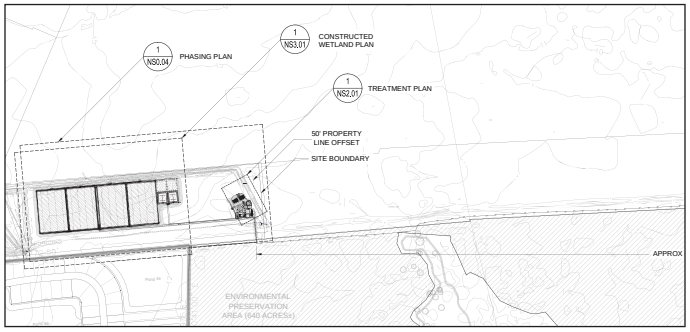
LONGWOOD GREEN INITIATIVE, LLC

Wastewater Infrastructure for the Harveston Development

East Baton Rouge Parish, Louisiana



top: Detail of onsite natural wastewater treatment plan drawing; middle and bottom: The hardwood wetland preserve benefits from naturally treated wastewater

By capturing and treating wastewater onsite, and reusing it as a nutrient source for a hardwood wetland preserve, a new community becomes its own sewer district and environmental steward.

Billed as "the intersection of home and nature," the new development of Harveston is a 1,400-acre planned community that aims to combine New Urbanism with the architectural heritage and natural beauty of southern Louisiana. The development, which will include over 1,600 homes and one million square feet of retail, restaurant, office space, and community facilities, also includes a 600-acre nature preserve containing cypress hardwood wetlands.

A key member of the design team, Biohabitats developed a unique onsite wastewater treatment system appropriate for a community intent on integrating, rather than degrading the local ecology. To be constructed in phases to correspond with the pace of development, the system not only uses constructed wetlands for part of the wastewater treatment, the limited nutrients in the treated effluent will help restore and maintain existing hardwood wetlands in the vicinity.

Developed with guidance and input from the Louisiana Department of Health and Hospitals (LADHH), the Louisiana Department of Environmental Quality (LADEQ), and the United States Army Corps of Engineers (USACE), the wastewater treatment system combines manufactured treatment technologies with natural treatment. Designed to ultimately treat 500,000 gallons of wastewater per day, the system consists of a spiral screen headworks, hybrid fixed film and IFAS units, secondary clarifiers, surface flow constructed wetlands, reed beds, UV disinfection, and effluent dispersal over approximately 300 acres of nutrient assimilation area in the natural wetlands. The system not only saves the development from piping wastewater to the municipal treatment facility, it costs less to build and operate than conventional systems, provides habitat, and utilizes what would otherwise be considered residual "pollutants" in the effluent as nutrients.

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