

***Using Sediment Systems in Applying a
Watershed Approach to Coastal Geographic
Regions***

***Case Study: NY/NJ Harbor
Regional Sediment Management***

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**Managing Sediments in the Watershed:
*Bringing All Sediment Stakeholders Together***

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Regional Sediment Management

- System-based (*watershed*) approach that seeks to solve sediment-related problems by designing solutions that fit within the context of a *regional* strategy and sediment system
 - Recognizes sediments as a resource
 - Sediment processes (coastal/estuarine)
 - Integral to environmental / economic vitality
 - Engage Stakeholders
 - Achieve long-term balance and sustainable solutions

NY/NJ Harbor Regional Sediment Management

Why go down this river?

- *Industrial – Urbanized Watershed*
 - **Sediment Quality: Contaminated sediments adversely affect the estuarine ecosystem**
 - Ecological Health
 - Public Health
 - Economy of the Region

NY/NJ Harbor Regional Sediment Management

Why go down this river?

– Sediment Quantity

- Affects environmental quality
 - Can be beneficial (maintaining/diversity of wetlands)
 - Detrimental (net erosion of coastal areas/islands / mudflats)
 - Deposition (shoaling in navigation channels / burial of aquatic organisms)

NY/NJ Harbor Regional Sediment Management

Why go down this river?

– Dredged Material

- Navigational Safety
- Dredged Material Placement
- Beneficial Uses of Dredged Materials

NY/NJ Harbor Regional Sediment Management

Why go down this river?

- Sediment quality/quantity management is spread among many authorities, agencies and jurisdictions
- Contaminant reduction for dredged material lacks targeted program to resolve
 - Framework and leadership needed
- There is no current regional framework to deal with sediment challenges on a regional scale

Timing is Now

- HEP CCMP Target and Goals / re-visited
- NY/NJ Harbor Roundtable highlighted sediment quality improvement as a major issue
- Contaminant Assessment Reduction Program (CARP) modeling tools becoming available
- Hudson Raritan Estuary comprehensive restoration planning in formative stage
- USACE DMMP updated
- Harbor deepening is underway
- Superfund – Passaic and Hudson Rivers
- National initiatives
 - USEPA URRI, USACE RSM, Greenports, and Regional Port Initiatives

NY/NJ RSM Plan Background

- Sediment related issues are being addressed in a fragmented / non- cross program way by other initiatives
 - Harbor Estuary Program (workgroups, CARP)
 - O&M Navigation
 - Superfund
 - Regional Dredging Team

Background – con't

- In determining progress on HEP CCMP initiatives it became apparent that there was no comprehensive program to manage sediments
 - “Clean Sediments and Navigation” – HEP
- USEPA-USACE developed a white paper
 - Need for RSM
- Discussed with HEP Mgmt. Cmte
- Discussed with HEP Policy Cmte that a workgroup was needed to develop a RSM Plan
- Policy Cmte approval – January 06, 2006

RSM Workgroup Concepts

- WG would focus on a **single** mission:
 - Development of a RSM Plan
 - Not general sediment issues
- WG would be **ad-hoc**
 - Dissolve when mission is completed
- WG would be **small** and include individuals who have program **experience**, knowledge and **technical** background to develop a RSM Plan
- WG would **submit** RSM Plan to Policy Cmte for approval and **implementation**
 - Determine resources

Workgroup Structure

- **Focus on Action**
 - Not a general (let it all hang out) issue WG
- **Group has a Management Focus**
 - Primary purpose of recommending a comprehensive RSM Plan for consideration / approval of the HEP Policy Committee
 - System-wide / watershed approach
- **Workgroup Participants**
 - Federal
 - USACE/USEPA
 - State
 - NJDEP: Watershed Mgmt
 - NJDOT: Office of Maritime Resources
 - Local
 - NYC Economic Development Corporation
 - NYCDEP
 - Port Authority of NY&NJ
 - NGOs
 - Hudson River Foundation
 - Clean Ocean Action
 - NY&NJ Harbor Baykeeper

RSM WG Progress to Date

- Workgroup created:
 - Federal, State (NY/NJ), City Agencies, Port Interests, Academia, Environmental Groups
 - Cross divisional representation
 - 23 participants / Core WG approximately 12
- WG has met 5x since February 2006
- Target for completion of RSM Plan
 - End of December 2006

Progress to Date – con't

- Consensus Goal Statement
 - Support and **sustain** a healthy **ecosystem** and robust **economy** , and to **manage** sediments as **resource**.....
- Plan is divided into 3 primary elements
 - Sediment Quality
 - Sediment Quantity
 - Dredged Material
 - White papers developed on each area
- WG has almost completed developing policy and program recommendations for the Dredged Material element of the Plan

Sediment Quality:

To manage the quality of sediment to achieve the above goal, the RSMP will address issues concerning newly introduced sediments and historic (legacy) contamination.

Newly Introduced Sediments

Ensure that they enter the system “clean “

Ensure that they remain Clean

Historic (Legacy) Contamination

Reduce Direct Exposure

Reduce Transport to other areas

Sediment Quantity:

To manage the quantity of sediment to achieve the above goal, the RSMP will consider the relationship of sediment quantity to estuarine ecological processes and channel sedimentation

Estuarine Processes

Is there enough where you need it?

Is there too much where you don't want it?

Navigation Channel Sedimentation

Reduce dredging needs

Dredging:

In order to achieve the above goal, the RSMP will address navigational dredging and dredged material management

Navigational Dredging



Dredging techniques,
resuspension,
etc.

Dredged Material Management



Dredged material
placement planning,
HARS,
Decontamination,
Beneficial uses

Remaining Work

- Develop policy and program recommendations for the remaining two elements of the Plan
 - Sediment Quality
 - Sediment Quantity
- Complete and finalize written document of the Plan
 - December 2006
- Seek HEP Policy Cmte approval and adoption of the Plan



Public Participation in the RSM Approach

- What is it really?
- Why have it?
- How do we do it?

Public Participation

What is it really?

- “BE IN” not “BUY IN” role
 - Meaningful, decision-making role
 - Involvement from conception to implementation
 - Include more than just organized advocacy groups

Public Participation

Why have it?

- With it:
 - Understanding of Sedimentation,
 - Concept of sediments as a resource,
 - Support for Dredging Projects,
 - Hosting Dredged Material Handling Facilities,
 - Funding,
 - Support of Public Officials
- Without it:
 - No change in Sediment Loading from Upstream,
 - Delay/Rejection of Projects,
 - Push-back on Clean-Up,
 - No hosting of Dredged Material Handling Facilities,
 - No Funding,
 - No Support of Public Officials

Public Participation

How do we achieve it?

- Public must be an Active and Equal Partner
- Public must be involved in all aspects of regional sediment management
 - Sediment quantity
 - Sediment quality
 - Dredging
- All interested parties should be identified and invited/encouraged to participate

Public Participation in the New York Harbor RSMW

- Clean Ocean Action is actively participating in the Workgroup
- Making Recommendations on Future Actions
 - Including the Role of the Public
- Have not been included in Regional Dredging Team meetings where current actions and decisions are being made



Clean Ocean Action would like to thank the EPA and Batelle for inviting us to speak today and providing travel support.