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Martha Shott* (shott@sonoma.edu), 956 Hawthorne Cir., Rohnert Park, CA 94928. *A Watershed Year: Modeling and Data Interpretation as Pathways to Building Mathematical Confidence in First-Year Students*. Preliminary report.

The School of Science and Technology at Sonoma State University, one of the 23 campuses in the California State System, has developed an interdisciplinary first-year experience for prospective STEM majors that integrates biology, mathematics, and critical thinking to study issues surrounding the regional Russian River watershed. Each year's cohort is comprised of students of varying mathematical background, ranging from students with developmental needs to students ready to enroll in second-semester calculus. In order to support the students with weaker preparation to pursue technical majors, the course's instructional team has implemented a variety of strategies including targeted small-group tutoring, interactive classroom activities to foster peer discussion and mentoring, and assignments that enhance students' mathematical intuition and confidence. Students are able to develop mathematical models to mimic natural processes, understand the limitations of those models, and interpret numerical results in a critical and meaningful way. Preliminary data indicate that students completing our program are successful in subsequent mathematics courses and are able to obtain a STEM degree in a timely fashion. (Received September 21, 2016)