

Pharmaceutical Waste in Wisconsin's Water: *Risks and Solutions*

Speaker Bios



Dr. Rebecca D. Klaper is a Shaw Associate Professor at the School of Freshwater Sciences, University of Wisconsin-Milwaukee and the Director of the Great Lakes Genomics Center. Dr. Klaper and her lab conduct basic and applied research to inform policy decisions involving freshwater resources. More specifically she studies the potential impact of emerging contaminants, such as nanoparticles and pharmaceuticals on aquatic life and how we may design these chemicals to minimize their environmental impact. In addition she examines the transport of these chemicals through the wastewater treatment systems and into the environment and how different treatment technologies may remove them from the waste stream. Her research also links the impact of these chemicals on the health of aquatic species to that of human health. Dr. Klaper received a AAAS-Science and Technology Policy Fellowship where she worked in the National Center for Environmental Assessment at the U.S. Environmental Protection Agency. She has also served as a technical expert to the Alliance for the Great Lakes and the International Joint Commission regarding the potential impacts of pharmaceuticals and personal care products and other emerging contaminants on the Great Lakes. Dr. Klaper received her Ph.D. in Ecology from the Institute of Ecology, University of Georgia her M.S. in Entomology from UGA and her B.S. in Honors Biology at University of Illinois.



Dr. Henry Anderson has been Chief Medical Officer and State Environmental and Occupational Disease Epidemiologist for the Department of Health Services/Division of Public Health since 1980. He helped develop Wisconsin's groundwater protection law and has the responsibility to assure the scientific basis for the groundwater health protection standard recommendations HHS makes to the Department of Natural Resources. He holds adjunct professorships at the University of Wisconsin-Madison, Department of Population Health Sciences, and the University of Wisconsin Institute for Environmental Studies, Center for Human Studies. He has authored over 250 scientific publications and has served on five National Academies of Sciences Committees including the recently released National Research Council report, *Water Reuse: Potential for Expanding the Nation's Water Supply Through Reuse of Municipal Wastewater*. His expertise includes public health; preventive, environmental, and occupational medicine; epidemiology; human health risk assessment; and risk communication. Dr. Anderson received his M.D. degree in 1972 from the University of Wisconsin-Madison. He was certified in 1977 by the American Board of Preventive Medicine with a sub-specialty in occupational and environmental medicine and in 1983 became a fellow of the American College of Epidemiology.



Kevin Shafer is the Executive Director of the Milwaukee Metropolitan Sewerage District (MMSD) and is responsible for the overall management, administration, leadership and direction for MMSD in meeting short- and long-term goals and objectives; coordinates the establishment of strategic goals and objectives and their approval by the Commission; oversees the development of policies and operating plans; and represents MMSD to its customers, bond rating agencies, and the public. Prior to joining the District, Shafer spent 10 years in private industry with an international engineering firm in Chicago and Milwaukee, and six years with the U.S. Army Corps of Engineers in Fort Worth, Texas. He holds a bachelor's degree in science and civil engineering with a specialty in water resources from the University of Illinois and a master's in science and civil engineering from the University of Texas. He is a past president of the National Association of Clean Water Agencies and the Chair of the US Water Alliance's Urban Water Sustainability Leadership Council. He currently serves on the EPA's Local Government Advisory Committee.



Barb Bickford has been the medical waste coordinator for the Wisconsin Department of Natural Resources since 1992. She implements the medical waste program and helps healthcare facilities manage and reduce medical wastes, including pharmaceutical wastes. She is co-chair of the Wisconsin Pharmaceutical Waste Working Group and a founding member of Wisconsin Healthcare for a Healthy Environment. From 2010 to 2013, she was a key partner in an EPA-funded Great Lakes Restoration Initiative project to keep pharmaceuticals out of the Great Lakes. In 2013, she initiated and developed the Pharmaceutical Waste Reduction website in collaboration with the University of Wisconsin Extension. For Barb's leadership in seeking collaborative solutions and mentoring, the DNR Board presented her with the DNR's Rebecca Wallace Award in 2013. In addition to her medical waste duties, Barb has been a hydrogeologist in the WDNR's Waste and Materials Management program since 1981. Barb is a Professional Geologist (PG) in the state of Wisconsin, and earned a Master's Degree in Geology from the University of Wisconsin - Madison.



Senator Robert L. Cowles has served as a State Legislator since 1983 when he was elected to the State Assembly. In April 1987, he was elected to the Senate in a special election to serve the Second Senate District which includes parts of Brown, Oconto, Shawano, Outagamie and Waupaca County's in Northeastern Wisconsin. Senator Cowles 2011-2012 Committee assignments include: Committee on Energy, Biotechnology, and Consumer Protection (chair), Joint Legislative Audit Committee (co-chair), membership on the committee on Workforce Development, Small Business and Tourism and membership on the Joint Committee on Information Policy and Technology. In addition to Senator Cowles legislative appointments, he is a member of National Conference of State Legislators and serves on the Science, Energy, and Environmental Resources Committee. Senator Cowles is also involved in several community groups including the Brown County Taxpayers Association, Allouez Kiwanis, and Trout Unlimited. Prior to serving in the State Legislature Robert Cowles graduated from the University of Green Bay where he earned his Bachelor of Science degree. He then gained solid private sector experience as a director of an alternative energy division for a communications construction company.



Toni Herkert is a Policy Analyst in the Office of State Senator Robert Cowles. Born and raised in Green Bay, Wisconsin, Toni received her undergraduate degree from St. Norbert in Environmental Science and Policy and Master's degree from the University of Wisconsin Green Bay in Environmental Policy and Administration. After graduation, Toni worked 3 years in the State Senate on environmental and health care policy followed by 12 years for the Department of Natural Resources in Water Resource Management. After leaving the DNR to stay at home with her children, Toni came back part-time as a Policy Director for Wisconsin Lakes, a statewide nonprofit working to conserve, enhance and restore Wisconsin's Lakes. After 4 years, Toni moved back to the Senate on a part-time basis using all the experience she has gained to create and analyze natural resource policy in the Legislature.