



City and County of Honolulu Actions to Address Sea Level Rise

Briefing for the Hawai'i Climate Change Mitigation & Adaptation Commission

April 24, 2019



CITY CLIMATE CHANGE COMMISSION

- Required to meet at least 2x/yr
- First met on February 7, 2018
- Have met 12x in 13 months

www.resilientoahu.org/about-the-commission



CITY CLIMATE CHANGE COMMISSION

- June 5, 2018, adopted:
 - **Climate Change Brief**
 - **Sea Level Rise Guidance**

www.resilientoahu.org/guidance-and-publications



- July 16, 2018, **Mayor's Directive on Climate Change (Directive 18-2)**:
“... the need for **both climate change mitigation and adaptation...**
take a proactive approach in both reducing greenhouse gas emissions and adapting to impacts...”

www.resilientoahu.org/s/Mayors-Directive-18-02.pdf

PROJECT DESIGN/REVIEW EXAMPLES

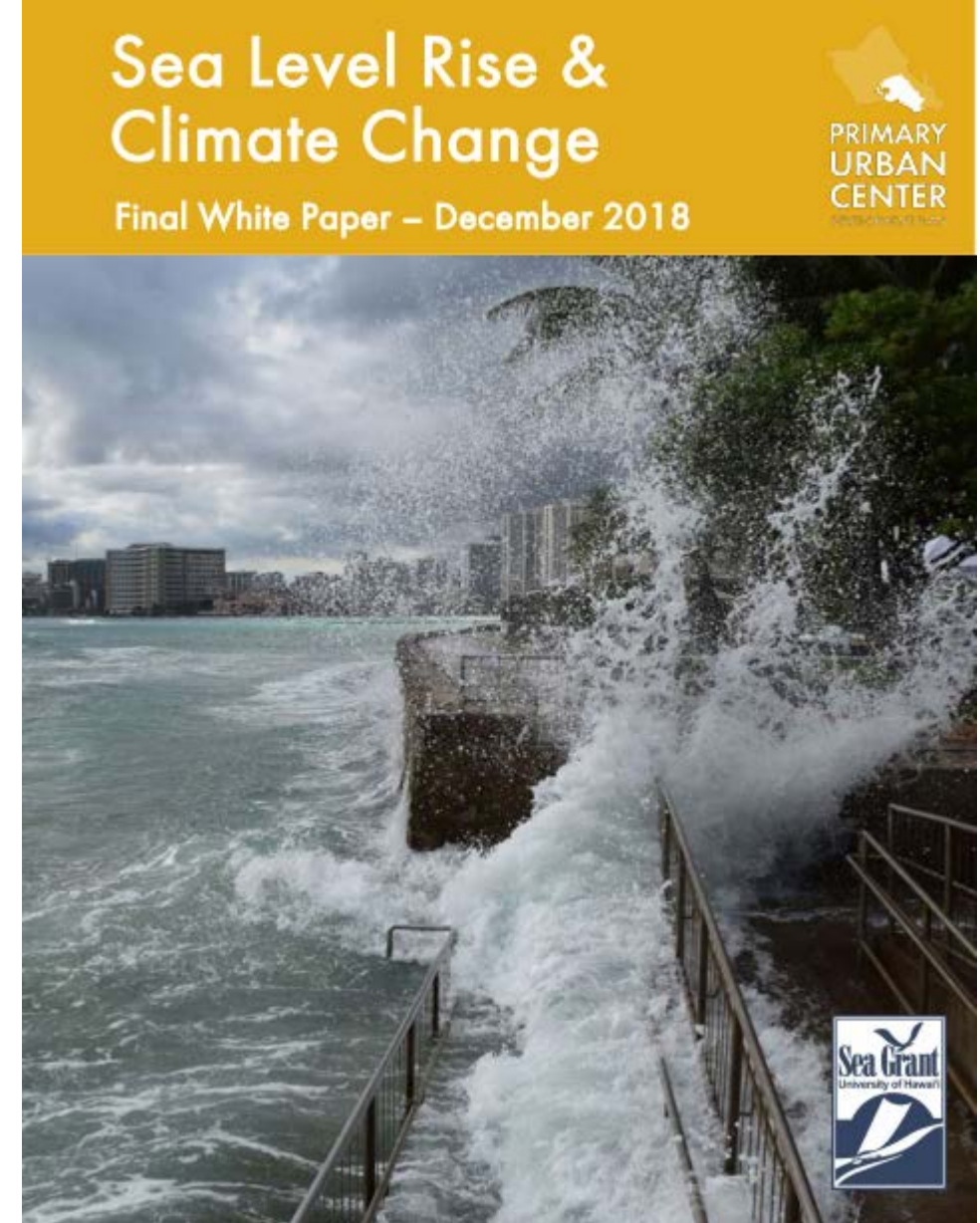
- **City Center rail station areas planning and design** (*HART*)
 - Prior to Directive 18-2, proactively increased SLR design parameters from 2014 data to 2017 State Report data
- **Iwilei-Kapālama** (*DPP, DDC, CCSR*)
 - Kapālama Canal, updated SLR data and design conditions for catalytic linear park project
 - I-K Infrastructure Needs Assessment
- **Sand Island Wastewater Treatment Plant Secondary Treatment Facility** (*ENV*)
 - Inclusion of 6 ft SLR, high wave flooding, plus additional uncertainty risk factors for preliminary grading designs
- **Standard Comments for action reviews** (*DPP*)

PRIMARY URBAN CENTER DEVELOPMENT PLAN



<https://www.pucdp.com/copy-of-background-documents>

- **Land Use & Zoning Recommendations**
- **Use of data**
- **SLR-XA maps** at summer workshops for targeted community engagement on land use strategies
- Concurrently, **TOD Climate Adaptation Guidelines** (*DPP, Resilience Office*)
- HB1487 HD1 SD2, “Establishes the Honolulu shoreline climate protection project...”



COASTAL INFRASTRUCTURE & CONTINUED RESEARCH

- **Board of Water Supply, *Impacts of Climate Change on Honolulu Water Supplies and Planning for Mitigation***
- **Environmental Services & UH Sea Grant, *Assessing the Vulnerability of Coastal Wastewater Infrastructure to Climate Change***
- **UH research on specific flooding type impacts – coastal, drainage, and groundwater**
- **UH Coastal Lands Data Center – shoreline change web viewer tools and future erosion**

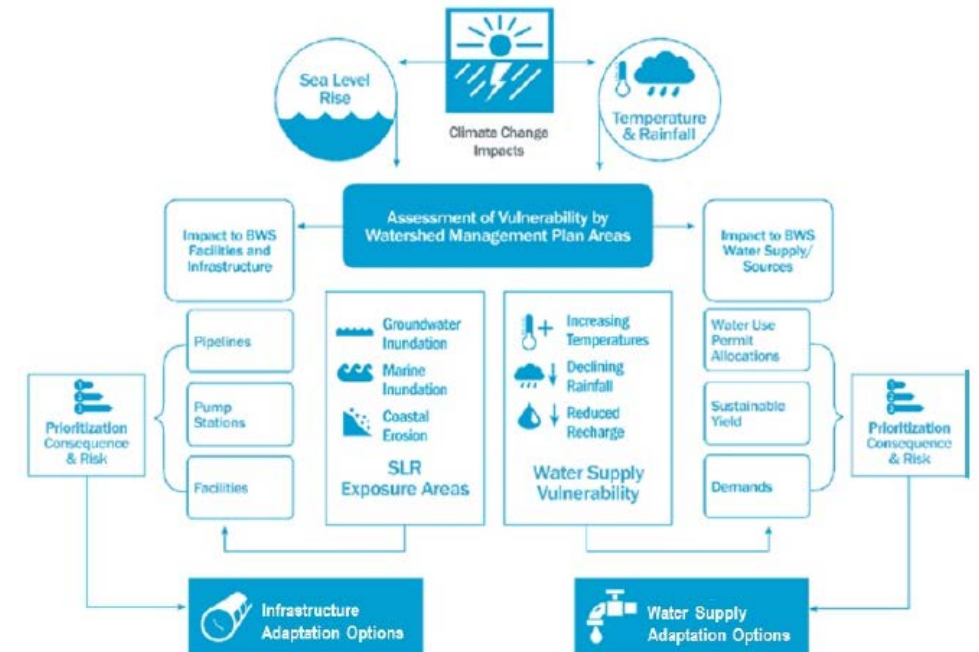
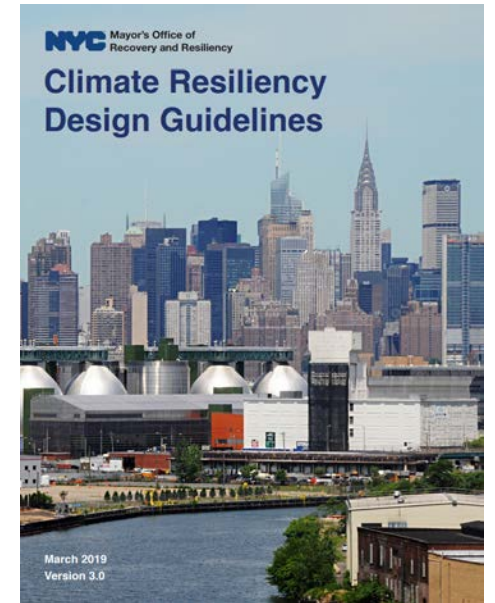


Figure 4-1. Overall Vulnerability Assessment Approach to Identifying Adaptation Strategies.

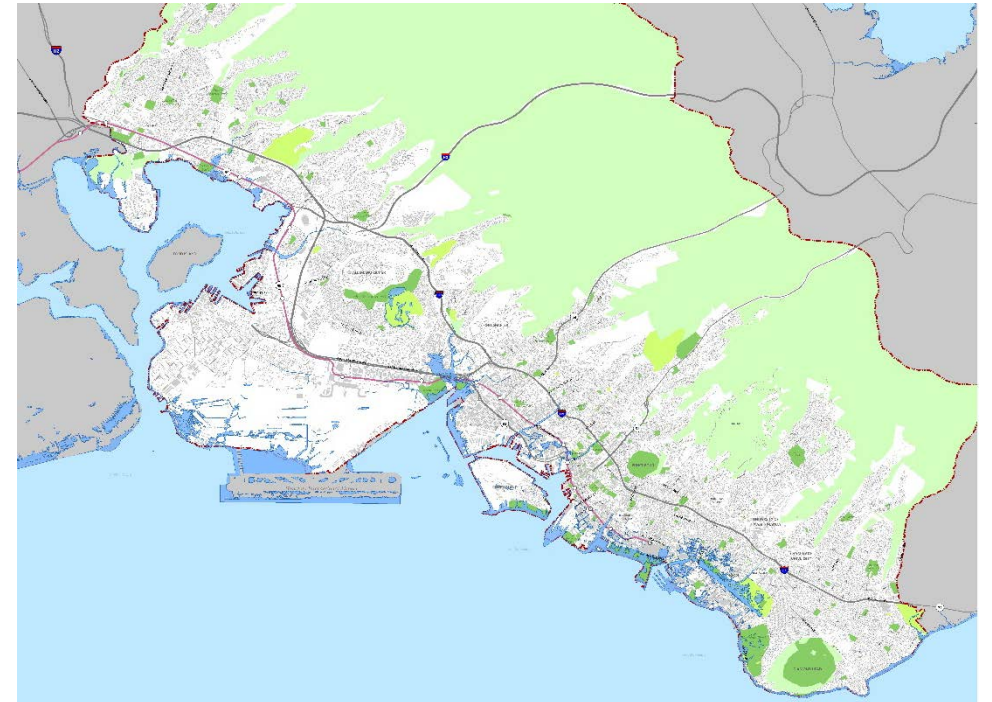
RESILIENCE STRATEGY & HAZARD MITIGATION PLAN

- **Building Code Updates**
- **Shoreline Setback & Special Management Area Regulations**
- **Future Conditions Climate Resilience Design Guidelines**
- **Long-Term Disaster Recovery Plan**
- **Climate Adaptation Strategy** (and future *Hazard and Climate Resilience Plan*)
- **Beach partnerships**
- **Community Rating System**



CITY –STATE – FEDERAL COORDINATION, *examples*

- **San Diego, CA:** MOA between Commander, Navy Region SW and San Diego Unified Port District regarding *Coordination and Cooperation Related to Potential Sea Level Rise in the San Diego Bay Region*
- **Norfolk & Virginia Beach, VA:** *Joint Land Use Study* for Navy installations located in the Cities of Norfolk and Virginia Beach
- **State TOD Council Planning and Infrastructure Coordination between the State & City, Iwilei-Kapālama**



DPP, PUC DP
SLR and Climate Change White Paper

IMPLEMENTATION & BUDGETING CONSIDERATIONS

- Infrastructure project review process (*NOLA*)
- Longer-term 10-year Capital and 5-year Financial Plan (*SF*)
- Hazard Mitigation Plan and CIP alignment (*NOLA*)
- “Green procurement code” (*King County, WA*)
- Bulk fund for integrated planning and design