

Ann M.K. Fritz,
GISP
Bismarck, ND

LinkedIn: Ann Fritz

Certified GIS Professional (GISP) with excellent people and organizational skills. Passion for the environment, education, and all things geospatial.

Employment History

Environmental Scientist III

1999 to present North Dakota Department of Environmental Quality (NDDEQ), Bismarck, ND

- Coordinate all aspects of Geographic Information Systems at the NDDEQ including development of geospatial standard operating procedures, guidance documents and training materials for NDDEQ staff.
- NDDEQ's representative to the State GIS Technical Committee
- North Dakota Data Steward of National Watershed Boundary Dataset
- Assist with social media account for NDDEQ and other digital communication efforts as needed

Adjunct Instructor – Geographic Information Systems

2009 Bismarck State College, Bismarck, ND

- GIS 107 – Applications in Geographic Information Systems
- Entry level course on practical applications using geographic information system and spatial analysis extension.
- Developed syllabus, exercises and worked with students developing their GIS skills.

Geologist II

1996 – 1999 North Dakota Geological Survey, Bismarck, ND

- Glacial and surface mapping in eastern North Dakota with special interest in digital mapping techniques
- Editor, *NDGS Newsletter*, quarterly publication of the North Dakota Geological Survey
- Administrator of Geothermal Energy Extraction Regulatory program. Provide assistance to geothermal installers regarding requirements of state regulations
- Developed and led first ever Earth Science Fair for 6th graders during Earth Science Week

Research Assistant

1994-1996 Wisconsin Geological & Natural History Survey, Madison, Wisconsin

- Developed Aquifer Contamination Susceptibility Map of Dane County, Wisconsin using GIS
- Transferring geologic maps to digital format
- Utilizing SURFER for generating groundwater map of a county in Wisconsin

Geologist/Field Technician

1991-1994 Summit EnviroSolutions (contract employee with Unisys Corporation), St. Paul, MN

- Conducted environmental investigations, drilling, installation of remediation systems, monitoring wells
- Completed soil and water sampling for environmental remediation projects
- Compiled and analyzed results for presentation to state and federal regulatory agencies

Awards, Certifications and Membership

- ProSci® Certified Change Practitioner
- North Dakota Change Network recipient for North Dakota, 2018; sponsored by National Arts Strategies and Bush Foundation (YouTube [link](#) URL: [North Dakota Change Network: Ann Fritz](#))
- Certified GIS Professional by the GIS Certification Institute – Certification Number 00047997
- 2016 Esri and Leica Geosystems Smart Communities Innovation Grant recipient (presented to NDDoH, primary author)
- URISA member
- North Dakota Department of Health – Leadership Development Program Graduate 2011
- Boy Scouts of America Advanced Leadership Course – Wood Badge for the 21st Century (Graduate of Class C-01-09)
- 2002 Esri Special Achievement in GIS (presented to GIS Technical Committee agencies for collaborative design and implementation of [ND GIS Hub](#))

Education

University of Wisconsin-Madison

Master of Science in Geography - Cartography and Geographic Information Systems (2021)

University of Wisconsin-Madison

Master of Science in Geology (1996)

- M.S. Thesis: Construction of an Aquifer Contamination Susceptibility Map of Dane County, Wisconsin
- 1996 - American Water Resource Association, WI Chapter- Student Presentation Winner
- 1995 - President, Geology Club

University of Minnesota-Morris, Morris, MN

Bachelor of Arts; majors in English and Geology (1991)

- 1991 - Scholar of the College Award
- 1990 - University of Minnesota UROP (Undergraduate Research Opportunity Program) grant recipient
- 1989 – Research Experience for Undergraduate Women and Minorities in Science program

Selected Continuing Education Experiences

- ArcGIS Pro: Essential Workflows (24 hour Esri Instructor led training) June 2017
- ArcGIS III: Performing Analysis, (16 hour Esri Instructor led training) April 2015
- ArcGIS Online Subscriptions for Organizations: User Workflows (4 hour instructor led workshop) February 2014
- ArcGIS Online Subscriptions for Organizations: Publisher Workflows (4 hour instructor led workshop) April 2014
- ArcGIS Online Subscriptions for Organizations: Administrator Workflows (4 hour instructor led workshop) April 2014
- Introduction to Geoprocessing Scripts Using Python (10.0), (24 hour Esri instructor led training) October 2012

Selected Publications and Presentations

Fritz, Ann M.K., The North Dakota Watershed Boundary Dataset: A GIS Framework Layer (presented at the ND Water Quality Monitoring Conference, Bismarck, ND, February 27-29, 2012)

Fritz, Ann M.K., Coping with Ever Evolving Digital Data: The North Dakota Watershed Boundary Dataset and the US-Canadian Harmonization Efforts (presented at the ND GIS Users Conference, Grand Forks, ND, October 11-13, 2011)

Fritz, Ann M.K., Stewardship of the Watershed Boundary Dataset in North Dakota (presented at ND GIS Users Conference, Grand Forks, ND November 2-4, 2009)

Fritz, Ann M.K., 2001 Geologic Explorer's Guide to the Sheyenne National Grassland, North Dakota Geological Survey Education Series ED-27

Mitchell, Karen J.R., *Ann M.K. Fritz* and Ryan Waldkirch, 1999, Evolution of Digital Mapping Techniques in North Dakota (presented at the Digital Mapping Techniques Workshop '99 in Madison, WI, May 19-22, 1999)

Murphy, Edward C., *Ann M.K. Fritz*, and R. Farley Fleming, 1997, The Tolna and Jerusalem Outlets in the Devils Lake Basin, North Dakota, North Dakota Geological Survey Report of Investigation 100

Other Activities

- 2017 North Dakota GIS Users Conference Co-Chair
- 2015 North Dakota GIS Users Conference Chair (<http://gis2015.ugpti.org/>)
- 2013 North Dakota GIS Users Conference Co-Chair (<http://www.und.nodak.edu/org/urg/>)
- Mentor – Comet Robotics First Lego League Team, Cathedral School, Bismarck, ND
- 2005 - 2019, Boy Scout and Girl Scout Adult Leader and volunteer
- 1990 – Semester internship at Argonne National Laboratory, Chicago, Illinois
- Summers 1986-1988 - YMCA Camp Du Nord staff, Ely, MN