

Valuing nutrient pollution reductions using combined economic and expert assessment models

Presenter: Daniel J. Phaneuf, dan_phaneuf@ncsu.edu
Co-author: Roger H. von Haefen, roger_von_haefen@ncsu.edu
Dept. of Agricultural and Resource Economics, NC State University

Recent trends towards enforcement of heretofore ignored aspects of the Clean Water Act require states to set ambient water quality standards for nutrient pollution in surface waters. Determining these standards requires assessment and balancing of the costs and benefits of different pollution reduction goals. To assist state regulators with the unfamiliar task of measuring pollution reduction benefits the US EPA funded a project that would investigate and make available techniques and templates for state analysts to use. In this presentation we report on the early stages of this project. We discuss how expert assessment information will be used to link measured water quality outcomes (i.e. nitrogen, phosphorous, chlorophyll) to qualitative, lay-person accessible rankings of surface water cleanliness, and how economic models will be used to value changes in the qualitative rankings brought about by regulatory intervention. Our overall application area is the inland Southeast; additional funding from NC WRRRI has allowed focus on specific North Carolina regulatory challenges.