

Title: “Toxic Algae, Undrinkable Water, and Dead Zones in Lake Erie and Ohio: Understanding the Problems and Solutions”

Speaker: Jeffrey M. Reutter

Abstract:

In the late 1960s Lake Erie was severely polluted. In 1969 the Cuyahoga River in Cleveland, Ohio caught fire and Lake Erie was called a “dead lake” by the media. It became the poster child for pollution problems in this country leading to the formation of USEPA, NOAA, the first earth day, and the Great Lakes Water Quality Agreement. The lake was choked with excessive algal blooms. We solved this problem primarily by improving sewage treatment, which reduced annual phosphorus loading from 29,000 tons to our target of 11,000 tons, and the lake became the “walleye capital of the world.”

In early August 2014, the Toledo Water Plant, which serves 400,000 people, was forced to shut down for over 50 hours due to toxin concentrations in the treated drinking water. The bloom of 2015 was the worst ever. This presentation will discuss the causes of the blooms and the remedies.

Speaker:

Jeffrey M. Reutter began working on Lake Erie at Stone Laboratory in 1971 and directed 4 programs at The Ohio State University from 1 November 1987 to 31 March 2015: F.T. Stone Laboratory, the Ohio Sea Grant College Program, the Center for Lake Erie Area Research, and the Great Lakes Aquatic Ecosystem Research Consortium, a consortium of top scientists at 12 Ohio colleges. He also served as acting director for all or parts of 1984, 85, and 86. When he retired as Director he accepted a part-time appointment as a Special Advisor for the programs. He received his BS and MS from OSU in fisheries management and his Ph.D. from OSU in Environmental Biology.

Dr. Reutter is an aquatic biologist and limnologist, the author of over 150 technical reports and journal articles, and a frequent lecturer on issues related to the changing Lake Erie ecosystem, harmful algal blooms, nutrient loading, aquatic invasive species, linking environmental health and coastal economic development, Great Lakes research needs and priorities, the importance of science education and research, and the importance of scientists communicating with the public.