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New York District

Briefing on Consolidation of Deepening Activities



We Can See the Future From Here...

March 2003

A Vision for the NY & NJ Harbor Estuary

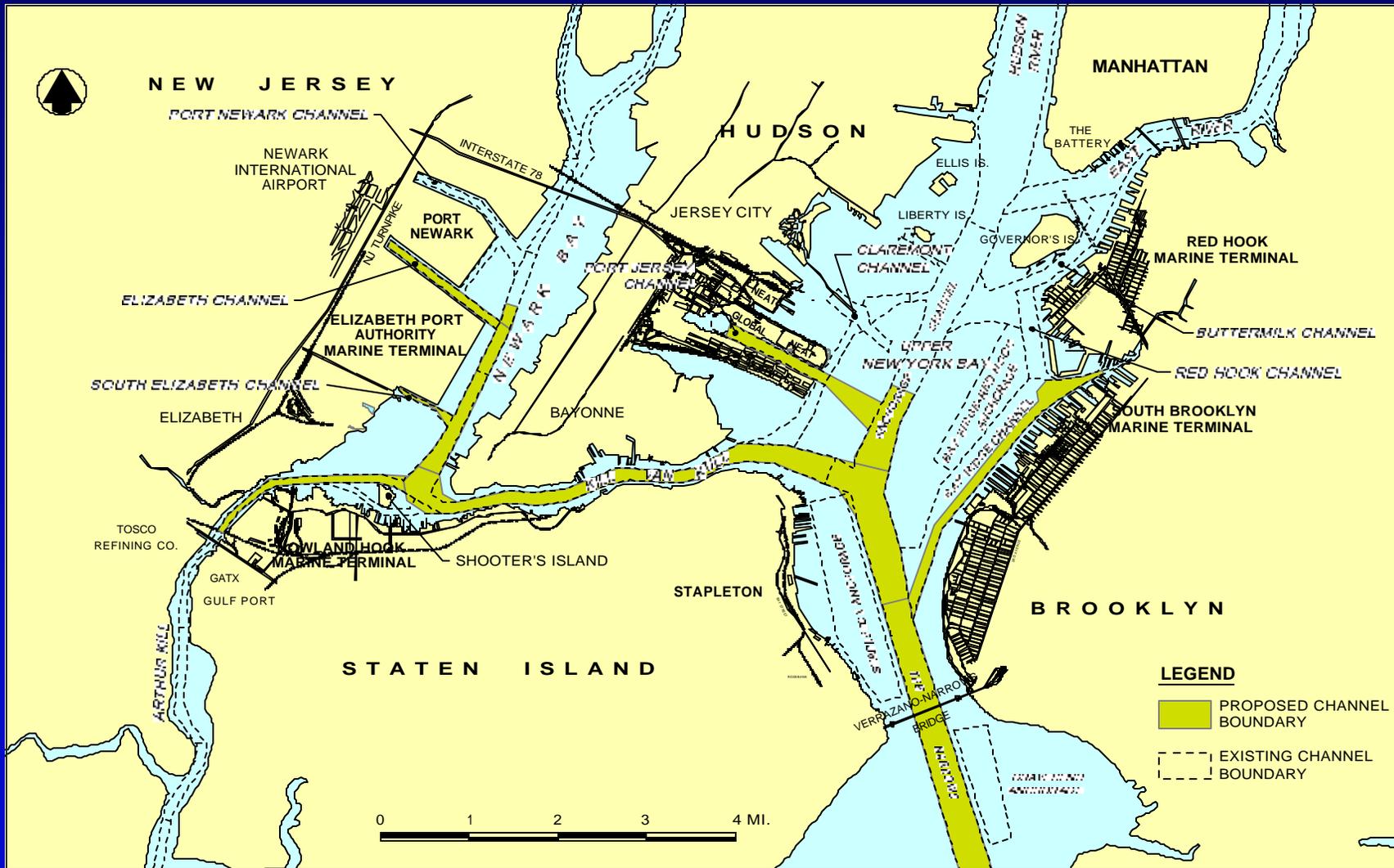


Goal: A thriving economic engine that is environmentally friendly, technologically advanced and responsible to the local/regional community



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The Port of New York and New Jersey Major Navigation Channels and Container Terminals





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Partnerships

Unique agency partnerships have interfaced to address challenging environmental, navigation, social and engineering issues allowing projects to move forward on schedule and within budget

- **USACE**

THE PORT AUTHORITY OF NY&NJ



- *The Port Authority Of New York and New Jersey*

- **USEPA**



- **NMFS**

- **USCG**



- *State of New York (ESDC, DEC, DOS, DOT)*



- *State of New Jersey (DOT-OMR, NJDEP)*

- *City of New York (EDC, DEP)*





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New York & New Jersey Harbor (50-foot Project)

- **DESCRIPTION:** Deepen the Ambrose Channel to 53 ft, the Anchorage, Bay Ridge, Port Jersey, Kill Van Kull, Newark Bay and Arthur Kill to Howland Hook to 50 ft (52 ft in hard material)
- **STATUS:**
 - ◆ WRDA Authorization – Dec 2000
 - ◆ Design Agreement Executed with Port Authority – Jan 01
 - ◆ Consolidation efforts being integrated into new Project Management Plan
 - ◆ PCA execution schedule – May 04
 - ◆ Construction scheduled to begin in late 2004
- **FUNDING:**
 - ◆ Total Project Cost: \$1.8 billion
 - ◆ Total PED Cost: \$20 million
- **SPONSOR:** Port Authority of NY & NJ for Engineering, Design and Construction
- **POINT-OF-CONTACT:** Tom Shea, Project Manager, 212-264-5570





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Consolidation of Harbor Deepening Activities

Challenge: to develop a construction sequence and strategy to combine certain dredging activities to expedite the achievement of 50' deep channels leading to major container terminals, while at the same time meeting customer commitments, reducing overall project costs and protecting relevant public interests and the environment.





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Consolidation Opportunities

● Vertical Consolidation:

- ◆ Combine existing projects into a single deepening effort (Drill and blast one time straight down to 50')
- ◆ Increases productivity; reduces overall time
- ◆ Decreases mobilization costs, supervision costs
- ◆ Environmental and Social benefits
- ◆ Channels for Consideration:
 - ◆ Kill Van Kull
 - ◆ Port Jersey
 - ◆ Arthur Kill

● Horizontal Consolidation

- ◆ Enlarges the geographical size of contract areas, thereby reducing the total number of contracts
- ◆ Increases productivity; some time savings
- ◆ Decreases mobilization, supervision and administration costs
- ◆ Provides additional flexibility in navigational safety
- ◆ All Channels Considered





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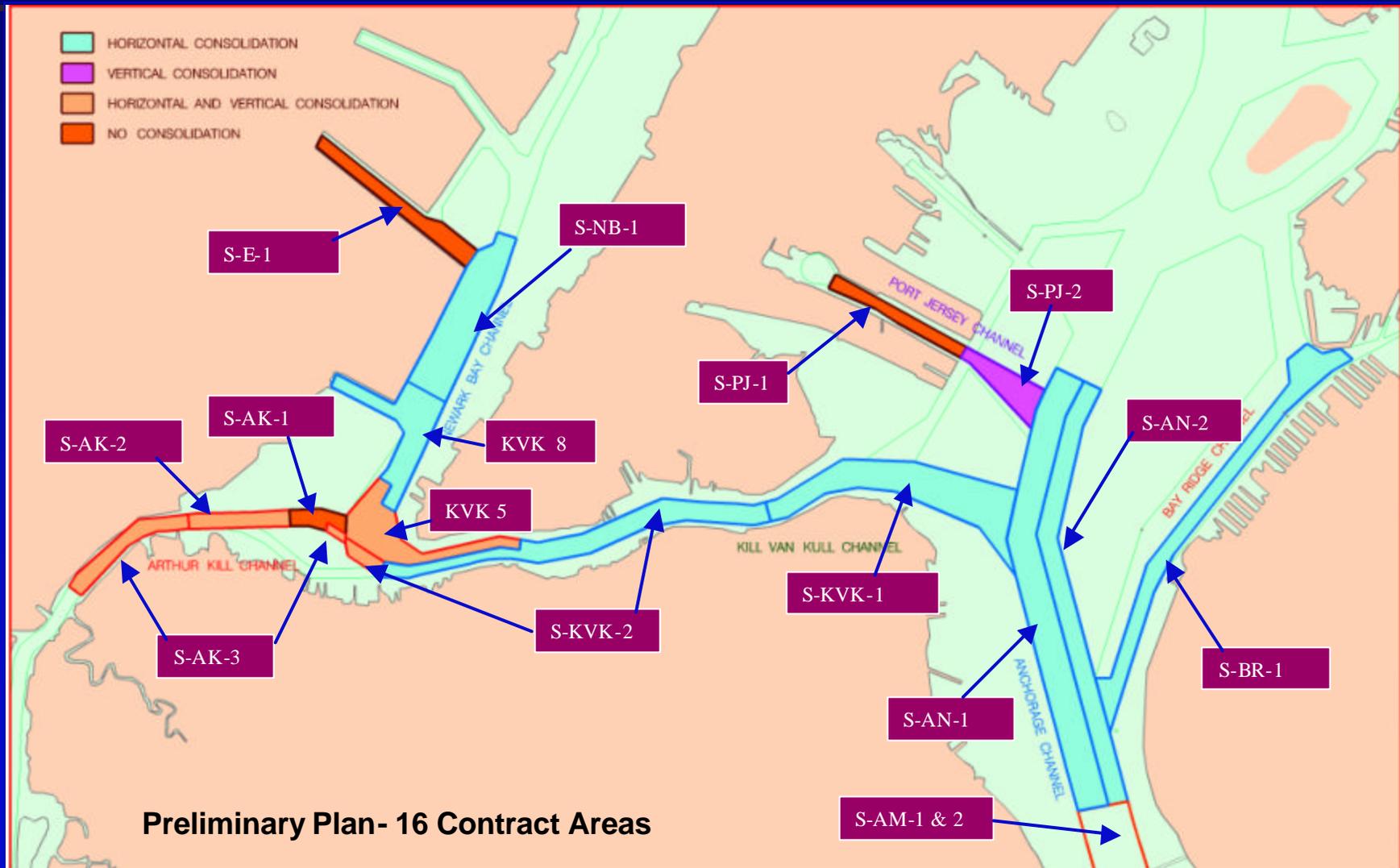
Preferred Consolidation Plan

- KVK Area 5 as a PANYNJ permit.* **(Work Ongoing)**
- Port Jersey Area 2 35 ft to 50 ft (as a permit)
- KVK area 4b (40 ft to 50 ft) combined with KVK Area 4a (45 ft to 50 ft) and part of KVK Area 3 (45 ft to 50 ft)
- Horizontal consolidation(reduction in contract areas) of the Ambrose, Anchorage and Bay Ridge Channels
- Estimated Cost Savings: Up to \$100M
- Preliminary total schedule savings: 2 years



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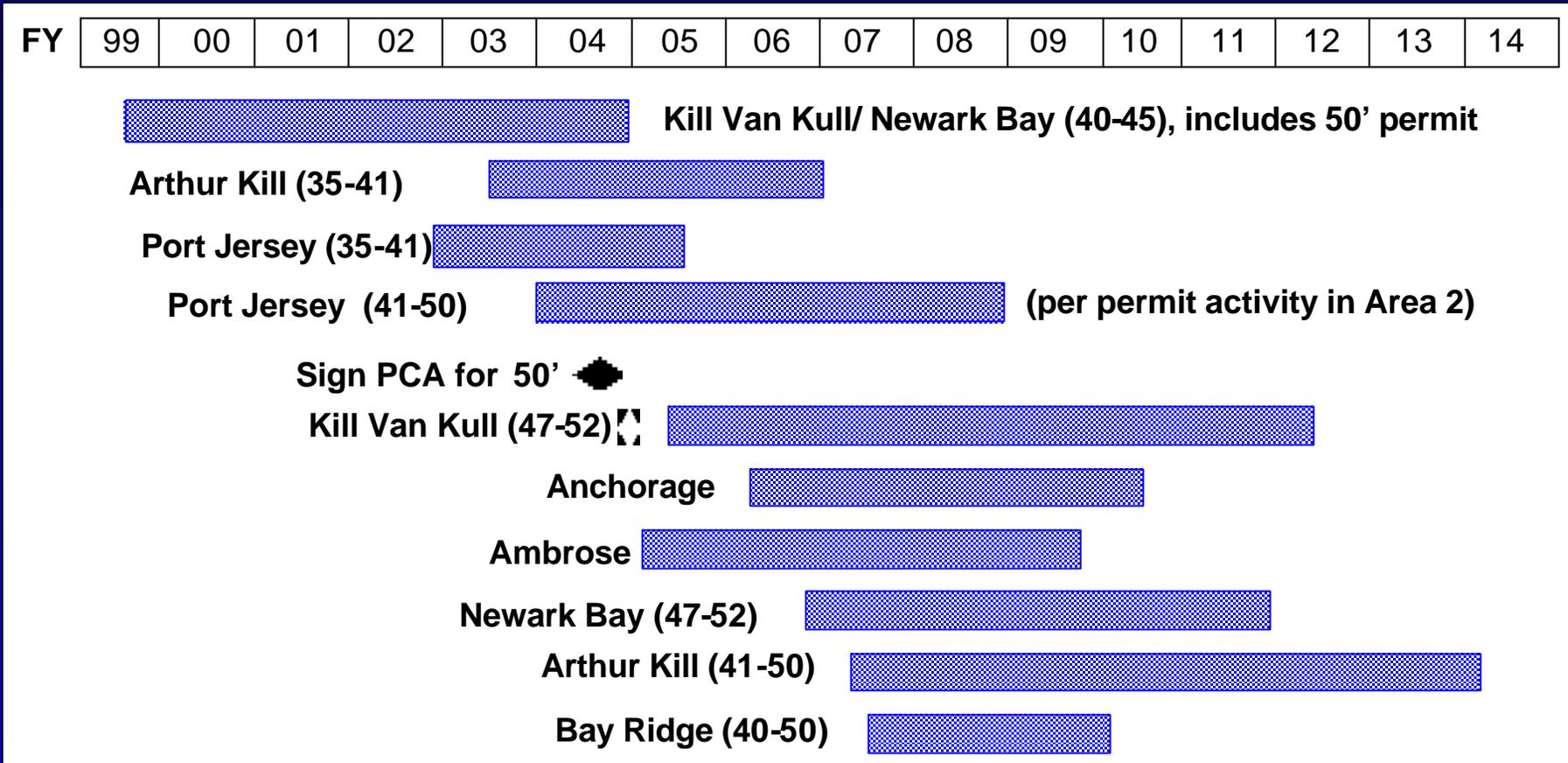
Preferred Consolidation Plan





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Construction Schedule to Achieve a 50-Foot Deep Port



Note: Some components of the KVK 45', AK 41' and PJ 41' projects may be delayed initially to facilitate implementation of 50' consolidation opportunities.



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Dredged Material Management

Beneficial Reuse of Dredged Material

Capping Landfills & Brownfields in Port Region



Pennsylvania Coal Mine Reclamation



- Focus on sites in Harbor Estuary to take advantage of environmental restoration/remediation opportunities i.e. HARS Capping, Landfill Closure, Mine Reclamation, Habitat Development and Restoration



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Dredging Equipment





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Dredging Equipment





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Biological Monitoring, Mitigation, and Environmental Assessment



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Final Environmental Impact Statement (December 1999)

- Physical Impacts
 - ◆ Water Quality – increased turbidity during construction
 - ◆ Shoreline Erosion & Channel Slope Stability
 - ◆ Permanent change of littoral zone habitat to sub-littoral habitat

- Biological Impacts
 - ◆ Direct loss of macro/microfauna due to project activities (blasting and dredging)
 - ◆ Temporary avoidance of construction area by macro/microfauna
 - ◆ Disruption of migration patterns (i.e. striped bass)
 - ◆ Disturbance to Essential Fish Habitat
 - ◆ Disturbance to Threatened and Endangered Species



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Actions to Avoid and Minimize Impacts

USACE has worked with USFWS, NOAA/NMFS, NYSDEC, and NJDEP to develop:

- ◆ Seasonal windows: avoid impacts to EFH Species, in particular Winter Flounder
- ◆ Minimum distances from environmentally sensitive areas such as Shooter's Island (for wading birds, herons, egrets, etc.) and Peregrine Falcon nesting sites



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Actions to Mitigate Unavoidable Impacts

- 6.26 acres of littoral zone habitat impacted
- Proposed mitigation
 - ◆ Woodbridge River, NJ: Intertidal wetlands, 11.0 acres
 - ◆ South of Goethal's Bridge, NJ: Littoral zone habitat, 3.0 acres
 - ◆ Mariner's Harbor, NY: Littoral zone habitat, 4.6 acres
- Opportunities exist for additional habitat restoration through HRE, specific CAP sites, or related authorities



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Assessing Impacts from Consolidated Implementation Plan

- EFH data has been collected since 2000 through 2003. USACE has re-initiated consultation with NOAA/NMFS to refine time and location of seasonal windows.
- Supplemental Environmental Assessment will look at project impact differences between the consolidated project and the impacts indicated in the 1999 FEIS. Such analysis will also include hydrodynamic and water quality modeling.
- USACE is also looking into EFH Mitigation Sites within the Harbor that may be implemented to further modify seasonal constraints.



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Summation

- Biological sampling is continuing
- Mitigation plan is under development
 - ◆ Final Plan expected in Fall '03
- Environmental Assessment evaluating the consolidated project
 - ◆ Expected in Fall '03
 - ◆ Issues evaluated to include: turbidity, erosion, blasting impacts, recolonization, etc.



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New York & New Jersey Harbor Deepening Project (HDP) Air Issues



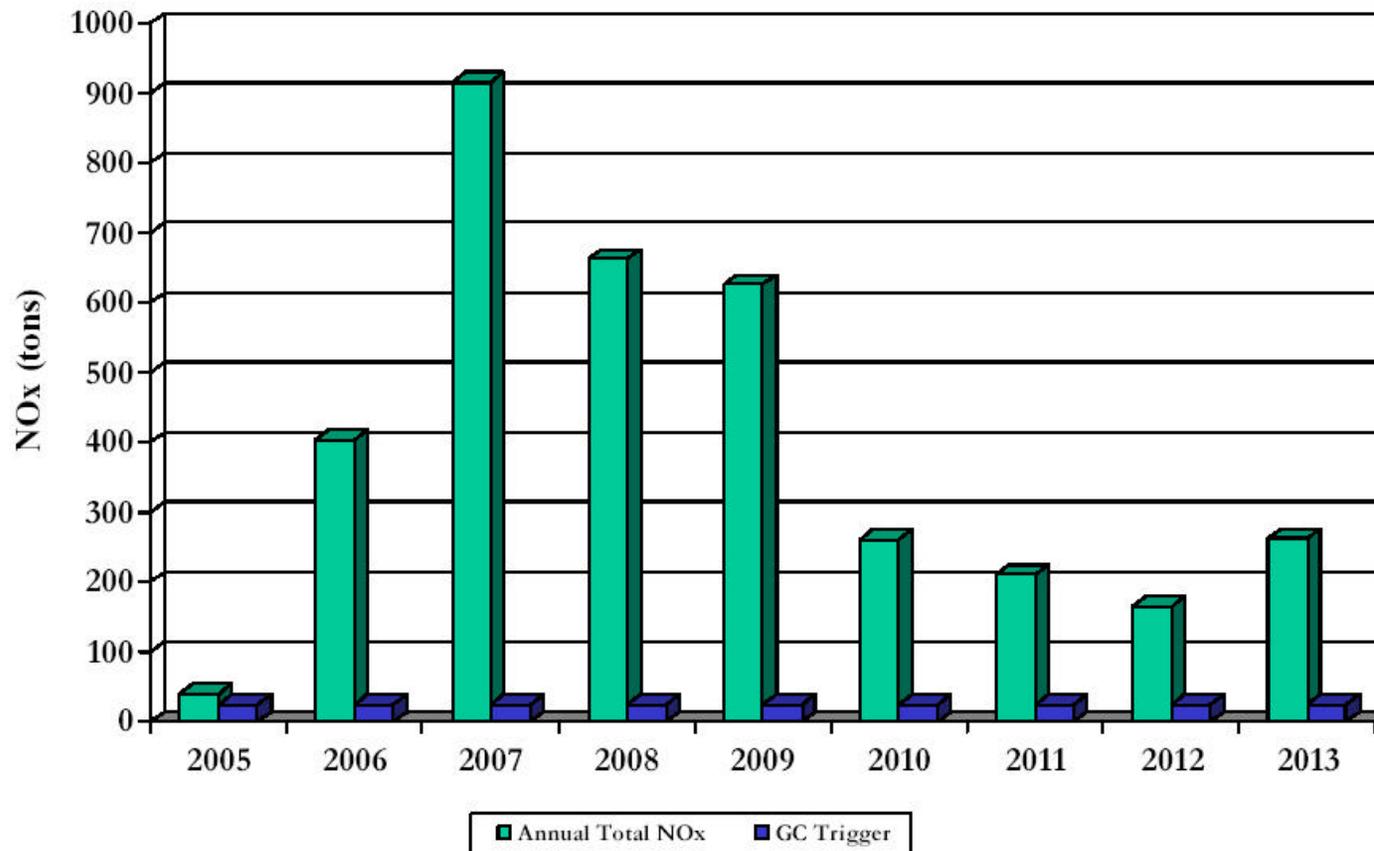
- Clean Air Act (CAA) sets the standards
- States prepare EPA approved plan for compliance (“State Implementation Plans”)
- NY/NJ Region
 - ◆ Severe nonattainment for NO_x (25 tons)
 - ◆ Maintenance for CO (100 tons)
- HDP will exceed NO_x standards
- Federal projects must comply; need to address how to get HDP into conformity with the CAA



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Estimated Project NO_x Emissions

DRAFT HDP Estimated NO_x Emissions

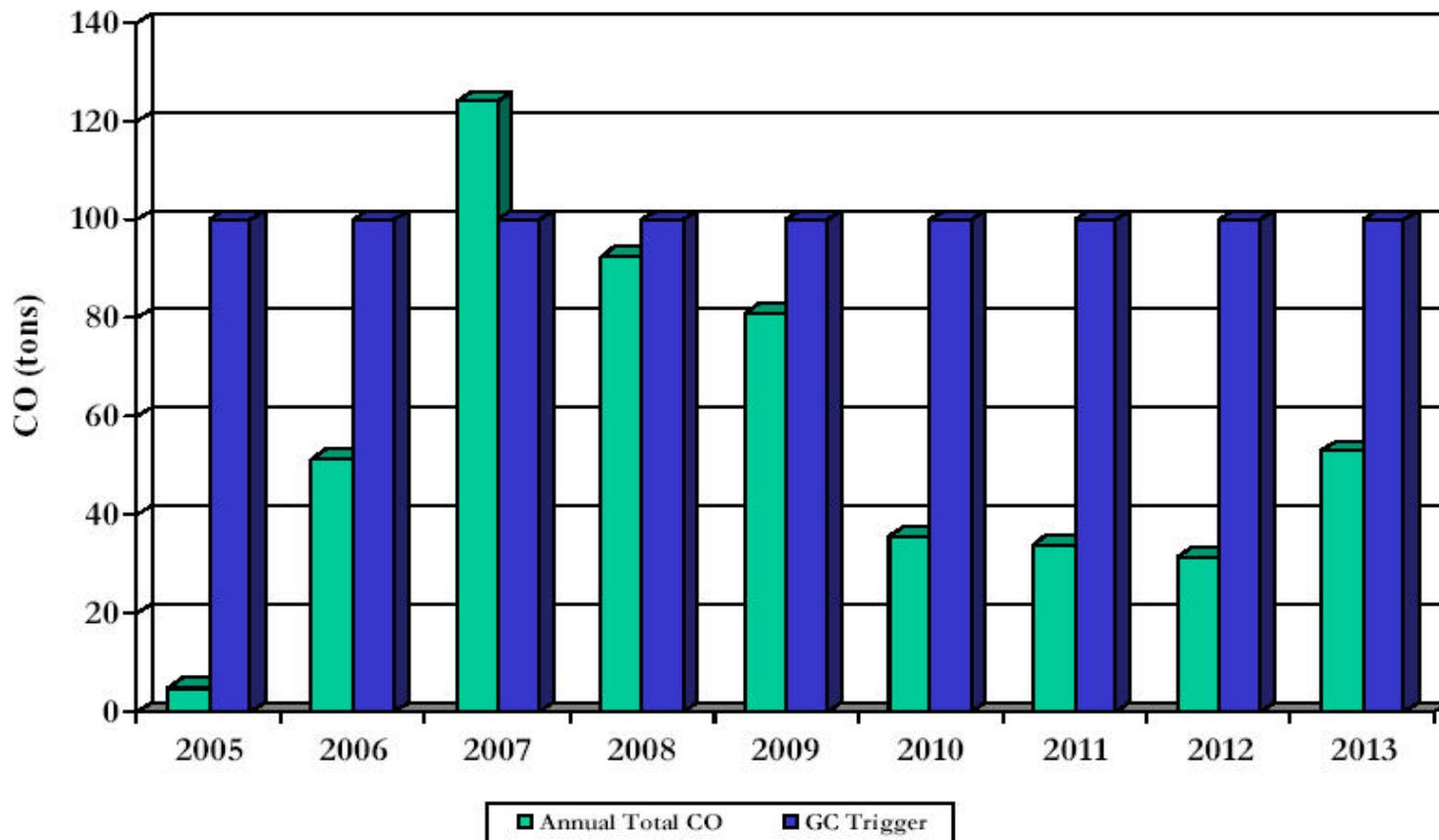




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Estimated Project CO Emissions

DRAFT HDP Estimated CO Emissions





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Corps Plan to Meet Conformity

- Reduce/offset project emissions through:
 - ◆ Electrification of equipment
 - ◆ Use of fuel additives and alternative fuels
 - ◆ Modify and re-power marine engines for cleaner operation
- Purchase available emission reduction credits (ERCs)
 - ◆ Develop incentives to create credits
- Produce equipment emission inventories to aid state planning
 - ◆ Marine Vessel Emission Inventory
 - ◆ Cargo Handling Equipment Emission Inventory
- Make annual conformity determinations
- Not start construction until project is in compliance!



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Current Status of Compliance

- ◆ Employ traditional mitigation policy to achieve air conformity
- ◆ Corps will seek to achieve real emission reductions onsite using control technologies and modified fuels
- ◆ Even in the best case scenario, emission control technologies will only be able to account for approximately 30% of the projects emissions.
- ◆ Remaining mitigation will be achieved via offsets: Marine offsets at the project site are preferred, then offsets at public facilities and offsets within the overall airshed.
- ◆ Draft Harbor Air Mitigation Plan (HAMP) expected Fall 2003.
- ◆ Draft SOC expected Winter 2004.



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Harbor Air Mitigation Plan (HAMP) Path to Compliance

Emission Reductions + Credits + Marine and Land-based Offsets



Statement of Conformity & States' and EPA Plan Approval



Project Construction



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District Points-of-Contact

- ◆ Joe Seebode, (212) 264–0110: Chief, Harbor Programs Branch
- ◆ Tom Shea, (212) 264–5570: Project Manager, NY & NJ Harbor (50 ft)
- ◆ Ronald Pinzon, (212) 264-2199: Lead Project Biologist
- ◆ Bonnie Hulkower, (212) 264-5798: Biologist, Air Quality



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Discussion



**Find NY/NJ Harbor Estuary information on the NY District
Web site at www.nan.usace.army.mil/harbor**