Readme.pdf for von Haefen et al., "Estimating the Benefits of Stream Water Quality Improvements in Urbanizing Watersheds: An Ecological Production Function Approach"

To replicate the stated preference and expert elicitation results reported in the final report, run the master.do file in Stata, Version 16 or later. The master.do file sequentially calls the following four files:

- 1-impute.do – imputes missing income and demographic data.
- 2-weights.do – creates sampling weights that account for non-response bias and sample non-representativeness relative to Census data.
- 3-ee_data_analysis.do – summarizes and analyzes expert elicitation data within ordered probit framework.
- 4-ce_data_analysis.do – summarizes choice experiment data.
- 5-sensitivites.do – estimates alternative discrete choice logit models with SP choice experiment data within WTP-space framework.
- 6-case_study.do – pulls together water quality predictions under alternative management scenarios, expert elicitation data and models, and stated preference data and models to execute Upper Neuse River Watershed case study.

Raw survey data is found in data\streams_sp_data_final.dta.

Expert elicitation data found in data\ee_data.dta.

Summary statistics for Upper Neuse River Watershed case study found in data\case_study_scenarios.xlsx.

6-digit codes for 12,500 households invited to complete the survey found in data\invited_sample.dta.

Information on returned mailings (i.e., invitation letter, postcards) found in data\returned_mail.xlsx.

The following files are created when master.do is executed:

- imputed_data.dta – this is ce_data.dta file with income and demographics imputed.
- weights_final.dta – this file includes the sampling weights.
- ce_data.dta – this is the survey data reformatted for estimation in Stata.

The *log* directory contains log output files for the various do files. All quantitative estimates contained in the PNAS publication can be found in these files.

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