



# Develop CMS Model to Support DMMP in Crescent City Harbor for SPN

## ERDC Dredging Operations Technical Support Program (DOTS)

U.S. ARMY CORPS OF ENGINEERS

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### Response Summary:

Assist SPN to assemble and analyze historical wind wave, water level, current, sediment, and bathymetry data for 2016-2021. Select representative summer and winter months for numerical modeling and simulation to support the DMMP in Crescent City Harbor. Develop initial model grids and placement area alternatives for Crescent City Harbor.

### Period of Performance:

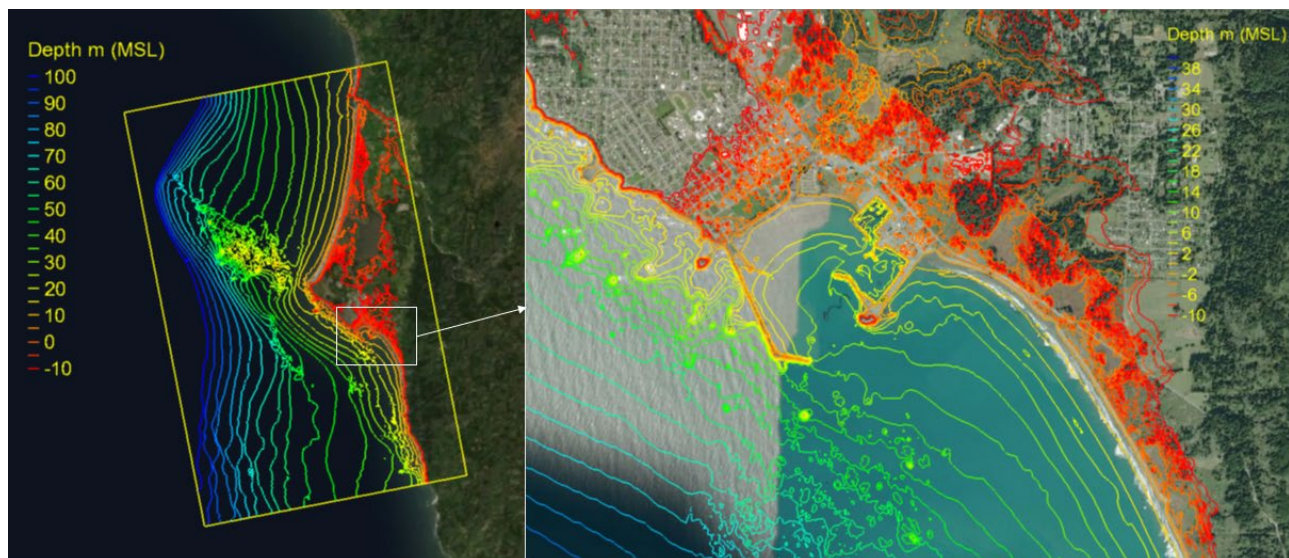
25 August – 27 September, 2021

### Benefits of the Response to the USACE Dredging/Navigation Program:

Develop numerical models for placement area alternatives with the capacity of 20 years or longer to support the DMMP in Crescent City Harbor, optimize the location and configuration of placement area, and determine the effect of responses and evaluate long-term maintenance dredging from harbor basin and channels.

### Deliverable:

The products include: (1) assembled and analyzed water level and wind data (2016-2021) from NOAA coastal station at Crescent City Harbor, (2) analyzed surface wind and air pressure data (2016-2021) from ASOS Airport Crescent City, (3) analyzed wind wave data (2016-2021) from NDBC Buoy 46027 offshore Crescent City and NDBC (CDIP) Buoy 46244 offshore Humboldt Bay, CA. (4) assembled USACE NCMP CA 2010 and 2015 Coastal Lidar data for Crescent City region, USGS 2020 Digital Elevation Model data, and USACE Federal Channel survey data (2011-2021) for Crescent City Harbor, (5) analyzed NOAA DEM Coastal Relief Models CRM data Vol. 7 for Crescent City Harbor, and (6) developed numerical grids for coastal modeling of Crescent City Harbor and placement area alternatives.



Providing environmental and engineering technical support to the U.S. Army Corps of Engineers Operations and Maintenance navigation and dredging missions

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