

PROJECT SUMMARY:

Stormwater Improvement Project Permitting (Water Quality and Threatened & Endangered Species), Indian Creek, Hampton, VA

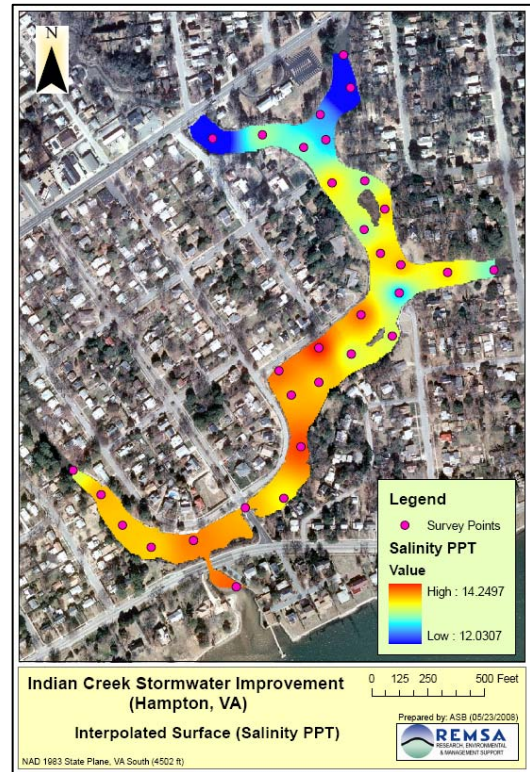
Dates: January-June 2008

Job Number: E01-08

Client: URS

Description: REMSA conducted a pre-dredge stream velocity, flow direction and water quality analysis survey and Threatened and Endangered species reviews/habitat assessments of Indian Creek Hampton, Virginia, for URS, Corp. for Joint Permit Application permitting services. Indian Creek, part of the Chesapeake Bay watershed, flows through Wythe, a heavily urbanized area in the City of Hampton.

Water Quality—REMSA conducted a 10-day water quality survey of Indian Creek, Hampton, Virginia from 24 April 2008 through 8 May 2008. Attributes in the scope of work included: temperature (C), salinity (PPT), pH, turbidity (NTU), dissolved oxygen (mg/L), and flow (ft/sec). The methodology used by REMSA to conduct this survey was approved by the Virginia Department of Environmental Quality. Data collected were georeferenced in GIS format



This assessment was conducted to provide pre-dredge information on the current water quality conditions of the project area. In addition to this baseline assessment, we were able to model spatial patterns for water quality attributes via interpolation, to create georeferenced surfaces (*e.g.*, salinity [inset]) based on averages of water quality attributes. These surface models can be easily replicated for post-dredge assessment.

Threatened and Endangered (T&E) species—REMSA also conducted habitat assessments for state or federally listed birds (*i.e.*, migrating and resident), reptiles, and amphibians for the project area and vicinity. The primary objective was to assess the targeted portion of Indian Creek for the presence of suitable habitat for T&E species mentioned in the Virginia Dept. of Game and Inland Fisheries, Fish and Wildlife Information Service and the Virginia Dept. of Conservation and Recreation (DCR), Division of Natural Heritage databases.

Our *in situ* assessments found no current habitat that would support regionally documented T&E species. In addition, Sea Turtle Stranding Program, Virginia Institute of Marine Science, Gloucester, Virginia, has no records of sea turtles from the site. Thus, we concluded that no listed species occur in the vicinity of Indian Creek.