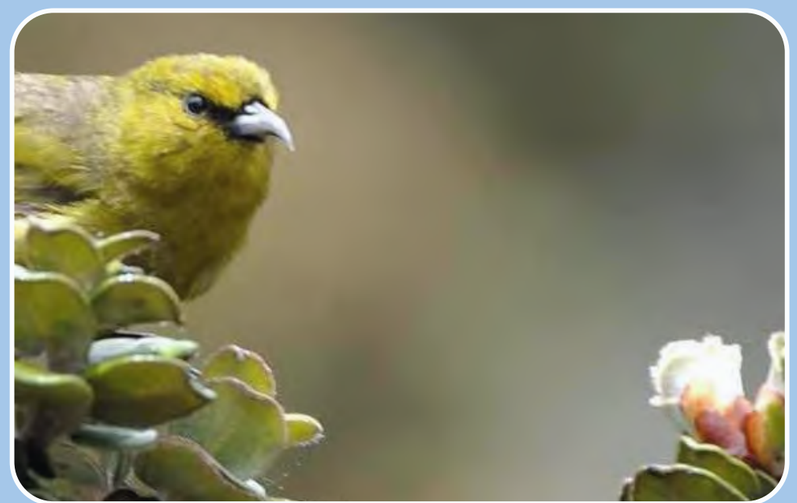
(Photo Source: DOFAW)

Kamehameha Butterfly. The Kamehameha butterfly is one of only two native butterflies. According to UH CTAR, its range in the PUC once included Mānoa, and it could be found in the forests of Tantalus up to the 1980s, but has since seen a decline. Conservation efforts include a "citizen science" mapping project developed by UH researchers, and a collaboration between DOFAW, DLNR and the Honolulu Zoo.



(Photo Source: Hui Manu-o-Kū)

Manu-o-Kū, also known as the white tern or fairy tern, is a Hawai'i indigenous bird with bright white feathers and black eyes. It is unusual among native birds in that it enjoys nesting right in urban Honolulu. In fact, it was named the official City bird in 2007.



(Photo Source: DLNR)

O'ahu 'Amakihi. The O'ahu 'amakihi is a golden to olive colored honeycreeper endemic to this island. The 'amakihi can be found in forests and valleys at middle elevations.



(Photo Source: USFWS)

Kōlea (aka Pacific Golden Plover) is a medium-small indigenous shorebird of the Hawaiian Islands that makes seasonal stops in Siberia and Alaska. The kōlea can be spotted in the PUC much of the year from August to May.

Goal PPOS-2: Increase Connectivity and Access to and between Parks, Beaches, and Trails

Policy PPOS-2.1: Create safe park-to-park connections through continuous and dedicated pedestrian/bicycle ways.

Park-to-park connections through dedicated pathways allow residents to safely and conveniently access parks. It also provides opportunities to reduce reliance on vehicular travel by increasing space for pleasant alternatives such as walking and biking. With sufficient right-of-way and additional planting, multi-use pathways can also serve as green space in areas lacking adequate parks.

Complete the "Lei of Parks" from Diamond Head to Aloha Tower. Create a wholly connected set of corridors of high-quality green space in the PUC's core through new and existing multi-use paths and greenways. Proactively identify potential City-owned lands and work with private developers to complete the Lei of Parks pathway. Prioritize completion of the Lei of Parks in any future Parks Master Plans.

Timeline



Partners:

- DPP
- DPR
- DTS



Lei of Parks signage near the Honolulu Zoo

Create and maintain multi-use pathways along channels and streams. Complete the Kapālama Canal project and use it as a model for other key channelized corridors (i.e. the River Street Promenade). Develop and maintain greenbelts and pathways along streams and enhance mauka-makai watershed management and visual connections. Support development of shared use paths along the Mānoa, Pālolo, Makiki, Nu'uanu, and Hālawa Streams.



Partners:

- DPP
- DPR
- DTS
- Private owners
- State

Complete efforts to link lateral shoreline access. Continue to maintain the Pearl Harbor Historic Trail and improve access. Continue to provide as much continuous lateral shoreline access for pedestrians extending from Diamond Head to Nu'uanu Stream (River Street), around Ke'ehi Lagoon, and from Neal S. Blaisdell Park through the 'Aiea Bay State Recreation Area, as possible.



Partners:

- DPP
- DPR
- State DNLR
- Private partners
- Navy



Portion of the Pearl Harbor Historic Trail at Neil S. Blaisdell Park

Other Actions:

- *Require new development or renovation projects to improve open spaces and parks adjacent to streams including requiring minimum setbacks.*
- *Work with private landowners, DPR, and DOT Airports/Harbors to construct new multi-use shoreline promenades from Ke'ehi Lagoon Park to Kalihi Kai, from River Street to the Cruise Terminal, and identify segments to create other continuous waterfront paths.*

Policy PPOS-2.2: Use green streets to connect major recreation and public areas, provide missing green space, and beautify viewshed corridors.

Green streets are intended to serve as cool and pleasant multi-modal avenues, to off-set the built environment as primary channels for storm water capture, improvers of water quality, and providers of natural areas for community enjoyment and beauty. The "green street" concept for Honolulu has been strengthened through TOD Neighborhood planning work and the Complete Streets Design Manual. This Plan calls for a connected network of these streets, with abundant trees, large rain gardens, bioretention features, and permeable paving. Bike lanes and upgraded street elements provide additional opportunities to introduce porous surfaces either in the form of pavers or landscaping further mitigating runoff, flooding, and the heat island effect. Well-planned, intentional, green streets should be an integral part of reaching Honolulu's tree canopy coverage goals to increase the urban tree canopy to at least 35% coverage by 2035 . This is especially important as the City's Urban Tree Canopy Assessment has historically shown the densest areas of the PUC losing tree canopy coverage at the greatest rate. Dramatically expanding green streets in the PUC can be an essential part of the open space network and city infrastructure, providing cooling shade, addressing existing drainage issues, and benefitting environmental health. In all cases, adequate growing space for canopy trees to thrive with minimal impacts to infrastructure and hardscape should be provided.

Priority Actions:

Support the green street network identified in TOD plans. Encourage new development in TOD areas to contribute to the green street network as a community benefit.

Prioritize green streets outside of TOD Areas. In neighborhoods with lower park level of service, prioritize green streets to create connections between major public spaces.

Leverage the Complete Streets integrated planning process. Increase the use of the Complete Streets program to deliver green infrastructure benefits such as the use of permeable paving in bulb outs or integration of rain gardens.

Timeline

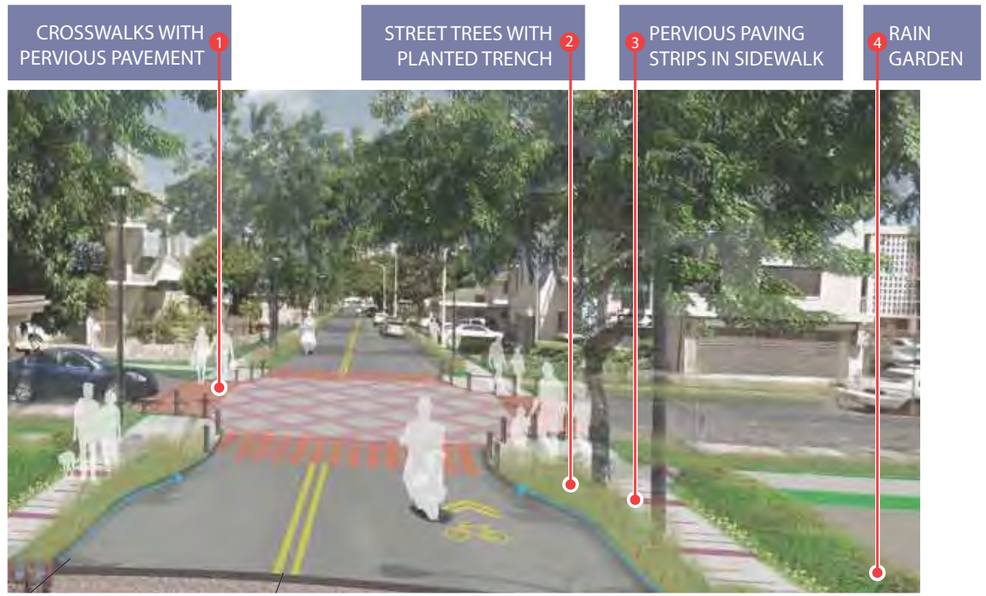


Partners:

- DPP
- DTS
- DDC
- DFM

Other Actions:

- *Explore other potential green street projects along University Avenue, Young Street, and lower Waimano Home Road.*
- *When implementing green streets, preserve key mauka and makai corridor viewsheds that provide a sense of place and visual connections.*



Rendering of a green street (Source: Ala Moana Neighborhod TOD Plan)

GREEN STREETS ARE RECOMMENDED, BUT NOT LIMITED TO:

- **Ala Moana & Kaheka/Ke'eaumoku/Sheridan Neighborhoods: King Street, Pi'ikoi Street, Ke'eaumoku Street, Kalākaua Street, Kapi'olani Boulevard, Atkinson Street, Sheridan Street, Rycroft Street**
- **Downtown: Bishop Street**
- **Iwilei: Alakawa Street, Ka'amahu Place, Ka'a'ahi Street, Sumner Street**
- **Kalihi: Kalani Street, Kalihi Street, Mokauea Street, Kaumuali'i Street**
- **Airport Area: Radford Drive, Koapaka Street, Paiea Street, Lagoon Drive, Ualena Street, Waiwai Loop**
- **Hālawa: Salt Lake Blvd, Kamehameha Highway, Kahuapa'ani Avenue, Moanalua Road**
- **Pearl City/'Aiea: Waiawa Road, Ala Ike Street, Acacia Road, Kuala Street, Kaonohi Street, Moanalua Road**

Goal PPOS-2: Increase Connectivity and Access to and between Parks, Beaches, and Trails

Policy PPOS-2.3: Better connect residents to the beaches and trails in the PUC.

Shoreline public access is a common law right in Hawai'i that is enjoyed by local residents and visitors alike, and is a defining aspect of public open space in the islands. The right of access to Hawaii's shorelines includes the right of transit along the shoreline (lateral access) and within beach transit corridors. The location, alignment, and maintenance of public access routes to the shoreline is traditionally maintained through an ongoing partnership between DPP and DPR at a preferred minimum interval of ¼ mile in urban areas (and ½ mile in rural areas). However, with many differing conditions along the coastline, both the quality and frequency of public beach access could be improved. PUC mauka trails are managed by the State DLNR's Na Ala Hele program. However, the City can strengthen partnerships by collaborating on solutions for trailhead parking access when possible, and improving public transportation access to trails and mauka recreation areas.

Priority Actions:

Provide frequent Beach access per City standards. Ensure the City's working policy to provide beach access roughly every ¼ mile in urban shoreline areas is maintained at every opportunity and seek to provide new access points where this distance is exceeded. Require new or expanded shoreline access in proposed coastal projects in areas not meeting this standard.

Timeline



Partners:

- DPP
- DPR
- State DLNR
- DFM
- Private partners

Greater visibility of access points. Enhance visibility and signage for existing public access points to and along beaches, coastal parks, and trails. Coordinate the design of signs and graphics to clearly mark coastal views and access points in a manner that is consistent and recognizable.

Timeline



Partners:

- DPP
- DPR
- State DLNR
- DFM
- Private partners

Mālama mauka lands. Maintain public access points and hiking trails on the Ko'olau Range in the areas beyond the Urban Growth Boundary, and improve amenities for hiking and camping; avoid disturbance to Preservation areas; allow access for traditional and customary practices and gathering rights, consistent with the provisions of the Constitution of the State of Hawai'i.



Partners:

- State DLNR
- BWS
- Community partners
- DPP

Ensure public access points provide safe and accessible connections to shoreline, especially including access for persons with disabilities. Promote the all-terrain wheelchair and beach mat access program.



Partners:

- DPR
- DFM
- State DLNR
- DPP
- Private partners



Magic Island Loop Trail at dusk

Other Actions:

- *Coordinate with regional agencies and neighboring jurisdictions to improve transit access to beach and trail access points.*
- *Solve conflicts with residential uses at trailheads by improving alternative transportation access to trails and mauka recreation areas and collaborating on the provision of separated parking whenever feasible.*

Goal PPOS-3: Provide High-Quality Parks for all PUC Residents

Policy PPOS-3.1: Invest in park facilities, equipment, and programs that serve all ages.

Implemented in 2015, the Kākou for Parks initiative has gone to over 170 parks on the island as of 2020, improving amenities such as comfort stations and play equipment. However, according to public perception, parks are still not adequately maintained. In a 2019 National Community Survey, only 39% of Honolulu residents rated city parks as excellent or good. This rating is much below national benchmarks with Honolulu ranked at 306 out of 311 nationally. The declining ratings occurred despite city efforts to improve parks, highlighting the critical role of ongoing parks maintenance.



Play equipment at Decorte Neighborhood Park (Photo Source: DPR)

Priority Actions:

Continue to Improve and Maintain Amenities such as Comfort Stations, Play Equipment, and Exercise Equipment. Continue to upgrade and add more playgrounds to existing parks. Move toward poured in place surfacing for playgrounds where appropriate for increased safety and sustainability. Install new or renovate existing irrigation systems to provide more efficient and effective coverage for landscaping. Adequate provision and maintenance of restrooms remains a high public priority for parks.

Provide Adequate Shade. Identify the hottest areas in parks and prioritize planting trees and building shade structures in those areas for passive recreation. Parks in the urban core should be a top priority for this treatment. Protect and preserve mature trees to maintain the exisiting canopy coverage.

Timeline





Partners:

- DPR
- DDC
- DFM

Partners:

- DPR
- OCCSR
- DDC

AGE-FRIENDLY HONOLULU ACTION PLAN OUTDOOR SPACES AND BUILDING GOALS

- **Outdoor spaces free of criminal activity and vandalism**
- **Accessible spaces that accommodate persons with a range of abilities**
- **Outdoor spaces with services and amenities nearby**
- **Clean and attractive outdoor spaces**
- **Multi-generational/multipurpose use spaces**

Other Actions:

- *Seek opportunities to improve existing dog parks and create new dog parks.*
- *Expand programming for seniors in areas where populations of kūpuna are growing. Include attention to accessibility, rest areas, and exercise equipment. When feasible, locate accessible new parks in areas with a high population of kūpuna.*
- *Through planning efforts, collaborate with children and families to refine key design features of family-friendly park spaces for play and gatherings.*
- *Expand nature-based educational programs in parks and gardens, including partnerships with schools, community organizations and businesses.*

Goal PPOS-3: Provide High-Quality Parks for all PUC Residents

Policy PPOS-3.2: Support park revitalization with additional park maintenance funding, partnerships, and staff.

Many PUC parks need basic maintenance, including some that have become encampments for chronically unhoused residents and thus deterring the full community from enjoying these parks. A key strategy for the City will be working with communities to assess the quality of their local parks, understand which are used heavily or underutilized, prioritize certain parks for enhancement, and ultimately improve their function as neighborhood gathering places. Prioritizing support services for unhoused residents will not only ease burdens on parks and public open space maintenance, but is an essential community health measure.



Centennial Park is a result of public-community partnership in Waikīkī

Priority Actions:

New Funding to Support Park Maintenance Costs. Consider visitor-serving activities fees or increasing park fees to fund improvements, maintenance and construction of new parks and open space. Earmark a portion of park dedication in-lieu fees for maintenance of existing parks.

Expanded Maintenance Staff. Seek to increase the ratio of park maintenance staff to park acreage. Focus expanded staffing on the most heavily used parks or parks with the most maintenance issues (lighting, water fountains, and restrooms). Provide staff with proper tools, equipment, and training, so they can properly perform their jobs.

Timeline



Partners:

- DPR
- DPP
- Private partners

Timeline



Partners:

- DPR
- DFM
- Other City partners as needed

Other Actions:

- *Continue to pursue community partnerships to assist in basic maintenance and stewardship of parks/ open space. Work with community groups that wish to donate facilities or partner in their development.*
- *Expand the nighttime security covering urban parks.*
- *Revitalize parks identified in the TOD Neighborhood Plans, such as A'ala and Makalapa Parks, as well as other area parks such as Old Stadium Park and Neil S. Blaisdell Park.*

PARTNERSHIPS

Partnerships can help bolster the maintenance, revitalization, and even creation of City Parks. For example, the Nu'uanu YMCA partnered with the City to revitalize Kamamalu Neighborhood Park including paying for improvements, providing basic maintenance of comfort station, and conducting volunteer cleanups of the park. In another instance, the City partnered with community members led by the Rotary Club to transform a vacant City lot in Waikīkī into a thriving public park, opened in 2021.



The Civic Center grounds provides a large public green space near Downtown

Goal PPOS-3: Provide High-Quality Parks for all PUC Residents

Policy PPOS-3.3: Promote parks that are safe for the community through environmental design strategies and after-hours activity.

To promote social interaction and vibrancy, the PUC needs well-designed and accessible gathering spaces at all scales: within buildings, blocks, neighborhoods, and regions. Thoughtful design of public spaces supports a safe community and enhances visibility and social comfort. However, design-based strategies are not enough on their own – these should be complemented with programs and initiatives that build community relationships and enhance public safety. Improved park safety through increased programming, community presence, and park stewardship is critical to providing high-quality parks for residents.

Priority Action:

Increase Park Programming Funding. Apply for grants and other funding opportunities that support park programing to keep parks safe and active. Use this funding to increase programing and events to keep parks active with groups of residents and staff.

Timeline



Partners:

- DPR
- Community partners
- Private partners



A Midsummer Night's Gleam event at the Foster Botanical Garden (Source: DPR)

Improve Park Lighting. Install new and appropriate lighting or renovate existing lighting as safety measures for pedestrians, park users, and protected or endangered animal species.



Partners:

- DPR
- DFM

Other Actions:

- *Utilize "Crime Prevention Through Environmental Design" (CPTED) principles in the design and renovation of new and existing parks and open space facilities.*
- *Explore the possibility of expanding park hours with programmed and supervised activities and consider adjusting any ordinances related to hours or lighting if necessary.*



Recreation activity at the beach along Kalākaua Avenue in Waikīkī

Goal PPOS-3: Provide High-Quality Parks for all PUC Residents

Policy PPOS-3.4: Expand existing programs that advance shared use and park stewardship efforts.

Public-private partnerships could assist the City with providing the personnel needed for basic maintenance, park presence, and stewardship of parks. Given constraints on public funding and staff, nurturing strong nonprofit partners is key. These partners might include business improvement districts, neighborhood or parks advocacy groups, or nonprofit partners founded by other community groups and business leaders.

Priority Action:

Facilitate Joint-Use Agreements. Encourage Joint-Use Agreements between the City and State for the shared use of DOE and DPR facilities, and evaluate the potential of such agreements in any major renovation/ redevelopment of school properties.

Timeline



Partners:

- State DOE
- DPR
- DPP
- Other schools

Other Actions:

- *Work with DPR and the community to identify parks and open space with unique natural features that could provide potential place-based education programs and opportunities to partner with nearby schools or community organizations (i.e. Loʻi Kalo Park).*
- *Explore new opportunities for partnerships with nonprofit organizations to provide park stewardship and identify areas that need new parks.*
- *Identify opportunities to strengthen the Adopt-A-Park program.*

PARK STEWARDS

Dedicated community members, organizations, "Friends of" groups, and non-profits all help to preserve, promote, and support Honolulu's special gardens and parks. The City's Adopt-A-Park and Adopt-A-Stream programs also organize clubs and volunteers that want to help steward the City's parks, recreation areas, and streams. Park steward groups and volunteer programs provide a venue for residents to help with special projects in their favorite parks and recreation areas such as education programs, plantings, clean-ups, or other special projects.



Volunteers gather in Mānoa for a clean up (Source: DFM)



Volunteers install native plants at the Lili'uokalani Botanical Garden (Source: DPR)

Goal PPOS-3: Provide High-Quality Parks for all PUC Residents

Policy PPOS-3.5: Encourage long-term maintenance and preservation of semi-public open spaces.

As development in subdivisions, cluster developments and master planned developments evolve, effort should be made to preserve and maintain common open space amenities. Long-term maintenance plans should be in place to avoid neglect, illegal dumping, or other issues. Open spaces should be carefully planned for integration into the development. Whether for shared residential use, or privately maintained open space as a public amenity, these areas are often visible additions to the community.

Large open campuses and cemetaries with their park-like settings, also provide scenic open spaces and views within the community as part of the open space network. Preservation and maintenance of the public-facing entrances to these spaces should be well-maintained and enhanced.

Priority Action:

Increase Maintenance Planning for Semi-public Space. Improve plan review and other processes to ensure long-term maintenance of shared/semi-private residential open space, and privately owned, publicly accessible green spaces and park spaces.

Timeline



Partners:

- Private owners
- DPP
- DPR
- Community associations

Enhance entries and street frontages of cemeteries and campuses with trees and landscaping. Maintain significant trees and landscaped open space within institutional campuses, cemeteries and other open-space uses that are visible from public right-of-ways.

Timeline



Partners:

- Public and Private owners
- DPR
- DFM
- Community associations



Kolowalu Park, open to the public, is part of the private development Ward Village.



Institutional campuses provide semi-public open spaces within the community.

Mobility + Connectivity

Mobility + Connectivity

GOAL MC-1:
Provide Safe, Accessible, and Affordable Multimodal Transportation Options.

Policy MC-1.1: Implement Complete Streets and Vision Zero strategies to enhance the safety and utility of the transportation system for all users.

Policy MC-1.2: Continually improve the efficiency and connectivity of public transit in PUC neighborhoods through improved travel times and frequency.

Policy MC-1.3: Continue to expand safe facilities and increase comfort in the bicycle network.

Policy MC-1.4: Improve pedestrian connectivity and safety throughout the PUC.

GOAL MC-2:
Create an Adaptable and Flexible Transportation System.

Policy MC-2.1: Reduce dependency on single-occupancy vehicles and reduce vehicle miles traveled (VMT).

Policy MC-2.2: Safely integrate emerging technologies into the transportation system.

Policy MC-2.3: Improve the efficiency and operations of existing transportation facilities.

Policy MC-2.4: Adapt the roadway network to address challenges from chronic flooding and sea level rise.

Policy MC-2.5: Maximize interagency and regional transportation coordination.

Key Outcomes

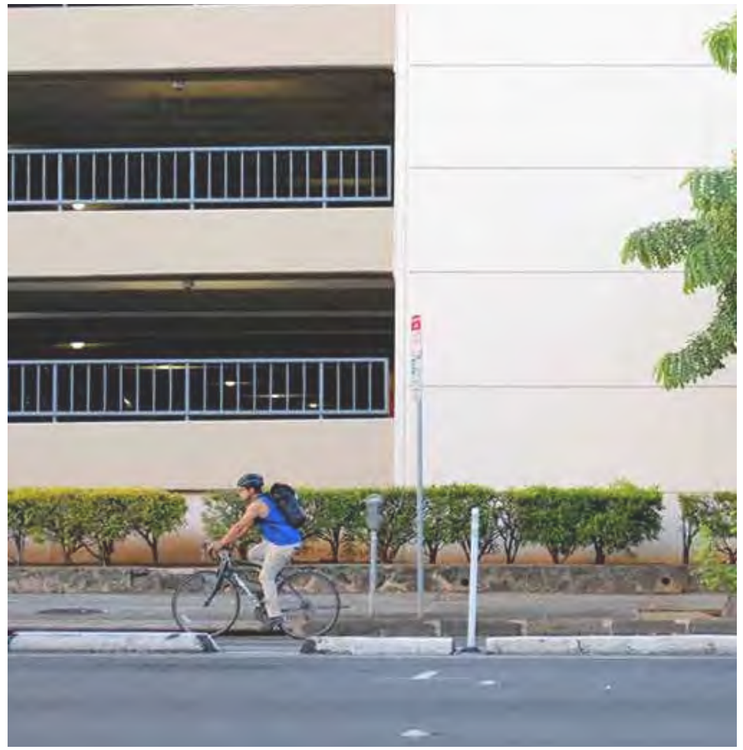
The transportation system in the PUC connects people to jobs, schools, workplaces, and services at the neighborhood and regional scale.

A well-connected transportation system plays a vital role in the local economy and quality of life through the efficient transport of people, goods, and services island-wide, and to destinations off-island.

Continually developing and maintaining a balanced transport system that reduces reliance on cars, and is resilient to climate change, supports economic vitality and the long-term growth and development goals of communities in the PUC, and across O'ahu.

PUC DP policies for transportation emphasize increased safety, mobility, and a well-maintained, well-managed, efficient network of transportation facilities to ably serve daily needs.

Transportation-based planning in the PUC recognizes the role affordable transportation options play. From short local trips through to commuting, transportation modes must be affordable and accessible to those they are serving. In addition, increasing mode-choices serves as an organizing principle for meeting growth demand in urban neighborhoods.



King Street Cycle Track



Construction of the Pensacola Bike Lanes (source: DTS)



A Civic Center Biki station (source: DTS)

Setting the Stage

Transportation and Mobility in the PUC

The transportation network in the PUC touches all aspects of daily life, providing mobility to residents, workers, and visitors traveling throughout the region and beyond. Major City and State transportation infrastructure components in the PUC include roads and highways, airports, harbors, and the Skyline rail transit line. Transportation infrastructure in the PUC accommodates vehicles as well as a network of public transit, pedestrian, and bicycle facilities, and includes supporting infrastructure such as baseyards, parking facilities, and electrical vehicle charging stations. Major components of the City's public transportation system are its fleet of buses (TheBus), accessible vans (TheHandi-Van), and the first operating segment of the Skyline rail. In addition to maintaining municipal streets, roads, bicycle facilities, and the operations and maintenance of the Skyline, Honolulu is converting the City's entire fleet of vehicles to 100% renewable energy by 2035.

Streets and Roadways

Streets and roadways in the PUC range from an extensive highway system owned and maintained by the State of Hawai'i Department of Transportation (HDOT) to local arterials, collector roads and streets owned and maintained by the City. A small proportion of roads in the PUC are under federal and private ownership. Due to O'ahu's unique topography, much of the development in the PUC is spread lineally over the coastal plain. Most of the principal arterial roads in the PUC are oriented in the east-west (diamond head-ewa) direction with arterial and collector roads providing mauka-makai access to the ridge and valley communities. The primary arterials in the urban core include North/South King Street, North/South Beretania Street, Dillingham Boulevard, Moanalua Road, and Wai'alae Avenue.

Complete Streets

In 2012, the Honolulu City Council adopted a Complete Streets policy and ordinance to create a comprehensive, integrated network of streets that are safe and convenient for all people. The now well-established Honolulu Complete Streets program provides an overarching set of goals, principles, and design guidance for new streets and existing conditions upgrades. Complete Streets principles move away from streets designed with a singular focus on automobiles toward a design approach that is context-sensitive, multimodal, and integrated with the community's vision and sense of place. Complete streets elements may include sidewalk improvements, bikeway facilities, intersection improvements (such as roundabouts), and other features that support safe, equitable, and convenient travel. As of today, Complete Streets projects are ongoing across the island from roadway repaving or rehabilitation projects to standalone planning and design projects. Current project areas in the PUC include Pearl City, Kalihi, Liliha-Nu'uanu, Makiki, Waikīkī, Āliamanu-Salt Lake, Downtown, and University Avenue.



WHAT DO COMPLETE STREETS LOOK LIKE?

Complete Streets are streets that work for multiple travel modes, safely moving people while balancing the needs of all roadway users, such as pedestrians, bicyclists, transit riders, and motorists. Recognizing the unique characteristics of each community, planning for Complete Streets uses localized data and engages the community to deliver the most appropriate design improvements to streets.

Complete streets should be safe, convenient, and accessible for all, regardless of how one gets around, age, or ability.



Bus-Only Lane on King Street (top); The Alapa'i Transit Center (bottom)



The Joint Traffic Management Center

The Joint Traffic Management Center (JTMC)

The JTMC is a City facility that provides a hub for seamless coordination of traffic management and signal system and public safety coordination between the Department of Transportation Services, the Honolulu Police Department, Honolulu Fire Department, Emergency Services, and the Honolulu Authority for Rapid Transit. A relatively new facility (opened in 2020), the JTMC will continue to bring people, technology, and resources together to actively manage traffic and respond to incidents.

Pedestrian Facilities

Regional pedestrian networks connect neighborhoods throughout the PUC. In Waikīkī, Kakaʻako, Downtown, Chinatown, and other in-town neighborhoods, special pedestrian streets and districts connect residential blocks with parks and shopping areas. The continued development of transit-oriented neighborhoods, bicycle facilities, rail, and dedicated bus lanes will bring more focus to the pedestrian environment in proximity to transit, jobs, and housing.

The Oʻahu Pedestrian Plan is a long-term action plan to create vibrant, safe, and accessible streetscapes. The Oʻahu Pedestrian Plan inventories existing conditions, proposes pedestrian improvement projects and programs, and prioritizes those improvements facilitating multimodal travel consistent with the City's Complete Streets Ordinance. The plan focuses on identifying priority pedestrian networks, prioritizing missing walkway segments, and identifying high pedestrian-injury locations. Policy alignment and implementation of the O'ahu Pedestrian Plan is supported by the PUC DP.

In addition to safe and well maintained facilities, policies in the PUC DP and the TOD Neighborhood Plans call for greater attention to the quality of the pedestrian environment and street level connections in new development. Well-designed pedestrian environments offer opportunities for place-making features that add to neighborhood character and create vibrant community centers.



Joggers on the Ala Wai Canal Path



Biki bikes docked at the Blaisdell Center

Bicycle Facilities

At the last iteration of this Plan in 2004, the PUC had 24.8 miles of bikeways. Since then, the City has added and improved over 40 miles of bikeway facilities, including a well-used protected cycle track along King Street. Honolulu is also home to the Biki bikeshare system, opened in 2017, with over 1,300 bikes at over 130 stations, and operated by the non-profit Bikeshare Hawai'i. The City plans to add at least five miles of new bikeway facilities per year over the next several years with the goal of creating a robust bicycle network in Honolulu's urban core, as detailed in the *O'ahu Bike Plan.* The bicycle network is generally targeted to be implemented within existing roadway right-of-ways shared by the various travel modes. The *O'ahu Bike Plan* identifies specific projects and initiatives to expand facilities and bicycle ridership with a focus on the "interested but concerned" riders that research shows make up about half of the population. Appealing to this largest of the existing and potential ridership groups acknowledges that overall ridership will increase if safe facilities are readily available and supportive programs are in place that appeal to users of all ages and abilities. With this goal in mind, PUC DP policies support implementation of the Bike Plan, with the recommendation to create separated/protected bike lanes whenever feasible, promote the expansion of bikeshare near transit stations, and increase secure bike parking.

TheBus and TheHandi-Van

The City has a fixed-route bus transit (TheBus) and paratransit (TheHandi-Van) system. On the majority of streets, buses share the roads with other vehicles. Exceptions include along the Hotel Street Bus Mall where there is there a bus-only lane, and an additional bus-only lane has been put in place on King Street from Dillingham Boulevard to Alapa'i Street. Future streamlining of such spots and stretches to prioritize buses where appropriate, will help to improve trip performance and shorten commute times for riders. PUC DP policies support the continued roll out of "red carpet" bus-only lanes and bus prority planning in the urban core.



Bus passengers board near the Alapa'i Transit Center



Riders leave the Kulauao (Pearlridge) Skyline Station

Honolulu Rail Transit Project

The Honolulu Authority for Rapid Transportation (HART) is constructing the Honolulu Rail Transit Project (the Skyline). The Department of Transportation Services is in charge of operations and maintenance of the system, with a first segment in operation form East Kapolei to the Aloha Stadium. There are 21 total stations planned, built, or under construction along the partially completed elevated guideway. 15 of these stations are planned in the PUC: Waiawa (Pearl Highlands), Kalauao (Pearlridge), Hālawa (Aloha Stadium), Makalapa (Joint Base Pearl Harbor-Hickam), Lelepaua (Daniel K. Inouye International Airport), Āhua (Lagoon Drive), Kahauiki (Middle Street), Mokauea (Kalihi), Niuhelewai (Kapālama), Kūwili (Iwilei), Hōlau (Chinatown), Kuloloia (Downtown), Ka‘ākaukukui (Civic Center), Kūkuluāe‘o (Kaka‘ako), and Kālia (Ala Moana Center). Eventual expansion of the rail system to UH Manoa remains a long-term goal. Seamless integration between rail and other public transit modes is a major priority for the City transportation network.

Transit Oriented Development (TOD)

The City has a dedicated TOD program that seeks to coordinate the construction of the Honolulu’s rail transit system with the long-term growth and development goals of the surrounding communities. Eight Neighborhood TOD Plans articulate a vision for livable communities supported by a multi-modal transportation system with robust connections between bus, rail, and active transportation, and are supported by this Development Plan. A separate TOD Overlay Plan has been developed for the Kaka‘ako Community Development District under the jurisdiction of the Hawai‘i Community Development Authority (HCDA). More recently, the City initiated an infrastructure master planning process to support the TOD vision for the ‘Iwilei and Kapālama rail station areas. The planning process has been engaging public agencies and property owners to further plan for future development and infrastructure investments in the area. TOD requires ongoing dialogue between City and State agencies, development partners, and the community to deliver livable, walkable, and complete neighborhoods with a high-quality public realm.



The Hālawa (Aloha Stadium) Skyline Station.

State Transportation Facilities

Some transportation facilities in the PUC are under the jurisdiction of the State, such as highways, airports, and harbors. The coordination between the functional classifications of the State and City facilities is critical to ensuring the transportation network functions effectively and efficiently.

Highways—State roads provide regional connectivity within the PUC and beyond. The primary HDOT highways in the PUC include Interstate H-1 Freeway, H-3 Freeway (John A. Burns Freeway), Likelike Highway (Route 63), Nimitz Highway (Route 92), Pali Highway (Route 61), H-201 Freeway (Moanalua Freeway) and a portion of Kamehameha Highway (Route 99). Roadways in the PUC also serve as corridors for the movement of freight. Most of the important freight corridors in the PUC, such as H-1 and Nimitz Highway, experience significant congestion.

Airports—The main airport for the island of O'ahu and the State of Hawai'i is located within the PUC approximately five miles northwest of the Downtown area. The Daniel K. Inouye International Airport (HNL) serves as a major transport hub and plays host to more than 20 million travelers each year. The airport is owned and operated by the HDOT Airports Division and has four active runways, including the 12,000-foot Reef Runway which was the world's first major runway built entirely offshore. The HNL Airport like other coastal infrastructure will need to prepare to adapt to the impacts of climate change and sea level rise in the coming years.

Harbors—More than 80 percent of all goods consumed by Hawai'i residents and its visitors are imported to the islands and, of that, more than 98.6 percent flows through the Port of Hawai'i commercial harbor system. The landside of O'ahu's State-owned commercial harbors, Honolulu Harbor and Kewalo Basin, are located within the PUC. Honolulu Harbor is administered by the HDOT Harbors Division and serves as the primary port of entry for overseas cargo and the hub of the State's commercial harbor operations. It has over five linear miles of mooring space, 200 acres of container yards, and over 30 major berth facilities. Ongoing collaboration across agencies is needed to ensure improvement to public access to the waterfront and to maintain adequate industrial land uses for facilities operations and businesses. Kewalo Basin is under the jurisdiction of HCDA and is currently operated and managed by a third party, The Howard Hughes Corporation. The harbor at Kewalo Basin consists of 143 boat slips used for commercial and recreational purposes. Other recreational boating facilities in the PUC include the Ala Wai Harbor, Ke'ehi Small Boat Harbor, and Sand Island Launch Ramp. These facilities are under the jurisdiction of the State DLNR Division of Boating and Ocean Recreation.



The Daniel K. Inouye Inernational Airport (Source: HDOT)

O'ahu Metropolitan Planning Organization (OahuMPO)

MPOs work closely with large municipalities and state transportation agencies in planning for projects requiring Federal highway and transportation funds. The OahuMPO coordinates cooperative transportation planning between State and County agencies and transit operators and produces the O'ahu Regional Transportation Plan (ORTP). The OahuMPO is supported by a Technical Advisory Committee, Citizen Advisory Committee, and a Policy Board. The OahuMPO process allows State, City, and federal facilities to plan to shared goals for O'ahu's comprehensive transportation system.

How Does the Development Plan Get Us There?

Developing a high-quality transportation network that provides excellent mobility.

A balanced transportation system provides ready and excellent mobility for daily travels. Residents and visitors can access a network of complete streets, pedestrian friendly districts and thoroughfares, and connections to public transit. Hub and spoke buses and commuter express buses, and rail work together to provide easily accessible transportation. Coordinated transportation management aligns multiple agencies for traffic operations and public safety. Expanded bicycle storage and parking, wayfinding signage and pedestrian improvements will support PUC residents and frequenters with convenient and safe mode choices.

Implementing Complete Streets.

The street right-of-way has many demands on it: Accommodating car travel, safe bicycle and pedestrian facilities, parking areas, freight routes, emergency vehicles, pick up and drop off areas, ride-sharing services, landscaping, stormwater management, and utilities. Interagency collaboration and community-based planning is important for setting the priorities to plan street designs and improvements that are well suited to each location and its needs.

Closely coordinating land use and transportation planning.

Land use and transportation planning are closely connected. The car-focused transportation and land use patterns so common in many U.S. cities has tended to spread clusters of single-use districts across the landscape at considerable distances, reinforcing the need to travel by car. Cities across the country are responding to the increasing challenges of reducing greenhouse gas emissions, the impacts of urban sprawl and gridlocked commutes, in part by revisiting mixed-use development patterns. Neighborhoods that bring residences, jobs, and day-to-day services in close proximity are also those well served by public transit and active transportation for short trips. The effort to create these walkable, bikeable, and transit-friendly neighborhoods through changing development patterns is often termed transit-oriented development, or TOD. TOD planning is a major component of implementing Honolulu's rail system, including coordination of land use densities, supporting infrastructure investments, planning for neighborhood improvements such as parks, and increasing transportation modes and connections. Other future growth areas will be planned in coordination with bus transit along existing corridors. In addition, all PUC neighborhoods will benefit from increased bicycle facilities, increased car charging infrastructure, and improved parking management strategies.

Related Policies

Policy GD-1.1: Focus higher intensity mixed-use development and supporting public infrastructure around rail stations.

Policy GD-2.1: Support mixed-use infill redevelopment and increased bus service along key underutilized commercial corridors.

Policy PL-3.2: Support an attractive and pedestrian-friendly public realm along well-used PUC corridors.

Policy PL-3.4: Improve multimodal connections and pedestrian pathways within and between the PUC's mixed-use corridors, town neighborhoods, parks, and public institutions.

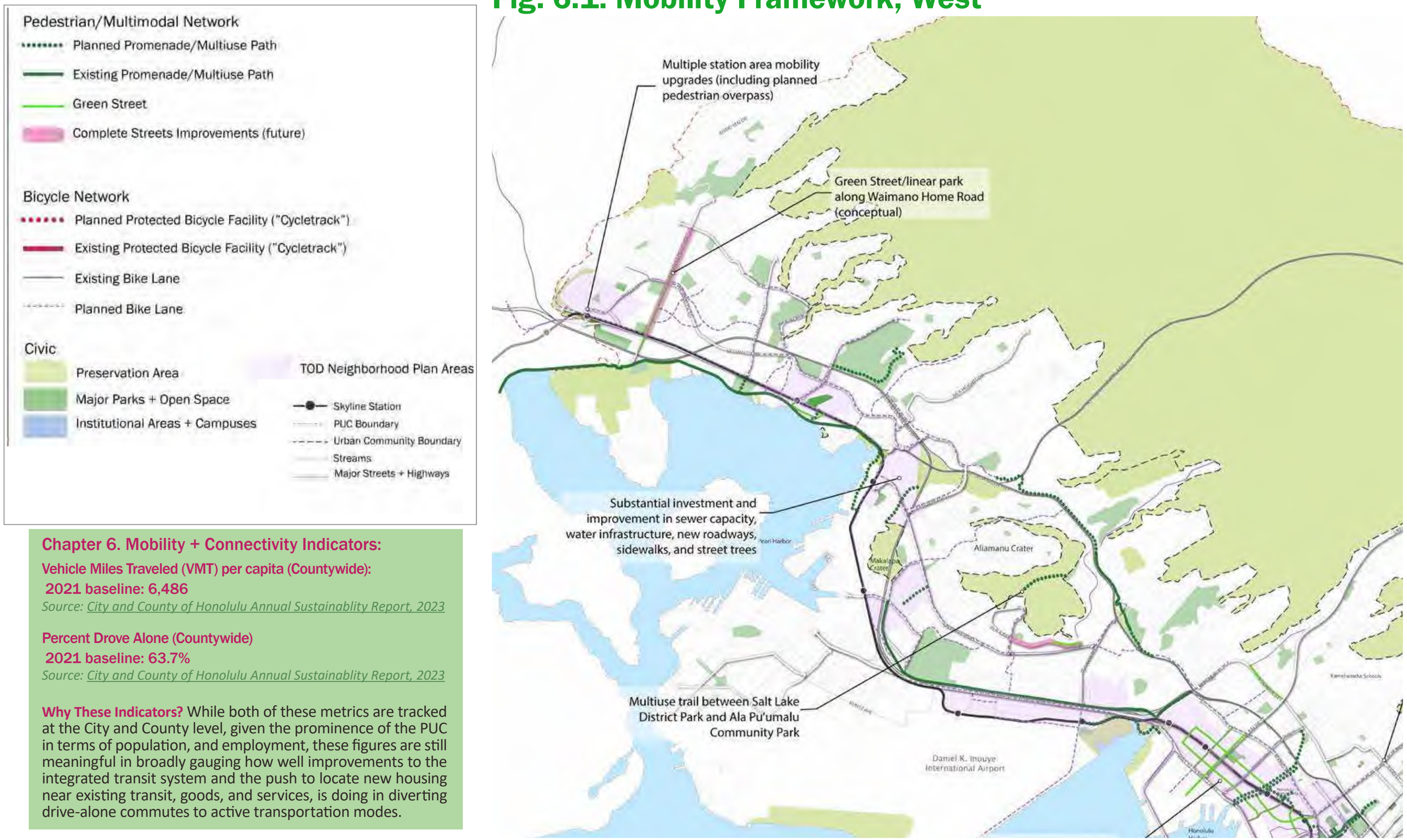
Policy PPOS-2.1: Create safe park-to-park connections through continuous and dedicated pedestrian/bicycle ways.

Policy PPOS-2.2: Use green streets to connect major recreation and public areas, provide missing green space, and beautify viewshed corridors.

Policy HC-2.3: Enhance safety, accessibility, and navigability in public gathering places and transportation networks.

Policy SLR 2.4: Incorporate sea level rise / coastal hazard considerations in the planning, design, and maintenance of facilities and infrastructure.

Fig. 6.1: Mobility Framework, West



Chapter 6. Mobility + Connectivity Indicators:

Vehicle Miles Traveled (VMT) per capita (Countywide):

2021 baseline: 6,486

Source: City and County of Honolulu Annual Sustainablity Report, 2023

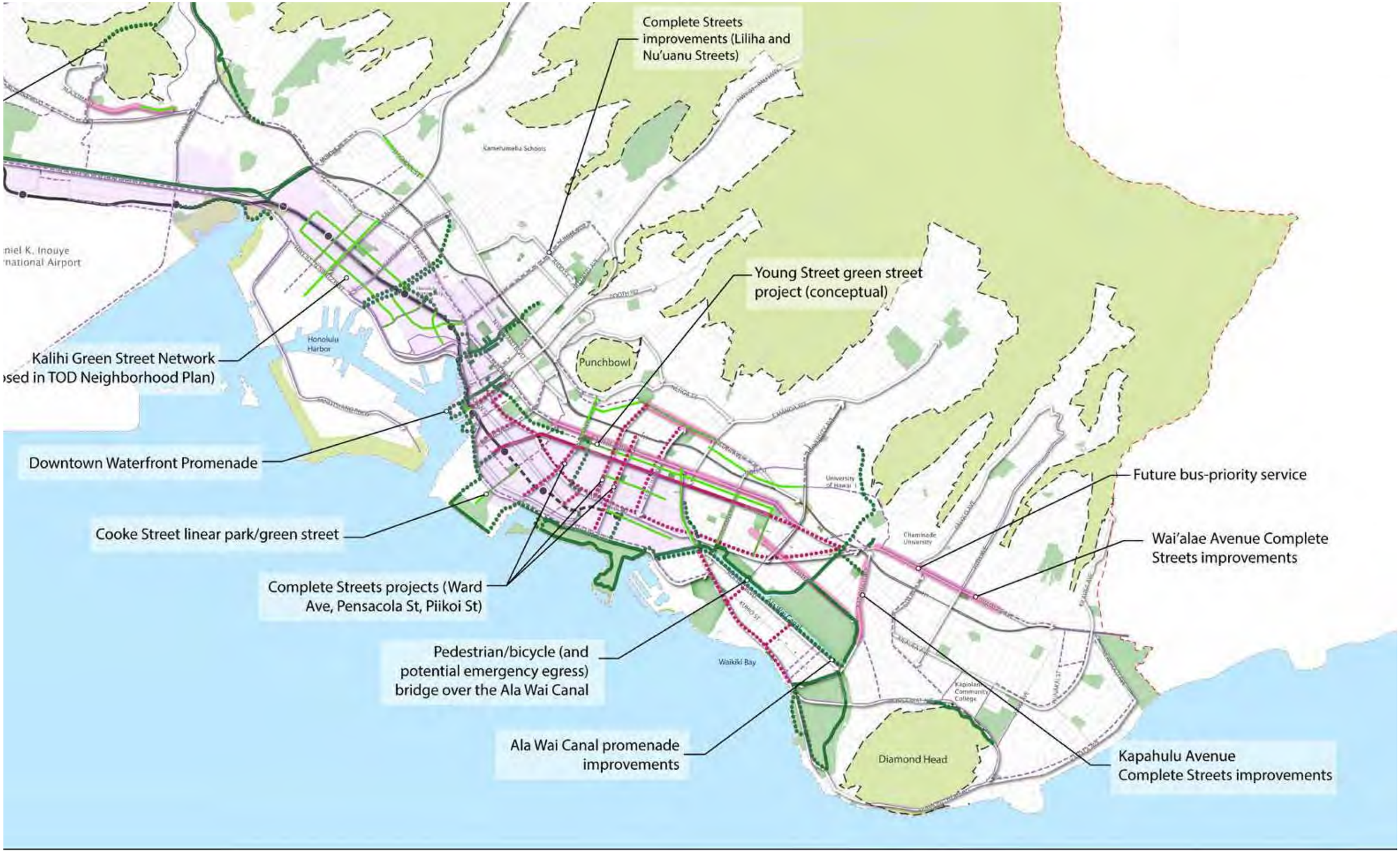
Percent Drove Alone (Countywide)

2021 baseline: 63.7%

Source: City and County of Honolulu Annual Sustainablity Report, 2023

Why These Indicators? While both of these metrics are tracked at the City and County level, given the prominence of the PUC in terms of population, and employment, these figures are still meaningful in broadly gauging how well improvements to the integrated transit system and the push to locate new housing near existing transit, goods, and services, is doing in diverting drive-alone commutes to active transportation modes.

Fig. 6.2: Mobility Framework, East



Goal MC-1: Provide Safe, Accessible, and Affordable Multimodal Transportation Options

Policy MC-1.1: Implement Complete Streets and Vision Zero strategies to enhance the safety and utility of the transportation system for all users.

Creating Complete Streets involves designing and operating a comprehensive, integrated network of streets that are safe and convenient for multiple modes of travel and that meet the specific conditions of each project location. There is no singular design prescription for Complete Streets; each one is unique and responds to its community context. Complete Streets in the heart of Downtown Honolulu will look differently from Complete Streets in the mauka residential neighborhoods of the PUC and projects can range from full street designs to small interventions. Continued implementation of Complete Streets can provide many benefits such as safety and mobility improvements, stormwater management improvements, and neighborhood beautification. The primary method of delivering Complete Streeets improvements is through periodic roadway repaving/rehabilitation.



Pearl Harbor Historic Trail Crossing (Source: DTS)

Priority Actions:

Vision Zero Action Plan. Join the national network of Vision Zero cities by developing a Vision Zero Action Plan for creating safer streets in Honolulu. Implement Complete Streets projects in higher-risk areas. Develop solutions to reduce the severity and frequency of crashes at high pedestrian crash locations (such as curb extensions, bollards, eliminating right-turn on red, pedestrian scrambles, or an overcrossing).

Timeline:



Partners:

- DTS
- DDC
- DPP
- DFM

Community-based transportation planning. Support implementation of community-based Complete Streets planning and design efforts to serve the needs of residents in distinct locations. Emphasize outreach to residents and local businesses. Coordinate with other long-range plans.



Partners:

- DTS
- DPP
- DDC
- Community partners



A mini traffic circle calms a McCully intersection (Source: DTS)

Other Actions:

- *Identify opportunities for more safe crossings along long mixed-use corridors.*
- *Continue to provide and promote information/educational opportunities to residents and community groups to be involved in complete streets projects.*
- *Ensure that investments in Complete Streets projects are balanced and equitable.*
- *Work with property owners and businesses to incorporate transit facilities into design plans or "adopt" transit stops (i.e., clean and maintain transit stops fronting property).*

Goal MC-1: Provide Safe, Accessible, and Affordable Multimodal Transportation Options

Policy MC-1.2: Continually improve the efficiency and connectivity of public transit in PUC neighborhoods through improved travel times and frequency.

TheBus service supports one of the highest transit ridership rates per-capita in the county. TheBus also has one of the lowest costs per passenger mile and lowest cost per boarding passengers of any system. This service is now supplemented by the first completed segment of the Skyline rail, offering commuters another convenient mode choice. Maintaining seamless connections between bus, rail, and active transportation modes will be essential to the functioning and ridership of rail, and to the efficiency and reliability of an affordable transporation network.

Priority Actions:

Improve transit wayfinding. Continue to enhance wayfinding and signage to increase readability and improve seamless connectivity between transportation modes. Implement the TOD Wayfinding Master Plan.

Shared access card. Expand services linked to the "Holo" card that allows pre-payment across public transportation services using a single reloadable card.

Plan for "Red carpet" bus only lanes and bus priority service along key infill corridors. Continue to enhance key corridors with sufficient planned or existing density to support high-frequency transit service and transit prioritization (e.g.,bus-only lanes, transit signal prioritization, and bus stop improvements).

Other Actions:

- *Invest in and implement projects with a focus on public transit safety and comfort as recommended by Age Friendly Honolulu initiative, such as:*
  - *TheBus and TheHandi Van schedules in different formats (e.g., Braille, large print);*
  - *Increase the number of clean and accessible restrooms at transit stops and stations.*

Timeline:



Partners:

- DPP
- DTS



Partners:

- DTS
- HART
- Bike Share



Partners:

- DPP
- DTS
- DDC



Holo card (Source: TheBus)



TheBus in service around O'ahu



Honolulu's new generation TheBus is electric (Source: DTS)

Policy MC-1.3: Continue to expand safe facilities and increase comfort in the bicycle network.

Expansion of bicycle facilities will help to ensure that a network of infrastructure is in place to make it a viable mode of travel for more people within the PUC. Bicycle infrastructure should be safe and comfortable to use. Key to this policy is implementing the recommendations of the O'ahu Bike Plan, expanding the network of separated and protected bikeways in the PUC, and providing sufficient bicycle parking in new development.

Create a sheltered, low-stress cycle network. Prioritize construction of protected bike lanes along corridors identified in the O'ahu Bike Plan. Support expansion of bicycle facilities in the corridors identified in the Bike Plan to promote a greater share of trips taken by bicycle.

Timeline:



Partners:
- DTS
- DDC

Greater traffic calming and bicyclist safety. Support the implementation of traffic calming measures and collaborate on interagency transportation safety efforts to support Vision Zero.

Timeline:



Partners:
- DTS
- DDC

Bikeshed projects. Prioritize bicycle facilities improvement projects that are within the bike shed of high priority transit hubs. (approximately one mile).

Timeline:



Partners:
- DPP
- DTS
- DPP

Other Actions:

- *Develop standards to increase integration of secure bicycle parking into development projects.*
- *Facilitate the permitting and construction of bike share stations near transit stations.*



Bicyclists feel more secure on separated bikeways



Bike sharing provides quick, convenient transportation in busy districts like Waikīkī

Goal MC-1: Provide Safe, Accessible, and Affordable Multimodal Transportation Options

Policy MC-1.4: Improve pedestrian connectivity and safety throughout the PUC.

Honolulu has a favorable climate and topography for walking, which is beneficial to public health, the environment, and the overall quality of life in the city. However, the relatively large physical separation between walking destinations and variable sidewalk conditions discourage many people from walking in the PUC as one of their primary forms of mobility. Increased attention to the pedestrian environment is needed to improve accessibility and conditions and to encourage more walking within the PUC. Attention should be paid to connections between destinations in areas with already higher pedestrian activity, and to priority improvements such as filling in missing sidewalks near schools and transit stops. High volume streets with long distances between safe crossings reduces options for those with mobility challenges, and should be corrected.

Priority Actions:

Improve connectivity and safety in high pedestrian activity areas. Seek opportunities to improve connections and flow between sidewalks and areas of activity, transit stops, and public open space. Enable easier and safer pedestrian crossings of busy streets with additional protected crosswalks, shorter signal cycles, and automatic pedestrian recall.

Sidewalk reinvestment areas. Support City-funded construction of sidewalks in densely populated areas with limited existing facilities, based on the O'ahu Pedestrian Plan. Address unimproved sidewalks with a consistent and concerted approach.

Quick Builds. Deploy expedited, incremental or tactical projects in conjunction with the community to meet specific needs. Quick build projects improve safety and comfort for pedestrians through lower-cost and quickly deployed means such as striping, painting, and movable barriers. Quick build projects are suited to high levels of community involvement in both design and implementation.

Timeline:



Partners:

- DTS
- DDC



Partners:

- DPP
- DTS
- DDC



Partners:

- DTS
- DDC
- Community groups



Pedestrians crossing in Downtown Honolulu



A Quick Build project enhances crosswalk visibility near Kalihi H.S. (Source: Ulupono Initiative)

Other Actions:

- *Designate pedestrian-priority streets and focus areas that support safe, comfortable, and convenient walking environments, including seating and adequate shade.*
- *Support improvements in pedestrian-priority areas, by including private developers.*

Goal MC-2: Create an Adaptable and Flexible Transportation System

Policy MC-2.1: Reduce dependency on single-occupancy vehicles and reduce vehicle miles traveled. (VMT).

With limited options to increase the capacity of the existing roadway network, managing transportation demand along with implementing cost-effective operational improvements will continue to be key strategies in addressing congestion. Reducing dependency on single-occupancy vehicle trips and increasing the use of higher-efficiency options will also help the State achieve and maintain its greenhouse gas emissions goals, as will increasing programs and partnerships that encourage the use of public transit and active travel modes.

Priority Actions:

Modify parking regulations. Reduce off-street parking requirements to incentivize the use of travel modes other than single-occupancy vehicles. Pursue "unbundling" of residential parking for both rental and for-sale housing in new multifamily buildings or for commercial developments. Moniter parking pricing and availability in the PUC, and discourage oversupply in transit-rich pedestrian priority areas.

Transportation demand management. Support a wide variety of strategies to reduce single-occupancy travel, including carpool, vanpool, flexible schedules, remote work, transit passes, or similar.

Timeline:



Partners:

- DPP
- DTS
- OCCSR

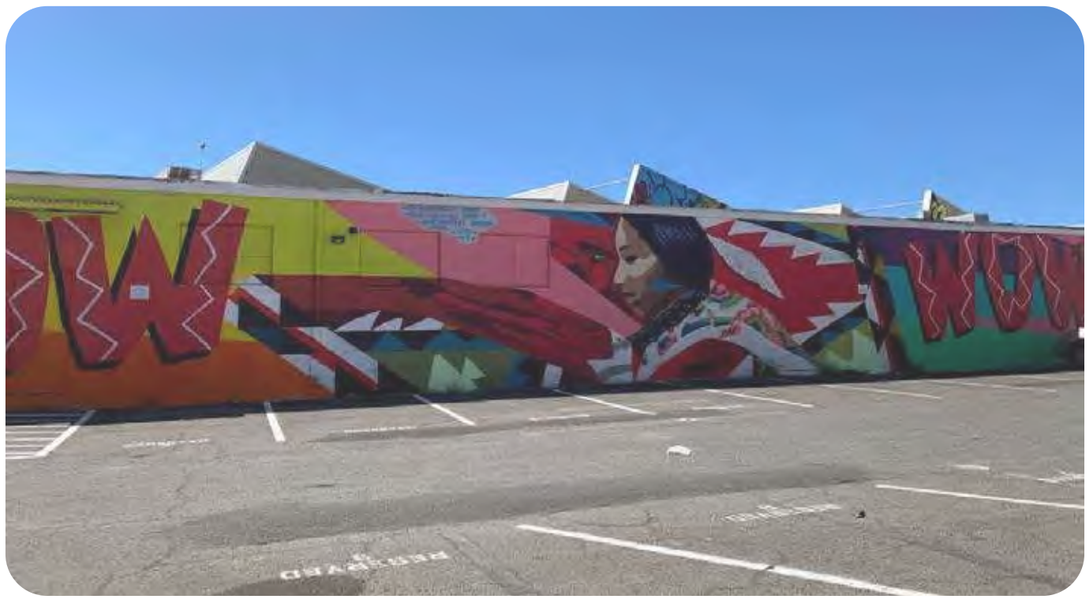


Partners:

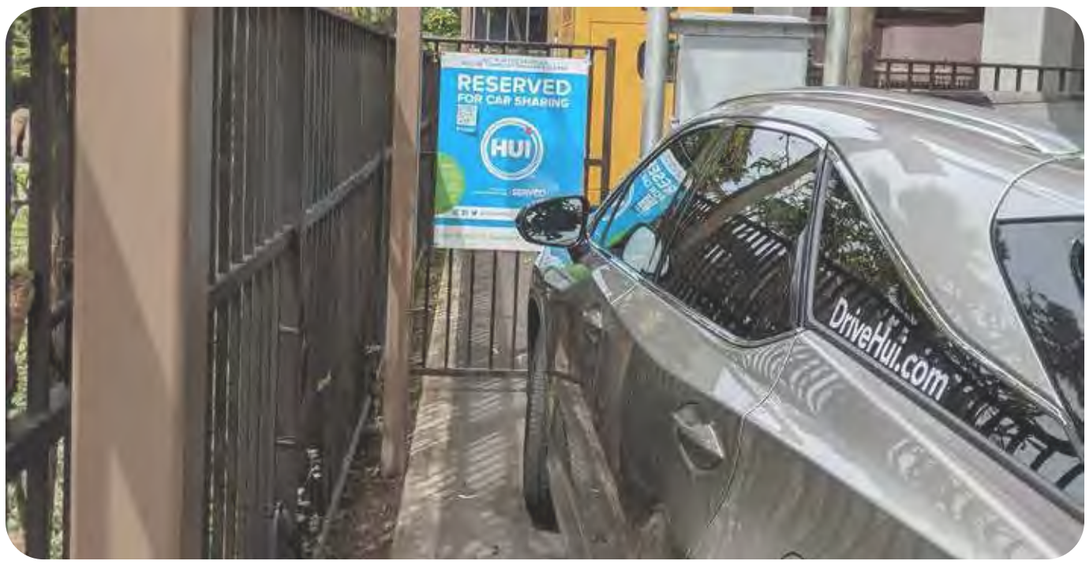
- DTS
- OED
- OCCSR
- OMPO

Other Actions:

- *Work with property owners and businesses to ensure that existing private parking is available to the public when not needed for its primary commercial use.*
- *Implement a parking management plan for Downtown/Chinatown and other municipal parking areas to optimize use of existing parking assets.*
- *Price municipal parking according to market rates.*
- *Reduce vehicle ownership through shared mobility, mixed-use development, and/or frequent transit service.*



An off-street commercial parking lot



Carshare Hui at UH Mānoa

Goal MC-2: Create an Adaptable and Flexible Transportation System

Policy MC-2.2: Safely integrate emerging technologies into the transportation system.

Advancements in technology and societal shifts will continue to alter travel behavior and change demands on the transportation system. New technologies will continue to emerge and present both opportunities and challenges to the transportation system. It is vital to identify the specific needs of new transportation systems/technologies that are poised to become widespread to facilitate their incorporation into the existing transportation system safely into the future. New developments should be expected to consider appropriate design solutions for now common demands such as bikeshare stops and secure bike parking, ride-share drop areas, and expanded electric vehicle charging stations.

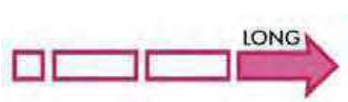
Priority Actions:

Public vehicle charging. Retrofit public parking garages with a percentage of Electric Vehicle (EV) charging stations and require EV stalls in new developments (inclusive of all housing types).

Timeline: 

Partners:
- DTS
- DFM
- DDC
- OCCSR

Renewable public vehicles. Support actions to transform the City's public fleet to 100% renewable energy by 2035.

Timeline: 

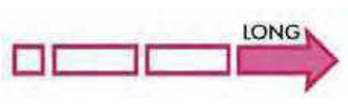
Partners:
- OCCSR
- Asset agencies

Develop an integrated micro-mobility plan. Develop strategies and public messaging to safely integrate alternative modes of micro-mobility such as scooters where appropriate, or incorporate these into the next O'ahu Bike Plan update.

Timeline: 

Partners:
- DTS
- DPR
- DPP

Plan for the deployment of autonomous vehicles. The fast moving technology of autonomous vehicles is poised to have a transformative impact on transportation systems. It will be important for cities to stay ahead of the curve to safely and equitably integrate the new technologies while

Timeline: 

Partners:
- DTS
- DPP
- DDC
- DFM
- HDOT
- OMPO

Other Actions:

- *Promote shared mobility programs at multiple scales that are safe and equitable.*
- *Encourage integration of ride-share facilities into new developments' ground floors.*



EV fast-charging station at the Hawaiian Electric lot



Solar panels over public parking

Goal MC-2: Create an Adaptable and Flexible Transportation System

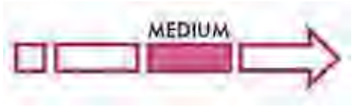
Policy MC-2.3: Improve the efficiency and operations of existing transportation facilities.

An efficient transportation system supports the movement of a diverse set of people, goods, and services while reducing overall transportation costs. This policy is focused on improving travel times and reliability of the roadway network in the PUC, through addressing key bottlenecks and deficiencies in ways that are both reliable and safe.

Priority Actions:

Low-cost upgrades. Utilize low-cost, easy to install improvements such as signal optimization along long corridors (such as along Kamehameha Highway) or re-striping to enhance operational efficiency.

Timeline:



Partners:

- DDC
- DTS

Pursue congestion management strategies. Track and analyze traffic bottlenecks in real time during peak hours using the Joint Traffic Management Center (JTMC), and employ this data to develop operational solutions and alternatives to capacity expansion projects.



Partners:

- DTS
- JTMC partners
- HDOT

Identify and Implement Transportation Systems Management and Operations (TSMO). Utilize the JTMC to implement TSMO goals across transportation agencies, such as to coordinate maintenance, set and monitor performance goals, evaluate designs, and enhance safety.



Partners:

- DTS
- DDC
- DFM
- JTMC partners
- HDOT

Other Actions:

- *Conduct temporary, low-cost or tactical projects to demonstrate the efficacy of potential long-term operational or safety improvements in conjunction with the community.*
- *Convene a task force to analyze approaches to improving publicly accessed roads owned by adjacent private property owners. Identify potential low-cost treatments that could be collaboratively funded.*



An integrated transportation system requires real-time monitoring of multiple modes (Source: HART)

Goal MC-2: Create an Adaptable and Flexible Transportation System

Policy MC-2.4: Adapt the roadway network to address challenges from chronic flooding and sea level rise.

Integrating solutions to chronic flooding and rising water tables will be a challenge for some PUC roadways and will rely on coordinated solutions. Both short-term and longer term solutions will be needed, as well as sequencing plans to maximize efficiencies and the duration of investments.

Priority Actions:

Work across city agencies to address roadway flooding. Some roadways in the PUC will see worsening effects of chronic storm water and sea level rise-induced flooding. Meeting these challenges will require new levels of coordination between city, state, and federal agencies, private development, and community-based input to create equitable and effective means to plan for and fund mitigation projects.

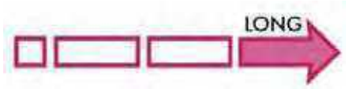
Timeline:



Partners:

- DTS
- DPP
- BWS
- OCCSR
- ENV
- DPR
- DFM
- DDC
- HDOT
- HART
- OMPO

Create a framework for road raising. Complete a comprehensive strategy for where, when, and how to raise City-owned roads (including a cost/value methodology) and accompanying drainage improvement strategies.



Partners:

- DDC
- BWS
- DFM
- OCCSR
- ENV
- DTS
- DPP

Other Actions:

- *Consider establishing a "right-sizing" policy for addressing increased flooding in transportation facilities. Such a policy would establish a method for determining the cost-benefit for retaining (and/or decommissioning) transportation assests with an eye towards providing the optimal use and function of assets through an integrated needs-based analysis. This could be pursued as a larger context-setter for a road-raising framework (see above).*



Storm-flooded road in Mapunapuna industrial area (Source: SOEST King Tides Project)

Goal MC-2: Create an Adaptable and Flexible Transportation System

Policy MC-2.5: Maximize interagency and regional transportation coordination.

Interagency and regional coordination is necessary to establish consistent and cooperative plans, programs, and projects between state and local government agencies, the metropolitan planning organization, and other appropriate agencies to implement shared priorities for the transportation system in the PUC and beyond. Planned improvements should be coordinated with other infrastructure repairs and upgrades—water, wastewater, and storm drainage—whenever feasible, to efficiently use resources and limit construction disruptions to residents and businesses.

Priority Actions:

Implement regional transportation plans. Support implementation of the Transportation Improvement Program (TIP) and the O'ahu Regional Transportation Plan (ORTP). Continue to coordinate roadway and infrastructure planning with TOD planning, City projects and major development projects. Adopt a "dig-once" approach to infrastructure planning in the right-of-way.

Timeline:



Partners:

- DTS
- DPP
- HDOT
- HART
- OMPO

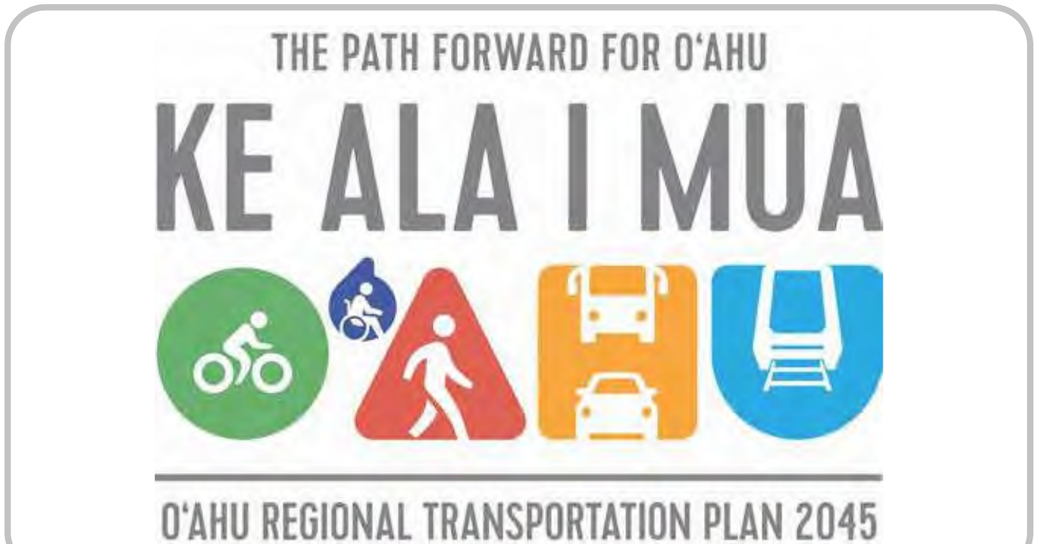
Balance multiple needs in the road right-of-way. Continue to prioritize commercial and passenger loading in Chinatown, parts of Ala Moana, Downtown, and Waikīkī. Incorporate freight considerations into the Complete Streets Design Manual and along mixed-use/commercial corridors with higher truck volumes. Update the planned street widening maps to be consistent with the current modal plans.

Timeline:



Partners:

- DTS
- DPP
- HDOT



OMPO's regional transportation plan document is routinely updated.

Other Actions:

- *Support regional transportation needs assessments.*
- *Expand data collection to document conditions of existing transportation infrastructure, including documentation apps for the public.*
- *Coordinate project schedules and Identify opportunities to combine projects across city agencies.*

Healthy Communities

Healthy Communities



GOAL HC-1:
Foster a healthy built environment in the PUC.

Policy HC-1.1: Encourage exemplary healthy ("green") building standards.

Policy HC-1.2: Promote strategies to increase energy efficiency and clean energy in buildings.

Policy HC-1.3: Avoid/mitigate the Urban Heat Island Effect and reduce heat stress.

Policy HC-1.4: Expand access to healthy foods from local growers and expand the community gardens program.

GOAL HC-2:
Shape an Age-Friendly community that responds to the needs of all PUC residents.

Policy HC-2.1: Encourage housing designed with kūpuna in mind, and in a variety of household sizes.

Policy HC-2.2: Design parks and open space to provide increased physical activity for all ages.

Policy HC-2.3: Enhance safety, accessibility, and navigability in public gathering places and transportation networks.

GOAL HC-3:
Support initiatives that improve community engagement, health, and equity.

Policy HC-3.1: Improve civic engagement in the planning process and increase community-focused initiatives.

Policy HC-3.2: Collaborate across City and state agencies, and partner organizations, to center equity in public infrastructure, programs, and services.

Policy HC-3.3: Increase disaster preparedness in the community.

Policy HC-3.4: Increase community resilience to climate-based hazards.

Key Outcomes

Healthy Communities policies in the PUC DP are included to thoughtfully highlight linkages between building and land use policies, public infrastructure planning, and various City and State environmental goals with the broader goal of supporting public health.

This Chapter provides some general demographic information on health conditions in the PUC. It touches upon socioeconomic conditions, current health outcomes, physical activity levels, and access to transportation, housing, and health facilities, among other topics. By identifying distinct needs within the community, and gathering threads within the broad topic of public health, this chapter is intended to help policy makers and community members be better equipped to seek support, steer development, and direct public infrastructure resources in a manner that benefits all residents in the community.

A partial list of what planning for a healthy community in the PUC means in practical terms:

- Attention to protecting environmental quality;
- Safe routes for pedestrians of all abilities;
- Addressing the current and long-term effects of climate change;
- Encouraging universal and age-friendly design practices;
- Increasing parks access and amenities;
- Ensuring access to affordable transportation;
- Ensuring physical and financial access to locally sourced, good food;
- Investing in public infrastructure in an equitable manner;
- Seeking guidance from health agencies and supporting the state Department of Health in important public efforts and messaging.



The PUC provides a spectacular backdrop for many outdoor sports

Setting the Stage

Including a Healthy Communities chapter in the PUC DP and future DPs and SCPs will serve to identify linkages between policies that can better support public health (the promotion and protection of health of all people and their communities). The health of an individual is the result of a complex web of factors and events—some of which we can control as individuals, and some of which we cannot. Referred to as “social determinants of health”, medical care is just one part of a picture that includes multiple factors such as where one lives, one’s experience of poverty and financial stressors, access to education, and more.

For example, the design and condition of buildings, the urban street grid, and other physical characteristics of the built environment can have implications for the health of individuals, and more broadly, for public health. Most people are aware that reducing pollution and maintaining environmental quality is supportive of the community's health. But there are other factors to consider as well. Studies have found that living and working near transit, combined with other built environment factors such as a diverse mix of uses and higher densities, results in increased rates of physical activity, since transit riders typically walk more than those who drive to work or their daily activities. While urban design and planning policies are not the full picture of public health, many associated actions (such as building codes) are at their most basic, meant to enhance public health and safety. Likewise, looking at the broader range of community planning practices through the lens of public health is instructive in determining their utility and effectiveness.

Creating a healthy community in the PUC requires bringing the public health conversation into the planning and design of the built environment in a way that enhances the physical and mental well-being of the people who live, work, and play in the community. This includes such goals as strengthening and enforcing building standards for better accessibility, and cleaner indoor and outdoor environments. It also includes progarms for greater energy efficiency and the integration of cleaner energy sources; increasing access to parks and active spaces; and increasing the urban tree canopy as well as employing other means to reduce heat stress. It further includes ensuring an efficient and affordable public transit network with multiple mode choices, and promoting access to healthy food.

While many of these are ongoing goals of various City and State agencies, departments, plans, and initiatives, (and many active community groups and organizations), it is helpful to consider how all of these disparate goals fit together in the context of supporting public health in the PUC. The inclusion of this new content is a step toward creating a more robust public health conversation at the community level as it relates to the built environment and environmental health. To this end, it is important for agencies to continually improve engagement methods for participation in public processes. From providing multiple platforms (digital and in person) for community meetings, increasing offerings in language and accessibility services, and increasing engagement with existing community groups, the Healthy Communities policies include a focus on better engaging the whole community to work towards shared goals.



A morning surfer in Waikīkī

Note: Statistical data in this chapter is derived from the 2010 U.S. Census, the American Community Survey (ACS, interim U.S. Census data), and the Department of Planning and Permitting’s FY2020 and FY2021 Annual Report on the State of Land Use (derived from ACS data).

The Aging Community

Like Hawai'i at large, the island of O'ahu is home to an aging population. On O'ahu, 27% of residents will be 65 years and older by 2040 as the large baby-boomer generation (born 1946-1964) ages. Within this context, the population of the PUC skews older than O'ahu as a whole: the 2020 median age in the PUC was 41, compared to 34 for O'ahu. These factors suggest a pressing need to expand quality, accessible, healthcare services for residents. It also calls for devising new strategies that allow PUC residents to meet changing housing needs, including more age-friendly design practices that can help people stay in their homes longer. Policies and Actions found in the PUC DP support and align with those in the *Honolulu Age-Friendly City Action Plan* (2015) that charts a course for a more inclusive and accessible urban environment, for kūpuna to keiki. Age-Friendly design refers to creating a more supportive and inclusive built environment with the widest possible ease of use for people of all ages and abilities.

Income and Poverty

Hawai'i often tops various lists for the nation's highest cost of living. As of 2020 the median estimated household income in the PUC was $75,164, however, there is considerable variation within the PUC. The PUC areas with the lowest median incomes were generally found in the central PUC coastal plains (mid-town). In addition, a small handful of 2010 Census tracts in the Kalihi-Pālama and Kalihi Valley neighborhoods had poverty rates exceeding 40% – a figure that is generally accepted as the threshold for concentrated poverty. As this Plan suggests, it is important to identify areas within the broader community that are facing these elevated financial hardships in order to better address issues of housing security, and to reduce barriers and increase opportunities for civic engagement in planning processes.

What is Cost Burden?

According to the United States Department of Housing and Urban Development (HUD), a household is considered "cost-burdened" if it pays more than 30% of income on housing. These high costs can exert significant pressure on households and cause them to cut down on or forego other important expenses, such as food, clothing, transportation, and healthcare. In 2015-2019 on O`ahu, households at 80% or below area median income (AMI) paid an average of 50% of income on housing, a severe cost burden.



The PUC is home to many kūpuna



A traffic circle calms residential streets

Housing Access

The large national cohort of residents that are employed yet struggling with basic costs of living is defined as "Asset Limited, Income Constrained, Employed" or "ALICE" households by the United Way. The Aloha United Way *ALICE in Hawaii Report* (2020) report found that there are more ALICE households statewide (33%) than households below the poverty threshold (9%), and that the ALICE households were growing at a faster rate. A supplemental analysis for the study that included COVID impacts pushed the numbers even higher. Per the 2017 American Community Survey, a full 40% of households in the PUC were "cost-burdened", or spending more than 30% of household income on housing. High rents or mortgage payments, especially for low- and moderate-income households, limit the amount that can be spent on other necessities, such as healthy food, transportation, child care and health care.

Households with access to affordable housing are less likely to move frequently, providing more residential stability for families with children and teens. Similarly, an adequate supply of affordable housing can also help to create a more stable platform for health care delivery and services for the elderly, and those with disabilities and chronic disease.

As was discussed in detail in Chapter 4, Housing, affordable housing is one of the single most pressing community challenges faced by residents in the PUC (and beyond). All available tools need to be employed in solving the housing crisis including inclusionary housing policies, incentives/exemptions for higher levels of affordability, direct public investment, gap financing, enforcement of short-term rental policies, and allowing for pilots of new housing types and models that bring costs down.

Parks Access

Proximity to parks has been associated with increased park usage, increased physical activity, and better overall health. Improving access to parks and green spaces can increase the amount of time spent exercising, reduce stress and fatigue, and promote well-being.

While O'ahu has outstanding beaches, recreation areas, and a climate for year-round outdoor activity, most PUC neighborhoods, with their high concentrations of residents in relatively small geographic areas, are underserved by public parks. Many of the densest PUC neighborhoods fall outside of a ¼ mile walk to a public park, and 14 of the 19 neighborhoods identified have less than 3 park acres per 1,000 people (a standard metric used to measure the quality of park service in communities). Policies in the PUC DP support increasing basic parks access, designing parks to serve all ages and abilities, and include strategies to increase usable open space in dense urban areas. Another central concern for parks access is safety and maintenance. Parks must be adequately serviced and maintained to encourage and support broad public use and to deter crime.

Healthy & Resource Efficient Buildings

According to the U.S. Environmental Protection Agency (EPA), we spend approximately 90 percent of our time indoors. Therefore indoor environmental quality is an important area of focus for promoting healthy communities, including, ensuring adequate HVAC systems, use of more healthful building materials, and monitoring the condition of aging buildings. The PUC DP promotes the use of, or reference to, industry-vetted specialized standards (e.g., Leadership in Energy and Environmental Design or Well Building Standard) for new construction. Incorporating such guidelines can help ensure a healthful indoor environment, as well as acheive greater resource efficiency measures.



Weekly concerts by the Royal Hawaiian Band on the Iolani Palace grounds are free to the community

Further, as it relates to efficiency, making strides in building efficiency is one of the single greatest means to close the gap between clean energy source capabilities and a reliance on fossil fuels. Healthy building design can also mean paying attention to the form and layout to create spaces that support the fitness, mood, and even sleep patterns or productivity of its occupants. For example, a health concious building design can promote physical activity through the placement of staircases and elevators, or boost mood and productivity through ensuring abundant natural light.

Increasing Opportunities for Healthy Foods

Poor nutrition and unhealthy eating habits are risk factors for many leading causes of disease. The topographical constraints in the PUC have resulted in the highest density of supermarkets in the central PUC area, with fewer full service supermarkets in the valley/ridge neighborhoods (the Salt Lake and Moanalua area are both particularly underserved by full-scale supermarkets). A healthy food environment should have a adequate access to fresh, affordable, and nutritious choices. However, perhaps the biggest challenge for the PUC and O‘ahu as a whole, is an over-reliance on imported food. It is estimated that more than 80% of Hawai‘i’s food is imported, and it is the State’s goal to at least double local production by 2030. As it relates to the PUC, the focus should be on continuing to provide more access points between farmers, local food producers, and local consumers. Increasing opportunities for Federal Nutrition Assistance Program-enabled farmer’s markets, open markets, community supported agriculture programs partnerships, and local purchasing are all means to increase these connections within the urban environment. Light industrial areas could also play a role in supporting the newer practices of indoor vertical and container (controlled environment) farming, as called for in the *O‘ahu Resilience Strategy*.

Chronic Disease and Access to Health Services

Most PUC neighborhoods have at least a 36% incidence of high cholesterol, 20% incidence of obesity, 10% incidence of diabetes, and 4% incidence of heart disease. In 2017, the percentage of adults (age 18-64) that were uninsured exceeded 10% in 16 of the PUC’s 19 neighborhoods – a concerning statistic given that only 8.8% of adults nationally were uninsured. This underscores the importance of encouraging the location of community health centers and service providers in the areas that need of them most, and partnering with community centers in disseminating important public health information to increase reach.



Enjoying a temporary closure of Kalākaua Avenue for recreation

How Does the Plan Get Us There?

Age-Friendly Communities & Urban Design

Creating places that accommodate people of all ages is an important component of a healthy community. The PUC is home to an aging population that needs safe and navigable environments, and forms of care that can respond to evolving needs. These considerations must inevitably extend to the city-building realm as well, including initiatives that range from barrier-free building design and retrofits, to age-appropriate streetscape enhancements. Many current City programs and policies are already working to advance healthy community planning goals, including Complete Streets, Age-Friendly Communities, TOD planning, and the *O'ahu Resilience Strategy*, to name a few. The City can build on these existing efforts to explicitly address the needs of the PUC's elderly population. Providing more affordable, accesible housing options, and encouraging age-friendly "universal" home and public space design (design features that are easy to operate for all ages and abilities), are measures that can help inscrease the security and ease the burden of day-to-day tasks for kūpuna and families.

Renewed Focus on Equity in Development

The PUC's neighborhoods with the most notable income and health disparities are generally clustered in the mid-town urban core, but may be found throughout the PUC. Current and future planning should continue to address common challenges faced by PUC residents such as housing and transit affordability, uneven park access, and missing sidewalks, and to seek to improve areas with ailing, aging, or missing, infrastructure. Targeted investments can help create a safer and more accessible public realm, to improve health and safety outcomes. Public agencies working in partnership with community groups can help to increase access to healthy eating and active lifestyles, and create spaces for farm-to-consumer transactions. Planners and developers should look to community members to determine adequate community benefits from new developments, and planners and community members should work with new developments to seek the inclusion of health-supportive uses. Community participation, engaging community champions, reducing barriers, and increasing inclusivity (including language services) are areas for continual improvement.

Environmental Protection

A key component of healthy communities is working to maintain and improve environmental quality. The PUC DP contains policies that support clean energy use, healthy buildings, watershed health, and mitigation planning for sea level rise and climate change, as well as other natural and manmade hazards. Timely updates to building codes and standards will ensure that buildings in the PUC (and across O'ahu) become more resilient to hazards, more resource efficient, and friendlier to the environment.

What is Universal Design?

Universal Design is a design approach that seeks to create spaces that have the widest possible utility for the broadest possible audience of users. The key principles include accomodating a wide spectrum of ability through flexible use, tolerance for error, and simple and intuitive design. Examples include wider doorways, zero-step entrances, easy to use lever handles, and curb cuts/sidewalk ramps at intersections. Incorporating such principles into original home designs also saves the need for costly retrofits later.

Related Policies

Policy H-1.1: Enable or incentivize residential infill development in transit-accessible planned growth areas.

Policy H-2.3: Preserve affordable housing options and improve conditions by encouraging reinvestment and redevelopment of aging multi-family housing and investing in public infrastructure.

Policy H-2.4: Expand homeless services and supportive housing in the PUC.

Policy PL-2.3: Actively pursue Honolulu's tree canopy goals, especially in interior neighborhoods lacking trees.

Policy PL-3.3: Ensure pedestrian-oriented design in all corridors and centers, especially in Town Corridor, Urban Corridor, Downtown, and Resort areas.

Policy PPOS-3.1: Invest in park facilities, equipment, and programs that serve all ages.

Policy PPOS-3.3: Promote parks that are safe for the community through environmental design strategies and after-hours activity.

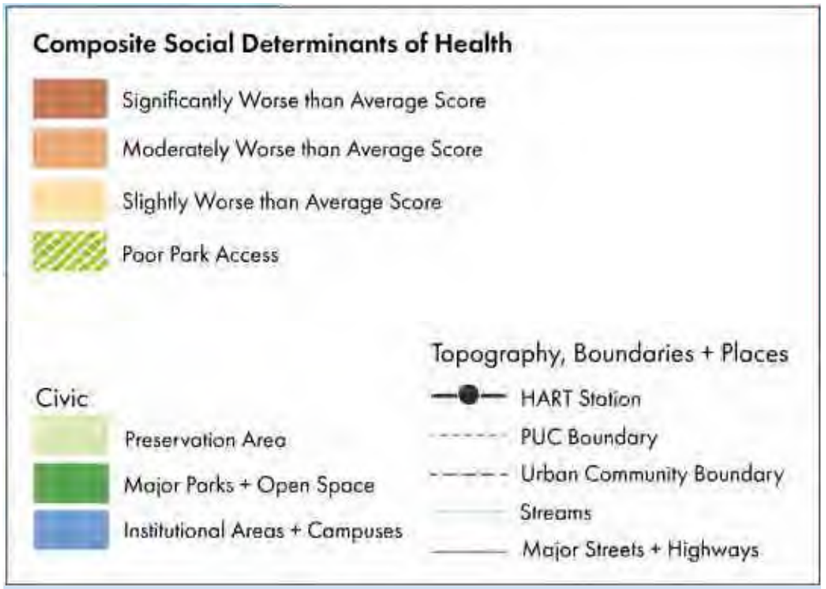
Policy MC-1.1: Implement Complete Streets and Vision Zero strategies to enhance the safety and utility of the transportation system for all users.

Policy WR-2.1: Protect drinking water aquifers, and surface and nearshore waters from contamination by developed land uses, urban runoff, underground fuel storage, and illegal dumping.



At a weekly farmer's market at Kapi'olani Community College

Figure 7.1: PUC Composite SDH Map, West





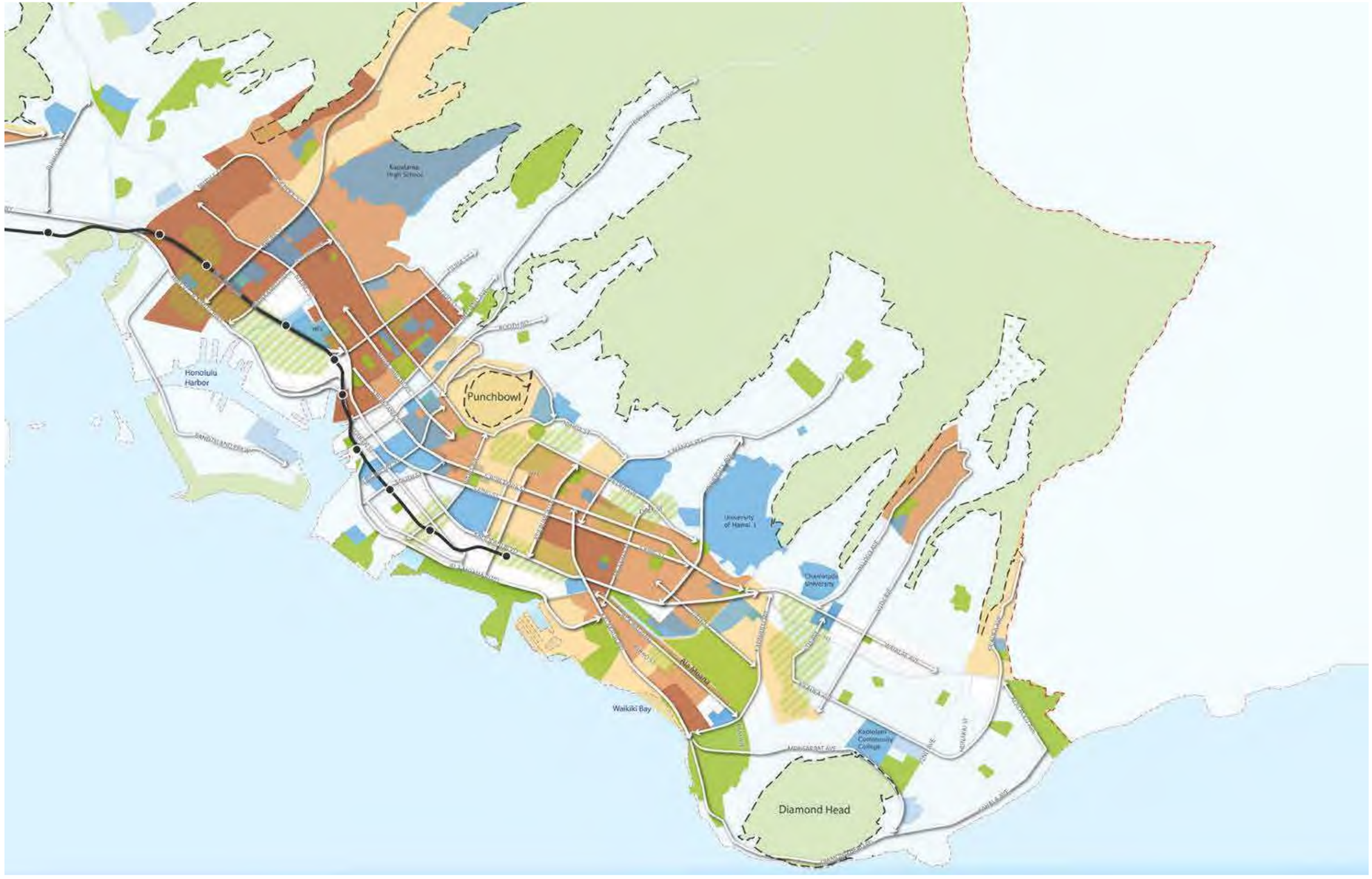
About this map: On average, the neighborhoods shown in darker colors for the "Composite Social Determinants of Health" experience greater socio-economic challenges. These are predominantly denser multifamily areas where a significant portion of the PUC's residents live. By combining this data with other planning factors (see the PUC SDH and Sea Level Rise Map on page 238 for an example), policy responses to specific issues can better serve the community.

The factors compiled in this map include:

- Age: Percentage of population over age 65 (very old) and the percentage of population under age 18 (very young)
- Education: Percentage of population over age 25 that did not graduate high school
- Employment Status: Percentage of unemployed workers age 16 and over
- Income: Household income
- Poverty: Percentage of population with income less than the Federal Poverty Level

This analysis is derived from the “Hardship Index” originally developed by the Neson A. Rockefeller Institute of Government to compare the economic conditions of one neighborhood to another (https://rockinst.org/issue-area/hardship-americas-cities-suburbs/). The Index uses six demographic and socioeconomic variables.

Figure 7.2: PUC Composite SDH Map, East



Goal HC-1: Foster a healthy built environment in the PUC.

Policy HC-1.1: Encourage exemplary healthy ("green") building standards.

This policy is to encourage and realize greener, more sustainable building practices in the PUC. While nationally recognized certifications and toolkits offer a comprehensive approach, there are also many smaller actions that can make new and existing buildings and developments cleaner and greener. Opting for energy efficient appliances and lighting, using sustainable and/or more environmentally friendly materials and products, water conserving design and landscaping, and improving indoor environmental quality should be considered in all projects. In addition, providing active spaces, bicycle parking or transit shelters to support active transportation modes, and outdoor spaces for relaxation, can help boost the mental and physical well being of building users and occupants.

Priority Actions:

Planning for healthy developments. Encourage major new developments to address community health and occupant well-being in their master plans and projects through the use of industry-vetted and evidence-based rating sytems, toolkits, and checklists. Continue to advance best practices for indoor environmental quality in all development/ retrofit projects.

Healthy buildings checklist. Develop a Healthy Building Checklist to speed up the process for voluntary sustainability measures for new construction and retrofits.

Timeline:



Partners:

- DPP
- OCCSR
- BWS
- DTS



Partners:

- DPP
- OCCSR
- BWS
- DTS

Other Actions:

- *Work with new building and renovation projects that wish to achieve high environmental performance through use of Whole Building Design, Net Zero, LEED, Living Building Challenge, or similar frameworks.*
- *Consider strengthening required mitigations for development near freeways, such as specialized HVAC, vegetative screening, and natural ventilation.*
- *Establish and/or identify tax credits, abatements, incentives, or other funding sources to encourage preferred green building practices.*
- *Establish guidelines for sustainable adaptive reuse of existing buildings to make use of existing resources and reduce carbon emissions.*



Projects large and small can help to move the needle toward more sustainable development.

Goal HC-1: Foster a healthy built environment in the PUC.

Policy HC 1.2: Promote strategies to increase energy efficiency and clean energy in buildings.

The City's Climate Action Plan (CAP) include actions to shift the island's energy use and supply toward renewable and locally-generated sources. At the commercial building and household level, opportunities exist to reduce overall energy costs and usage through energy efficiency improvements. Energy audits through the City's Better Building Benchmarking program helps building users to understand their energy use and how to better capture efficiencies. Subsidies and other incentives should be employed to help transition both residential and commercial buildings to cleaner energy sources, including multi-family housing and income-restricted housing.

Priority Actions:

Streamlined permitting for solar energy. Continue to implement streamlined permitting and approvals processes for commercial and residential solar installations, to further the reach of incentives offered by the public sector.

Timeline:



Partners:

- DPP
- OCCSR

Better building benchmarking program. Monitor the benchmarking program for large commercial buildings (including multifamily residential) that tracks and reports annual water, electricity, and gas use, creating a platform to inform better choices for resource efficiency and climate resiliency. Expand the program to smaller buildings in future.



Partners:

- OCCSR
- BWS
- DPP
- Community partners

"EV Ready" construction. The City requires a certain percentage of new construction parking stalls to include capacity and a fully-wired conduit for the installation of an Electric Vehicle (EV) charging station.



Partners:

- OCCSR
- DPP

Other Actions:

- *Work towards "PV Ready" standards and requirements for new commercial construction.*
- *Monitor the emergence of new solar-related technologies (such as battery storage, microgrid technology and grid integration technology) and ensure codes safely accommodate these new technologies.*
- *Maintain tax credits/exemptions, loan programs, and grants for solar installation.*
- *Consider requiring solar installation for city subsidized income-restricted housing.*





New developments are encouraged to include solar generation and electric vehicle (EV) chargers, or to be solar and EV 'ready' construction.

Goal HC-1: Foster a healthy built environment in the PUC.

Policy HC-1.3: Avoid/mitigate the Urban Heat Island Effect and reduce heat stress.

The Urban Heat Island Effect refers to the significant rise in surface and ambient temperatures that can be found in urban areas relative to outlying areas. According to the US EPA, urban landscapes absorb and re-emit more heat than natural landscapes. This increase is due to impermeable surfaces that interfere with evaporative cooling, the use of heat trapping materials in construction, and a lack of shading on buildings and streets. Other factors at play include the configuration of buildings, and waste heat from transportation and appliances. Adding increasing heat and extreme weather events due to global climate change to this equation makes clear the importance of putting urban cooling strategies into action.

Priority Actions:

Reduce permeable surfaces and boost tree canopy. Following best practices to reduce permeable surfaces not only aids in storm water management, but also helps allow natural evaporative cooling. Increasing tree cover helps lower temperatures by providing cooling shade. Identify candidate low-traffic streets in hot-spot neighborhoods for de-paving. Reduce impervious surfaces and create space above and below ground for trees.

Timeline:



Partners:

- DFM
- DPP
- DDC
- DTS
- OCCSR
- DPR

Cool pavements and rooftops as a resource. Provide resources and information to encourage the use of cool pavements that trap less heat on sidewalks, parking lots, and streets. Use reflective roofing to cut down on heat gain. Rooftops can also lower temperatures with green roof technologies, or add to overall carbon solutions with solar PV.



Partners:

- OCCSR
- DPP
- DTS
- DDC

Urban heat island solutions planning. Identify populations highly vulnerable to heat events, and overlay with urban hot-spots determined through Community Heat Mapping. Implement solutions for vulnerable populations such as Cooling Centers and adopt neighborhood-scale shading and tree master plans to ensure more coverage.



Partners:

- OCCSR
- DPP
- DFM
- DTS
- DPR



A building with landscaped area, a roof garden, and no surface parking.

Goal HC-1: Foster a healthy built environment in the PUC.

Policy HC-1.4: Expand access to healthy foods from local growers and expand the community gardens program.

A healthy food environment should include a diversity of fresh food options at affordable prices including grocery stores, farmers' markets, and other market places. New growth areas should be encouraged to include full-service grocery stores, flexible marketplaces for direct farmer-to-consumer transactions, and opportunities for local foods vendors. Expanding offerings in the City's Community Gardens Program will empower more residents to grow their own produce to supplement a healthy diet. Additionally, new agricultural business models such as urban vertical farming can help grow Hawai'i's agricultural self-reliance and improve the island's food security.

Priority Actions:

Incorporate new standards for urban agriculture. Update definitions and standards in the Land Use Ordinance for permitting processes.

Timeline: SHORT

Partners:
- DPP

Food action plan. Encourage the development of a Food Action Plan for O'ahu that clearly identifies steps to increase the island's food security, including needed infrastructure.

Timeline: SHORT

Partners:
- OCCSR

New community gardens. Plan and implement expansions to the community gardens program, such as installing new locations at underutilized mini-parks.

Timeline: MEDIUM

Partners:
- DPR
- CCSR
- DPP

Other Actions:

- *Encourage the expansion of facilities for local markets and vendors in the PUC, including at major transportation hubs.*
- *Work with developments that wish to include periodic night markets, market halls, farmer's markets, local food aggregation facilities (Food Hubs), or community supported agriculture drop-off points.*
- *Enable space at community markets for organizations to assist the community with federal benefit registration and renewal.*



A Community Garden in lower Nu`uanu.

Goal HC-2: Shape an Age-Friendly community that responds to the needs of all residents.

Policy HC 2.1: Encourage housing designed with kūpuna in mind, and in a variety of household sizes.

Providing senior housing and health care at affordable costs is important for Honolulu's residents and families. Senior housing should be located in areas with easy access to transportation and daily necessities, and integrating restricted-age housing into new growth TOD areas should be encouraged. In addition, new construction housing in transit-rich areas should be varied enough to accommodate a range of family sizes and designed with elders in the home in mind.

Priority Actions:

Strive to produce income-restricted and affordable units for a variety of household sizes and needs. Support the PUC's intergenerational households by providing affordable housing stock that is accessible and built for a range of family sizes.

Timeline:



Partners:
- DPP
- State and non-profit partners

Support Age-Friendly and universal design guidelines. Encourage the use of Visitability and Universal Design best practices for major new residential construction and public gathering spaces.

Timeline:



Partners:
- DCS
- DPP

Expansion of community health facilities. Encourage commercial and mixed-use developers to seek grants or partnerships to establish community health-serving spaces in key neighborhood centers. Consider inclusion of health services space as a community benefit in discretionalry permitting.

Timeline:



Partners:
- DPP
- DCS

Other Actions:

- *Explore innovative approaches to combine senior housing with market-rate housing or provide assisted living in a co-housing format.*
- *Negotiate with developers to allow ADU/'ohana units within Homeowner Association conditions.*
- *Consider providing incentives for contractors and builders to become a National Association of Home Builders (NAHB) Certified Aging-in-Place (CAPS) specialists.*
- *Promote federal Housing Accessibility Assistance Grants (HAA).*



Senior housing units in Mānoa.

Building Better for Kūpuna

For many kūpuna, living well and healthier means living comfortably at home. As people age, however, physical challenges can make it hard to get around the house. Many seniors prefer to live in familiar surroundings as they grow older for as long as possible, and completing a home renovation—with an eye toward senior care needs—can help older residents maintain independence longer, while enjoying the comforts of home. City agencies can partner together to improve available information and incentives to encourage the inclusion of age-friendly design in new and redeveloped housing, for example, by expanding existing loan programs or developing pilot projects.

Goal HC-2: Shape an Age-Friendly community that responds to the needs of all residents.

Policy HC-2.2 Design parks and open space to provide increased physical activity for all ages.

Proximity to parks is associated with increased park usage, increased physical activity, and better overall health. Improving access to parks can increase the amount of time children exercise, decrease their risk of chronic diseases, and even reduce juvenile offenses. Adults who live closer to parks and green spaces report reduced stress and fatigue, improved mental health, better self-rated health, and reduced incidents of chronic diseases. Increasing opportunities for active and passive recreation and health-promoting connections to green spaces may include well designed indoor/outdoor spaces with seating, scent or pollinator gardens, and other places for relaxation in community gardens, parks, and public spaces.

Priority Actions:

Comprehensive recreational programming. Continue to work to align the parks and recreational programs with the needs of surrounding populations, including for new residents in growth focus areas. Conduct biennial resident surveys to refine programming.

Timeline:



Partners:
- DPR

Continue to upgrade play equipment in City parks. Continue to build upon the success of the Kākou for Parks program to refurbish comfort stations, play surfaces, and play apparatus/ sports equipment in parks.

Timeline:



Partners:
- DPR
- DFM
- DDC

Promote physical activity through design. Use the design of public spaces including parks, streets, and plazas to encourage physical transportation modes and a variety of physical activity.

Timeline:



Partners:
- DPR
- DPP
- DTS



Residents meet for exercise at the Ala Moana Beach Park



Exercise equipment in public parks supports fitness and recreation

Other Actions:

- *Increase parks programing and events to improve safety and keep parks active.*
- *Add additional staff positions and/or a park ranger program to increase park safety.*
- *Partner with local neighborhood and community groups to install exercise equipment and upkeep in parks.*
- *Develop a Crime Prevention Through Environmental Design (CPTED) guideline document for public parks and gathering spaces.*

Goal HC-1: Foster a healthy built environment in the PUC.

Policy HC-2.3: Enhance safety, accessibility, and navigability in public gathering places and transportation networks.

Walkable areas have a mix of neighborhood-serving land uses, connected streets, sidewalks in good condition, features that protect pedestrians from traffic, and pleasant scenery. Healthy communities support physical activity by making it easy and safe for all residents to walk, bike, or roll to access goods and services, employment, or daily activities. Multimodal connectivity in high-frequency transit areas, active uses, and good design, create memorable streets where people want to be out of their cars. Traffic calming and other interventions should be continually evaluated to improve safety for all modes.

Priority Actions:

Expanded pedestrian safety interventions. Support "Vision Zero" policies through targeted intersection improvements, crossing enhancements and traffic calming near schools, medical facilities, and other areas with high foot traffic.

Timeline:



Partners:
- DTS
- DDC
- DPP

Walkable design standards. Continue to implement active design standards to maximize activity and pedestrian comfort on Key Streets (identified in TOD Special District Plans) and mixed-use corridors to promote quality streetscapes.

Timeline:



Partners:
- DPP
- DTS
- DDC

Signage refresh. Replace, maintain, and update old, illegible signage, especially street and roadway signs. Expand transit and wayfinding signage in public hubs. Support the City's *Word on the Street* program to correct misspellings and add diacritical markings to Hawaiian language words on signage.

Timeline:



Partners:
- DTS
- DFM
- MOCA
- DPP
- State partners

Other Actions:

- *Upgrade pedestrian connections to rail transit station areas, enhance TheBus stations and nearby sidewalks, and ensure ride-share hailing spaces are provided at rail stations and major developments.*
- *Support the placement of bikeshare docking stations near and within large-scale developments.*



Public spaces should be navigable for users of all abilities.



A wide crosswalk and curb cuts add comfort for pedestrians.

Goal HC-3: Encourage initiatives that improve community engagement, health, and equity in the PUC.

Policy HC-3.1: Improve civic engagement in the planning process and increase community-focused initiatives.

Communities are strengthened when residents are empowered to take action, be it formally working through Neighborhood Boards or Commissions or informally through neighborhood groups, community organizations, and faith-based or educational institutions. Greater civic participation in planning processes and daily community functions creates community-driven outcomes. The City seeks to continually expand and improve modes of public outreach to empower all community members with the tools and resources necessary to work collaboratively on goals large and small that benefit the community.

Priority Actions:

Comprehensive engagement strategy. Develop and continually improve a coordinated civic engagement strategy to increase the public's ability to collaborate in City decision-making processes. Refine preferred strategies for virtual and online engagement.

Timeline:



Partners:

- CCSR
- DPP
- DTS
- DFM
- DPR
- CSD

Community Resilience Hubs. Support establishment of Community-led Resilience Hubs defined by and for local communities that can serve as trusted gathering spaces that connect residents and serve their immediate or surrounding neighborhoods. Their functions may vary depending on a community's needs while operating in a non-emergency (blue skies) capacity that can provide services and community benefits year round.



Partners:

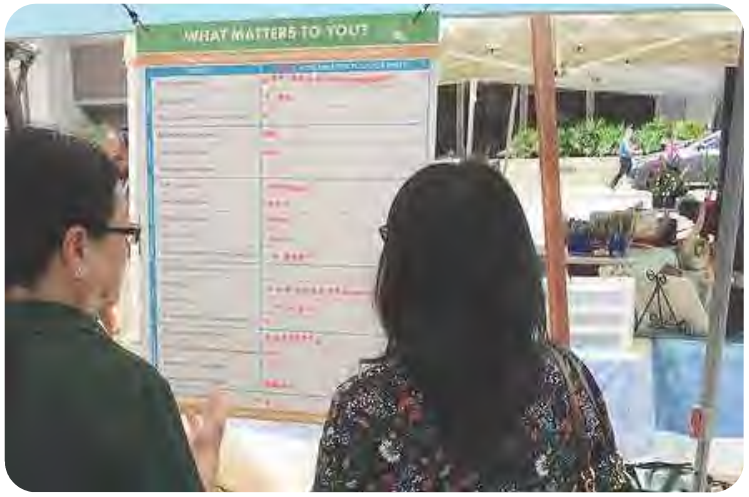
- Community Partners
- CERT (Community Emergency Response Teams)
- Neighborhood Boards
- CCSR
- CSD

Other Actions:

- *Promote expanded use of the Honolulu 311 app to report neighborhood nuisances.*
- *Increase partnerships with community and civic organizations, formal committees and/or local clubs, or similar, to organize clean-ups and beautification projects that promote safe and pleasant public spaces.*
- *Champion quick build and community based solutions for small scale local right-of-way improvements.*
- *Encourage engagement and civic participation through the Neighborhood Board system.*



Volunteers lend a hand at a canal clean up (Source: DFM)



Pop-up workshops meet community members in the places they already frequent

Goal HC-3: Encourage initiatives that improve community engagement, health, and equity in the PUC.

Policy HC-3.2: Collaborate across County and State agencies, and partner organizations, to center equity in public infrastructure, programs, and services.

The City should take a proactive role in improving quality of life for all residents by championing evidence-based community-driven planning, and collaborative partnerships between agencies and partner organizations. For example, analyses should include considerations such as cost burden, accessibility, and environmental conditions when planning for: transportation projects, new infrastructure investments, parks, city incentives and programs, designing and siting major facilities, and hazard mitigation planning.

Priority Actions:

Collaborate across agencies and organizations. Include use of the City's Social Vulnerability Index Map (SOVI map) /updated demographic information when evaluating new programs and services. Collaborate to improve services delivery for neighborhoods with higher vulnerability (such as prevalence of poverty, a high elderly population, or language barriers). Maintain current data layers.

Timeline:



Partners:

- OCCSR
- DPP
- DFM
- DTS
- DPR
- Other City and state partners

Ensure commensurate community benefits. Use community driven processes such as the TOD Neighborhood Plans and other Area Plans to determine appropriate commensurate community benefits in exchange for bonus height or density, where allowed by discretionary permits. Seek to standardize insofar as possible, clear definitions and parameters.



Partners:

- DPP
- DTS
- Public partners
- Community groups

Other Actions:

- *Incorporate vulnerability assessments into area or corridor transportation planning efforts.*
- *Partner with the State DOH to support their ongoing programs and initiatives that support improved health outcomes for residents (i.e. affordable and accessible preventive dental care services for low-income populations).*
- *Prioritize income-restricted (60% AMI or less) affordable housing in neighborhoods with high displacement risk.*
- *Adopt best practices developed by OMPO for equity in transportation planning.*



Pedestrian plaza at Dole Cannery

Goal HC-3: Encourage initiatives that improve community engagement, health, and equity in the PUC.

Policy HC-3.3: Increase disaster preparedness in the community.

Awareness and preparedness for major disaster events such as wildfires, hurricanes, or tsunamis, and more common, but still potentially dangerous, episodic events such as storm-driven flooding or heat waves, is a key component in being a resilient island community. This policy supports boosting education and available resources for the community to become better prepared for disaster events. One way community members can engage with local preparedness is through training programs such the Community Emergency Response Team (CERT) offered through the Department of Emergency Management or other offerings from expert non-profit groups. Other ways to engage include raising preparedness as a topic through the Neighborhood Board system, neighborhood watch groups, or civic clubs, or by providing input through the Citizen Advisory Commission on Emergency Management. Neighborhood groups may wish to pursue working with the City's Resilience Office to establish local Resilience Hubs to meet specific community goals and needs.

Priority Actions:

Empower residents with tools and resources for disaster preparedness. As an island community, it is especially important to emphasize preparedness at the local level through education materials, outreach, resources, training, and support for individuals and community based organizations to strenghthen preparedness and disaster response.

Establish Resilience Hubs. Support establishment of Resilience Hubs defined by and for local communities that can support local resident needs and coordinate resource distribution and services during disaster response and recovery. Resilience Hubs can also provide other services and community benefits year-round.

Increase community fire preparedness and fire risk mitigation. Support programs and initiatives that create a culture of wildfire risk awareness including weather risk monitoring, evacuation planning, creating defensible space around structures (clearing dry brush and vegetation), and looking out for one's neighbors.

Timeline:

ONGOING

MEDIUM

ONGOING

Partners:

- Community groups
- CERT (Community Emergency Response Teams)
- Neighborhood Boards
- DEM
- HFD
- OCCSR

Partners:

- Community groups
- CERT
- Neighborhood Boards
- OCCSR
- DEM
- EMS
- HFD
- HESD

Partners:

- Community groups
- CERT
- Neighborhood Boards
- HFD
- DEM
- OCCSR



Clearing overgrowth is a best practice to manage fire risk and to reduce debris in the stormdrain system. (Source: DFM)



A Honolulu Fire Department truck (Source: HFD)

Goal HC-3: Encourage initiatives that improve community engagement, health, and equity in the PUC.

Policy HC-3.4: Increase community resilience to climate-based hazards.

Climate-based hazards include those stemming from increased heat and drought, severe weather events, and increased flooding hazards from both storm events and sea level rise. While heat waves, storm flooding, and fires may be familiar dangers, the severity and frequency of such hazards is increasing with climate change. To help meet these challenges, the community has worked with the City's Office of Climate Change, Sustainability and Resiliency to prepare both a Climate Action Plan and the Climate Ready O'ahu Climate Adaptation Strategy. These Plans are consistent with and complementary to the O'ahu General Plan and the City's Development Plans and Sustainable Communities Plans with a dual focus on increasing resilience for our island community and addressing climate change at the root through practical steps.

Priority Actions:

Implement the community-led Climate Ready O'ahu Resilience Adaptation Strategy (CRO). Collaborate to address the key climate-based hazards identified by the CRO: increasing temperatures, rising sea levels, increasing precipitation, drought and wildfires, and hurricanes. Actions particularly relevant to the PUC include those related to heat abatement and managing flooding of all causes.

Timeline:



Partners:

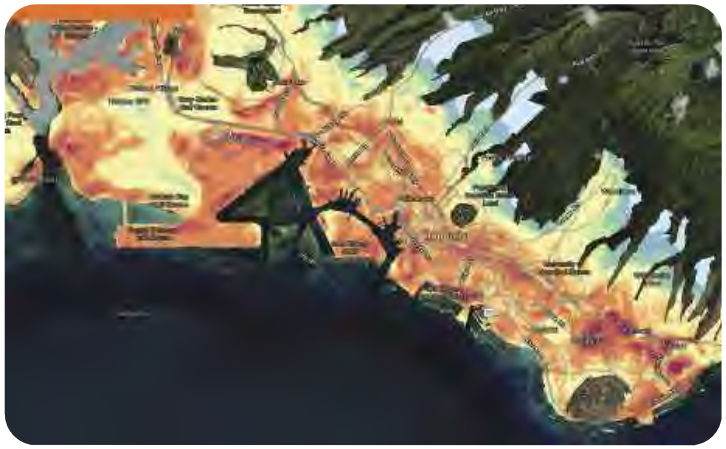
- Community groups
- OCCSR
- DPP
- DEM
- DTS
- DFM
- ENV
- BWS
- Other City and State partners

Funding for climate-based hazards planning and new processes. Work with all levels of government to fund and include planning for climate-based hazards across city programs and agencies. Include robust community input on the benefits and trade offs of adaptation strategies into the planning process for new initiatives. Invest in adaptation measures equitably for the benefit of the whole community.



Partners:

- All City agencies

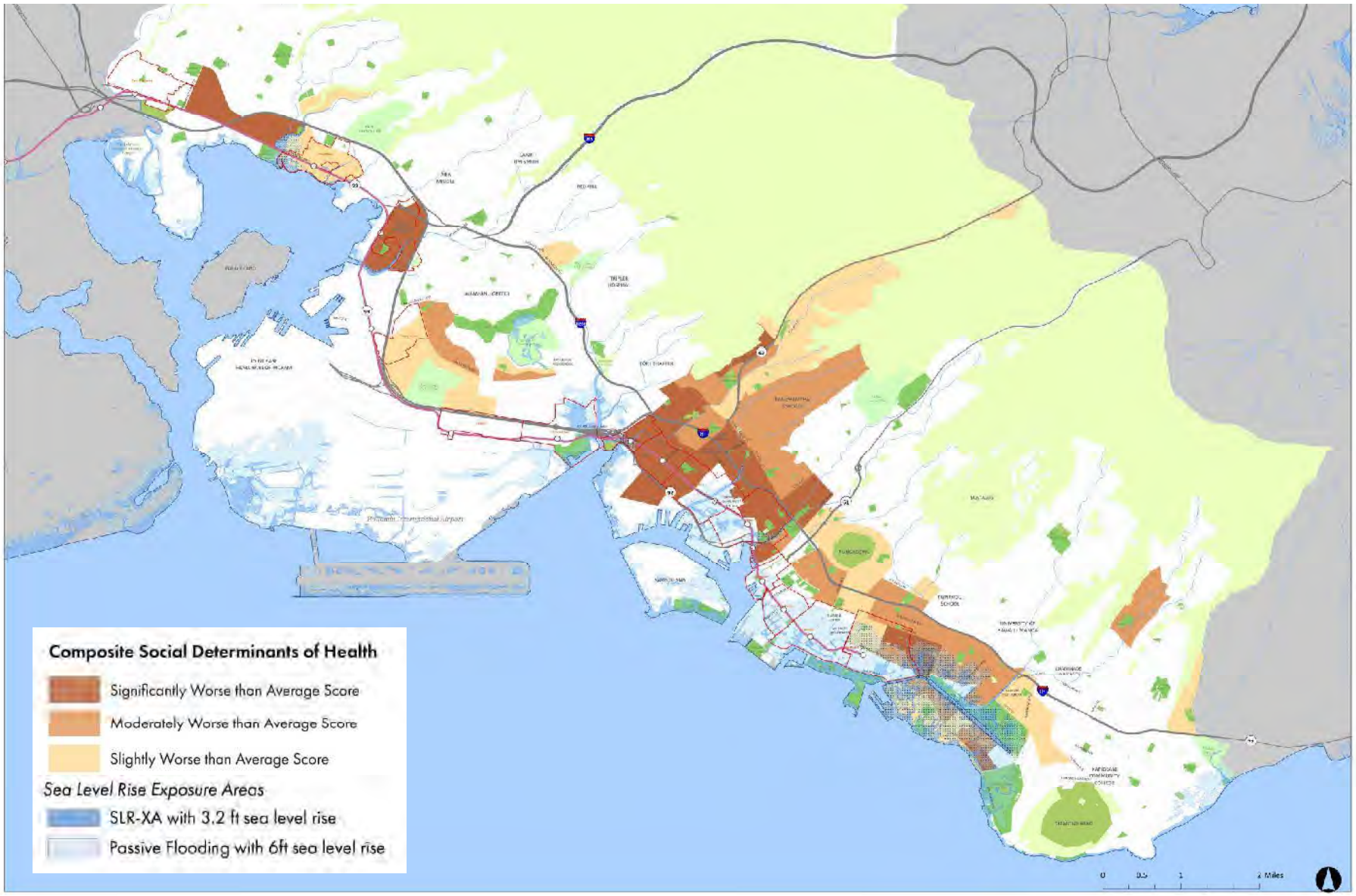


A 2019 assessment on O'ahu showed elevated temperatures in many urban areas.



"Blue sky" tidal flooding in Kalihi Kai. (Source: UH Sea Grant King Tides Project)

Figure 7.3: Sea Level Rise Hazard Overlaid on PUC SDH Map



For more information see:

(A non-exhaustive list of the many resoures available on topics in this chapter).

PUC Demographic Information:

Healthy Communities 2018 topic paper prepared by Raimi + Associates for this PUC DP update:
https://www.honolulu.gov/dpp/planning/planning-documents/primary-urban-center.html

Department of Planning and Permitting Annual Report
https://www.honolulu.gov/dpppd/analytics.html

Environmental Health:

Hawai`i Department of Health
https://health.hawaii.gov/about/health-topics/#environmenta

Centers for Disease Control (CDC) Division of Environmental Health
https://www.cdc.gov/nceh/ehsp/default.html

Equity Topics:

CDC National Center for Chronic Disease Prevention and Health Promotion
https://health.hawaii.gov/about/health-topics/#environmental

Oahu Social Vulnerability Index Maps (custom for City and CDC)
https://resilientoahu.org/equity/data?msclkid=bee6288abadc11eca54cf459962ce163:

Age-Friendly Honolulu:

Honolulu Department of Community Services Elderly Affairs Division
https://www.honolulu.gov/dcs/aging-disability-resources.html

Urban Heat Island Effect:

U.S. Environmental Protection Agency
https://www.epa.gov/heatislands/heat-island-cooling-strategies

Energy Efficiency Programs:

Honolulu Office of Climate Change, Sustainability and Resilience
https://resilientoahu.org/energy

Water Conservation Programs:

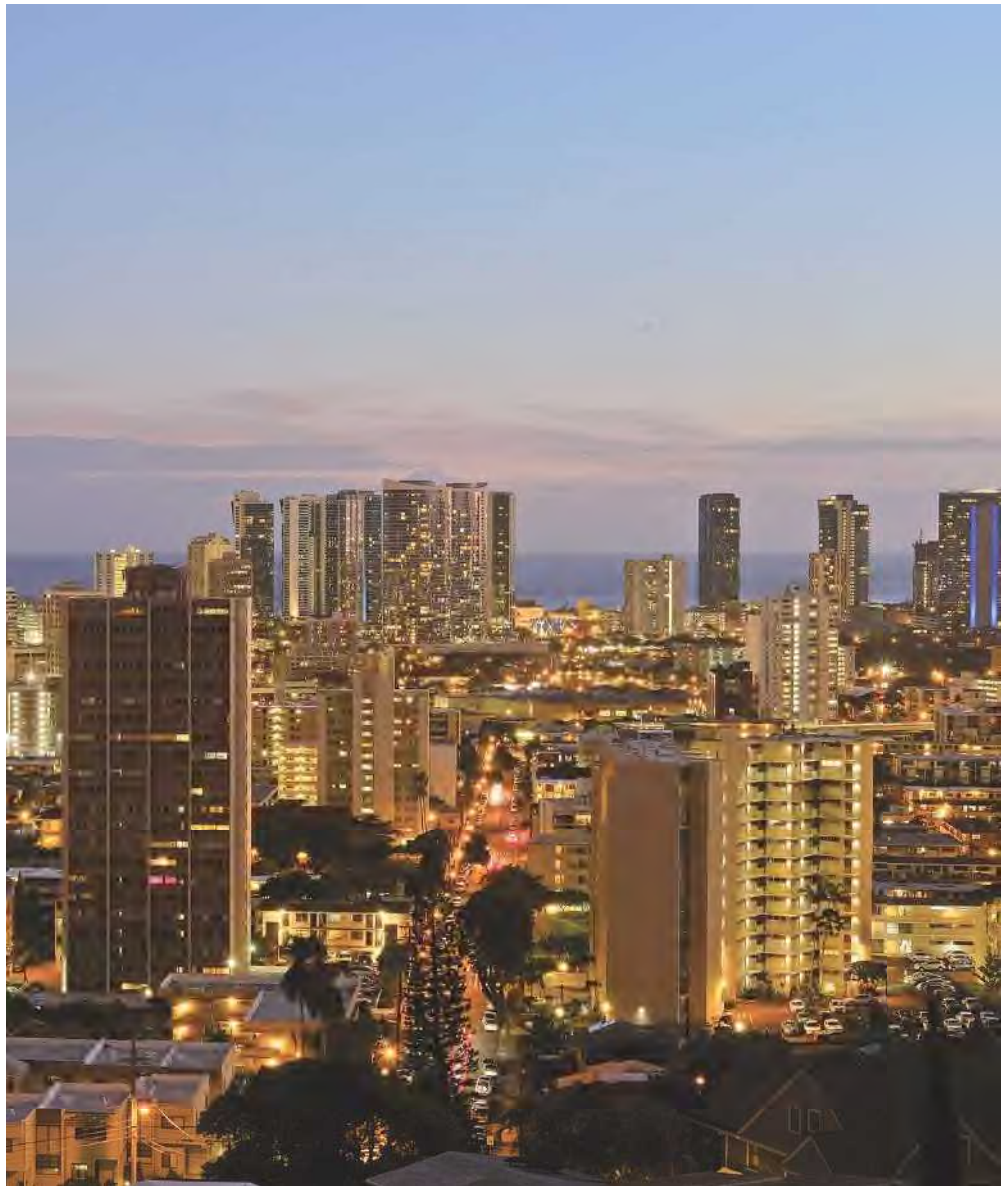
https://www.boardofwatersupply.com/conservation

Resilience and Preparedness:

Honolulu Office of Climate Change, Sustainability and Resilience
https://resilientoahu.org/disasters

Honolulu Department of Emergency Management
https://www.honolulu.gov/dem

Honolulu Fire Department
http://fire.honolulu.gov



Sea Level Rise + Coastal Hazards Planning

Sea Level Rise + Coastal Hazards Planning

GOAL SLR-1
Adapt Regulatory Standards to Improve Resilience to Climate Change and Coastal Hazards.

Policy SLR-1.1: Utilize the SLR-XA as a tool for current zoning and permitting decisions and for siting critical infrastructure.

Policy SLR-1.2: Advance evidence-based sea level rise and resilience requirements, and time-based monitoring.

Policy SLR-1.3: Encourage voluntary adaptation measures in the SLR-XA that exceed statutory requirements.

Policy SLR-1.4: Consider the SLR-XA compound hazards individually and together to determine appropriate adaptation measures.

Policy SLR-1.5: Update shoreline regulations and development policies to reflect coastal hazard impacts and best available guidance on an ongoing basis.

GOAL SLR-2
Conduct Long-Range Planning to Increase Area-Wide Adaptation and Resilience.

Policy SLR-2.1: Plan for priority growth outside of higher impact areas and vet proposed solutions for higher impact areas with the community.

Policy SLR-2.2: Address potential impacts to surrounding sites for project-level adaptation measures.

Policy SLR-2.3: Prioritize and fund community-level Area Adaptation Plans.

Policy SLR-2.4: Incorporate sea level rise / coastal hazard considerations in the planning, design, and maintenance of facilities and infrastructure.

GOAL SLR-3
Coordinate Infrastructure Planning for Sea Level Rise Across Agencies.

Policy SLR-3.1: Support collaborative resilience planning for new and existing infrastructure.

Policy SLR-3.2: Pursue a district-scale fee structure or other dedicated funding mechanisms for adaptation projects.

Policy SLR-3.3: Monitor ongoing impacts within the SLR-XA across infrastructure agencies to update development regulations that implement adaptation.

Policy SLR-3.4: Support State agencies in applying appropriate interventions and environmental measures for adapting/ preserving beaches and shoreline impacted by sea level rise and erosion.

Key Outcomes

The following chapter outlines policies and actions that will increase resilience to sea level rise (SLR) and coastal hazards in existing and new development. Strengthening project review procedures; encouraging or requiring adaptation for proposed developments in impacted areas; increasing long-range planning and coordination to address current and projected exposure; and implementing standards that address chronic flooding, will help protect the health and safety of residents as well as protecting beaches and coastal resources.

As the City is still in the early stages of contending with accelerating coastal nuisances and hazards that will be development considerations for a very long time to come, PUC DP policies maintain flexibility for future conditions and rules changes. Anticipating a dynamic policy environment at all levels of government, and a robust community and business sector suite of responses, such flexibililty will be needed.

PUC DP Policies support integrating SLR and coastal hazard concerns into the planning, design, and maintenance of City facilities and infrastructure, while concurrently utilizing the SLR-XA (see page 245 for a definition) as a tool to design and site new development. Enhanced agency collaboration for adapting to coastal hazards, regional and community-based adaptation planning, district-scale flood control projects and pilot adaptation projects will all be part of the multi-faceted solutions needed.

These strategies will be further supported by City and State adaptation guidance, infrastructure studies, agency partnerships, public engagement, and other measures as they evolve over time.

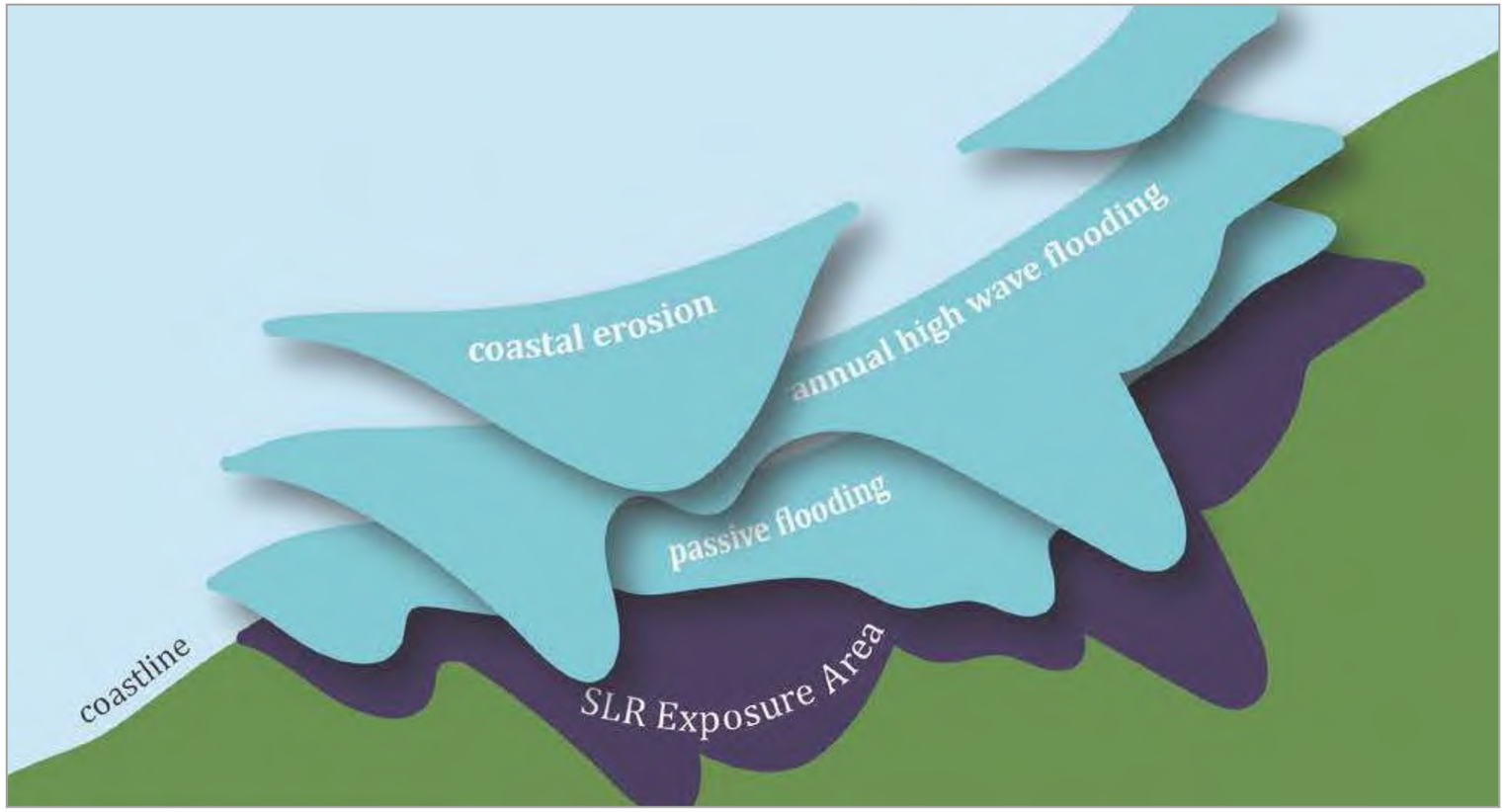


Image: See Romine et al. "Using SLRXA in Community Planning" on the State Climate Portal.



Green infrastructure to manage on-site flooding.



The Ala Wai Canal basin is at high flood risk.

Setting the Stage

Existing Coastal Hazards

O‘ahu’s PUC is uniquely vulnerable to a range of natural coastal hazards due to its remote location in the Central Pacific and dense concentrations of development on coastal and low-lying areas. Hazards of concern for the PUC, as elsewhere on O‘ahu, include coastal flooding from high wave events and extreme tides, rainfall flooding in steep watersheds and on low-lying coastal plains, tsunamis, coastal erosion, hurricanes, and high wind events. Climate change magnifies these hazards, increasing the frequency and severity of their impacts. Increasing proactive planning and adaptation measures for addressing sea level rise and coastal hazards will provide multiple benefits by making PUC communities more resilient to both the present-day impacts of climate change, and to the projected longer-term impacts.

Sea Level Rise Hazards & Vulnerabilities

According to the best available science, it is likely that we will see 3 feet or more of global mean sea level rise by 2100, and 6 feet or more of global mean sea level rise by the end of this century is physically plausible under some scenarios. High tide flooding and other passive flooding will increasingly affect low-lying coastal areas decades before global mean sea level reaches these benchmarks. The speed and severity of sea level rise experienced during this century will depend on global green house gas emmissions trends over the next few decades. The scale of expected sea level rise impacts in the PUC are disproportionately higher than elsewhere on O'ahu because of the area’s greater development density. In addition, much of the highest-value development and critical infrastructure for the region are located in vulnerable coastal areas of the PUC (including Waikīkī, Ala Moana/Kaka‘ako, Honolulu Harbor, and the Airport).

Sea Level Rise Planning Benchmarks

The sea level rise benchmarks used in this plan are consistent with the most current guidance from the December 2017 *Hawai‘i State Sea Level Rise Vulnerability and Adaptation Report* (State SLR Report) and the Honolulu Climate Change Commission Sea Level Rise Guidance (June 2018, Updated July 2022) (HCCC SLR Guidance). The goals, strategies, and policies outlined here are designed to plan for 3.2 feet of sea level rise in the second half of this century and 6 feet of sea level rise for critical infrastructure with long expected lifespans and low risk tolerance, in keeping with the HCCC SLR Guidance. However, both of these benchmarks come with the caveat that they should be used only as long as updated map data is unavailable. As conditons change or advance, it is expected that the preferred benchmarks will shift along with the best available science. In June 2018, Mayor's Directive No. 18-2 instructed all executive branch departments and agencies to use the most current versions of the HCCC SLR Guidance and the State SLR Report in their planning, programing, and capital improvement decisions to mitigate impacts to infrastructure and critical facilities subject to sea level rise.



Flooding in Māpunapuna (Source: UH SOEST King Tides Project)

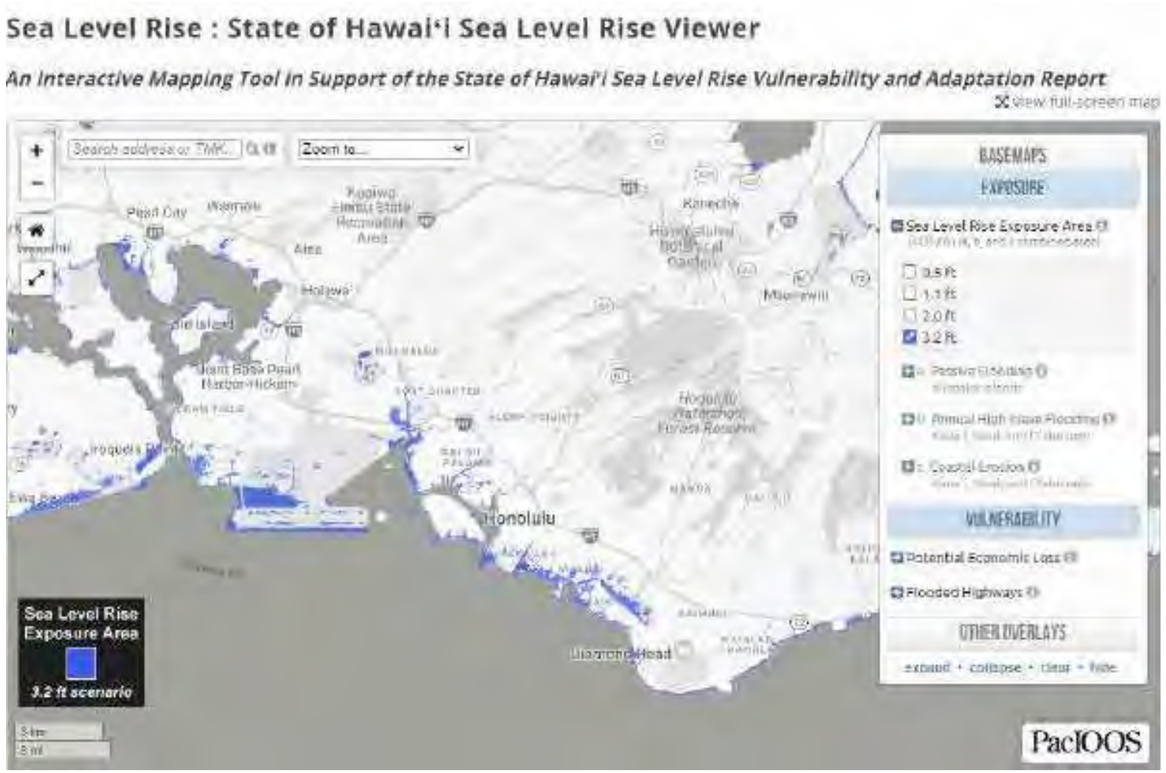
Current Benchmarks:

- **SLR-XA**: Refers to the Sea Level Rise Exposure Area (SLR-XA) mapped and modeled in the 2017 Hawai'i Sea Level Rise Vulnerability and Adaptation Report and its companion online Hawai'i Sea Level Rise Viewer. Currently modeled up to 3.2' and subject to change and updates as the science advances, the SLR-XA accounts for the combined impacts of passive floodng (i.e., still-water high tide), annual high wave flooding, and coastal erosion.
- **6' SLR**: 6 feet of sea level rise area as mapped and modeled in the National Oceanic and Atmospheric Association (NOAA) Sea Level Rise Viewer is recommended by the HCCC 2022 Guidance as a preferred minimum benchmark for infrastructure planning and long lived projects with little tolerance for risk. The NOAA viewer only accounts for passive flooding and does not include impacts from high wave flooding or coastal erosion.
- **Using the benchmarks**: For the purposes of this plan, it should be noted that the SLR-XA represents increasing impacts expected up to a 70+ year time horizon and is recommended for use as a current planning benchmark. It is recommended that new long-lived infrastructure and risk-adverse projects be built to an even higher standard (currently the 6' SLR).

City Policies

Honolulu formally adopted its first Climate Action Plan in June 2021. This Plan sets out key goals, targets, and actions to reduce carbon emissions (the main driver of global warming), and will be periodically updated. Additionally, the City's One Water Policy for climate change adaptation codified in the 2021 Revised Ordinances of Honolulu (ROH) §2-10.13, provides a platform for greater coordination across all City agencies that touch upon water management and infrastructure to maximize beneficial outcomes. The One Water panel of agencies is currently working towards a guidance document to identify and phase capital improvements for greater climate resilience.

The policies described in this chapter of the PUC DP reflect these initiatives and other programs that address the need to comprehensively adapt to and manage sea level rise and other coastal hazard impacts. Special emphasis is placed on strategies that provide multiple benefits, for example addressing sea level rise adaptation needs in coordination with State and City Hazard Mitigation Plans, during standard infrastructure improvement planning, within storm water management planning, as part of the BWS *Primary Urban Center Watershed Management Plan*, and while planning for the implementation of TOD and roadway projects.



Using the PacIOOS State of Hawai'i Sea Level Rise Viewer

The SLR-XA view can be found on the University of Hawai'i Pacific Islands Ocean Observing System's website here: https://www.pacioos.hawaii.edu/shoreline/slr-hawaii/. While it is a projection, the results from the model have been vetted with high confidence.

Please see the "Hawai'i Sea Level Rise Vulnerability and Adaptation Report", Anderson et al. (2017), and the "Sea Level Rise & Climate Change" White Paper (2018) on the DPP website's (www.honoluludpp.org) PUC DP page, for more detail on the modeling methods employed to derive these exposure projections.

Additionally, see Romine et al. (2020) "Guidance for Using the Sea Level Rise Exposure Area in Local Planning and Permitting Decisions." Prepared by the UH Sea Grant College Program with the State DLNR OCCL for the Hawai'i Climate Change Mitigation and Adaptation Commission - Climate Ready Hawai'i Initiative (Sea Grant Publication TT-20-01; available at: http://climate.hawaii.gov/hi-adaptation).

How Does the Development Plan Get Us There?

Immediately incorporating sea level rise as a hazard consideration in planning.

Plan policies support moving cautiously on development within the SLR-XA and encourage the creation of Area Adaptation Plans for impacted subregions in the PUC. Implementation of TOD development plans will avoid intensification in the most sea level rise-impacted areas, and will incorporate infrastructure studies and adaptation planning requirements to mitigate effects in other areas. The City has also begun incorporating projected exposure into the review of permit applications for lots within the SLR-XA (all projects) and 6' SLR (currently used for infrastructure projects) to include addressing these risks in project planning and design proposals. Other key near-term strategies include infrastructure relocation and/or hardening where feasible when repairs and replacement are already needed, exploring use of the Complete Streets and the street rehabilitation process to incorporate low impact drainage solutions for storm flooding, and the creation of design guidelines and toolkits for a variety of development types.

Strengthening regulatory and adaptation strategies in the near- to medium-term.

As time progresses and impacts increase, infrastructure vulnerability assessments and coordinated planning among infrastructure agencies will develop more standard methods to integrate sea level rise adaptation into Capital Improvement Projects (CIP) budgets and operations. The City will identify priority adaptation actions and gradually begin developing Area Adaptation Plans, Infrastructure Studies, or Special Area Plans, according to need, in the PUC. Using observed inundation, projections, and benchmarks, it is anticipated that more specific and stringent policies and standards for all development in the SLR-XA, including the review of proposed site and building adaptation measures, will be warranted. Plan policies support ongoing interagency collaboration through the City's One Water Panel or similar to coordinate activities such as the raising of roads, hardening of utilities, and/or determining retreat pathways in instances where infrastructure inviability may be projected.

Increasing areawide resilience and adapting to/managing chronic and episodic flooding over the long run.

The PUC DP policies are also meant to help set the expectation for property owners. There will be a need to evaluate and adjust standards and requirements for development and redevelopment in sea level rise and erosion impacted areas on a rolling basis, based on evolving conditions and consistent with state guidance. Policies balance the overall development vision with long-term sea level rise planning by shifting greater density outside of the SLR-XA, and by completing infrastructure studies and adaptation plans in impacted TOD areas. New developments and redevelopments will need to buffer against flooding impacts by following best practices for resilient site and building design, and employing avoidance strategies whenever feasible. Similarly, regulations or restrictions for development in the Shoreline Management Area (SMA) and on shoreline lots is anticipated to increase over time. While this Plan identifies some of the more near-term strategies critical to adaptation, it may still be anticipated that there will be some locales where frequent flooding will become unavoidable into the future. In some instances, the planning of interim uses and managed retreat strategies should be explored and pursued.

Responding to Climate Change

This chapter of the PUC DP is concerned primarily with physical adaptation to coastal erosion, sea level rise, and passive flooding. However, it is important to recognize that the backdrop to this concern is an increase in global temperatures due to global greenhouse gas (ghg) emissions, and the scientific consensus that steep and quick reductions in ghgs are needed to stem the worst effects of climate change. Climate change is not limited to sea level rise impacts; adapting to increased extreme weather events, heat, drought, and wildfires are also concerns for a warming planet.

The City's Office of Climate Change, Sustainability, and Resiliency (OCCSR) has created a set of plans to help Honolulu in reducing greenhouse gas emmissions, eliminating fossil fuel use, and transition to a resilient and clean energy future. All are available at resilientoahu.org. These include:

- *O'ahu Resilience Strategy* (2019)
- *One Climate One O'ahu Climate Action Plan* (2020-2025)



Related Policies

Policy GD-2.3: Invest in long-term growth in commercial corridors and mixed-density neighborhoods outside of the Sea Level Rise Exposrure Area (SLR-XA).

Policy PPOS-1.5: Improve the ecological function of parks.

Policy MC-2.4: Adapt the roadway network to address challenges from chronic flooding and sea level rise.

Policy MC-2.5: Maximize interagency and regional transportation coordination.

Policy HC-3.3: Increase disaster preparedness in the community.

Policy WR-1.1: Collaborate across water quality and water infrastructure management departments and agencies.

Policy WR-1.3: Address chronic storm flooding and ongoing drought issues through multiple solutions.

Policy ED-2.3: Continue to invest in the success of Waikīkī as the State's primary visitor destination/ resort area and a livable urban neighborhood.

Policy PS-2.2: Strengthen pre- and post- disaster planning.

Goal SLR-1: Adapt Regulations to Improve Resilience to Climate Change and Coastal Hazards.

Policy SLR-1.1: Utilize the SLR-XA as a tool for current zoning and permitting decisions and for siting critical infrastructure.

Planning decisions made today will shape development projects with life spans extending into the latter half of this century and beyond. City policy calls for using the most current versions of the HCCC SLR Guidance, the Hawai'i Sea Level Rise Viewer and/or the Climate Ready O'ahu Web Explorer, and the Hawai'i State Sea Level Rise Vulnerability and Adaptation Report as informational resources for managing assets, reviewing permitting requests, and assessing project proposals. City departments are to refer to these resources in formulating plans, programs, and capital improvement decisions in order to mitigate impacts to infrastructure and facilities subject to sea level rise exposure. As of 2023 it is suggested that 3.2' of sea level rise may be expected by the latter part of this century, and is deemed a recommended benchmark for current planning and development. 6' of sea level rise is appropriate for infrastructure projects and other projects with long lifespans and low tolerance for risk. See https://resilientoahu.org/climate-change-commission (HCCC Sea Level Rise Guidance). This guidance is subject to change as consensus scientific research progresses.



A narrowing beach in Kāhala (Source: UH SOEST King Tides Project)

Priority Actions:

SLR-XA site screening. Use the SLR-XA as a hazard indicator for new development and redevelopment projects, to disclose SLR to anyone seeking permits for impacted properties, and to seek adaptation or avoidance strategies.

Timeline



Partners:

- DPP
- OCCSR
- OPSD
- DLNR

Infrastructure planning. Utilize broader measures of SLR risk (as recommended by the Honolulu Climate Change Commission or site-specific analysis) as hazard indicators for long-lived infrastructure projects.

Timeline



Partners:

- DPP
- DDC
- DTS
- DFM
- ENV
- BWS
- OCCSR

Other Actions:

- *Review and amend relevant planning and building standards on an ongoing basis to respond to impacts.*

Goal SLR-1: Adapt Regulations to Improve Resilience to Climate Change and Coastal Hazards.

Policy SLR-1.2: Advance evidence-based sea level rise and resilience requirements, and time-based monitoring.

Sea level rise will exacerbate existing hazards such as erosion and coastal inundation, placing structures and supporting infrastructure within the exposure area at greater risk for damage and failure. As science and data regarding climate change impacts are continuously improved and updated, the PUC's infrastructure and building design standards need to evolve as well. New knowledge and understanding of impacts or adaptation practices often take time to integrate into formal land use regulations and rules. It is therefore important to put in place a framework to track and monitor impacts and repetitive events. Such an approach may consist of components such as decision trees to identify specific risk factors, project checklists, and impact benchmarks that "trigger" updates for increased development restrictions or identify needed adaptation actions.

Priority Actions:

Support implementation of mandatory seller disclosure law. Support the implementation of real estate disclosure for properties located in the SLR-XA by flagging impacted TMKs in permit tracking software, and/or providing this information in permitting reviews.

Develop a resilience checklist. Support development of a standard resilience checklist for planning staff review, applicable to projects in the SLR-XA. The checklist could be expanded into versions for infrastructure projects in longer-term exposure areas.

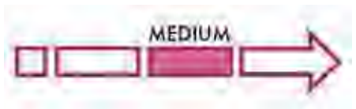
Incorporate SLR considerations into land use standards. As best practices are established, integrate reasonable adaptation standards as needed or required into the Land Use Ordinance and Chapters 21A, 25, and 26.

Timeline



Partners:

- DPP
- OCCSR



Partners:

- One Water Panel

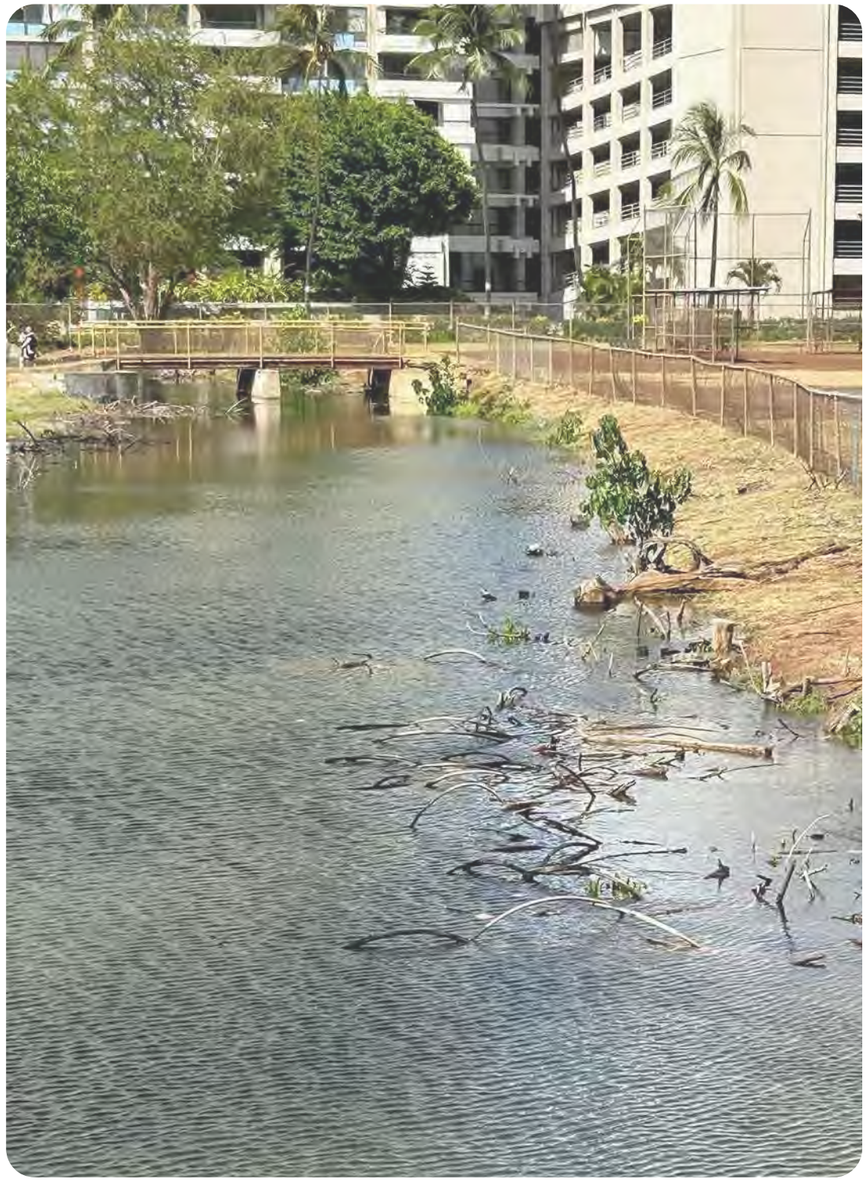


Partners:

- DPP
- OCCSR
- DLNR
- OPSD
- Community partners

Other Actions:

- *Include sea level rise considerations in future revisions to Chapter 16 Building Code, and other City regulations as needed to improve resilience.*



A king tide swells a stream feeding into the Ala Wai Canal

Goal SLR-1: Adapt Regulations to Improve Resilience to Climate Change and Coastal Hazards.

Policy SLR-1.3: Encourage voluntary adaptation measures in the SLR-XA that exceed statutory requirements.

Promoting adaptation guidelines and best practices for development in impacted areas will support community safety and resilience, and protect environmental and physical resources. Initially, new adaptation measures should be incentivized for private development projects and demonstrated effective through pilot projects for City facilities. These forward-looking voluntary practices and pilot projects can serve as an important step to help the City incorporate adaptation-related design changes into development project requirements over time. It is therefore important to develop a flexible framework to consistently incorporate best available information on increasing heat, flooding, and sea level rise into project review practices, while also encouraging voluntary exceedence measures. Voluntary measures can help fill the gap between the time when new guidance is available and when cyclical updates of broader ordinances and building standards are revisited. Such an approach may consist of components such as decision trees to identify specific risk factors, project checklists, and impact benchmarks that "trigger" updates for increased development restrictions or identify needed adaptation actions.



Homes with elevated finished floor height.

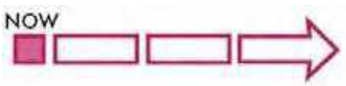
Priority Actions:

Utilize climate adaptation guidelines. Encourage the use of guidance in the City's Climate Adaptation Design Principles for Urban Development (DPP TOD, December 2020) by private development located within the TOD Special District or other urban neighborhoods exposed to the SLR-XA.

Develop additional resilience and adaptation guidelines. Support ongoing development of well-sourced and industry-standard adaptation guidelines for a variety of resilient building design, site development, and environmental protections within the SLR-XA. Continue to develop additional City resources and best practices. Assist developers seeking information about resilience and adaptation where development/redevelopment is permitted, and where complete avoidance of impacts is not possible.

Create a voluntary exceedance process. Create a new permit classification or design review process to accommodate adaptation in the SLR-XA that voluntarily exceeds existing requirements. For example, qualified projects providing rigorous adaptation measures could opt for a consultation process wherein the DPP could offer limited standards exceptions to accommodate adaptive design (for example, additional height allowance to accommodate an elevated first floor).

Timeline



Partners:

- DPP
- ENV
- DFM
- DTS



Partners:

- OCCSR
- DPP
- DDC
- DFM
- ENV
- DTS
- DEM



Partners:

- DPP
- OCCSR
- One Water Agencies



LID projects can help to manage increased storm flooding.

Climate Resilient Urban Design Principles

Guidance in the City's *Climate Adaptation Design Principles for Urban Development* (2020) identifies recommended tools and best practices to consider in designing building sites and structures to be resilient to SLR, flooding, extreme heat, and groundwater inundation. The design principles document should be used as a resource to identify voluntary measures for property in TOD and other urban neighborhood areas that may be vulnerable to SLR and other climate change-related hazards.

Key Concepts:

1. *Provide an amenity-rich Resilient Streetscape Transition Zone (between the curb and the building facade), which includes salt-tolerant plantings, flood damage-resistant landscape materials, and green infrastructure.*
2. *Provide shade structures in the Resilient Streetscape Transition Zone and wide tree canopy in the planter strip zone between the road and sidewalk.*
3. *Provide sustainable roof systems, such as blue-green roofs, energy producing roofs, and reflective roofs. These systems can mitigate heat island effect; capture, treat and provide on-site reuse and release of stormwater; generate solar energy; and provide space for urban gardening and tenant amenities.*
4. *Provide systems for on-site water reuse which can aid in water conservation and flood mitigation through rainwater capture. Cisterns at the podium level can irrigate on-site and in the Streetscape Transition Zone.*
5. *Locate critical systems including Heating, Ventilation, Air Conditioning (HVAC), and power generators above the Base Flood Elevation (BFE) or Design Flood Elevation (DFE), such as on roofs and/or on intermediate floors.*



Resilient Streetscape Transition Zone Detail



All Resilient Transition Zones must be ADA compliant

The Climate Adaptation Design Principles for Urban Development is available on the TOD website: https://www.honolulu.gov/rep/site/dpptod/climate_docs/Climate_Adaptation_Design_Principles.pdf

Goal SLR-1: Adapt Regulations to Improve Resilience to Climate Change and Coastal Hazards.

Policy SLR-1.4: Consider the SLR-XA compound hazards individually and together to determine appropriate adaptation measures.

The sea level rise exposure area (SLR-XA) is derived from the Hawai'i State Sea Level Rise Vulnerability and Adaptation Report (2017) and represents a modeled estimate of areas that will be impacted by sea level rise by or before late century. It is a composite of three distinct projections: passive flooding, annual high wave flooding, and coastal erosion. While the composite SLR-XA is an important tool to understand the extent of areas that are or will be prone to climate induced flooding, at the individual site level it is also important to know which type(s) of flooding are present or most prevalant.

The SLR-XA layers can be viewed separately or together in the Pacific Islands Ocean Observing System (PacIOOS) State of Hawai'i Sea Level Rise Viewer, or using county layers. The "passive flooding" layer includes direct marine flooding, groundwater inundation from rising water tables, and storm drain backflow. It does not include additional flooding from rainfall. "Annual high wave flooding" is based on mapping historical average wave heights plus sea level rise and does not include coastal erosion or storm event projections. The "coastal erosion" layer is based on measured historic erosion rates and does not include changes in behavior due to sea walls or coastal armoring. The SLR-XA represents a conservative best estimate of hazard exposure as it does not account for compounding impacts of the three hazards such as coastal erosion increasing the extent and severity of wave run-up.

Priority Actions:

Refine workflows. Create a workflow process to identify the individual and composite flooding hazards at the individual site level to require appropriate project design and to inform permitting decisions.

Timeline



Partners:

- DPP
- OCCSR

Tailor decision making to specific SLR-XA flooding exposure types. Gear allowable adaptation and mitigation measures to the present/expected SLR-XA hazard exposure type(s). As models improve, conditions change, and guidance is periodically updated, build flexibility into the review process to allow for the composite SLR-XA and individual layers to shift their extents.

Timeline

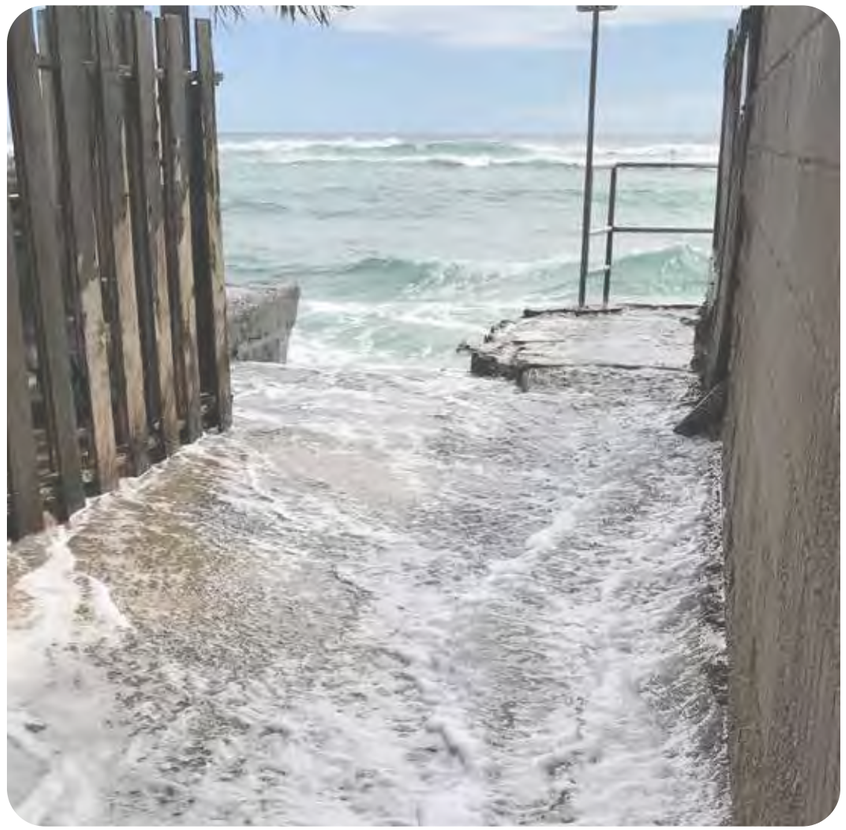


Partners:

- DLNR
- OCCL
- UH Mānoa
- DPP
- OCCSR

Other Actions:

- *Update SLR considerations in future revisions to the Revised Ordinances of Honolulu (ROH) Chapter 21A Flood Hazard Areas, Chapter 23 Shoreline Setbacks, Chapter 25 Special Managemet Area, Chapter 16 Building Code, and other City regulations as needed to improve resilience.*



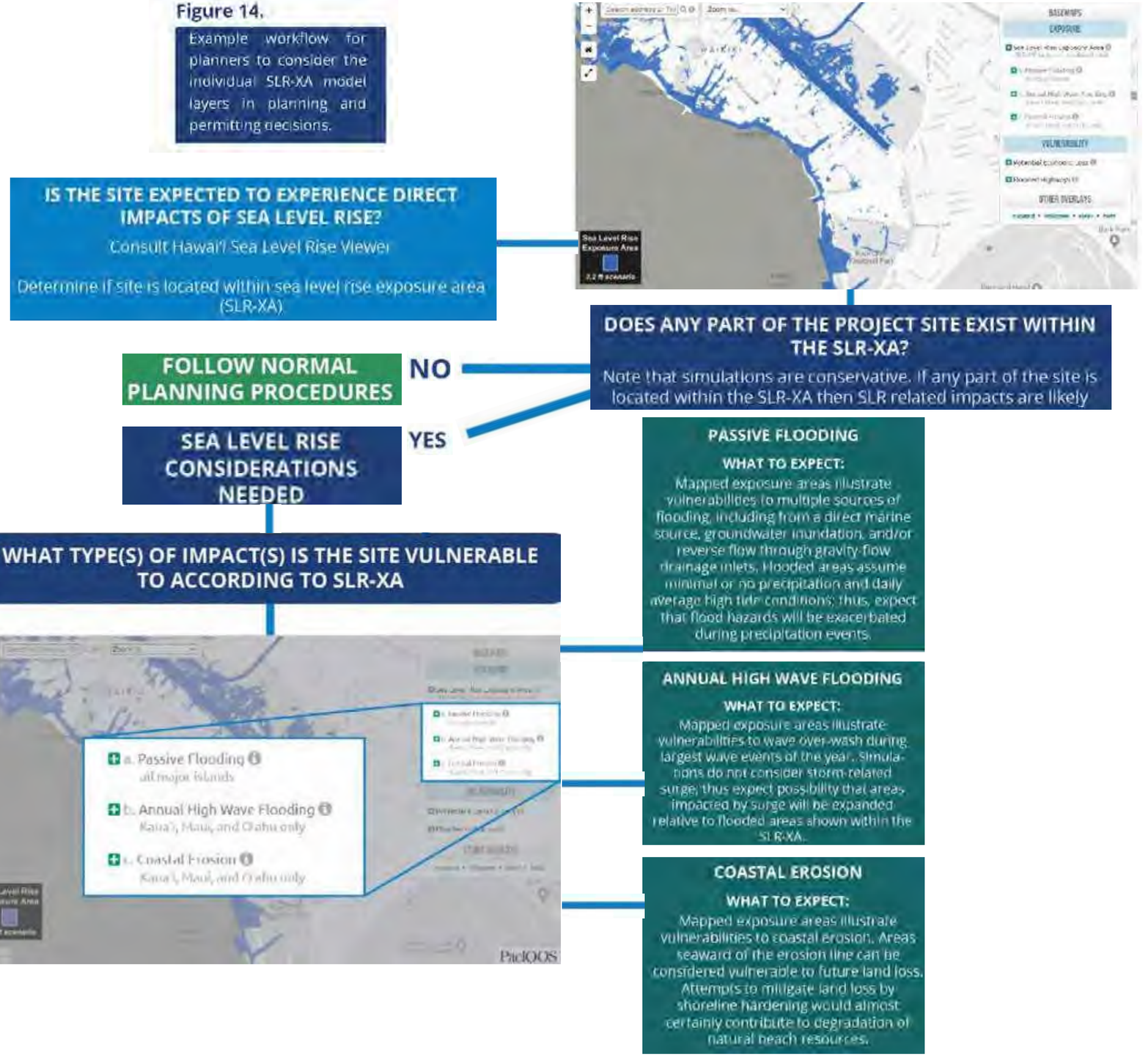
An inundated beach access walkway (Source: UH SOEST King Tides Project)

The ***Guidance For Using The Sea Level Rise Exposure Area In Local Planning And Permitting Decisions*** (2020 Companion Report) prepared by UH Sea Grant and the State DLNR for the Hawai'i Climate Commission, is a supplement to the (State SLR Report). Since the State SLR Report was released, planning departments statewide have been engaged with the challenge of incorporating the evolving climate science into operations. Planning to the recommended SLR-XA benchmark is a challenge since the SLR-XA includes multiple factors, is not able to be captured in a smooth line, and can affect the whole, or just a part of a given parcel. The 2020 Companion Report helpfully lays out further guidance for working with this new class of information, including sample work flow charts like the one to the right.

https://climate.hawaii.gov/hi-adaptation/state-sea-level-rise-resources/



Figure 14.
Example workflow for planners to consider the individual SLR-XA model layers in planning and permitting decisions.



Goal SLR-1: Adapt Regulations to Improve Resilience to Climate Change and Coastal Hazards.

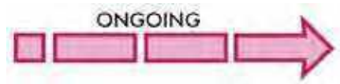
Policy SLR-1.5: Update shoreline regulations and development policies to reflect coastal hazard impacts and best available guidance on an ongoing basis.

The Honolulu Climate Change Commission's Sea Level Rise Guidance (2018, updated 2022) finds that rising seas threaten communities and natural ecosystems with increasing flooding across the shoreline due to wave run-up, saltwater intrusion of engineered drainage systems, and groundwater inundation that compromises infrastructure both above and belowground, creating new wetlands. Increased rainfall flooding (and more specifically increased drought followed by episodes of heavy rains) impairs drainage, and increases beach and land loss via coastal erosion. City departments have been directed to work cooperatively to implement land use policies and design and construction standards that mitigate and adapt to sea level rise. One result of this effort has been a round of updates to the Special Management Area Ordinance (Chapter 25) and Shoreline Setbacks Ordinance (Chapter 26), to better account for projected sea level rise in permitted projects.

Priority Actions:

Regularly update SMA and setback ordinances. Work collaboratively and on an ongoing basis to update Shoreline Setback and Special Management Area (SMA) regulations to incorporate projected sea level rise exposure. Periodically review and update shoreline policy with regards to the latest sea level rise and other coastal hazards modeling recommended by the Honolulu Climate Change Commission. Continue to refine SLR-XA depths and detailed impacts (high tide, high wave, and erosion). Ensure consistency with updates to the State Coastal Zone Management Act (HRS 205A).

Timeline



Partners:

- DPP
- OCCSR
- City and State Climate Commissions
- UH SOEST

Reform shoreline hardening policies. Based on guidance from the state, revisit policies for handling deteriorating or ineffective shoreline hardening on private residential properties that results in beach loss and impacts to public shoreline access. Avoid granting retroactive approvals for unpermitted seawall construction or repairs.

Timeline



Partners:

- DPP
- OCCSR
- DLNR
- OPSD
- Climate Commissions
- UH SOEST



Shoreline hardening in the eastern PUC (UH SOEST King Tides Project)

Goal SLR-2: Conduct Long-Range Planning to Increase Area-Wide Adaptation and Resilience Efforts.

Policy SLR-2.1: Plan for priority growth areas outside of higher impact areas, and vet proposed solutions for higher impact areas with the community.

It is important to identify and prioritize resilience actions that provide multiple benefits and strategically incorporate adaptation measures into ongoing planning efforts. For example, prioritizing areas outside the 3.2' SLR-XA as new growth and redevelopment areas is a “no regrets” approach to the long-term safety and economic viability of PUC communities. In addition, planning and implementing resilience measures such as adapting infrastructure in already impacted areas using a regional and long-term approach instead of solely on a case-by-case basis or when failures occur will leverage finite City resources more effectively and lead to more successful adaptation outcomes.

Priority Actions:

Plan for growth outside of the SLR-XA. Plan for long-term new growth in areas outside of the extent of the SLR-XA through regular updates to the PUC DP and related Special Area Plans, and via the City’s adaptation and resiliency planning efforts.

Timeline



Partners:

- DPP
- OCCSR
- ENV
- DFM
- BWS
- DTS
- DPR
- State Departments

Engage the community. Engage the community early and often for major engineered or managed retreat solutions. Focus on engaging the community in developing localized adaptation strategies. Implement demonstration and pilot adaptation projects for priority sites identified in this Plan and other City infrastructure and resilience planning. Managed retreat when and where warranted, should be carefully phased in through evidence-based mechanisms.



Partners:

- DPP
- OCCSR
- ENV
- DFM
- BWS
- DTS
- DPR
- State Departments

Initiate a transfer of development rights (TDR) program. Begin developing the framework of a TDR program for wetlands, critical habitats, beaches, and coastal restoration areas.



Partners:

- DPP
- OCCSR





Top and bottom: Pop-up events discussing sea level rise impacts in the PUC

Goal SLR-2: Conduct Long-Range Planning to Increase Area-Wide Adaptation and Resilience.

Policy SLR-2.2: Address potential impacts to surrounding sites for project-level adaptation measures.

Effectively planning for coastal hazards and SLR requires considering flood risks and adaptation beyond the scale of a single property or site. Improvements to flood management should also be done at the corridor, neighborhood, and regional watershed scales to promote cost-efficient and holistic adaptation solutions. This applies to SLR induced flooding adaptations, as well as those for managing storm-induced flooding and coastal erosion. Site adaptations should be reviewed carefully to ensure that the measures are consistent with broader regional and sector-specific strategies, and that proposed measures will not increase flooding risks for neighboring properties and public infrastructure, or produce inequities. Joint efforts across properties will be key to developing resilient infrastructure strategies and phased adaptation approaches in SLR-XA areas.

Priority Actions:

Implement right-of-way green infrastructure projects. Construct public right-of-way green infrastructure/stormwater projects via Complete Streets and the Rehabilitation of Streets Program, such as low impact development (LID) features in medians and planting strips.

Develop a comprehensive plan for drainage and flood mitigation projects. Consistent with storm water master planning, develop and prioritize a list of drainage improvement and flood mitigation projects across all agencies, ranging from the neighborhood to the watershed scale, and considering all land uses in a comprehensive manner.

Other Actions:

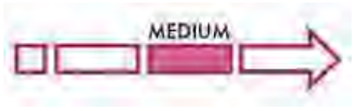
- *Expand the physical radius for assessing the impacts of grading and other site/building improvements on runoff and flooding.*

Timeline



Partners:

- DFM
- DDC
- DTS
- DFM
- DPR
- DPP
- BWS



Partners:

- DFM
- DDC
- DTS
- DPR
- ENV
- DPP
- OCCSR
- BWS

Damage from nuisance flooding in high impact areas that are very low lying and subject to groundwater inundation may be difficult or even impossible to manage relying on conventional drainage solutions. It is important to identify these areas through efforts such as the Development Plans, Sustainable Communities Plans, Climate Action Plans, Watershed Management Plans, Stormwater master planning, and Hazard Plans. This creates ongoing conversations on adaptive measures, helps to identify benchmarks, expenditures, funding mechanisms, and phasing in as much detail as possible. Plan processes can also develop scenario alternatives and seek substantial public input for major public works.



Raising a road impacts adjacent businesses and residences



Example of a dry detention pond

Goal SLR-2: Conduct Long-Range Planning to Increase Area-Wide Adaptation and Resilience.

Policy SLR-2.3: Prioritize and fund community-level Area Adaptation Plans.

Some areas of the PUC are particularly vulnerable to flooding exacerbated by sea level rise, and without adaptation measures will already be facing widespread chronic flooding by century's end if no action is taken. This includes some portions of TOD areas around the rail line, notably Pearlridge, Lagoon Drive, Middle Street, Kapālama, ʻIwilei, Civic Center, Kakaʻako and Ala Moana. Widespread chronic flooding will also occur around Waikīkī, the Ala Wai Canal, and lower McCully-Mōʻiliʻili. Areas such as Māpunapuna are already experiencing widespread chronic flooding, and these impacts can be anticipated increasingly in other areas as higher tides and impaired drainage will be felt decades before several feet of sea level rise occurs. High-resolution flooding data along with updated science on the timing and degree of sea level rise for specifice locales will allow for identification and application of appropriate responses from the regional scale, down to the corridor, block, and site scale. The PUC DP's Area Adatation Overviews at the end of this chapter are a first step to more targeted and finer-grained area adaptation planning that identifies conditions, impacts, and potentially appropriate adaptation options.



Beach nourishment in Waikīkī

Priority Actions:

Pursue community-level adaptation planning. Tie neighborhood or regional adaptation efforts to One Water efforts, stormwater master planning, the Honolulu Resilience Strategy, and other collaborative City resilience initiatives.

Timeline



Partners:

- All Agencies

Align resilience and disaster planning strategies. Work closely with emergency management agencies to understand escalating risks from climate hazards and increase disaster preparedness in the region. Establish post-disaster plans and policies related to reconstruction and redevelopment within the SLR-XA and other flood hazard areas should catastrophic damage occur. Following a disaster, require relocation where warranted, and incorporate design elements to enhance resilience to future impacts as part of rebuilding and recovery.



Partners:

- DPP
- OCCSR
- DEM

Climate equity and vulnerable populations. Develop mechanisms and strategies that provide equitable public funding and capital improvements in low-income areas and that identify vulnerable populations impacted by flooding, urban heat island, and other negative climate impacts (See also Policy HC 3.1 in Chapter 7, Healthy Communities).



Partners:

- DPP
- OCCSR
- DCS
- DEM
- DOH



Modifying roads is one strategy to address chronic flooding

Goal SLR-2: Conduct Long-Range Planning to Increase Area-Wide Adaptation and Resilience.

Policy SLR-2.4: Incorporate sea level rise / coastal hazard considerations in the planning, design, and maintenance of facilities and infrastructure.

The PUC is exposed to impacts from sea level with significant, dense, urban development on low-lying coastal plains, much of which is below six feet of elevation. High tide flooding and groundwater inundation will affect underground infrastructure and utilities and compromise drainage systems before chronic above-ground flooding becomes critical. The City can help lead the way in preparing for these impacts with demonstration projects for resilient infrastructure design – particularly for public infrastructure projects with long life spans – and by incorporating sea level rise and other coastal hazard considerations into current planning and design to ensure long-term functionality. This includes taking advantage of scheduled upgrades or improvements to retrofit existing and viable infrastructure in the SLR-XA for enhanced resilience/adaptation, and prioritizing infrastructure expansion of new facilities and services that are not coastal dependent in areas outside of the SLR-XA.

Priority Actions:

Hazard overlays for infrastructure planning. Consider a minimum of the extent of the SLR-XA when developing and approving Capital Improvement Program projects, and consider 6' of SLR or current recommendations from the HCCC for critical infrastructure or major projects with low risk tolerance and/or expected lifetimes extending beyond 2100.

One Water guidelines and checklists. Create guidelines and/or develop a climate resilience checklist for infrastructure through the collaborative One Water agencies process to improve coordination and to inform CIP review. Include consideration of design impacts to surrounding sites.

Timeline





Partners:

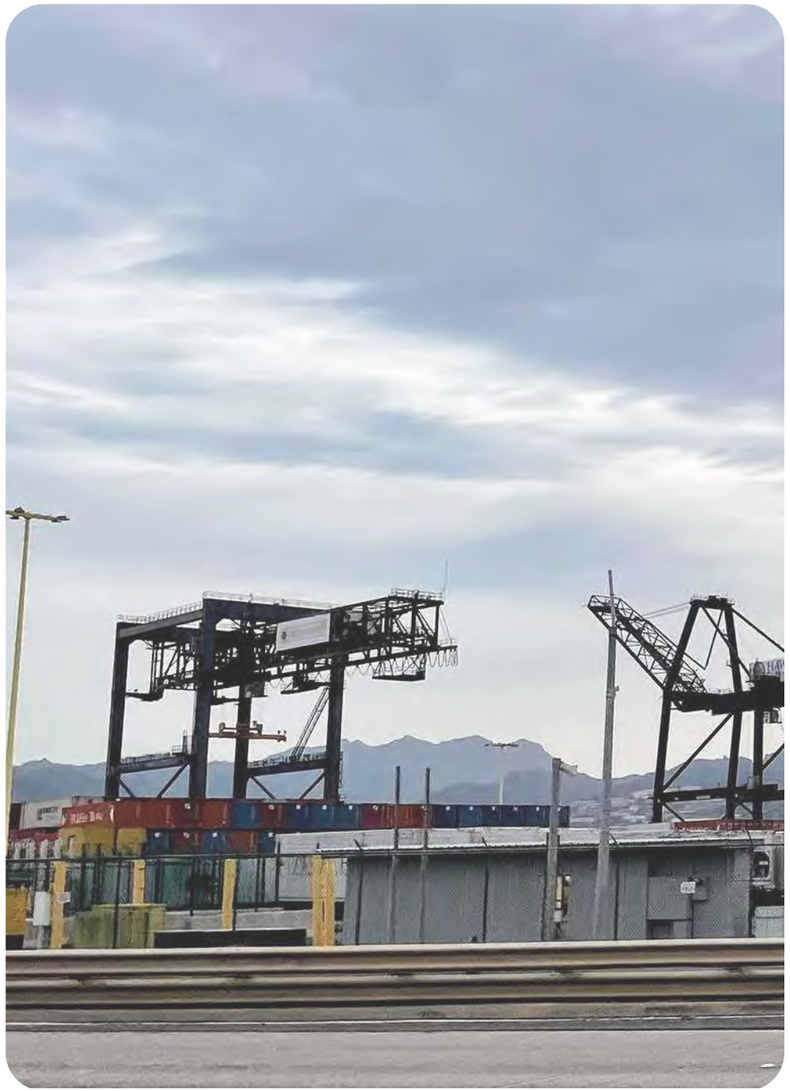
- City agencies
- State agencies
- Community partners

Partners:

- DDC
- OCCSR
- DFM
- ENV
- BWS
- DTS
- DPP

Other Actions:

- *Use tools such as a Plan Integration for Resilience Scorecard to periodically evaluate CIPs on progress towards reducing hazard vulnerability.*
- *Integrate adaptation strategies into infrastructure updates, retrofits, and renovations.*



A yard at the Honolulu Harbor.

Goal SLR-3: Coordinate Infrastructure Planning for Sea Level Rise Across Agencies.

Policy SLR-3.1: Support collaborative resilience planning for new and existing infrastructure.

Continued collaboration is essential across City infrastructure agencies, relevant State and Federal agencies and special district entities, including business improvement groups, in order to increase resiliency in infrastructure master plans and functional plans. Improved coordination among planning and infrastructure departments is needed to ensure progress toward common objectives and efficiency in capital improvement investments. The City can continue to build on ongoing cooperation through the One Water Panel agencies, and by coordinating other planning and infrastructure investments among public agencies. The City Resilience Team, One Water Panel, and other agency working groups should be on the lookout for cross agency collaboration opportunities for planned infrastructure upgrades and avoiding unplanned redundancies.

Priority Actions:

Inter-departmental climate adaptation working group. Regularly convene an inter-departmental working group to streamline coordination and promote collaboration in plan updates and infrastructure/CIP project review.

Timeline



Partners:

- All planning and infrastructure agencies

Create new sources of resilience funding. Support innovative funding mechanisms such as new impact fees, Public-Private Partnerships, Infrastructure Financing Districts, and Opportunity Zones grants to maximize resilience in capital improvement projects.



Partners:

- All planning and infrastructure agencies
- BFS
- Private partners

One Water resiliency planning. Coordinate on budgets requests for One Water climate resiliency efforts; collaboratively implement One Water demonstration projects, and refine best practices for City projects.



Partners:

- DPP
- OCCSR
- BWS
- DDC
- ENV
- DFM
- BFS

Other Actions:

- *Establish a resilient design review committee process.*
- *Align capital improvement planning with the City's Multi-Hazard Pre-Disaster Mitigation Plan.*
- *Adopt a "Dig-Once" approach to roadway infrastructure improvements to reduce adaptation cost.*



Ala Wai Canal overflow.



High wave overtopping at Kewalo Basin.

Goal SLR-3: Coordinate Infrastructure Planning for Sea Level Rise Across Agencies.

Policy SLR-3.2: Pursue a district-scale fee structure or other dedicated funding mechanisms for adaptation projects.

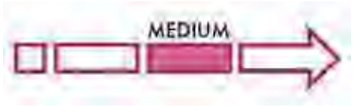
Flood control districts or similar special improvement entities are proven models for managing stormwater in complex urban regions around the country. Existing or future Special Improvement or Property/Business Improvement Districts (BID) can support adaptation to stormwater flooding and sea level rise impacts over the long-term. These focused programs or organizations can address and holistically manage resilience in limited areas. The City can work with or create these entities to foster coordination on infrastructure investment, align improvements for development projects, or engage in resilience planning, data collection, and developer education resources.

Priority Actions:

District-scale infrastructure and drainage adaptation strategies. Support special improvement district or property based business district entities in joint public-private efforts to develop neighborhood and district-scale resilience strategies for areas in the SLR-XA.

Impact fees for sea level rise improvements. Consider implementing an impact fee within the SLR-XA to pay for coastal hazard adaptation projects and other sea level rise improvements (perhaps as a function of a stormwater impact fee), for integrated planning projects.

Timeline



Partners:

- DFM
- DPP
- All One Water Agencies
- BIDs / Community Partners



Partners:

- DFM
- All One Water Agencies

Other Actions:

- *Conduct additional finer-grained (block-scale) hazard planning analyses in the PUC and beyond to understand future conditions.*
- *Commence systematized groundwater monitoring in the SLR-XA to enhance understanding of underground sea level rise impacts.*
- *Explore a conservation easement program.*



Areas experiencing chronic episodic flooding.



Sand nourishment in Waikīkī is funded in part by the Waikiki Business Improvement District Association (WBIDA).

Goal SLR-3: Coordinate Infrastructure Planning for Sea Level Rise Across Agencies.

Policy SLR-3.3: Monitor ongoing impacts within the SLR-XA across infrastructure agencies to update development regulations that implement adaptation.

It is expected that public agencies will need to continually monitor and evaluate adaptation measures against changing conditions on the ground and improved projections, and adjust best practices and standards as required. This will necessitate a flexible approach that involves: 1) designing and building current adaptation measures using the best available science, 2) performing iterative evaluation and tracking of adaptation outcomes, and 3), adjusting required adaptation measures accordingly based on new impacts and measured outcomes. Not knowing the precise adaptation solution that will be needed in the future should not be a rationale for delaying adaptation actions to known hazards today. Rather, public agencies can look towards adaptation approaches that can be modified, strengthened, added on to, or complemented such that they continue to perform well as future sea level rise unfolds.

Priority Actions:

Policy triggers for repetitive flooding. Consider adopting a set of cross-agency policy "triggers" applicable to major proposed developments in the SLR-XA or the SMA in order to reflect changing physical conditions and constraints. These triggers would result in escalating restrictions or modifications to allowed development activity and intensity in response to specific flooding benchmarks (frequency, duration, or severity). Such policies would need to be phased in over time based on measurable physical benchmarks, and could also be applied to post-loss reconstructions.

Timeline



Partners:

- DPP
- OCCSR
- BWS
- DTS
- ENV
- DFM
- DLNR
- OPSD
- DOT

Adaptation for minor development projects. Gradually adopt adaptation guidance and standards for advancing resilience in the course of minor repairs/rehabilitations of existing structures and infrastructure located in the SLR-XA/SMA. This would include guidance for addressing rehabilitation of non-conforming uses.

Timeline



Partners:

- DPP
- DDC
- OCCSR

Other Actions:

- *Encourage utilization of resilient design strategies that can be flexibly adapted over time to greater flood risks (rising seas, increased rainfall/erosion, stream overflow, groundwater intrusion).*
- *Incentivize retrofit of buildings (past a certain age) if they cannot be proven to meet specific health and safety standards related to flooding or urban heat impacts.*





Double sidewalks in Ward Village (with one raised above base flood elevation).

Goal SLR-3: Coordinate Infrastructure Planning for Sea Level Rise Across Agencies.

Policy SLR-3.4: Support State Agencies in applying appropriate interventions and environmental measures for adapting/preserving beaches and shoreline impacted by sea level rise and erosion.

Seasonal and chronic erosion is presently a problem at many of the beaches in the PUC, including at Waikīkī and Ala Moana. SLR will accelerate beach erosion in the near-term (through the life of this Plan) and may make some beaches unsustainable in the longer-term (later in this century). Preserving public access to beaches and shoreline is critical to supporting shoreline resilience, and highlights the importance of beaches to the local culture, lifestyle, and economy. The City can also actively support and initiate efforts for nature-based and green infrastructure solutions and wetland restorations to mitigate coastal inundation and erosion where conditions permit.



Public access to the shoreline is required by State law.

Priority Actions:

Support strengthened protections for beaches. Support strengthened regulatory protections for beaches and avoid variances granting shoreline hardening structures in the shoreline setback area (outside of engineered shoreline areas).

Timeline



Partners:

- DLNR
- OCCL
- DPP
- OCCSR

Maintain public access to shorelines and beaches. Strengthen along-shore and cross-shore shoreline access requirements in ordinance updates and planning review with consideration of changing sea level rise conditions (to preserve access in the future).



Partners:

- DPP
- DPR
- State Agencies

Support partnerships for beach management and restoration. Support innovative interagency and public-private partnerships (such as the state partnership with the WBSIDA) to maintain the long-term sustainability of the PUC's beaches and other coastal environments through coordinated management.



Partners:

- State Agencies
- DPP
- DPR
- DDC
- WBSIDA
- Private partners
- Community groups


Engineered beaches in the PUC require maintenance against erosion.

Other Actions:

- *Request (re)development projects on sandy shorelines to analyze alternatives such as placement of structures outside of the SLR-XA if feasible, or for erosion mitigation including beach restoration/nourishment.*
- *Request public and private projects on all back-bay shorelines (e.g. Ke'ehi Lagoon/Pearl Harbor) or stream mouths to assess alternatives to armoring (including living shoreline measures).*
- *In collaboration with state and private entities, the City may support geotechnical surveys to identify potential supplies of beach-quality sand that might be used for beach restoration projects.*
- *Utilize nature-based shoreline management approaches and encourage the integration of natural features in back-bay and stream mouth environments.*
- *Support collaborative efforts to reduce runoff and sedimentation based on strategies outlined in the PUC WMP and Stormwater Master Plan to improve water quality and coral reef health through continued improvements to regional wastewater and stormwater management.*





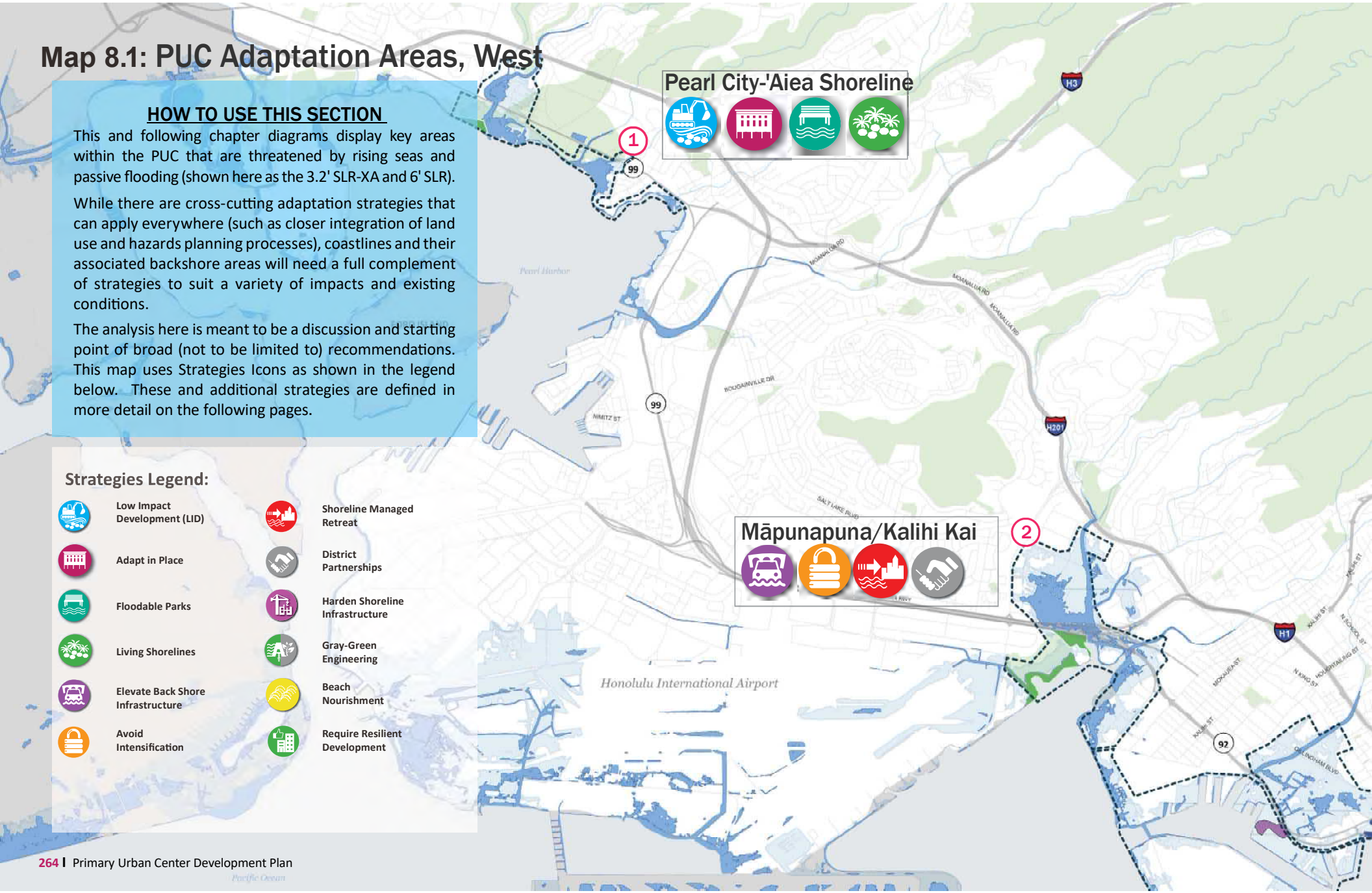
Map 8.1: PUC Adaptation Areas, West

HOW TO USE THIS SECTION

This and following chapter diagrams display key areas within the PUC that are threatened by rising seas and passive flooding (shown here as the 3.2' SLR-XA and 6' SLR).

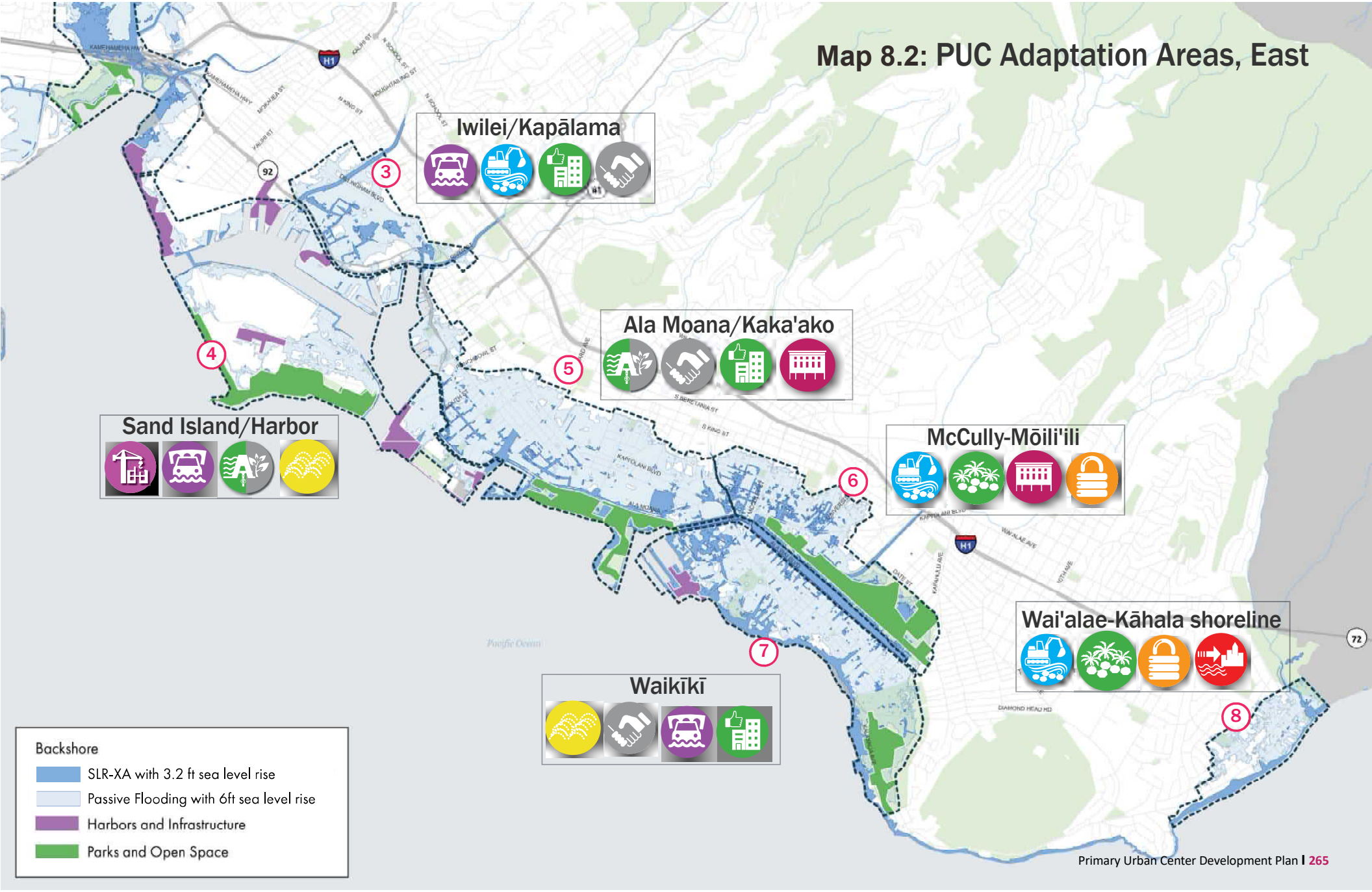
While there are cross-cutting adaptation strategies that can apply everywhere (such as closer integration of land use and hazards planning processes), coastlines and their associated backshore areas will need a full complement of strategies to suit a variety of impacts and existing conditions.

The analysis here is meant to be a discussion and starting point of broad (not to be limited to) recommendations. This map uses Strategies Icons as shown in the legend below. These and additional strategies are defined in more detail on the following pages.



Strategies Legend:

- Low Impact Development (LID)
- Adapt in Place
- Floodable Parks
- Living Shorelines
- Elevate Back Shore Infrastructure
- Avoid Intensification
- Shoreline Managed Retreat
- District Partnerships
- Harden Shoreline Infrastructure
- Gray-Green Engineering
- Beach Nourishment
- Require Resilient Development


Map 8.2: PUC Adaptation Areas, East
Iwilei/Kapālama
Ala Moana/Kaka'ako
Sand Island/Harbor
McCully-Mōili'ili
Wai'alae-Kāhala shoreline
Waikīkī
3
4
5
6
7
8
Backshore
SLR-XA with 3.2 ft sea level rise
Passive Flooding with 6ft sea level rise
Harbors and Infrastructure
Parks and Open Space

Shoreline Adaptation Strategies

Cross-Cutting | All Areas

Preserve/Enhance Access to Shoreline

Actions to preserve shoreline access include prioritizing maintenance and repair of existing access facilities in order to minimize re-routing or closure, and creating temporary bridges, ramps or pathways to maintain safe access during flooding or King Tides.

Maintaining access to public beaches fronting privately owned properties must include enforcing prohibitions against new shoreline hardening structures. Shoreline public access is a commonlaw right in Hawai'i and important for fishers, gatherers, cultural practitioners, as well as sport and recreation.

This strategy is critical in the following shoreline types: Residential Mixed Beach, Engineered Beach and Natural Beach Recreation Areas, Waikīkī Management Areas, and portions of Honolulu Harbor and Kaka'ako Makai.



Comprehensive Shoreline Adaptation Planning

In addition to adapting coastal infrastructure in response to periodic inundation, properties on the shoreline will also be subject to direct coastal flooding and/or erosion.

Coastal armoring often has a "domino effect" of erosion on neighboring properties. Similarly, transitioning already hardened areas to softer nature-based solutions will need to be carefully planned across properties.

Comprehensive shoreline planning will be particularly essential for restoring or maintaining natural and engineered beaches, wetlands and other sensitive coastal habitats, and for adapting coastal-dependent infrastructure.



Harden | "Keep the Water Out"

Shoreline Hardening (NOT RECOMMENDED)

Although new seawalls are largely prohibited in Hawai'i due to the resulting erosion impacts, existing seawalls or other shore-parallel engineering fronts many shoreline properties in the PUC (concrete or basalt stone structures are commonly used in Hawai'i). Repair efforts should focus on increased use of soft alternatives and the phasing out and removal of shoreline hardening structures.

Related Considerations:

- Much of the PUC shoreline is engineered with significant areas of filled land;
- Shore-parallel armoring gradually but inevitably leads to beach loss along eroding coasts (e.g., Kahala);
- High construction costs;
- Causes environmental impacts beyond erosion, including loss of natural habitat;
- May diminish public access if not designed appropriately;
- Less effective on porous geology;
- May protect property behind the seawall from coastal erosion and wave overwash, but not from rising groundwater.

Harden/Elevate Critical Shoreline Infrastructure

Raising infrastructure is an intensive and complex effort. Critical shoreline infrastructure that will require adaptation includes State transportation facilities such as the Harbor and Airport, City owned streets and roads, waste water treatment plants, small boat harbors, and drainage systems.

Related Considerations:

- Adapts or redesigns existing infrastructure for improved resilience and extended lifespan;
- Disruptive and complicated process that requires intense coordination and redesign;
- Extreme cost. Must weigh costs and benefits over the useful life of the engineered intervention and incorporate future design options and phasing.



Avoid the Water

Shoreline Managed Retreat

Managed retreat allows shoreline environments to migrate naturally and be conserved by gradually relocating development out of the way, and by concurrently restoring ecological function to the coastline.

Mechanisms that can begin shifting development out of the path of coastal migration include: requiring new structures to locate outside of of the SLR-XA on existing parcels whenever that is an option; and updating development standards and restrictions based on escalating benchmarks. Tools for managed retreat include conservation easements, and transfer of development rights programs.

Related Considerations:

- Provides natural areas to absorb rising seas/storm surges;
- Preserves beaches and public access;
- Relatively few examples from other jurisdictions;
- Not very feasible in the near term in high density areas with many individual landowners;
- Flooding impacts may come earlier than projected on a planning timescale;
- Complicated to design and administer programs.

Adapt | "Work with the Water"

Beach Nourishment and Management

Beach nourishment is the practice of replacing sand on a beach to mitigate erosion and restore beach width using clean compatible sand, typically accomplished using heavy machinery. Engineered beach stabilization structures may also be employed. Beach nourishment is already a common practice in Waikīkī.

Related Considerations:

- Protects valuable beaches and backshore areas;
- Avoids most issues caused by walls/revetments and helps to preserve shoreline access;
- Requires significant dredging of sand (that typically comes from a nearshore deposit);
- Environmental risks to the nearshore marine ecosystem;
- Maintenance: continual nourishment is needed on a chronically eroding beach.



Nature-based "living" shoreline restoration

A living shoreline is a protected, stabilized coastal edge made of natural materials like plants and sand dunes. Unlike a concrete structure, which impedes the growth of plants and animals, living shorelines grow over time. Often referred to as 'soft armoring.'

Related Considerations:

- Accommodates natural erosion/ sea level rise over a longer term;
- Avoids most drawbacks that arise from hard armoring;
- Usually only suited to lower movement, back-bay, wetland or lagoon environments;
- On O'ahu, shoreline restoration can include fishpond restoration and other aquaculture.





Floodable Parks

A floodable park is created by re-purposing low-lying areas so they can be temporarily flooded during extreme rainfall events. These areas would be designed to absorb stormwater and/ or elevated groundwater, and decrease run-off or flooding by storing excess water and releasing it slowly. They can be a hard or soft engineered intervention.

Related Considerations:

- Leverages existing open space;
- Provides combined amenity, resilience, and biodiversity benefits;
- Parks are unusable for recreation during flooding;
- Need to address polluted water.



Mixed Green-Gray Engineering

A hybrid systems approach that combines elements of hardening with naturalized areas to mimic ecological processes. Often comprised of bioretention planters, permeable paving, or other infiltrative surfaces. Includes projects such as retrofitting or naturalizing coastal storm sewer outflows, rehabilitation of combined sewer pipes, and lateral cross-connection of pipes (to increase storage during storms).

Related Considerations:

- Appropriate in creeks/streams/ canals or marsh/vegetated/ wetland environments;
- High maintenance levels may be needed;
- Potential benefits for urban environments.



Strategies for Impact areas beyond the Shoreline

Beyond the immediate shoreline, whole neighborhoods will be impacted by the effects of increased flooding and coastal hazards. Many of the strategies on these pages will need to be applied in these areas.

Cross-Cutting | All Areas

Include Adaptation in Hazards Planning

A post-disaster recovery plan is a type of hazards plan that aids community recovery in the event of disaster. It can outline the manner in which damaged areas can be rebuilt after a disaster event to protect lives and property from exposure to recurring risks. Under such a plan, structures could be limited in where and how they are rebuilt, or could be required to use resilient building techniques. The City will look to incorporate post-disaster planning concepts alongside preparedness, mitigation, and response.



District Partnerships and Drainage Planning

In the most severely impacted SLR-XA areas, the City could consider creating drainage districts to help address impacts that cut across ownership and property lines, and disproprotionally affect certain areas. This approach requires robust outreach, on-going financing, and would be publicly led. Alternatively, the creation of BID-type infrastructure improvement districts could facililtated whereby property owners join together to formulate and fund collective projects that benefit the impacted area. A district-oriented strategy could successfully leverage private funding and would require public agency coordination.



Comprehensive Long-Term Adaptation Plans

The City is assessing vulnerability in SLR exposure areas for City infrastructure, assets, and assessing risks to developed areas. Planning long-term (beyond the standard 20 to 25 year planning horizon) for facilities, areas of growth, and public investments will help proactively reduce exposure to hazards. Completing longterm plans for exposed areas (Area Adaptation Plans) via a transparent public process will aid in setting clear expectations and feasibility of projects. Over time, these plans should lead to a greater equity of investment and also reduced exposure to extreme events and flooding hazards. However, any such plans for broad adaptation measures will be operating within market pressures, development interests, and private property concerns.



Adapt in Place

As flooding occurs more frequently and severely, private businesses may need to renovate, re-purpose, elevate, or abandon ground floors. Ground floors can be redesigned as parking, storage, or other nonhabitable space. Mechanical and electric facilities will need to be hardened and/or relocated. Adapting in Place will likely be the default strategy in densely developed areas until it is no longer possible or affordable to continue the investment.

Related Considerations:

- Allows continued use of existing development areas;
- Costly retrofits may be infeasible for many structures;
- Raised habitable space requires new connections and walkways to access street level;
- Doesn't address street level flooding or impacts underground.



Avoid Intensification

While it is not possible to easily "un-do" existing development in areas that will be impacted by rising water over time, it is vital that careful planning avoid worsening risks by adapting development standards, retreating where inevitable, and planning for new density outside of the worst impact areas. Over time, the City should set physical benchmarks (i.e. number/ frequency of flooding events or percentage of property lost) that trigger increased development requirements. Regional adaptation solutions including public works and regional drainage plans should also be applied. Redevelopments or developments will be increasingly subject to stricter zoning standards or restrictions in impacted areas over time.

Related Considerations:

- Reduces long-term loss of property;
- Reduces risk to private and public structures and infrastructure;
- Places limits on economic growth in impact areas.



Require Resilient Development

New design standards for impacted areas may include requirements for ground floor design, pumps, elevated mechanical equipment, and other adaptation-related improvements. Structures may also be subject to limits on armoring and new redevelopment standards.

Related Considerations:

- Ensures new buildings will be resilient to future decades of flooding impacts;
- Allows new development in impacted areas;
- Raises cost of new buildings in a context with already high construction costs;
- Introduces a new level of complexity in project review, and requires new types of staff expertise and programs.



Elevate Backshore Infrastructure

Raising infrastructure is an intensive and complex effort. For example, to raise a road, 3 to 6 feet (or more) of new fill is added, along with elevating nearby water and sewer pipes, or other nearby facilities. New drainage and green infrastructure features can be added to maximize performance benefits.

Related Considerations:

- Allows existing infrastructure to be salvaged and made resilient, providing decades of protection for individual properties or small areas;
- Essential strategy for intensively developed areas to adapt in place;
- Disruptive, complicated, and requires intense coordination;
- Necessitates redesign on the part of adjacent properties;
- May be a costly and only short-term; Can result in a patchwork of ground heights, public and private drainage infrastructure, and flooding impacts to neighboring properties;
- May induce more development in floodable or exposed areas.



Low Impact Development and Green Infrastructure

LID interventions such as swales, rain gardens, or retention areas reduce runoff and improve water quality by allowing stormwater to infiltrate slowly into the ground, or to evaporate and transpire. The goal of LID is to restore the natural ability of a developed site to absorb stormwater. Likewise, floodwater detention or retention projects are designed to hold riverine floodwater at bay on a temporary or ongoing basis, respectively, for infiltration or treatment. LID/Green Infrastructure projects can be very small (public or private) to very large public works.

Related Considerations:

- Reduces flooding and related costs;
- Can enhance community beautification and recreation;
- May disrupt natural areas/habitat;
- Erosion and sediment may be an issue;
- Must address pollutants in runoff.



Managed Retreat Areas

Intentionally deintensifying and eventually removing structures in a chronically flooded area can be termed "managed retreat". As part of a managed retreat scenario, coastal hardening features may also be removed, and green, or mixed green/gray engineering may be employed to buffer impacts. Projecting 30-50 years in advance in a managed retreat scenario would allow for interim adaptation measures, and interim uses. Retreat could necessitate negotation of rolling easements so that properties yield ground to wetlands or to beaches gradually migrating inland. Managed retreat would be necessary in areas that are not able to successfully adapt to flooding impacts or are in newly hazardous locations.

Related Considerations:

- Most complete impact avoidance approach and long-term solution;
- Provides new natural areas to absorb rising seas and storm surges;
- Not very feasible in areas with existing high density development;
- Politically difficult, legal challenges;
- Needs costly buy-outs or complicated transfer of development rights options;
- Flooding impacts may come earlier than anticipated/predicted.

Existing Shoreline Types: varying conditions along the PUC coastline

The coastline of the PUC is not uniform; there are a variety of conditions from natural environments, to manmade recreation areas and hardened shoreline of various types. The following pages are the general categories of coastal conditions in the PUC followed by some of the short and longer-term adaptation strategies that may be appropriate for each.

Recreation Area: Engineered Beach

This shoreline type includes Ala Moana Beach Park and Waikīkī, Beach. These beaches were expanded or constructed through past beach nourishment projects, are stabilized by groins, breakwalls, and other coastal engineering structures, and are backed by seawalls. Chronic beach erosion is an existing problem in most of these areas. Ala Moana and Waikīkī beaches are subject to ongoing beach restoration projects.



POTENTIAL SHORT-TERM OPTIONS	POTENTIAL LONG-TERM OPTIONS
Ongoing beach management/restoration	
Maintain, improve, and raise shoreline engineering/breakwalls and groins	
	Increase gray-green solutions
	and/or
	Strategic retreat of portions of coastline

Recreation Area: Hard Shoreline

Beach parks and other shoreline-adjacent recreation areas are particularly exposed to sea level rise. Fields and grassy areas can be permanently damaged if flooded. Many landscaping plants can die if exposed to salinity and should be transitioned to salt-tolerant planting. Beaches that are already eroding will increasingly need to be actively managed. Sans Souci State Recreation Area (Diamond Head side of Waikīkī) and Sand Island are examples.



POTENTIAL SHORT-TERM OPTIONS	POTENTIAL LONG-TERM OPTIONS
Floodable park areas	Floodable park areas
Soften hardened shoreline whenever feasible	Mixed gray-green shoreline engineering
	or
	Managed retreat (of hardening)

Recreation Area: Natural Shoreline/Beach

Natural shoreline parks such as Kuilei Cliffs Beach, Kaimana Beach, Ke'ehi Lagoon Beach Park, a portion of Sand Island Beach Park, 'Aiea Bay State Recreation Area, and Neil S. Blaisdell Park, can provide critical flood and stormwater management functions. Alternative landscape options to grass that are more resilient to flooding and salt water intrusion should be encouraged. These natural areas with soft edges are vulnerable to climate change, since elevations of tidal marshes will not naturally keep up with sea level rise, and there is very limited space for them to migrate inland.



POTENTIAL SHORT-TERM OPTIONS	POTENTIAL LONG-TERM OPTIONS
Floodable park areas	"Living" shoreline restoration
Ongoing beach and wetland management/ restoration. Discourage new impervious surfaces	Mixed gray-green shoreline engineering
	or
	Managed retreat of natural shoreline

Wetland or Lagoon

Found along the Ke'ehi Lagoon and the mixed edge of East Loch between the Waimalu and Kalauao streams, this shoreline type is characterized by low muddy and/or rocky shorelines and thick shoreline vegetation such as mangroves. Living shoreline (nature-based) approaches and mixed green-gray engineered approaches may be effective for these shorelines in the near to mid-term. Managed retreat may become necessary for very low-lying areas.



POTENTIAL SHORT-TERM OPTIONS	POTENTIAL LONG-TERM OPTIONS
Nature-based "living" shoreline restoration; Discourage new impervious surfaces	Mixed gray-green shoreline engineering ! or Managed retreat

Residential: Mixed Beach/Hardened

A mixture of shoreline types fronting private residences including: natural beach, beach backed by armoring (seawalls, revetments), and hardened shoreline with no beach. This type is found along the shoreline of the Gold Coast, the Diamond Head/Kāhala neighborhoods, and along a portion of the back bay/East Loch of Pearl Harbor. Coastal erosion and shoreline hardening has led to beach loss and reduced shoreline access in some areas, particularly in the west end of Kāhala. Long-term adaptation actions may come through neighborhood-scale planning and/or updates to zoning and coastal land use policies.



POTENTIAL SHORT-TERM OPTIONS	POTENTIAL LONG-TERM OPTIONS
Small-scale beach restoration projects; Discourage new impervious surfaces	Conserve natural beach—restrict new shoreline hardening
Maintain existing shoreline and soften whenever feasible	Managed retreat of highly impacted residences

Small Boat Harbor

In the PUC, there are two state-run small boat harbor facilities (Ala Wai Harbor and Ke'ehi Harbor/Lagoon), as well as privately managed small boat harbors. Small boat harbors offer boat docking and access for seafaring recreational activities and are threatened by rising seas. These facilities are hardened with breakwalls, sea walls, bulkheads, and other marine infrastructure. Adaptation may be achieved by elevating structures and harbor facilities.



POTENTIAL SHORT-TERM OPTIONS	POTENTIAL LONG-TERM OPTIONS
Maintain, improve, and raise shoreline engineering	Elevate key harbor facilities

Honolulu Harbor - Kaka'ako Makai

The PUC contains the island's essential logistics, trade, transportation, and tourism facilities, including the port, cruise ship terminal, airport, and an electrical power plant. These facilities are protected with extensive revetments, groins, and other structural elements. Adaptation for this critical infrastructure may be achieved by elevating structures and facilities, improving drainage, and elevating lands with fill.



POTENTIAL SHORT-TERM OPTIONS	POTENTIAL LONG-TERM OPTIONS
Maintain, improve, and raise shoreline engineering; Harbor dredging	Elevate key harbor facilities

1 Adaptation Area Overview: Pearl City + 'Aiea



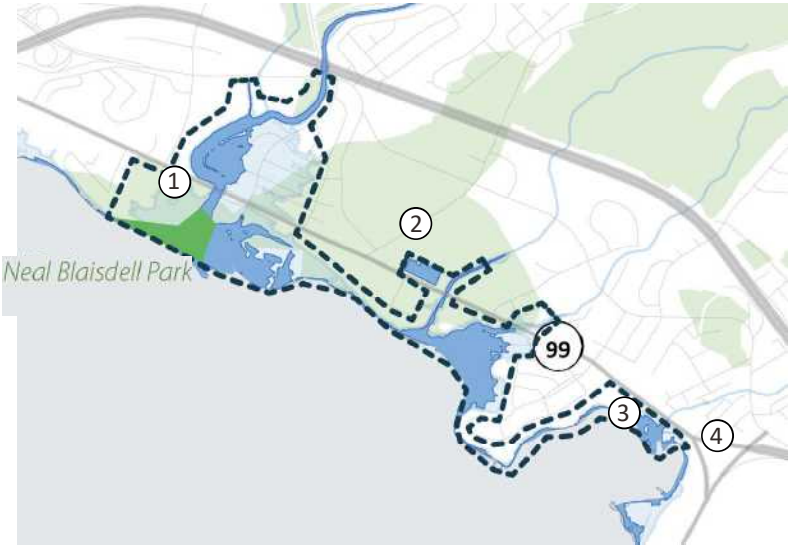
Current and Projected Impacts

- Chronic flooding of beach parks
- Chronic flooding of housing + businesses
- Stream overflows during storms
- Ponding along streets and parking lots

Priority Strategies

The Pearl City-'Aiea Shoreline from Pearl City Peninsula to McGrew Point, has business and residential development and spotty SLR-XA exposure along a coastline of natural beach, wetland, and hardened shoreline. The Kalauao (Pearlridge) rail station and TOD Neighborhood Plan area that is roughly bounded by the Neal S. Blaisdell Park, Kalauao Stream, and Moanalua Road, is largely outside of the SLR-XA, however, there are some peripheral conditions to be addressed through regulation and adaptation measures. The most notably impacted locales in the larger region are the stream mouth areas of the Waiawa, Waimalu, and Kalauao streams. Projects addressing stream conditions would benefit this entire area. Other opportunities include the potential for retention or nature-based solutions along the park, beach, and wetland shoreline areas that can also positively impact water quality.





Shoreline Strategies

Wetland or Lagoon

- Nature-based "living" shoreline restoration; Discourage new impervious surfaces
- or
- Mixed gray-green shoreline engineering
- Managed retreat

Residential Mixed Beach/Hardened

- Small-scale beach restoration projects
- Maintain existing shoreline and soften where feasible
- Conserve natural beach—restrict new shoreline hardening
- Managed retreat of highly impacted residences

Recreation Area: Natural Shoreline/Beach

- Floodable park areas
- Ongoing beach/wetland management and restoration Limit new impervious surfaces
- or
- "Living" shoreline restoration and gray-green shoreline engineering
- Managed retreat of shoreline

Backshore Strategies

SHORT-TERM STRATEGIES	LONG-TERM OPTIONS
Adapt in Place	**Potential managed retreat**
Protect and enhance public beaches	**Greater development regulations/restrictions**
	Catalytic stream projects

Proposed or Conceptual Adaptation Opportunity Projects

#1: Neal S. Blaisdell Park retention basin study (conceptual)

#2: Multiple locations: Pearl Harbor Watershed Based Plan (PUC WMP, BWS)

#3: 'Aiea Bay Living Shoreline, conceptual (South Shore Study, UH CDC)

#4: Hālawa Stream Recreation & Improvements (Halawa Area TOD Plan, DPP)

*See page X for Shoreline Strategies

2 Adaptation Area Overview: Māpunapuna + Kalihi Kai

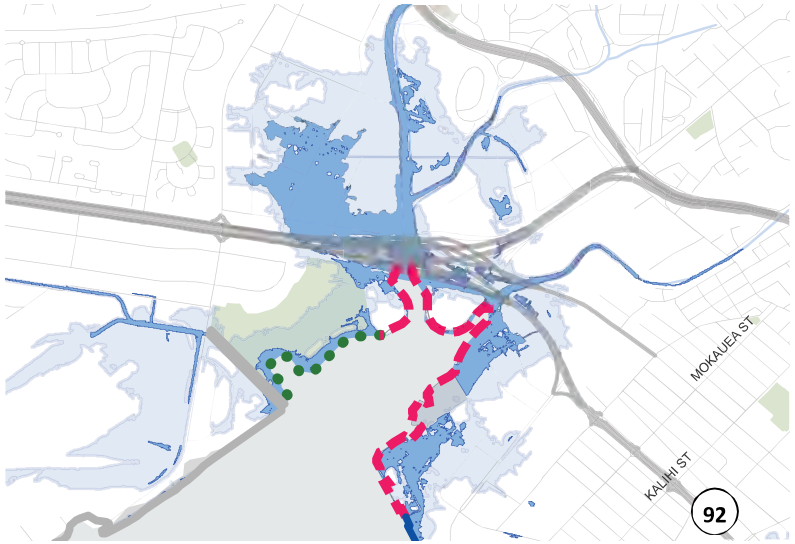


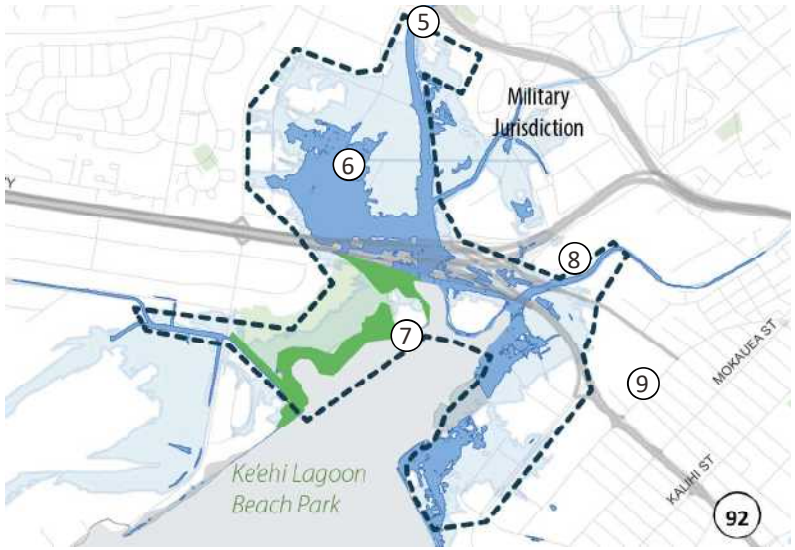
Current and Projected Impacts

- Chronic flooding of beach park
- Chronic flooding of streets + businesses
- Deterioration of marsh/wetland shore
- Stream overflows during storms

Priority Strategies

The industrial area of Māpunapuna and the ewa edge of Kalihi Kai are adjacent to Ke'ehi Lagoon near the terminus of Moanalua Stream and the Kapālama Canal, respectively. Both areas are low-lying and subject to storm-induced drainage issues and Māpunapuna in particular suffers from widespread nuisance flooding. Studies of the area are ongoing, and comprehensive adaptation planning should be a top priority as rising sea levels will exacerbate an already pronounced issue. The bulk of the flooding can be expected from passive (i.e. groundwater) flooding, inundating infrastructure and affecting roads and utilities. The feasibility and cost-benefit of adaptation efforts including road raising, adaptive uses or interim uses leading to long-term managed retreat, and pollution control, should all be considered for Māpunapuna. The Āhua (Lagoon Drive) and Kahauiki (Middle Street) rail stations should be used as a catalyst of any transformative adaptation design solutions.





Shoreline Strategies

Wetland or Lagoon

- Nature-based "living" shoreline restoration; Discourage new impervious surfaces
- or
- Mixed gray-green shoreline engineering
- Managed retreat

Recreation Area: Natural Shoreline/Beach

- Floodable park areas
- Ongoing beach/wetland management and restoration Limit new impervious surfaces
- "Living" shoreline restoration efforts
- or
- Mixed gray-green shoreline engineering
- Managed retreat of natural shoreline

Backshore Strategies

SHORT-TERM STRATEGIES	LONGER-TERM OPTIONS
Adapt in Place	Potential managed retreat
Encourage adaptation for developments	Require adaptation for all developments
Plan for deintensification	Greater development regulations/restrictions
Flood and pilot infrastructure projects	District infrastructure raising

Proposed or Conceptual Adaptation Opportunity Projects

- *#5: Moanalua Stream Restoration/Flood Control (West Honolulu Watershed Study, BWS)*
- *#6: Māpunapuna drainage district study (conceptual)*
- *Not shown: SLR pollution abatement study (various south shore industrial sites, conceptual)*
- *#7: Marsh restoration & water quality improvements (various)*
- *#8: Kalihi Kai Stream Restoration/Flood Control (West Honolulu Watershed Study, BWS)*
- *#9: Kalihi Cooling & Resilience Hub (Resilience Strategy, OCCSR)*

3 Adaptation Area Overview: Iwilei + Kapalama

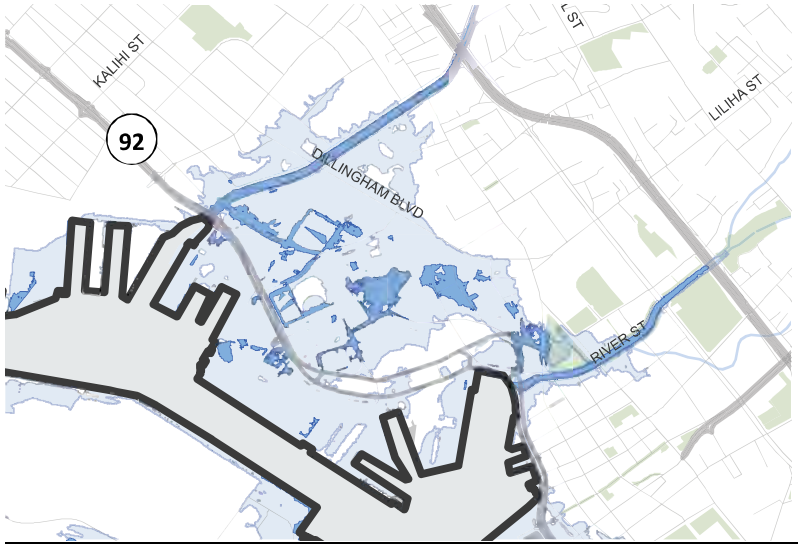


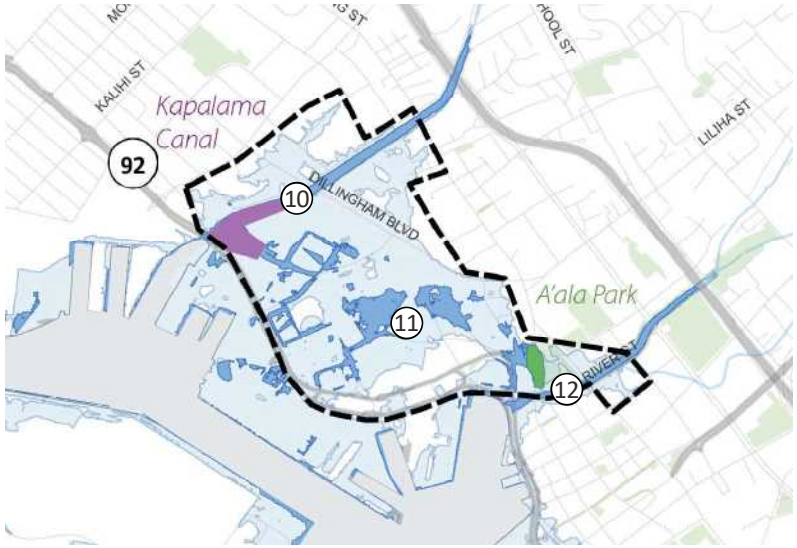
Current and Projected Impacts

- Chronic flooding of businesses, streets, and parking lots
- Sewer + pipe overflows during storms
- Frequent ponding in parking lots

Priority Strategies

The Iwilei/ Kapālama area is mauka of the Honolulu Harbor, adjacent to the Kapālama Canal, and bounded on the diamond head side by the River Street Canal (Nu'uanu Stream). While the area is projected from some inundation (at the 3.2' SLR-XA level), it is dramatically more affected at a 6' SLR projection, making long-term planning a critical issue. The area is already the subject of the *Iwilei/Kapālama Infrastructure Master Plan* that is looking to address drainage, sewer, and electric utility deficiencies in anticipation of significant redevelopment. Pursuing redesigns of the makai segments of the Kapālama and River Street canals would also provide the opportunity for flood protection, beautification, and recreation improvements. Because of the growth potential and development interest in the area, an integrated adaptation plan and feasibility studies need to be pursued.





Shoreline Strategies

Honolulu Harbor - Kaka'ako Makai

- Maintain, improve, and raise shoreline engineering (Harbor dredging)
- Elevate key harbor facilities

Backshore Strategies

SHORT-TERM STRATEGIES	LONGER-TERM OPTIONS
	Adapt in Place
Require adaptation for certain developments	Require adaptation for all developments
Update development regulations	Greater development regulations/restrictions
Begin elevating exposed infrastructure	Elevate critical infrastructure
Catalytic and pilot projects	Coordinated district projects

Proposed or Conceptual Adaptation Opportunity Projects

- *#10: Kapālama Canal revitalization project (TOD)*
- *#11: Iwilei/Kapālama Infrastructure Master Planning (TOD)*
- *#12: River Street & Nu'uanu Stream Corridor Promenades (TOD)*

4 Adaptation Area Overview: Sand Island + Harbor

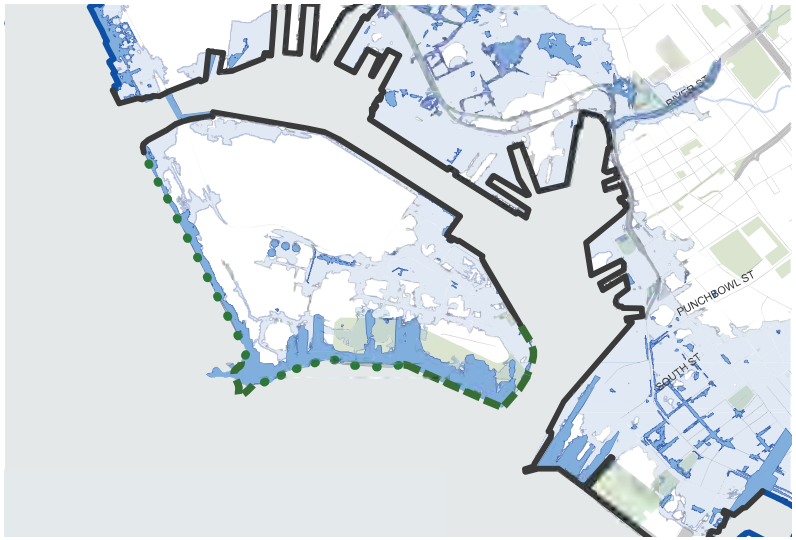


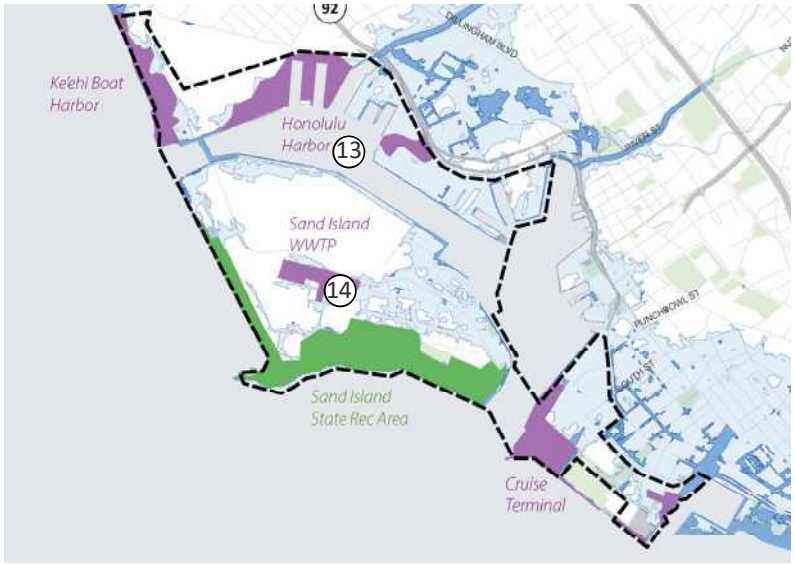
Current and Projected Impacts

- Chronic flooding of businesses, streets, and parking lots
- Chronic sewer and pipe overflows
- Storm surges into oceanfront and beach areas
- Interruptions to water/sewer operations

Priority Strategies

Honolulu Harbor is operated by the state Department of Transportation (HDOT). Sand Island is just offshore of the Honolulu Harbor and includes a large container terminal for the Harbor, the Sand Island Waste Water Treatment Plant (SIWWTP) and other industrial uses, a U.S. Coast Guard Base, and the Sand Island State Recreation Area. The Harbor is essential infrastructure for the state, and the SIWWTP is essential infrastructure for the region. The HDOT has completed its Honolulu Harbor 2050 Master Plan that includes planning considerations for 3.2' of SLR by 2060. Facilities at the SIWWTP operated by the City Department of Environmental Services are currently at 8' above sea level and new building foundations and equipment will be built higher as they are replaced.





Shoreline Strategies

Honolulu Harbor - Kaka'ako Makai

- Maintain, improve, and raise shoreline engineering (Harbor dredging)
- Elevate key harbor facilities

Recreation Area: Natural Shoreline/Beach

- Floodable park areas
- Ongoing beach/wetland management and restoration
- "Living" shoreline restoration efforts
- Mixed gray-green shoreline engineering
- ! or
- Managed retreat of natural shoreline

Backshore Strategies

SHORT-TERM STRATEGIES	LONGER-TERM OPTIONS
	Adapt in Place
Incorporate adaptation into critical infrastructure projects	Require adaptation for all developments
Begin elevating exposed infrastructure	Elevate critical infrastructure
Flood control projects	Coordinated/district floodwater projects

Proposed or Conceptual Adaptation Opportunity Projects

- *#13: Harbor Modernization (Honolulu Harbor Master Plan, HDOT)*
- *#14: Sand Island WWTP adaptation planning (ENV)*

5 Adaptation Area Overview: Ala Moana + Kaka'ako

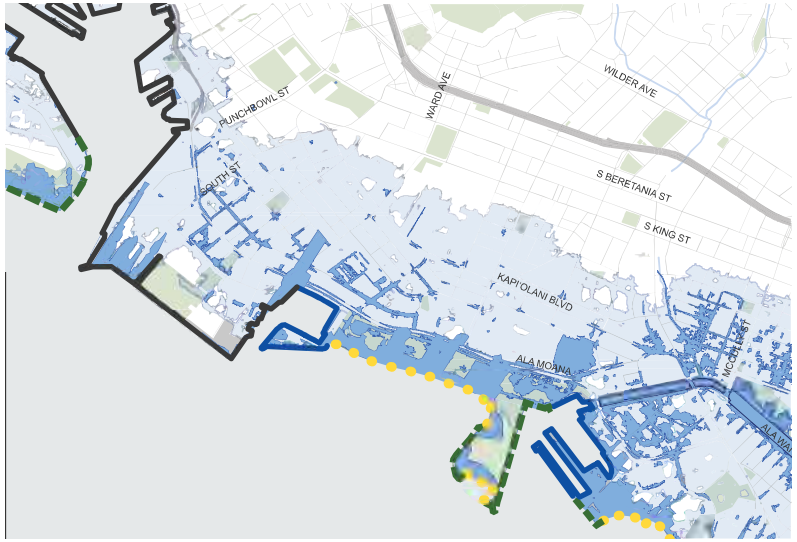


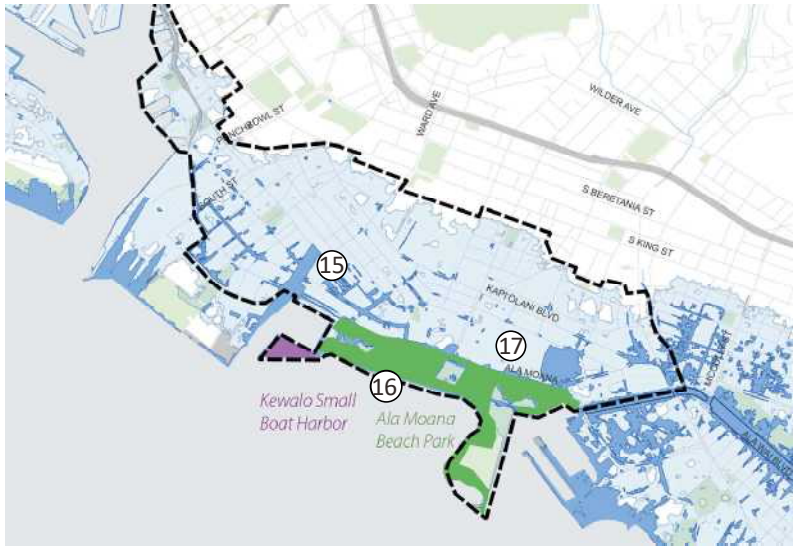
Current and Projected Impacts

- Chronic flooding of housing, streets, and ground floor businesses
- Sewer and pipe overflows during storms
- Groundwater intrusion beneath Mall

Priority Strategies

Ala Moana and Kaka'ako have been the fastest growing regions of the PUC in recent years with an ongoing construction boom. State efforts to redevelop Kaka'ako from a largely low-rise industrial area to a mixed-use urban neighborhood with many towers of high-rise housing is nearly complete. However, the area can expect increased passive flooding and inadequate drainage as sea levels rise. It will be important for development in these areas to proactively take steps such as those outlined in the City's Climate Adaptation Design Principles for Urban Development to ensure that this development is resilient to increased flooding and heat conditions, while still providing comfort and safety for residents and building users. In addition, regional drainage master planning that goes beyond strategies that can be achieved at the individual site scale should be pursued by the City, in partnership with major landowners.





Shoreline Strategies

Recreation Area: Engineered Beach

- Maintain, improve, and raise shoreline engineering/groins
- Ongoing beach restoration and management projects
- ! or
- Increase nature-based solutions
- Strategic retreat of portions of coastline

Recreation Area: Natural Shoreline/Beach

- Floodable park areas
- Soften hardened shoreline whenever feasible
- Mixed gray-green shoreline engineering and floodable areas

Small Boat Harbor

- Maintain, improve, and raise shoreline engineering
- Elevate key harbor facilities

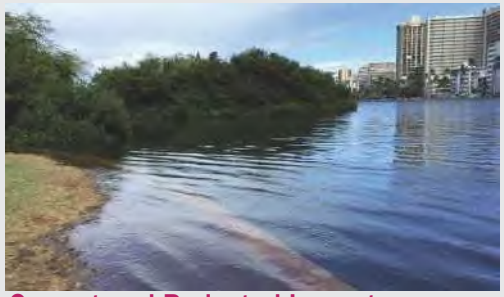
Backshore Strategies

SHORT-TERM STRATEGIES	LONGER-TERM OPTIONS
	Adapt in Place
Require adaptation for certain developments	**Require adaptation for all developments**
Begin elevating exposed infrastructure	**Elevate critical infrastructure**
Catalytic and pilot projects	**Coordinated/district floodwater projects**

Proposed or Conceptual Adaptation Opportunity Projects

- *#15: Ala Moana and Kaka'ako Drainage Plans or District (Storm Water Management Plan, DFM)*
- *#16: Ala Moana Park Improvements (DPR)*
- *#17: Implement Climate Adaptive Design Guidelines for Urban Areas (DPP)*

6 Adaptation Area Overview: McCully + Ala Wai

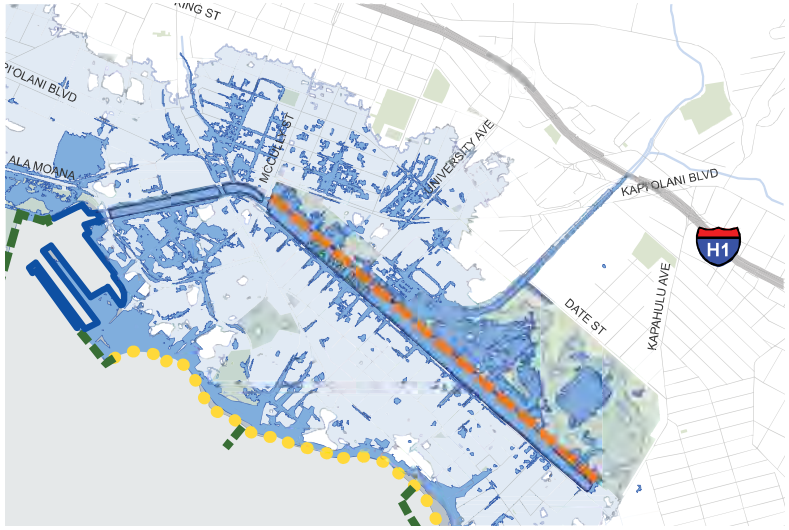


Current and Projected Impacts

- Occasional ground floor apartment flooding
- Groundwater intrusion
- Frequent ponding along streets
- Chronic flooding of golf course
- Stream overflows during storms

Priority Strategies

The backshore neighborhood of McCully sits mauka of the Ala Wai Canal with Waikīkī on the makai side. The Ala Wai Canal was completed in the 1920's, a project that drained and filled the wetlands and aquaculture areas of Waikīkī which were fed by streams from Mānoa, Pālolo, and Makiki. The canal enabled increased development in Waikīkī in the decades since, becoming the resort and apartment districts we see today. The Ala Wai Canal is regulated by the state and still requires periodic dredging to manage flooding. However, with increasing climate change the whole basin is increasingly vulnerable to inundation from both coastal flooding and flash flooding from the upper watershed. The U.S. Army Corps of Engineers is working with City and State agencies, elected leaders, and the community on a new design for a system of debris catchment and detention basins and a canal wall to manage these risks.



Shoreline Strategies

- Recreation Area: Hard Shoreline
- Recreation Area: Engineered Beach

- Floodable park areas
- Soften hardened shoreline whenever feasible
- Mixed gray-green shoreline engineering and floodable areas

**Note: See Waikīkī Adaptation Area (7) for Beach*



Backshore Strategies

SHORT-TERM STRATEGIES	LONGER-TERM OPTIONS
Encourage adaptation for all developments	Adapt in Place Require adaptation for all developments
Strengthen current zoning regulations	Greater development regulations/restrictions
Catalytic and pilot projects for flooding	Coordinated/district floodwater projects

Proposed or Conceptual Adaptation Opportunity Projects

- *#18: Mōʻiliʻili Community Resilience Hub (Resilience Strategy, OCCSR)*
- *#19: Upper stream detention/ green infrastructure for Ala Wai Flood Control (USACE)*
- *#20: Ala Wai tributary (various) flood control (PUC WMP, BWS)*
- *#21: Ala Wai Golf Course floodable park (various)*
- *#22: Army Corps Ala Wai Canal Flood Control Project: flood walls, dredging, pumps (USACE)*
- *#23: Pilot water reclamation plant (conceptual, BWS)*

7 Adaptation Area Overview: Waikīkī

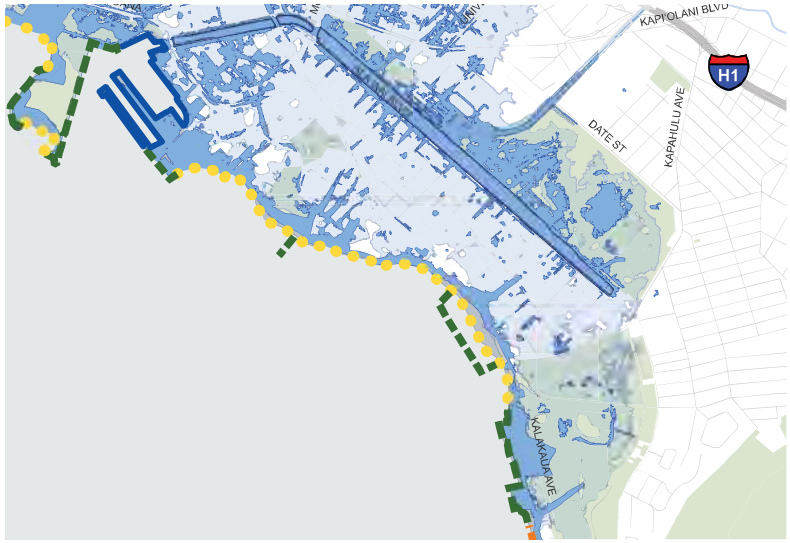


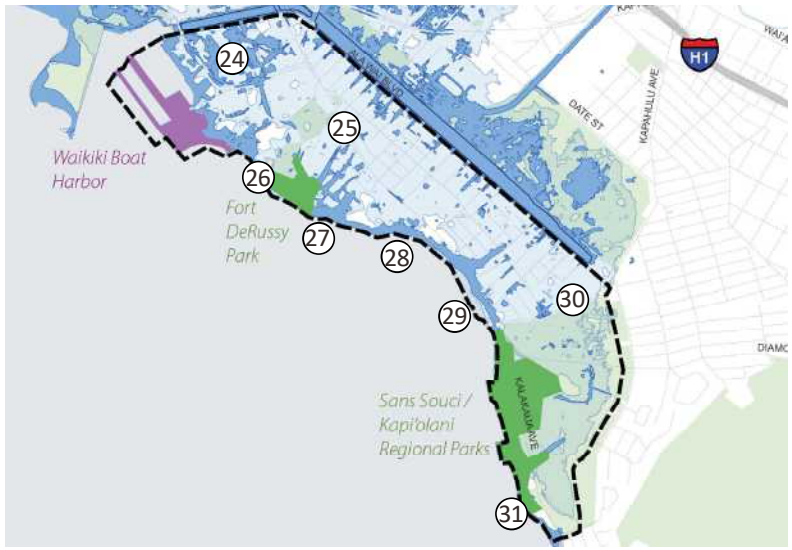
Current and Projected Impacts

- Chronic ground floor flooding
- Sewer/pipe overflows during storms
- Groundwater intrusion
- Over-topping of harbor breakwalls onto roads
- Constant erosion of beach sand

Priority Strategies

While beach nourishment programs continue indefinitely, pilot redevelopment projects for adaptation design for private projects should be allowed and encouraged in Waikīkī proper. As potentially the most impacted region of the PUC, a comprehensive adaptation plan for the entire area should be pursued with some urgency. The Ala Wai Golf Course is the only large open space next to the Ala Wai Canal, and as such is a precious resource for potential long-term adaptation solutions including wetland restoration or flood control functions. LID solutions, adaptive design requirements, and infrastructure hardening should be pursued for flooding control.





Shoreline Strategies

Recreation Area: Engineered Beach

- Maintain, improve, and raise shoreline engineering/groins
- Ongoing beach restoration and management projects

! or

- Increase nature-based solutions
- Strategic retreat of portions of coastline

Recreation Area: Natural Shoreline/Beach

- Floodable park areas
- Soften hardened shoreline whenever feasible
- Mixed gray-green shoreline engineering and floodable areas

Small Boat Harbor

- Maintain, improve, and raise shoreline engineering
- Elevate key harbor facilities

SHORT-TERM STRATEGIES	LONGER-TERM OPTIONS
Adapt in Place	
Encourage adaptation for all developments	Require adaptation for all developments
Begin elevating exposed infrastructure	Elevate critical infrastructure
Catalytic and pilot projects (floodwater and pumping)	Coordinated/district floodwater projects

Proposed or Conceptual Adaptation Opportunity Projects

- *#24: Hobron District drainage planning (Storm Water Management Plan, DFM)*
- *#25: Adapt Waikīkī 2050: Special Area Plan (DPP)*
- *#26: DeRussy Park adaptation effort (berming, cobble groin)*
- *#27: Royal Hawaiian Groin project (WBDSIDA/DLNR)*
- *#28: Nourishment/restoration Waikīkī Beach (WBDSIDA/DLNR)*
- *#29: Beach nourishment/ stabilization/ maintenance Kūhio Beach (WBSDIA/DLNR)*
- *#30: Waikīkī Cooling & Resilience Hub (Resilience Strategy, OCCSR)*
- *#31: Natatorium salt water pool conversion (DDC)*

8 Adaptation Area Overview: Kāhala



Current and Projected Impacts

- Chronic flooding of beach parks
- Chronic flooding of houses
- Infrastructure impacts
- Road facility impacts

Priority Strategies

The Kāhala shoreline is made up of natural sandy beaches backed by mostly low-density residential development. Like other beachfront locales around the island, shoreline hardening from residential development, mainly in the form of private sea walls, has prevented natural beach migration and worsened coastal erosion and beach loss. Clear policies and enforcement of Hawai'i's seawall laws should be applied, and the City must follow the State's lead on the issue. The City's interest is in advancing protections for beaches as a public trust, while also acting in the interest of safety, and while respecting property rights. However, it is clear that the mechanics of such a balance is still very much in flux and should be studied at the State level for a consistent framework.





Shoreline Strategies

Residential Mixed Beach/Hardened

- Small-scale beach restoration projects; no new impervious surfaces
- Conserve natural beach—restrict new shoreline hardening
- Maintain existing shoreline and soften where feasible
- Managed retreat of highly impacted residences

Natural Rocky Shoreline

No Adaptation Required

Backshore Strategies

SHORT-TERM STRATEGIES	LONG-TERM OPTIONS
Adapt in Place	Potential managed retreat
Protect and enhance public beaches	Greater development regulations/restrictions
	Catalytic stream projects

Known or Proposed Adaptation Projects

- *#32: Wai'alae stream bank stabilization*
- *#33: Small-scale restoration/nourishment and stream bank stabilization at Wai'alae Beach Park*

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Water Resources

Water Resources

GOAL WR-1:
Take a Comprehensive and Collaborative Approach to Water Management in the PUC.

Policy WR-1.1: Collaborate across water quality and water infrastructure management departments and agencies.

Policy WR-1.2: Work with State water and environmental agencies to protect and manage upper watersheds.

Policy WR-1.3: Address chronic storm flooding and ongoing drought issues through multiple solutions.

GOAL WR-2:
Protect Ground and Surface Water Quality from Polluting Land Uses.

Policy WR-2.1: Protect drinking water aquifers, and surface and nearshore waters from contamination by developed land uses, urban runoff, underground fuel storage, and illegal dumping.

Policy WR-2.2: Enhance the ecological function of streams.

Policy WR-.2.3: Effectively manage stormwater flows with appropriate on-site and area-wide best practices.

GOAL WR-3:
Maintain Resilient Water Infrastructure Systems.

Policy WR-3.1: Reduce vulnerability of the water infrastructure system to the effects of climate change.

Policy WR-3.2: Help mitigate drought and support water conservation projects and programs to manage demand.

Policy WR-3.3: Improve coordination of wastewater infrastructure and land use planning.

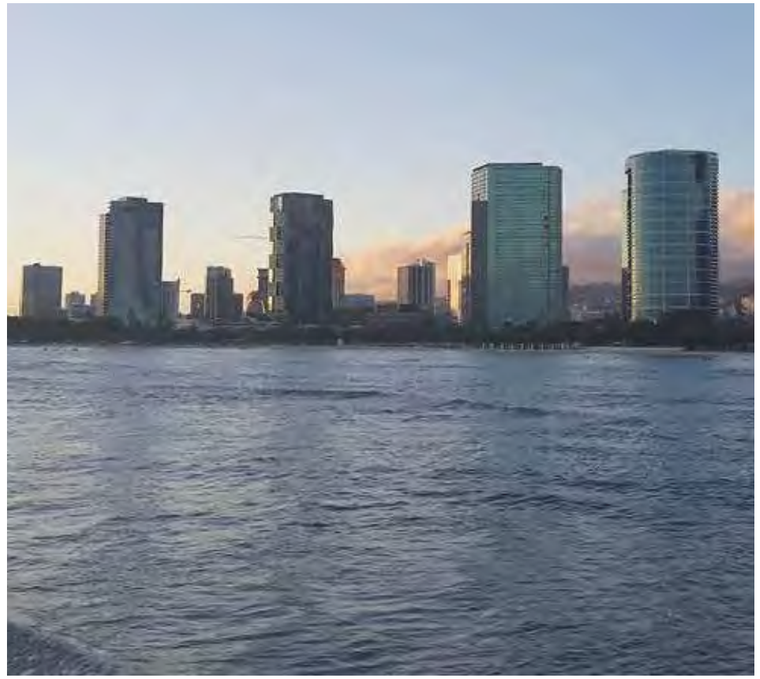
Key Outcomes

Honolulu, part of an island community, is unusual for a major city in that it draws the majority of its potable water supply from within City limits. This geographic isolation lends special meaning to the Honolulu Board of Water Supply (BWS) motto, Ka Wai Ola or “Water for Life”. It is critically important to protect our water supplies through effective conservation and management. We cannot pipe water from very long distances like most U.S. cities do. Potable wells within the PUC and around O‘ahu draw high-quality ground water from fresh water aquifers formed naturally within the island's basalt rock structure. The forested upper watersheds play an essential part in recharging these aquifers, and ensuring that Honolulu continues to have a clean and natural source of drinking water.

BWS and other City agencies responsible for water use and wet infrastructure have formalized a One Water framework to align planning for climate change related impacts. These include increased drought, stronger storm flooding, and sea level rise. Broadly, a One Water framework or approach sees water as a precious resource in all phases of the water cycle, and takes a holistic view of its management. It may integrate conservation, treatment, infrastructure (potable, wastewater, and flood control) and green infrastructure assets as whole to streamline systems and produce environmental benefits.

The policies in this Plan support and promote a One Water approach and reflect the need for increased agency collaboration to meet future challenges. A continued policy focus on forest and watershed health, stormwater management, and infrastructure improvements are also featured to help ensure that Honolulu's water supply remains clean and viable into the future.





PROJECT HIGHLIGHT: THE IWILEI/KAPALAMA TRANSIT-ORIENTED DEVELOPMENT (TOD) INFRASTRUCTURE NEEDS ASSESSMENT

The City and County of Honolulu has conducted the Iwilei/Kapālama TOD Infrastructure Needs Assessment to identify and advance improvements needed to support new development around the future Iwilei and Kapālama rail transit stations in the heart of the City Center segment of the Honolulu Rail Project. As envisioned in the Downtown and Kalihi Neighborhood TOD Plans, the area will grow into an urban mixed-use neighborhood with housing, jobs, shopping, and services within easy walking distance of the rail stations. This transformation will require improvement of current infrastructure to support more transit-oriented land uses and higher densities.

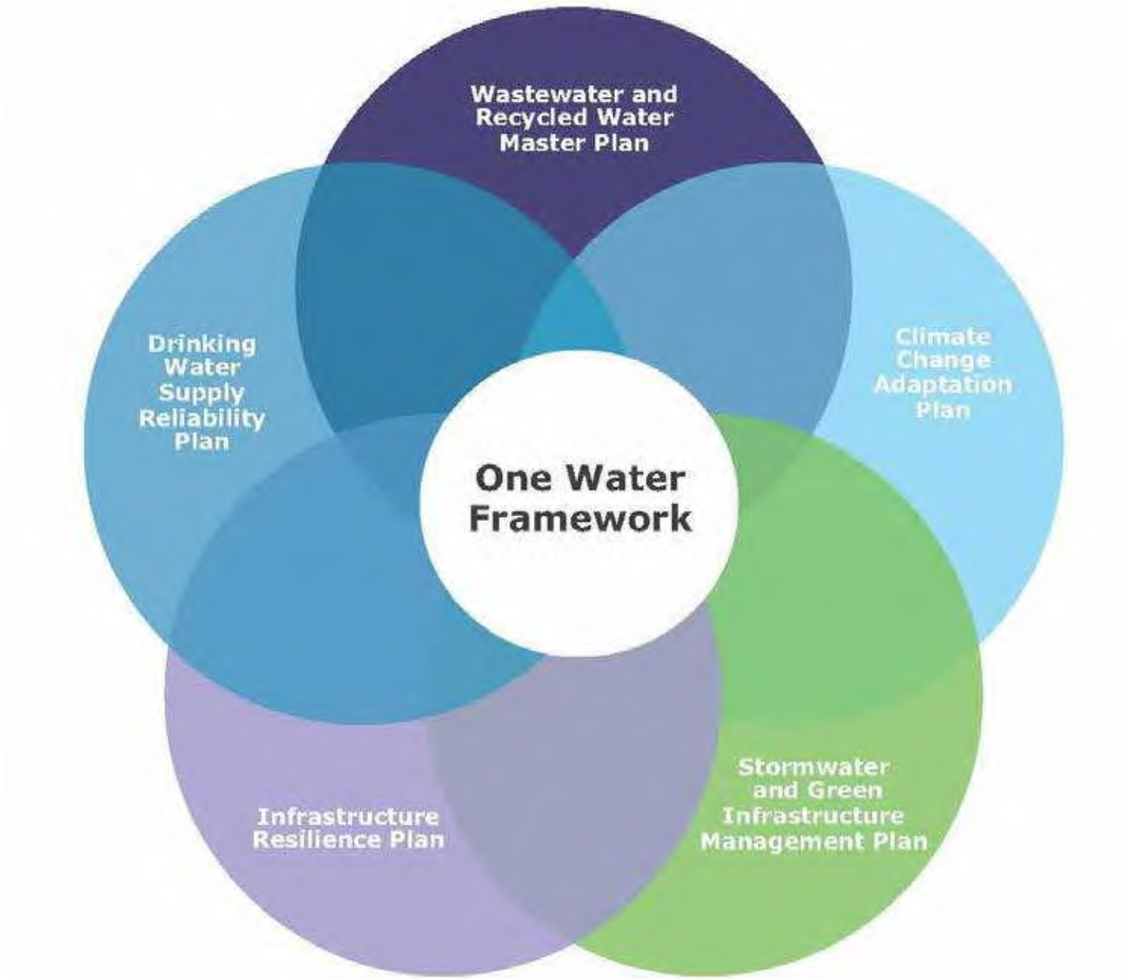
Setting the Stage

Potable Water

Hawai‘i has an integrated resource model for managing water supplies through partnership between State and City agencies. O‘ahu’s freshwater municipal resources and management is carried out by the semi-autonomous Board of Water Supply (BWS) with oversight from the State Commission on Water Resource Management (CWRM). The six key functions of BWS are to sustain, capture, treat, move, store, and deliver, safe, dependable, and affordable water to O‘ahu’s residents now and into the future. Most of the PUC’s water supply is provided by the Honolulu aquifer for areas to the east, and the Pearl Harbor aquifer for areas to the west.

As required by the State Water Code, the BWS prepares Watershed Management Plans (WMPs) that are consistent with state provisions and in coordination with the policies and projections of the Department of Planning and Permitting’s eight land use planning regions. As of 2023 at this writing, the PUC WMP, the seventh of the eight plans, is in draft development. The WMPs take a holistic look at water resources and infrastructure, supply, demand, and watershed health. The BWS’s stated goals for the WMPs are to: promote sustainable watersheds; protect and enhance water quality and quantity; protect Native Hawaiian rights and traditional customary practices; facilitate public participation, education, and project implementation; and meet future water demands at reasonable costs.

Based on historical trends and future implementation plans for water conservation programs, the BWS projects that future per capita demand rates in the PUC will continue to go down as conservation programs expand. However, future scenario planning must also include population fluctuations and the effects of climate change. In addition to the BWS delivery system, water in the PUC is distributed by several smaller systems, including federal facilities, and owners of individual wells.



Source: One Water Framework Plan, Honolulu Board of Water Supply.

Drainage and Stormwater

The PUC has 17 watersheds extending from Lēʻahi Crater (Diamond Head) in the east, to Kahe Point in the west. The majority of the PUC's watersheds drain via natural drainageways and streams into Māmala Bay, with the most eastern end of the PUC draining into Maunalua Bay. The three major western PUC drainageways that flow into Pearl Harbor's East Loch are Waiawa Stream, Waimalu Stream, and Hālawa Stream. Central PUC sections are drained by the Moanalua and Kalihi Streams that flow into Keʻehi Lagoon, and by the Kapālama Canal and Nuʻuanu Stream that flow into Honolulu Harbor. To the east, the Mānoa, Pālolo, and Makiki Streams drain into Māmala Bay via the Ala Wai Canal; The Waiʻalae Nui stream watershed drains in part across the eastern edge of the PUC into Maunalua Bay, as does the non-perennial Kāhala stream.

Stormwater infrastructure in the PUC consists of various Federal, State, City, and private systems. Many lower reaches of the major streams in the PUC have been channelized for the quick transport and disposal of runoff from urban areas. In general, however, stormwater infrastructure is tied to individual projects and is constructed by developers according to City standards. The City's Stormwater Quality Division housed in the Department of Facilities Maintenance (DFM) develops requirements for the management of on-site stormwater, and provides resources on Low Impact Development (LID) best practices to manage stormwater, reduce flooding and erosion, and reduce polluted runoff. The DFM is overseeing a process exploring the creation of a stormwater utility for Oʻahu to further its management at the municipal level (see stormwaterutilityoahu.org for further details), and is also leading a stormwater master planning effort.

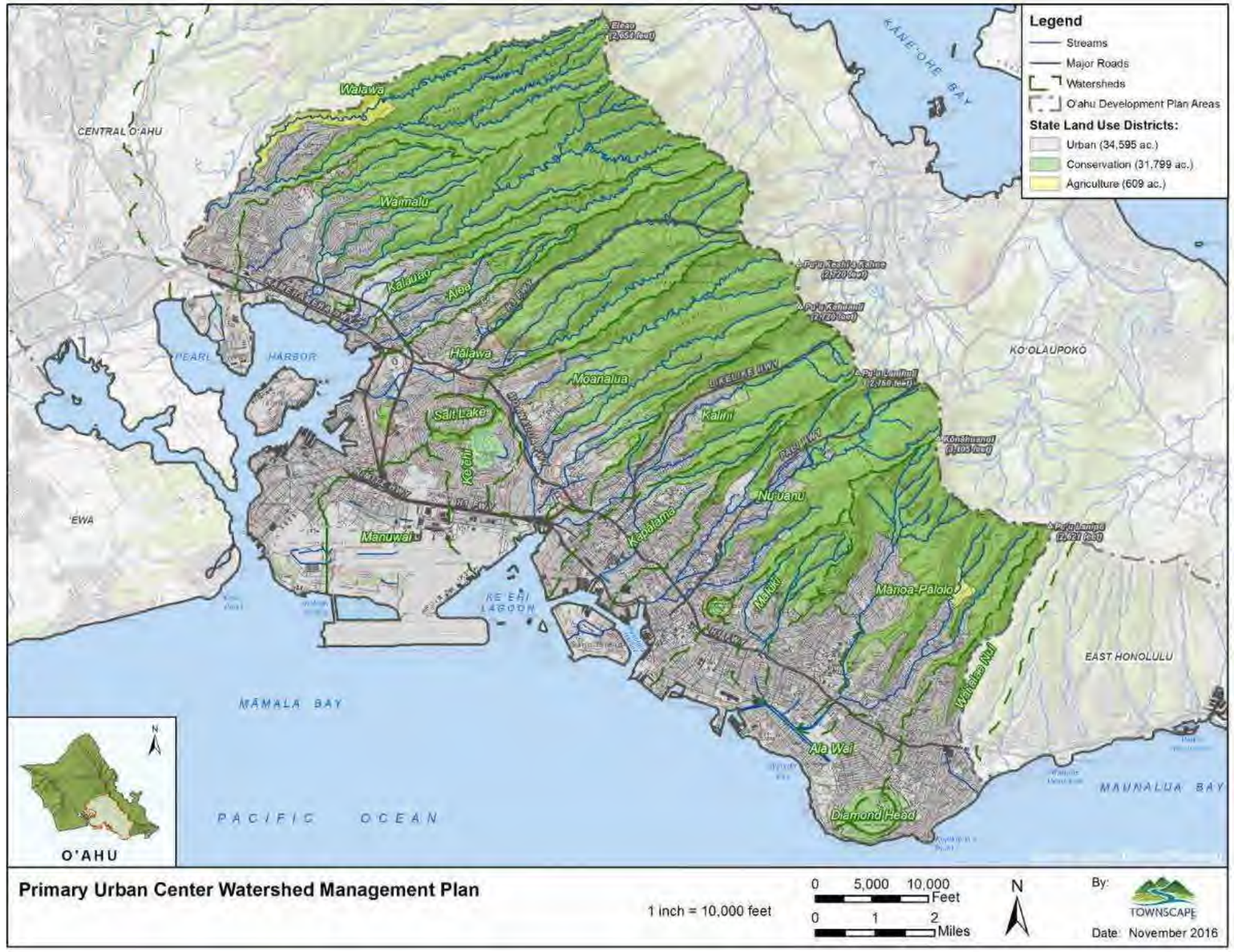


Diagram of the PUC's watersheds (Primary Urban Center Watershed Management Plan, Honolulu Board of Water Supply).

STORM WATER MANAGEMENT PROGRAM PLAN

A National Pollutant Discharge Elimination System (NPDES) permit is required for the City and County of Honolulu (City) to discharge storm water into receiving State water bodies. This requirement is regulated by the Clean Water Act (CWA) (33 United States Code [U.S.C.] 125 1 et. seq.; the "Act"); Hawaii Revised Statutes (HRS), Chapter 342D; and Hawaii Administrative Rules, Department of Health (DOH), State of Hawaii, Chapters 11-54 and 11-55, as amended.

The Storm Water Management Program Plan (SWMPP) is updated and modified per the requirements of the City's Municipal Separate Storm Sewer System (MS4) NPDES Permit No. HI S000002 every five years.

The City's SWMPP is designed to address the requirements of the Permit and reduce, to the Maximum Extent Practicable (MEP), the discharge of pollutants to and from its MS4 to protect water quality and to satisfy the appropriate water quality requirements of the CWA.

The SWMPP provides information for each of the following program components:

- **Public Education and Outreach**
- **Illicit Discharge Detection and Elimination**
- **Construction Site Runoff Control**
- **Post-Construction Storm Water Management in New Development and Redevelopment**
- **Pollution Prevention/ Good Housekeeping**
- **Industrial and Commercial Activities Discharge Management Program**
- **City Industrial and Other Facilities**
- **Monitoring Requirements**

Wastewater

The PUC is served by the City's Māmala Bay Sewerage District and administered by the Department of Environmental Services (ENV). The Māmala Bay Sewerage District is divided into the East Māmala Bay and West Māmala Bay subdistricts. Most of the PUC, from Kāhala to Hālawa, is within the East Māmala Bay service area collected by the Sand Island Wastewater Treatment Plant (WWTP). The remainder of the PUC, Hālawa to Pearl City, is within the West Māmala Bay service area collected at the Honouliuli WWTP in Ewa. Also within the PUC is the Joint Base Pearl Harbor-Hickam (U.S. Navy) Fort Kamehameha Wastewater Treatment Facility.

Capacity of the existing wastewater system is evaluated using the City's InfoWorks flow model. InfoWorks analyzes the hydraulic performance of the existing system under a range of storm conditions using updated flow data. Results from InfoWorks are then used to predict locations of capacity-related overflows or capacity deficiencies in the existing wastewater system.

A general assessment of the condition of the major trunk lines in the existing system identified several key areas in the PUC where capacity issues exist. These areas include portions of Waikīkī, McCully-Mōʻiliʻili, Kakaʻako, Kapālama, ʻIwilei, ʻAiea, and Pearl City. However, it should be noted that the models are continually in flux as projects continue to come on-and-offline, impacting localized systems.

Infrastructure to Support Growth and Development

Infrastructure systems (water, wastewater, and drainage) play a key role, supporting essential public services, urban development, and economic growth in the PUC. The community relies on the steady service, cost-effectiveness, and capacity of these systems to meet their daily needs. Continual maintenance is needed to provide a highly functioning system while upgrades must consistently be performed to support areas of growth.

Areas that have seen major development in recent years include the TOD station areas surrounding the rail corridor, the Kapiʻolani corridor, Kakaʻako and Waikīkī. With the goals of limiting disruption and burden on the user, finding the right balance to support both areas of growth and stability with public projects can often be a challenge that must be managed through effective land use planning and functional planning working together. Publicly led projects from the ENV should be employed to correct system deficiencies that cannot be handled by individual project developers and in keeping with overall facilities planning goals.

How Does the Development Plan Get Us There?

Expand a collaborative "One Water" framework.
A One Water framework is helping the PUC and O'ahu prepare to manage climate change and SLR. Building new cross-agency protocols capture the benefits of planning for flooding solutions, infrastructure resilience, and environmental quality. A One Water approach not only values water as a resource but also provides a platform for building agency partnerships on projects with common goals, and communicating and engaging with the community.

Effectively manage stormwater for watershed health.
Watersheds that contain many paved surfaces and hardened stream channels- like most urban environments- can worsen flooding and water pollution issues over time. The streams of the PUC area have been impacted by urbanization and the degrading of mauka forested lands. Moreover, O'ahu's lack of stream setbacks or formal buffers can complicate stream maintenance and management by resulting in structures that are too close to sensitive and floodable areas. Agency and public collaboration is encouraged to find a path forward for new development and redevelopment that improves stream health and natural function. Community groups, individuals, and not-for-profits should be encouraged and supported to conserve, care for, and steward the environment through programs and partnerships with relevant agencies. Continuing to build upon the City's improved project guidelines and standards for managing stormwater is an area of opportunity, especially in thinking beyond the individual property scale for City initiated projects. Another key goal that will take wide coordination and partnership is the conversion of existing cesspools and septic systems in the PUC to better protect groundwater quality.

Ongoing coordination with land use policies.
Plan policies include a longstanding Urban Growth Boundary that supports watershed and environmental health by firmly reducing urban sprawl to avoid disturbance to preservation areas. Meanwhile, it is also important that directed land use policies like TOD be coordinated with the capacities of water and wastewater infrastructure throughout, to support those areas planned for higher densities. Equally important is the ongoing maintenance, function, and resilience of water systems in the many PUC areas not expected to see much growth during the Plan horizon but which may need upgrades to aging infrastructure.

Related Policies

Policy GD-3.4: Improve infrastructure capacity planning for areas of low to moderate growth to meet demand for ADUs and modest infill development.

Policy GD-4.2: Decrease building and structure encroachments on streams and wetlands (except for those essential to flooding control).

Policy PL-2.1: Encourage sustainable building and site design practices that respond to the tropical climate.

Policy PPOS-1.5: Improve the ecological function of parks.

Policy PPOS-2.2: Use green streets to connect major recreation and public areas, provide missing green space, and beautify viewshed corridors.

Policy MC-2.4: Adapt the roadway network to address chronic flooding and sea level rise.

Policy SLR 3.1: Support collaborative resilience planning for new and existing infrastructure.

Policy SLR 3.2: Pursue a district-scale fee structure or other dedicated funding mechanisms for adaptation projects.

Policy SLR 1.5: Update shoreline regulations and development policies to reflect coastal hazard impacts and best available guidance on an ongoing basis.

Conservation and Watersheds

- City & County Preservation Land
- State Managed Land
- Major Urban Parks and Open Spaces
- Ahupua'a Boundaries
- Wetlands
- Perennial Streams with Buffer

Constraints

(waste disposal facilities)

- Pass/No Pass Line
- 100-Year FEMA Flood Zone (A, AE, AO, AH)
- Coastal high hazard /Storm Surge areas (VE)

Chapter 9. Water Resources Indicator:

Completion of a One Water Master Plan

Why This Indicator? A One Water Master Plan will allow City agencies to adapt infrastructure in a coordinated fashion in response to climate driven impacts. The plan will benefit residents and businesses by identifying critical needs and priorities to improve future resilience and protection of fresh water resources.

Figure 9.1: Water Resources Diagram, West

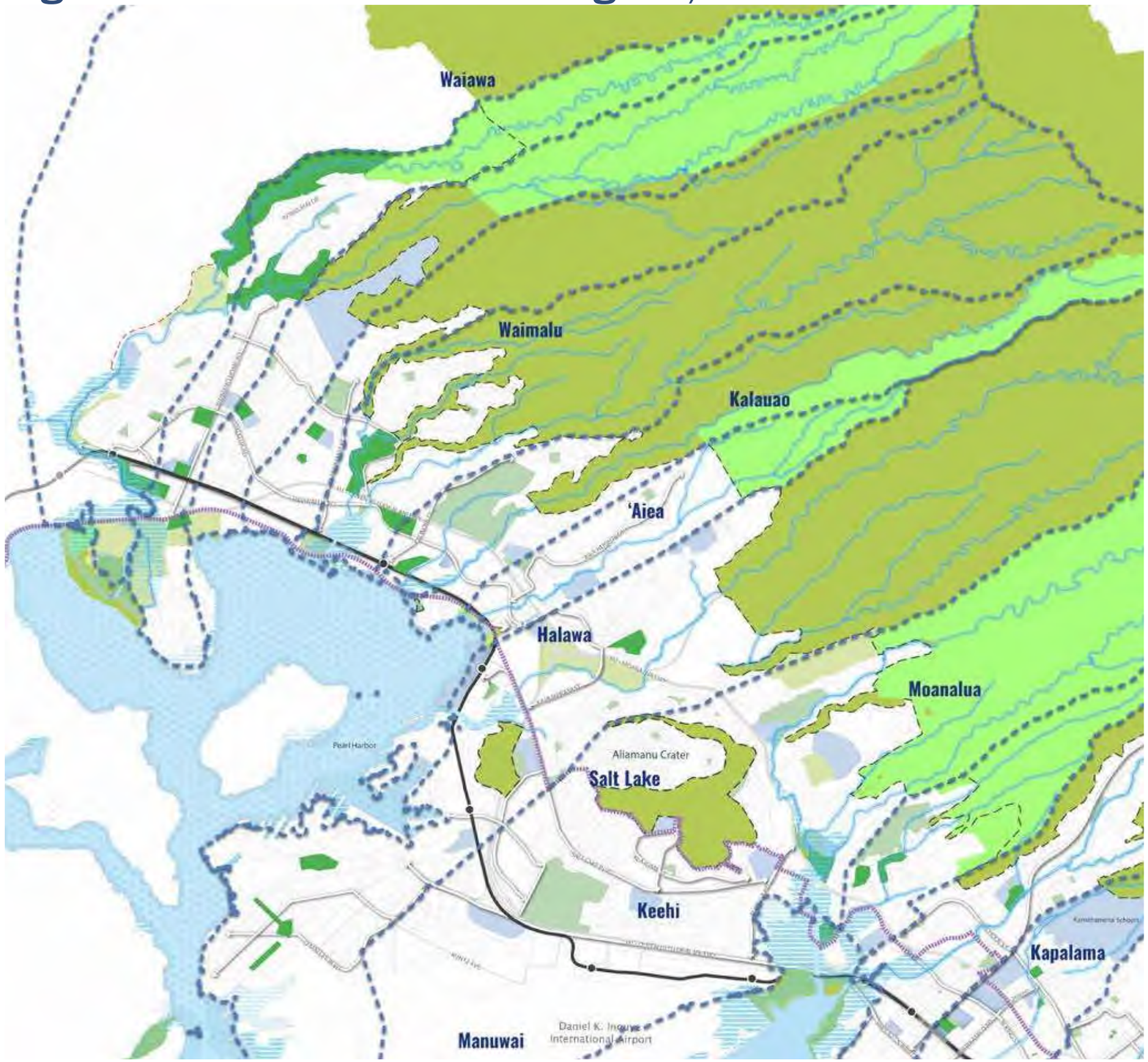
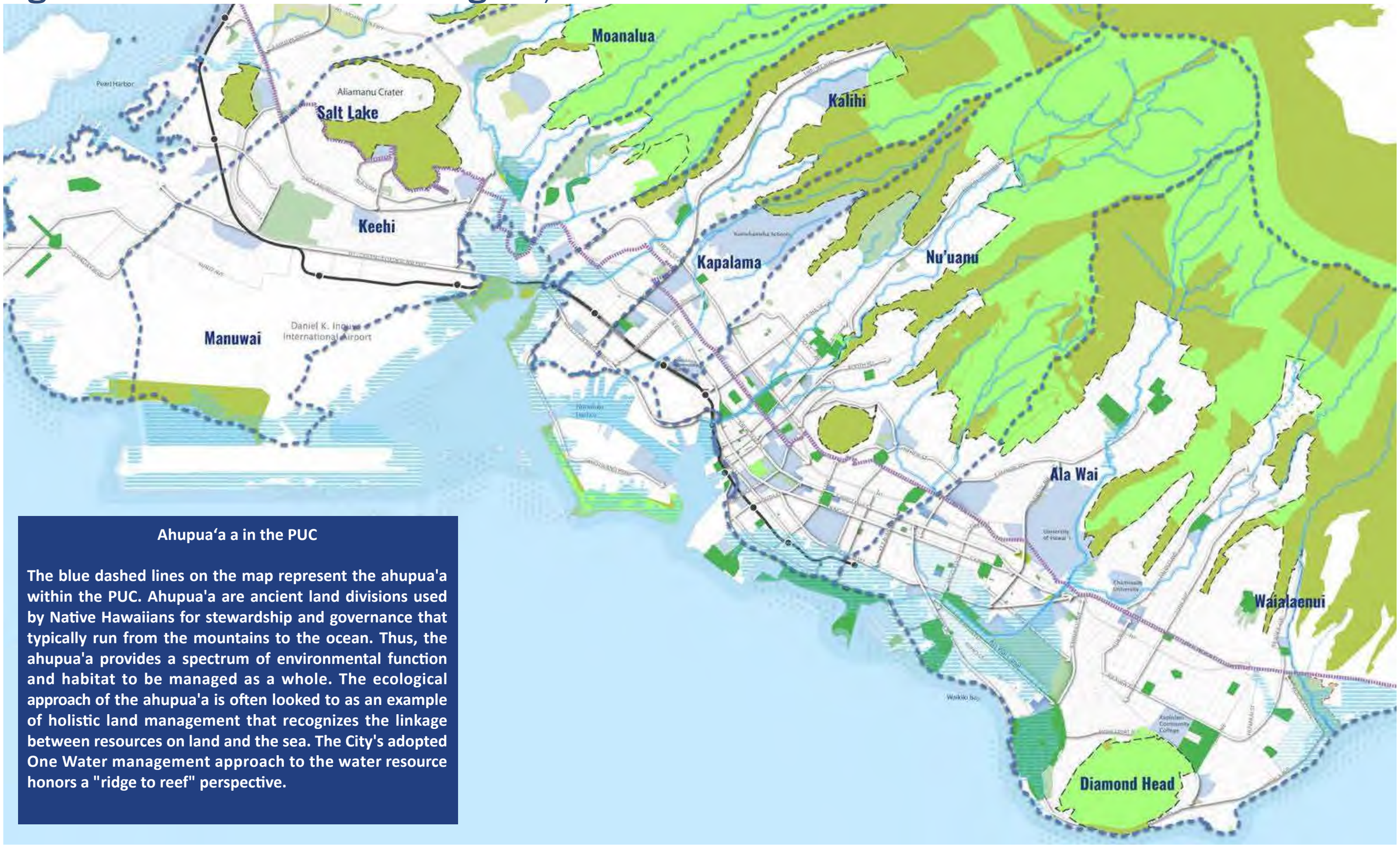


Figure 9.1: Water Resources Diagram, East



Ahupua‘a a in the PUC

The blue dashed lines on the map represent the ahupua'a within the PUC. Ahupua'a are ancient land divisions used by Native Hawaiians for stewardship and governance that typically run from the mountains to the ocean. Thus, the ahupua'a provides a spectrum of environmental function and habitat to be managed as a whole. The ecological approach of the ahupua'a is often looked to as an example of holistic land management that recognizes the linkage between resources on land and the sea. The City's adopted One Water management approach to the water resource honors a "ridge to reef" perspective.

Goal WR-1: Take a Comprehensive and Collaborative Approach to Water Management in the PUC.

Policy WR-1.1: Collaborate across water quality and water infrastructure management departments and agencies.

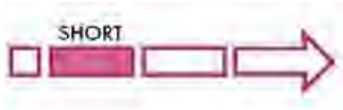
Adequate infrastructure systems provide a critical health function and are essential to everyday life, economic development, and growth. We continually rely on water, wastewater, and drainage systems to meet our basic human needs even as new communities are developed and infrastructure systems near the end of their serviceable life. Given the challenges that arise with public-budget constraints and long timelines for major projects, focus should not only be on constructing new assets, but also on improving the efficiency and longevity of existing infrastructure by optimizing operations and maintenance and planning for climate resilience.

Priority Actions:

Implement a One Water framework. Adopt a guiding One Water plan to identify and phase projects to effectively manage climate resilience actions for water resources.

Support One Water pilot projects. Proactively coordinate with One Water partners to realize pilot watershed restoration, water quality improvement, and other water management projects in the PUC and beyond. Promote a collaborative approach to water infrastructure delivery.

Timeline





Partners:

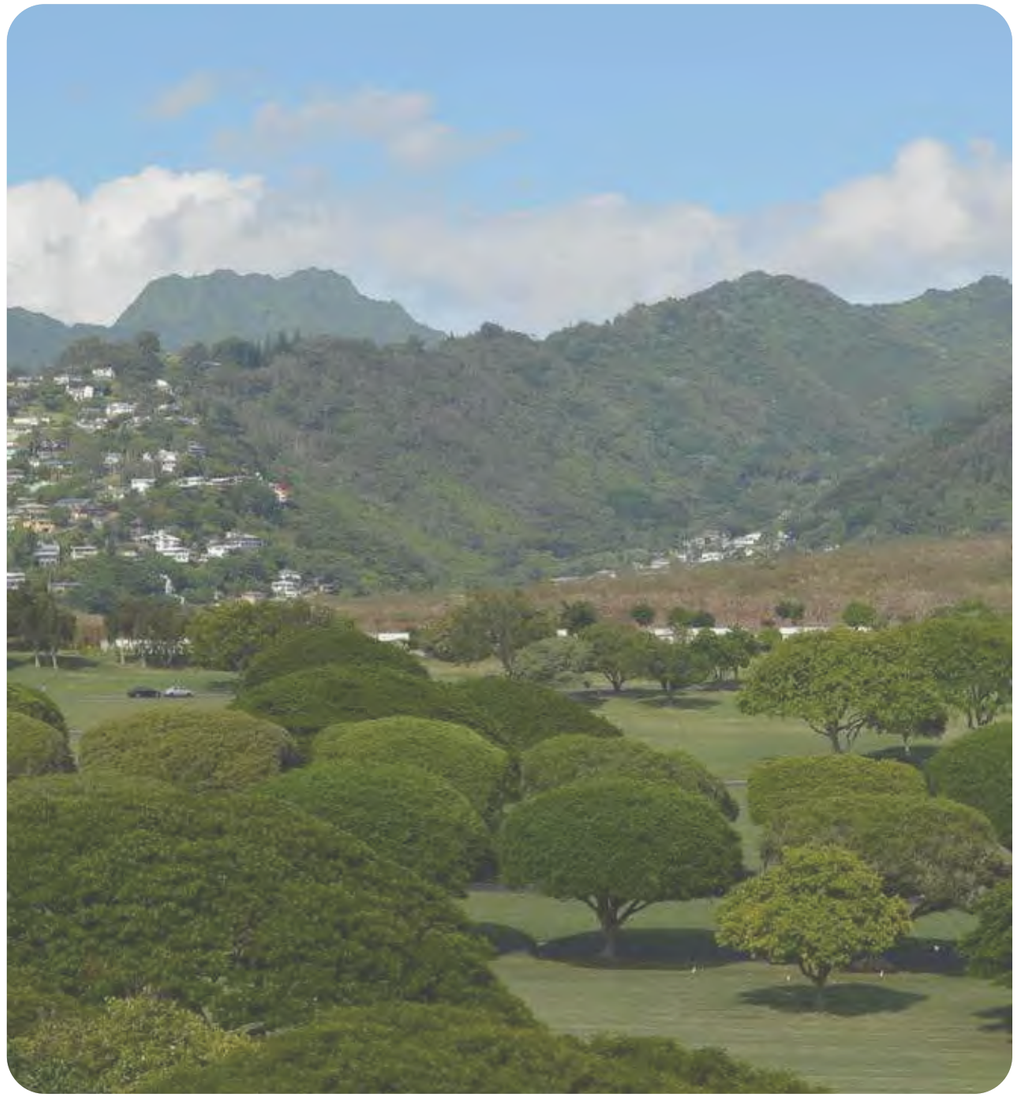
- OCCSR
- BWS
- DDC
- DTS
- DFM
- DES
- DPP
- DPR

Partners:

- OCCSR
- BWS
- DDC
- DTS
- DFM
- DES
- DPP
- DPR

Other Actions:

- *Align City projects with One Water principles and develop checklists and procedures to incorporate One Water goals into capital budgeting and work flows.*
- *Reduce demand on existing water infrastructure systems through integrated systems*



Looking mauka up the Moanalua watershed.

Goal WR-1: Take a Comprehensive and Collaborative Approach to Water Management in the PUC.

Policy WR-1.2: Work with state water and environmental agencies to protect and manage upper watersheds.

Conservation lands play an important function in the hydrological cycle and in creating sustainable watersheds in the PUC. The forest canopy "catches" precipitation and fog drip, allowing water to percolate into the ground and feed the island's drinking water aquifers and stream ecosystems. A healthy forest enhances ground water recharge. Increased coordinated management and restoration efforts are needed to address the degraded condition of most of the forest lands in the PUC area, restore and enhance stream health, and support the health of the whole watershed. Working to implement conservation measures is essential to protecting and managing these mauka forests and the PUC's watersheds.

Conservation plans. Support the creation of Conservation Plans for mauka lands controlled by the City (i.e., Clean Water and Natural Land Fund projects), and identify agency and community partners for watershed management projects and programs.

Timeline



Partners:

- DLM
- BWS
- DLNR
- Community partners

Restoration projects. Support catalytic forest, stream, and shoreline restoration projects identified in the Primary Urban Center Watershed Management Plan (PUC WMP), including planning and permitting of flood retention basins and increasing resilience to the impacts of drought.



Partners:

- DLNR
- BWS
- DFM
- Community partners



The health of upper forests is important for water quality.

Other Actions:

- *Partner with State DLNR to provide technical support and funding assistance to entities engaged in forest restoration projects and programs within the PUC.*

Goal WR-1: Take a Comprehensive and Collaborative Approach to Water Management in the PUC.

Policy WR-1.3: Address chronic storm flooding and ongoing drought issues through multiple solutions.

The City requires and continues to pursue best practices for capturing stormwater on individual sites. However, runoff and storm flooding (such as on street right-of-ways) can still happen when both individual and municipal drainage systems are overwhelmed during storm events. In addition, escalating climate change effects can include both drought *and* more intense storm events, both of which can exacerbate the potential for flooding. Accordingly, site-level stormwater management and the existing municipal drainage system should be supplemented opportunistically with a variety of solutions to infiltrate, treat, or capture stormwater. Such interventions can increase water use efficiency, reduce nuisance flooding, and avoid polluting runoff. In a highly urbanized area like the PUC, hybrid solutions which integrate nature-based and traditional engineering approaches can be effective at meeting these goals. These may include municipal non-potable reuse systems, increasing green streets and street trees to capture and infiltrate stormwater, or incorporating constructed LID drainage solutions into parks and open spaces.

Priority Actions:

Storm water utility user fee. Implement storm water drainage system user fees to promote holistic stormwater management and flooding reduction. Fees can be used towards maintenance and upgrades of the drainage system.

Timeline



Partners:

- DFM
- DPP
- BWS

Regional drainage planning. Encourage preparation of regional drainage plans in areas at risk for chronic flooding (through combined efforts of the City, property owners, and residents). Proactively plan for drainage solutions at the block and district scales. Candidates for public-led plans include Waikīkī, McCully, and Māpunapuna (and building off the Iwilei/Kapālama Infrastructure Master Plan precedent).



Partners:

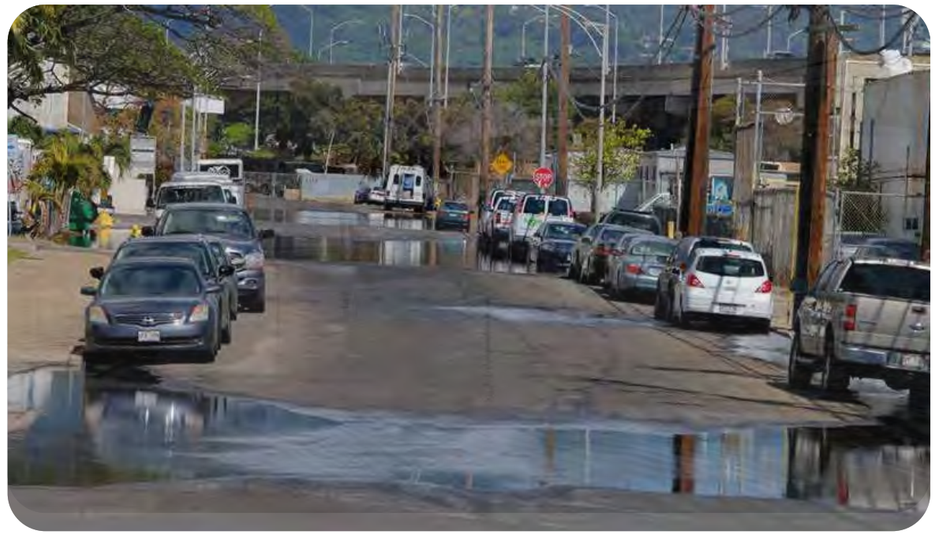
- DFM
- ENV
- DDC
- OCCSR
- DPP
- DPR
- DTS
- BWS

Other Actions:

- *Strategically utilize urban green space for flood mitigation. Identify existing parks, open spaces, or golf courses that can support flood mitigation or stormwater capture for reuse.*
- *Prioritize flood prone areas for acquiring new parklands and incorporating constructed solutions.*



A rain garden treats runoff in a commercial parking lot (Source: Smart Trees Pacific).



Some streets experience chronic flooding (Source: SOEST King Tides Project).

Goal WR-2: Protect Ground and Surface Water Quality from Polluting Land Uses.

Policy WR-2.1: Protect drinking water aquifers, and surface and nearshore waters from contamination by developed land uses, urban runoff, underground fuel storage, and illegal dumping.

Ground water quality in Hawai'i is generally very good, but contamination from agricultural, underground fuel storage and distribution, and urban activities can occur. Pesticides, herbicides, and other chemicals associated with agricultural run-off are common ground water pollutants. Contamination could also result from on-site sewage disposal systems, such as cesspools, and from other human activities, such as illegal dumping. Water quality sampling data collected from PUC wells have detected several different contaminants in recent years, and in all cases the levels of contaminants detected are fully compliant with all applicable regulations and standards. However, maintaining the quality of the PUC's surface water and water resources requires continued proactive efforts to reduce polluted runoff, including sediments, nutrients, pesticides, trash, and other pollutants.

Priority Actions:

Urban growth boundary. Continue to limit development from encroaching beyond the established Urban Growth Boundary.

Timeline: ONGOING

Partners:
- DPP

Reduction in cesspools and septic systems. Incentivize and prioritize conversion of septic systems within the SLR-XA to the City's municipal water system. Prohibit new septic systems within the SLR-XA. Ensure that federal law is followed regarding required connections to municipal wastewater systems when properties are redeveloped or improved.

ONGOING

Partners:
- BWS
- State DOH
- ENV
- DPP

Military impacts. Monitor the safe defueling of the underground fuel storage tanks at Red Hill and press the Navy-operated system to eliminate further contamination risks. Support the BWS in alternate source planning as needed.

ONGOING

Partners:
- BWS
- DOH
- CWRM
- All public agenices
- Community partners

Other Actions:

- *Proactively enforce post-construction best management practices (BMPs) for sediments, nutrients, pesticides or other toxic chemicals and trash.*
- *Support provisions for the health of Maunalua Bay (a portion of the Wai'alae Nui watershed is in the PUC) as called for in the East Honolulu Sustainable Communities Plan.*



Volunteers create a chalk mural for water awareness near the Ala Wai canal (Source: DFM).



Adopt-a-Stream clean-up in Mānoa (Source: DFM).

Goal WR-2: Protect Ground and Surface Water Quality from Polluting Land Uses.

Policy WR-2.2: Enhance the ecological function of streams.

The PUC has nearly a dozen perennial streams. However, many of these have been severely impacted by urbanization, diminishing their ecological ability to provide natural drainage for adjacent areas and viable habitats for native plants and animals. Degradation is a major threat to water quality, instream habitat, and overall stream health. While the City's Storm Water Quality Branch has an "Adopt-A-Stream" program where community members can steward a designated stretch, the majority of past work has focused on limited stream cleanups and not more permanent solutions. A broad range of stream restoration initiatives are needed, such as removal of invasive species, adding outplanting with native plants, debris clearing, and installing erosion control devices to address eroding stream banks.

Priority Actions:

Establish stream buffer zones. Establish setbacks for all perennial streams to prevent the encroachment of buildings and structures within a buffer zone, other than for drainage, flood control, recreation, or maintenance purposes (applicable to new development and redevelopment/renovations).

Timeline



Partners:

- DPP
- DFM
- DLNR

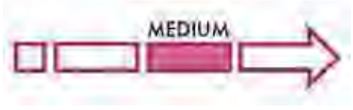
Complete needed maintenance of streams. Develop strategies to complete needed maintenance of waterways and channels to keep them clear of large debris and sediment build-up.



Partners:

- Community partners
- DFM
- Private owners
- DLNR

Protect freshwater resources. Maintain healthy aquifer levels and support the establishment of instream flow standards for ecological maintenance and the protection of freshwater and marine habitats.



Partners:

- CWRM
- BWS
- DLNR
- DOH



Example of a stream treatment in Kailua to improve infiltration and riparian habitat.

Other Actions:

- *Support the ENV's "Adopt-a-Stream" program to provide regularly scheduled community-wide stream maintenance.*

Goal WR-2: Protect Ground and Surface Water Quality from Polluting Land Uses.

Policy WR-2.3: Effectively manage stormwater flows with appropriate on-site and area-wide best practices.

The PUC experiences local areas of flooding during significant storm events due in part to stormwater runoff exceeding the capacity of the existing drainage system. Runoff from urban development can also degrade surface water quality. Effectively managing stormwater flows can help to mitigate some of these flooding and water quality impacts. Capturing and infiltrating the stormwater on-site with LID measures through development requirements and voluntary best-practice measures is one important strategy pursued by the City. Larger, public stormwater capture projects can also include other objectives such as providing treated recycled water for non-potable uses (irrigation for instance) or LID strategies to help improve street drainage and infiltration in floodable areas.

Priority Actions:

City Green Infrastructure projects. Include LID/green infrastructure in new City projects or redevelopment of existing publicly-owned buildings/properties. Follow appropriate measures where polluted runoff or roadway flooding is a concern.

Timeline



Partners:

- DTS
- DDC
- DFM
- DPP

Private Green Infrastructure projects. Include LID/green infrastructure in new private development projects or redevelopment of existing buildings. Follow appropriate measures where polluted runoff or roadway flooding is a concern.

Timeline



Partners:

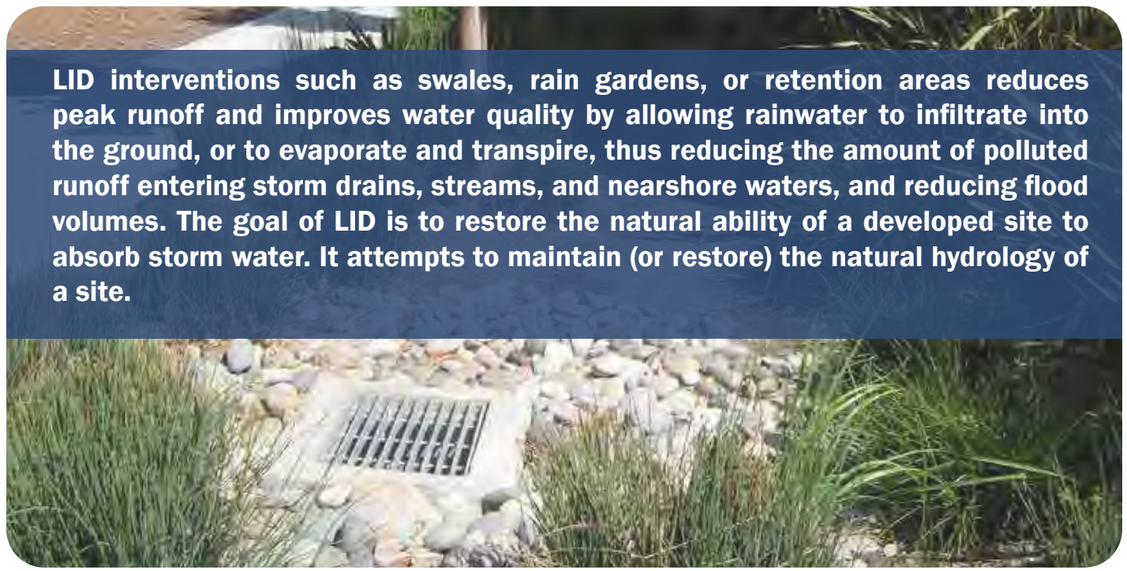
- DFM
- DTS
- DPP
- Private partners

Other Actions:

- *Build community capacity to address stormwater management issues in residents' own neighborhoods or commercial districts through shared systems where desired and feasible.*
- *Consider regional drainage districts in future refinements of system user fees and functional planning.*



Top and bottom: Examples of LID in the right-of-way.



LID interventions such as swales, rain gardens, or retention areas reduces peak runoff and improves water quality by allowing rainwater to infiltrate into the ground, or to evaporate and transpire, thus reducing the amount of polluted runoff entering storm drains, streams, and nearshore waters, and reducing flood volumes. The goal of LID is to restore the natural ability of a developed site to absorb storm water. It attempts to maintain (or restore) the natural hydrology of a site.

Goal WR-3: Maintain Resilient Water Infrastructure Systems.

Policy WR-3.1: Reduce vulnerability of the water infrastructure system to the effects of climate change.

Maintaining resilient water infrastructure includes improving the efficacy and reliability of existing systems and preparing them for projected climate change driven impacts, including groundwater inundation from sea level rise (raising groundwater levels) and drought conditions, placing stress on freshwater resources. Existing infrastructure systems should be made resilient in areas that are most at risk from climate change impacts to limit disruptions in service and to protect public health and safety. A multi-faceted approach is recommended to reduce vulnerability to climate change and build in flexibility over time. Resilient systems that are planned strategically and account for potential climate and disaster risks will allow communities to be proactive in facing potential impacts from both chronic and episodic climate events. These investments should be aligned with the City's climate change mitigation and adaptation strategies.

Priority Actions:

Perform Regular Vulnerability Assessments. Ensure regular infrastructure assessments and planning is conducted to manage system and public facility hazard vulnerabilities.

Raise or Relocate Low-Lying Infrastructure. Develop a methodology for prioritizing the elevation of low-lying coastal transportation and utility infrastructure above DFE (design flood elevation) to account for SLR, flooding, and higher groundwater. Support infrastructure relocation or hardening projects based on projected climate change impacts. Relocate low-lying infrastructure facilities with high SLR risk farther inland where feasible.

Timeline



Partners:

- OCCSR
- ENV
- DFM
- DDC
- BWS



Partners:

- DPP
- OCCSR
- DFM
- State DOT
- ENV
- BWS

Other Actions:

- *Design gravity wastewater and drainage systems to be easily converted to closed pressurized systems.*
- *Support preparation and implementation of an updated Wastewater Facilities Plan in consideration of the entire PUC sewerage district.*
- *Prepare coastal wastewater pump stations such as at Waikīkī and Kāhala, and determine the viability of decentralizing services and building more smaller plants upstream.*
- *Revise shoreline setback and coastal zone management policies that conflict with implementation of desired resilient infrastructure improvements.*



Hawai'i Convention Center 'Intensive' Green Roof (Source: Hawai'i Convention Center).



Waves washing over protective sand bags (Source: Hawaii Sea Grant King Tides Project).

Goal WR-3: Maintain Resilient Water Infrastructure Systems.

Policy WR-3.2: Help mitigate drought and support water conservation projects and programs to manage demand.

The PUC depends on precipitation and underlying aquifers for potable water, some of which are already over-allocated or over-pumped. As an isolated island, "importing" water from another district like most U.S. cities is not an option. Thus, responsible use of potable water is critical. The BWS has been promoting water conservation in schools and homes and other public facilities for over 40 years, and these best practices can be supplemented with demand-side programs to reduce customer water use and efforts to provide a greater diversity of water sources.

Priority Actions:

Rainwater capture network. Support implementation of large-scale rainwater harvesting projects in the PUC through utilization of abandoned infrastructure and pipes.

Timeline



Partners:

- BWS
- DFM
- ENV

Expand municipal treatment and reuse projects. Pursue "gray water" reuse for State and City facilities in accordance with State law and update the plumbing codes to reflect advances in water conservation.

Timeline



Partners:

- BWS
- State DOH
- State DOA
- DPP

Encourage water-wise landscaping. Property owners can pursue landscape designs that require less water for irrigation such as less lawn area and more drought tolerant plantings.

Other Actions:

- *Promote water conservation programs offered by the BWS.*
- *Incentivize homeowners to capture stormwater such as though the BWS Residential Rain Barrel Rebate program.*



Example of a rain garden under construction at Windward Community College.

Policy WR-3.3: Improve coordination of wastewater infrastructure and land use planning.

Adequate wastewater flow can be a constraint for new development in the PUC. Costs to upgrade the sewer system may be passed on to the developer, and oftern small projects cannot fulfill improvements alone. Improved coordination between infrastructure and land use planning agencies and communication with the development community can help to ensure that adequate infrastructure better serves the demands of both smaller infill and major directed growth areas.

Priority Actions:

Improve coordination of capacity, hydrologic, and land use planning models. Continue to integrate directed growth policies and specific policies such as density bonuses in capacity modeling.

Timeline



Partners:

- DPP
- ENV

Optimize sewer connection application process. Review the 2-year capacity hold policy for approved sewer connection applications. If appropriate, change policy to require shovel-ready status or to require prepayment of fees.

Timeline



Partners:

- DPP
- ENV

Interagency coordination. Proactively coordinate with the State Office of Planning and Sustainable Development (State OPSD), Hawai'i Housing Finance and Development Corporation (HHFDC), Hawai'i Community Development Authority (HCDA), and HART to deliver infrastructure for major State-led development (facilitate the master planning of State-owned sites between Chinatown and the Kapalama Canal).

Timeline

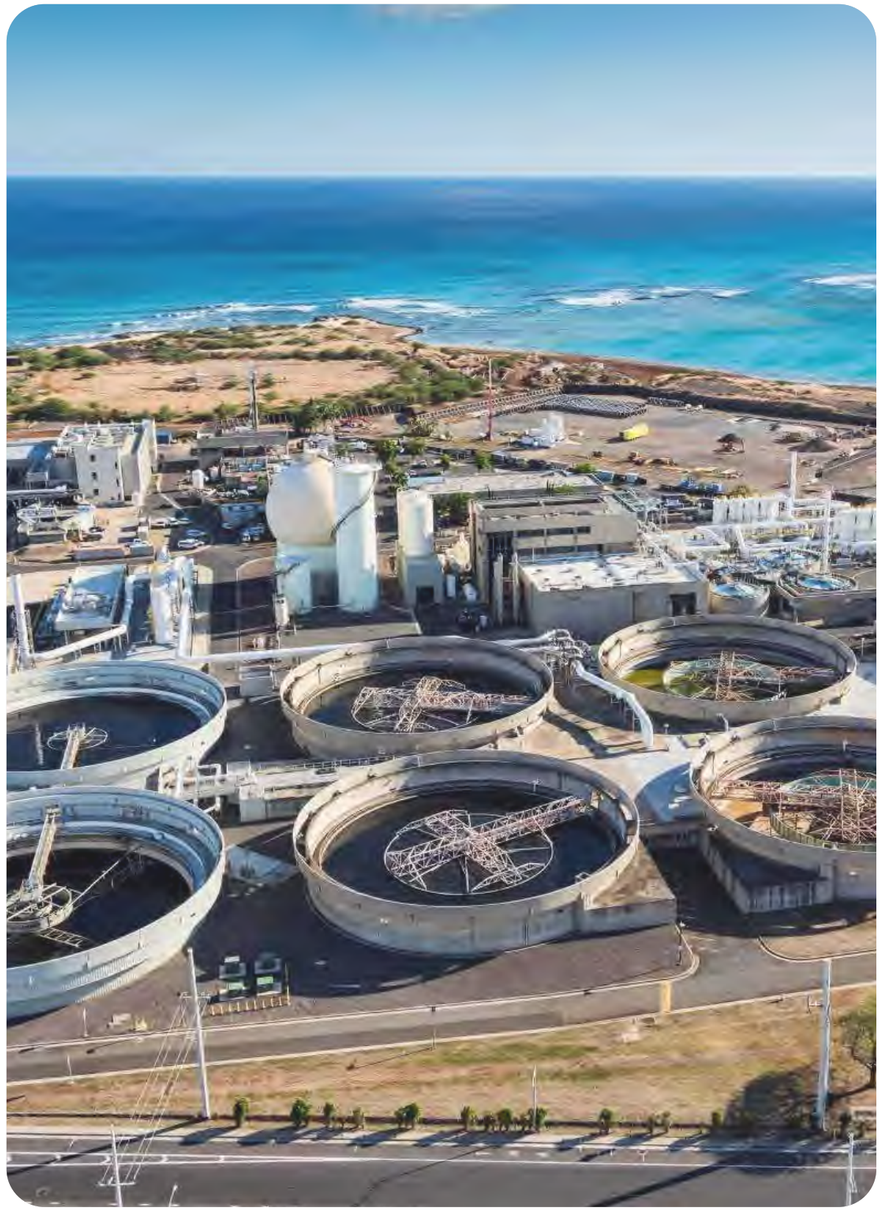


Partners:

- State OPSD
- HHFDC
- HCDA
- DPP
- ENV
- HART

Other Actions:

- *Engage in proactive sewer infrastructure planning (and needs assessments) in anticipated areas of growth, and allocate funding to long-range capacity improvements.*



Sand Island Wastewater Treatment Plant.

Economic Development

Economic Development

GOAL ED-1:
Support Employment and Business Growth in the PUC's Transit-Rich, Mixed-Use, and Industrial Areas.

Policy ED-1.1: Accommodate and encourage commercial job growth in dense, transit-rich locations.

Policy ED-1.2: Enhance the ability of new and small businesses to thrive and grow in the PUC.

Policy ED-1.3: Maintain industrial use as the primary land use in key PUC locations with easy access to the port and airport.

Policy ED-1.4: Support varied business uses in light-industrial and mixed-use areas.

GOAL ED -2:
Create a Balanced and Diversified PUC Economy.

Policy ED-2.1: Support growth in key industries such as information and technology, green industries, education and training, creative media, made in Hawai'i products, and other sectors identified by City or State Economic Development initiatives.

Policy ED-2.2: Grow resident workforce skills by supporting State investments in K-12 and higher education facilities and jobs training.

Policy ED-2.3: Continue to invest in the success of Waikīkī as the State's primary visitor destination/resort area and a livable urban neighborhood.

Policy ED-2.4: Maintain a productive relationship with the military to broaden its contributions to the PUC.

GOAL ED-3:
Ensure City Services and Infrastructure Support Broad Economic Prosperity.

Policy ED-3.1: Support small property owners and their redevelopment, infrastructure, and funding needs through process streamlining and enhancements.

Policy ED-3.2: Ensure major public infrastructure needs are funded equitably, including with contributions from new developments.

Key Outcomes

The PUC is the most significant center of economic activity on O'ahu and is also a major contributor to the State's economy. A more robust and diversified economy will lay the foundation for future prosperity, job creation, and workforce development. PUC DP policies support employment and business growth by accommodating new office and R&D growth in dense, transit-rich locations, and by preserving critical industrial uses near the port, airport, and distribution centers.

Development Plan policies focus on bolstering small businesses, encouraging non-traditional and flexible working spaces, and accommodating telework. Plan policies support a balanced and diversified economy by encouraging growth of information, technology, and creative industries, investing in the continued success of tourism and tourism-dependent industries, and supporting efforts to prepare the resident workforce through investments in K-12, higher education, and skills training.

Successfully navigating changes in the local and global economies will require increased flexibility. Policies and actions taken by the public sector can help to support businesses and workers moving into the post-pandemic economy, the technology economy, and in transitioning to a greener, more sustainable economy.

City projects and services will be funded equitably through fair assessments and fees on new development projects, use of new district-based funding, financing tools, and partnerships.

Setting the Stage

Well over half of Honolulu's civilian jobs are located in the PUC according to the U.S. Census. Jobs in the PUC are distributed along major thoroughfares and concentrated in areas such as Downtown, Kalihi-Pālama, Ala Moana-Kaka'ako, Waikīkī, and the airport. It is anticipated that the PUC will continue to grow and remain O'ahu's principal employment center even as job growth ticks upward in West O'ahu, bringing more live work balance to that region. Economic diversification that shifts some focus away from continued high growth of the tourism industry and towards a greater array of local industries will improve the economy's resilience to sudden economic shocks and downturns, and also assist Hawai'i residents looking for more varied job opportunities.

The Jobs-Transit Connection

With so many of O'ahu's jobs in the PUC, transportation conditions are key to the functioning of the local economy; Because of the high concentration of the island's jobs not only in the PUC, but also within small, focused areas, like Downtown, Waikīkī, and Civic Center, creating and maintaining ease of access to these areas through enhanced transit and mobility options is an important piece of the overall land use picture as it relates to the economy.

High levels of public transit and bike-and-pedestrian friendly streets both efficiently support commutes to jobs and enable the dense concentrations of jobs within these centers. Public transit is highly effective for regular, predictable, trips like going to work, and these trips provide the greatest benefits to users who can then bypass congested roads, time consuming commutes, and high parking prices.

Navigating Industry Changes in the PUC

Since the last PUC DP update in 2004, many changes have taken place, such as rapid technological advances, the internet boom, globalization, evolving population trends, and accelerating global climate change. All have had profound impacts on our infrastructure and industries. Along with the shifts and new trends, come new challenges and opportunities for all sectors of our local economy, from retail to hospitality, construction, utilities, and more.



Industries in Flux in the PUC

Tourism and Hospitality Industries

The PUC is the site of major visitor infrastructure and destinations, including the Daniel K. Inouye International Airport, Honolulu Harbor cruise terminals, the Waikīkī resort district, Ala Moana Center, Honolulu Convention Center, and Pearl Harbor. O'ahu's tourism industry, centered in Waikīkī's resort district, is one of the key employment sectors for the region and plays a major role in the State economy as well. However, Hawai'i's tourism is also vulnerable to global economic fluctuations, competition from emerging destinations, and, as a beach state, worsening coastal hazards attributed to climate change. O'ahu has already seen the temporary yet virtual industry standstill brought on by the COVID-19 pandemic, and it remains a challenge to predict with certainty where the uneven highs and lows of the recovering "post-pandemic" economy will lead.

However, the visitor industry is robust and will remain a vital and integral part of the PUC's and Hawai'i's economy. There is a need for reinvestment and modernization of existing hotels, and a general need for tourism-related infrastructure investments that reflect visitor demand for access to natural areas, group accommodations, and a wider variety of mobility and transportation options. Visitor habits have been shifting over time with the rise of social media platforms that popularize once less-trafficked natural areas, and hosting websites that fuel the proliferation of short-term rentals. Both of these trends are taking a toll on the PUC's neighborhoods and sensitive conservation areas, and both require ongoing solutions. PUC DP policies support the increasing momemtum toward sustainable tourism models, closer management of natural areas, and the strict enforcement of short-term rental rules and regulations. An opportunity also exists to reimagine redevelopment in the resort area of Waikīkī as it adapts to sea level rise. The timely creation of a Special Area Plan for the whole of Waikīkī to help envision long-term adaptation pathways, beyond the nearer-term recommendations of this DP, is a key Plan action to be initiated as a community-based effort. For more detail on Waikīkī, see pp 82-87 in Chapter 3, Focus Areas.

The Evolution of Retail

The PUC has numerous existing retail centers including three large regional malls. Looking ahead, the PUC can expect to follow national trends as online shopping continues to drive brick and mortar shops toward more "experiential" niche retail and expanded dining destinations. For example, some malls may choose to integrate more grocery and food retail, local products and pop-up shops, or to incorporate lodging, or even residential units. DP policies call for a flexible approach to uses and redevelopment for large and older retail centers. The PUC will also see additional retail development in areas more recently pegged for mixed-use growth. Recent changes made to the PUC's retail centers reflect these shifts, with a greater emphasis on food retail, dining and beverage, entertainment, local businesses, high-quality public space, and niche stores. For example, SALT at "Our Kaka'ako" and South Shore Market at Ward Village emphasize public social space and feature a tenant mix focused on food, drinks, and local boutique businesses. Online shopping at local stores for pickup



is another trend that is likely here to stay, and retailers may find that also means an adjustment to their operations and physical configurations. Outside of compact commercial centers, commercial corridors should continue to support and build pedestrian-friendly, neighborhood-serving retail. PUC DP policies encourage the reintegration of neighborhood-serving "main streets" along mixed-use corridors by directing infill development to these areas with attention to a high-quality public realm. This will allow more residents to live and work in proximity to everyday essentials and friendly neighborhood spaces.

Education Sector

The PUC's schools and higher education institutions have a critical role to play in enhancing educational attainment and supporting research and economic diversification in Honolulu. Honolulu schools and campuses should be supported in their efforts to reinvest in and improve facilities and auxiliary uses. Major university campuses in the PUC include the University of Hawai'i (UH) at Mānoa, the UH medical campus, Hawai'i Pacific University, and Chaminade University of Honolulu. There are also two community colleges in the PUC, Honolulu Community College (HCC), and Kapi'olani Community College (KCC). At the K-12 level, existing public schools are likely to experience reinvestment and possible reorganization in order to address needs or facilities deficiencies—including opportunities to implement public-private partnerships intended to generate private revenues for reinvestment in school facilities.

Health Care Industry

The island's health care industry is heavily concentrated in the PUC and is likely to undergo significant growth as O'ahu's population of older residents continues to increase. Department of Business, Economic Development & Tourism (DBEDT) projects rapid growth in the health care industry as Hawai'i's population ages, creating increased need for medical office space and expansions of major hospitals and care facilities. The PUC DP policies also call for increased integration of health care services into planned developments and neighborhood commercial centers, the expansion of housing options for kūpuna, and prioritizing the location of such housing in key transit-served areas.

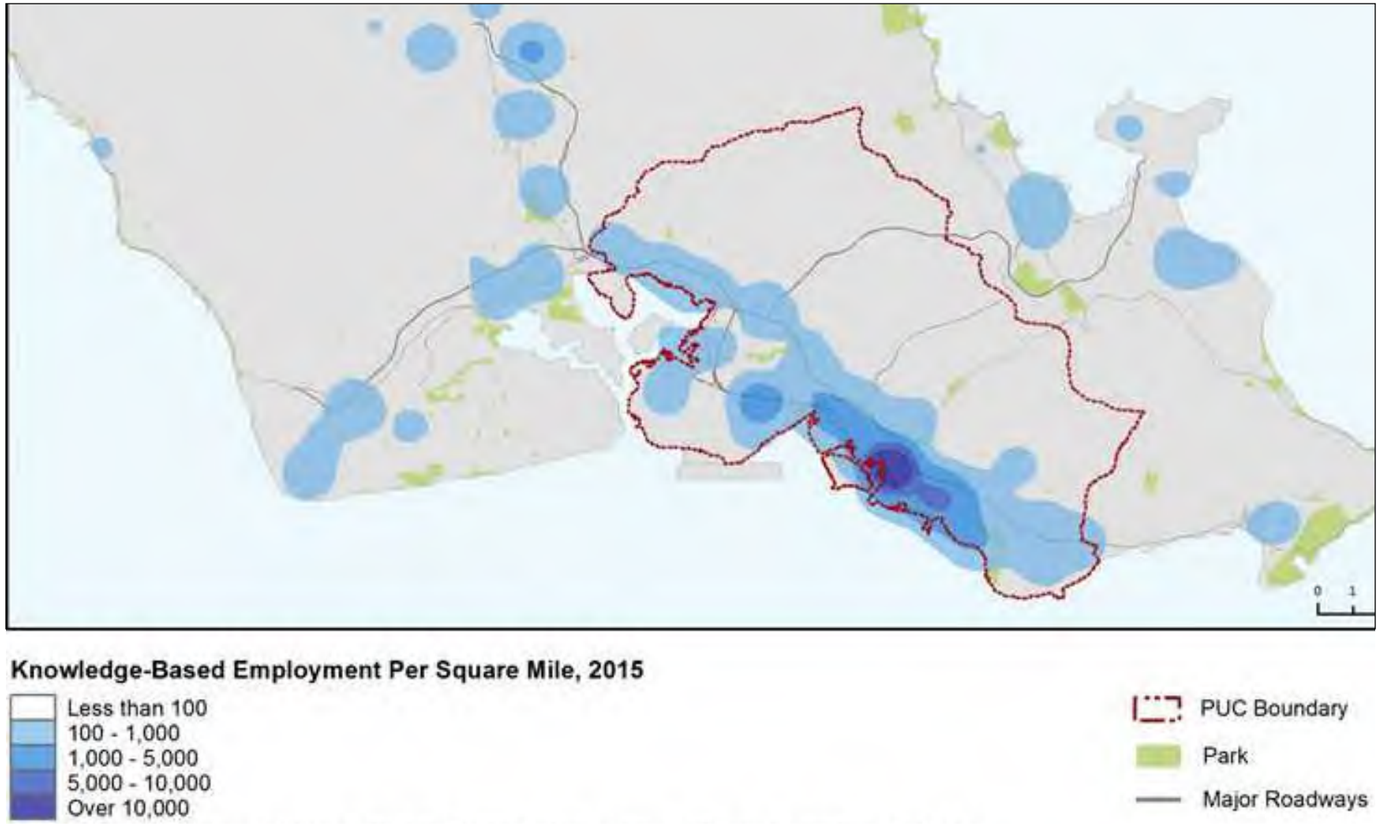
Military

The military exerts an enormous economic impact in Hawai'i and the PUC, but future changes in military spending and staffing are unpredictable. The PUC itself includes several major military installations, including Fort Shafter and Joint Base Pearl Harbor-Hickam. The PUC DP policies call for maintaining a productive relationship with the military to encourage its positive contribution to residents, shared environmental protection goals, and the integration of military housing with surrounding neighborhoods. As an island community it is important that the military demonstrate the great care needed for natural resource preservation and stewardship of the land.

Economic Diversity, Innovation, and Technology

State and City efforts to encourage growth in innovative and creative industries generally favor the land, infrastructure, and institutional assets available within the PUC. The PUC is therefore poised to capture a high share of statewide growth in industries and activities such as science, energy, marine research, communications, media, and technological innovation, and it has the State's largest concentration of jobs in largely "knowledge-based" industry sectors. The COVID-19 pandemic has shown the viability for many workers to telework remotely on a part-time or full-time basis. PUC DP policies look to address continued shifts in innovation industries and the continuance of some remote work by encouraging more live/work options, co-working spaces, shared facilities and "maker spaces", and flexibility in uses for large office buildings as appropriate.

Parallel priorities include the transition to carbon free transportation and a renewable energy infrastructure in alignment with State and City climate goals. The Plan's policies promote the expansion of public car charging facilities and the preservation of industrial lands, including near the port and airport.



Sources: U.S. Census Longitudinal Employer Household Dynamics, 2015; Strategic Economics 2017.



UH Mānoa is strategically modernizing its campus to meet current and future needs.

Office Uses

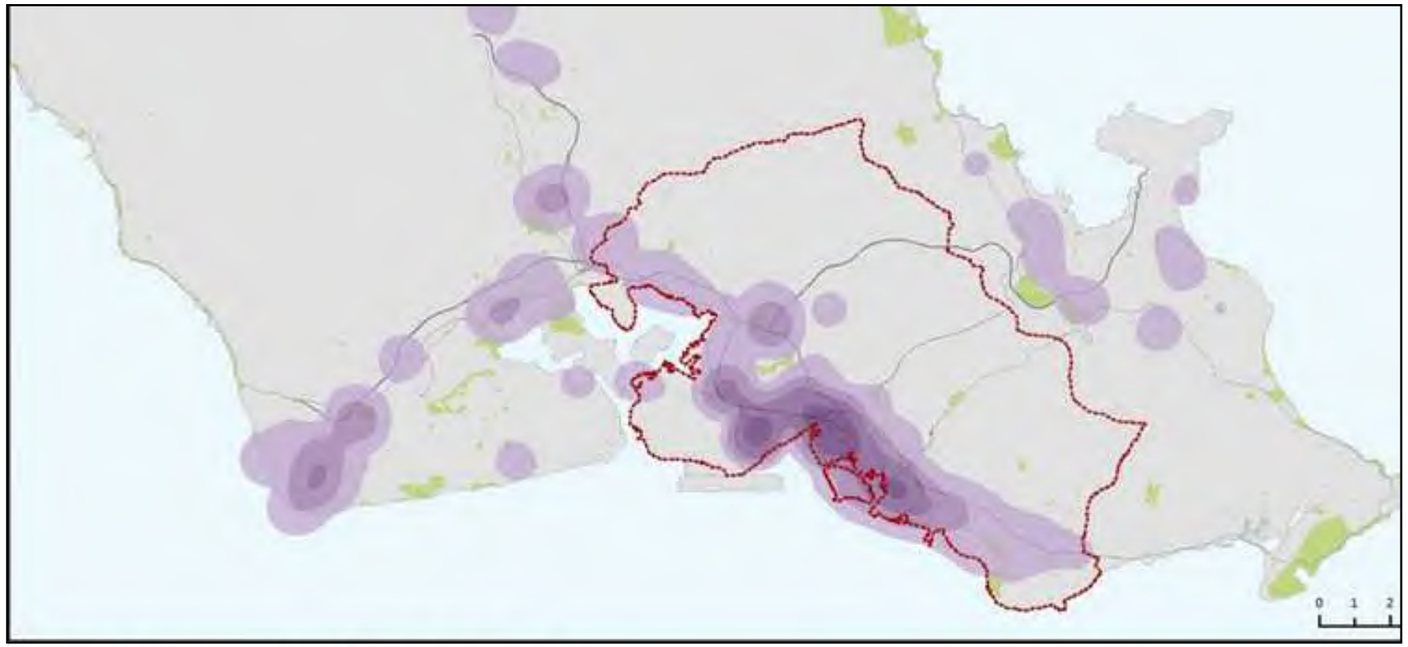
The PUC includes the overwhelming majority of Honolulu's office space. Colliers International estimates that the PUC constitutes nearly 91 percent of the island's office inventory. While the Downtown is the primary office district, other locations in the PUC also include small pockets of office, flex, and mixed-commercial buildings/spaces. This type of development is encouraged especially near the rail line and other transit-accessible commercial corridors to allow for as-needed and where-needed additions to the PUC's office inventory. In response to new workplace trends and the changing demand for traditional office space, this Plan suggests residential conversions or mixed uses be allowed/facilitated for large office towers that meet the requisite features for livable space. Increasing the residential population in the Downtown would also boost foot traffic and viable hours for neighborhood serving businesses, creating a more vibrant "day and night" neighborhood.

Preserving Industrial Land Use in the PUC

Demand is strong for industrial land in the PUC, yet many industrial districts may experience inventory declines due to redevelopment pressures to convert to higher value uses (such as near the rail stations). Escalating flooding risks in low lying industrial areas such as Māpunapuna and Kalihi Kai are also a concern. Despite the strong demand, industrial users generally cannot compete with the higher attainable values from redevelopment for high-intensity residential and retail uses in a "mixed-use" zoning scenario.

As a result, industrial lands are likely to gradually undergo redevelopment pressure throughout the PUC, particularly as ground leases expire, and unless tailored protections are maintained through zoning (as this Plan suggests). The conversion process is well underway in Kaka'ako, and pressure for conversion is likely to occur in other locations near future rail stations, including Kalihi/Kapālama and the Airport/Māpunapuna area. Therefore, most new industrial space is likely to be developed in the Kapolei area instead of the PUC.

The Plan's policies call for the retention of many existing industrial lands in essential gateway areas, such as near the port and airport, because of the important function that they play. In addition, floodable and sea level rise impacted industrial areas of the PUC such as Māpunapuna and Kalihi Kai should not intensify beyond existing uses without significant sea level rise adaptation and flood mitigation planning. Polluting uses should be controlled in the SLR-XA and frequently flooded areas. These issues are covered in more detail in the Sea Level Rise (Chapter 8) and Focus Areas (Chapter 3) sections of this Plan.



Sources: U.S. Census Longitudinal Employer Household Dynamics, 2015; Strategic Economics 2017.



Remaining industrial areas in the PUC should be preserved.

How Does the Development Plan Get Us There?

Enhancing the ability of new and existing small businesses to thrive.

The Plan seeks to address potential ongoing displacement pressures, grow small and local businesses, and retain longstanding businesses, as development activity in Honolulu increasingly reorients toward infill locations in existing business districts. New resources, streamlined approval processes, and expansion of incentive-based density bonuses in the PUC can encourage developers to contribute toward providing affordable space for existing and small businesses. New mixed-use areas allow intensification and infill development of retail, small office uses and shared commercial spaces in Transit-Oriented Development (TOD) rail station areas and other major corridors and centers. Additionally, the PUC DP policies emphasize the need to create flexibility in shifting public resources to create timely programs and policy responses for businesses and workers in the face of disasters or emergencies.

Preserving sufficient industrial uses in key PUC location.

While some industrial lands are targeted for redevelopment, most PUC locations with easy access to the port, airport, and commercial markets will remain zoned primarily for industrial uses. Maintainig a sufficient amount of industrial land near the PUC's population base and transportation centers supports light industrial jobs and helps with efficient goods movement, worker jobs access, and accommodates skilled jobs that pay a livable wage. Another related strategy is to permit major existing commercial centers the flexibility to introduce residential, light industrial, or other non-retail commercial uses into their programming to adapt to changing retail demand, and to further preserve existing industrial lands for uses that are not readily accommodated elsewhere.

Promoting sustainable tourism practices and management.

The PUC's resort area of Waikīkī is well known around the globe and continues to draw visitors without the need for a heavy marketing presence. By the same token, contiual high growth in the industry pre-pandemic, and a quick snap-back after travel restrictions eased, has prompted calls to shift from a growth model to a sustainable management model that addresses some of the increasing impacts of tourism on neighborhoods, natural areas, infrastructure, and other public services. The Hawai'i Tourism Authority's 2020 Strategic Plan aligns with this shift with its "four pillars" focusing respectively on natural resources, Hawaiian culture, enriching interactions between visitors and communities, and positive contribution from the industry. The PUC DP policies wholly support a shift toward sustainable tourism practices and also call for renewed focus on adapting Waikīkī for current and future climate change impacts. In addition, small pockets of lodging such as in the Convention Center district and new lodging planned for the New Aloha Stadium Entertainment District will provide travelers with options, while tightened restrictions on short-term rentals will will reduce disturbance to PUC neighborhoods.



Downtown Honolulu is the largest business hub for the island.

Creating a resilient economy.

The Plan's policies support a diversified and resilient economy by encouraging growth of innovative, technology-focused, sustainable, and creative industries. Matching resident workforce skills to new emerging industry sectors by supporting the state in its investments in K-12 and higher education facilities throughout the PUC, and by investing in jobs training and internship programs, will allow new industries to take root and flourish. Encouraging and allowing business incubators, co-working spaces, shared production spaces, multi-user office space, and industrial space for small-scale fabrication supports small businesses and entrepreneurs. In addition, changes to allow more flexibility in home occupations will help ensure that remote work remains a viable option for more residents.

Expanding as a leading center for education and innovation in the Pacific.

The PUC has a wealth of educational institutions, vocational training, top-notch academic research, an ocean-centered community and working harbor, a talented resident workforce, and visiting residents and scholars. The Plan calls for showcasing this strength through supporting facilities improvements, creating vibrant public spaces on and near campuses with easy transportation access, and encouraging shared-use facilities or programming to enrich the community wherever feasible.

Meeting uncertainty with flexibility.

The themes in this chapter can be summarized as meeting uncertainty with flexibilty. The Plan's policies call for ensuring the region is well poised to excel in the technology of the future through responsive and flexible uses where needed, preparing for economic shocks through a more diversified economy, supporting local businesses as they meet new challenges and opportunities, and by protecting precious natural resources for future generations.

Related Policies

Policy GD-1.3: Facilitate the evolution of shopping malls & big box retail near rail from single-use centers into true gathering places.

Policy GD-2.3: Invest in long-term growth in commercial corridors and mixed-density neighborhoods outside of the Sea Level Rise Exposure Area (SLR-XA).

Policy H-1.3: Encourage a greater variety of housing types including low or middle-density multi-family housing, ADUs and 'ohana units, mid-rise apartment buildings and shared housing models.

Policy H-2.1: Expand the supply of income-restricted affordable housing through requirements, incentives and public-private partnerships.

Policy PPOS-1.3: Seek opportunities to create new parks in high-density and growing areas of the PUC.

Policy MC-2.1: Reduce dependency on single-occupancy vehicle miles traveled and reduce vehicle miles traveled.

Policy MC-2.2: Safely integrate emerging technologies into the transportation system.

Policy SLR 2.3: Prioritize and fund community-level Area Adaptation Plans.

Policy HC-1.1: Encourage exemplary healthy (“green”) building standards.

Policy WR-1.3: Address chronic storm flooding and ongoing drought issues through multiple solutions.

Policy CIV-1.2: Assist the State in providing a high-quality environment for public schools and educational institutions in the PUC.



Figure 10.1: Economic Development Locations Diagram, West

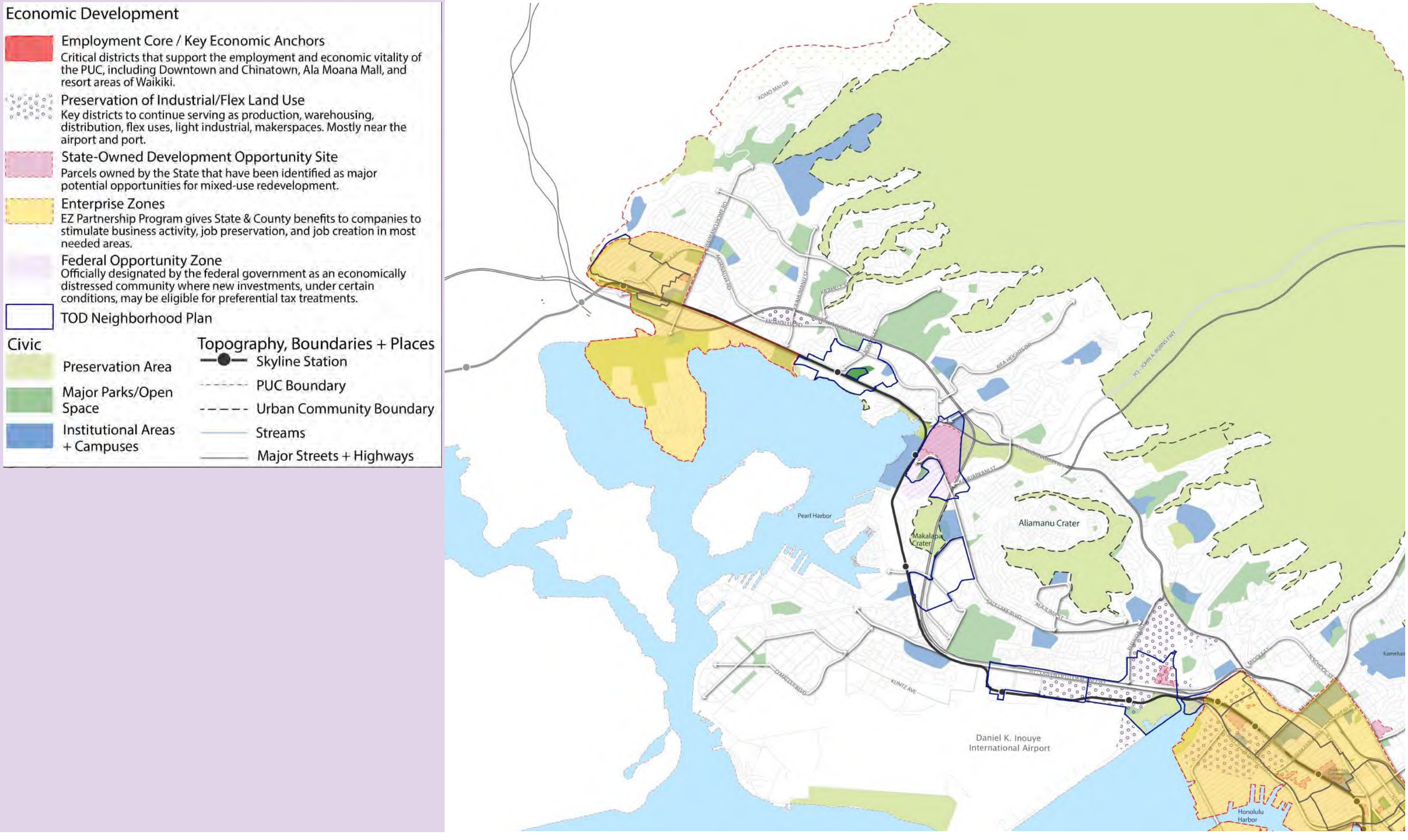
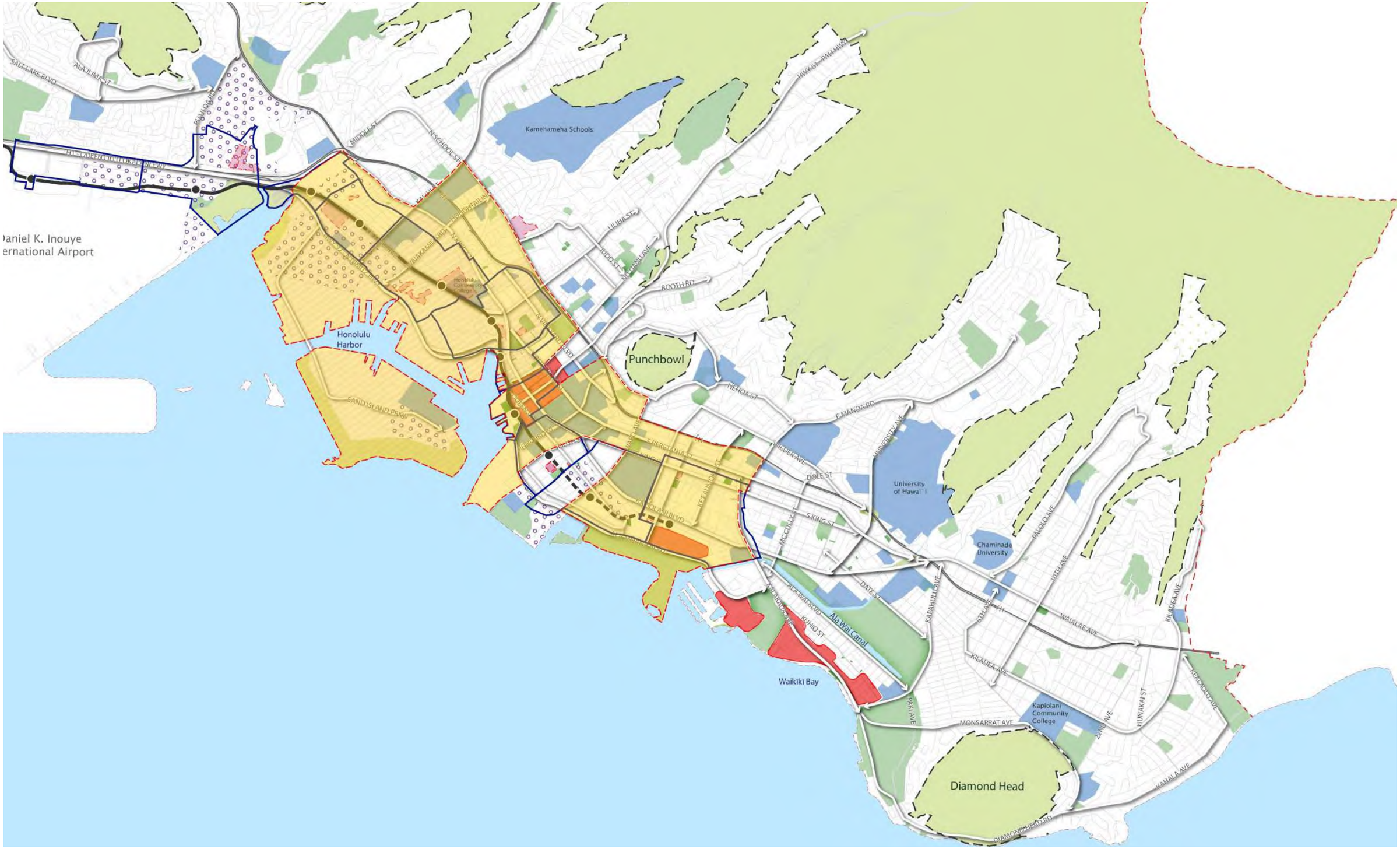


Figure 10.2: Economic Development Locations Diagram, East



Goal ED-1: Support Employment + Business Growth in the PUC's Transit-Rich, Mixed-Use, & Industrial Areas.

Policy ED-1.1: Accommodate and encourage commercial job growth in dense, transit-rich locations.

Continued economic and jobs growth in the PUC's jobs-rich areas promotes efficient use of existing infrastructure, and accelerates innovation and economic expansion. Growth in infill locations leverages past investments in public infrastructure— water, wastewater, stormwater, roads, and transit—to serve additional businesses, while some additional infrastructure upgrades are still required. PUC residents and the regional economy derive benefits from increased employment density, as higher job densities in metropolitan areas are linked to greater productivity, economic growth, and job mobility. Supporting employment growth in the PUC requires a two-pronged approach of preserving employment land uses while also ensuring that reinvestment and intensification of commercial uses can proceed. As industry demands shift over time, it is important to create strategies to allow a more flexible mix of uses in office and commercial centers.



Downtown Honolulu commercial office buildings.

Priority Actions:

Implement TOD zoning. Complete adoption process for TOD zoning to create broader mixed-use districts that allow office and R&D land uses, and other higher-intensity commercial development.

Timeline: SHORT

Partners:
- DPP

Flexible and innovative office and retail development. Support businesses in configuring for remote working/coworking and other flexible employment practices. Work with major property owners to effectively integrate office and flexible uses into TOD redevelopment projects, especially within close proximity to rail stations. As part of the review process for proposals with commercial uses, evaluate adherence to the design/character goals and principles of the applicable TOD Neighborhood Plan and the PUC DP's Place Types.

Timeline: ONGOING

Partners:
- DPP
- Private developers

Other Actions:

- *Facilitate the addition of office, health care, and other community serving uses at existing retail centers and shopping malls near frequent transit.*
- *Explore regulatory changes or incentives to facilitate active ground floor/residential development projects and conversion of excess office or retail space into housing, where habitability requisites are met.*



Busy shopping area in Ala Moana Center.

Goal ED-1: Support Employment + Business Growth in the PUC's Transit-Rich, Mixed-Use, & Industrial Areas.

Policy ED-1.2: Enhance the ability of new and small businesses to thrive and grow in the PUC.

Fostering a friendly environment for all kinds of new and small businesses in the PUC simultaneously grows the economy and boosts other supporting businesses. Innovation and expansion of the PUC economy requires entrepreneurs who continue to see value in operating businesses connected to the PUC's economic strengths and resources.

Strategies and incentives should be employed to address potential displacement pressures on small businesses as commercial and residential development activity in urban Honolulu increasingly reorients toward infill locations and mixed uses at higher densities, especially in the TOD corridor and any bus rapid transit (BRT) corridors. Expansion of incentive-based zoning or community benefit requirements in such areas in the PUC could be used to encourage developers to contribute toward providing affordable space for existing and new small businesses. Small businesses on all commercial corridors should be supported in making façade improvements, and in contributing to an inviting streetscape in high foot-traffic areas.



The PUC is attractive to locally-owned storefront businesses.

Priority Actions:

Small business retention. Consider subsidized retail spaces as a community benefit to incentivize below-market spaces for small, local businesses. This action is appropriate on a case by case basis in commercial/mixed use areas of the TOD Special District.

Expand business use of outdoor spaces. Create destination commercial areas by expanding allowable outdoor dining and seating areas, and by selectively allowing businesses to operate temporarily on public spaces/rights-of-ways (for instance, for night markets or street food events).

Facilitate the revitalization of Chinatown. Long a priority for City administration and residents, the revitalization of Chinatown is important for local business, as a center for arts and tourism, and as the most historic urban neighborhood of the PUC (see also Chapter 3 Focus Areas pp 120-123).

Timeline:





Partners:

- DPP
- OER

Partners:

- DPP
- DTS
- DDC
- DLM
- Private businesses

Other Actions:

- *Develop and maintain a list of offline and online resources for small businesses.*
- *Explore ways to reduce financial burden on small, local businesses through certain fee waivers s and other incentives.*



The revitaliztion of Chinatown is a longstanding community priority.

Policy ED-1.3: Maintain industrial use as the primary land use in key PUC locations with easy access to the port and airport.

As the PUC continues to grow and change it is important to preserve adequate industrial lands in the PUC for fulfilling production, distribution, repair uses, and also providing opportunities for a variety of businesses requiring light industrial space. The PUC's industrial lands accommodate buildings that serve a valuable role for the economy's shipping, distribution, manufacturing, and service needs. However, the PUC's inventory of industrial space is diminishing due partly to redevelopment pressures for conversion to higher-value uses.

Priority Actions:

Industrial land use supply assessment. Regularly assess the industrial land supply across the PUC, with a goal of preserving adequate industrial zoned land. Within Industrial and Flex Place Types, maintain restrictions on non-industrial uses to support industrial as the principal use.

Timeline: ONGOING

Partners:
- DPP
- community partners
- State agencies

TOD industrial use monitoring. As growth occurs in TOD areas, monitor the relative increases or decreases in office, R&D, industrial, and housing uses; track significant losses of industrial land use, and consider adjusting requirements if industrial square footage is noticeably diminished year over year. Encourage projects that mix light industrial, commercial, and/or civic uses.

Timeline: ONGOING

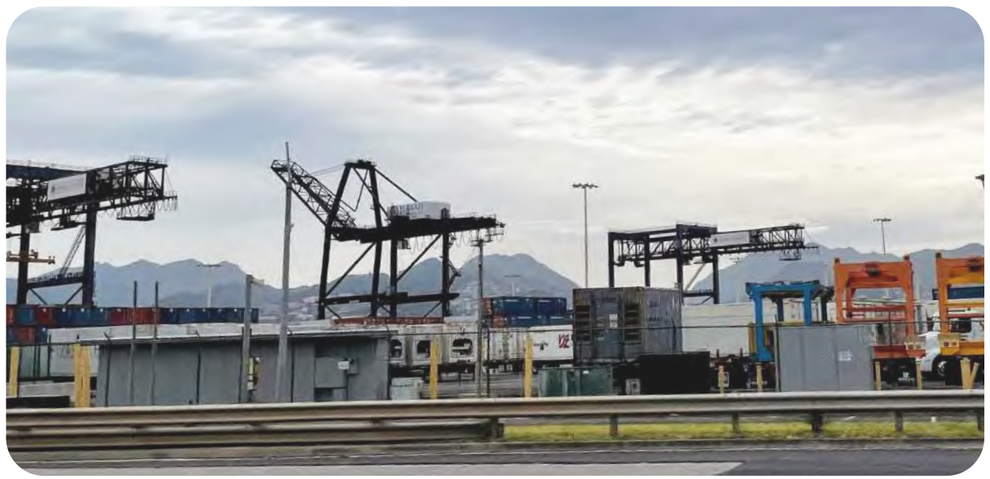
Partners:
- DPP
- HCDA

Other Actions:

- *Support modernization efforts at Honolulu Harbor and retain existing industrial zoning to support efficient, ongoing port operations.*
- *Support the access needs of long-term industrial uses during street capital improvements.*
- *Reduce/restrict heavily polluting uses, especially in the SLR-XA.*



Cement mixing plant in Kalihi Kai.



Shipping container cranes on Sand Island.

Goal ED-1: Support Employment + Business Growth in the PUC's Transit-Rich, Mixed-Use, & Industrial Areas.

Policy ED-1.4: Support varied business uses and flexible spaces in light-industrial and mixed-use areas.

Mixed-use and light industrial areas provide opportunities for a flexible building stock and development type that can accommodate creative and innovation-focused businesses. Examples include shared-use facilities (such as commercial kitchens or manufacturing space), arts and design businesses, live-work configurations, small-scale production or prototyping companies, and other research and development. Businesses that do not generate significant negative noise, odor, or pollution impacts on their neighbors are appropriate within mixed-use districts.

Priority Actions:

Zoning for innovation. Establish conditional uses to facilitate shared facilities, flex space, and live-work uses in Flex and Near-Town Corridor Place Types.

Timeline:



Partners:
- DPP

Explore vertical warehousing. Review IMX zoning for regulations that prevent higher density industrial development (multilevel/vertical warehousing). Support pilot vertical warehousing projects.



Partners:
- DPP
- Private businesses

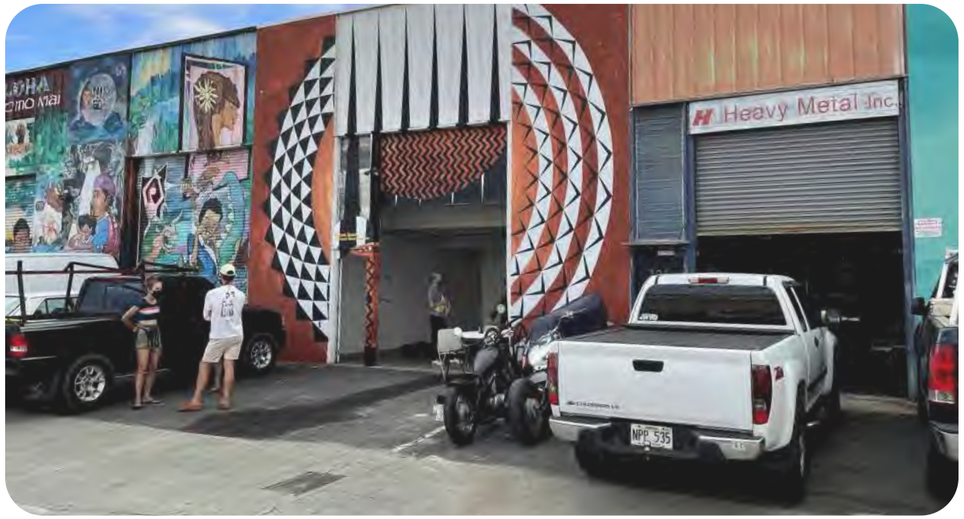
Address flooding in PUC industrial areas. Develop policies and guidance to enable existing industrial structures to effectively adapt to current and near-term sea level rise and increased flooding concerns, and review long-term options for land uses, infrastructure, and services in impacted areas.



Partners:
- DPP
- ENV
- DDC
- DTS
- DFM
- BWS
- OCCSR
- Private businesses

Other Actions:

- *Provide strategies for new developments with industrial mixed-use uses to meet active design guidelines (bike lanes, pedestrian orientation) while also permitting adequate loading and truck circulation space.*
- *Review standards to ensure that developments in mixed-use districts follow requirements for separation and buffering between residential and noxious uses in mixed light industrial areas.*



Industrial flex uses in Kaka'ako.



SALT shopping center mixes retail, dining, office, and arts/event spaces.

Goal ED-2: Create a Balanced and Diversified PUC Economy.

Policy ED-2.1: Support growth in key industries like information and technology, green industries, education and training, creative media, made in Hawai'i products, and other sectors identified by City and State economic initiatives.

The PUC is ideally positioned to attract innovative, creative, and technology-focused businesses since the area includes a high concentration of Hawai'i's major educational and research institutions and activities, as well as a relatively diverse existing concentration of businesses. Expanding technology-focused and creative industries in the PUC requires space for these businesses to grow. This space could take the form of renovated buildings, or new developments with commercial and industrial spaces. Office and R&D use should also be located in existing employment districts and near major educational institutions to create synergy.

Priority Actions:

Business incentives program. Support the City's Office of Economic Revitalization (OER) in introducing a Business Incentive Program for Honolulu to create and retain quality jobs and capital investments with a particular emphasis in low- and moderate-income communities.

Timeline:



Partners:

- OER
- DPP
- Business groups

Reduce barriers for emerging industries. Work with potential new commercial and industrial uses to accommodate needs within the existing regulatory framework. Add uses to the LUO, as needed, tailored to new industries such as e-commerce, last-mile delivery, robotics, indoor agriculture, and integrated work spaces.



Partners:

- DPP
- OER
- Business groups

Other Actions:

- *Support businesses' capacities for remote work and staggered schedules.*
- *Promote spaces in new/renovated buildings for film, media, and design-oriented uses, i.e. by working with owners of vacant storefronts or warehouses to permit and develop artist spaces, exhibition spaces, or content production venues.*



An indoor hydroponic farm in the PUC.

Goal ED-2: Create a Balanced and Diversified PUC Economy.

Policy ED-2.2: Grow resident workforce skills by supporting State investments in preschool, K-12, and higher education facilities and jobs training.

Diversification of the PUC's economy requires not only new industry opportunities, but a workforce with diverse skills. Education institutions at all levels need to be equipped to prepare elementary and secondary students, college students, and adult workers of all ages to navigate a changing workforce and transforming occupations. The PUC's K-12 schools and higher education institutions require continual reinvestment to remain competitive. Although the City's direct role in K-12 schools and higher education institutions is limited, the City can serve as a partner to help the school districts meet their long-term development needs as facilities are updated, repurposed, or newly constructed and in working with institutions to facilitate adjacent and supportive uses.

Priority Actions

Expanded educational spaces. Support expansion of office and R&D space associated with major academic institutions, including Downtown, at Aloha Tower, and at HCC/Kapālama Station.

Timeline:



Partners:

- DPP
- Educational facilities

Grow State partnerships. Expand the City's role in enabling educational public-private partnerships with the State DOE to help it meet land use and property development goals.



Partners:

- DPP
- Private businesses
- State DOE

Other Actions:

- *Engage with UH Mānoa, Hawai'i Pacific University, community colleges, and other higher education institutions to support their programs and goals through careful consideration of adjacent uses, transportation access, and shared public spaces.*



Hawai'i Pacific University campus at the Aloha Tower Marketplace.



Conceptual rendering for an UH Mānoa expansion on University Avenue.

Goal ED-2: Create a Balanced and Diversified PUC Economy.

Policy ED-2.3: Continue to invest in the success of Waikīkī as Honolulu's primary visitor destination, resort area, and a livable neighborhood.

Tourism remains a primary and economically significant industry in Hawai'i, and the PUC includes many of the most popular visitor facilities, including O'ahu's primary (and the PUC's only) resort area of Waikīkī. Reinvestment in infrastructure, mobility choices, and amenities in Waikīkī should remain a priority. A modern, safe, high-quality public environment will encourage repeat visitation and greater spending by visitors. Expanded mobility options—including on-demand transport such as bike rentals, public transit options, and corresponding infrastructure improvements—is essential in providing opportunities for tourists to circulate within and between destinations. These options create a more robust connection between Waikīkī and the growing mixed-use and shopping attractions in the Ala Moana-Kaka'ako area.

Redevelopment of Waikīkī hotel properties will help to reinforce the area's statewide significance in attracting visitors and leverage existing investments in infrastructure and amenities. Redevelopment in Waikīkī should contribute to and be coordinated with preparing the area for current and projected sea level rise impacts. At the same time, the apartment precinct of Waikīkī (generally the area above Kūhio to the Ala Wai, with some exceptions) is home to many PUC residents. A large part of Waikīkī's identity and character is in ensuring that both of these uses are in balance. A sustainable management model should be employed to ensure that tourism remains a suportive and lively industry and not unduly burdensome to area residents and resources.



Waikīkī Beach is a focus of the resort district.

Priority Actions:

Waikīkī business needs assessment. Engage business owners and representatives in Waikīkī and Ala Moana to gauge regulatory, infrastructure, mobility, and amenity needs. Partner with local property owners and businesses to assist in providing public amenities.

Timeline: ONGOING

Partners:
- DPP
- OER
- State agencies
- Community partners

Adapt Waikīkī to sea level rise hazards. Work with property owners, residents, agencies, and business organizations to prepare a Special Area Plan for Waikīkī with a focus on pathways for climate change adaptation. See Chapter 3 & 8 for additional detail.

Timeline: ONGOING

Partners:
- DPP
- OCCSR
- BWS
- ENV
- DTS
- DFM
- State agencies
- Elected officials
- Community partners

Other Actions:

- *Support smaller/boutique hotels in the Convention Center area/ Ala Moana, Downtown, Aloha Stadium District, and by the Airport, to serve business or family travelers.*
- *Support a high level of ongoing maintenance and management for public spaces in Waikīkī to maintain a safe experience for large numbers of residents and visitors.*
- *Implement mobility improvements including pedestrian and bicycle connections within and between Ala Moana and Waikīkī, and expand bike share between tourist destinations from Diamond Head to Chinatown.*



Waikīkī commercial area

Goal ED-2: Create a Balanced and Diversified PUC Economy.

Policy ED-2.4: Maintain a productive relationship with the military to broaden its contributions to the PUC.

The military is one of the more significant drivers of economic activity in Honolulu, with PUC facilities including installations such as Fort Shafter and the Pearl Harbor-Hickam Naval Base. The City has little direct influence over the military's land use, staffing, and facilities decisions. However, a productive relationship and dialog with the military allows the City to anticipate changes and leverage any new opportunities for mutual benefit. Given its significant presence, it is also desirable that military land uses are blended into the larger community where feasible, such as housing areas, and that county, state, and military agencies cooperate on shared goals relating to employment, environmental protections, and public open space.

Priority Action:

Protect Honolulu's drinking water supply. Support the Board of Water Supply, State agencies, community groups, and elected officials in calling for strict safeguards for the PUC's drinking water aquifer.

Timeline:



Partners:

- BWS
- State DOH
- One Water agencies
- City and elected officials
- U.S. Navy
- Federal partners

Seamless communities. To the extent possible seek better integration of military-owned land uses with the larger community fabric, for instance in mixed housing developments or neighborhoods. Provide continuity to adjacent neighborhoods through design of roadways, bikeways and walkways, landscape features, or architectural scale and character.



Partners:

- City, state, and federal partners



Military family housing should be well integrated into surrounding neighborhoods.

Other Actions:

- *Maintain regular meetings to coordinate with local military leadership regarding issues and opportunities impacting the PUC as related to long-range plans and projects.*

Goal ED-3: Ensure City Services and Infrastructure Support Broad Economic Growth Prosperity.

Policy ED-3.1: Support small property owners and their redevelopment, infrastructure, and funding needs through process streamlining and enhancements.

Owners of smaller commercial and industrial properties in the PUC have different interests, needs, and financial capacity compared to owners of large properties or multiple properties. For example, small property owners may have less economic incentive to redevelop their properties and may be concerned about how to maintain their existing operations. At the same time, small property owners interested in redeveloping will have less capacity to fund needed infrastructure improvements and to navigate the permitting process, and thus may give up on improving their properties individually. A small property owner may see significant benefit in broader areawide funding mechanisms that allow such owners to band together for infrastructure improvements, and this policy suggests that such a framework be established. However, without an established network, engagement with smaller property owners is relatively more challenging than with large commercial developers. Therefore, a more deliberate outreach and communication effort is needed to understand interests and concerns, and to build capacity among small property owners for shared action and advocacy.

Priority Actions:

Infrastructure huis. Create a pathway for small lot owners to create huis for infrastructure upgrade costs associated with redevelopment projects. Huis would be small, ad hoc groups of landowners that are formed to improve local infruastructure through shared funding which allows for smaller scale improvements.

Timeline:



Partners:

- DPP
- OER
- ENV
- BWS
- DTS

Other Actions:

- *Regularly engage with small property owners in the PUC's focus areas (especially those projected for growth) to share City plans and to understand these owners' interests and concerns regarding future redevelopment and infrastructure needs.*



Small mixed-use building.



Small-scale projects have different needs than large-scale developments.

Goal ED-3: Ensure City Services and Infrastructure Support Broad Economic Growth Prosperity.

Policy ED-3.2: Ensure major public infrastructure needs are funded equitably, including contributions from new developments.

Taxes and fees used to implement public infrastructure and facilities improvements should be aligned with fair assessments and fees on new development projects. This approach is particularly relevant to sea level rise adaptation efforts, in which properties impacted by sea level rise will receive the most benefit from adaptation improvements. However, all Honolulu residents and businesses will benefit to some extent from these improvements since they will allow continued economic activity to occur and enhance public safety. Equity considerations should be incorporated into DPP financing structures or programs, especially in TOD or other large redevelopment areas where the displacement of existing residents or businessess is a concern.

Priority Actions:

Equitable funding strategies. Ensure development contributes a fair and equitable share to City infrastructure. Consider a "commercial linkage fee" that would charge a housing impact fee per square foot of future hotel and condohotel development to support City efforts to develop affordable housing.

Timeline:



Partners:

- DPP
- BFS

Adaptation project cost-sharing. Study and test potential approaches for ensuring new development projects and/or property owners in areas vulnerable to climate change impacts and localized hazards contribute a fair share of funding for future adaptation projects.



Partners:

- DPP
- DFM
- ENV
- BWS
- DTS
- DEM
- DPR
- OCCSR
- BFS
- Community partners

Other Actions:

- *Consider progressive fee structures for building and permitting charges, increasing rates for offshore or absentee owners and decreasing rates for locally-based owners.*
- *Implement new tools to fund sea level rise adaptation (i.e. district-based entities, public-private partnerships, or federal matching grants).*



Public infrastructure investments should serve the interests of all residents.



Chronic flooding of business areas should be addressed through coordinated efforts.

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Public Services

Public Services



GOAL PS-1:
Support Civic and Public Institutions in the PUC.

Policy PS-1.1: Provide for adequate civic and public safety facilities and essential services in the PUC.

Policy PS-1.2: Assist the State in providing a high-quality environment for public schools and educational institutions in the PUC.

GOAL PS-2:
Plan for Emergency Management and Hazard Mitigation in the PUC.

Policy PS-2.1: Increase resilience to disruptive hazard events through coordinated effort.

Policy PS-2.2: Strengthen pre- and post-disaster planning.

GOAL PS-3:
Maintain Efficient Energy and Telecommunications Systems in the PUC.

Policy PS-3.1: Site energy and telecommunications systems appropriately to avoid hazards and adverse visual impacts.

Policy PS-3.2: Increase production of renewable energy at the building and community scale.

GOAL PS-4:
Provide Increasingly Efficient Solid Waste Services for PUC Residents.

Policy PS-4.1: Efficiently and sustainably manage the region's solid waste system.

Key Outcomes

The PUC DP's policies are designed to support civic and public institutions in the PUC that provide for a high quality of life for residents and meet the needs of the area's many visitors. These goals will be met by providing adequate and responsive levels of service for public safety agencies; navigable and transparent civic services and public information; high quality public recreation facilities, and well-considered city programs and initiatives that engage the community.

Maintaining efficient energy and telecommunications systems is a top priority in a highly populated and economically active region like the PUC. Demand and service allocation/provision must be balanced with impacts on the environment and community, and pursuit of strategies to achieve higher levels of energy resource efficiency, conservation, and renewable production capacity should be bolstered.

Source reduction and efficient and reliable solid waste removal is imperative in reducing adverse effects of waste on the environment and on human health. The City will continue to streamline efforts to manage the amount of material in Honolulu's waste stream through source reduction and recycling.

In the age of climate change, planning for increased hazards requires adaptation, coordinated action from planning and infrastructure agencies, city leaders, and the public. Preparation for natural and human caused disasters is increasingly central to long range planning, including for civic services and utilities, and must be pursued alongside increasing public awareness of hazard mitigation and community preparedness for health and safety.

Setting the Stage

Public facilities in the PUC support basic services and resources for its residents, businesses, and visitors. These include civic facilities, educational institutions, public safety facilities, and vital utilities and infrastructure such as energy, telecommunications, and solid waste management. (Other utilities and infrastructure such as parks, transportation systems, and water resources, can be found respectively in Chapters 5, 6, and 9 of this plan). The majority of these public facilities, institutions, resources, and essential services, are developed and maintained by city and state agencies, while others, such as electricity, require coordination with the private sector to ensure adequate service is provided. Assuring that public facilities and programs align with future commercial and residential development is crucial to maintaining adequate levels of public services.

The PUC's demand for redeveloped and new public facilities and services corresponds with its increased development demand, particularly in developing rail station areas. Maintenance of existing public facilities is central to current resident quality of life, and also a key to the adequate provision of services for future infill growth.

Public facilities are increasingly challenged by the impacts of natural hazards such as sea level rise and other indicators of climate change, while at the same time, City budget constraints necessitate prioritization. Equitable development of public facilities and essential services to best serve the whole community and balance costs, is a key consideration and focus for new facilities and maintenance alike. Improved functional planning by the City's infrastructure agencies will result in increased transparency and efficiency, and should be guided by the vision of the City's long range development plans as an iterative process and incorporated through the City's annual budget process.

Because the PUC is largely "built out", meaning there are not large areas of undeveloped land outside of conservation and preservation areas, development mainly takes place in the form of new infill, redevelopment for modernization, and redevelopment for greater density. These demands must be met in a balanced way with utilities upgrades, conservation measures, and new technologies and services for greater efficiencies and higher environmental standards. Similarly, growth areas necessitate nimble, inclusive, and strategic planning from public safety agencies and public service agencies, and institutions to meet demand, and provide adequate levels of accessible services on multiple platforms.

Goal PS-1: Support Civic and Public Institutions in the PUC

Policy PS-1.1: Provide for adequate civic and public safety facilities and essential services in the PUC.

Providing needed levels of essential City services must be supported by adequate facilities and staffing. Expansion of public services in growing areas as well as the right-sizing of services in areas that are experiencing minimal growth is necessary to meet the needs of PUC residents and steward public resources. Additionally, making available alternatives to traditional in-person interactions and paper forms is necessary to increase the reach and accessibility of these services while enhancing efficiency. Continuing to modernize systems and provide more options for basic customer services should remain a top priority. As population within the PUC continues to shift in the TOD areas and other growth corridors, the location of public facilities and levels of services for public safety will need to be evaluated on an ongoing basis through functional planning.

Priority Actions:

Improve staffing and access for basic services. Provide adequate staffing and improve access to basic government services at the Civic Center Campus, satellite city halls, and other city service providers in the PUC.

Timeline:



Partners:

- All City agencies

Expand Kiosk DMV services in the PUC. Meet the needs of PUC residents using modernized system, especially in under-served core neighborhoods. neighborhoods.



Partners:

- CSD
- Location partners



DMV Kiosk



Satellite City Halls and DMV Services

Satellite city halls within the PUC are located at Ala Moana, Downtown, Kapālama, and Pearlridge, and offer vehicle registration, titling, driver's licenses and State ID services, TheBus pass sales, and other licensing and tax and fee services, depending on location.

Driver Licensing Centers offer additional services: Kapahulu offers reconstructed vehicle inspections; Kapālama offers driver's license testing, license renewals, and all State ID services; Pearl City offers commercial driver licensing and driver's license services.

Self-Service Motor Vehicle Registration Kiosks became available on O'ahu in early 2019, and are available 24 hours a day, 7 days a week.

Priority Actions (continued):

Improve functional planning coordination. Coordinate the expansion of public safety operations such as fire, police, and emergency services with areas of population growth for adequate coverage.

Facility co-location. When appropriate, co-locate civic facilities to maximize resources utilization.

Timeline:





Partners:

- HFD
- HPD
- DCS
- ESD
- DTS
- DFM
- DLM
- DPP
- DDC

Partners:

- All City agencies as feasible

Public Safety Agencies

Public safety facilities in the PUC are overseen by city agencies that specialize in emergency management, fire protection, law enforcement, and emergency medical and rescue services. These departments coordinate with city, state, and federal agencies to plan, support, and execute vital services for the benefit of public health and safety. These services help to maintain a safe and secure environment for residents and visitors.

- **Firefighting services in the PUC are provided by the Honolulu Fire Department (HFD). HFD also provides rescue and emergency medical and hazardous materials response services for the City. The HFD services the City with 44 stations, 10 of which are in the PUC.**

- **Law enforcement services in the PUC are provided by the Honolulu Police Department (HPD). Stations located within the PUC are the HPD Headquarters, district stations located in Kalihi and Pearl City, and police substations located in Waikīkī and Chinatown.**

- **Emergency medical services and a comprehensive ocean safety program in the PUC is provided by the Honolulu Emergency Services Department (HESD). The HESD divides the island into three districts for its emergency medical services provided via 21 ambulance units. Districts 1 and 2 cover areas of the PUC. The HESD Ocean Safety Headquarters are located in the PUC, along with one Ocean Classroom Training Center, one District Operations Base Station, one Reserve Craft Operations Base, and Lifeguard Towers located at Both Ala Moana Beach Park and Waikīkī Beach.**



Honolulu Fire Department Headquarters.

Goal PS-1: Support Civic and Public Institutions in the PUC

Policy PS-1.2: Assist the State in providing a high-quality environment for public schools and educational institutions in the PUC.

The PUC encompasses three out of the four Hawai'i State Department of Education (State DOE) school districts on O'ahu, with nearly 80 public schools and 40 independent schools. Creating a safe and supportive environment for students is an important consideration for streets surrounding school facilities. The City can play a role by enhancing street design and safety and introducing traffic calming elements near schools and campuses. Supporting the State's efforts in the development, maintenance, and reinvestment of high quality schools and educational institutions is an important quality of life issue, and contributes to the ability of the region to attract families that want to live and work in the PUC. In addition, the City should continue to work with the DOE on shared use recreation facilities under joint use agreements, when feasible and beneficial.

Priority Actions:

Expand the Complete Streets network. Support implementation of Complete Streets and Safe Routes to Schools, in order to complete the pedestrian network and other public safety enhancements and mobility improvements near schools.

Timeline:



Partners:

- DTS
- DDC
- DPP
- DOE
- Community partners

Look for opportunities to maximize the use of school recreational facilities. Support joint-use agreements for recreation facilities especially, on City-owned properties.

Timeline:



Partners:

- DPR
- State DOE



Pedestrian safety improvements near a school in the Punchbowl neighborhood (Source: DTS).

Goal PS-2: Plan for Emergency Management and Hazard Mitigation in the PUC

Policy PS-2.1: Increase resilience to disruptive hazard events through coordinated effort.

Identification and holistic assessment of the PUC's hazard-vulnerable infrastructure will allow for better long-range planning and allocation of resources. Regular holistic assessments will also allow for coordinated planning efforts across City and State agencies to effectively manage and adapt infrastructure that is essential for the PUC's daily functioning. Improving the resilience of infrastructure can help to reduce impacts of and aid in the recovery from a disruptive hazard event.

Priority Actions:

Practice integrated land use planning for hazard mitigation. Improve holistic and watershed-based resilience planning for hazard-vulnerable coastal areas in the PUC, including Waikīkī, the PUC's South Shore, and floodable inland areas. Coordinate across city and state agencies to effectively assess and respond to hazard vulnerabilities.

Ensure integrated infrastructure planning. Create integrated plans for adapting infrastructure to the increased prevalence of extreme weather events. Plan capital improvements that protect critical facilities, infrastructure, utilities, and vital supply chain assets from the effects of climate change and extreme weather hazards.

Implement the City's Climate Adaptation Plans. Incorporate priority actions from the City's adaptation plans that identify and address top climate change hazards and their impacts on physical assets and infrastructure into long range capital improvement planning.

Timeline:







Partners:

- DPP
- OCCSR
- BWS
- DTS
- ENV
- DFM
- State partners

Partners:

- OCCSR
- BWS
- ENV
- DPP
- DTS
- DFM
- DDC
- All City agencies
- State partners

Partners:

- All City agencies



Temporary erosion protection at Ala Moana Beach Park.

Goal PS-2: Plan for Emergency Management and Hazard Mitigation in the PUC

Policy PS-2.2: Strengthen pre- and post- disaster planning.

Citywide emergency management plans are developed by the Honolulu Department of Emergency Management (DEM) that coordinates critical response between city, state, and federal agencies for the public health and safety of the City during times of emergency and disaster. The DEM is further supported in these functions by the Office of Climate Change, Sustainability, and Resiliency (OCCSR) which works to coordinate citywide planning for resiliency in the face of climate change hazards through the development of policies and programs that support resilient infrastructure and communities, and through the planning participation of other infrastructure and public safety agencies. The DEM conforms to the local preparedness standards of FEMA in performing awareness, prevention, mitigation, preparedness, coordinated response and recovery and planning activities.

Priority Actions:

Integrate hazards and disaster planning more closely with other planning functions. Collaborate across agencies to include or strengthen pre-and post-disaster planning best practices into community-level planning documents. Look to the long-term when establishing guidelines for rebuilding damaged property and for identifying areas of future growth and change. Avoid or comprehensively address adaptation or mitigation in areas that are, or are projected to be, experiencing the greatest impacts. Put in place processes and procedures for rebuilding more resiliently after a catastrophic event.

Improve emergency management infrastructure and building codes. Improve warning and alert systems and physical shelters. Regularly adopt progressive building codes to adequately prepare for natural disasters.

Timeline:





Partners:

- OCCSR
- DEM
- EMS
- HFD
- HESD
- HPD
- Community partners

Partners:

- DEM
- OCCSR
- DDC
- DPP
- State agencies



Wildland Fires

The devastating effects of the August 2023 wildfire on Maui that swept through Lahaina town has been a painful collective loss for Hawai'i. It has also been a collective shock that has mobilised action and increased awareness of the wildfire dangers throughout the state, exacerbated by increasing heat, drought, and extreme weather patterns. While wildfire risk may not be the first thing one thinks of in an urbanized area like the PUC, there are many regional neighborhoods that border upon vegetated natural areas in our ridges and in our valleys. In addition, in a densely urban area, fires of any cause may quickly spread from structure to structure given the right conditions. That is why it is important that the City's emergency management agencies, elected officials, community groups, and concerned citizens join together to take steps in increasing fire safety by raising awareness, training, and preparedness. In August 2023, Honolulu's Mayor Blangiardi ordered a review of O'ahu's fire risk, assets and capabilities, and needs for the ongoing task of fire preparedness.

Goal PS-3: Maintain Efficient Energy and Telecommunications Systems in the PUC

Policy PS-3.1: Site energy and telecommunications facilities and equipment appropriately to avoid hazards and adverse visual impacts.

To preserve public views and neighborhood character, telecommunication upgrades and new facilities are encouraged to minimize the impacts of visually intrusive components and equipment. In addition, private energy providers of all types are encouraged to work closely with communities in the siting of new facilities and equipment to mitigate any adverse impacts.

Priority Actions:

Facilities siting. Encourage improved community vetting of commercial energy facilities and avoid or mitigate adverse impacts to scenic or natural resources. Provide guidance so that private energy providers can improve community vetting of new facilities and equipment installations, and adhere to environmental protections.

Timeline: ONGOING

Partners:
- DPP
- State agencies
- Private utilities

Minimize visual impacts. Avoid harsh visual impacts from new and modified infrastructure facilities. Use screening, landscaping, setbacks, architectural modifications, or similar design treatments to minimize visual impacts of towers, panels, and other infrastructure, and to "blend in" with surroundings. Options to place transmission lines underground should be considered.

Timeline: ONGOING

Partners:
- DPP
- Private utilities
- Individual facilities

Support facilities master planning. Coordinate on the orderly roll out of energy and telecommunications services to new development project areas. Coordinate on the planning of conservation efforts and clean energy facilities to meet state and city environmental and greenhouse gas emissions reduction goals.

Timeline: MEDIUM

Partners:
- OCCSR
- DPP
- State agencies
- Private utilities

Resolve 5G requirements. Actively support an orderly roll out of 5G telecommunications facilities, and in compliance with FAA requirements. Support equitable access to broadband for all residents.

Timeline: SHORT

Partners:
- DPP
- State agencies
- Private utilities



Flat rooftop solar array (Source: Hawai'i State Energy Office).

Goal PS-3: Maintain Efficient Energy and Telecommunications Systems in the PUC

Policy PS-3.2: Increase renewable energy production & infrastructure at the building and community scale, and reduce energy demand by increasing energy efficiency.

Honolulu's first *Climate Action Plan* or "CAP" (2020-2025) includes strategies to increase energy efficiency, maximize renewable energy throughout City operations and assets, expand renewable energy planning and expedite permitting.

Like the concept of "source reduction" for solid waste, energy efficiency measures allow for a smaller ecological footprint for buildings by reducing the amount of energy needed in the first place. Therefore, efficiency is an important piece of moving towards closing the gap between demand and overall loads that renewable energy will need to serve. City actions can help to improve energy efficiency through timely building code updates, and other standards and guidelines.

Renewable energy generation in urban Honolulu is mainly in the form of rooftop solar. Community-scale solar projects require more land, but generate mid-range energy production compared to the two traditional energy-scales of massive utility-scale and individual-scale roof-top solar programs and can often be purchased as credits by off-site users. The City can help facilitate the transition to more solar generation- especially needed in larger numbers for multi-family housing- through permits, programs, and standards. The City can also proactively engage with the State and other partners on planning for additional utility-scale renewable energy projects of all types, as called for in the CAP.



Surface parking lot with a fast charger.



Parking facility with electric vehicle charging stations.

Priority Actions:

Regularly modernize building codes. Support timely and regular building code updates to improve energy efficiency requirements and reduce greenhouse gas emissions in the building sector.

Timeline: ONGOING

Partners:
- DPP
- OCCSR

Enable more rooftop solar. Incentivize and/or streamline permitting for rooftop solar installations, especially for multi-family housing and commercial installations.

Timeline: ONGOING

Partners:
- DPP
- OCCSR

Employ conservation as a first strategy towards efficiency. Encourage efficient appliance and lighting upgrades, and other renewable and energy efficiency projects for both owner-occupied and rental properties.

Timeline: ONGOING

Partners:
- OCCSR
- DPP
- BWS

Goal PS-4: Provide Increasingly Efficient Solid Waste Services for PUC Residents.

Policy PS-4.1: Efficiently and sustainably manage the region's solid waste system.

Honolulu's *Climate Action Plan* also addresses waste reduction, resource recapture, and other efficiencies for the solid waste sector. Key actions that are especially applicable to development policies and regulations for the PUC include expanding the location of public drinking fountains and retrofitting existing ones to refill cups, flasks, and containers; continuing the reduction of single-use plastics in commercial use, and better managing bulk waste to avoid trash pileups in neighborhoods. In general, the City encourages reducing the waste stream whenever possible through recycling and reuse, and the use of alternate, cleaner, waste disposal technologies to reduce depencies on landfills. Promoting public recycling by expanding neighborhood convenience centers is also a goal.

Priority Actions:

Reduce sidewalk dumping. Require multi-family apartment developments over a certain size to provide larger bulk storage areas on site. Dumping of bulky and non-bulky residential waste on sidewalks is regrettably a common sight in front of multi-family structures that lack adequate disposal storage. City development standards should revisit the optimal space requirements for such areas.

Timeline:



Partners:

- DPP
- ENV
- OCCSR

Account for volume. Revamp waste pickup/disposal to account for volume pricing. The City should continue to evaluate a waste retrieval program that includes volume pricing to encourage recycling and less waste production.



Partners:

- ENV
- BFS
- OCCSR

Develop end-of-life requirements for solar PV. Solar photovoltaics are currently a key piece of the clean energy puzzle, however, clean generation does not translate into an entirely "green" footprint for the product's lifecycle. PVs, like other sorts of batteries, should not be landfilled in large numbers. Widespread adoption of the technology must consider the end of life disposal requirements and look to efficiencies and recycling strategies.



Partners:

- ENV
- OCCSR
- State agencies



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Appendix I:
All Policies Summary

Growth + Development

GOAL GD-1:
Direct Higher Density Growth to Mixed-Use Transit Oriented Development (TOD) Areas.

Policy GD-1.1: Focus higher intensity mixed-use development and supporting public infrastructure around rail stations.

Policy GD-1.2: Create mixed-use TOD neighborhoods with meaningful character and a sense of place.

Policy GD-1.3: Facilitate the evolution of shopping malls and big box retail near rail stations from isolated single-use centers into true gathering places.

Policy GD-1.4: Refine the discretionary TOD permitting process to balance higher-density entitlements with commensurate community benefits.

GOAL GD-2:
Invest in Bus Transit-Supportive Corridors and Adjacent Mixed-Density Neighborhoods.

Policy GD-2.1: Support mixed-use infill redevelopment and increased bus service along key underutilized commercial corridors.

Policy GD-2.2: Promote moderate-scaled residential infill while preserving affordability in mixed-density neighborhoods.

Policy GD-2.3: Invest in long-term growth in commercial corridors and mixed-density neighborhoods outside of the Sea Level Rise Exposure Area (SLR-XA).

Policy GD-2.4: Provide green space and landscaping improvements in mixed-density in-town neighborhoods, especially those lacking parks.

GOAL GD-3:
Plan for Context-Appropriate Infill and Redevelopment in Lower-Density Places.

Policy GD-3.1: Allow gradual addition of house-form multi-unit dwellings and small apartment buildings near lower-intensity commercial corridors.

Policy GD-3.2: Continue to improve multimodal access and connectivity in lower-density neighborhoods.

Policy GD-3.3: Maintain the lower intensity character of valley/ridge and near-town neighborhoods.

Policy GD-3.4: Improve infrastructure capacity planning for areas of low to moderate growth to meet demand for ADUs and modest infill development.

GOAL GD-4:
Avoid Development in Sensitive or Protected Areas and on Steep Slopes.

Policy GD-4.1: Continue to discourage new development beyond the Urban Growth Boundary and on very steep slopes.

Policy GD-4.2: Decrease building and structure encroachments on streams and wetlands (except for those essential to flooding control).

GOAL GD-5:
Manage Growth and Public Investment for the Benefit of all PUC Residents.

Policy GD-5.1: Make equitable public investment a priority in all functional planning through ongoing evaluation of corridors and neighborhoods with deficiencies in basic services and amenities.

Policy GD-5.2: Manage the broader, indirect impacts of high-density development and growth on adjacent communities through focused effort and sustained attention.

Policy GD-5.3: Support and maximize high-quality affordable housing on public lands.

Policy GD-5.4: Align infrastructure expansions with growth areas.

Placemaking + Character

GOAL PL-1:
Enhance the PUC's Unique Places.

Policy PL-1.1: Encourage development projects and a public realm that reflects Hawai'i's culture and arts.	**Policy PL-1.2:** Improve the sense of entry at key gateways in the PUC by aligning public improvements and private development.	**Policy PL-1.3**: Protect and care for historical structures in the PUC.	**Policy PL-1.4**: Preserve cultural and archaeologically significant resources in the PUC.	**Policy PL-1.5**: Continue to preserve significant panoramic public views of natural landmarks through Special District provisions.	**Policy PL-1.6**: Enhance key mauka-makai view corridors.

GOAL PL-2:
Promote Excellent Building and Site Design that Responds to Honolulu's Climate and Environment.

Policy PL-2.1: Encourage sustainable building and site design practices that respond to the tropical climate.	**Policy PL-2.2:** Integrate greenery and green infrastructure into new developments, especially large sites.	**Policy PL-2.3:** Actively pursue Honolulu's tree canopy goals, especially in interior neighborhoods lacking trees.

GOAL PL-3:
Support Vibrant Commercial/Mixed Use Corridors and Neighborhood Centers in the PUC.

Policy PL-3.1: Activate "main street" corridors with pedestrian amenities, frequent gathering places, and expressions of community identity.	**Policy PL-3.2:** Support an attractive and pedestrian-friendly public realm along well-used PUC corridors.	**Policy PL-3.3:** Ensure pedestrian-oriented design in all corridors and centers, especially in Town Corridor, Urban Corridor, Downtown, and Resort areas.	**Policy PL-3.4:** Improve multimodal connections and pedestrian pathways within and between the PUC's mixed-use corridors, town neighborhoods, parks, and public institutions.	**Policy PL-3.5:** Conduct focused corridor and area planning to guide improvements.

Housing

GOAL H-1:
Encourage Development of a Wide Range of Housing Types in Proximity to Transit.

Policy H-1.1: Enable or incentivize residential infill development in transit-accessible planned growth areas.	**Policy H-1.2:** Refine the desired residential land use mix in TOD and key focus areas.	**Policy H-1.3:** Encourage a greater variety of housing types, including low or middle-density multi-family housing, ADUs and ‘ohana units, mid-rise apartment buildings, and shared housing models.

GOAL H-2:
Expand the Availability of Quality Affordable Housing for PUC Residents.

Policy H-2.1: Expand the supply of income-restricted affordable housing through requirements, incentives, and public-private partnerships.	**Policy H-2.2:** Produce new income-restricted units through public sector development and non-profit partnerships.	**Policy H-2.3:** Preserve affordable housing options and improve conditions by encouraging reinvestment and redevelopment of aging multi-family housing and investing in public infrastructure.	**Policy H-2.4:** Expand homeless services and supportive housing in the PUC.

Parks & Public Open Spaces

GOAL PPOS-1:
Provide Adequate Parks Coverage to meet Resident Needs.

Policy PPOS-1.1: Pursue a long-term vision and strategy for the PUC parks and open space network.	**Policy PPPOS-1.2:** Implement a "10-minute walk" standard for park accessibility in the PUC.	**Policy PPOS-1.3:** Seek opportunities to create new parks in high-density and growing areas of the PUC.	**Policy PPOS-1.4:** Find creative opportunities in the urban context for a greater variety of park and open space types.	**Policy PPOS-1.5:** Improve the ecological function of parks.

GOAL PPOS-2:
Increase Connectivity and Access to and between Parks, Beaches, and Trails.

Policy PPOS-2.1: Create safe park-to-park connections through continuous and dedicated pedestrian/bicycle ways.	**Policy PPOS-2.2:** Use Green Streets to connect major recreation and public areas, provide missing green space, and beautify viewshed corridors.	**Policy PPOS-2.3:** Better connect residents to the beaches and trails in the PUC, such as through an enhanced beach access program.

GOAL PPOS-3:
Provide High-Quality Parks for all PUC Residents.

Policy PPOS-3.1: Invest in park facilities, equipment, and programs that serve all ages.	**Policy PPOS-3.2:** Support park revitalization with additional funding for maintenance, partnerships, and staff.	**Policy PPOS-3.3:** Promote parks that are safe for the community through environmental design strategies and after-hours activity.	**Policy PPOS-3.4:** Expand existing programs that advance shared use and park stewardship efforts.	**Policy PPOS-3.5:** Ensure long-term maintenance/preservation of open spaces in subdivisions, cluster housing, and master planned developments.

Mobility

GOAL MC-1:
Provide Safe, Accessible, & Affordable Multimodal Transportation Options.

Policy MC-1.1: Implement Complete Streets and Vision Zero strategies to enhance the safety and utility of the transportation system for all users.	**Policy MC-1.2:** Continually improve the efficiency and connectivity of public transit in PUC neighborhoods through improved travel times and frequency.	**Policy MC-1.3:** Continue to expand safe facilities and increase comfort in the bicycle network.	**Policy MC-1.4:** Improve pedestrian connectivity and safety throughout the PUC.

GOAL MC-2:
Create an Adaptable and Flexible Transportation System.

Policy MC-2.1: Reduce dependency on single-occupancy vehicles and reduce vehicle miles traveled (VMT).	**Policy MC-2.2:** Safely integrate emerging technologies into the transportation system.	**Policy MC-2.3:** Improve the efficiency and operations of existing transportation facilities.	**Policy MC-2.4:** Adapt the roadway network to address challenges from chronic flooding and sea level rise.	**Policy MC-2.5:** Maximize interagency and regional transportation coordination.

Healthy Communities

GOAL HC-1:
Foster a healthy built environment in the PUC.

Policy HC-1.1: Encourage exemplary healthy ("green") building standards.	**Policy HC-1.2:** Promote strategies to increase energy efficiency and clean energy in buildings.	**Policy HC-1.3:** Avoid/mitigate the Urban Heat Island Effect and reduce heat stress.	**Policy HC-1.4:** Expand access to healthy foods from local growers and expand the community gardens program.

GOAL HC-2:
Shape an Age-Friendly community that responds to the needs of all PUC residents.

Policy HC-2.1: Encourage housing designed with kūpuna in mind, and in a variety of household sizes.	**Policy HC-2.2:** Design parks and open space to provide increased physical activity for all ages.	**Policy HC-2.3:** Enhance safety, accessibility, and navigability in public gathering places and transportation networks.

GOAL HC-3:
Support initiatives that improve community engagement, health, and equity.

Policy HC-3.1: Improve civic engagement in the planning process and increased community-focused initiatives.	**Policy HC-3.2:** Collaborate across City and State agencies, and partner organizations, to center equity in public infrastructure, programs, and services.	**Policy HC-3.3:** Increase disaster preparedness in the community.	**Policy HC-3.4:** Increase community resilience to climate-based hazards.

Sea Level Rise + Coastal Hazards

GOAL SLR-1:
Adapt Regulatory Standards to Improve Resilience to Climate Change and Coastal Hazards.

Policy SLR 1.1: Utilize the SLR-XA as a tool for current zoning and permitting decisions and for siting critical infrastructure.	**Policy SLR 1.2:** Advance evidence-based sea level rise and resilience requirements and time-based monitoring.	**Policy SLR 1.3:** Encourage voluntary adaptation measures in the SLR-XA that exceed statutory requirements.	**Policy SLR 1.4:** Consider the SLR-XA compound hazards individually and together to determine appropriate adaptation measures.	**Policy SLR 1.5:** Update shoreline regulations and development policies to reflect coastal hazard impacts and best available guidance on an ongoing basis.

GOAL SLR-2:
Conduct Long-Range Planning to Increase Area-Wide Adaptation and Resilience.

Policy SLR 2.1: Plan for priority growth outside of higher impact areas, and vet proposed solutions for higher impact areas with the community.	**Policy SLR 2.2:** Address potential impacts to surrounding sites for project-level adaptation measures.	**Policy SLR 2.3:** Prioritize and fund community-level Area Adaptation Plans.	**Policy SLR 2.4:** Incorporate sea level rise / coastal hazard considerations in the planning, design, and maintenance of facilities and infrastructure.

GOAL SLR-3:
Coordinate Infrastructure Planning for Sea Level Rise Across Agencies.

Policy SLR 3.1: Support collaborative resilience planning for new and existing infrastructure.	**Policy SLR 3.2:** Pursue a district-scale fee structure or other dedicated funding mechanisms for adaptation projects.	**Policy SLR 3.3:** Monitor ongoing impacts within the SLR-XA across infrastructure agencies to update development regulations that implement adaptation.	**Policy SLR 3.4:** Support State agencies in applying appropriate interventions and environmental measures for adapting/ preserving beaches and shoreline impacted by sea level rise and erosion.

Water Resources

GOAL WR-1:
Take a Comprehensive and Collaborative Approach to Water Management in the PUC.

Policy WR-1.1: Collaborate across water quality and water infrastructure management departments and agencies.	**Policy WR-1.2:** Work with State water and environmental agencies to protect and manage upper watersheds.	**Policy WR-1.3:** Address chronic storm flooding and ongoing drought issues through multiple solutions.

GOAL WR-2:
Protect Ground and Surface Water Quality from Polluting Land Uses.

Policy WR-2.1: Protect drinking water aquifers, and surface and nearshore waters from contamination by developed land uses, urban runoff, underground fuel storage, and illegal dumping.	**Policy WR-2.2:** Enhance the ecological function of streams.	**Policy WR-.2.3:** Effectively manage stormwater flows with appropriate on-site and area-wide system best practices.

GOAL WR-3:
Maintain Resilient Water Infrastructure Systems.

Policy WR-3.1: Reduce vulnerability of the water infrastructure system to the effects of climate change.	**Policy WR-3.2:** Help mitigate drought and support water conservation projects and programs to manage demand.	**Policy WR-3.3:** Improve coordination of wastewater infrastructure and land use planning.

Economic Development

GOAL ED-1:
Support Employment and Business Growth in the PUC's Transit-Rich, Mixed-Use, and Industrial Areas.

Policy ED-1.1: Accommodate and encourage commercial job growth in dense, transit-rich locations.	**Policy ED-1.2:** Enhance the ability of new and small businesses to thrive and grow in the PUC.	**Policy ED-1.3:** Maintain industrial use as the primary land use in key PUC locations with easy access to the port and airport.	**Policy ED-1.4:** Support varied business uses in light-industrial and mixed-use areas.

GOAL ED -2:
Create a Balanced and Diversified PUC Economy.

Policy ED-2.1: Support growth in key industries such as information and technology, green industries, education and training, creative media, made in Hawai'i products, and other sectors identified by City or State Economic Development initiatives.	**Policy ED-2.2:** Grow resident workforce skills by supporting State investments in K-12 and higher education facilities and jobs training.	**Policy ED-2.3:** Continue to invest in the success of Waikīkī as the State's primary visitor destination/resort area and a livable urban neighborhood.	**Policy ED-2.4:** Maintain a productive relationship with the military to broaden its contributions to the PUC.

GOAL ED-3:
Ensure City Services & Infrastructure Support Broad Economic Prosperity.

Policy ED-3.1: Support small property owners and their redevelopment, infrastructure, and funding needs through process streamlining and enhancements.	**Policy ED-3.2:** Ensure major public infrastructure needs are funded equitably, including with contributions from new developments.

Public Services

GOAL PS-1:
Support Civic and Public Institutions in the PUC.

Policy PS-1.1: Provide for adequate civic and public safety facilities and essential services in the PUC.

Policy PS-1.2: Assist the State in providing a high-quality environment for public schools and educational institutions in the PUC.

GOAL PS-2:
Plan for Emergency Management and Hazard Mitigation in the PUC.

Policy PS-2.1: Increase resilience to disruptive hazard events through coordinated effort.

Policy PS-2.2: Strengthen pre- and post-disaster preparedness.

GOAL PS-3:
Maintain Efficient Energy and Telecommunications Systems in the PUC.

Policy PS-3.1: Site energy and telecommunications systems appropriately to avoid hazards and adverse visual impacts.

Policy PS-3.2: Increase production of renewable energy at the building and community scale.

GOAL PS-4:
Provide Efficient Solid Waste Services for PUC Residents.

Policy PS-4.1: Efficiently and sustainably manage the region's solid waste system.

Report Title:
Primary Urban Center Development Plan ("PUC DP") for the City and County of Honolulu; Department of Planning and Permitting ("DPP"); Development Plans

Description:
Repeals the Primary Urban Center Development Plan for the City and County of Honolulu set forth in Chapter 24, Article 2, and adopts a revised Primary Urban Center Development Plan for the City and County of Honolulu to be set forth in the same.

The summary description of legislation appearing on this page is for informational purposes only and is not legislation or evidence of legislative intent.