Living Shoreline Task Force of the SC Floodwater Commission

Committee Meeting

January 29, 2019; 1 p.m. EST

DHEC OCRM Offices, 1362 McMillan Ave., Charleston, SC

Unapproved Meeting Minutes

Attendees: John Cleveland, Governor's office (by phone); Elizabeth Von Kolnitz, SCDHEC OCRM; Paul Gayes, Coastal Carolina Univ.; Nicole Elko, South Carolina Beach Advocates; Rob Young, Western Carolina Univ. (by phone)

Also attending: Denise Sanger and Peter Kingsley-Smith.

Paul Gayes called the meeting to order at 1:05 p.m. EST stating our objective to learn about what has been done by the S.C. Living Shorelines Working Group, identify gaps or needs, and determine future directions. Elizabeth VonKolitz described the teaming of SC DHEC OCRM regulatory and DNR on the "Evaluating Living Shorelines to Inform Regulatory Decision Making in S.C., USA" over last 3 years with the intent to develop a guidance document and something like a decision support tree. Ideally, they aim to introduce draft regulations at the start of the 2020 state legislative session. Although a statute change could result in sooner implementation.

Denise Sanger made a presentation with support from Peter Kingsley-Smith that began with the Living Shorelines (LSL) definition adopted by this study, LSLs intend to maintain the land-water connection. I was modified from the NOAA Guidance for Considering the Use of Living Shorelines, 2015, definition graphic. DNR and DHEC had been most interested in marsh to water shoreline protection. Denise discussed regional approaches to LSLs. Paul suggested that Maryland may offer lessons for our future as sea level rises with less topography available for marsh restoration/preservation. Maryland's LSLs Protection Act of 2008: LSLs are the preferred approach unless they are not feasible.

Paul suggested that our committee's definition of LSLs might be the entire floodplain.

Denise discussed marsh loss behind the DNR lab in late 90s, and marsh restoration in last several years since ~2007.

Denise then gave a history of the South Carolina Oyster Restoration and Enhancement Program (SCORE) which has created 4.8 acres of new reef habitat since 2001 (through 294 individual reefs at 107 sites). Reefs have been installed and maintained at successful sites and abandoned at unsuccessful sites. Reefs were not typically not installed in front of private property. The SCORE program therefore differs from the ongoing project which tests a variety of locations/materials for success or failure.

Materials that have been tested by DNR include loose oyster shell, bagged oyster shell, oyster castles (18" high manufactured concrete towers), modified crab traps, coir logs, and curlex. In general, material choice should depend on the relative wave energy and substrate firmness, also slope. In this study, Coir logs and curlex failed 80-100% of the time.

Today in SC, we have no regs or guidance specific to LSLs. Bulkheads on public side of (below) critical line are only permitted if no marsh remains.

The Coastal Management Problem defined by the study didn't mention the alleviation of flooding directly, just that people are interested but have a very difficult time permitting and installing LSLs. Presumably, some people understand that LSLs could help reduce flooding. Paul suggested that the challenge is to determine what risk are we willing to live with in the future? LSLs are not prohibited in SC, but permitting takes a long time due to the lack of guidance.

The strategy adopted by the study was to test a variety of LSLs techniques between 2016 - 2019 to develop guidance for regulators and property owners on suitable LSL approaches. Timeline: NOAA grant ends at end of Feb 2019. SCDHEC OCRM has provided additional funding to extend the study until 2020.

Study involved observing a variety of parameters at 60 existing SCORE and control sites. 16 new LSL sites were constructed in 2016 and 2017, distributed across the state and into "fresher" areas. Preliminary results illustrate effective sediment trapping capability (i.e., ~flood protection) of LSLs. As-built elevations were collected at all 16 new sites, but not at the older SCORE sites.

The committee held a discussion of mapping exposure risk for SC communities. Nicole asked DNR to give ideas on potential LSLs projects near communities with high exposure, as well as ideas for new pilot areas up river. Paul Gayes adjourned the meeting at 3:15 p.m. EST by thanking Denise and Peter and asking them to provide input and guidance to the committee.

Meeting minutes submitted by Nicole Elko on January 31, 2019.