Dredging and Environmental Issues:
Two Current Challenges

Port of Oakland, March 7, 2017
I. Aquatic Invasive Species and Ports

- Ballast Water Discharges
- Hull Fouling
Damage Caused

- Ecosystems
- Waterways and water intakes
- Eradication efforts: expensive and never-ending
Potential Solutions

- Ballast water: discharge avoidance, open ocean exchange, on-ship treatment, on-shore treatment
- Hull Fouling: anti-fouling coatings, physical removal
Major Regulatory Actors

• **International Maritime Organization**
  • Ballast Water Management Convention adopted 2004, in force September 8, 2017

• **U.S. Coast Guard**
  • Final Rule under National Invasive Species Act

• **U.S. EPA**
  • Clean Water Act Vessel General Permit adopted 2013, to be amended 2018

• **Many states, including California**
  • California Marine Invasive Species Act, administered primarily by State Lands Commission
IMO, Coast Guard, EPA and California limit living organisms in ballast water discharges

Ballast Water Numeric Discharge Limits in Coast Guard Rule, the EPA VGP, and IMO Convention

1. For organisms greater than or equal to 50 micrometers in minimum dimension: discharge must include fewer than 10 living organisms per cubic meter of ballast water.

2. For organisms less than 50 micrometers and greater than or equal to 10 micrometers: discharge must include fewer than 10 living organisms per milliliter of ballast water.

3. Indicator microorganisms (e.g., E. coli) must not exceed specified concentrations.
California’s standards are more stringent

- Interim standard: zero detectable living organisms of 10-50 micrometers
- Final standard: no detectable living organisms in ballast water discharges
Problem: To date there are no proven technologies to meet these numeric limits

- Coast Guard limits were to begin taking effect in December 2013, but lack of technology led to repeated extensions; type approvals are just beginning.

- California interim standards were to take effect in 2010, and final standards in 2020, but the dates have been extended to 2020 interim and 2030 final.
How does lack of a complete regulatory solution affect port projects?

• NEPA and CEQA require analysis of low-likelihood/high-impact events such as a new species invasion; ESA requires consultation for projects that “may affect” listed species.

• Project opponents claim changes in vessel traffic (number of vessel calls, origin of calls, speed of travel) will increase the potential for invasions.

• Some regulators treat any risk of invasion as a significant unavoidable impact and require mitigation from ports.
What can ports do to minimize litigation risk?

- Squarely address the question whether a proposed project will affect invasive species risk
- Pay particular attention to effects a dredging or port expansion project is expected to have on vessel traffic compared to no-project conditions
II. Dredged Sediment Disputes
