Science Education for New Civic Engagements and Responsibilities (SENCER) was established in 2001 to support an ever-growing community of those seeking to improve undergraduate STEM (science, technology, engineering and mathematics) education by connecting learning to critical civic questions. During the spring semester of 2009 the Oglethorpe SENCER team organized a three-way course intersection (involving students in introductory statistics, chemistry, and physics courses) to gather water quality data. The data collection was a required component for students in each of their respective courses. The topic of water quality was chosen because it is a capacious and unresolved problem that affects so many aspects of life. This project allowed students to experience actually collecting a non-trivial sample and to see the power of using mathematics to understand real-world problems; therefore, they became greater stakeholders in this important issue. In addition to describing SENCER’s goals and the practical aspects of conducting such a course intersection, we will also discuss our expansion plans to involve students in the analysis of this data, additional data collection, and dissemination of results. (Received September 22, 2009)