

## Beach project outlined

By Julia Ledoux, Sentinel Staff

Coastal Science & Engineering (CSE) representatives Wednesday unveiled a \$23.5 million locally-funded beach restoration plan for the town of Nags Head.

"Obviously, we have a problem in Nags Head," said Dr. Tim Kana of CSE. "That's the bad news. The good news, it's not uniform."

The Morehead City-based company was asked by the town in November to review the federally-funded plan and to come up with a locally-funded alternative that would "restore the sand deficit to provide comparable levels of flood and hurricane protection as the federal project over the length of the oceanfront," according to a report prepared by Coastal.

Kana said CSE has been involved with other locally-funded projects in Bogue Banks in Carteret County and in Myrtle Beach, South Carolina.

The plan proposed by CSE would add four million cubic yards of sand to 10 miles of the town's shoreline via two hopper dredges over a period of about four months, said Kana. If the work takes place during the winter, weather delays could add an additional 20 percent to the project's cost.

Sand for the project would come from a seven-by-one-mile area off South Nags Head that contains large amounts of compatible beach sand, he added. The plan as outlined by Kana would put far less sand on the beach than what is proposed in the U.S. Army Corps of Engineers federally-approved project. The federal project encompasses all but about 1.1 miles of the northern portion of town and would create a 50-foot dry beach and a 100-foot-wide dune.

That effort has yet to receive adequate funding from Washington lawmakers, leading to a delay in its start. The federal project would add 8.04 million cubic yards of sand to the beach at a cost of \$48.9 million. The federal government would pick up 65 percent of the project's cost, while the state and local government would be responsible for the remaining 35 percent.

Town commissioners are hopeful that any locally-funded effort would serve as a building block for the federal project if those funds become available.

In coming up with its recommendations, Kana said CSE reviewed the U.S. Army Corps of Engineers' nourishment plan, the federal project's environmental impact statement, beach erosion data prepared by the state Department of Environment and Natural Resources and field data that was obtained in conjunction with the Federal Emergency Management Agency's emergency dune restoration project.

"If possible, it would piggyback on Oregon Inlet dredging and funding to share the cost with the federal government," he said.

Kana said the locally-sponsored effort would put about 75 cubic yards of sand per linear foot on the beach, widening it by about 75 feet, and would improve the beach for a 10-year period. To maintain the project for its 50-year lifespan, Kana said similar amounts of sand would have to be placed back on the shoreline every 10 years.

He also explained that the rate of renourishment used by CSE assumes future erosion loses at about twice the town's historical rate. In comparison, the federal project assumes a future erosion loss at about five times the historical rate. That difference, he said, accounts for the high cost of the federal project.

"We do not believe that over a 10-year period of normal conditions you will lose as much sand as the Corps expects," he said.

Kana said only the southernmost three miles of the town have official erosion rates of more than three feet in a year.

The project is expected take about 18 months to permit and implement, he added. If the board decides to go forward with the effort, it will also be required to establish and hold a referendum on a funding plan.

Commissioners directed town staff to come up with a funding plan and to bring it back before them for further discussion. Staffers also were asked to determine if sand pumped from

Oregon Inlet is compatible and if the cost figures presented were realistic, and the steps that are required to get the state's okay to proceed with the effort.

Town Manager Webb Fuller and Commissioner Bob Oakes also will meet with Kill Devil Hills representatives to discuss strategies to pursue a federally-designed project and to see if the federal project can be broken up into smaller, more financially manageable portions. They will then present their findings to the Dare County Board of Commissioners.