

# *Dredging in the Port of NY&NJ*



**August 29, 2006**



**THE PORT AUTHORITY  
OF NEW YORK & NEW JERSEY**

# NY/NJ Harbor Deepening Program Area



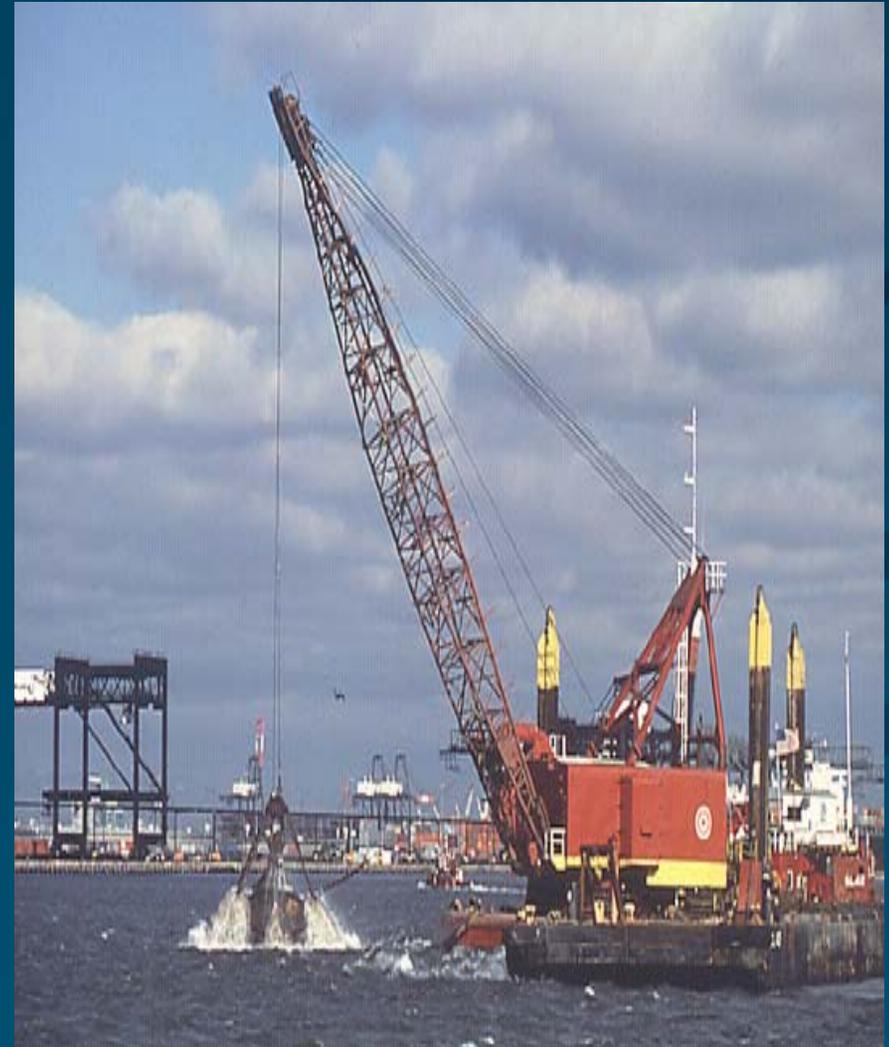
# NY/NJ Harbor Deepening Project – 50 Foot



# *Dredging Program Challenges*

## Disposal Alternatives

- Clean Material is placed at the Historic Area Remediation Site (HARS)
- Rock is placed at several fishing reefs along the NJ and LI coasts.
- Material not passing ocean placement criteria is treated and placed upland as capping/grading material for landfills & brownfield sites such as the Fresh Kills Landfill.



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# *Dredged Material Processing by In Barge Mixing*



# *Dredged Material Processing in Pug Mill*



# *Dredging Program Challenges*

## Processed Dredged Material

- Most recent contract = \$55/cy all in cost
- Only 2 processors in harbor
- Permitting new placement sites in 2 different states is time consuming



# *Placement at Pennsylvania Mine*



# *Dredging Program Challenges*

## Total Suspended Solids

- Regional Sediment Management Work Group
- Dredging vs. other sources
- Controls that could reduce productivity



# *Dredging Program Challenges*

## Beneficial Use of Dredged Material

- Marsh Islands in Jamaica Bay
- Fishing reefs in ocean
- Oyster reef in Raritan Bay



# *Dredging Program Challenges*

## Environmental Challenges

### Environmental Windows.

Restricts dredging from Jan to May

### Wetland Mitigation

- Medwick Park, Middlesex, NJ
- Brooklyn Union Gas, Staten Is.
- Woodbridge Creek, Woodbridge, NJ
- Elders East, Jamaica Bay



# *Dredging Challenges*



# Present HDP Air Projects – SIF Demo

- Evaluated feasibility of various emission reduction projects to achieve conformity, including direct retrofitting of dredging equipment
- Determined most cost-effective NOx offset strategy was installing engine rebuild kits in the SIF fleet.

*“Captive Fleet” - Pollution savings stays in NY/NJ Port District*



*MV Alice Austen, a small SIF, was selected for the demonstration to prove SCR technology*

## *Tug Re-Powering for Additional NOx Offsets*



**15 boats with 28 engines will generate approx 400 Tons of NOx reduction**

Engine being removed from Tug Virginia, Weeks Marine





# Conclusions

High facility costs, disappearing upland sites and inconsistent flow rate inhibit growth of DM processing & placement capacity.

Goal is to reduce \$50.57/cy to mid to high \$20's.

Air mitigation for NOx and Particulates is cost of doing business

Wetland mitigation can be complex in older industrial ports.

Need to engage environmental community early on in project.



# *Any Questions?*

