

# Sediment Management Challenges and Solutions for Major Capital Deepening Programs

Kathryn Curtis and Shelly Anghera



## Multiple Benefits

- Economic pressure to improve port infrastructure and remain competitive
- Capital programs to accommodate larger vessels
- Maintenance for navigational safety
- Pressure to clean up contaminated sediments

# Big Ship Ready

Panamax (1980)



3,000 – 3,400 TEU

Panamax Max (1985)



3,400 – 4,500 TEU

Post Panamax (1988)



4,000 – 5,000 TEU

Post Panamax Plus (2000)



6,000 – 8,000 TEU

New Panamax (2004)



12,500 TEU

Post New Panamax (2006)



15,000 TEU

Triple E (2013)



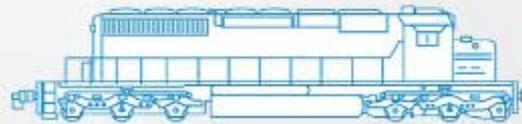
18,000 TEU

# Big Ship Ready

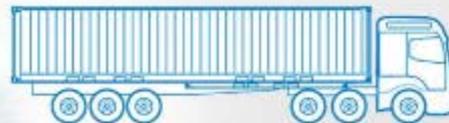
To transport the 19,224 TEU capacity of the MSC Oscar you would need:



**1,100**  
Boeing 747 planes



**35x**  
8000ft long trains



**11,400**  
Heavy trucks

# 100 Million Cubic Yards



# 6 Major Port Capital Programs



- Port of Stockton, Jeff Wingfield
- Port of Los Angeles, Kathryn Curtis
- Port of Long Beach, Shelly Anghera
- Port of Miami, Becky Hope
- Jaxport, Joe Miller
- Port Authority New York, New Jersey, Atef Ahmed