Inlet Management Study Ground Rules

- **<u>Goal</u>: Develop and prioritize a specific list of recommendations for staff to begin the process of finalizing actions necessary to submit these for final consideration.**

- Don’t worry about feasibility of CRC alone making changes. Ask “should the change be made?”
- Don’t get bogged down in details. CRC needs to make initial comments on all 20 broad topics.
- Hold comments or questions until the end.

Division of Coastal Management

Summary of Regional Inlet Management Meetings and Preliminary Findings

Matt Slagel, Shoreline Management Specialist

Coastal Resources Commission – May 14, 2014 – Atlantic Beach

Division of Coastal Management

Study Schedule / Milestones

- ✓ **Expert panel at Feb. 2014 CRC Meeting**
- ✓ **Four regional meetings by end of April 2014**
- ✓ **Written comments accepted through April 15**
- **May 14:** Comments summarized/categorized for CRC
- **July 31:** Final draft findings/recommendations
- **September 30:** Submit proposed rulemaking changes for public comment
- **December 31, 2014:** Final report to Governor & G.A.

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Meeting Packet Contents

- Memo, with topic page numbers (handout)
- Summary of Public Comments, by topic
- Comments from Dredging Panel at February 2014 CRC Meeting
- DCM Overview of Inlet Management Presentation
- Meeting Notes and Public Comments from 4 Regional Meetings, Including Written Comments
- CRC Member Priorities

Division of Coastal Management

20 Categories (1-10)

1) Beneficial Use of Dredged Materials
2) Dredging Depths and Sediment Criteria Rules
3) Erosion Rate Calculations for Inlet Hazard Areas
4) Dredge Plants and Scheduling of Dredging Projects
5) Terminal Groins and Sand Bypassing
6) Approach to Inlet Management, In General
7) Funding Sources and Partnerships
8) Emergency Permitting: Bulldozing and Sandbags
9) Dredging Windows / Moratoria
10) Economic Value of Inlets and Beaches

Division of Coastal Management

20 Categories (11-20)

11) Channel Realignment Projects
12) Permitting Process, In General
13) Development Standards / Erosion Setbacks
14) Monitoring Conditions Associated with Projects
15) Other Erosion Control Structures
16) Volumetric Triggers for Beachfront “Static Lines”
17) Stockpiling of Sand
18) Negative Impacts of Dredging
19) New Inlet Breaches
20) Dredging of Inlet Shoals

Division of Coastal Management

Beneficial Use of Dredged Materials

15 Comments (pp. 329-330)

- Beach-compatible sand dredged from inlets should be placed back on adjacent beaches; it should never be disposed offshore. **(F/S)**
- The distribution of dredged sand that is pumped onto adjacent beaches should be guided by analytically derived sediment budgets. **(F/S)**

Division of Coastal Management

Dredging Depths & Sediment Criteria

15 Comments (pp. 331-332)

- Dredging projects should evaluate the optimal depth of a channel, not just the “authorized depth.” Authorized depths should be increased. **(F)**
- It’s difficult for the federal agencies to alter authorized channel dimensions, but obtaining permits at the local level may allow for more flexibility. **(F/S)**
- The sediment criteria rules should be reevaluated. If the sand came from the beach, it should be allowed to be placed back on the beach. **(S)**

Division of Coastal Management

Dredging Depths & Sediment Criteria

15 Comments (pp. 331-332)

- Increasing the depth of shallow-draft inlets would increase the tidal prism, change the flood shoal and ebb shoal geometry and orientations, and likely result in increased erosion on adjacent shorelines. **(F/S)**

Division of Coastal Management

Erosion Rate Calculations for IHAs

15 Comments (pp. 333-334)

- The CRC should task the Science Panel to complete the development of methods to define revised Inlet Hazard Areas and potential inlet and near-inlet setback lines for CRC review. **(S)**
- The Inlet Hazard Areas should be eliminated and incorporated into the Ocean Erodible Area (OEA) while applying the same development standards currently utilized in the OEA. **(S)**
- The current “adjacent erosion rate” rule for IHAs doesn’t make sense. Every inlet is different and erosion rates are dramatically different. Good erosion rate information is needed for setbacks to be valid. **(S)**

Division of Coastal Management

Erosion Rate Calculations for IHAs

15 Comments (pp. 333-334)

- The concept of a Deep-Draft IHA and Shallow-Water IHA should be explored, and the boundaries should extend in the water, where issues related to dredging can be codified and enforced in policy. **(S)**

Division of Coastal Management

Dredge Plants and Scheduling

14 Comments (pp. 335-336)

- Shallow-draft hopper dredges can place material closer to the shore and should be used more frequently as a first option instead of sidecast dredges. Sidecast dredges are only good for clearing a channel enough for a hopper dredge to follow behind it. One benefit of sidecast dredges is that they keep the sediment in the system. **(F)**
- USACE dredge plants are stretched thin and scheduled well into the future, so quick responses aren't always possible. **(F)**
- Consistency is needed for dredging for ferries in Dare and Hyde counties. Dredging is needed not just for getting in and out of inlets, but also traveling between islands through the sounds. **(F/S)**

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Terminal Groins & Sand Bypassing

14 Comments (pp. 337-338)

- The legislative cap of four terminal groins should be removed. **(S)**
- Monitoring of downdrift impacts and financial aspects of mitigation need to be sufficient to safeguard adjacent properties and communities that could be negatively impacted by terminal groins. **(S)**
- Migrating inlets are not good candidates for terminal groins. **(S)**

Division of Coastal Management

Approach to Inlet Mgmt, In General

13 Comments (pg. 339)

- Inlets should be managed proactively instead of reactively. **(F/S)**
- Beach and inlet management is related- what happens to one impacts the other. The goal of inlet management should be to reconnect sediment pathways to minimize dredging impacts. **(F/S)**
- Each inlet is diverse and unique, so one management scheme cannot be applied to all inlets. **(F/S)**

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Funding Sources & Partnerships

13 Comments (pg. 340)

- With decreasing federal funds, inlet management is increasingly a shared partnership between local and state government. A stable source of funding for beach and inlet projects is needed at the state level. **(S)**
- The 50% state matching fund for inlet dredging is a good start, but if one locality wants to undertake a major project and applies for the state matching funds, it could wipe out the funds for the rest of the state. **(S)**
- Congressional funding is an issue for federal projects. A project may be authorized and permitted, but if it is never funded, it does no good. **(F)**

Division of Coastal Management

Emergency Permitting: Bulldozing & Sandbags

11 Comments (pg. 341)

- New dunes should be allowed to be created in Inlet Hazard Areas. **(S)**
- Sandbags in IHAs should have a different set of standards (permitted sooner and allowed to remain on beach longer). **(S)**
- More efficient and timely procedures for emergency permitting are needed. **(F/S)**

Dredging Windows / Moratoria

10 Comments (pg. 342)

- The dredge windows should be extended under stipulated conditions to increase competition, increase the number of bids on projects, reduce costs, and provide more flexibility for completing the work. **(F/S)**

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Economic Value of Inlets & Beaches

10 Comments (pg. 343)

- The economic value of inlets should consider tourism, culture, recreation, jobs, and storm damage reduction; not just commercial tonnage. **(F/S)**
- Safe and navigable inlets are vitally important to the local and state economy. **(S)**

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Channel Realignment Projects

9 Comments (pg. 344)

- The Bogue Inlet and Mason Inlet channel realignment projects were successful, so the CRC should make sure that the permitting process is quicker and easier and that monitoring requirements are reduced for future similar projects. **(F/S)**
- These types of projects should be designed to accommodate the same volume of water (tidal prism) that the pre-existing ebb channel possessed. **(F/S)**

Division of Coastal Management

Permitting Process, In General

8 Comments (pg. 345)

- Permitting needs to be proactive. There is a need to be able to react quickly, be adaptive, and look longer term versus authorizing single events. **(F/S)**
- DCM Major Permit lifecycles should be increased for inlet management or Coastal Storm Damage Reduction projects. **(S)**

Division of Coastal Management

Development Standards / Setbacks

8 Comments (pg. 346)

- Inlets are a primary ocean hazard in North Carolina. Development standards adjacent to inlets should be different from development standards along the oceanfront. **(S)**
- Existing rules for new development adjacent to inlets should not be relaxed. **(S)**
- There is no need for IHA specific development standards. **(S)**

Division of Coastal Management

Monitoring Conditions

8 Comments (pg. 347)

- Monitoring requirements should not be so onerous as to prohibit what has otherwise been authorized. The amount of monitoring on projects should be reasonable and consistent with CAMA objectives. **(S)**
- Monitoring conditions should focus more on physical monitoring and less on biological monitoring. **(S)**

Other Erosion Control Structures

7 Comments (pg. 348)

- Rock groins, breakwaters, jetties, sandbags, beach bulldozing, and beach nourishment should all be allowed to mitigate channel-induced erosion. **(S)**

Division of Coastal Management

Volumetric Triggers for Static Lines

6 Comments (pg. 349)

- The “300,000 cubic yard rule” for establishing a static vegetation line should be reevaluated. **(S)**
- The Ocean Reef Condominiums in Emerald Isle cannot meet the setback from the static vegetation line, and they are over 2,500 sq ft so they would not be able to rebuild from the first line of stable and natural vegetation (under the static line exception rule). Property owners request the CRC to consider allowing an exception for building back on the original footprint, even though the buildings are more than 2,500 sq ft. **(S)**

Stockpiling of Sand

6 Comments (pg. 350)

- Stockpiling of sand dredged from inlets and stored for future placement on beaches should be allowed. **(F/S)**

Division of Coastal Management

Negative Impacts of Dredging

5 Comments (pg. 351)

- The federal engineered channel locations at Beaufort Inlet and Cape Fear River Inlet result in episodic maintenance dredging, high erosion rates, and shifting shorelines adjacent to these inlets. **(F)**
- Dredging of Oregon Inlet has exacerbated erosion of Hatteras Island. **(F)**

New Inlet Breaches

5 Comments (pg. 352)

- A new type of Area of Environmental Concern (AEC) is needed for areas where an inlet used to exist, has closed, but could re-open again in the future. **(S)**
- If a new inlet is breached, it should be filled in instead of bridged. **(F/S)**

Dredging of Inlet Shoals

3 Comments (pg. 353)

- Since the orientation of ebb shoals is a primary driver of erosion on adjacent shorelines, any dredging of shoals should only proceed after modeling and studies indicate no adverse impacts will occur to the adjacent shorelines. **(F/S)**

Division of Coastal Management

CRC Member Priorities (pp. 577-578)

- Year-round dredging
- Place all dredged beach-compatible sand on adjacent beaches; stockpile for future
- Eliminate the Static Line Policy
- Simplify permitting of multi-year projects: reduce the review for any interim projects/permits
- Monitoring requirements of approved projects beyond the second year would have to be re-justified
- Improve inter-agency coordination; Improve inefficient funding mechanisms
- Structural inlet stabilization
- Inlets are unique: “One size fits all” management doesn’t work
- More local discretion when locally-funded
- FEMA reimbursement after dune damage: private/local projects vs. federal projects
- More frequent and thorough inlet morphology/erosion monitoring
- Jones Act and its effect on available dredge plants
- Update and better quantify the economic benefits of inlets

Division of Coastal Management

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Existing Language: Beneficial Use of Dredge Material

- **15A NCAC 07M .1102(a)**: “Clean, beach quality material dredged from navigation channels within the active nearshore, beach, or inlet shoal systems must not be removed permanently from the active nearshore, beach or inlet shoal system unless no practicable alternative exists. Preferably, this dredged material will be disposed of on the ocean beach or shallow active nearshore area where environmentally acceptable and compatible with other uses of the beach.”
- **§ 113-229(h1)**: “Except as provided in subsection (h2) of this section, all construction and maintenance dredgings of beach-quality sand may be placed on the affected downdrift ocean beaches or, if placed elsewhere, an equivalent quality and quantity of sand from another location shall be placed on the downdrift ocean beaches.”
- **§ 113-229(h2)**: “Clean, beach quality material dredged from navigational channels within the active nearshore, beach, or inlet shoal systems shall not be removed permanently from the active nearshore, beach, or inlet shoal system. This dredged material shall be disposed of on the ocean beach or shallow active nearshore area where it is environmentally acceptable and compatible with other uses of the beach.”

Chairman Proposal:
Beneficial Use of Dredge Material

- “With respect to all beach-compatible sand, as defined by the Coastal Resources Commission through its rules and policies as set forth in 15A NCAC 07H.0312, resulting from the dredging of navigation channels within tidal inlets, harbors, and rivers where quantities of 100,000 cubic yards or greater are dredged, such sand shall be placed directly on adjacent beaches in a manner that minimizes shoaling and replicates the natural littoral system to the maximum extent practicable.”

Beach Bulldozing

Chairman Proposal: Static Line Policy

- Consequences of existing rule:
  - New buildings or remodeling greater than 2,500 sq ft is penalized
  - Communities not wanting static line have designed dredging projects below 300,000 cy
  - Dredging projects are more frequent, which results in more damage to the environment and significantly greater costs
  - Engineers designing projects are not using best science but instead responding to regulations

Chairman Proposal:
Static Line Policy

- Eliminate static line and 300,000 cy rule.
- Limit volume to no greater than 100 cy per linear ft average over the span of the project. Let engineering determine sand placement.
- No new development allowed from dredging beyond existing development line. Local communities determine development line, DCM reviews.
- Use vegetation line in the absence of development line.
- Use standard 30x erosion rate for setback.
- Local communities determine size and use restrictions.

Division of Coastal Management

Inlet Management Priority List

1) Beneficial Use of Dredged Materials
2) **Dredging Depths and Sediment Criteria Rules**
3) **Erosion Rate Calculations for IHAs**
4) **Approach to Inlet Management: Inlet Mgmt Plans**
5) Funding Sources and Partnerships
6) **Emergency Permitting**
7) Dredging Windows / Moratoria
8) **Monitoring Conditions**
9) **Static Lines**
10) Stockpiling of Sand