

Department of Environmental Science and Policy Seminar Series

Sea-Level Rise, Drinking Water Quality and the Economic Value of Coastal Tourism in North Carolina

John Whitehead

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DATE: Friday, 2/23/2024 TIME: 10:30 am ROOM: Ungar 230-E

Zoom: <https://miami.zoom.us/j/92964807674>



Abstract: We estimate economic benefits of avoiding reductions in drinking water quality due to sea level rise accruing to North Carolina (NC) coastal tourists. Using stated preference methods data with recent coastal visitors, we find that tourists are 2%, 8%, and 11% less likely to take an overnight trip if drinking water tastes slightly, moderately, or very salty at their chosen destination. The majority of those who decline a trip would take a trip to another NC beach without water quality issues, others would take another type of trip, with a minority opting to stay home. Willingness to pay for an overnight beach trip declines with the salty taste of drinking water. We find evidence of attribute non-attendance in the stated preference data, which impacts the regression model and willingness to pay for trips. Combining economic and hydrology models, annual aggregate welfare losses due to low drinking water quality could be as high as \$401 million, \$656 million and \$1.02 billion in 2040, 2060 and 2080.

Bio: John Whitehead is a professor in the Department of Economics at Appalachian State University, arriving in Boone in 2004. He received his PhD from the University of Kentucky in 1990 and previously worked at East Carolina University and UNC-Wilmington. He teaches environmental and resource economics, benefit-cost analysis and managerial economics. John's research interests include finding better ways to attach monetary values to environmental and natural resources for use in benefit-cost analyses. He has served as an associate editor for Journal of Environmental Management and Marine Resource Economics. He is a member of the Socioeconomic Panel of the South Atlantic Fishery Management Council and the past-president of the Socioeconomics Section of the American Fisheries Society. He has also served on the Board of Directors of the Association of Environmental and Resource Economists and as the AERE vice president. He was presented with the 2008 Distinguished Economist Award by the Kentucky Economic Association and was selected as the "Player with the Best Attitude" in the Noon-Time Faculty-Staff Basketball Game.

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