USDA-CSREES 2006 National Water Quality Conference

Permitting, Designing, and Constructing a Compensatory Mitigation Saltmarsh Along the Savannah River

Southern Liquid Natural Gas Company (SLNG) is one of only four LNG terminals in the United States. Southern LNG is near Savannah, Georgia and is the property owner of Elba Island located at Savannah River Mile 7. LNG terminals are a critical component of the country's ability to have increased diversification of natural gas reserves, infrastructure, and reliable energy services. In 1999, SLNG proposed to increase their existing turning basin to alleviate a bottleneck for safe docking, and to accommodate safe passage for tankers of ever-increasing size that navigate the Savannah River. The creation of the turning basin would impact 0.65 acres of saltmarsh. A mitigation plan was being developed to mitigate for the lost saltmarsh when, in 2001, SLNG proposed an expansion project. The expansion would include the creation of a 1600' by 700' LNG dual vessel berthing slip which would permanently impact an additional 2.64 acres of saltmarsh and 0.80 acres of protected estuarine mudflats. In order to obtain the Army Corps of Engineers permits, a mitigation plan would need to be developed that compensated for these sensitive environmental resources, since nowhere on the Savannah River is there a saltmarsh compensatory wetland bank. SLNG went through extensive consultation and negotiations with numerousr Federal, State, and local agencies in order to design an acceptable mitigation plan. SLNG developed an in-kind wetland compensatory mitigation plan that was sited on the southern end of Elba Island. This created wetland was established in May 2001 and is undergoing a seven year monitoring period. To date, the created wetland is off to a very successful beginning. This presentation will give those attending insight into the following topics: 1) The challenges of permitting with multiple Federal and state regulators. 2) The variation in which states use to assign compensatory wetland acreage ratios vs. credit analysis techniques. 3) Modeling and designing intricate elevations for creating tidal wetlands. 4) Techniques in plant selection and planting regimes. 5) Techniques for monitoring growth and success of a created saltmarsh and mudflats. This presentation will cover these topics by illustrating them with a clever PowerPoint slide show jam packed with fantastic photos of unique construction and beautiful saltmarsh flora and fauna (i.e., alligators, turtles, crabs).

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