

ROBERT FRANCIS BREULT

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U.S. Citizen | Security Clearance: N/A | Veteran's Preference: N/A | Federal Status: GS-1315-14, 1/2011 – Present
ATL-2015-1340, Supervisory Hydrologist, GS-1315-15 (MP-MS) (Center Director)

PROFESSIONAL SUMMARY

Accomplished Associate Center Director for the New York Water Science Center (NYWSC) with a strong record of success managing Center operations while providing leadership, oversight and implementation of Center mission and program mission based on expertise gained during exemplary career with the US Geological Survey for more than 20 years. Earned Master of Science (MS) in Chemistry (Environmental Studies Option) from the University of Massachusetts and published more than 20 papers in peer-reviewed publications.

Demonstrate expertise overseeing professional, technical and support personnel, planning and scheduling work, encouraging diverse workforce, and maintaining workforce plans while directing, motivating, training, guiding, and supervising up to three Supervisory Hydrologists and 14 additional non-supervisory employees. Ensure quality of data and publications by means of reporting, reviewing, and approving publishing.

Increase and promote USGS programs as a key leader while building effective relationships with pertinent officials.

SELECTED ACCOMPLISHMENTS

LEADING CHANGE

- **Gained opportunity to fund NYWSC Science and Laboratory staff with a new, ~\$1 million funding stream from the NYSDEC to operate New York State's Ambient Water-Quality Network**, by developing the vision and plan, along with buy-in for a \$250,000 pilot program to demonstrate the Science Center's ability to be an effective, economic alternative to existing resources.
- **Developed vision to improve National Weather Service (NWS) flood forecasting and ability for emergency managers to plan and respond to floods with the expansion of the New York streamgauge network and subsequent creation of flood-inundation maps to maximize the benefits of the New York State Early Warning Weather Detection System (NYS Mesonet)** by observing relations between the weather station and nearby watersheds, by means of using and eventually increasing the number of streamgages across New York State.
- **Positioned New York to be prepared to address potential threat to water availability and water quality in the Appalachian Basin from Unconventional Oil and Gas exploration of Marcellus Shale before the New York General Assembly passed a fracking moratorium** by conducting aquifer mapping, investigating naturally occurring methane geological controls, and determining background water-quality conditions of rivers and streams most likely to be affected by UOG.

LEADING PEOPLE

- **Recognized for exceptional performance in effectively managing a diverse workforce** based on conducting supervisory/managerial duties in a timely manner, with respect for the needs of his employees and the center.
- **Achieved recognition as one of the best WSC in the USGS and the best in the Northeast Region, as evidenced by a 82% satisfaction score in the Federal Employee Viewpoint Survey (FEVS)** by means of holding regular staff meetings to dispel rumors and communicating information about what is going on at headquarters in Washington.

RESULTS DRIVEN

- **Enabled progress focused on the effects of climate change on streamflow statistics, with funding for an underfunded GS-15 level senior scientist**, by cooperating with the TNC and NYDOT and securing funding to develop an easy-to-use Graphical User Interface (GUI)-based program.
- **Turned around a imperiled project, New York NowCast, an interactive, web-based computer program to help beach managers identify potential human health threats at beaches, and rebuilt and repaired the floundering relationship with the cooperator** by gaining trust through intervening to develop an alternative plan, assembling a team, and developing a NowCast website which surpassed the US EPA and cooperator's expectations with added functionality, including an interactive map and estimated *E. coli* calculations by means of merging environment and climate data with information measured at each beach.

BUSINESS ACUMEN

- **Improved ability to make operational and management decisions where to send field personnel to make discharge measurements and site visits** by developing vision, gaining buy-in, and then developing and implementing the plan for leading staff to develop the Go2 Mapper, a web-based graphical mapping program and display augmenting the Go2 email program, to prioritize responses to the most severe warnings based on map colors, with additional information based National Weather Service (NWS) radar images and location of personnel and stations.

- **Improved management of the NYWSC fiscal, staff, and knowledge resources** by conceptualizing and implementing a New York Relational Database and maintaining the Data Network Database (DIPRS) to track the more than \$6 million annual data network particulars and financials.

BUILDING COALITIONS | COMMUNICATIONS

- **Lauded for supporting existing programs and building new programs** by creating and fostering long-standing relationships with local, state, and federal agencies, including New York State Energy Research and Development Authority (NYSEDRA), The Nature Conservancy (TNC), New York City Department of Environmental Protection (NYCDEP), New York State Department of Transportation (NYSDOT), Federal Emergency Management Agency (FEMA), and New York State Department of Environmental Protection (NYSDEC).
- **Kept the public and USGS upper management informed on NYWSC “good work”** by preparing written reports, including a biannual newsletter, a Key Products report, and program review, along with reengineering the WSC webpage and championing the use of new technology critical to the organization’s programs, such as social media, to disseminate and scientifically interpret data.

PROFESSIONAL EXPERIENCE

Associate Director New York Water Science Center, GS-1315-14

1/2011 – Present

U.S. Geological Survey (USGS), New York Water Science Center (NYWSC) | 425 Jordan Road | Troy, NY 12180
40 hours/week | Salary: \$99,913/year | Supervisor: Ward Freeman, 518-285-5665, may contact

Ensure effective management, development, and supervision of water-resource and watershed process projects and personnel within the Center by enabling management of Center operations by means of directly leading, mentoring, guiding, and overseeing professional, technical, and support personnel, including three Supervisory Hydrologists and 14 additional non-supervisory employees, and overseeing a \$15 million budget as Chief of the Watershed Research Section and full deputy to the Center Director. Serve as Acting Director in the absence of the Director.

PROGRAM / PROJECT MANAGEMENT | BUSINESS ACUMEN: Provide leadership, oversight and implementation of the Center mission to be the principal provider of hydrologic and related environmental science data and information essential to protecting and managing the state’s water resources by coordinating all program development activities. Formulate operational policies, plan, develop, and maintain a program of hydrologic investigations, data collection and analysis, and research in New York State, including cooperative programs with other federal, state, and local government agencies. Establish long-range and short-term program goals and scientific priorities that integrate organizational priorities.

Plan, develop, and maintain NYWSC water-resources investigation programs for continuing interpretation of this varying natural resource in cooperation with state, local, and other Federal agencies. Lead conduct of investigations with results having significant effects over a wide region of the United States. Assess need for policy or procedural changes and provide advice to executive leadership to improve the effectiveness and responsiveness of regional science programs involving multiple field installations and external organizations.

Develop and promote the NYWSC Strategic Plan to implement procedures, provide support, build and maintain technical capabilities, encourage participation, and improve a WSC culture focused on customer support and high-quality products with the goal of increased customer satisfaction and ultimately increased program opportunities. Secure funding and produce results of scientific studies by working with internal program coordinators, team managers, and outside funding agencies.

Ensure the cost-effective completion of assigned research goals, including current and future needs, by developing budget allocations and guiding program expenditures. Advocate for needed resources and other requirements, including increased internet speeds, equipment and supplies to reduce initial streamgage startup costs, holding conferences and training, and the development of software to integrate metadata. Evaluate budget costs, ensuring customers receive the best possible data at the best possible price by means of maintaining the budget relational database and facilitating a network cost evaluation by leading a team to evaluate more than 100 services to customers, including labor costs; equipment, repair, and rental costs; data management costs; supervision costs; and other miscellaneous costs.

Review project proposals to determine their technical feasibility, budgetary adequacy, and consistency with WSC objectives. Prepare final recommendations for new work. Determine if work is directed toward objectives and adherence to time schedule by overseeing ongoing project progress and data collection activities. Maintain workforce plans, including using Capability Teams (CT) to improve and facilitate scientist-to-scientist discussions across organizational and disciplinary boundaries.

Ensure execution of operational programs by identifying facility, equipment, and material needs to ensure the execution of operations programs. Allocate available personnel throughout the WSC for significant hydrologic events and for scheduled personnel-intensive efforts by collaborating with other WSC Managers.

ORGANIZATIONAL MANAGEMENT: Manage operations supporting water resources and watershed programs and projects.

HYDROLOGIC SURVEILLANCE AND INVESTIGATIONS UNIT: Enable operation and maintenance of more than 300 surface water and 650 groundwater monitoring stations across New York state by leading, mentoring, and guiding supervisor using the latest technology while implementing data-collection methods and standards established by the USGS, recognized globally as the gold-standard in hydrologic monitoring.

HUDSON RIVER BASIN NATIONAL WATER-QUALITY ASSESSMENT (NAWQA): Enabled documentation of water quality in New York State hydrologic settings by leading the New York Water Science Center (NYWSC) supervisor leading team collecting, processing, and presenting water-quality data and designing quality assurance and quality control plans for surveillance networks, which include routine sampling of groundwater, surface water, and bed sediment for a variety of constituents including nutrients, metals, trace organic contaminants, pesticides, and radiometric chemistry. Participate in various surveillance networks, including the USGS statewide groundwater sampling as part of the 305b program.

PRINCIPAL AQUIFER ANALYST (GLACIAL AQUIFER SYSTEM) - GROUNDWATER STATUS AND TRENDS TEAM: Coordinate collection of groundwater samples across the glacial aquifer system for the NAWQA program by directly supervising an employee to develop work plans and budgets for 26 states and ensure timely planned sample collection and submission. Ensure each state's budget meets NAWQA targets by leading employee to work with the NAWQA team.

INFORMATION MANAGEMENT UNIT | GEOSPATIAL INFORMATION SYSTEMS (GIS) AND DIGITAL METHODS DEVELOPMENT: Ensure support for computer-based tools to interpret results from hydrologic studies, quantify basin characteristics for use in statistical and regression analyses, and communicate project results by directing supervisor leading teams maintaining computer and phone networks and developing geospatial applications. Directly supervise a computer specialist in a support role providing web design and computer backups.

WATERSHED RESEARCH UNIT: Enable Watershed Research by leading a seven-person section conducting ongoing studies in the Catskill Mountain and Adirondack Mountain regions, other sites and areas in eastern New York and selected areas across the northeastern United States. Enable watershed approach-based research founding the backbone of many studies involving quantifying the fluxes of water (watershed hydrology), chemical elements, and energy into and out of a unit of landscape that can be defined by topographic boundaries by enabling specific process-level studies of soil chemistry, ground-water chemistry, ground-water flow, microbial ecology, and vegetation.

Enable staff to produce high-quality, innovative biogeochemical and hydrologic studies of forested, agricultural, and suburban watersheds and aquifers with results communicated to cooperators, funding agencies, the general public, and other scientists by making oral presentations at meetings and professional conferences and publishing results in peer-reviewed journals, USGS reports, and fact sheets. Lead staff to conduct environmental studies of interest to the group, including the effects of acid precipitation, climate change, and landscape disturbance on biogeochemical processes and terrestrial and aquatic ecosystem.

LOW-IONIC STRENGTH WATER-QUALITY LABORATORY: Provide accurate measurements of soil, water, non-agricultural soils, stream water, and lake water for hundreds of studies published in technical journals and agency reports by effectively managing a four-person staff operating a state-of-the-art chemical analysis laboratory. Lead staff to process samples and create customized data reports. Provide requestors Standard Operating Procedures (SOPs) and Quality Control Reports containing Quality Assurance / Quality Control (QA/QC) data.

Enable staff to provided needed data with a customized Laboratory Information Management System (LIMS) while using instrumentation, including ion chromatograph, inductively coupled plasma spectrophotometer, dissolved carbon analyzer, three flow-injection analyzers, carbon-nitrogen analyzer for soil, auto-titrator, turbidimeter, and spectrophotometer.

Support USGS and external agency studies, including studies with including the U.S. Environmental Protection Agency (EPA), New York State Department of Environmental Conservation, New York City Department of Environmental Protection, U.S. Forest Service, New York State Energy Research and Development Authority, and National Park Service.

Ensure quality control by participating in the USGS Standard Reference Sample program, Environment Canada's National Water Research Institute Ecosystem Inter-laboratory QA Program, and the Northeastern Soil Monitoring Cooperative Reference Soil Sample Exchange Program; receiving periodic audits from the U.S. EPA; and securing certification from the New York State Department of Health's Environmental Laboratory Approval Program (ELAP).

RESULTS DRIVEN: Ensure the technical acceptability of the projects of all research, systems analyses, and data investigations including the adequacy of project scope and accuracy of results. Coordinate regional science issues, evaluate multidisciplinary regional science efforts, and identify program building opportunities.

Direct the preparation and writing of technical reports describing projects results by setting standards for technical excellence and quality. Ensure staff complies with Fundamental Science Practice (FSP) by insisting scientists and technicians participate in in-house reviews of data, proposals, and projects; Water Science Field Team proposal reviews; and Technical Office data and project reviews with Office of Surface Water (OSW), Office of Groundwater (OGW), and Office of Water Quality (OQW).

Ensure high-quality data, reports, and publications in top journals by ensuring supervisors, specialists, and the Bureau Approving Official review all manuscripts. Sought after for advice and counsel on investigations involving highly unstructured problems involving both difficult technology and complex human relations or programmatic issues.

LEADING PEOPLE: Function as a line supervisor for a large, complex, multi-layered workforce of widely varying occupations and knowledge levels. Conduct workforce planning, analysis of staff capabilities, and expertise in relation to future growth areas, and all aspects of personnel management. Assign and review work and perform necessary administrative and personnel management functions.

Plan, schedule, and direct the work in order to obtain essential field data and accomplish program objectives. Coordinate activities of the WSC, including the exchange of personnel to handle fluctuating workloads in data collection and analysis, and implement employee career training and development. Develop and mentor staff to meet current and future staffing needs through mentoring and training staff by the use of an effective career development program.

Maintain productivity, quality, and morale of a highly diverse and dynamic multi-disciplinary organization during changes in deadlines, requirements/specifications, budget/staff resources, management philosophy, organizational structure, and legal and policy requirements.

Evaluate performance, providing feedback through using Performance Appraisal Plans, with coaching, mentoring, and management for improvement. Motivate, discipline, and reward staff, including issuing cash and time-off awards. Resolve internal personnel problems. Follow all diversity and Equal Employment Opportunity (EEO) requirements.

BUILDING COALITIONS | COMMUNICATIONS: Promote customer satisfaction and excellent customer service with cooperators and stakeholders by means of regular honest communication; participating in their initiatives, workgroups, and meetings; and being as helpful, enthusiastic, and friendly as possible. Achieve effective communications for each project by developing a Communication Plan detailing the frequency of communication with cooperators, the form that communication takes, the milestones of the project that must be communicated, and the products.

Promote and maintain close liaison with, providing advice to, and negotiating with state, local, and other federal agencies; Northeast Region leadership; tribal governments; and Canadian agencies responsible for the development, utilization, and control of water resources for cooperative water-resources investigations and research activities. Advise the Center Director on all phases of the program in the WSC. Plan and develop WSC programs by means of collaborating with the Center Director and other WSC managers. Provide leadership to ensure the priorities and goals of the organization stay abreast of national policies, changing conditions, and other influences that may affect organizational programs at the local, regional, and national levels.

Participate in meetings and cooperate with members of other offices of the USGS, colleges and universities, industrial organizations, other Federal and State agencies, private consultations, and local professional societies to obtain and exchange information necessary for programs. As a leading Scientist in the USGS, attend National and international scientific and technical meetings, symposia, and conferences to present lectures as requested and to represent the USGS in general. Present scientific results in a clear, concise, and logical fashion in written reports and scientific papers, and orally at meetings and public forums.

Promote USGS programs actively by creating Fact Sheets, Newsletters, and display panels and handouts at professional meetings and outreach events. Increase visibility of USGS programs by using the website and social media, including Twitter and Facebook. Considered the "go-to person" in the office for disseminating complex information in a comprehensible format.

TECHNICAL EXPERTISE | RESEARCH | RECOGNITION: Conduct personal technical research and publish results in a variety of sources, including professional journals. Report and review publishing based on technical expertise with more than 20 years of experience writing and reviewing peer-reviewed journals and USGS publications. Review all documents produced by the Water Research Section to determine readiness for peer review and if a manuscript could be considered influential or highly influential scientific information for the Office of Management and Budget (OMB) Peer Review Agenda process.

Accomplishments:

LEADING CHANGE

- **Gained opportunity to fund NYWSC Science and Laboratory staff with a new, ~\$1 million funding stream from the NYSDEC to operate New York State's Ambient Water-Quality Network**, by developing the vision and plan, along with buy-in for a \$250,000 pilot program to demonstrate the Science Center's ability to be an effective, economic alternative to existing resources.
 - **Supported NYSDEC Rotating Intensive Basin program (RIBs) and Clean Water Planning initiative, supporting U.S. EPA requirements for the NYSDEC to overseeing state ambient water quality at pre-determined, fixed location supplemented by intensive water quality sampling locations collected from drainage basins rotating every 5 years, along with requirements for New York State to develop Total Maximum Daily Loads (TMDLs)**

- for state waters failing to meet their intended use by proposing USGS to collect and analyze water quality samples and streamflow.
- o **Gained buy-in to prove concept** by proposing, developing, and beginning implementation of a \$250,000 pilot plan to demonstrate ability of the NYWSC Science and Laboratory staff to economically collect, analyze, and enter high-quality data second to none by collecting water-quality samples and streamflow for the Mohawk River Basin RIBs scheduled for 2016.
- o **Garnered interest in the program** by planting seed with the NYSDEC Biomonitoring Group Section Chief of NYWSC laboratory's abilities during social engagements, continuing over a year period to further concept with the chief, demonstrating concrete examples why the USGS would be the best location for sampling, and developing the budget requirements for the pilot by directing staff to work on the proposal.
- **Developed vision to improve National Weather Service (NWS) flood forecasting and ability for emergency managers to plan and respond to floods with the expansion of the New York streamgauge network and subsequent creation of flood-inundation maps to maximize the benefits of the New York State Early Warning Weather Detection System (NYS Mesonet)** by observing relations between the weather station and nearby watersheds, by means of using and eventually increasing the number of streamgages across New York State.
 - o **Created vision which could increase USGS funding for streamgages (\$15,000 each) while enabling communities to know about the severity of imminent floods in advance**, by developing vision for a 2-stage program, first expanding the USGS streamgauge network to include stations proximal to NYS Mesonet stations and then creating flood-inundation maps for communities where streamgages would be located.
 - o **Support the USGS science strategy for National Program to Assess Hazards, Risk, and Resiliency** by developing vision for expanding the database for forecasting floods and communicating hazard assessments to local audiences by means of the flood-inundation maps.
 - o **Developed additional vision to bring in more streamgages without increasing overhead**, which will allow additional projects to be brought into the Science Center due to lower operating costs if program is approved.
 - o **Garnered invitation for the USGS to make a proposal for the program** by meeting with the Acting NYSDEC Commissioner at a local meeting and advocating for the project.
 - o **Created proposal** by supervising staff to draft the proposal.
- **Positioned New York to be prepared to address potential threat to water availability and water quality in the Appalachian Basin from Unconventional Oil and Gas exploration of Marcellus Shale before the New York General Assembly passed a fracking moratorium** by conducting aquifer mapping, investigating naturally occurring methane geological controls, and determining background water-quality conditions of rivers and streams most likely to be affected by UOG.
- **Improved morale and positioned organization to maintain productivity during cuts in the science and laboratory budgets (the first for the NYWSC in decades)** by reviewing the situation, then developing, advocating for, gaining buy-in for, and implementing a major change for Principle Investigators to maintain their own budgets and instituting budget reviews three times per year while remaining positive the budget cuts were only temporary.

LEADING PEOPLE

- **Recognized for exceptional performance in effectively managing a diverse workforce** based on conducting supervisory/managerial duties in a timely manner, with respect for the needs of his employees and the center.
 - o **Protected employees** by stressing the priority personnel and workplace safety.
 - o **Noted for effectively using performance management** and completing timely performance reviews.
 - o **Lauded for ensuring managers follow USGS and NYWSC procedures.**
- **Achieved recognition as one of the best WSC in the USGS and the best in the Northeast Region, as evidenced by a 82% satisfaction score in the Federal Employee Viewpoint Survey (FEVS)** by holding regular staff meetings to dispel rumors and communicating information about what is going on at headquarters in Washington.
- **Turned around performance of underperforming staff, resulting in happier, more-productive employees**, by providing effective counsel, using internal management controls, and using effective performance management techniques.
- **Improved morale of the section after taking over position** by evaluating situation, determining a hydrologic technician's skills did not match the job requirements, and transferring the person into a position more suited to their skill set.
- **Positioned organization for growth and increased information product production to 20+ peer-reviewed publications per year** by conducting workforce planning, including considering areas of growth and potential staff retirements, evaluating need for additional expertise, and then advocating for, securing funding for, and hiring two students assigned to scientists in growth areas.
- **Turned around the culture to be customer service oriented, increasing program opportunities**, by challenging supervisors to meet customer needs by implementing procedures, providing support, building and maintaining technical capabilities, encouraging participation, and improving a WSC culture focused on customer support and high-quality products for increased customer satisfaction.

RESULTS DRIVEN

- **Enabled progress focused on the effects of climate change on streamflow statistics, with funding for an underfunded GS-15 level senior scientist**, by cooperating with the TNC and NYDOT and securing funding to develop an easy-to-use Graphical User Interface (GUI)-based program (<http://ny.water.usgs.gov/maps/floodfreq-climate/>).
 - **Garnered needed funding** by developing the idea and proposal for the USGS to create a new model, to predict streamflow based on climate model precipitation predictions using existing non-linear equations describing the relationship among land-use, topography, precipitation, and streamflow.
 - **Overcame perceptions of the NYWSC of not being a major player in climate change science and inability for the senior scientist to secure funding** by presenting the proposal to TNC and NYDOT personnel.
 - **Increased impact of program after staff completed development of the tool** by proposing a follow-up, Development of a Web-Based Application that Provides Estimates of the Expected Magnitudes of Floods in New York in the 21st Century.
- **Turned around a imperiled project, New York NowCast, an interactive, web-based computer program to help beach managers identify potential human health threats at beaches, and rebuilt and repaired the floundering relationship with the cooperater** by gaining trust through intervening to develop an alternative plan, assembling a team, and developing a NowCast website which surpassed the US EPA and cooperater's expectations with added functionality, including an interactive map and estimated *E. coli* calculations via merging environment and climate data with information measured at each beach (<http://ny.water.usgs.gov/maps/nowcast/>).
- **Saved the NYWSC \$20,000/year** by developing vision for, gaining buy-in for, and leading developers to create the \$10,000 Hydrologic Conditions Mapper to enable staff to efficiency synthesize and summarize New York streamflows and groundwater levels visually monthly and seasonally (<http://ny.water.usgs.gov/projects/eom/>)
- **Drove customer service and ensured on-time, technically sound projects** by improving efficiency, quality, and timeliness by coordinating and participating in all project reviews, working effectively with project chiefs and supervisors, and encouraging and facilitating training to improve data collection, interpretation, and presentation of final results, including r-statistical training for scientists.

BUSINESS ACUMEN

- **Improved ability to make operational and management decisions where to send field personnel to make discharge measurements and site visits** by developing vision, gaining buy-in, and then developing and implementing the plan for leading staff to develop the Go2 Mapper, a web-based graphical mapping program and display augmenting the Go2 email program, to prioritize responses to the most severe warnings based on map colors, with additional information based National Weather Service (NWS) radar images and location of personnel and stations (<http://ny.water.usgs.gov/maps/go2/>).
 - **Implemented application** by supervising staff to develop server side and map setup using Javascript, the WSC Sun Server, the USGS Web Server, map customization, and app installation on smartphones for GPS tracking.
- **Increased accuracy of projected budget and expenditures significantly, with the ability to recognize problems prior to them becoming a crisis**, by implementing regular budget reviews with supervisors and project chiefs.
 - Maintained NYWSC fiscal health and streamlined closeout by participating in budget reviews and educating project and program office chiefs about fiscal practices and policies.
- **Improved management of the NYWSC fiscal, staff, and knowledge resources** by conceptualizing and implementing a New York Relational Database and maintaining the Data Network Database (DIPRS) to track the more than \$6 million annual data network particulars and financials.
- **Ensured program cost effectiveness and efficiency** by determining the cost for NYWSC Data Section services, including the cost to maintain and operate a continuously recording stream-gage.
- **Improved staff and resource management during a time of shrinking budgets** by proposing and supporting improvements with advice to the Director based on fully using performance management tools and counseling staff on performance issues.
- **Boosted NYWSC program accessibility, Human Resources (HR) utilization, technology transfer, and internal and external communication** by providing vision for, developing, and implementing new strategic science and workforce plans
- **Enhanced ability for the NYWSC to develop programs and grow strategically** by developing vision and advocating with senior management for the Center Director to directly control \$2 million in Federal Matching Funds (FMF) directly, rather than using the funds for a Water-Use Specialist salary and doling out FMFs to each section/office.
- **Ensured continuation of streamgage program, with no cuts even during severe budget cuts from the loss of earmarks**, by collaborating with the Center Director to develop creative solutions.

BUILDING COALITIONS | COMMUNICATIONS

- **Lauded for supporting existing programs and building new programs** by creating and fostering long-standing relationships with local, state, and federal agencies, including New York State Energy Research and Development Authority (NYSEDRA), The Nature Conservancy (TNC), New York City Department of Environmental Protection

- (NYCDEP), New York State Department of Transportation (NYSDOT), Federal Emergency Management Agency (FEMA), and New York State Department of Environmental Protection (NYSDEC).
- **Guided existing programs and garnered buy-in to build new programs**, including evaluation of historic record for the Esopus Creek removing the impacts of the Ashokan reservoir, water volume assessment of west-of-Hudson reservoirs for NYC, evaluation of the impacts of climate change on streamflow using StreamStats, and continued sediment monitoring work in the Esopus by building strong relationships with partners and cooperators.
 - **Maintained relationships with long-term, major cooperators**, including the NYCDEP, by coordinating meetings.
 - **Identified potential new cooperators** by making presentations to various groups, including a presentation to the insurance industry on the importance of streamgage information to reduce flood damage costs.
 - **Enhanced NYWSC and USGS reputation** by participating in numerous meetings, including World Bank, Mohawk R. Symposium, Floodplain Managers Meeting, UAlbany Climate Change Workshop, and NWS Emergency Manager's Meeting.
 - **Kept the public and USGS upper management informed on NYWSC "good work"** by preparing written reports, including a biannual newsletter, a Key Products report, and "Center Health" review, along with reengineering the WSC webpage and championing the use of new technology critical to the organization's programs, such as social media, to disseminate and scientifically interpret data.
 - **Lauded for preparing and presenting the "best ever" technical section of the NYWSC Center Health Review to the Northeast Leadership Team.**
 - **Facilitated development of proposals to respond to the White House's redirection of Eastern Geology and Paleoclimate Science Center funding** by working with the NYWSC Groundwater Specialist, Northeast Region, and USGS Hazards Mission Area to develop proposals.
 - **Enabled authors to meet USGS requirements** by drafting Policy Memo No. 68, Revised Publications Process, which is a step-by-step guide on reporting, reviewing, and approving procedure (http://ny.water.usgs.gov/district/policymemos/NY68_PubProc.pdf)
 - **Secured approval for the NYSDEC-USGS Workplan and the NYWSC-NYSDEC 5-year agreement** by effectively working with state cooperators (customers) in the field of water resources by interacting daily with NYSDEC staff, the Division of Water Director, and Bureau Directors; directing staff to make proposals; reviewing proposals; and building relationships during meetings.

Deputy Director, GS-1315-13

10/2006 - 1/2011

U.S. Geological Survey, Massachusetts-Rhode Island (MA-RI) Water Science Center

47 Albion Road | Lincoln, RI 02865

40 hours/week | Salary: \$84,257/year | Supervisor: Wayne Sonntag (retired), 508-490-5000, may contact

Enabled discovery and resolution of water-related quality, quantity, and availability issues in Rhode Island for the MA-RI WSC by leading, mentoring, and guiding ten Hydrologists and ten Hydrographers (Hydrotechs) to gather data from gaging stations, groundwater wells, and water-quality monitoring stations and apply scientific and mathematical principles, along with overseeing up to a \$1.5 million budget.

BUSINESS ACUMEN: Oversaw the annual budget, including developing and recommending annual expenses to the Director and ensuring effective operations of the RI program. Ensured operational program execution by identifying and securing facility, equipment, and material requirements.

HYDROLOGIC INVESTIGATIONS: Provided continuing interpretation of hydrological conditions in cooperation with local and other governmental agencies by planning, developing, and maintaining Rhode Island water-resources investigation programs.

Determined and met RI hydrologic data needs after defining potential water problems by developing study proposals and scheduling data collection. Ensured quality data, scope accuracy, result accuracy, and technical acceptability for all RI hydrologic scientific studies and data investigations by applying accepted standards and quality-assurance programs.

COMMUNICATIONS | BUILDING COALITIONS: Directed staff preparing and writing technical reports. Provided liaison and advice on water management and development problems to RI state officials who developed and controlled water resources.

LEADING PEOPLE: Scheduled and assigned work to scientific staff, including hydrologists, geologists, biologists, engineers, chemists, physical scientist, and technical personnel. Evaluated performance, providing feedback for improvement. Trained and mentored staff with an effective career development program to meet current and future staffing needs. Disciplined and rewarded staff. Resolved internal personnel problems. Followed all Equal Employment Opportunity (EEO) requirements.

Accomplishments:**LEADING CHANGE**

- **Enabled the Massachusetts Department of Environmental Protection and the US EPA to determine the Principle Responsible Party for Polychlorinated Biphenyl (PCB) contamination in the Lower Neponset River, a tributary to Boston Harbor**, by using innovative field, laboratory, and statistical techniques, including deployment of Passive In-Situ Concentration Extraction Sampler (PISCES), automatic, flow-proportional water-quality samples, PCB-congener specific chemical analysis, and an innovative statistical analysis of PCB-congener data to identify PCB-source areas from areas of reductive dechlorination.
 - Issued published report, Concentrations, loads, and sources of polychlorinated biphenyls, Neponset River and Neponset River Estuary, eastern Massachusetts, based on successful research.

LEADING PEOPLE

- **Turned around operations, saving the government ~\$350,000 per year**, by leading change upon accepting a temporary assignment to take over position of Data Chief after a finding of fraud, misuse of government funds, and falsification of data.
- **Enabled an influx of new talent into the Science Center, with almost overnight improvement in morale and excitement**, by collaborating with the Human Resources Specialist and following all relevant policies to reassign staff, including one employee transferring to the Army Corps of Engineers, two employees transferred to other organizations, two employees resigning, and two employees retiring.

RESULTS DRIVEN

- **Improved relationships among the USGS and Rhode Island cooperators and customers after taking over program in 2006** by transforming operations.
 - **Developed and implemented a strategic vision and plan to overhaul operations** based on meeting with cooperators threatening to leave the program by working closely with USGS hydrologists to facilitate completion of eight late reports and establish realistic timelines for the three remaining on-going projects.
 - **Succeeded in publishing all late reports and completing remaining projects.**
 - **Rebuilt trust** by putting in place a program to no longer fall behind in the reports and deftly collaborating and interacting with key stakeholders, including Rhode Island Water-Resources Board (RIWRB), Scituate Water, Rhode Island Department of Environmental Management (RIDEM), Rhode Island Department of Health (RIDOH), and State and Federal representatives, including the Governor, State legislators, and, on occasion, US Congressional Representatives.
- **Protected Rhode Island's population receiving drinking water from the Scituate Reservoir** by transforming a mismanaged program with the cooperator threatening to drop the program by working closely with USGS hydrologists to complete all late reports, establishing realistic timelines, and developing an expanded program including long-term monitoring and analysis of tributary water quality and trends.

BUSINESS ACUMEN

- **Secured ~\$750,000 funding for a USGS investigation to improve understanding of the interaction between groundwater and surface water in Rhode Island wetland systems by examining field methods and subregional modeling with a focus on the Big River water supply protection area** by delivering overdue projects and regaining the cooperator's trust and then presenting the study to the cooperator.
- Ensured proper project tracking by properly reviewing all projects, entering data into the IPDS for tracking purposes, and completing and distributing all reports by the end of the project.

BUILDING COALITIONS

- **Enabled Director and USGS to respond to the states' changing and unclear needs, even with USGS underfunded**, by participating in meetings and conversations, ascertaining the needs based on thorough knowledge of the cooperating agencies' strategic plans, and incorporating this information into long-term and short-term planning exercises with the Director and senior staff.
- **Allowed resolution of a disagreement between Massachusetts and Rhode Island on the amount of nitrogen discharging from Massachusetts into Rhode Island** by providing unbiased, objective, and impartial scientific information on the total nitrogen, total phosphorous, and trace elements near the Upper Blackstone Treatment Plant, on the Blackstone River in Millville near the MI-RI border, and at the downstream Pawtucket monitoring station.
 - **Determined nitrogen, total phosphorous, and trace metal levels lower at border than downstream** demonstrating the nitrogen assimilative capacity of the Blackstone River.

Hydrologist, GS-1315-12

10/2000 - 10/2006

U.S. Geological Survey, Massachusetts-Rhode Island (MA-RI) Water Science Center (WSC)

10 Bearfoot Road | Northborough, MA 01532

40 hours/week | Salary: \$51,989/year | Supervisor: Marcus C. Waldron (retired), 508-490-5000, may contact

Defined, analyzed, forecasted, and described natural and human-induced hydrologic changes in area by planning, directing, and carrying out as a project leader or interdisciplinary team member for complex scientific studies and significant components of very large studies.

HYDROLOGIC STUDIES: Conducted investigations in various areas including hydrology of ground-water and surface-water systems and the water quality of those systems, the hydrologic and water-quality effects of urbanization, the processes governing the transport and transformation of chemical contaminants and pathogens, and the design and execution of complex sampling, monitoring, and quality-assurance programs by applying mature professional judgement and advanced analytical methods. Produced results which served as authoritative references for water managers and the basis for water-resources decisions with significant impact on life, property, regional economics, and the environment.

Identified, clarified, defined, and expressed diffuse and obscure hydrologic problems and needs by using the insight gained from extensive knowledge and experience. Prepared investigative project proposals and developed work plans and protocols which included consideration of previous experimental and theoretical analyses, evaluation of all available data from various sources, and the development and adaptation of procedures and methods of investigation.

Met project objectives with valid and reliable results by determining the overall nature, scope, and approach for water-resources investigations that most effectively addressed identified hydrologic problems and needs by evaluating and determining alternative approaches, data-collection methods, and analytical procedures. Performed special hydrologic data collection, processing, and interpretative activities. Operated a government vehicle.

BUILDING COALITIONS: Consulted with and advised supervisors and other scientists on technical information. Obtained and exchanged information by participating in meetings and collaborating with other Water Resources Division (WRD) members, and personnel from colleges, universities, industrial organizations, federal and state agencies, private consultants, and professional societies. Represented the Director at meetings. Prepared replies for information requests.

Served as principal contact with cooperating agencies in the identification, design, planning, and conduct of water-resources investigations. Reconciled differences of opinion by conducting and participating in periodic meetings with cooperating officials and using persuasion to gain consensus in project objectives, scope, approach, results, and conclusions of water-resource investigations and selected elements of such investigations.

WRITTEN COMMUNICATIONS: Wrote clear, timely, and authoritative interpretive technical articles and reports that documented the objectives, scope, approach, results, and conclusions of water-resource investigations and selected elements of such investigations. Ensured publication of high quality, technically sound reports by critically reviewing reports written by other colleagues.

LEADING PEOPLE: Trained inexperienced personnel on data collection and analysis techniques. Assigned and directed work of lower-grade professionals and technical support personnel to establish techniques for, collect, and interpret hydrologic, geologic, and water-quality data and geophysical techniques. Followed all diversity and Equal Employment Opportunity (EEO) requirements.

KNOWLEDGE: Maintained an awareness of new concepts, approaches, and methodologies relevant to hydrology and modifies and applies new developments, as appropriate, to achieve project goals.

Accomplishments:**GENERAL LEADERSHIP**

- **Sought after for “guidance and expert advice on all aspects of sediment and urban hydrology work” as one of the “most important contributors here in MA-RI.”**
- **Lauded for “excellent performance and productivity”** with 5 reports completed and “super dedication to high quality work and cooperators’ needs” in 2004.
- **Noted for managing 2 complex projects in 2005** by providing management of field work, analysis, and modeling.
- **Recognized for processing the equivalent of 2 seasons of data collection in just one year** by driving collecting and processing sediment cores, an extremely challenging process.

RESULTS DRIVEN | RESEARCH EXPERTISE | BUSINESS ACUMEN | BUILDING COALITIONS

- **Secured more than \$1 million funding for the WSC and enabled a decade-long study of contaminated sediment possibly posing a threat to fish, wildlife, and human health** by developing a sustained partnership program with various agencies, including the Environmental Protection Agency, Massachusetts Department of Environmental Protection, and Massachusetts Executive Office of Environmental Affairs Department of Fish and Game Riverways

Program; collecting and chemically analyzing bottom-sediment samples per USGS methods; interpreting results; and publishing USGS reports.

- **Supported the Clean Charles 2005 Initiative, a regional, high-priority, initiative to restore environmental quality of the Charles River watershed after human activity profoundly altered it over 375 years** by serving as a Principle Investigator to provide key data to define the streamflow, water-quality, fish communities, and river system habitats, along with potential restoration alternative benefits.
 - **Secured more than \$1 million for the WSC** by partnering with the U.S. Environmental Protection Agency (EPA) and Massachusetts Executive Office of Environmental Affairs (EOEA) to complete a series of scientific studies which included critical information concerning some of the major hydrologic and ecological concerns in the watershed (<http://pubs.usgs.gov/gip/2007/47/pdf/gip-47.pdf>).
- **Wrote numerous technically-sound project proposals** while doing an “outstanding job developing, leading, and maintaining short- and long-term programs with several state agencies which support critical state and USGS goals.”
- **Developed new methods using sophisticated statistical analysis to estimate loading rates and attenuation of nutrients in streams and reservoirs** by creating innovative data collection and scientific result interpretation approaches.
- **Lauded for clear communications from receive Joan Kimball, Director of the Riverways Program:** *You were clear as a bell on the most technical of issues...once again you showed that you were such an effective speaker...your expertise shines through as well as the careful thought that you put into your presentation of each aspect.*

Hydrologist, GS-1315-11

5/1998 - 10/2000

U.S. Geological Survey, Massachusetts-Rhode Island (MA-RI) Water Science Center

10 Bearfoot Road 01532 | Northborough, MA

40 hours/week | Salary: \$39,761/year | Supervisor: Peter Weiskel, 508-490-5026, may contact

Facilitated complete hydrologic investigations as a Project Chief or senior project member by planning, conducting, and reporting on interpretive studies requiring modification of established techniques and procedures and extensive collection, interpretation, analysis, and evaluation of hydrologic data.

HYDROLOGIC INVESTIGATIONS: Conducted investigations in various areas including hydrology of ground-water and surface-water systems and the water quality of those systems. Operated a motor vehicle.

BUSINESS ACUMEN: Ensured immediate and long-range study objectives and plans did not conflict with the overall water-resources management program by coordinating, scheduling, and establishing priorities.

BUILDING COALITIONS: Implemented hydrologic studies by discussing agreements, study methods, approach, techniques, and desired results with management and representatives of cooperative agencies. Developed comprehensive and scientifically sound reports used for comprehensive water-resource management decision-making by reconciling approach and scope study objective differences.

Defended recommendations for initiation of new projects to higher level management.

Maintained liaison with federal and state government employees, local officials, and private organizations interested in water-resource management practices and problems in the regional area. Provided technical advice and information on water-resource problems.

WRITTEN COMMUNICATIONS: Prepared reports of findings for complete hydrologic interpretive studies by summarizing the results of hydrologic investigations. Technically reviewed parts of reports prepared by project team members.

Developed project proposals or descriptions which summarized critical information on the objective, approach, funding, and expected results of proposed investigations.

KNOWLEDGE: Maintained a high level of competence in water-quality sampling, a working competence in surface water and groundwater hydrology and geophysics, and an awareness of new technological developments in earth science.

Accomplishments:

- **Completed a study on the Distribution and Transport of Total Mercury and Methylmercury in Mercury-Contaminated Sediments in Reservoirs and Wetlands of the Sudbury River, East-Central Massachusetts** by collecting samples representative of constituent concentrations and paying attention to detail to effectively sample for mercury at sub-nanogram per liter concentrations.
 - **Evaluated and found low mean-mercury concentrations in blanks, 135 ng L-1 for total mercury (Σ Hg) and 0.0086 ng L-1 for monomethyl mercury (MeHg),** by cleaning and testing an all-Teflon isokinetic sampler (DH-81) by means of using blank, split, and replicate samples to assess systematic and random sample contamination by mercury species.
 - **Determined no measureable contamination occurred during sampling** by finding low field blank concentrations and statistically equal duplicate and split-sample Mean Square Error (MSE) values.

Hydrologist, GS-1315-09

8/1996 - 5/1998

U.S. Geological Survey, Massachusetts-Rhode Island (MA-RI) Water Science Center

10 Bearfoot Road | Northborough, MA 01532

40 hours/week | Salary: \$33,958/year | Supervisor: Forest Lyford (retired), 508-490-5000, may contact

Planned, conducted, and reported on parts of hydrologic interpretive studies by means of using established techniques and conventional methods of investigation.

HYDROLOGY: Collected and analyzed groundwater, surface water, and water-quality hydrologic data, determining apparent reasons for data anomalies, and correlating relevant factors. Operated a motor vehicle.

KNOWLEDGE: Maintained an awareness and understanding of the latest state-of-the-art techniques, instrumentation, and technology applicable to the conduct of hydrologic studies and data collection/analysis activities, and interpreting hydrologic information.

LEADING PEOPLE: Enabled hydrologic information collection and analysis by directing project team member work, including technicians and lower-grade scientists.

BUILDING COALITIONS: Obtained data and information necessary for the conduct of hydrologic studies by contacting government, state, and local agencies. Secured land-holder permissions for access to study sites by contacting private citizens.

WRITTEN COMMUNICATIONS: Prepared reports of findings for assigned parts of interpretive studies by summarizing the results of hydrologic investigations. Enabled development of project proposals and description by summarizing critical information on the objective, approach, funding, and expected results of proposed investigations.

Accomplishment:

- Enabled the Army Corps of Engineers and other consultants to restore the Muddy River in downtown Boston, MA by collaborating with the Publications Unit and producing a map plate showing the Muddy River channel morphology and streambed sediment quality and thickness.
 - Lauded by Army Corps of Engineers for producing an excellent map.

Student Trainee (Hydrologist), GS-1315-07

7/1993 - 8/1996

U.S. Geological Survey, Massachusetts-Rhode Island (MA-RI) Water Science Center

28 Lord Road | Marlborough, MA 01752

40 hours/week | Salary: \$22,717/year | Supervisor: John Colman, 508-490-5027, may contact

Enabled higher level hydrologists to conduct hydrologic studies by collecting hydrologic data in the field, recording, analyzing, and interpreting hydrologic data, researching records, compiling statistical data, and preparing and editing portions of the hydrologic report.

HYDROLOGY: Collected hydrologic data by using a variety of methods and equipment, including government vehicles. Measured the discharge of streams having a variety of depth and flow conditions. Measured water levels in observation wells. Enabled analysis of sediment concentration or chemical quality by collecting water samples.

REPORTING AND ANALYSIS: Enabled preparation for interpretive reports of hydrologic studies by writing portions of the reports and preparing hydrologic information, including maps, charts, and graphs.

Supported the scientific evaluation of hydrologic phenomena by computing, analyzing, and interpreting streamflow, water levels, sediment quality, and biological and chemical quality records.

Accomplishments:

- Discovered calcium can possibly block trace metal toxicity through several means, including competition with trace metals for binding on biological membrane surfaces by conducting a complex laboratory and field investigation.
 - Peer-reviewed results published in 1996, Copper Speciation and Binding by Organic Matter in Copper-Contaminated Streamwater, in Environmental Science and Technology based on research on the importance of binding of trace metal ions by dissolved organic matter in aquatic environments for controlling the chemical speciation and bioavailability and toxicity of trace metals.
 - Demonstrated the regulatory significance for the Environmental Protection Agency (EPA) which currently then regulated calcium and magnesium only based on the direct toxic effects of these elements, rather than their ability to possibly reduce toxicity due to blocking trace metal toxicity.
- Received a time-off award for doing an outstanding job completing geophysical logging during extremely inclement weather conditions.

Port Security Man, E-4

6/1991 - 6/1998

U.S. Coast Guard Station Merrimack River | 65 Water Street | Newburyport, MA 01950

10 hours/week | Salary: Approximately \$100/month | Supervisor: Warrant Officer, 978-462-3428, may contact

BOATSWAIN'S MATE (BM): Enabled the Coast Guard to conduct search and rescue, aids to navigation, law enforcement, and security operations missions by maintaining decks, operating small boats, and navigating boats, as a key member of the Coast Guard's Operational Team and master of seamanship. Demonstrated expertise in operating hoists, cranes, and winches to load cargo and set gangplanks; standing watch; and using knowledge of ropes and cables, including different uses, stresses, strains, and proper stowing.

BOARDING TEAM MEMBER: Enforced laws as a Law Enforcement Agent by using expertise in force and boarding procedures.

EMERGENCY MEDICAL TECHNICIAN (EMT): Saved lives by providing emergency medical care for Search and Rescue (SAR), Medical Evacuation (MEDEVAC) patients, service members, and other members of the public during authorized Coast Guard missions. Enhanced safety by providing first aid training to unit members. Ensured effective operations by providing radio and telephone-based advices and direction to on-scene first aid providers.

Accomplishments:

- **Demonstrated proficiency in seamanship, boat handling, and navigation while a team member on a small boat.**
- **Graduated in the top 10 during the 7-week EMT C-School based on final and practical exam performance.**

EDUCATION

- Master of Science (MS) in Chemistry (Environmental Studies Option) | University of Massachusetts | Lowell, MA 01854 | 6/1999 | 51 Semester Hours | 3.333/3.5 GPA
 - Coursework: Environmental Chemistry I and II | Advances Physical Chemistry for Environment Science | Advanced Analytical Chemistry | Structural Analysis | Physical and Chemical Hydrology | Physical Chemical Treatment
- Graduate Studies in Geology | Boston University | Boston, MA 01854 | 6/1994 | 12 Semester Hours | 3.67/4.0 GPA
 - Coursework: Groundwater Hydrogeology | Geochemistry of Groundwater | Geochemistry | Advanced Groundwater Hydrogeology
- Bachelor of Science (BS) in Environmental Science (Geology Option) | University of Massachusetts | Lowell, MA 01854 | 2/1993 | 145.5 Semester Hours | 3.053/3.791 GPA
 - Coursework: Chemistry I and II | College Writing I | Calculus I, II and III | Physics I and II | Computer Programing | Economics II | Organic Chemistry IA and IIA | Physical Geology | Environmental Geology | Principles of Biology I and II | Into to Environmental Science | Glacial and Pleistocene Geology | Sedimentation and Stratigraphy | Oceanography | Foundations of Conservation and Environmental Concern | Principles of Ecology | Minerology | Optical Minerology | Geomorphology | Geochemistry | Paleontology | Igneous and Metamorphic Geology | Structural Geology
- Undergraduate Studies in Biology | Salve Regina | Newport, RI 02840 | 3/1989 | 24 Semester Hours | 3.5/3.5 GPA
- High School Diploma | Bishop Guertin | Nashua, NH 03060 | 3/1987

TRAINING

- USGS Center Director Orientation | 6/2015 | 40 hours
- USGS Leadership 101 | 5/2014 | 40 hours
- Traffic Control Technician (Grant) | 11/2009 | 8 hours
- USGS Supervisory Challenge | 7/2007 | 40 hours
- 8 Hour HAZWOPER Refresher | 8/2003 | 8 hours
- 40 Hr. Hazardous Waste Training | 3/1998 | 40 hours
- Motorboat Operator Certification Course | 6/1995 | 40 hours
- Diversity Training | 11/2003 | 8 hours
- OSHA Confined Space Safety | 2/1999 | 8 hours
- Groundwater Hydrology | 12/1997 | 48 hours
- CPR/First Aid Training | 4/1997 and 6/1999 | 8 hours
- Access 7.0 Data Base Course for Windows 95 | 4/1997 | 16 hours
- Implementing Self-Directed Work Teams | 1/1995 | 8 hours
- Sexual Harassment Training | 12/1993 | 8 hours
- Defensive Driving Van Course | 8/1993 | 8 hours

AWARDS AND HONORS

USGS Awards and Honors

- Superior or higher rating in all performance evaluations during tenure in Federal government
- Performance/Based Cash Award: 12/12/2014, 1/10/2013, 12/18/2012, 12/3/2011, 11/21/2007
- Twenty Years of Service in the Government of the United States of America: 6/10/2012
- STAR Award: 4/14/2006, 10/5/2001, 4/5/2001, 4/28/1999, 9/26/1996
- Quality Step Increase: 12/29/2002
- Ten Years of Service in the Government of the United States of America: 6/10/2002
- On-The-Spot Award: 9/22/1997
- Time-Off Award: 3/28/1996, 1993
- Quality Step Increase: 8/6/1995

CERTIFICATIONS

- Adult First Aid/CPR/AED | American Red Cross | 01/05/2017
- Introduction to Incident Command System (IS-100.b) | USGS
- National Response Framework, an Introduction (IS-800.b) | USGS
- Incident Command System for Single Resources and Initial Action Incidents (IS-200.b) | USGS

JOB RELATED SKILLS

- **Computer:** Microsoft Office (Word, Excel, PowerPoint, Access), Adobe (Illustrator, Photoshop, XI Pro), R (Statistical Package), WordPress

OTHER INFORMATION

Memberships and Affiliations

- Capital District Pop Warner
 - Assistant Head Football Coach Saratoga Blue Streaks (2013)
 - Head Football Coach Saratoga Blue Streaks (2012)
- American Youth Football Association
 - Head Football Coach Keene Knights (2009): 2009 Semi-finals New Hampshire Division I State Champion
- American Youth Football Association
 - Assistant Head Football Coach Pelham-Windham Razorbacks (2006 - 2008): 2006 New Hampshire Division I State Champion and New England Regional Championship Runner-Up
- Independent Women's Football League
 - Head Football Coach New Hampshire Freedom (2004 - 2005): 2004 First winning season
- American Youth Football Association
 - Head Football Coach Pentucket Sachems (2004)
- New Hampshire Pop Warner
 - Head Football Coach Londonderry Panthers (2000 - 2003): 2000 New Hampshire Division II State Champion
 - Offensive Line Coach Londonderry Panthers (1997 - 1999)

Publications

- **Breault, R.F.**, Sorenson, J.R., and Weiskel, P.K., 2013, Estimated sediment thickness, quality, and toxicity to benthic organisms in selected impoundments in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2012-5191, 42 p.
- Borenstein, M.S., Golet, F.C., Armstrong, D.S., **Breault, R.F.**, McCobb, T.D., and Weiskel, P.K., 2012, Hydrologic, vegetation, and soil data collected in selected wetlands of the Big River Management area, Rhode Island, from 2008 through 2010: U.S. Geological Survey Data Series 666, 11 p. plus 9 figures and 16 tables.
- Parker, G.W., **Breault, R.F.**, Waite, A.M., and Hartman, Elaine, 2011, Time of travel and dispersion of a dye plume in the Blackstone River, Massachusetts and Rhode Island, 2009: U.S. Geological Survey Open-File Report 2011-1284, 13 p. Available by request only.
- **Breault, R.F.**, 2011, Concentrations, loads, and sources of polychlorinated biphenyls, Neponset River and Neponset River Estuary, eastern Massachusetts: U.S. Geological Survey Scientific Investigations Report 2011-5004, 143 p.

- Smith, K.P., and **Breault, R.F.**, 2011, Streamflow, water quality, and constituent loads and yields, Scituate Reservoir drainage area, Rhode Island, water year 2010: U.S. Geological Survey Open-File Report 2011–1076, 26 p.
- **Breault, R.F.**, and Campbell, J.P., 2010, Streamflow, water quality, and constituent loads and yields, Scituate Reservoir drainage area, Rhode Island, water year 2006: U.S. Geological Survey Open-File Report 2010–1046, 25 p.
- **Breault, R.F.**, and Campbell, J.P., 2010, Streamflow, water quality, and constituent loads and yields, Scituate Reservoir drainage area, Rhode Island, water year 2005: U.S. Geological Survey Open-File Report 2010–1045, 24 p.
- **Breault, R.F.**, and Campbell, J.P., 2010, Streamflow, water quality, and constituent loads and yields, Scituate Reservoir drainage area, Rhode Island, water year 2004: U.S. Geological Survey Open-File Report 2010–1044, 24 p.
- **Breault, R.F.**, and Campbell, J.P., 2010, Streamflow, water quality, and constituent loads and yields, Scituate Reservoir drainage area, Rhode Island, water year 2003: U.S. Geological Survey Open-File Report 2010–1043, 24 p.
- **Breault, R.F.**, 2009, Streamflow, water quality, and constituent loads and yields, Scituate Reservoir drainage area, Rhode Island, water year 2002: U.S. Geological Survey Open-File Report 2009–1041, 25 p.
- **Breault, R.F.**, Zarriello, P.J., Bent, G.C., Masterson, J.P., Granato, G.E., Scherer, J. E., Crawley, K. M., 2009, Effects of water-management strategies on water resources in the Pawcatuck River Basin, southwestern Rhode Island and southeastern Connecticut: U.S. Geological Survey Circular 1340, 16 p.
- **Breault, R.F.**, Durant, J.L., and Robbat, Albert, Jr., 2006, Sediment quality of lakes, rivers, and estuaries in the Mystic River Basin, eastern Massachusetts, 2001–03: U.S. Geological Survey Scientific Investigations Report 2005-5191, 110 p.
- **Breault, R.F.**, Smith, K.P., and Sorenson, J.R., 2006, Residential street-dirt accumulation rates and chemical composition, and removal efficiencies by mechanical- and vacuum-type sweepers, New Bedford, Massachusetts, 2003–04: U.S. Geological Survey Scientific Investigations Report 2005-5184, 27 p.
- **Breault, R.F.**, and Cooke, M.G., 2004, Restoring an Urban River—Polychlorinated Biphenyls and Other Contaminants in Bottom Sediment of the Lower Neponset River, Massachusetts: U.S. Geological Survey Fact Sheet FS-2004-3083, 6 p.
- **Breault, R.F.**, Cooke, M.G., and Merrill, M., 2004, Sediment Quality and Polychlorinated Biphenyls in the Lower Neponset River, Massachusetts, and Implications for Urban River Restoration: U.S. Geological Survey Scientific Investigations Report 2004-5109, 48 p.
- **Breault, R.F.**, Cooke, M.G., and Merrill, M., 2004, Data on sediment quality and concentrations of polychlorinated biphenyls from the lower Neponset River, Massachusetts, 2002–03: U.S. Geological Survey Open-File Report 2004-1280, 55 p.
- **Breault, R.F.**, Ashman, M.S., and Heath, D., 2004, Sediment quality in the North Coastal Basin of Massachusetts, 2003: U.S. Geological Survey Scientific Investigations Report 2004-5110, 25 p.
- Zimmerman, M.J., and **Breault, R.F.**, 2003, Sediment quantity and quality in three impoundments in Massachusetts: U.S. Geological Survey Water-Resources Investigations Report 03-4013, 36 p.
- Zarriello, P.M., **Breault, R.F.**, and Weiskel, P.K., 2002, Potential effects of structural controls and street sweeping on stormwater loads to the Lower Charles River, Massachusetts: U.S. Geological Survey Water-Resources Investigations Report 02-4220, 42 p.
- **Breault, R.F.**, Sorenson, J.R., and Weiskel, P.K., 2002, Streamflow, water quality, and contaminant loads in the lower Charles River watershed, Massachusetts, 1999-2000: U.S. Geological Survey Water-Resources Investigations Report 02-4137, 131 p.
- **Breault, R.F.**, and Granato, G.E., 2000, A synopsis of technical issues for monitoring trace elements in highway and urban runoff: U.S. Geological Survey Open-File Report 00-422, 67 p.
- **Breault, R.F.**, Waldron, M.C., Barlow, L.K., and Dickerman, D.C., 2000, Water-quality conditions and relation to drainage-basin characteristics in the Scituate Reservoir Basin, Rhode Island, 1982-95: U.S. Geological Survey Water-Resources Investigations Report 00-4086, 46 p.
- **Breault, R.F.**, Reisig, K.R., Barlow, L.K., and Weiskel, P.K., 2000, Distribution and potential for adverse biological effects of inorganic elements and organic compounds in bottom sediment, lower Charles River, Massachusetts: U.S. Geological Survey Water-Resources Investigations Report 00-4180, 70 p., 1 pl.
- **Breault, R.F.**, Barlow, L.K., Reisig, K.D., and Parker, G.W., 2000, Spatial distribution, temporal variability, and chemistry of the salt wedge in the lower Charles River, Massachusetts, June 1998 to July 1999: U.S. Geological Survey Water-Resources Investigations Report 00-4124, 1 pl.
- Colman, J.A., and **Breault, R.F.**, 2000, Sampling for mercury at subnanogram per litre concentrations for load estimation in rivers: Canadian Journal of Fisheries and Aquatic Sciences, No. 5. Vol 57. pp 1073-1079.
- Colman, J.A., Waldron, M.C., **Breault, R.F.**, and Lent, R.M., 1999, Distribution and transport of total mercury and methylmercury in mercury-contaminated sediments in reservoirs and wetlands of the Sudbury River, east-central Massachusetts: U.S. Geological Survey Water-Resources Investigations Report 99-4060, 15 p.
- **Breault, R.F.**, Weiskel, P.K., and McCobb, T.D., 1998, Channel morphology and streambed-sediment quality in the Muddy River, Boston and Brookline, Massachusetts, October 1997: U.S. Geological Survey Water-Resources Investigations Report 98-4027, 1 pl.

- **Breault, R.F.**, and Harris, S.L., 1997, Geographical distribution and potential for adverse biological effects of selected trace elements and organic compounds for streambed sediment in the Connecticut, Housatonic, and Thames River Basins Study Unit, 1992-94: U.S. Geological Survey Water-Resources Investigations Report 97-4169, 32 p.
- **Breault, R.F.**, Colman, J.A., Aiken, G.R., and McKnight, D., 1996, Copper Speciation and Binding by Organic Matter in Copper-Contaminated Streamwater: Environmental Science and Technology, No. 30 Vol. 23 pp 3477-3486.