Virtual Meeting Guidelines



Please stay muted unless you're actively speaking



React or provide nonverbal feedback at any time!



To ask a question, click the "Raise Hand" icon OR

type your question into the chat



If you can't access these features, please wait until a Q&A pause



Tech isn't always perfect — thank you for your patience!



Agenda October 20, 2020

- Welcome and Introductions
- 2. Purpose and Operating Principles for the Advisory Hui
- 3. Sunshine Law Requirements
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Purpose and Operating Principles for the Advisory Hui

- Purpose of this first meeting is to orient members to the project and operating requirements, engage with the climate hazard impacts questionnaire, engage in discussion on climate adaptation principles, and re-confirm agreement to serve on the Advisory Hui
- Advise and provide input on issues and priorities to consider in the development of the adaptation strategy and toward evaluating and prioritizing actions to address climate risks
- The group represents diverse communities, interests, and geographies across O'ahu
- The Resilience Office will draw upon the input and feedback of the Community Advisory Hui when developing the:
 - adaptation actions areas;
 - adaptation actions; and,
 - recommendations for evaluative frameworks for decision-making for the strategy recommendations in concert with City agency activities





Purpose and Operating Principles for the Advisory Hui

- Meetings are open to the public, with time reserved during each meeting for community feedback
- Meeting agendas are posted six calendar days in advance of a meeting
- Meeting materials and notes will be posted online following each meeting
- Advisory meetings are in addition to other aspects of the project scope:
 - Virtual community engagements;
 - · City department activities; and,
 - Engagement with state agencies





Purpose and Operating Principles for the Advisory Hui

Two-way Commitment...

- 5 meetings (proposed as October, November, January 2021, April, June, no more than 2-hrs/meeting)
- Resilience Office available for discussions in between meetings and additional direct engagements with your organization, memberships, and/or networks

We hope...

• Informative, mutually beneficial, and a path for climate change adaptation

We ask...

• Help spread the word and encourage participation throughout the project and beyond





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Sunshine Law Requirements

- State of Hawai'i Office of Information Practices: such advisory groups are official City "boards" subject to Sunshine Law requirements
- Meeting agendas will be posted six days in advance
- Minutes will be taken and posted
- Members are required to get Sunshine Law training
- Any member of the public who requests to be informed of the group's activities will be added to a list serve and provided agendas and minutes

Sunshine Law Resources

- Advisory Hui members are required to receive training on Sunshine Law, which is available as a training video here:
 <u>oip.hawaii.gov/laws-rules-opinions/sunshine-law/sunshine-law-training-videos/</u> (Confirm completion prior to November meeting)
- Additionally, members can review the Sunshine Law Guide (July 2019): <u>oip.hawaii.gov/wp-content/uploads/2019/10/July-2019-Sunshine-GUIDE.pdf</u>

Hawai'i Office of Information Practices

• Tel: (808) 586-1400

• Email: oip@hawaii.gov

Website: www.oip.hawaii.gov

Climate Ready O'ahu (Resilience Office)

• Tel: (808) 768-2277

• Email: climateready@honolulu.gov

Website: <u>www.climatereadyoahu.org</u>





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Mandate from O'ahu Voters

The Resilience Office is a Charter-mandated City office created to respond to climate change, resilience, and other sustainability challenges.



Green
City Operations





Promote Resilient Communities





Ensure Sustainable City Plans & Policies



Facilitate Climate Change Commission

Our Climate

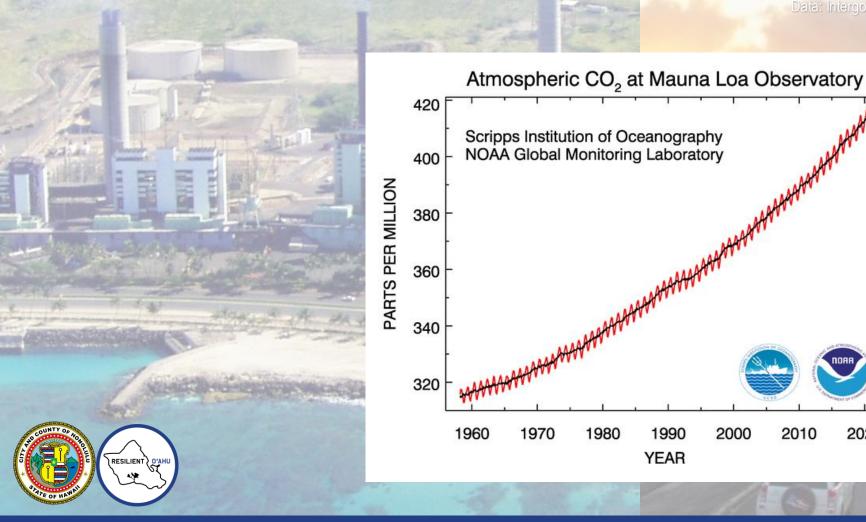


We are dumping 110 million tons of manmade global warming pollution into the atmosphere every 24 hours.

Data: Intergovernmental Panel on Climate Change

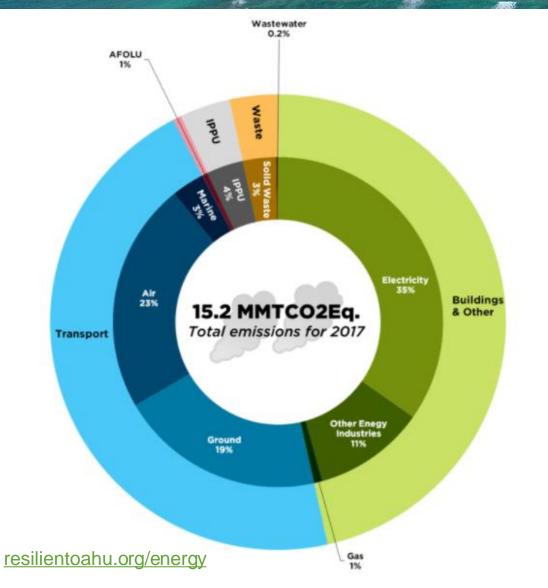
2020

2010





GHG Emissions and Climate Action Plan



BUILDINGS AND OTHER

35% of total island emissions from the generation of electricity to power homes, businesses and, increasingly, electric vehicles. Other emissions in this sector come from processes to refine oil, other petroleum demand, and gas use.



TRANSPORTATION

Air transportation emissions are 23% of overall greenhouse gas emissions for Oahu. Ground transportation is the other large component, at 19%. Within ground transportation, light duty vehicles (cars, motorcycles and light trucks) make up about 90% while heavy duty vehicles (buses and other large diesel vehicles) are 10%.

INDUSTRIAL PROCESSES

These emissions come from cement production, electrical transmission and distribution, and substitution of ozone depleting substances and account for 4% of total island-wide emissions.



WASTE

Waste sector emissions come from solid waste (garbage) sent to landfills as well as the treatment of wastewater. A large portion of the solid waste on O'ahu is sent to H-Power where it is burned to create electricity. Those emissions are accounted for in electricity.

AGRICULTURE/LAND

Only 1% of island-wide emissions comes from livestock, agricultural soil management, fertilization, land-filled yard trimmings, field burning of agricultural residues, and forest fires.







Climate Change Mitigation & Adaptation

2017

- We Are Still In, Paris Climate Agreement
- <u>Act 32 (2017)</u>, State Climate Change Mitigation and Adaptation <u>Commission</u>
- Chicago Climate Charter
- Clean Transportation Commitment
- State Sea Level Rise Vulnerability and Adaptation Report and Data Viewer

2018

- City Climate Change Commission <u>Brief and Guidance</u>
- <u>Directive 18-2</u>, Climate Change and Sea Level Rise
- Act 15 (2018), State Carbon Neutrality Law (plus 100% Renewable in the Electricity Sector)
- Res 18-221, 100% Renewable, Carbon Neutral Economy, Implement 2018 Global Climate Action Summit Goals

2019

- City GHG Inventory
- Climate Resilience added as Mayor priority
- Resilience Strategy released
- Res 19-233, Resilience Strategy as City guiding policy
- Res 19-283, Fossil Fuel Litigation
- Multiple bills and ordinances

2020

- Multiple bills and ordinances
- <u>Directive 20-14</u>, Community Heat and Community Forestry
- Hawai'i 2050 Sustainability Plan update
- Act 16 (2020), Relating to Coastal Zone Management





Climate Change Adaptation Planning, Action

2.1 - Planning and Implementation Structure

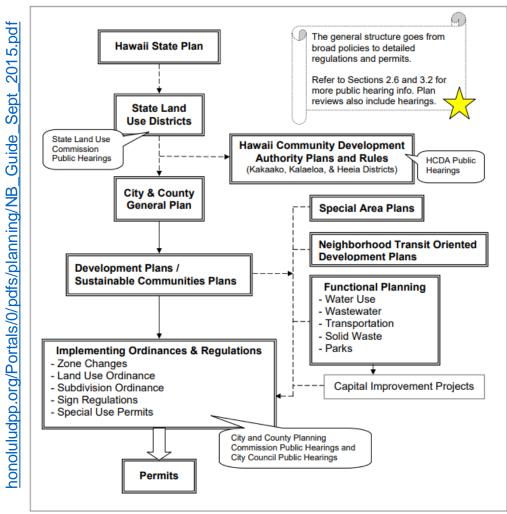
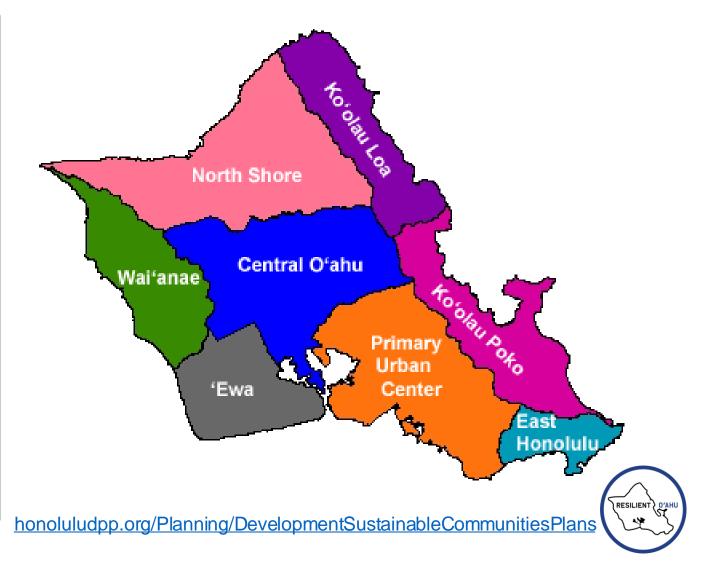


Figure 1 – Basic Components of Planning in Oahu





Climate Change Commission

Science for Local Decisions

CLIMATE CHANGE BRIEF

Summary of measured and expected impacts to O'ahu

SEA LEVEL RISE GUIDANCE

3.2 feet rise by 2100 (80 years)Periodic flooding by mid-century (30 years)6.0 feet as planning benchmark for critical facilities





Mayor's Directive 18-2



July 16, 2018 Climate Change and Sea Level Rise

Mayor Caldwell issued an executive order in response to guidance issued by the City's Climate Change Commission.

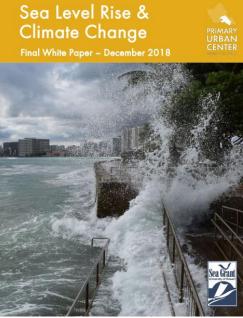




DPP Primary Urban Center Development Plan

- Land Use & Zoning Recommendations
- Use of Data
- Community Engagement 16 Pop-ups





www.pucdp.com, puc_hnl (IG) & @HonoluluPUCDP(FB)



SEA LEVEL RISE STRATEGIES SURVEY >

In late 2017 the State issued the Hawai'i Sea Level Rise Vulnerability and Adaptation Report which defined areas of exposure (SLR-XA) to the combined factors of sea level rise, wave action, and coastal erosion. Subsequently, Honolulu's Climate Change Commission issued Sea Level Rise Guidance that recommends a planning benchmark of 3.2' of sea level rise projected by the end of the century (however high tide flooding can appear decades earlier), and planning for up to 6' of sea level rise for long-life projects and critical infrastructure.

An important new component of the PUC DP is the incorporation of Sea Level Rise and Climate Change planning concepts and recommendations. Please take time to complete our online survey below, which includes an overview of some of the recognized approaches to sea level rise adaptation and asks participants to indicate which ones are favored as a potential response to this challenge. We value this input as a way to inform the ongoing planning process.

Take the Sea Level Rise Survey!



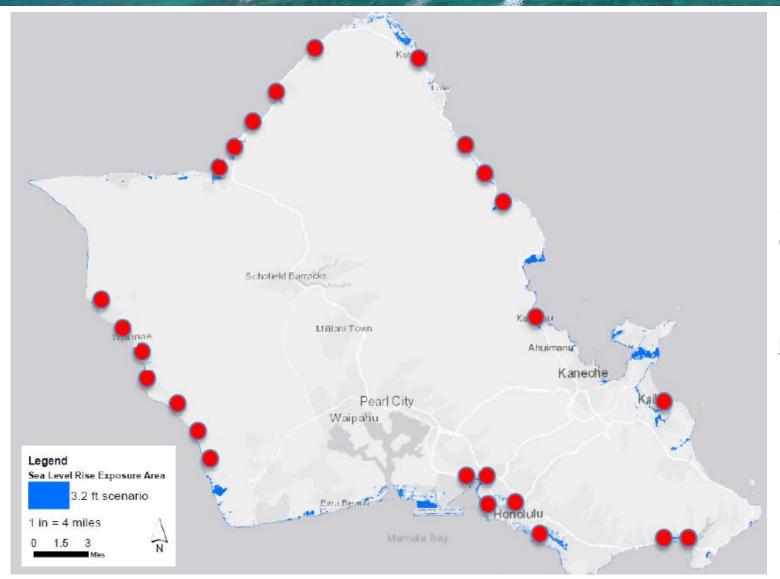


Interactive exercises available at our pop-ups and through the online survey





BWS Transmission Vulnerabilities



Low elevation/coastal bridge crossings

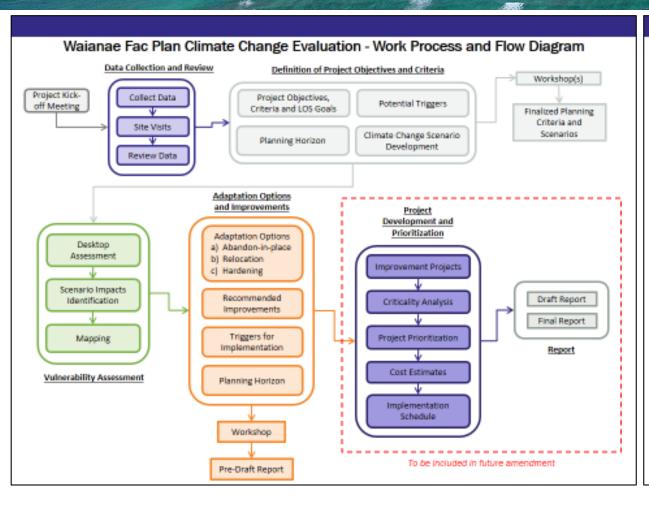
Shared utility corridors highlight a need for collaborative facilities and community planning

boardofwatersupply.com/water-resources/climate-change





ENV Wastewater Facilities Planning



Preliminary Impact Results for the Proposed Scenarios

Asset	Sea Level Rise (SLR) = 3.2'			SLR = 6'	FEMA
	Passive Flooding	Annual High Wave Flooding	Coastal Erosion	Passive Flooding	100-year Flood
Waianae WWTP					Х
Lualualei WWPS		Х	Х		Х
Nanakuli WWPS	-	-	-	-	Х
Pipelines	15,000 LF	47,000 LF	16,000 LF	41,000 LF	63,000 LF
	3%	11%	4%	9%	14%

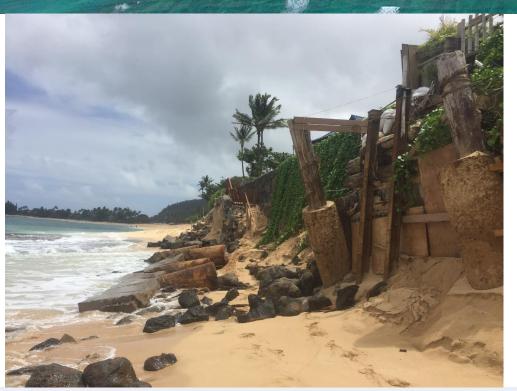
- The table provides the assets identified during preliminary analysis as potentially impacted by the listed SLR scenarios and associated hazards
- The WWTP and WWPSs are identified as either potentially impacted ("X") or not impacted ("-")
- For pipelines, the total linear footage (LF) and percentage that is potentially impacted is provided

rown and Caldwell 51





Shoreline Regulations and Rules





Resilience Strategy Action 29 (and Act 16 (2020)):

Protect Beaches and Public Safety
With Revised Shoreline Management Rules





Climate Ready O'ahu



Learn Participate Connect

climatereadyoahu.org

E komo mai and mahalo for charting a course toward a Climate Ready O'ahu

What is the climate adaptation strategy?

Resilience Strategy Action 28:

Chart a Climate Resilient Future By Creating and Implementing A Climate Adaptation Strategy





Climate Ready O'ahu

climatereadyoahu.org

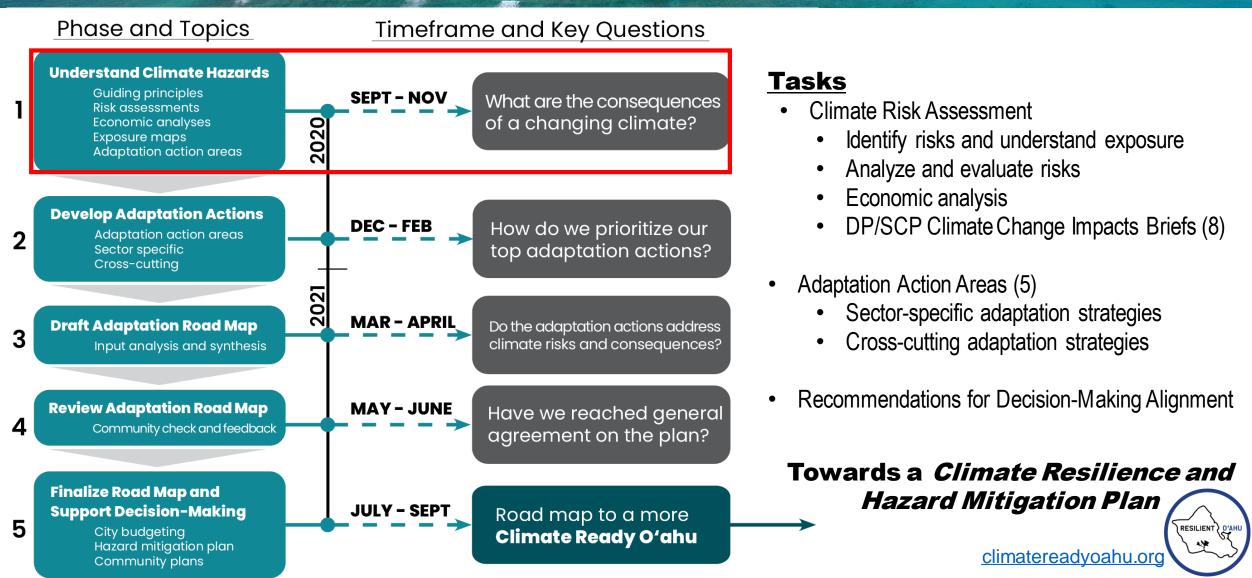
What is the climate adaptation strategy?

- · An islandwide risk assessment that incorporates the needs and values of O'ahu and its residents
- An evaluation of climate impacts on important infrastructure (such as water pipes), assets (such as beach parks), and populations (such as frontline communities)
- A resource to inform <u>community plan updates</u>, department functional plans, and support the <u>Multi-Hazard Pre-Disaster Mitigation Plan</u>, the City's playbook for preparing for, responding to, and recovering from natural disasters
- · Actionable steps to address high priority risks, including adaptation strategies for City departments to implement
- · Recommendations for integrating climate risks into decision-making processes
- The implementation of <u>Resilience Action 28</u> from the community-sourced <u>O'ahu Resilience Strategy</u>



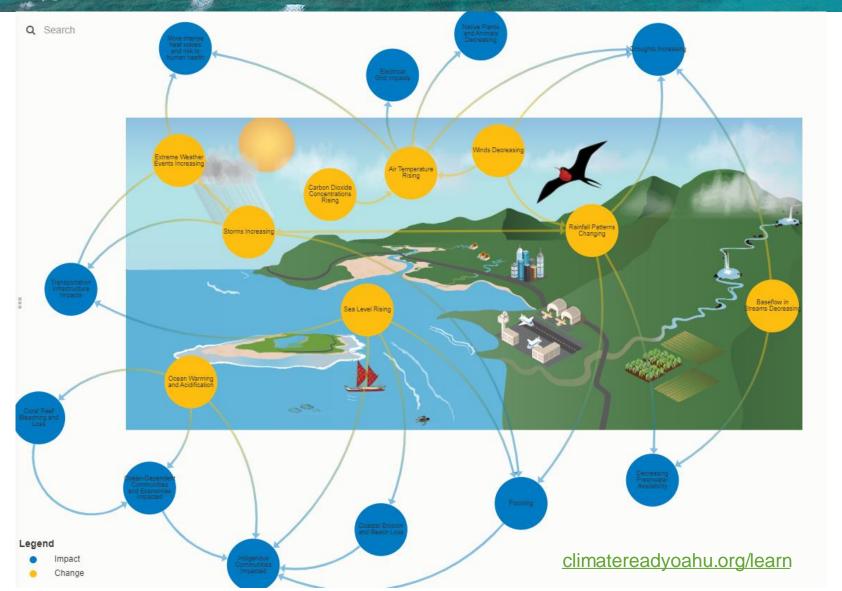


Timeline toward a Climate Ready O'ahu





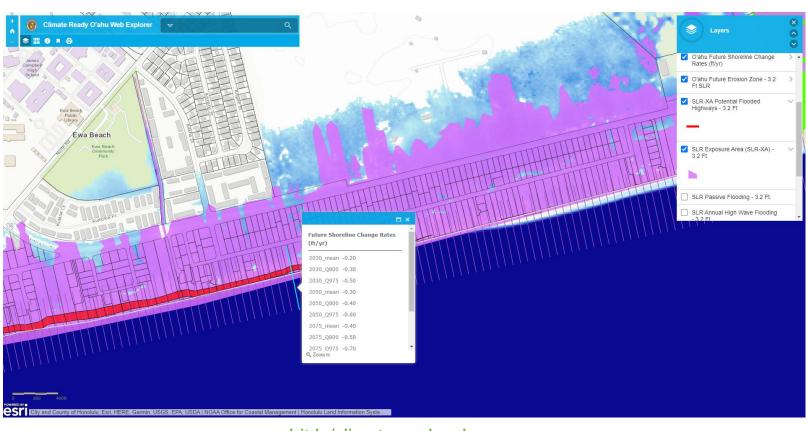
Mayor's Directive 18-2 & Climate Change Brief







Mayor's Directive 18-2 | Climate Adaptation



bit.ly/climatereadyoahumap

resilientoahu.org/s/MayorsDirective18-02.pdf

Climate Ready O'ahu Web Explorer

Current Layers

SMA

TMKs

Community Plan Areas

Historical and Future Shoreline Change Rates

State 3.2' SLR-XA, component hazards,

and flooded highways

O'ahu DFIRM

NOAA 6' SLR

Heat Index Afternoon

Tree Canopy – Land Cover (2010)

Additional Potential Layers

Beach/dune geology

"Future V Zone"

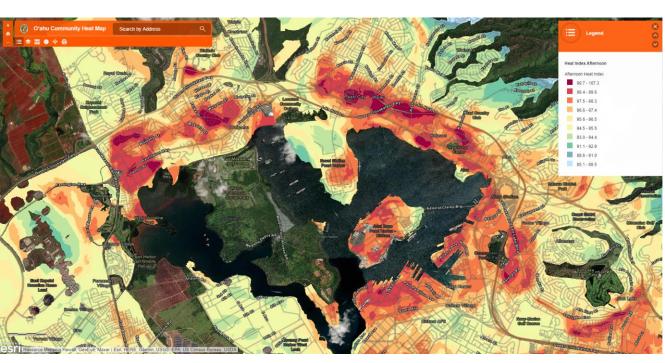
Tsunami Zones

Tree Inventory/Citizen Forester Data





Mayor's Directive 20-14 | Temps and Trees







bit.ly/oahuheatmap

resilientoahu.org/s/Mayors-Directive-20-14.pdf



Implementing New Equity & Climate Practices

Community and a Changing Climate

Defining Equity:

PLACE- AND PEOPLE- BASED SOLUTIONS



PROCEDURAL EQUITY

Accessibility and inclusivity of decision making processes by those most impacted.

DISTRIBUTIONAL EQUITY

Benefits are distributed to prioritize those most in need.

STRUCTURAL EQUITY

Transparency and accountability are institutionalized, acted upon and regulated.

INTERGENERATIONAL EQUITY

Decisions prioritize the health and wellbeing of future generations.

CULTURAL EQUITY

The acknowledgement and undoing of racism with the concurrent construction of equitable multicultural norms.





Implementing New Equity & Climate Practices

Implementation

Implementing Resilience for O'ahu

Producing a strategy is not the end of thinking about resilience –it's the beginning.

The Key
Components
for Action:



New Policies



Budget Alignment



Resilient Projects



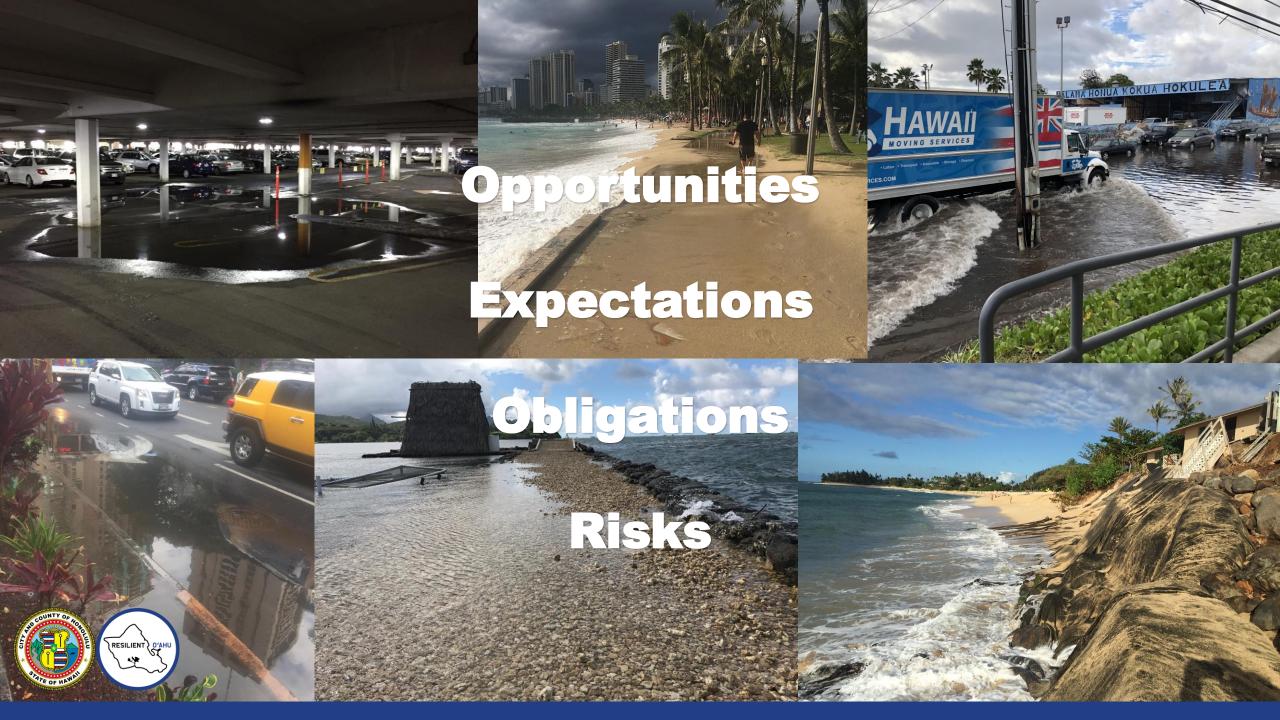
- Stormwater Utility
- Integrated Infrastructure Planning & One Water
- Infrastructure Resilience Design Review
- Longer-term Capital and Financial Plans
- Hazard Mitigation Plan and CIP Alignment

Normalize Organize Operationalize



City-Community Partnerships







Climate Costs



Recreation/Community Facilities



Private Residences/Public Resources



Businesses/Redevelopment





Climate Costs

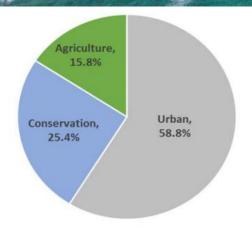


Figure 98. Estimated percentage of Land Use Districts impacted in the 3.2 feet sea level rise exposure area on O'ahu



Figure 99. Portions of the SLR-XA (blue) around Pōka'i Bay extending beyond the Special Management Area (SMA) boundary (pink hatched area) that would not be subject to SMA permitting requirements

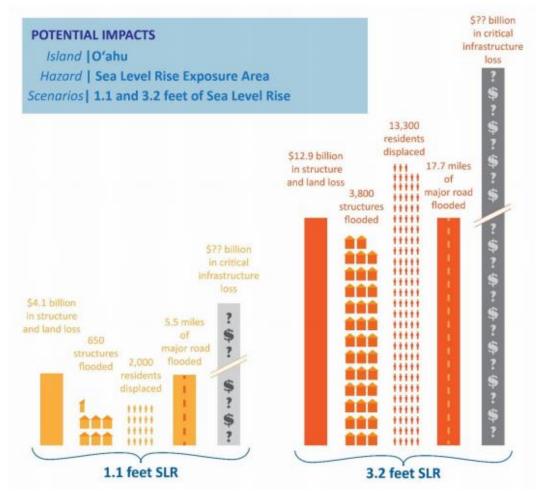


Figure 100. Summary of potential impacts in the SLR-XA with 1.1 feet and 3.2 feet of sea level rise on O'ahu





Climate Costs









Climate Costs









Climate Costs









Who Pays the Climate Tab?

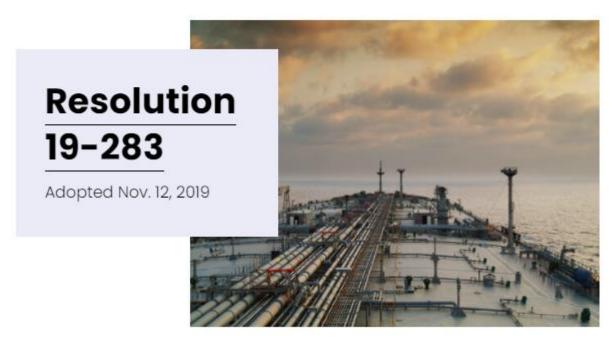
City sues fossil fuel businesses over climate change costs

By Nina Wu - March 10, 2020



CRAIG T. KOJIMA / CKOJIMA@STARADVERTISER.COM

City leaders Monday discussed the filing of a lawsuit alleging that large fossil fuel companies are accountable for the costs and consequences of climate change that companies knowingly inflicted on Honolulu and its taxpayers. Department of Facility Maintenance Director Ross Sasamura, left; Council Budget Chairman Joey Manahan; Chief Resilience Officer and Executive Director of the Office of Climate Change, Sustainability and Resiliency Josh Stanbro; and Acting Corporation Counsel Paul Aoki held the news conference



Authorize the Department of the Corporation Counsel to initiate legal action against fossil fuel companies to recover climate crisis-related costs







Climate Change Brief

Adopted June 5, 2018

This brief describes the local, regional, and global impacts of climate change as documented by peer-reviewed scientific literature and credible empirical data sources. It provides a benchmark for the commission, attesting to the Climate Change Commission's concerns, underpinning the Commission's decisions and recommendations, and serving to inform those the Commission serves.

Download







Sea Level Rise Guidance

Adopted June 5, 2018

This report builds on findings in the Hawai'i Sea Level Rise Vulnerability and Adaptation Report (2017), Sweet et al. (2017), USGCRP (2017), Sweet et al. (2018), and other scientific literature to provide specific policy and planning guidance on responding to sea level rise by the City.

Download







Shoreline Setback Guidance: ROH Ch. 23 Adopted Dec. 23, 2019

The Hawai'i Revised Statutes (HRS), Chapter 205A, authorizes the City to establish a coastal setback and to revise it as appropriate. Mayor Caldwell requested that the Commission provide guidance on new shoreline regulations and rules. In response, this document provides recommendations for amending the Revised Ordinances of Honolulu 1990 (ROH), Chapter 23, "Shoreline Setbacks."

Download







Climate Change and Financial Risk Guidance

Adopted July 14, 2020

The purpose of this guidance document is to provide considerations of the emerging financial risks affiliated with climate change, particularly climate shocks and stressors relevant to the City & County of Honolulu. This prompts the need to critically examine the nature of hazards, current insurance information and mechanisms used by the City, as well as general practices of public finance. This guidance document highlights potential alternative risk transfer options to address climate change shocks as well as discusses City public finance in the context of climate change stressors.

Download Guidance

Download Memo

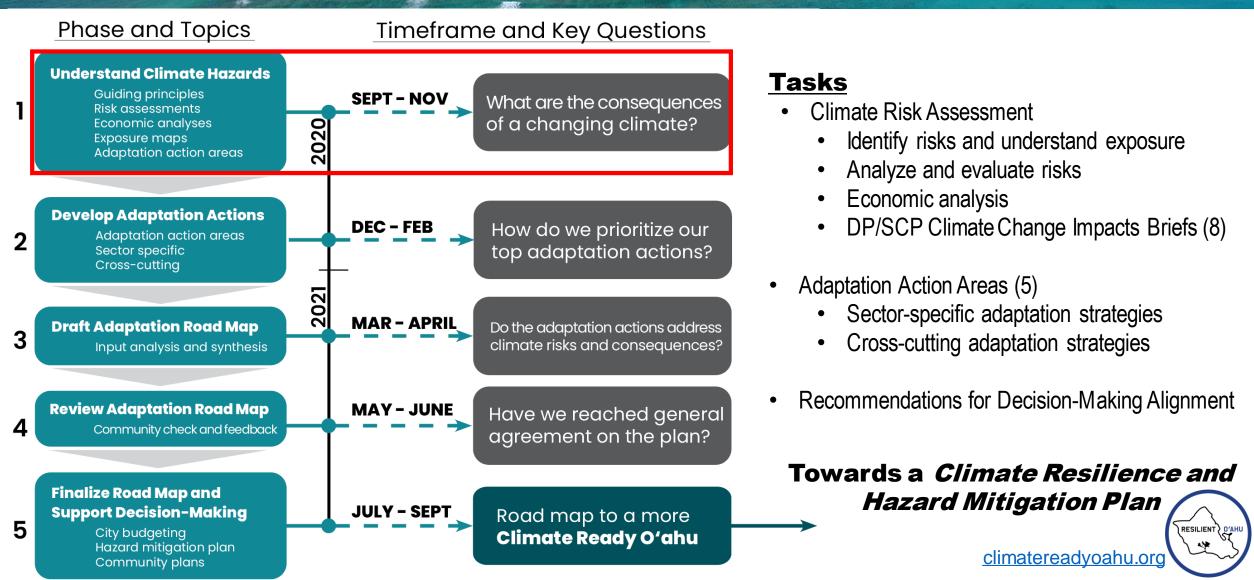








Timeline toward a Climate Ready O'ahu





Agenda October 20, 2020

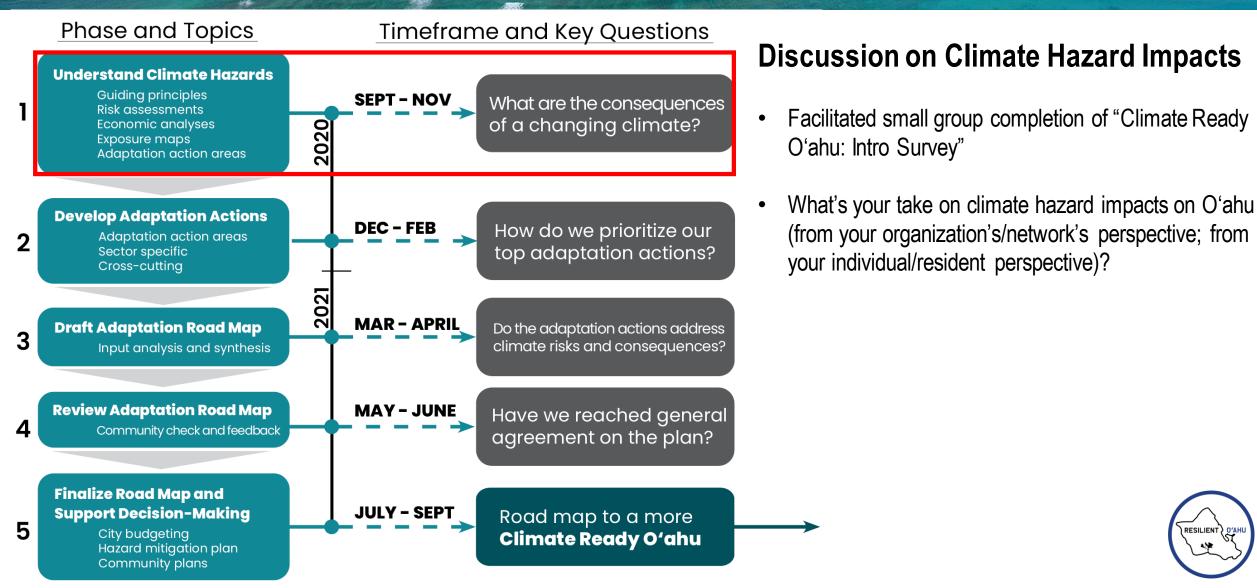
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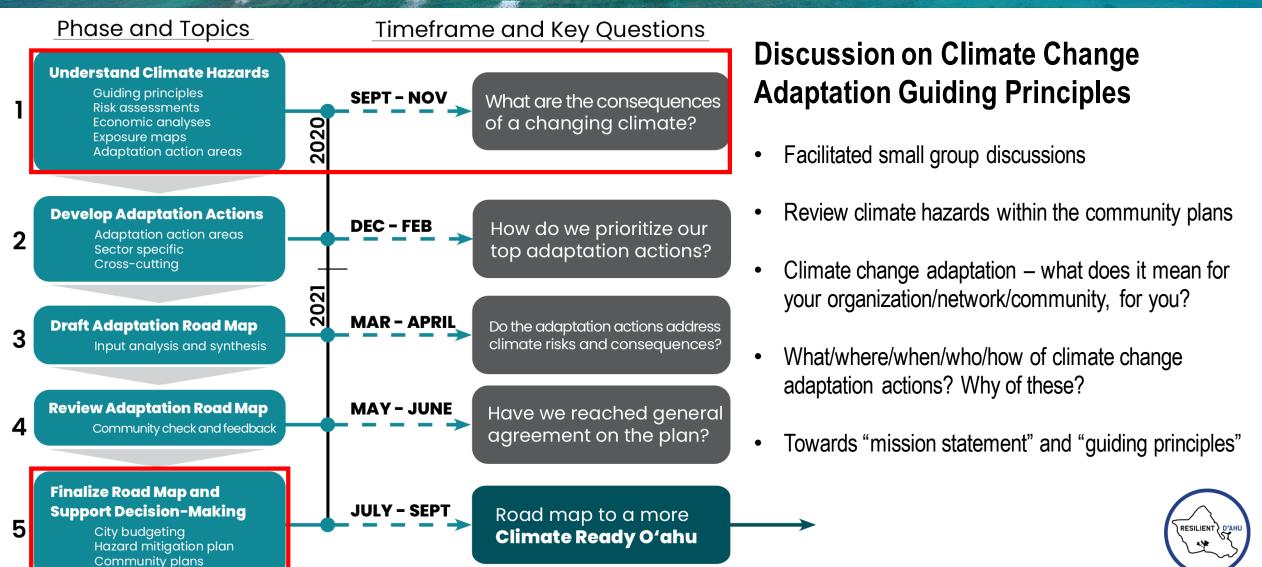
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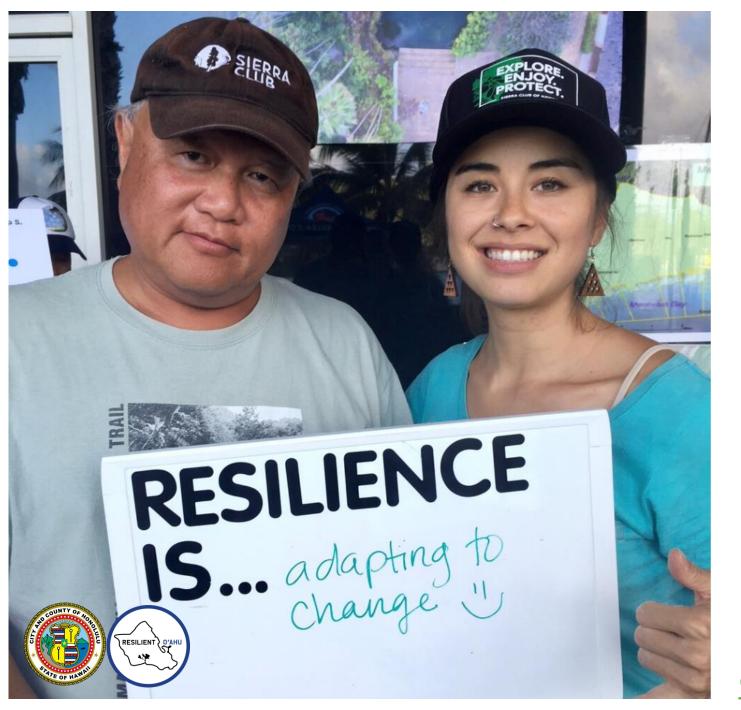




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- 10. Adjournment





Join us online

Join in on the days and times below by clicking the "Join Now" button to weigh in on what matters to you and what you envision for a Climate Ready O'ahu.

We're offering multiple dates and times for each round - interested participants need only join in one discussion per round.

Round 1

 Wed, Oct. 21
 Thur, Oct. 22
 Sat, Oct. 24

 2:00 PM - 3:30 PM
 6:00 PM - 7:30 PM
 10:30 AM - 12:00 PM

 Join Now
 Join Now

Round 2

 Mon, Nov. 2
 Fri, Nov. 6
 Sat, Nov. 7

 6:00 PM - 7:30 PM
 11:30 AM - 1:00 PM
 10:30 AM - 12:00 PM

Join Now

Join Now

climatereadyoahu.org



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