

# KELLY J.G. KROCK

## BIOLOGIST

### PROFESSIONAL SUMMARY




Diversified and motivated GS-13 biologist with 12+ years of federal service and experience in freshwater bioassessment, study design, project planning and execution, quality assurance, program coordination, budgeting, and resource management.

Exceptional skills in diplomacy, enterprise networking, and training to maximize professional coordination and program success.

Demonstrated experience in partnership building through collaboration and leadership with non-technical staff, scientists, and senior managers within EPA Region 3; other EPA Regions, offices, and Headquarters; states, tribes, and local governments; contractors; and other federal agencies.

Excellent written skills through preparing technical reports, fact sheets, procedural guidance, program templates and forms, journal articles, and more.

### CONTACT

 304-234-0242  
 krock.kelly@epa.gov  
 U.S. EPA Region 3  
1060 Chapline St.  
Wheeling, WV 26003

### EDUCATION

*Master of Science*, Ohio University, Athens, Ohio  
Major: Environmental Studies, Concentration: Biological Sciences, November 2002

*Bachelor of Arts*, Ohio Wesleyan University, Delaware, Ohio  
Majors: Zoology and Environmental Studies, May 2000

### WORK EXPERIENCE

**Biologist**, U.S. Environmental Protection Agency (EPA) Region 3, Laboratory Services and Applied Science Division, Field Services Branch; Wheeling, West Virginia; December 2008-Present; 40 hours per week; \$113,644 per year

*Perform freshwater biological assessments and lead quality assurance efforts as Quality Assurance Officer*

- Co-lead for Innovation project *Streamflow Monitoring Using Computer Vision Machine Learning* with staff and managers from multiple EPA Regions and Headquarters, U.S. Geological Survey and contractors, states, and tribes.
  - Coordinate across occupational and program areas of biology, hydrology, and artificial intelligence.
  - Help evaluate a national issue of altered hydrology by developing a low-cost and more user-friendly alternative for states and tribes across the country
  - Manage and lead regular meetings and communications with all participants to ensure progress, solicit involvement, and resolve issues or conflicts.
  - Explain project and procedures to team members, managers, scientists, researchers, and state/local/tribal officials.
  - Present updates to regional and national groups that includes EPA and state agencies, including performance measurement.
  - Planned project, wrote successful proposal, developed budget requirements, and secured \$99,000 from EPA's ORD Innovation Team and the Office of the Science Advisor.
  - Led scoping meetings to build consensus and develop procedures.
  - Manage communications through email, video conferencing, teleconferencing, SharePoint site, OneDrive, and GoAnywhere.

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## AWARDS

EPA Region 3 Bronze Medal,  
Region 3 Quality  
Management Plan  
Development Team, October  
2020

EPA Region 3 Performance  
Award, Quality Step Increase,  
July 2020

EPA Region 3 Bronze Medal,  
National Rivers and Streams  
Assessment Team, October  
2019

EPA Region 3 Bronze Medal,  
Antero Clean Water Act  
Settlement Team, October  
2019

EPA Region 3 Performance  
Award, Wheeling Field  
Biology State Support Team,  
July 2017

EPA Region 3 Regional Science  
Achievement Award, October  
2015

EPA Region 3 Bronze Medal,  
Marcellus Shale Clean Water  
Act 404 Team, October 2015

EPA Region 3 Bronze Medal,  
Inspection Report Marcellus  
Shale Enforcement Team,  
October 2014

EPA Region 3 Bronze Medal,  
Field Assessment Team in  
Wetlands in Gas  
Development Areas, June  
2013

EPA Region 3 Performance  
Award, Quality Step Increase,  
August 2012

EPA Region 3 Bronze Medal,  
Pollutant Discharge Team for  
Appalachian Surface Coal  
Mining Operations,  
September 2011

- Perform bioassessment work.
  - Lead projects and produce technical reports.
  - Conduct water quality sampling, macroinvertebrate and fish biological collection, habitat evaluation, continuous logger deployment and management, and macroinvertebrate identification.
  - Provide technical support through issue papers and meetings on both routine and contentious regulatory issues, e.g., mountaintop mining with valley fill operations, natural gas development.
  - Conduct non-technical correspondence with landowners and other stakeholders as needed.
  - Conducted *Ceriodaphnia dubia* toxicity testing and culturing.
  
- Lead quality activities as Quality Assurance Officer.
  - Participate in conflict discussions to resolve differences and concur on satisfactory policy to all stakeholders.
  - Conduct reviews on internal and external quality documents.
  - Create, review, and revise Branch and Regional-level Standard Operating Procedures (SOPs).
  - Quality check data, data analyses, and processes.
  - Create and manage Branch's record and quality policies.
  - Helped develop and evaluate regional field quality assurance program and policy, & ensure implementation of field processes
  
- Serve as Region 3 lead for the Mid-Atlantic Stream Regional Monitoring Network (RMN).
  - Lead coordination activities across multiple state agencies, river basin commissions, EPA Headquarters, and contractors.
  - Help develop policy recommendations and procedures for the national RMN program that reflect needs and perspectives of the different stakeholders from multiple regions, states, and tribes.
  - Co-developed the national Quality Assurance Project Plan and made recommendations to EPA Headquarters management.
  - Explain procedures to EPA staff, scientists/researchers, and state/river basin officials.
  - Communicate and coordinate with Regional legal staff to explain policies and procedures for loan agreements for state participants.
  - Brief senior management on project statuses, findings, problems, and recommendations.
  
- Provide field support for Clean Water Act inspections.
  - Hold inspector credentials.
  - Collect physical, chemical, and biological data to characterize the relative flow permanence and condition of impacted streams.
  - Maintain working relationships with regional staff and managers, state agency representatives, and other stakeholders.
  - Communicate procedures to business/industry officials.

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## SAMPLING OF WORKGROUPS/ COMMITTEES

Coordinate(d) with staff and managers from EPA Region 3; other EPA Regions and Headquarters; state, county, and local agencies; tribes; non-governmental organizations; and academia.

Regional Climate Change Collaborative Leadership Team, 2021-present

Regional Administrator's Climate Change Review Team, 2021

Regional Monitoring Network Continuous Data Workgroup, 2021-present

Regional Quality Council, 2020-present

Chesapeake Bay Program Data Integrity Workgroup, 2019-present

Association of Mid-Atlantic Aquatic Biologists Board, 2013- present

Regional Science Council, Communications and Expert Matrix subcommittees, 2010-2020

Region 3 50th Anniversary Committee, Historical Pictures and Documents Subcommittee, 2019- 2020

National Quality Assurance Enterprise Management System Workgroup, 2018-2020

Regional Field Activities Coordination Team, 2017-2019

National Biological Advisory Committee, 2009-2014

- Co-led development of a centralized quality system embodied in the completion of the Region 3 Quality Management Plan (QMP).
  - Co-author for QMP and continue to clarify policies, and procedures to staff, managers, and state/local/tribal officials.
  - Collaborated with representatives and management across all divisions and major offices to negotiate and resolve conflicts and differences in opinion on policy to reach consensus and adopt practices, policies, procedures for new regional quality system.
  - Developed policy recommendations that reflected needs and perspectives of regional divisions and offices, and also considered states, tribes, and financial recipients (e.g., contractors, grantees).
  - Briefed senior leaders on project status, findings, recommendations, organizational strategies, priorities, and potential impacts of changing policies.
  - Analyzed and presented policy differences from the multiple decentralized systems.
  - Developed implementation strategy and planned program accomplishments to expedite adoption of agreed upon initiatives.
  - Explained quality policy and procedures to legal staff to develop disclaimer language for quality document signature template.
  
- Help manage Branch's budgeting and purchasing.
  - Hold government purchase card and well versed in regulations.
  - Provide briefings on purchasing procedural and policy changes and financial/resource management issues.
  - Co-developing divisional purchasing guidance and resolved differences for adoption to assist staff in understanding process, requirements, and resources.
  - Work with contract officers to provide sole source justifications, market research, and other required documentation as need to secure and successfully complete contracts.
  - Create budget for National Aquatic Resource Surveys funds.
  - Help ensure that carryover and appropriate funding types are used such as capital equipment.
  - Budgeted \$117,000 of Headquarters' funds for climate change.
  - Served as lead on U.S. Geological Survey interagency agreement.
  
- Train staff and managers from EPA; state, interstate, county, and local agencies; other federal agencies; non-governmental organizations; contractors; and academia. Topics include:
  - Macroinvertebrate identification
  - Bioassessment
  - Continuous Monitoring for Climate Change
  - R3 Quality System Awareness
  - Quality Assurance Project Plans
  - Region 3 Field Operations Management System (developed)

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## PUBLICATIONS

Pond, Gregory; Krock, Kelly; Ettema, Leah. (2021, in review). *Macroinvertebrates at the source: flow duration and seasonality drive diversity and trait composition of rheocrene springs in the Allegheny Plateau, USA*.

Pond, Gregory; Krock, Kelly; Cruz, Jonathan; Ettema, Leah. (2017). *Effort-based predictors of headwater stream conditions: comparing the proximity of land use pressures and instream stressors on macroinvertebrate assemblages*. Aquatic Sciences. 79. 10.1007/s00027-017-0534-3.

Pond, Gregory; Passmore, Margaret; Pointon, Nancy; Felbinger, John; Walker, Craig; Krock, Kelly; Fulton, Jennifer; Nash, Whitney. (2014). *Long-Term Impacts on Macroinvertebrates Downstream of Reclaimed Mountaintop Mining Valley Fills in Central Appalachia*. Environmental management. 54. 10.1007/s00267-014-0319-6.

- Support the Branch through technical and administrative activities.
  - Performed as acting Branch Chief during extended absences
  - Tracked and provided briefings on performance measures.
  - Lead the Branch's annual States/River Basin Commissions/EPA biologists' meeting, including setting up video conference, sharing of materials, developing agenda, managing discussion and time, and resolving any issues.
  - Promote and maintain effective working relationships with the state and river basin biologists and managers, and EPA staff.
  - Maintain working relationships with corporations to learn and expand on new technology and management of existing equipment.
  - Conduct equipment and field meter maintenance, calibration, acquisition, and replacement.
  
- Develop technical and non-technical written materials, including:
  - Region 3 Quality System and Field Operations Management System intranet sites.
  - Flyers and fact sheets (e.g., landowner reports, Regional Science Council new employee one-pager, Wheeling Office overview, Field Services Branch Training capabilities).
  - Standardized forms and templates (e.g., Region 3 Tribal Quality Management Plan Template, Quality Assurance Project Plan Template for different programs, Region 3 Quality System Forms, Field Services Branch Project Checklist)
  - Training marketing materials and registration forms
  - Peer-reviewed journal articles (see Publications), Technical reports, and scientific posters
  - Briefing packages (e.g., Regional Monitoring Network, Region 3 Quality Management Plan)
  - Procedural guidance (e.g., technical and administrative standard operating procedures)
  - Outreach materials (e.g., K-12 and college student presentations)
  - Use 508 compliance training for Microsoft Word and PowerPoint, and Adobe PDF in review of pre-dissemination documents
  
- Represent the Region's Wheeling Office.
  - Solely guided Region 3 Regional Administrator (RA) on Brownfields tour with media present.
  - Provided senior leaders, Region 3 RA, Deputy RA, and Assistant RA, with tours of Wheeling Office at separate times.
  - Served as federal Designated Official for the Wheeling facility.
  - Maintained information technology (IT) credentials.

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## EPA DETAILS

Acting Chief, Field Services  
Branch, Laboratory Services  
and Applied Science Division  
(LSASD), July-September  
2021

Quality Assurance Biologist,  
LSASD, Applied Science &  
Quality Assurance Branch,  
December 2019-August 2020

Acting Field Quality Manager,  
LSASD, Applied Science &  
Quality Assurance Branch,  
August-September 2019

Office of Enforcement,  
Compliance, and  
Environmental Justice,  
Enforcement and Compliance  
Assistance Branch,  
September 2010-March 2011

## SKILLED TECHNICAL PROTOCOLS

EPA Stream Continuous  
Monitoring

EPA Rapid Bioassessment  
Protocols for wadeable  
streams

NC DWQ Methodology for  
Identification of Intermittent  
and Perennial Streams and  
their Origins

OH EPA Field Evaluation Manual  
for Ohio's Primary  
Headwater Habitat Streams

EPA National Lakes Assessment

EPA National Rivers and Stream  
Assessment

WVDEP, MDDNR and PADEP  
macroinvertebrate sampling  
and subsampling

Maryland Biological Stream  
Survey Benthic  
Macroinvertebrate Sampling  
Certification, 2017-2019

- Serve the Division on the Regional Administrator's Climate Change Review Team and Climate Change Collaborative Leadership Team.
  - Compiled data on past, recent, and ongoing climate change activities through development of standardized data submission form and database searches.
  - Successfully synthesized data and compiled into package presented for recommendation of regional approval to division management.
  - Work collaboratively to address Agency's climate change goals.
- Acted as senior representative for the Division on the Regional Science Council.
  - Rewrote Region 3's Regional Applied Research Effort (RARE) project proposal evaluation policy criteria to match EPA Headquarters' proposal format to ensure objectivity and efficiency.
  - Scheduled and led internal division RSC representatives' meetings
  - Briefed division management.
  - Coordinated collection and response of Division's science needs and made recommendation to division management on final submission
  - Communicated relevant regional science information to staff.
- Co-led efforts on EPA National Surveys (National Lakes Assessment-NLA and National Rivers and Stream Assessment- NRSA).
  - Assisted EPA Headquarters with setting up NRSA trainings.
  - Served as NRSA crew leader and developed operating plans.
  - Developed budget, and managed equipment and supplies.
  - Performed audits on state agency crews to resolve any differences.

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**Academic Laboratory Instructing Assistant**, West Liberty State College; Wheeling, West Virginia; August-December 2008; 40 hours per week, 9 months; \$23,075.25 per year

*Prepared and taught biology lectures and laboratory sections*

- Taught majors and non-major classes and labs on principles of biology topics through lectures, assignments, and tests
- Set up and instructed scientific laboratory sessions with students

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**Biology Adjunct Professor**, West Virginia Northern Community College; Wheeling, West Virginia; May-August 2008; 10 hours per week; \$1,700 per semester

*Prepared and taught biology course for summer semester*

- Taught majors and non-majors on principles of biology topics through lectures, assignments, tests, and field trips
- Set up and instructed scientific laboratory sessions with students

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## RECENT TRAININGS/ WEBINARS

Environmental Measurement  
Data & How They Speak,  
Washington Statistical  
Society, April 2021

Essentials of Business Writing,  
U.S. EPA Region 3, December  
2020

Uniform Federal Policy-Quality  
Assurance Project Plans,  
October 2020

Eleven Principles for  
Communicating Science to  
Get Results, Alan Alda Center  
for Communicating Science,  
June 2019

National Rivers and Stream  
Assessment, EPA Region 3,  
2018 and 2019

Sediment Assessment Methods,  
VADEQ, AMAAB, April 2018

Maryland Biological Stream  
Survey Spring Sampling  
Training, MDDNR, February  
2017 & 2018

Ecology and Conservation of  
North American Crayfishes,  
November 2017

National Lakes Assessment, EPA  
Region 3, 2017

Identification and Taxonomy of  
Larval Caddisflies  
(Trichoptera), AMAAB, March  
2017

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**Co-founder**, Strategin LLC, St. Clairsville, OH; November 2007-August  
2008; 25 hours per week, \$25,000 per year

*Initiated start-up company for technology transfer.*

- Served as assistant program manager for the U.S. EPA client and participated in strategic planning.
- Developed company branding.

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**Technology Analyst**, Intellectual Property (IP) Management Group,  
West Virginia High Technology Consortium (WVHTC) Foundation,  
Wheeling, West Virginia; October 2004-November 2007; 40 hours per  
week; \$60,000 per year

*Helped industry form partnerships around U.S. EPA research projects  
for the purposes of progressing environmental technologies into the  
marketplace*

- Acted as assistant program manager for the EPA client and participated in strategic planning for the department.
- Managed over 50 technical projects simultaneously, including personnel assignment, oversight of marketing and partnership facilitation efforts, and conveyance of updates to EPA.
- Supervised technical and administrative employees which included goal setting, performance evaluations, and management of workloads.
- Facilitated commercialization and partnership efforts, business communications, and technical discussions between EPA researchers and private sector parties (academia, corporations, non-governmental organizations, etc.).
- Participated in management of two environmental partnership summits, including interviewing scientists, analyzing federal research, and assisting with event marketing.

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**Senior Associate**, National Technology Transfer Center (NTTC),  
Wheeling, West Virginia; August 2003-September 2004; 40 hours per  
week; \$28,000 per year (Note: Programs and related positions  
transferred from the NTTC to the WVHTC Foundation)

*Developed project managements tools to enhance communications to  
the client and partners*

- Marketed environmental technologies and facilitated partnerships between the U.S. EPA and private sector, including corporations, academia, and non-governmental organizations.
- Managed the department's weekly EPA project reporting.
- Created electronic file systems, including the implementation of policy and training; performed regular quality assurance system inspections.
- Modified guidelines and monitored compliance for all processes associated with internal and external databases.