

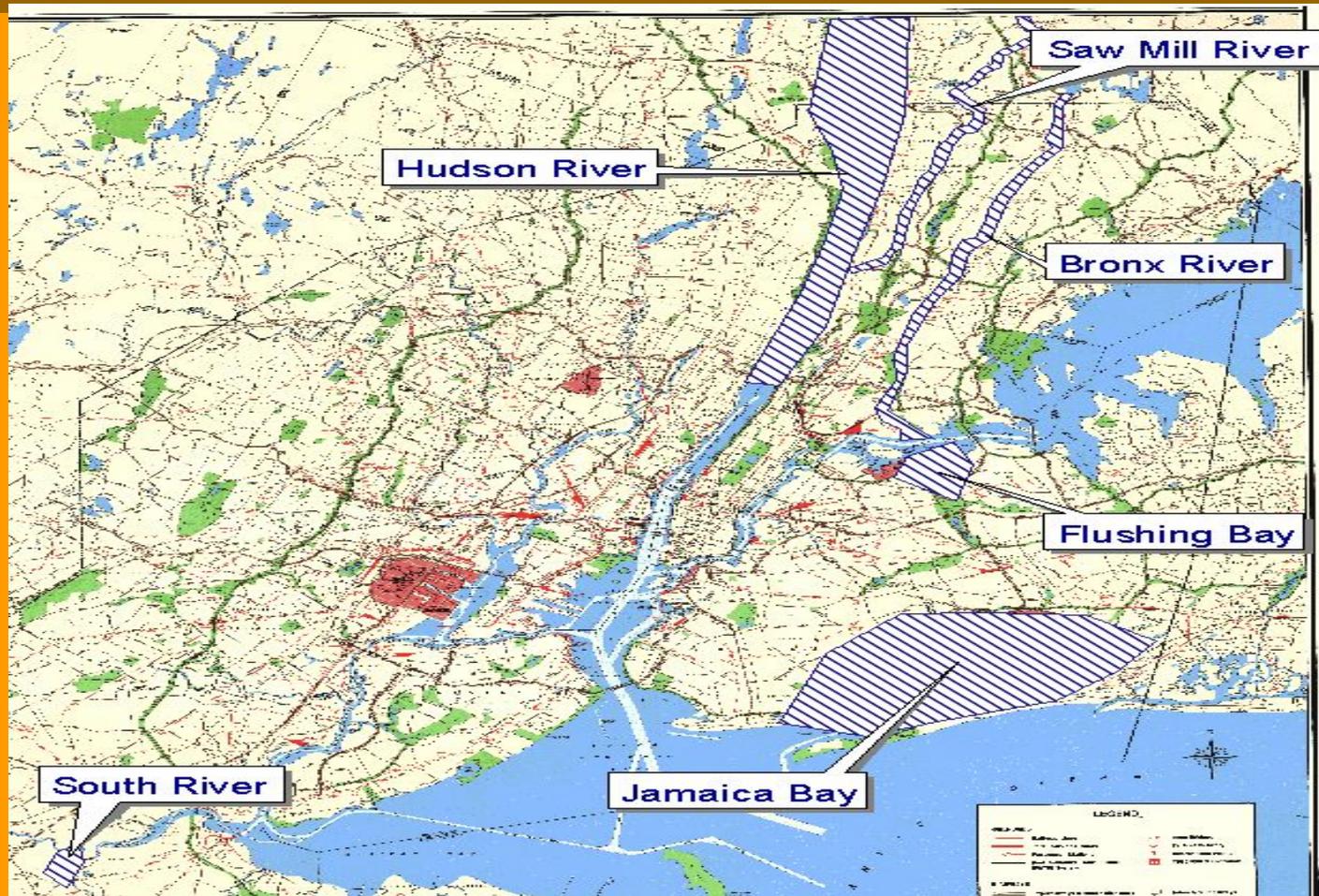
# **ARMY CORPS OF ENGINEERS NEW YORK DISTRICT**

## **ECOLOGICAL RESTORATION IN THE HUDSON-RARITAN ESTUARY (NY/NJ HARBOR AND ADJACENT AREAS)**

# **STUDY AUTHORITIES: GETTING STARTED**

- **SPECIFIC CONGRESSIONAL AUTHORIZATION (GI funding)**
  - **MULTIPLE OPPORTUNITIES**
  - **LARGE, SYSTEM-WIDE STUDY AREA**
- **CONTINUING AUTHORITIES PROGRAM (CG funding)**
  - **SPECIFIC/LIMITED OPPORTUNITIES**
  - **FOCUSED STUDY AREA/SITE**

# GI WATERSHED STUDIES



# URBAN RESTORATION IN METRO AREA



## JAMAICA BAY, NY

- **PARTNER W/NYCDEP**
- **MULTIPLE OBJECTIVES**
  - **Water quality in  
tribs/main bay**
  - **Coastal meadows**
  - **Erosion control**
  - **Mosquito control**
  - **Salt marshes**
  - **Recontouring**
  - **Tidal creeks**

# URBAN RESTORATION IN METRO AREA

## FLUSHING BAY, NY



Site # 2: Looking West over marsh and fill material area

- **Partner w/DEP and Port Authority**
- **Multiple objectives**
  - **Saltmarsh**
  - **Improved flushing**
  - **Recontouring**
  - **Shoreline clean up**
  - **Tidal creek restoration**
  - **Freshwater wetlands**
  - **Mosquito control**
  - **Odor abatement**

# URBAN RESTORATION IN METRO AREA

Saltmarsh South of 172nd St Weir



## Bronx River, NY

- Partner w/NYCDEP, NYSDEC, Westchester
- Multiple objectives
  - Saltmarsh
  - Streambank restoration
  - Fish passage
  - Lake/pond renewal
  - Freshwater wetlands
  - Mosquito control
- Watershed plan

# URBAN RESTORATION IN METRO AREA



## Sawmill River, NY

**Partner w/ Yonkers & Westchester county**

- **Multiple sites**
  - **Streambank restoration**
  - **Fish passage**
  - **Lake/pond renewal**
  - **Freshwater wetlands**
  - **Mosquito control**
- **Watershed plan**

# URBAN RESTORATION IN METRO AREA



## South River, NJ

- **Partner w/ NJDEP**
- **Large degraded saltmarsh**
  - **Restore native veg**
  - **Increase species diversity**
  - **Improve flushing**
  - **Improve water quality**
  - **Stabilize habitats**

# URBAN RESTORATION IN METRO AREA



## Hudson River, NY

- **Partner w/ NYSDEC & NYSDOS**
- **Multiple sites**
  - **Restore filled wetlands**
  - **Reestablish backwaters**
  - **Soften shoreline**
  - **Fish passage**
  - **Improve circulation**

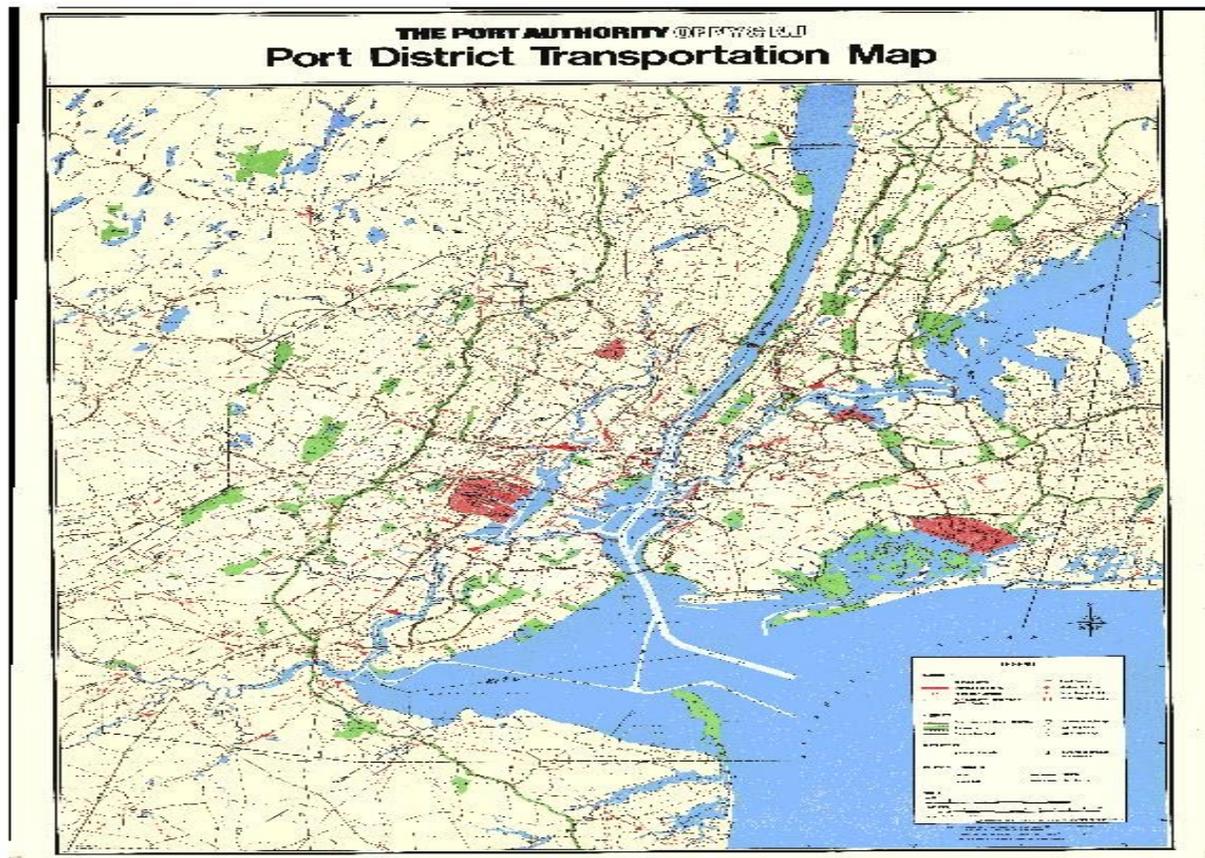
# CAP RESTORATION SITES



# CAP PROJECTS IN METRO AREA

- **Gerritsen Creek, NY**
  - Salt marsh (remove fill, regrade, replant)
- **Lincoln Park, NJ**
  - Salt marsh (remove fill, regrade, replant)
- **City of Rahway, NJ**
  - Streambank (erosion control, habitat, plantings)
- **Treasure Lake, NJ**
  - Freshwater wetland (deepen, prevent saltwater intrusion)
- **Soundview Park, NY**
  - Salt marsh/embayment (fill removal, shoreline softening)
- **Sea Cliff (Hempstead Harbor), NY**
  - Circulation/WQ (remove fill, regrade, recontour)
- **Manhasset Bay, NY**
  - Circulation/WQ (remove fill, regrade, recontour)

# HUDSON-RARITAN ESTUARY STUDY



# Coordination

- **Executive Committee (sponsors)**
- **HQ/NAD**
- **HEP (Mgmt)**
- **DMMIWG/Habitat WG/CARP**
- **Local Stakeholders**
- **Federal Partners**

# Purpose of Recon

- **Establish Federal Interest**
  - **Environmental Benefits**
  - **Feasible Alternatives**
- **Basic Cost/Study Approach for Feasibility Study**
- **Non-Federal Sponsor**

# What's After Recon

- **Negotiate Scope of Work**
- **Cost-Sharing Agreement**
- **Execute Feasibility Study**
- **Recommend Comprehensive Estuary Restoration Plan**
- **Implement Plan Components**
  - **Plans and Specs for Corps sites**
  - **Detailed Investigations**
  - **Support others**

# **Recon Findings: Degraded/Lost habitats**

- **Inter-tidal Wetlands/Mudflats**
- **Freshwater Wetlands**
- **Benthic Habitats**
- **Shallow water Habitats**
- **Shoreline/Coastal Habitats**
- **Fish Habitats**
- **Shellfish Habitats**

# **RECON FINDINGS: INITIAL AREAS OF CONCERN**

- **Contaminants**
- **Benthic Habitat Mapping**
- **Artificial Reef Placement**
- **Landfill Impacts**
- **Road/Rail Impacts on Marshes**
- **Shoreline Debris/Structures**
- **Seal Haul-Outs**
- **Salt marsh losses**

# **RECON RECOMMENDATIONS**

## **(short-term)**

### **Specific Study Sites**

- **Old Place Creek**
- **Brookville**
- **Drier Offerman**
- **Alley Pond Park**
- **Newtown Creek**
- **Tallaposa**
- **Sherman Creek**
- **Leonardo**
- **Liberty St Park**
- **Marquis Creek**
- **Rahway River**
- **Hackensack Meadowlands**
- **Pelham Cove**

# **RECON RECOMMENDATIONS**

## **(mid-term)**

- **Sub-Basin Studies**
  - **Gowanus Canal, New York**
  - **Passaic River, New Jersey**

# **RECON RECOMMENDATIONS (long-term)**

- **Comprehensive Restoration Implementation Rpt**
  - **Address Habitat fragmentation and other system-wide issues on watershed basis**
  - **Coordinate ALL Opportunities into mgmt plan for restoring the estuary as a whole**
  - **Recommend Future Restoration Actions based on what's best for system (including non-Corps Initiatives)**

# Sponsorship and Study Structure

- **FCSAs**
  - **PANY/NJ (acting for all non-Fed interests)**
    - **13 Priority Sites as Interim Report**
    - **Holistic estuary Restoration Plan and Other Recommended Actions (Main Feasibility Report)**
  - **New York City**
    - **Gowanus Canal Rpt/Recommendations**
  - **New Jersey Maritime**
    - **Passaic River Rpt/Recommendations**
- **Executive Charter**
  - **Integrates all study elements**

# The HEP Role

- **Active Participation**
  - **Habitat WG lead**
  - **Part of Decision Making**
  - **Full and Early Involvement**
  - **Proactive Review**
  - **Commitment**
- **Maximize Resources/Support**
- **Coordinate with Other Programs**

# Where Do We Go From Here?

- **Finalize and sign charter**
- **Sign FCSAs**
- **Set Overall Goals/objectives**
- **Scope out initial Work efforts**
- **Work out “Fits” Among Programs**
- **Establish Working Structure**
- **Help Set-Up Technical Committees and Workshops**
- **Other????**