Southern California Coastal Impacts Project

- Outreach/technical assistance of USGS CoSMoS
- Capacity-Building and Outreach
  - Trainings/Workshops
  - Webinar series
  - Public outreach
Beyond “Just” Sea Level Rise

CoSMoS 2.0 and beyond…

1. Global forcing using the latest climate models

2. Drives global and regional wind/wave models

3. Scaled down to local hazards projections
Overview of Processes Included in CoSMoS

Flood Level is Combination of:

Relative SLR + tides + seasonal effects + storm surge + wave runup + fluvial discharge backflow
USGS CoSMoS SoCal

- Initial Results Available Today
  - 100 yr storm at 0, 0.5, 1.0, 1.5, 2.0 m sea level rise (SLR)
  - Shoreline evolution & cliff retreat
  - Cliff retreat
  - Flood depth, Wave/current information

https://www.sciencebase.gov/catalog/item/5633fea2e4b048076347f1cf
Our Coast, Our Future Flood Hazard Viewer

http://data.prbo.org/apps/ocof/
USGS CoSMoS SoCal

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- Full results available in Fall 2016
  - Daily conditions, annual, 20 yr, 100 yr storms
  - 0 – 2 m SLR (at 0.25 m increments) + 5 m SLR
  - Flooding integrated with 100 yr projected shoreline change
  - Shoreline change, cliff retreat, flood depth/duration, wave/current information

https://www.sciencebase.gov/catalog/item/5633fea2e4b048076347f1cf
Crest to Crest: Watershed-Scale Adaptation Planning

- What are the impacts from climate change at the various stages?
- How do impacts interact – do they amplify/attenuate each other?

Community of Practice

- Regional Water Quality Control Board
- UCLA/The Los Angeles Sustainable Water Project
- LA County/Bureau of Reclamation
- RAND/Bureau of Reclamation
- Many others!
Thank you!

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http://dornsife.usc.edu/uscseagrant/climate-change

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