

### **Highlight of Qualifications**

- Over 20 years of experience as a hydrologist in government, non-profits, and private industry.
- Over 30 years of proven expertise in science communication, training, and technology transfer.
- Demonstrated leadership in hydrogeophysics applied research, development, and testing of drone sensors.
- Skilled in scientific and educational meeting and workshop design, facilitation, and evaluation.
- Experienced educator with a focus on professional development and diversity, equity, and inclusion.

### **Recent Scientific & Technical Experience**

#### ***U.S. Geological Survey***

**Hydrologist, Water Resources Mission Area**

**2000 to present**

##### ***Ongoing Duties***

- Provide national leadership on application of drone-mounted sensors for hydrologic studies;
- Lead USGS development and testing of drone-based ground-penetrating radar (GPR) for bathymetry, including collaborations with industry and academic partners and field tests across the Nation;
- Plan, conduct, process, and analyze drone-based surveys across the U.S. using a variety of methods including GPR and traditional optical, multispectral, and thermal infrared imaging;
- Provide scientific, technical, and community engagement leadership to multiple Communities of Practice, including coordinating groups on scientific imagery data, drones in hydrology, and observational data;
- Create and facilitate professional development meetings and workshops on a range of topics including, camera-based monitoring, edge computer processing of imagery, and diversity and inclusion; and
- Develop online science communication, technology transfer, and training content for internal and external audiences, including monthly national groundwater newsletter.

##### ***Recent Awards***

- [USGS Community for Data Integration Leadership and Innovation Award](#) for leadership and vision through USGS data communities of practice (2023)
- [American Geophysical Union 2022 Edward A. Flinn III Award](#) for training and outreach in service to the hydrogeophysics professional community (2022)
- USGS award for leadership role in diversity, equity, inclusion, and accessibility work (2022)
- USGS award for work on new scientific imagery data storage and persistence cyberinfrastructure and associated stakeholder engagement (2021)

##### ***Previous Duties***

- Chaired newly established internal employee leadership team focused on diversity, equity, inclusion, and accessibility, developing team operational practices and objectives;
- Collaborated on design of enterprise cyberinfrastructure for hydrologic imagery data, with a focus on internal stakeholder engagement and needs assessment;
- Conducted, processed, analyzed, and interpreted surface, borehole, and water-borne geophysical data, including single and multi-method investigations at unconsolidated sediment and fractured rock sites;
- Conducted formal and informal training and technical support on hydrogeophysical methods and tools;
- Responded to public and internal inquiries and information requests on hydrogeology and geophysics;
- Developed multiple internal and public USGS web sites, creating written and multimedia content;
- Co-coordinated national USGS workshops on groundwater, water-quality, and airborne geophysics;
- Collaborated on development of USGS policies to support FAIR data and open software practices; and
- Received multiple USGS awards for work.

**Johnson Wright, Inc.**

**Project Hydrologist (Contractor)**

**Lafayette, California**

**2007 to 2011**

- Evaluated characterization and remediation of contaminated sites across the U.S., synthesizing environmental and regulatory status and potential remaining risks or liabilities through written reports.

**Sher Leff LLP**

**Environmental Resource Analyst**

**San Francisco, California**

**2005 to 2007**

- Provided scientific support and expert witness management in litigation on behalf of public water suppliers and public agencies with contaminated groundwater drinking-water supplies.

**Arc Ecology**

**Staff Scientist**

**San Francisco, California**

**2003 to 2005**

- Provided scientific analysis, public education, and community outreach related to local military site characterization, remediation, and redevelopment for environmental justice organization.

### **Selected Professional Experience in Teaching & Education**

**Manager of School Partnerships and Professional Development**

*EcoTarium*

**1997 to 2000**

*Worcester, Massachusetts*

**Science Education Specialist**

*Office of the Dean of the College, Brown University*

**1995 to 1997**

*Providence, Rhode Island*

**Science Education Specialist**

*Massachusetts College of Pharmacy/Allied Health Sciences*

**1995 to 1996**

*Boston, MA*

### **Education**

**M.S. Geological Sciences (Geophysics)**, May 2002, *University of Connecticut, Storrs, Connecticut*

**B.S. Geological Sciences**, May 1994, *Brown University, Providence, Rhode Island*

### **Selected Recent Hydrogeophysics Talks & Information Products**

Mangel, A.R., **Dawson, C.B.**, Rey, D.M., and Briggs, M.B., 2022, [Drone applications in hydrogeophysics: Recent examples and a vision for the future](#): *The Leading Edge*, vol. 41, no. 8.

**Dawson, C.B.**, Lane, J.W., and White, E.A., 2021, [Testing of sUAS ground-penetrating radar for non-contact measurement of river bathymetry](#), in *Symposium on the Application of Geophysics to Engineering and Environmental Problems (SAGEEP)*, 14 to 19 March 2021.

**Dawson, C.B.**, Lane, J.W., and White, E.A., 2020, *Testing sUAS Ground-Penetrating Radar for Hydrologic Studies: Results, Lessons Learned, and Future Directions*, in *Society of Exploration Geophysicists (SEG) 2020 Summit on Drone Geophysics*, 4 to 6 November 2020.

Briggs, M.A., **Dawson, C.B.**, Holmquist-Johnson, C., Adams, J., and White, E., 2019, [Thermal infrared, multispectral, and photogrammetric data collected by drone for hydrogeologic analysis of the East River and Coal Creek beaver-impacted corridors near Crested Butte, Colorado](#): U.S. Geological Survey Data Release.

Briggs, M.A., **Dawson, C.B.**, Holmquist-Johnson, C., Williams, K.H., and Lane, J.W., 2019, [Efficient hydrogeological characterization of remote stream corridors using drones](#): *Hydrological Processes*: *Hydrological Processes*, vol. 33, no. 2.

Lane, J.W., **Dawson, C.B.**, White, E.A., and Fulton, J.W., 2019, [Non-contact measurement of river bathymetry using sUAS Radar: Recent developments and examples from the Northeastern United States](#), in *Fifth International Conference on Engineering Geophysics*, 21 to 24 October 2019.