

OPTIMIZING SEPTIC TO SEWER CONVERSION PROJECTS

Ronald Fick, Tricia Kyzar, and Christine Angelini

Center for Coastal Solutions, University of Florida, Gainesville, FL, USA

Nutrient pollution from septic systems contributes to the water quality challenges seen across the state of Florida. There is significant interest from state and local authorities to convert the approximately 2.6 million septic systems to sewer. Given the significant costs associated with these conversions, there is a question to be asked of how different projects should be prioritized to best use the available funds.

We present a data driven approach to identifying the most cost-efficient conversion projects available. This tool takes in data about a utilities' existing sewer infrastructure and considers different ways in which that existing network could be expanded. Those expansions form the basis for potential expansion projects. The potential expansion projects are sorted according to their cost-efficiency and provide a justification for pursuing funding of the top identified projects.

PRESENTER BIO: Dr. Fick is a research assistant scientist with the Center for Coastal Solutions. His background is in computer science, particularly machine learning. He has extensive experience using remote sensing data to address ecological and water quality challenges.