



Technical Announcement

U. S. Department of the Interior Bureau of Ocean Energy Management Gulf of Mexico OCS Region

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Forcing Functions Governing Salt Transports Processes in Coastal Navigation Canals and Connectivity to Surrounding Wetland Landscapes in South Louisiana Using Houma Navigation Canal as a Surrogate

[OCS Study BOEM 2014-607](#)

The Bureau of Ocean Energy Management (BOEM), Gulf of Mexico OCS, announces the availability of a new study report, *Forcing Functions Governing Salt Transports Processes in Coastal Navigation Canals and Connectivity to Surrounding Wetland Landscapes in South Louisiana Using Houma Navigation Canal as a Surrogate*.

This study identifies the processes that are important for circulating and mixing saltwater in the Houma Navigation Canal (HNC) and in the surrounding marshes of the Terrebonne basin in Louisiana. Data collected for this study included salinity and velocity in the HNC and surrounding marshes, Atchafalaya River discharge, and local wind speed and direction. The majority of flow measured in the HNC was uniform throughout the water column. During periods of weak tidal forcing, punctuated episodes of estuarine circulation were observed where dense oceanic water flowed landward beneath a less saline, outflowing surface layer. Salinity in the surrounding marshes was much more responsive to salinity variations in the HNC than it was to variations in the lower Terrebonne marshes, suggesting that the HNC is the primary conduit responsible for saltwater intrusion to the middle Terrebonne marshes. Salt transport into the marshes from the HNC directly associated with vessel wakes was negligible.

This report is available on CD from the Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, for \$15.00, and free of charge as a pdf file downloaded from the BOEM website. Copies can also be viewed at selected Federal Depository Libraries. The addresses are listed below.

To order a CD, use the Gulf of Mexico OCS Region contact information below and reference OCS Study BOEM 2014-607. To download a pdf copy, use the Environmental Studies Program Information System and search using the study report number:

http://www.data.boem.gov/homepg/data_center/other/espis/espismaster.asp?appid=1.

U.S. Department of the Interior
Bureau of Ocean Energy Management

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