NED helps preserve historic lighthouse

By Ann Marie Harvie
New England District
New England District (NED) was invited to a birthday party on Sept. 7. But instead of blowing out candles, a light was lit (a big one!) during the Faulkner's Island Lighthouse 200th birthday celebration.

Col. Thomas Koning, District Engineer, and Mike Keegan, project manager, toured the island during an open house, then joined Congresswoman Rosa DeLauro and other dignitaries on the beach in Guilford, Conn., for the celebration. Faulkner's Island is in Long Island Sound, about three miles south of Guilford.

Last year, NED completed the first phase of a shore protection project that included placing about 1,100 linear feet of an armor stone revetment, and resloping and vegetating the bluff. The bluff where the lighthouse sits loses six inches annually due to erosion caused by storms and waves crashing against it.

"This historic lighthouse reflects a long tradition and proud history," said Koning. "I'm proud of the part the Army Corps of Engineers played in helping maintain that history and tradition with a shoreline protection project to halt the erosion that was threatening the life of this island and this historic lighthouse."

The $2.4 million construction project, which included protecting

Col. Thomas Koning, New England District Engineer, in front of the Faulkner's Island lighthouse. (Photo courtesy of New England District)

the island's shore, protecting the historical lighthouse, and providing additional habitat to nesting common terns, was a partnership between the district and the U.S. Fish and Wildlife Service.

A Corps study indicated that the lighthouse would be in serious danger of being lost to coastal erosion about the year 2013. According to Keegan, moving the lighthouse away from the bluff would not provide a permanent solution for protecting it.

"Erosion is occurring on both sides of the island and moving the structure would only bring it nearer to either edge," Keegan said.

Two species of migratory terns reside on Faulkner's Island, the common

tern and the endangered roseate tern. Besides jeopardizing the lighthouse, the erosion is also impacting the roseate terns' habitat.

"We worked closely with the U.S. Fish and Wildlife Service and Connecticut to ensure that the rock revetment protection measures would be compatible with the endangered roseate terns that occupy the island from May through August," said Koning.

NED contracted with Zenone, Inc., of Franklin, Mass., to perform the work. The project involved building an armor stone revetment along the north point, then along the east side beside the lighthouse. Slope stabilization was required above the revetment along a portion of the island beside the lighthouse. The revetment, with a crest about 20 feet above mean low water, provides a 50-year level of protection.

The existing slope was filled with compacted stone, with a three-foot thick under-layer placed as a filter. Armor stones weighing from 4,500 to 7,500 pounds were placed in two layers totaling seven feet.

The upper slope stabilization is compacted stone fill placed on the existing slope. The stone fill was stabilized with a geocell product that was filled with soil and seeded with native grasses.

Phase 2 work consists of extending the protection further south along the eastern shoreline to protect remaining areas and tie into a stable shoreline location. The design of Phase 2 work will be based on the results of the tern nesting studies.

NED also partnered with DeLauro's office and the Faulkner's Light Brigade to complete the successful project.

In his remarks to the group that attended the birthday festivities Koning said, "I want to personally thank all the individuals and partners involved for their support and efforts. Together, we will ensure that the history and tradition of this island and this lighthouse live on for our children to appreciate."