While growing up in Milwaukee, WI, I would often wander down to Lake Michigan early in the morning to be mesmerized by the beauty of the sunrise over such a large expanse of water. When my husband Dave and I moved to Idaho, we spent time hiking to numerous small lakes and rafting the Salmon and Snake Rivers, which have awesome rapids, but very narrow shores. Moving back to Minnesota gave us more than 10,000 lakes to explore. Now we live in South Dakota, and in 2011, our state experienced spring floods with many areas too wet to plant. Growers did not want or need any more water. Then from July to December, there was less than 1 inch of rainfall. So over the course of one growing season, South Dakota experienced both flood and drought conditions, reinforcing the notion that rainfed agricultural systems can be erratic.

Over the Christmas break, my extended family met in Florida for a seven-day Caribbean cruise with two full days at sea where land was not visible from sunrise to sunset. The colors of the water were crystal clear turquoise blue to deep, dark black. On the island of Grand Turk, which is only about 14 mi², a tour guide told us that there are no fresh water sources on the island and all potable water was imported. So water, water everywhere, but not a drop to drink.

These diverse experiences with water in my life seem to resonate with the message of ASA’s Water Security for Agriculture Task Force that has been meeting since January 2012. The group includes Fred Vocasek, Gary Peterson, John Sadler, Neil Hansen, Bill Heer, Bob Beck, Jim Gaffney, and staff liaison, Karl Anderson. Globally, water demand is increasing for use in both agricultural and nonagricultural arenas, whereas fresh clean water supplies are limited. In a recent report by William Cline of the Washington, D.C.-based Center for Global Development, it is expected that Mexico and other Central American farmers may lose up to 25 to 33% of corn and bean production by 2080 due to climate change—water demand is expected to go up due to increased temperatures, while the amount of rainfall is expected to decline. India is also expecting to have water shortages due to climate change. In addition, it is predicted that the U.S. and Canada will experience more intense storms and other changes in rainfall patterns. Globally, water will be an increasingly important commodity.

John Sadler and Fred Vocasek along with the other members of the Water Security for Agriculture Task Force have organized a symposium for the annual AAAS meeting in Boston (14–18 Feb. 2013) entitled “Blue Waves, Green Dreams, and Shades of Gray—The Reality of Water” to discuss the many aspects of water. Drs. Henry Lin (hydrologist, Penn State), Bob Stewart (researcher, West Texas A&M), and Steel Maloney (CEO, Cascade Environmental Services) will discuss the blue (water in storage), green (“working” water), and gray (“used” water) features of water. Drs. Jim Pritchett (ag economist, Colorado State), Bill Cox (crop consultant, CoxCo), and John Peck (professor of law, Kansas University) will discuss the economics of water, practical field application, and legal/ownership issues of water. Fresh clean water, water management, and water security are important issues that need to be understood and worked on by both multi- and cross-disciplinary groups to ensure that water supplies are available for water’s many uses. The task force is to be applauded for bringing the issues of water supply, water management, and the challenges to maintain sustainable food production systems to the diverse audience in AAAS.

Please contact me at Sharon.clay@sdstate.edu if you have comments, suggestions, or questions.