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STATE OF OHIO

Executive Department

OFFICE OF THE GOVERNOR

Columbus

I, Mike DeWine, Governor of the State of Ohio, do hereby appoint Jennifer R. Bowman, Democrat, from Athens, Athens County, Ohio, as a Member of the Ohio Soil and Water Conservation Commission for a new term beginning November 4, 2022 and ending at the close of business June 30, 2026, replacing Jennifer R. Bowman, whose term expired.



IN WITNESS WHEREOF, I have hereunto subscribed my name and caused the Great Seal of the State of Ohio to be affixed, at Columbus, this 4th day of November in the year of our Lord, Two Thousand and Twenty Two.

Mike DeWine

Mike DeWine
Governor

Jennifer R. Bowman

*Director of Environmental Programs, Voinovich School of Leadership and Public Affairs
Ohio University, Athens, OH 45701*

bowmanj2@ohio.edu; Phone (740) 597-3101; Fax (740) 593-4398

Education

1998- 2000 M.S. Environmental Geochemistry, Ohio University, Athens, OH, G.P.A. 3.8
1993- 1997 B.S. Environmental Geology, minor in Geography, Ohio University, Athens, OH, Cum Laude
with Departmental Honors

Professional Experience

July 2017-present Director of Environmental Programs, Voinovich School, Ohio University

Lead staff and students working in the energy and environment team by directing applied research projects and initiatives. Seek funding to support applied environmental projects. Align research interest of faculty and students where innovative solution are needed in the state. Work with regional stakeholders, faculty, and students to elevate and enhance Ohio University's applied environmental research. Coordinate the watershed research efforts of the Appalachian Watershed Research Group across Ohio University.

July 2016 – 2017 Interim Director of Environmental Programs, Voinovich School, Ohio University

Lead the Energy and Environment team through transitional period. Work with regional stakeholders, faculty, and students to elevate and enhance Ohio University's applied environmental research. Coordinate the watershed research efforts of the Appalachian Watershed Research Group across Ohio University as well as the Appalachian Ohio Clean Watershed Initiative, a regional approach to improve and preserve water quality in the coal bearing region of Ohio.

July 2012 – 2016 Senior Project Manager, Voinovich School, Ohio University

Develop and manage environmental projects and programs funded by grants and contracts. Provide transformative applied learning opportunities for graduate and undergraduate students working on projects and research in the field of energy and the environment. Conduct and collaborate on-going watershed research programs with faculty, students, and staff working on projects as part of the Appalachian Watershed Research Group. Provide technical assistance for area watershed groups in the coal bearing region of Ohio (i.e. online water quality database, training, chemical and biological sampling, and monitoring plans).

March 2004 – 2012 Environmental Projects Manager, Voinovich School, Ohio University

Manage the Environmental Management Program involving staff and students focusing on watershed research. Perform chemical water quality data analysis, interpretation, and report writing on the various projects as part of the Appalachian Watershed Research Group at Ohio University including: managing restoration work in the Raccoon Creek Watershed, writing the annual water quality and biological recovery report for watersheds in SE Ohio where acid mine drainage restoration is active, and developing and managing an online database management system for area watershed groups.

2001 – 2004 Watershed Coordinator, Sunday Creek Watershed Group, Rural Action

Coordinate and facilitate local and state agencies and community watershed partnerships. As the coordinator of the Sunday Creek Watershed, organize meetings for the watershed group and stakeholders, conducted a water quality assessment plan, wrote state and federal grants, conducted water quality analysis, aided in data collection for OEPA Total Maximum Daily Load (TMDL) program, and implemented stream restoration projects.

Journal of Environmental Management. 128 (2013) 1000-1011, *Mine Water and the Environment* 33:177-186, *Environmental Monitoring and Assessment* 186:4111-4127. 2004-present.

- Lead hydrogeologist and project manager for two watershed assessments, to identify sources of acid mine drainage (AMD) impacts from abandoned underground and surface coal mines in southern Coshocton and northern Muskingum Counties in Ohio. Wills Creek Reservoir and White Eyes Creek, together drain 237 sq. mile area. Funded by the Muskingum Watershed Conservancy district in partnership with Ohio Department of Natural Resources Division of Mineral Resources Management (ODNR-DMRM). 2013-2015.
- Project manager for a quality assurance quality control (QAQC) plan developed and written for surface water quality data collection and analysis methods to be used by ODNR-DMRM's AMD program and watershed partners utilizing water quality data to make AMD reclamation decisions. 2013-2015.
- Co-principal investigator of a feasibility study of a mitigation bank for both primary headwater streams and wetlands at the United State Department of Energy (DOE), Portsmouth Gaseous Diffusion Plant in Pike County, Ohio. 2013-2014.
- Co-principal investigator and project manager of a regional baseline groundwater quality report for Athens, Belmont and Surrounding Counties. Funded by the Sugarbush Foundation. 2012-2013. Building on the 2012-2013 baseline study, the Athens County Commissioners funded a groundwater analysis near Class II injection wells in Athens County 2015-2016. Sugar Bush funded an intensive groundwater analysis near Torch, Ohio site of high quantity injected hydraulic fracturing fluids into Class II injection wells, 2016-2018.
- Lead hydrogeologist and project manager of a long-term data monitoring project on Little Raccoon Creek at river mile 12.7 during and post mining reclamation. Data collected from 2008 to 2013 and coupled with data collected by the USGS going back to 1999. Funded by Ohio Department of Natural Resources Division of Mineral Resources Management (ODNR-DMRM). Publication *Environmental Monitoring and Assessment* 186:7539-7553. 2008-2013
- Co-principal investigator of a study assessing polychlorinated biphenyls (PCBs) in the sediment and soil of Little Beaver Creek in Piketon, Ohio for the United States Department of Energy (DOE) Portsmouth Gaseous Diffusion Plant (PORTS). Publication *Chemosphere* 114: 93-100. 2010-2012.

Publications

- Johnson, Kelly S., Rankin, Ed, **Bowman, Jennifer R.**, Deeds, Jessica, and Kruse Natalie, 2018. Predicting mayfly recovery in acid mine-impaired streams using logistic regression models of in-stream habitat and water chemistry. *Environmental Monitoring and Assessment* **190**, 196 (2018) doi:10.1007/s10661-018-6548-z
- Zhang, Mengliang, Kruse, Natalie, **Bowman, Jennifer R.**, Jackson, Glen, 2016. Field Analysis of Polychlorinated Biphenyls (PCBs) in Soil using a Portable Solid Phase Microextraction (SPME) and a Portable Gas Chromatograph-Mass Spectrometry System. *Applied Spectroscopy* **70(5)**:785-793.
- Johnson, Kelly S, Thompson, Pete C, Gromen, Lori and **Bowman, Jennifer R**, 2014. Use of Leaf Litter Processing Measures in Combination with Benthic Macroinvertebrates to Evaluate Gradient of Recovery in an Acid Mine Impacted Stream Remediated with Active Alkaline Dosing. *Environmental Monitoring and Assessment* 186:4111-4127.

- Bowman, Jennifer R**, Giordano, Kristi, Kruse Daniels, Natalie, and Underwood, Bruce 2015. Quality Assurance Quality Control (QAQC) Plan for surface Water Quality Data Collection and Analysis. Prepared for Ohio Department of Natural Resources Div. of Mineral Resources Management AMD program.
- Bowman, Jennifer R**, and Johnson, Kelly, 2014. 2013 Nonpoint Source (NPS) Monitoring Project for Acid Mine Drainage an Evaluation of Water Quality, Biology, and Acid Mine Drainage Reclamation in Five Watersheds: Raccoon Creek, Monday Creek, Sunday Creek, Huff Run, and Leading Creek. Prepared for Ohio Department of Natural Resources Div. of Mineral Resources Management AMD program.
- Porter, Steven, **Bowman, Jennifer R**, and Miller, Scott, 2014. Detecting the Presences of Coal Mining Impacts by Predicting Acid Mine Drainage Impacted Streams Using Aerial Imagery. Prepared for Air Force Research Laboratory (AFRL).
- Bowman, Jennifer R**, Johnson, Kelly, Conley, Kelly, Wiley, Rob, Kruse, Natalie, and Porter, Steve 2014. Feasibility Study of a Mitigation Bank for Both Primary Headwater Streams and Wetlands at the United State Department of Energy (DOE), Portsmouth Gaseous Diffusion Plant in Pike County, Ohio. Technical document prepared for DOE.
- Bowman, Jennifer R**, Kruse, Natalie, Migliore, Elizabeth, and Gilliom, Ryan, 2013. Regional Baseline Groundwater Quality Report for Athens, Belmont and Surrounding Counties. Prepared for the Sugarbush Foundation.
- Bowman, Jennifer R**, Kruse, Natalie, and Underwood, Bruce, 2013. Little Raccoon Creek Gage Station RM12.7 Data Report 1999-2013. Prepared for Ohio Department of Natural Resources Div. of Mineral Resources Management
- Bowman, Jennifer R**, and Johnson, Kelly, 2013. 2012 Nonpoint Source (NPS) Monitoring Project for Acid Mine Drainage an Evaluation of Water Quality, Biology, and Acid Mine Drainage Reclamation in Five Watersheds: Raccoon Creek, Monday Creek, Sunday Creek, Huff Run, and Leading Creek. Prepared for Ohio Department of Natural Resources Div. of Mineral Resources Management AMD program.
- Bowman, Jennifer R**, Lopez, Dina L, Kruse, Natalie A, and Migliore, Elizabeth, 2012. Preliminary Assessment of Polychlorinated Biphenyl (PCBs), Congeners, Aroclors, Dioxins, and Furans in the Sediment and Soil at the United State Department of Energy (DOE) Portsmouth Gaseous Diffusion Plant (PORTS), Piketon, Ohio. Technical document prepared for DOE.
- Jackson, Glen P, Zhang, Mengliang, **Bowman, Jennifer R**, Kruse, Natalie A, and Lopez, Dina, 2012. Expedited Field Survey and Sampling Techniques for Polychlorinated Biphenyl (PCB) Congeners and Dioxins. Technical document prepared for DOE.
- Wiley, Robert, Conley, Gary, Porter, Steven, Simon, David, Kruse, Natalie, Eichenberg, Robert, and **Bowman, Jennifer R**, 2012. Habitat Mapping of the Land and Vicinity of the United States Department of Energy (DOE) Portsmouth Gaseous Diffusion Plant (PORTS) Pike County, Ohio. Technical document prepared for DOE.
- Kruse N, **Bowman, J**, Lopez, D Eichenberg, R., Miller, S., Reber R., DeRose, L., 2012. A Review of Groundwater Regulations Applied Across Facilities in Ohio. Final Report for Groundwater: Site-Wide Groundwater Model Review and Verification and Regulatory Requirement Review. US Department of Energy.
- Bowman, Jennifer R**, and Johnson, Kelly, 2012. 2011 Nonpoint Source (NPS) Monitoring Project for Acid Mine Drainage an Evaluation of Water Quality, Biology, and Acid Mine Drainage Reclamation in Five Watersheds: Raccoon Creek, Monday Creek, Sunday Creek, Huff Run, and Leading Creek.
- Bowman, Jennifer, Rankin, Edward**, and Johnson, Kelly, 2011. Biological Data Summary Report for the Joy Hollow Biological Assessment Project. A data summary report prepared for Save Our Rural Environment (SORE).
- Bowman, Jennifer**, Kruse, Natalie, and Simon, David. 2010. Environmental Questionnaire for ComNet Broadband Project. Final Report for Tom Reid Consulting.
- Bowman, Jennifer**, Kruse, Natalie, and Simon, David, 2009. Mapping for Environmental Questionnaire. Final Report for Tom Reid Consulting.
- Bowman, Jennifer R.**, May 2009. Acid Mine Drainage Abatement and Treatment (AMDAT) Plan for Upper Rush Creek Watershed. Technical Document prepared for the ODNR-DMRM.
- Bowman, Jennifer R**, Hughes, Michael, Rice, R, and Borch, Mary Ann, 2007. Chemical Water Quality Assessment: Planning, Water Quality, and Flow Measurements. Prepared for Ohio EPA's Credible Data Training Program.
- Bauers, C., **Bowman, J. R.**, Gosnell, M., and Ooten, R., April 2006. AMDAT Plan for the Leading Creek Watershed. Technical Document prepared for the ODNR-DMRM.
- Bowman, Jennifer R.**, April 2005 – Moxahala AMDAT plan. Technical Document prepared for the ODNR-DMRM.

- Stokes, Brooke, Jones, Nate, Cornwell, Sarah, Porter, Steve, **Bowman, Jennifer**, 2017. Appalachian Ohio Clean Watershed Initiative ArcGIS Online Watershed Planning Tool: Using Data to Foster Partnerships to Improve Water Quality across Ohio's Coal Bearing Region. ORBCRE, Sept. 27-29, 2017, Huntington, WV.
- Bowman, Jennifer**, Johnson, Kelly, Vis, Morgan, Lopez, Dina, and Kruse, Natalie, 2017. Long-term partnerships among Ohio University, agencies, and communities make a difference: 20 years of restoration in acid mine impaired watersheds. ORBCE Sept. 27-29, 2017, Huntington, WV.
- Bowman, Jennifer**, Porter, Steve, and Miller, Scott, 2017. Detecting the Presence of Coal Mining Impacts by Predicting Acid Mine Drainage Impacted Streams Using Aerial Imagery. Joint Conference of American Society of Mining and Reclamation, West Virginia Mine Drainage task Force, and Appalachian Regional Reforestation Initiative, April 9-13, 2017, Morgantown, WV.
- Bowman, Jennifer**, 2017. Appalachian Ohio Clean Watershed Initiative ArcGIS online Watershed Planning Tool: Using Data to Foster Partnerships to Improve Water Quality across Ohio's Coal Bearing Region. Water Management Association of Ohio, November 1-2, 2017, Columbus, Ohio.
- Lautzenheiser, Marissa, and **Bowman, Jennifer**, 2016. Appalachian Ohio Clean Watershed Initiative: Expanded Scope, Scale, Geography. Water Management Association of Ohio, Nov. 9-10, 2016. Worthington, Ohio.
- Bowman, Jennifer**, and Porter, Steve, 2016. Acid Mine Drainage Detection Using Aerial Four-Band Imagery. Presented as part of a Workshop series with Woolpert and Sinclair College titled UAS and Geospatial Applications for Analyzing Water Problems. Sept. 28, 2016, Columbus, Ohio.
- Maj, Sarah, López, Dina, Kruse, Natalie, **Bowman, Jennifer**, 2015. Nutrient concentrations in streams affected by acid mine drainage in Southeastern Ohio. Geological Society of America. Session No. 261, November 2015, Baltimore, MD.
- Thrush, Mariah, Johnson, Kelly, **Bowman, Jennifer**, 2015. The effect of hydrological and climate variation on macroinvertebrate abundance and richness in Southeastern Ohio. Society of Freshwater Science, May 2015, Milwaukee, WI.
- Johnson, Kelly, Rankin, Ed, **Bowman, Jennifer**, Deeds, Jessica, and Kruse, Natalie 2014. Using Logistic Regression to Predict Recovery of Mayfly Population in Acid Mine Impaired Streams based on Current and Future In-stream Habitat and Water Chemistry. National Association of Abandoned Mine Land Programs, Columbus, OH September 2014.
- Kruse, Natalie, **Bowman, Jennifer**, Stoertz, Mary, and Green, Doug 2014. The Stoertz Water Quality Evaluation Method for Evaluations Acid Load Reduction. National Association of Abandoned Mine Land Programs, Columbus, OH September 2014.
- Maj, Sarah, Lopez, Dina, Schleich, Katharine, Kruse, Natalie, and **Bowman, Jennifer** 2014. Redox transformation of iron in an acid mine drainage remediated stream. National Association of Abandoned Mine Land Programs, Columbus, OH September 2014.
- Hawkins, Caleb, Kruse, Natalie, Mackey, Amy, and **Bowman, Jennifer R.** 2014. The recovery of an AMD-impacted stream treated by steel slag leach beds: A case study in the East Branch of Raccoon Creek, Ohio. National Meeting of the American Society of Mining and Reclamation, Oklahoma City, OK, June 2014.
- Johnson, Kelly, Thrush, Mariah, **Bowman, Jennifer** and Kruse, Natalie 2014. Stability and persistence of macroinvertebrate communities in relation to yearly variation in precipitation, flow and acid mine drainage intensity. Joint Aquatic Sciences Meeting, Portland, OR, May 2014.
- Lopez, Dina, Kruse, Natalie, and **Bowman, Jennifer** 2014. Modeling precipitation of minerals and water chemistry evolution in an acid mine drainage remediated stream. 2014 GSA annual meeting in Vancouver, British Columbia, October 2014.
- Maj, Sarah, Lopez, Dina, Kruse, Natalie, Schleich, Katharine, and **Bowman, Jennifer** 2014. Role of iron oxidation and precipitation of aluminum and iron minerals in the recovery of an acid mine drainage remediated stream: Hewett Fork, Ohio. 2014 GSA annual meeting in Vancouver, British Columbia, October 2014.
- Schleich, Katharine L, Lopez, Dina L, **Bowman, Jennifer R.**, Kruse, Natalie A, Mackey, Amy L, VanDervort, Darcy, and Korenowsky, Rebekah, 2013. Sources of alkalinity and acidity along an acid mine drainage remediated stream in SE Ohio: Hewett Fork. American Geophysical Union, December 9-13, 2013 San Francisco, California.
- Bowman, Jennifer R.**, Johnson, Kelly, McCament, Ben, Calhoun, Jeff, Mackey, Amy, Schlater, Nate, and Kruse, Natalie, 2013. Collaborative bio-monitoring at the state and local level to track acid mine drainage remediation

Shimala, Jennifer R., Lopez, DL, and Farley, M, June 2000. Water chemistry variations within an experimental successive alkalinity producing system: a remediation alternative for the Carbondale Wetland, Athens County, Ohio. AGU Spring Meeting, Washington D.C., EOS Transaction American Geophysical Union, vol.81, no.19, pp. s197

Lopez, Dina L, **Shimala, JR,** and Farley, M, June 2000. Seasonal variations in chemical loadings and removal rates at a wetland constructed to remediate acid mine drainage: the Carbondale Wetland, Athens County, Ohio. AGU Spring Meeting, Washington D.C., EOS Transaction American Geophysical Union, vol. 81, no. 19, pp. s197

Funded Projects

2020-2024 Stream and Wetland Foundation Student Research Support (\$149,680)

2019-2024 Long Leaf Foundation, Reforesting Appalachian Stream Riparian Corridors Project (\$8,000)

2019-2021 ODNR-DMRM Technical Support Services and Data Management (\$52,525)

2019-2020 ODNR-DMRM and OEPA Watershed Support (\$120,369)

2019-2020 Ohio Environmental Protection Agency 319 grant, Civitan Park Forested Wetland (co-PI Kirchner) (\$27,900)

2019 Confluence Water Research Consortium, HydroVIEW development for Great Miami Watershed (\$10,000)

2019 Pennsylvania Department of Environmental Protection, reconnaissance trip stream mitigation research (co-PI Kirchner, Kruse) (\$10,000)

2018-2019 Ohio Environmental Protection Agency 319 grant, Big Sandy Low-head Dam Removal (co-PI Mackey) (\$37,000)

2017-2022 Wayne National Forest Sediment Sample Testing and Analysis (\$9,464)

2017-2020 American Electric Power (AEP) Renewal Energy and STEM Education (\$250,000)

2017-2019 American Electric Power (AEP) Watershed STEM Education (\$50,000)

2017-2019 ODNR-DMRM Technical Support Services and Data Management (\$77,142)

2017-2018 ODNR-DMRM and OEPA Watershed Support (\$130,000)

2017 OEPA Ohio Environmental Education Fund – Rain to River Stormwater Education (\$23,721)

2017 ODNR Division of Real Estate – Outdoor Recreation Ohio Survey (\$43,709) (Co-PI with Lesli Johnson)

2016-2020 Stream and Wetland Foundation Student Research Support (\$141,782)

2016-2018 Office of Surface Mining Applied Science Proposal, Mine Pool Modeling (Co-PI with Kruse and Lopez) (\$196,520)

2016-2017 Ohio Division of Mineral Resources and Ohio Environmental Protection Agency via Rural Action, Watershed Project Management (\$95,515)

2016-2017 Ohio Division of Mineral Resources, Watersheddata.com database development (\$144,920)

2016-2018 Sugar Bush Foundation, Community engagement and transparency around injection wells (Co-PI with Kruse and Chadwick) (\$72,093)

2016-2017 Ohio Environmental Protection Agency Supplemental Environmental Projects (SEP), 9-element watershed planning (\$37,500)

2016-2017 Ohio University Innovation Strategy Planning Grant, Partnership for Digitally Connected Environmental Monitoring (PI Kruse) (\$20,000)

2015-2017 Ohio DNR Division of Mineral Resources, Technical Support Services (\$204,847)

2015-2018 EPA 319 non-point source pollution grant, Appalachian Clean Ohio Watershed Initiative (\$250,000)

2014-2017 American Electric Power Foundation, AEP Watershed Research and Education Program (Co-PI with Kruse and Johnson) (\$150,000)

2015-2016 Athens County Commissioners, Athens County Baseline Groundwater Study (Co-PI with Kruse) (\$15,637)

2015 Cleveland Metroparks, Chemical Water Quality Training (\$5,000)

2014-2015 Ohio University, Baseline Environmental Data collection in Belmont County (Co-PI with Miller) (\$75,000)

2013-2015 Ohio DNR Division of Mineral Resources Management, Technical Support Services FY14-FY15 (co-PI with Kelly Johnson) (\$125,702)

2005-2006 Meigs Soil and Water Conservation District. Leading Creek Watershed AMDAT. (co-PI with Darren Cohen) (\$21,000)

Certifications and Trainings

- 2018 Renewed Ohio EPA Credible Data Program Level III Data Collector for Chemical Water Quality Assessment QDC #001
- 2018 Performance Evaluation (Ohio University Human Resources, three 1-hour sessions)
- 2016 Data Visualization Training (Evergreen 1 day)
- 2014 Approved Ohio EPA Credible Data Program Level II Data Collector for Benthic Macroinvertebrate Assessment –Sample Collection, Identification, and Data Evaluation 2014-2019
- 2013 R Studio training, Athens Ohio (Pascal and Porter 4 hrs)
- 2012 Approved Ohio EPA Credible Data Program Level II Data Collector for Stream Habitat Assessment - Habitat Evaluation Index (QHEI) 2012-2017
- 2012 Qualitative Habitat Evaluation Index (QHEI) Training, Athens Ohio (Rankin 1day) 2012 Visual Sample Plan (VSP) Training Course (Pulsipher and Wilson 3 days)
- 2012 Approved Ohio EPA Credible Data Program Qualified Data Collector Trainer for Level II Chemical Water Quality Assessment
- 2010 Primary Headwater Stream Training (Schumacher and Skalski 1 day)
- 2009 Approved Ohio EPA Credible Data Program Level II Data Collector for Benthic Macroinvertebrate Biology and Qualified Data Collector Trainer for: Level II Chemical Assessment and Level II Benthic Macroinvertebrate Biology
- 2008 Approved Ohio EPA Credible Data Program Level III Data Collector for Chemical Water Quality Assessment QDC #001
- 2006 Macroinvertebrate Aggregated Index for Stream (MAIS) training, Ohio University (Johnson 1day)
- 2006 Approved Ohio EPA Credible Data Program Level III Data Collector for Chemical Water Quality Assessment QDC #001
- 2002-03 Ohio Watershed Academy for Watershed Coordinators, Ohio State University (Bonnell 6 months)
- 2001 Ohio EPA Qualitative Habitat Evaluation Index (QHEI) Training, Groveport Ohio (Rankin and Yoder 2 days)
- 1999 Field Studies in Hydrogeology and Watershed Characterization Workshop, Ohio University (Stoertz 10 days)
- 1997 Basin surveys and applications short-course, Utah State University (5 days)

GOVERNOR'S APPOINTMENTS TO BOARDS AND COMMISSIONS

Appointment Date: 11/4/2022

Name of Appointee: Jennifer R. Bowman
Address: 60 Columbia Ave.
Athens, OH 45701
Athens County
(H) –
(W) –
(M) – 7405910031
(E) – bowmanj2@ohio.edu

Name of Commission: Ohio Soil and Water Conservation Commission
Tracy Intihar
Assistant Director
Ohio Department of Agriculture
8995 E. Main St.
Reynoldsburg
(614) 644-5812

Term Begins: 7/1/2022
Term Ends: 6/30/2026
Party Affiliation: Democrat
Senate Confirmation: Appointed by the Governor, confirmed by the Senate
Financial Disclosure: Confidential disclosure required
Vice: Jennifer R. Bowman