

FINAL REPORT: Coastal Georgia Regional Wastewater Planning (University of Georgia River Basin Center)

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Abstract:

The Coastal Georgia Regional Wastewater Planning project provides coastal communities with comprehensive guidance for wastewater management in the region designed to specifically address regional challenges and opportunities. Recognizing the variety of localities on the coast, project deliverables offer recommendations for communities of all sizes and technical capacities. The major deliverable of the Coastal Georgia Regional Wastewater Planning project is a comprehensive guidance manual for coastal Georgia communities and other stakeholders: *Wastewater Management in Coastal Georgia: A Menu of Options*.^{*} It was developed under the guidance of a 40-person Advisory Committee composed of a wide variety of coastal, regional, and state stakeholders and experts. It is the first comprehensive wastewater management guidance document for local governments developed in the state of Georgia.

Brief summary of research results:

Wastewater Management in Coastal Georgia provides a suite of recommendations for coastal communities that cover all aspects of wastewater management. It is organized into five sections. The Local and Regional Planning and Funding sections provide recommendations appropriate for all areas of wastewater management, and sections on Wastewater Treatment Plants, Onsite Systems, and Community Systems provide recommendations specific to those types of infrastructure. Recommendations are centered around Action Items: specific, achievable goals for coastal wastewater management. Most Action Items include two or more management alternatives: detailed policies or programs to satisfy Action Items.[†] When multiple management alternatives are provided, they progress from those appropriate for smaller communities to those suitable for larger urban areas. This variety of management alternatives was specifically designed to account for the wide range of community types and capacities on the coast; there is no one-size-fits all for coastal communities and guidance documents that offer singular approaches to challenges or opportunities are frequently underutilized.

The manual was developed under the guidance of a 40-person Advisory Committee consisting of a wide variety of coastal, regional, and state stakeholders and experts (see list

^{*} Originally proposed as a regional planning document, former Sea Grant leadership recommended altering the approach to a menu of options at our initial meetings concerning the project.

[†] There are 43 Action Items and 90 management alternatives in the manual.

in partnerships, below). Advisory Committee members provided recommendations at more than 20 committee, working group, and individual meetings, as well as through comments on various drafts of the manual.

The final manual was introduced through a webinar that also provided continuing education credits for planners, in a press release, and through announcements at Department of Community Affairs events and a meeting of the Coastal Regional Water Council (latter two forthcoming).

Potential applications, benefits, and impacts of project:

Wastewater Management in Coastal Georgia will help Georgia's coastal communities make informed, sustainable wastewater management decisions, which are some of the most significant, and often contentious, choices that local officials make. These decisions are particularly important now, as coastal communities are expected to grow in coming years and environmental and economic constraints become more pronounced. The recommendations in this manual are specifically designed to help these communities implement environmentally protective and economically efficient strategies that focus on intergovernmental cooperation and careful planning.

Some state and regional agencies have expressed interest in utilizing the manual for planning and incentive programs. The Coastal Regional Commission, for example, may use the manual to fulfill its goal to develop a coastal regional wastewater plan, and has also expressed interest in utilizing recommendations from the manual as Performance Standards for local governments (incentives such as funding opportunities and expedited permitting are offered for local governments who achieve points by implementing Performance Standards). The state Department of Community Affairs has also expressed interest in incorporating recommendations from the manual into its WaterFirst program, an incentive based program that recognizes excellence in community water management initiatives.

Regional/national/international implications:

This manual is the first comprehensive guide to wastewater management in coastal Georgia; indeed, it is the first comprehensive guide to wastewater management developed in the state.

Media coverage: Currently N/A

Publications:

Wastewater Management in Coastal Georgia: A Menu of Options, Katie Hill

Coastal Georgia Septage Disposal Study, Katie Hill (related project funded by Georgia Dept. of Community Affairs, see below)

Undergraduate and graduate students involved: Graduate students in the interdisciplinary Environmental Practicum course conducted initial research on potential recommendations. UGA student interns at the River Basin Center also conducted research on recommendations.

Project partnerships: Partial funding and in-kind support for this project was provided by the Coastal Regional Commission, a multi-county planning and development agency that serves municipal and county governments in a 10-county coastal region. Funding for a sub-project, the *Coastal Georgia Septage Disposal Study*, was provided by the Department of Community Affairs, a statewide community and economic development and local government assistance agency that has engaged in many wastewater management initiatives in coastal Georgia. The South Georgia Regional Commission also partnered with us on the septage study; we contracted with them for GIS work and they agreed to host the results of the study on their onsite system and well mapping tool – WelSTROM.

Other project partners include the 40 members of the project's Advisory Committee:

Stacey Isaac Berahzer, UNC Environmental Finance Center	Ray Bodrey, UGA Marine Extension Service (now UF IFAS Extension)
Jason Bodwell, GEFA (now CH2M)	Ron Carroll, UGA Odum School of Ecology
Deatre Denion, Georgia Dept. of Community Affairs	Audra Dickson, Georgia Environmental Protection Division
Todd Driver, Coastal Health District	Laurie Fowler, UGA River Basin Center
Veronica Frazier, Ft. Stewart Infrastructure Lead Team	Rick Frey, St. Marys River Management Commission, St. Marys Riverkeeper
Nils Gustavson, Liberty Consolidated Planning Commission	Charlie Heino, Enviroworx
Ted Hendrickx, Georgia Environmental Protection Division	Jen Hilburn, Altamaha Riverkeeper
Kelly Hill, Georgia DNR Coastal Resources Division	Marcus Hobgood, Enviroworx
Bill Jenkins, Glynn County Health Dept.	Melissa Jones, Liberty Consolidated Planning Commission
Chris Kumnick, Georgia Dept. of Public Health	Jeff Larson, Georgia Environmental Protection Division
Emily Markesteyn, Ogeechee Riverkeeper	Lupita McClenning, Georgia Coastal

Regional Commission

Clay Mobley, Georgia Conservancy	Ebrahim Nadji, Liberty Consolidated Planning Commission
Shannon Nettles, Camden County Office of Board of Commissioners	Ashby Nix, Satilla Riverkeeper
Bob Nutter, City of St. Marys Commission	Daniel Parshley, Glynn Environmental Coalition
Brant Phelps, Liberty County Health Dept.	David Radcliffe, UGA College of Agricultural and Environmental Sciences
Courtney Reich, Ecological Planning Assoc.	Eric Rumer, McIntosh County Health Dept.
Bob Smith, Orenco, Inc.	Kelly Spratt, McIntosh County Commission
Jackie Jackson Teel, Savannah/Chatham Metropolitan Planning Commission	Trent Thompson, Thomas & Hutton
Robert Tolleson, Coweta County Planning	Jim Vaughn, Stevenson and Palmer
Matt Vinson, Natural Systems Utilities, Inc. (now Sustainable Water, Inc.)	Mary Warnell, City of Pembroke

Related projects: A related project, included as an appendix to the manual, is the *Coastal Georgia Septage Disposal Study*. Septage is the highly concentrated waste that must be periodically pumped from septic and other onsite wastewater systems, and septage disposal is an issue on the Georgia coast. Through this study, we assessed disposal options on the coast and, using GIS, identified septage disposal “deserts” where disposal options are inadequate.

Awards/honors: N/A

Patents/licenses: N/A