

# STORMS, FLOODING & SEA LEVEL DEFENSE CONFERENCE

NOV. 8, 2023



## Hawaii's Sea Level Defense Strategy

# Hawaiian Island Chain



>4000 miles to Japan

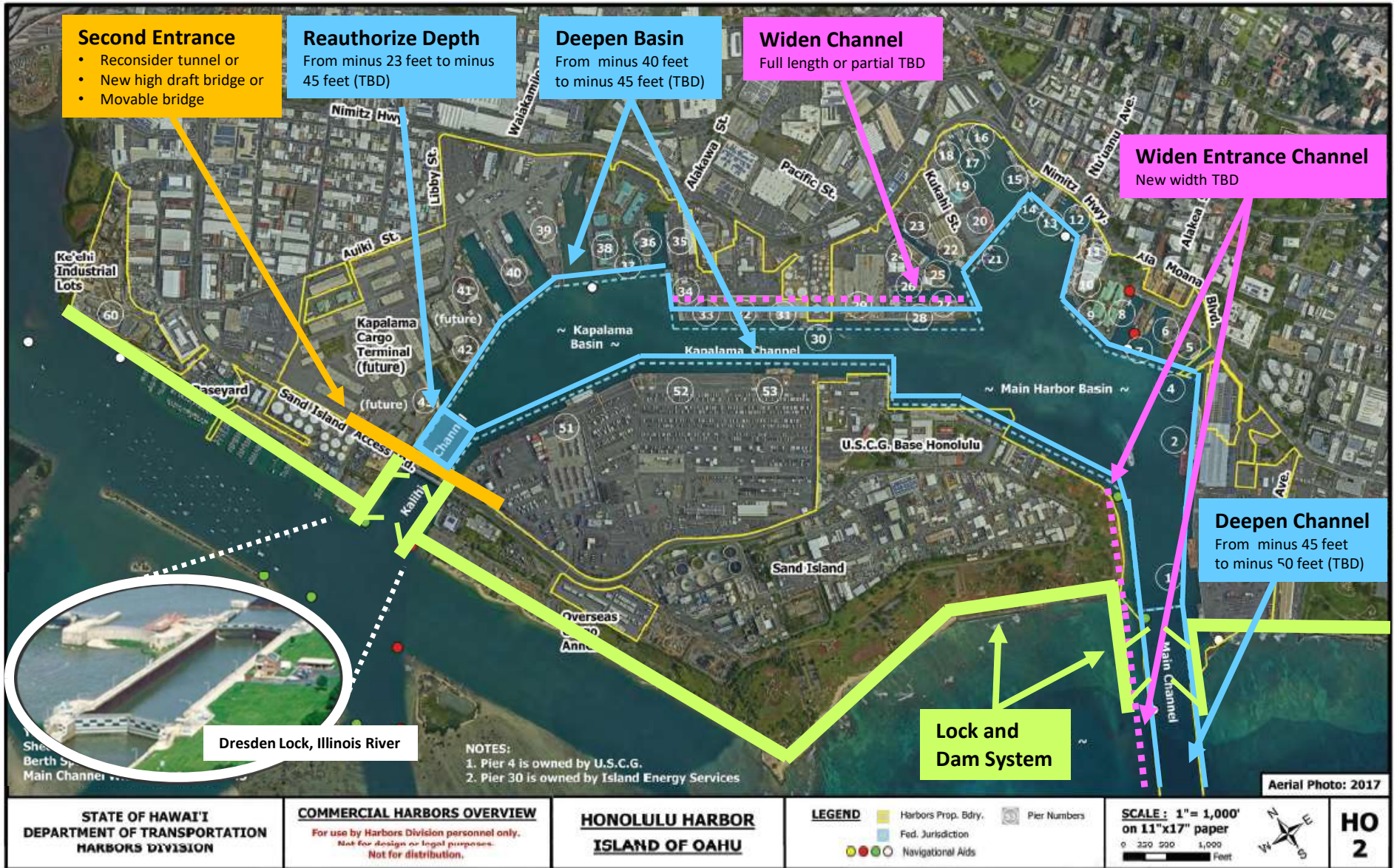


~2500 miles to San Francisco





# USACE Honolulu Harbor Feasibility Study





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## Honolulu Harbor Modification Study - Alternative 2B, Deepening

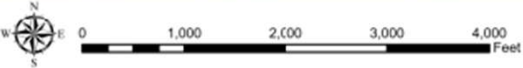


Courtesy: USACE Honolulu District



# USACE Honolulu Harbor Feasibility Study

## Honolulu Harbor Modification Study - Alternative 3A, Widening



Background Imagery Source  
Digital Globe WV2 - January 2021

Coordinate System:  
State Plane Zone 3 (US Survey Feet)  
Datum:  
NAD83 (PA11)



**U.S. ARMY CORPS OF ENGINEERS**  
Honolulu District



# USACE Honolulu Harbor Feasibility Study

## Honolulu Harbor Modification Study - Alternative 3B, Widening



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Coordinate System:  
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# Act 178, SLH 2021 (HRS§225M-9)

- 1 The purpose of this Act is to:
- 2 (1) Require the office of planning, in coordination with
- 3 state agencies with operational responsibilities over
- 4 state facilities, to:
- 5 (A) Identify existing and planned facilities that are
- 6 vulnerable to sea level rise, flooding impacts,
- 7 and natural hazards;
- 8 (B) Assess options to mitigate the impacts of sea
- 9 level rise to those facilities; and
- 10 (C) Submit annual reports to the governor,
- 11 legislature, and Hawaii climate change mitigation
- 12 and adaptation commission regarding vulnerability
- 13 and mitigation assessments for state facilities
- 14 and progress in implementing sea level rise and
- 15 disaster resiliency considerations;
- 16 (2) Update and reaffirm the role of the office of planning
- 17 to coordinate climate change adaptation and sea level
- 18 rise adaptation among all state agencies to improve
- 19 the interagency coordination of these activities; and
- 20 (3) Amend the Hawaii State Planning Act to include
- 21 sustainable development, climate change adaptation,



# Accomplishments To Date

**2021:**

Facilities Inventory & Sea Level Rise (SLR) Exposure Assessment

**2022:**

Literature review of mechanisms used in other coastal states/municipalities to assess vulnerability to SLR





# 2023: Vulnerability Assessment Development

## **Funding:**

- OPSD received funding for FY23-24 to develop a standardized process for assessing the vulnerability of state facilities to SLR.
- Currently working with representatives from key stakeholder agencies to develop a scope of work to procure professional services.
- Anticipate starting this project in early 2024

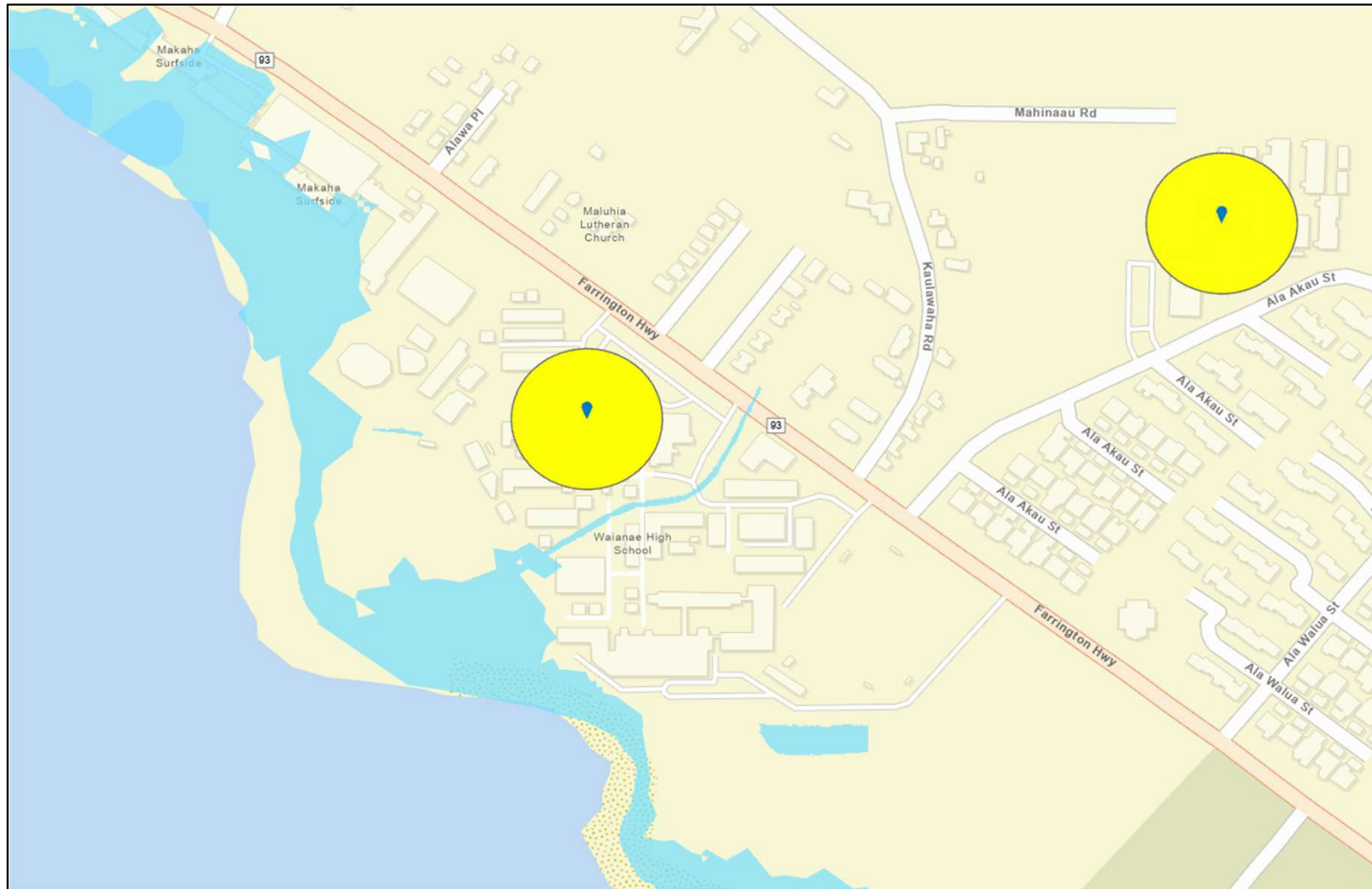
## **Proposed deliverables of project include:**

- (1) A standard SLR vulnerability assessment form that will be applicable to all state managed buildings,
- (2) Guidance/instructions on how to complete the assessment form,
- (3) Recommendations on critical factors that agencies should consider when developing criteria for prioritizing facilities for adaptation planning, and,
- (4) Recommendation on what inundation scenarios/timelines to plan for.



# 2023: Refined SLR Exposure Assessment

2021: Buildings represented by point +  
buffer







# 2023: Refined SLR Exposure Assessment

2023: Buildings represented by footprints





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Thank You!

