

## **Jennifer A. Volk**

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### **Education**

Master of Science, Oceanography, May 2003, University of Delaware, Lewes, DE; William Ullman, advisor; Thesis: “The Role of Land Use and Land Cover in the Delivery of Nutrients to Delaware’s Inland Bays,” supported by a Delaware Water Resources Center Fellowship

Bachelor of Science, Chemistry major/Biology minor/Environmental concentration, May 2000, University of Delaware, Newark, DE

### **Professional Experience**

Associate Director of Delaware Cooperative Extension, University of Delaware, Cooperative Extension, Dover, DE; (September 2017-present); 50% assignment

- Provide routine communications to staff through a weekly e-newsletter; coordinate regular and special professional development opportunities for staff; coordinate with the Delaware Department of Agriculture the LEADelaware Program; review and provide leadership to Civil Rights efforts; support cost recovery team efforts.

Kent County Extension Director, University of Delaware, Cooperative Extension, Dover, DE; (February 2015-present)

- Supervise extension agents and administrative support staff in the Kent County office; promote a positive work environment, teamwork, professional development, and interdisciplinary programming; develop and oversee the office budget; serve on the Extension Administrative Leadership Team; act as a liaison to other partner organizations and the Kent County Advisory Committee.

Environmental Quality Extension Specialist II (April 2017 – present) and Specialist I (July 2012 – March 2017), University of Delaware, Cooperative Extension, Dover, DE

- Chesapeake Bay Program - participate with Chesapeake Bay Program Partnership on several levels from providing technical expertise and responding to data driven requests for the Agriculture Modeling Subcommittee to Chairing the Water Quality Goal Implementation Team through Mid-Point Assessment work to collaborating with other Goal Team Chairs to provide leadership to the Partnership.
  - Elected At-large Member, 2016-present
  - Chair, Water Quality Goal Implementation Team, 2014-2015
  - Vice-chair, Water Quality Goal Implementation Team, 2013-2014
- Nutrient Management Team - Participate with extension and research activities related to nutrient management in agriculture and urban landscapes including contributing to programming for Delaware’s nutrient management certification program and courses providing continuing education credits and research related to nutrient use efficiency in agricultural systems and best management practices to reduce nonpoint source pollution.

- Water Quality Monitoring Trends - work with partner agencies to regularly review and assess trends in ground and surface water quality and communicate those trends to colleagues and clientele.
- Climate Change and Sea Level Rise – serve as the University of Delaware liaison to the Northeast Climate Hub University Partnership; working to incorporate climate change and sea level rise issues into extension programming; advising partner agencies on the development of impact reports; collaborating with Sea Grant colleagues to extend research on salt tolerant crops as potential alternatives to standard crops on impacted lands.
- Logic Model Planning and Reporting System Administrator - maintain online LMPRS system; provide training to extension colleagues at both the University of Delaware and Delaware State University on the writing of annual personal program plans and reporting of outputs and outcomes; provide technical support to colleagues utilizing the online system; prepare summary reports for leadership at both universities.

Environmental Scientist IV, Delaware Department of Natural Resources and Environmental Control (DNREC) Watershed Assessment Section, Dover, DE; 2007-2012

- Watershed Implementation Plan (WIP)/Pollution Control Strategy (PCS) Project Management –coordinated and facilitated meetings with interagency and interdisciplinary groups; developed and reviewed technical documents and resulting programs, policies, and regulations; conducted public workshops and hearings; represented DNREC/Delaware at local, regional, and national meetings; worked with partner agencies to provide education and training for implementation purposes.
- BMP Tracking – Led efforts to standardize, expand, and improve best management practice (BMP) data collection, management, and exchange; estimated pollutant load reductions that will occur with the implementation of BMPs; evaluated cost effectiveness of BMP implementation; performed occasional field work to locate potential sites for BMPs.
- Assist DNREC and other agency staff with water quality related analyses and critically review a variety of assessments, documents, and reports. Recommend policies and innovative approaches based on scientific data and stakeholder input, resulting in improved management.

Environmental Scientist II, Delaware DNREC, Dover, DE 2004-2007

- Utilized the water quality modeling tools QUAL2K and QUAL2E for watershed analyses and Total Maximum Daily Load development; trained in other water quality models including HSPF, LSPC, ECOMSED, RCA, and GEMSS; analyzed general assessment, continuous monitoring, and storm water quality monitoring data to estimate non-point source nutrient loadings; researched, assessed, and used land use export coefficients to estimate watershed nutrient loadings; examined the effects of urban and agricultural best management practices to reduce nutrient loadings to natural waters; worked with Tributary Action Teams to develop Pollution Control Strategies

Seasonal Environmental Scientist, Delaware DNREC, Dover, DE 2003-2004

- Analyzed general assessment and storm water quality monitoring data to estimate non-point source nutrient loadings; researched, assessed, and used land use export coefficients to estimate

watershed nutrient loadings; examined the effects of urban and agricultural best management practices to reduce nutrient loadings to natural waters

Graduate Research Assistant, University of Delaware, Lewes, DE 2000-2003

- Collected and analyzed water samples for dissolved and particulate nutrients in natural waters; performed hydrologic separations; assessed large hydrology and water quality monitoring data sets for spatial and temporal trends in Access and Excel; developed a conceptual model to estimate total nutrient loads delivered to receiving waters from watersheds

### **Grants and Contracts**

USDA Northeast Climate Hub Partnership Agreement. 2014-2019, \$95,000; Funding Agency: USDA Forest Service

Chesapeake Bay Program Technical Assistance Agreement. 2012-2017. \$40,164; Funding Agency: Delaware Department of Natural Resources and Environmental Control

Developing Seashore Mallow an alternative crop on salinized soils in Delaware and investigating its use as a new source of poultry house bedding; 2014-2016; \$40,000; Funding agency: University of Delaware College of Agriculture and Natural Resources Seed Grant Program; Collaborators: Bill Brown; Dr. Daniel Bautista; Dr. John L. Gallagher; Dr. Denise M. Seliskar; Dr. Jennifer Merrill; & Kate Hacket

Developing Best Management Practices to Reduce Nonpoint Source Pollution through Effective Ditch Management. 2013-2016. \$209,357. Funding agency: Delaware Department of Natural Resources and Environmental Control. Collaborators: Dr. Amy Shober (PI)

Quantifying the Effects of Irrigation and Fertigation on Nutrient Use Efficiency in Corn. 2013. \$295,170. Funding agency: Delaware Department of Natural Resources and Environmental Control. Collaborators: James Adkins, Dr. Amy Shober (PI), & Dr. Corey Whaley

### **Publications**

**Volk, J.A.**, J.R. Scudlark, K.B. Savidge, A.S. Andres, R.J. Stenger, and W. J. Ullman, 2011. *Intra- and inter-annual trends in phosphorus loads and comparison with nitrogen loads to Rehoboth Bay, Delaware*. Estuarine, Coastal, and Shelf Science, 96:139-150.

**Volk, J.A.**, K. B. Savidge, J. R. Scudlark, A. S. Andres, and W. J. Ullman. 2006. *Nitrogen loads through baseflow, stormflow, and underflow to Rehoboth Bay, Delaware*. Journal of Environmental Quality, 35:1742-1755.

Scudlark, J.R., **J.A. Jennings**, M.J. Roadman, K.B. Savidge, W.J. Ullman. 2005. *Atmospheric nitrogen inputs to the Delaware Inland Bays: the role of ammonia*. Environmental Pollution 135: 433-443.

### **Awards**

- 2016 eXtension i-Three Issue Corp member
- 2014 Delaware Cooperative Extension Director's Leadership Award
- 2010 DNREC and Division of Water Resources Employee of the Year
- 2006 Division of Water Resources Employee of the Year

### **Supervisory and Leadership Training**

- Supervisory Development Certificate Program to improve and grow supervisory skills, 2012
- LEADelaware Program for leaders in Agriculture and Natural Resources fields, 2009-2011