ALA WAI CANAL FLOOD RISK MANAGEMENT PROJECT

Neighborhood Board

Jeff Herzog, Program Manager

"The views, opinions and findings contained in this report are those of the authors(s) and should not be construed as an official Department of the Army position, policy or decision, unless so designated by other official documentation."

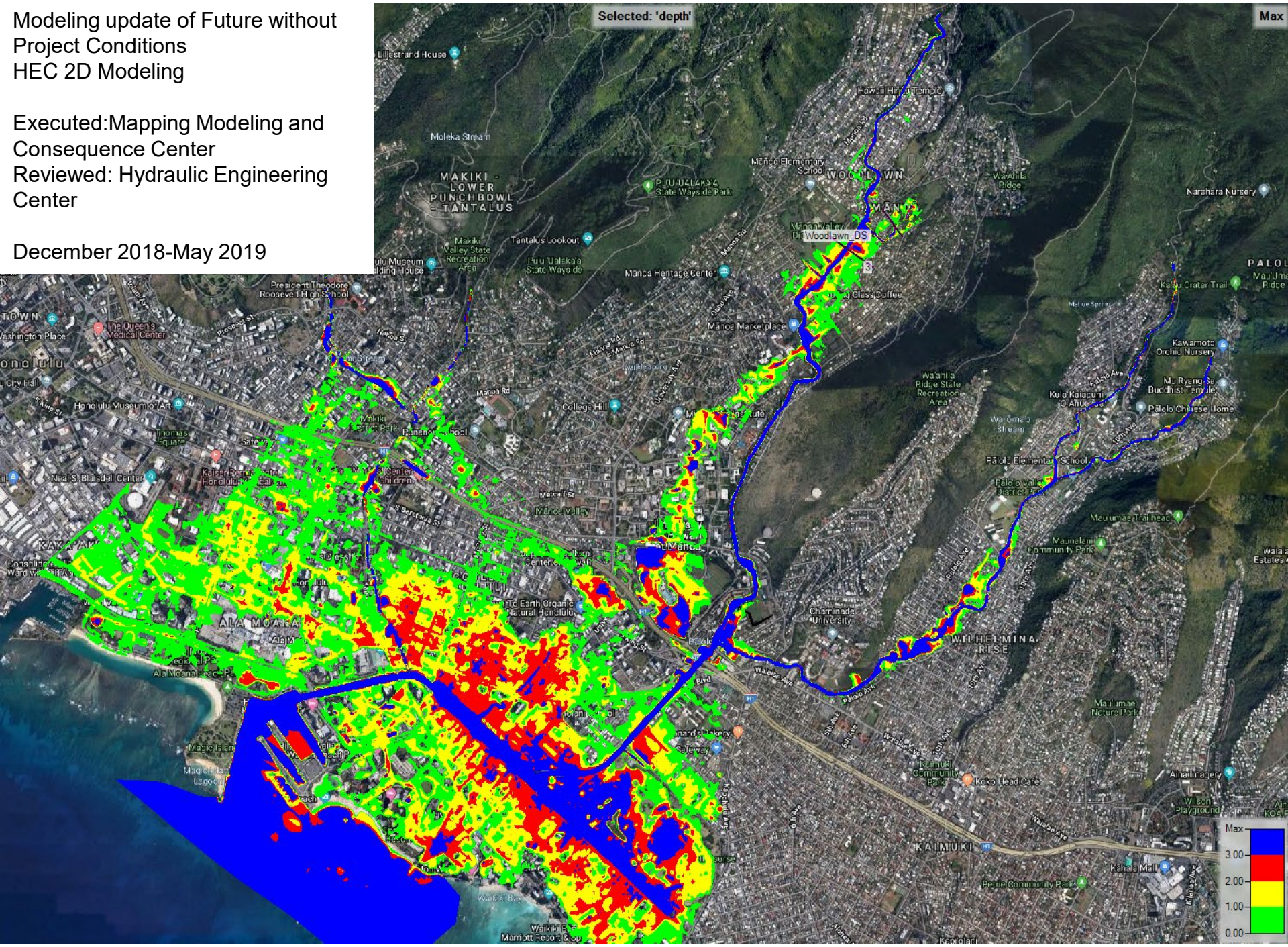
US Army Corps of Engineers®

U.S.ARMY

Modeling update of Future without Project Conditions
HEC 2D Modeling

Executed:Mapping Modeling and Consequence Center
Reviewed: Hydraulic Engineering Center

December 2018-May 2019



USACE Hydraulic Engineering Center (HEC)

HEC 1D Modeling:

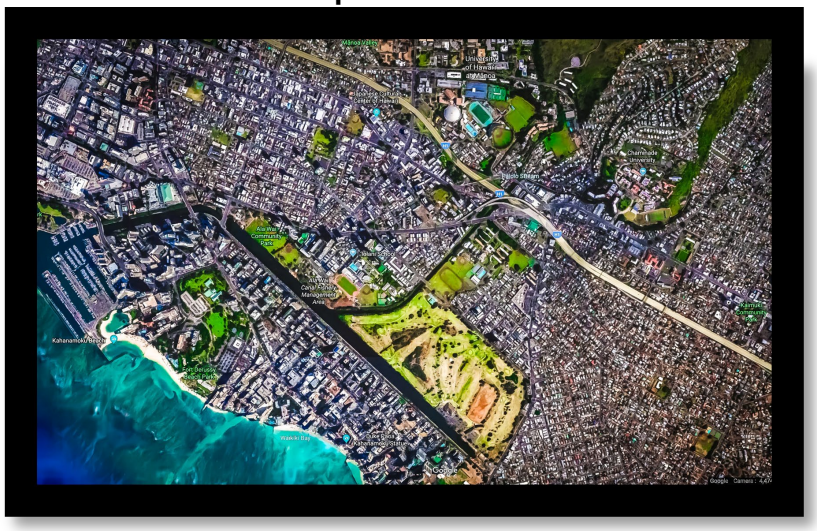
- Cost efficient to run multiple scenarios
- Run multiple model interations quickly.
- Good to identify at risk areas during an event.
- Works well with HEC (FDA) Flood Damage Assessment Modeling for Economics.
- Uses Cross Sections to determine where the water goes.
- Uses the Peak Flow from the Hydrograph during an event.
- Easy to adjust features within the model and simulate blockages
- Not sufficient for final design and construction

HEC 2D Modeling:

- Provides the full extent of the hydrograph during an event. Runs the ebs and flows of conveyance.
- Uses elevation and terrain in lieu of cross sections.
- Provides inundation depths during an event.
- Very effective for Design refinement.
- Very sensitive to changes, requires time to develop. Once an iteration is developed, four hours per run.
- Expensive to run on multiple iterations and alternatives. Resource intensive.
- Easy to adjust features within the model and simulate blockages

Ala Wai Industry and Innovation Day 2019
June 17, 2019
107 People beyond Corps of Engineers

Organizations:
3 Native Hawaiian Owned
26 AE Contractors
23 Construction
8 Educational Organizations
5 Non-Profit including:
- Ala Wai Watershed Association
- Ala Wai Watershed Collaboration
- Ala Wai Centennial
- Stop Ala Wai



Jeffrey.a.Herzog@usace.army.mil

alawaifloodproject@usace.army.mil

CEPOH-PA@usace.army.mil

PAO Phone Number: 808-835-4004