Dear Friend of the Severn River,

You are cordially invited to join us on **Tuesday 21 October 2008, at 7 PM**, for out ***State of the Severn*** presentations. This meeting will be at the Calvary Methodist Church, 301 Rowe Blvd, Annapolis MD 21401. (Click for **MAP**) It is free and open to the public.

The ***State of the Severn*** presentations are this year's comprehensive view of the state of the Severn River watershed – river, tributaries and larger watershed, emphasizing its present status in a context of trends. You'll hear up-to-date information from skilled speakers from several organizations including:

- Sen. Gerald W. Winegrad, University of Maryland
- Dr. Kurt Riegel, President of the Severn River Association
- Dr. Pierre Henkart, Severn Riverkeeper Monitoring program
- Dr. Sally Hornor, Professor of Biology and Director of Operation Clearwater
- Mr. Ron Bowen, Director of Public Works, Anne Arundel County
- Mr. Mike Lehman, American Forests
- Mr. Ted Gattino, Severn Riverkeeper Program

We hope that you will attend to meet the speakers and participate in lively discussion over the state of the River and Watershed we love. Summaries of the presenations, with speakers' biographies, are attached below.

Kurt Riegel, President
Severn River Association
president@severnriver.org
443.926.5924 SRA voicemail

THE STATE OF THE SEVERN

by Dr. Kurt W. Riegel

The Severn River and its tributaries have long been the subject of well-intentioned civic attention and action. Most informed people understand that Severn River water quality has been degraded, chemically and biologically, from its historic natural state. Biological diversity and abundance have been dramatically reduced, keystone species like oysters having crashed to ecologically disruptive levels, and non-native species are taking their toll.

What is less widely appreciated is that the health of the Severn River and the Chesapeake Bay depends largely on practices and standards applied to lands that are far from the view of water. While efforts in the water, and in the Critical Area within a few hundred feet of water are certainly critical to a successful strategy for preserving and restoring the River,

they are grossly inadequate. Forest removal, stormwater and pollutant generation, coverage of land with impervious surfaces that both block aquifer recharge and then promptly discharge polluted rainwater to streams, are all critically involved in watershed and stream decay.

Public recognition of the reality and extent of these problems have been slow to develop. Effective public policies, implemented by smart law, regulation and incentives, have evolved even more slowly but there are promising avenues for improvement and restoration of some of the natural values of our watershed.

Biography

Dr. Kurt Riegel is his second term as president of the Severn River Association (SRA), a federation of 57 community associations plus many individuals and other organizations working to preserve and restore the Severn River watershed.

He is a graduate of Johns Hopkins University and the University of Maryland. His professional background is as a physical scientist, with early research and teaching in astronomy and astrophysics with an emphasis on observations of our Galaxy at radio wavelengths.

As a senior federal executive, he held appointments in science/ engineering/ policy positions in a number of federal organizations. At the Department of the Navy, he served as Director of Environmental Technology, and in the Naval Sea Systems he was the founding Director of the Office of Environmental Protection, Occupational Safety and Health. At the National Science Foundation, he was head of the National Astronomy Centers. At the Environmental Protection Agency he directed research and development programs in environmental engineering and technology, and at the Department of Energy he directed projects in energy efficient lighting and appliances.

In addition to his civic work with the SRA, he is an instructor in Environmental Compliance Management at the Johns Hopkins University, and is a consultant in energy efficiency and renewable energy technologies at the Antares Corporation. He lives in Arnold, MD and is an avid sailor.

WHAT NEEDS TO BE DONE TO RESTORE THE SEVERN AND THE BAY? THE INCONVENIENT TRUTHS OF RESTORATION

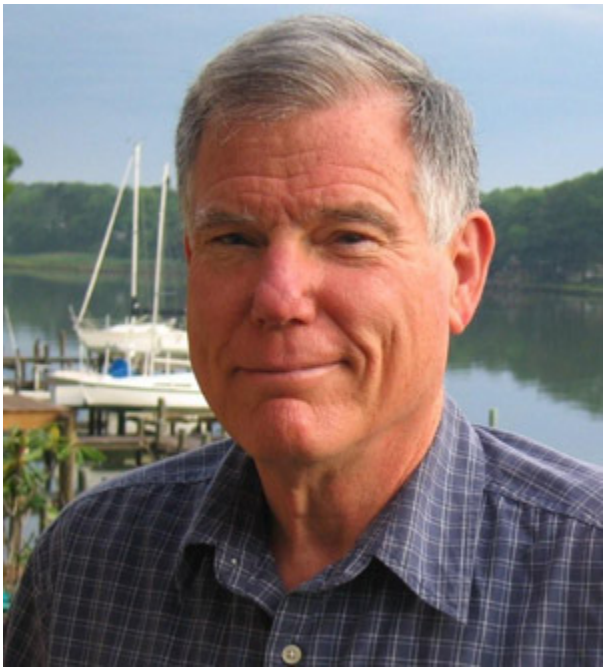
by Sen. Gerald W. Winegrad

Gerald W. Winegrad will make a presentation and on the decline of the Severn River and Chesapeake Bay and what needs to be done to restore the river and the Bay. He will outline why the River and Bay are in serious trouble after 25 years of recovery efforts under the Bay Program and the expenditure of billions of dollars.

The renowned Bay scholar and leader will discuss how we have so poisoned our waters that reports abound of serious infections in humans who come in contact with the Severn's waters.

Senator Winegrad will detail the necessary actions and make the case for controlling human population growth, sprawl development, and the loss of forest land. The presentation also includes the necessity of retrofitting urban/suburban impervious areas and for regulatory controls for agricultural pollution--the Bay's greatest source of nutrient and sediment pollution. What to do about septic tank pollution also will be discussed. The increasing problems of storm-water runoff from development and how this can be addressed to restore the Severn and the Bay will be detailed.

Senator Gerald W. Winegrad is a former State Senator from Annapolis and for 16 years was the leading environmentalist in the Legislature. He was responsible for many Bay initiatives including the phosphate detergent ban. He Chaired the Senate Environment and Chesapeake Bay Subcommittee and served on the Chesapeake Bay Commission for 12 years. Gerald Winegrad was called the "environmental conscience" of the Senate by the Washington Post and Tom Horton wrote that "he is the person who more than any other set Maryland's environmental agenda over the past 16 years". In 2002 he was presented the prestigious Life Time Achievement Award by the Chesapeake Bay Foundation. He is a Professor at the graduate School of Public Policy, University of Maryland, where he teaches courses on Bay restoration and wildlife management. Gerald grew up near Spa Creek and boated as a teenager on the Severn. Gerald help establish the Severn River Commission. He now lives on Oyster Creek.



Biography

Gerald W. Winegrad is an Adjunct Professor at the University of Maryland School of Public Policy where he teaches courses on Chesapeake Bay Restoration and Wildlife Management. He is an attorney and recently retired from his national conservation efforts for the American Bird Conservancy.

Gerald Winegrad served with distinction in the Maryland Legislature for over 16 years first as a member of the House of Delegates and then as a State Senator from 1983 to 1995. He served as Chairman of the Senate Environment Subcommittee for eight years and wrote, sponsored, or managed nearly all environmental legislation passing the Senate, including the Chesapeake Bay legislation.

He received numerous awards for his legislative work, including Legislator or Conservationist of the year from such groups as the Sierra Club, Audubon Society of the Central Atlantic States, Clean Water Action, the Maryland Wildlife Federation, and the Maryland Public Health Association. Gerald Winegrad was called the "environmental conscience" of the Senate by the Washington Post and Tom Horton wrote that "he is the person who more than any other set Maryland's environmental agenda over the past 16 years". In January 2002, Gerald was presented the prestigious Life Time Achievement Award by the Chesapeake Bay Foundation, only the third person to be so honored.

Gerald Winegrad holds a B.A. Degree in Economics from Western Maryland College and a J.D. Degree from the University of Maryland School of Law and has been an attorney since 1969. His formal environmental career began in 1969 when he served as Counsel to the National Wildlife Federation. From 1995 to 2007, he served as Vice President for Policy of the American Bird Conservancy in Washington, DC where he directed the work of the 90 member organization Bird Conservation Alliance and was a leader in national efforts to conserve avian species.

Gerald was a naval officer in the Judge Advocate General's Corps during the Vietnam War and was promoted to and served as a full time Military Judge. He achieved the rank of Commander in the U.S. Naval Reserve.

Gerald Winegrad has been a practicing attorney, and has taught courses on Chesapeake Bay restoration and land use at the graduate school level at the University of Maryland, College Park, and at Johns Hopkins University, as well as at the University of Maryland Law School. He has authored numerous articles on the environment and has spoken at national and international conferences throughout the U.S. and around the world. Most recently he made a presentation at the Smithsonian's Environmental Research Center and at the Eastern Shore Poultry Summit. He also presented on seabird mortality in longline fisheries at the International Albatross Conference in Montevideo, Uruguay and in Houston on Wind Energy and Birds.

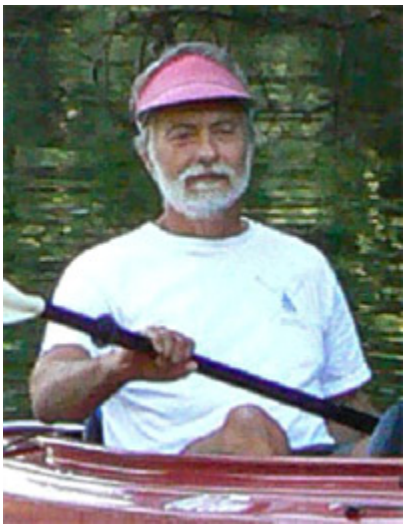
Gerald lives on Oyster Creek just off of the Chesapeake Bay near Annapolis and is an active birder and crabber. He is Vice President of the Anne Arundel Bird Club.

SEVERN WATER QUALITY 2006-2008

by Dr. Pierre Henkart, Severn Riverkeeper monitoring program.

Dr Henkart will describe the water quality measurements made by the Severn Riverkeeper Monitoring Project during the last three summers. These include a description of the Round Bay 'Dead Zone' discovered in 2006 and which also occurred in the summers of 2007 and 2008. In addition to this acute bottom anoxia he will summarize the dissolved oxygen status of the Severn as a whole and show how our surface water clarity measurements correlate with the growth of submerged aquatic vegetation as measured by aerial surveillance. Salinity data show a surprising dominance of Chesapeake water throughout the tidal Severn, with fresh water influences mainly at the head of the tidal creeks. Monitoring of springtime yellow perch larvae with plankton net tows showed a continuation of poor juvenile recruitment into tidal waters, with a particularly poor spring in 2008.

Biography



Pierre Henkart grew up on Long Island where he spent much time sailing, fishing and crabbing as a boy. He went on to earn a BS in chemistry at Rensselaer Polytechnic Institute, and a PhD in Biochemistry and Molecular Biology at Harvard. After post-doctoral studies in marine biochemistry at the University of California at San Diego, he came to the National Institutes of Health in Bethesda, where he pursued laboratory research in immunology for 30 years. His group discovered the molecular mechanism used by cytotoxic lymphocytes to kill cancer cells and he was Chief of the Lymphocyte Cytotoxicity section of the Experimental Immunology Branch of the National Cancer Institute. Since the 1970s he has enjoyed cruising the Chesapeake and has become increasingly interested the Bay's natural history and environmental problems. Since giving up his lab 3 years ago Pierre has been a Scientist Emeritus at NIH, teaching an immunology course at the NIH graduate school, consulting on biotechnology for a local patent law firm, and for the last three years has taken on the water quality monitoring project for the Severn Riverkeeper. He is currently President of the Anne Arundel Bird Club. He stays in shape by rowing his shell on the Severn River three times a week and tries to spend significant time on the Eastern shore in his cruising catamaran .

OPERATION CLEARWATER: MICROBIAL WATER QUALITY MONITORING IN THE SEVERN RIVER

by Dr. Sally Hornor, Professor of Biology at Anne Arundel Community College, and Director of SRA's *Operation Clearwater,* will speak on bacterial contamination in the Severn River.

SEVERN RIVER WATERSHED CHALLENGES

By Ron Bowen, Director of Public Works for Anne Arundel County

Mr. Bowen will provide a big picture perspective on existing conditions within the Severn River Watershed in relation to impairments associated with State of Maryland Water Quality Standards. Watershed conditions that contribute to the listed impairments will require substantial contribution of behavioral change, community resources, along with private and public investment. Government cannot solve these problems alone! Compliance with Water Quality Standards requires collaborative partnerships and close working relationships between citizens, business and government.

Biography

Ron Bowen is Director of the Department of Public Works which includes leadership responsibilities for the Department's Bureaus of Highways, Waste Management Services, Water & Wastewater Utilities and Engineering. The Bureau of Engineer's Watershed & Ecosystem Services Division fulfills lead role within the Department of Public Works to help guide the County's programs for watershed restoration and preservation. Ron has been employee with the County for more than twenty-five years.

FORESTATION TRENDS AND THEIR SIGNIFICANCE

by Mike Lehman

Mr. Lehman, will discuss forestation trends in the Severn River watershed and their significance. Founded in 1875, American Forests is the oldest conservation organization in the country. Saving trees and restoring damaged ecosystems have been the mission of American Forests, which today is a leader in the use of GIS technology and satellite digital imagery to measure landcover changes in our country and the affect those changes have on our local ecosystems. This presentation will show how the Severn River

watershed has changed over the past ten years, and predict the future affects based on current zoning.

Biography

Mike Lehman is the Director of CITY green software. He has worked for American Forests since 2001. Mike manages the IT department; database administration; web site; in-house software development, sales and marketing; and the GIS/CITY green environmental education program at American Forests. Prior to joining American Forests, Mike worked for several .com companies that developed and sold software for a variety of markets. His background includes systems integration sales at GE IT Solutions and ran his own government contracting business for 11 years. Mike Lehman has a BA from University of Maryland.

IMPERVIOUS SURFACE CHANGES & WATER QUALITY IN THE SEVERN RIVER:

Sediment and erosion and transportation of nutrients and heavy metals that impact the Severn River

by Ted Gattino

Impervious surfaces have increased with development. With increased impervious surface coverage comes the transportation of nutrients and heavy metals. Hard shorelines have increased wave energy adding to erosive tendencies and reduced the ability of Nature to assist in remediating higher nutrient loads and reduced access for invertebrates.

Biography

Ted Gattino, Naturalist, Environmentalist, and businessman, is working to make positive changes to the water and the environment around the Seven River. Ted, Managing partner of Blue Wing Environmental and Development Director for the Severn Riverkeeper, has 20 years of experience in sediment and erosion control. Ted is a graduate of Leadership Anne Arundel's Flagship class of 2008 and currently serves as the chair of Leadership's ELS environmental committee as well as the CRTC's Green Market Roundtable and is a member of the Governor's Workforce Investment Board, Energy Committee working to bring green collar jobs to Maryland that promote sustainable family incomes.
