



Mount Olive Wastewater Treatment Plant
Mount Olive, North Carolina

HUA completed an extensive regional sewer feasibility study for southern Wayne and northern Duplin Counties. The Town of Mount Olive was repeatedly exceeding allowable flows at the existing wastewater treatment facility. The purpose of the regional study was to evaluate expansion alternatives for the WWTP and investigate possible regional service areas. The study evolved into funding acquisition, engineering design, permitting, and construction management for the upgrade of the Town's wastewater treatment facility.

The study included preliminary layout and cost estimates for new service areas that will discharge to the Mount Olive regional wastewater treatment facility.

As stated above, the study effort has evolved into funding acquisition, design, and permitting for the expansion of the Mount Olive WWTP from 1.0 MGD to 2.0 MGD. The expansion of the WWTP includes the development of an effluent reuse program and replacement of the Town's existing sewer outfall. The NCDENR will not allow the Town to expand its existing NPDES discharge into Calf Pasture Branch, a tributary of the Northeast Cape Fear River. The effluent reuse system will initially utilize nearby farmland as spray fields, however reuse quality effluent will be made available for industrial development and irrigation needs. In addition to the nearby farmland, a nearby hog farm will be converted for use with the effluent reuse system. The hog operations will be closed and the lagoons will be cleaned for use as storage ponds for the effluent reuse system at the WWTP. The existing hog farm spray fields will be re-permitted for use by the Town.

The total estimated cost of the WWTP upgrade and the effluent reuse system is \$11.5 million. To date HUA has helped the Town of Mount Olive obtain a \$3 million Clean Water Bond High-Unit Cost grant, a \$400,000 Rural Center Supplemental Grant, and a \$4 million USDA Rural Development Grant and a \$4 million USDA Rural Development Loan. The loan portion of the USDA funding required the Town to pass a \$5 million bond referendum. HUA worked with the Town to conduct public information workshops to answer questions and address concerns from citizens. HUA also developed educational brochures to provide residents with information about the wastewater system and the proposed effluent reuse system. The public education efforts were successful and the bond referendum passed with almost 90 percent of the vote.

As part of the regional wastewater study HUA evaluated septic tank conditions in the Town of Calypso. The town has a public water system, however citizens currently utilize on-site septic systems for wastewater disposal. The inspection revealed that the septic systems are impacting groundwater in the area. The Town of Mount Olive determined that the expanded WWTP would have capacity to treat wastewater from Calypso if a sewer collection system could be installed to replace the on-site septic systems. HUA worked with the Town of Calypso to obtain a \$2.9 million Rural Center Unsewered Communities Grant and a \$691,000 CDBG Infrastructure grant. The grant

funds will be used to construct a collection system for the Town of Calypso that will discharge to the Mount Olive WWTP through a primary pump station and force main

Permitting for the project is being handled through the NCDENR Construction Grants & Loans Section due to the State grant funding involved with the project. Required permits include Non-Discharge for the spray fields, NPDES permit modification, and Land Quality. Efforts are also being coordinated through the Washington Regional Office to ensure compliance with the Town's current Special Order by Consent (SOC). HUA prepared a detailed Environmental Assessment for the WWTP project and the effluent reuse system. The EA is under review and must be approved by State and Federal regulators. HUA is working to finalize the engineering design and will be responsible for construction management, as well as coordination and management of the various funding sources.

In addition to obtaining funding for the wastewater treatment facility, HUA has helped Mount Olive Obtain more than \$880,000 in Rural Center Supplemental and Capacity Development grants to complete infrastructure projects. The projects funded through the Rural Center include Phase 2 inflow/infiltration repairs (\$400,000 Supplemental Grant), water service to the local industrial park (\$116,000 Supplemental Grant), Phase 3 inflow/infiltration study (\$39,550 Capacity Development Grant), and various water distribution improvements (\$330,500 Supplemental Grant). HUA also helped the town obtain a \$99,000 USDA – RBE grant and a \$180,000 CDBG-ED grant to extend a roadway into the Mount Olive Industrial Park. The firm also helped the Town of Calypso obtain a \$328,900 supplemental grant to complete improvements to the water system.