Living Shorelines Training

Technical Training and Policy Discussions for Coastal Regulators and Resource Agency Staff

March 31, 2009-April 1, 2009

Agenda - Day 1: Tuesday, March 31, 2009 NERRS/NOAA Building, Pivers Island, Beaufort

9:00am - 10:00am Participants Sign In (Coffee and Danish Provided)

10:00am – 10:10am Welcome - Jimmy Johnson, CHPP Implementation

- a) Introduction of Speakers Tracy Skrabal, NC Coastal Federation
- b) Overview of Agenda Lauren Kolodij, NC Coastal Federation

10:10am – 11:15am I. Approaches to Erosion Control on Estuarine Shorelines (Gene Slear, Environmental Concern, Inc.)

- a) Vegetation Only
- b) Combination Approaches
- c) Beach Fill
- d) Sills (Rock, Wood and alternative materials) & Breakwaters
- e) Sloping Structures (Riprap Revetments and marsh toe revetments)
- f) Vertical Structures (Bulkheads)
- II. Living Shorelines Overview
 - a) What are they?
 - b) What are their benefits?
 - c) Where can they be utilized?
 - d) Why should I construct one?
- III. Fundamental Design Considerations
 - a) Working with Estuarine Shoreline Conditions
 - b) Site Analysis
 - c) Design Parameters

11:15-11:30 Break

11:30am – 12:30pm Overview of Shoreline Management Programs In VA, MD, & DE

- a) Jana Davis, Chesapeake Bay Trust
- b) Karen Duhring, Virginia Institute of Marine Science (VIMS)
- c) Walter Priest, NOAA (VA)

12:30pm – 1:00 pm Lunch (Provided)

1:00pm-1:45 pm Overview of Shoreline Management Programs in VA, MD, & DE (continued)

- d) Rick Avella, MD DNR
- e) Laura Herr, DE DNREC

1:45pm - 2:45pm

Facilitated Discussion of "Living Shoreline" Issues, Constraints, and Opportunities:

- a) Introduction of NC's current regulatory program governing shoreline stabilization (Doug Huggett, NC Division of Coastal Management).
- b) Facilitated discussion of permitting Issues, natural resource issues, constraints with design and construction, opportunities and challenges to promote living shoreline methods in NC (facilitated by Lauren Kolodij, NCCF).

2:45pm - 3:00pm

Break

3:00pm - 4:30pm

Field Trip (Walking)

- I. Site #1 Duke Marine Lab Marsh Sill Project
 - a) History of Project
 - b) Project Costs, Permits
- II. Application of Design Parameters and permit considerations (While at Site #1)
 - a) What were/are the design considerations?
 - 1) existing conditions
 - 2) bank height
 - 3) distance and length of structure
 - 4) equipment access
 - 5) tree removal, etc
 - b) What alternative designs were/can be considered?
 - c) Identifying potential public trust uses and ecosystem issues associated with potential design options?
 - d) How was/will be the final project design selected?
 - e) How has site performed for erosion control as a living shoreline?
 - f) What follow-up maintenance was/will be required (future plantings, replacements, etc)?
 - g) What are the current permit requirements for this site, including existing and alternative approaches?

III. Site #2 – Pivers Island/NOAA Basin Marsh Planting Project (Repeat steps #1 and #2 from Site #1).

4:30pm - 5:00pm

Q&A and Group Discussion (Back in Auditorium) Review of Day 2 Agenda

Agenda - Day 2: Wednesday April 1, 2009 Rm 225 Institute of Marine Sciences Bldg, Morehead City

9:00am – 9:30am

UNC IMS Room 225
Participants Sign In (Coffee and Danish Provided)

9:30am – 12:00pm

Field Trip (Site #3 @CMAST/Carteret Community College, Travel by Van to sites 3-9)
Sites#3, #4, #5, #6 (Repeat I & II from Day 1 Field Trip at each location)

12:00pm – 12:30pm

Lunch at NC Coastal Federation in Ocean (Provided)

Field Trip Continued

Sites #7, #8, #9 (Repeat I & II from Day 1 Field Trip at each location)

3:00pm – 3:30pm Travel back to UNC IMS Room 225

3:30pm – 5:00pm Q&A and Group Discussion (Back in UNC IMS Rm 225)

Lessons Learned

Next Steps/Actions Revised 3/23/09LK