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**DEVELOPMENT OF A GREEN INFRASTRUCTURE INDEX
TO FACILITATE PROJECT IDENTIFICATION IN CLEVELAND**

Scott Bell*, Scott Wade, Kyle Dreyfuss-Wells, Denis Zaharija

ABSTRACT: As part of their consent decree with USEPA to reduce wet weather overflows, the Northeast Ohio Regional Sewer District (NEORS) has begun a green infrastructure program that will reduce annual combined sewer overflows by 44 million gallons and will cost about \$42 million. Part of NEORS challenge is that its service area covers approximately 81 square miles. The opportunity for green infrastructure to contribute to urban redevelopment is well-recognized in Cleveland, but NEORS also want larger-scale green infrastructure projects that they can own and maintain, to insure continued effectiveness into the future. This paper will describe the development and application of a "green infrastructure index" that was designed to identify project opportunities based on technical and socio-economic factors, using spatial data and collection system model output. Available spatial data were rigorously processed and screened to identify useful metrics that represent factors such as storm water offload opportunities, land availability, and partnering and development opportunities. Model output was used to add information on overflow quantity and sensitivity of overflow reduction to changes in surface hydrology, such as would be manifested by green infrastructure. NEORS worked with key stakeholders to screen metrics and apply weighting to them. The result was a numerical index that was used to identify, score, and rank green infrastructure opportunities. It is believed that this "green infrastructure index" is the first of its kind in the United States and it represents an approach that can be modified and customized for other large urban areas. The paper will discuss the data used in development of the index, how the data were processed, the role of modeling, the outcome of the final index, and examples of project opportunities identified through application of the index.

* Senior Engineer, LimnoTech, 501 Avis Drive, Ann Arbor, MI 48130 USA, Phone: 734-332-1200, Fax: 734-332-1212, Email: sbell@limno.com