CITY COUNCIL STUDY SESSION

FEMA OPEN PACIFIC COAST STUDY





FEMA - Open Pacific Coast Study

- Mapping project to produce new Flood Insurance Rate Maps (FIRM) for the National Flood Insurance Program (NFIP).
- Coastal flooding from the Pacific open coast is a result of <u>Stillwater</u> levels and <u>Waves</u>.
- Stillwater levels are from tides.
- Waves originate from:
 - 1) wind driven waves and
 - 2) ocean swells traveling from storms
- 1% Chance event per year.

National Flood Insurance Program

 NFIP is voluntary and Newport Beach currently participates along with approx. 550 other communities in California.

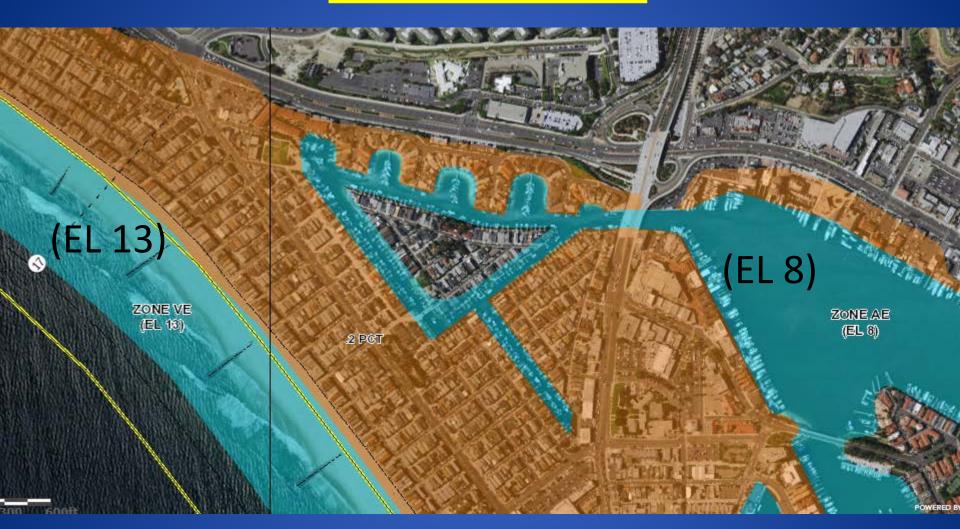
- NFIP provides federally backed affordable flood insurance to <u>ALL</u> participants.
- Compliance with NFIP requires the City to regulate development in the special hazard flood zones. Don't build below the flood line.

National Flood Insurance Program

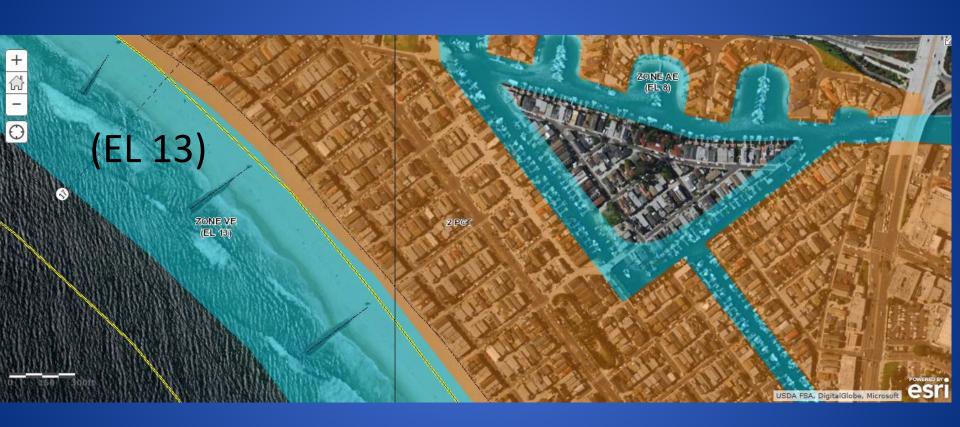
- Home owners insurance does not cover for flood damage.
- Federal law requires flood insurance for federally backed loans (Conforming - Fannie Mae or Freddie Mac). Jumbo Loans Too.
- Mortgage refinance or map change would trigger the requirement for flood insurance.

























Next Steps

Hire a consultant, <u>Everest International</u>
 <u>Consultants Inc.</u>, to independently analyze the data using practical theorems.

File an Appeal with the revised analysis.

Schedule

- Expect Preliminary FIRM panels distributed in August 2016.
- FEMA to schedule a meeting Sept 2016.
- FEMA to publish the proposed changes in the Federal Register. (Jan – March 2017)
- Once published, file an Appeal. (Jan March 2017)
- Final maps are effective March 2018

Reference Information

- www.smartflood.gov
 Flood Insurance
- http://arcg.is/106fejt
 Pacific Coast Study
- Ying Poon, Everest Inc. City Consultant
- Samir Ghosn City Staff / Project Manager sghosn@newporbeachca.gov
- Seimone Jurjis City Staff sjurjis@newportbeachca.gov
- Phone: (949) 644-3200

Fact Sheet



Orange County, California Open Pacific Coast Study

California Coastal Analysis and Mapping Project

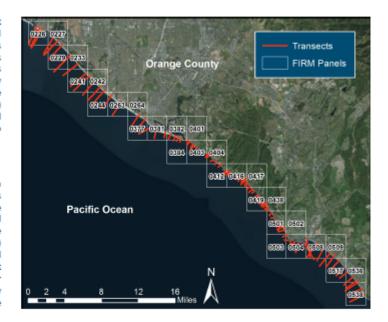
February 2016

The Federal Emergency Management Agency (FEMA) is conducting a coastal flood study for the County of Orange as part of the California Coastal Analysis and Mapping Project (CCAMP). Results from this Open Pacific Coast (OPC) Study will produce flood and wave data for the National Flood Insurance Program (NFIP) Flood Insurance Study (FIS) report and regulatory Flood Insurance Rate Map (FIRM) panels.

Study Methodology

Coastal flooding from the Pacific open coast is a result of local stillwater levels and waves. Stillwater levels include the effects of tides, storm surge, and riverine discharges. Waves impacting the shoreline originate from two sources: 1) locally-generated wind-driven waves and 2) ocean swells travelling from distant storms. When combined, these stillwater level and wave components strongly influence the flood hazards along Orange County's open coast shoreline.

The OPC Study is guided by FEMA's 2005 Guidelines for Coastal Flood Hazard Analysis and Mapping for the Pacific coast of the United States. The stillwater elevation and wave analyses rely on a combination of regional-scale hydrodynamic models and localized one-dimensional (1-D) wave analysis transects. Surf zone processes including wave setup, wave runup, and overtopping are combined with local topographic and coastal



A deepwater wave hindcast was produced in collaboration with Oceanweather Inc. Nearshore wave transformation was performed in collaboration with the Scripps Institution of Oceanography. The effects of the combined regional-scale water levels and wave conditions resulted in a 50-year total water level

Once the full 50-year TWL time series was calculated, extreme value analysis of peak TWLs was used to determine the 1-percent-annual-chance TWL to establish BFEs.

Questions

