

## 2026 NDWRI Fellowship Program

### Eligibility

- NDSU and UND graduate students conducting thesis/dissertation research in water resources areas
- Recipients of a 2025 fellowship may apply for continuous funding in 2026
- Fellowships have 1 to 1 non-federal to federal matching requirements

### Duration and Amount

Funding period: 9/01/2026 – 8/31/2027 (note that the funding start date may vary, depending on the final approval of the federal 104b funds)

Up to \$12,000 for M.S. students and up to \$13,200 for PhD students, depending on funding availability.

The general criteria used for proposal evaluation include scientific merit, originality of research, research related to the state water resources issues, and extent of state or local collaboration and/or co-funding.

The research topic might be broadly in the area of water resources research. Some examples are:

#### **A - Hydrology of cold regions**

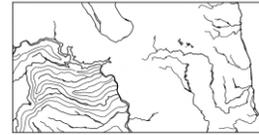
1. *Monitoring water resources in the state in wells, lakes and other water bodies*
2. *Algorithms for analysis of real-time data from sensors*
3. *Streamflow estimation for ungauged streams/watersheds*
4. *Using advanced technologies to monitor flow velocities /discharge remotely (camera, drones etc.)*

#### **B- Water for agriculture and environment**

1. *Irrigation study: drain tile monitoring / water quality from drain tiles (samples)*
2. *Watershed management with focus on aquatic life with point-source and non-point sources: monitoring sulfate, using TDS as a tracking index etc.*
3. *Monitor stress responses of aquatic ecosystem under nutrient supplies - algae boom monitoring*
4. *Ecology monitoring: Invasive species (zebra mussels), establish minimum flow criteria for streams/rivers in ND*

#### **C - Emerging issues in water resources**

1. *AI & ML and adaptive sampling for water bodies. Data fusion with different sources of data (satellite, historical data, ground-based observation) to generate high-quality prediction.*
2. *Water use for AI data centers.*
3. *Emerging contaminants: PFAS, PFOS, and others.*



### Application Deadline and Submission

Applications are due by **5:00 p.m., on Apr/03/2026 (Friday)** at 5:00pm. All proposals will be evaluated by an external review panel of water resources professionals. Please submit the proposal using the on-line form at this link:

[https://docs.google.com/forms/d/e/1FAIpQLSd8jFtIjmLb49\\_rISul0\\_7AWWqcUrVS6vSzi2sdT1wzQ3h\\_tg/vi/ewform?usp=dialog](https://docs.google.com/forms/d/e/1FAIpQLSd8jFtIjmLb49_rISul0_7AWWqcUrVS6vSzi2sdT1wzQ3h_tg/vi/ewform?usp=dialog)

Please see the Guidelines for Preparation of Applications below for details.

### Information for Proposal Preparation

- Fellowships are available only to NDSU and UND graduate students in full-standing and engaged in thesis/dissertation research in any water resources area. The award should be used only for stipends for graduate students.
- Applications should be prepared by graduate students with significant input and advice from their thesis/dissertation advisors.
- Fellowships are competitive, and applications will be evaluated by an external review panel of water resources professionals.
- Preference will be given to students in the later stages of thesis/dissertation research who can demonstrate good research productivity (e.g., journal publications). Depending on the overall evaluation of the application, a portion of the requested amount may be awarded.
- Applicants should have a thesis/dissertation project defined and approved by their graduate advisory committees, if applicable.
- The advisor's support of other research costs (supplies, travel, etc.) through existing external grants or funding from the university will strengthen the application.
- Applications from students and advisors who have not met the reporting requirements of their previous fellowship projects will not be considered for funding.
- The fellowship must be matched by the same amount from non-federal sources. The preferred sources of matching are (1) in-kind faculty time, (2) auditable co-funding of the student's thesis/dissertation project from a non-federal grant, and (3) tuition waiver. An in-kind contribution of state-funded academic year time of faculty advisor (faculty salary plus fringe benefits) and the student tuition waiver should normally satisfy the matching requirement.
- Fellowships start on September 01, 2026 (or as soon thereafter as the USGS authorizes the NDWRRI funding).

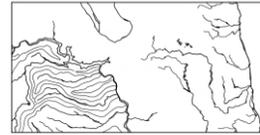
### "Leveraging" Funding

It is strongly recommended that advisors/students consult the following agencies and personnel to explore whether the proposed fellowship research fits with their ongoing or planned research programs. If so, cooperative agreements involving additional funding or in-kind contributions of services to the fellowship project may be possible.

- USGS Dakota Water Science Center, Bismarck (<https://www.usgs.gov/centers/dakota-water>)

*NDWRRI State Advisory Committee Member: Brent Hanson ([brhanson@usgs.gov](mailto:brhanson@usgs.gov))*

- ND Department of Water Resources, Bismarck (<https://www.swc.nd.gov/>) –  
*NDWRRI State Advisory Committee Members:*  
*Andrew Nygren ([anygren@nd.gov](mailto:anygren@nd.gov)) and Tate Libunao ([tlibunao@nd.gov](mailto:tlibunao@nd.gov))*



- North Dakota Game and Fish Department  
*NDWRRRI State Advisory Committee Member*  
*Aaron Larsen ([aalarsen@nd.gov](mailto:aalarsen@nd.gov))*
- Barr Engineering  
  
*NDWRRRI State Advisory Committee Member: Karen Ryberg ([KRyberg@barr.com](mailto:KRyberg@barr.com))*
- Other local or state water resources professionals

### **Reporting Requirements**

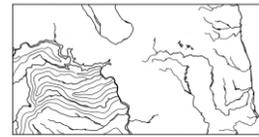
A final report, to be prepared by the student and his/her advisor, is required for all fellowship projects. The due date and the detailed requirements for the report will be provided before the end of the funding period. In addition, all fellows and their advisors are encouraged to publish their research results as an official NDWRRRI Technical Report. The fellows are also expected to attend and/or present at the NDWRRRI-organized and sponsored seminars and conferences.

### **Advisor's Responsibility**

Provide guidance to the student for preparing the fellowship proposal, particularly the budget to make sure the **1 to 1** non-federal to federal match is satisfied.

- Co-sign the application cover letter.
- If a fellowship is awarded, make sure that the student will submit the required final report by the due date.
- Serve as the principal investigator and administer the awarded fellowship through your department by starting and ending the fellowship payments at the appropriate dates.
- Acknowledge NDWRRRI in the fellow's thesis/dissertation, publications, and presentations for its support to the thesis/dissertation research and let the Institute Director know.

*Note that each year, the Institute must wait for the final funding for the National Water Resources Research Institute (WRRI) Program (included in the USGS budget) to be approved by the Congress and the President. Thus, we may have to modify the proposal later depending on what the Congress does regarding funding.*



## Guidelines for preparation of applications

The application package for the NDWRRRI Graduate Fellowship must include the following:

**A. Cover Letter (PDF):** It should be addressed to the Director of NDWRRRI. The cover letter must be signed by the student and the advisor.

**B. Proposal (MS Word):** Please use the template to start your NDWRRRI Graduate Fellowship proposal. Your proposal will not be reviewed if you do NOT follow the template. The proposal consists of the following components. Note that Section B1-16 (single spaced, 12 font size) should not exceed 5 pages.

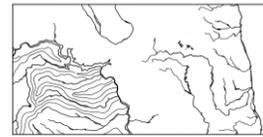
1. Title of the project (concise but descriptive)
2. Funding period (3-12 months)
3. Application type (new or continuous)
4. Focus categories (choose a maximum of three focus categories from the list in Attachment A, with the most preferred focus category first)
5. Research categories (from the following, choose one category that most closely applies: Water Scarcity and Availability, Water Hazards and Climate Variability, Water Quality, Water Policy, Planning, and Socioeconomics, Watershed and Ecosystem Function, Water Technology and Innovation, or Workforce Development and Water Literacy)
6. Keywords (enter 3-5 keywords of your choice descriptive of the work)
7. Applicant (provide your name, degree, graduate program, university, and email address)
8. Advisor (provide your advisor's name, academic rank, department, email address, and phone)
9. Introduction of the applicant: research area, post-secondary education, progress in degree program (courses completed, candidacy or comprehensive exam, anticipated completion date), progress in thesis/dissertation research, previous professional and scholastic accomplishments (publications, conference presentations, awards, etc.).
10. Abstract of the proposed research (150-200 words).
11. Description of the critical state water problem being (or to be) investigated.
12. Key literature review and prior work in your research group (if applicable).
13. Scope and objectives of the proposed research.
14. Methods, procedures, and facilities.
15. Expected results and proposed deliverables (e.g., publications).
16. Progress to date, if research is underway.
17. Cited references
18. List of group publications (please provide a list of all peer-reviewed publications and theses/dissertations associated with the NDWRRRI fellowships in your research group in recent two years (you may need to get the information from your advisor)).

**C. Budget (Excel):** Please complete the Excel budget sheet. This section must be prepared by the advisor. Remember the **1 to 1** non-Federal to Federal match is required.

**D. Appendix I (PDF):** Two-page NSF style biosketch of the advisor.

**E. Appendix II (PDF):** Up-to-date unofficial graduate transcript of the student (or undergraduate transcript for a new graduate student).

Note that the successful fellowship applications will be eventually submitted to the USGS WRRRI 104b Annual Grant Program for final approval. Suggestions from the state review panel or the director may be communicated to the applicants for further improvements and/or consideration of the proposals.


**Attachment A. Focus Categories (USGS)**

ACID DEPOSITION	ACD
AGRICULTURE AG	AG
CLIMATOLOGICAL PROCESSES	CP
CONSERVATION	COV
DROUGHT	DROU
ECOLOGY	ECL
ECONOMICS	ECON
EDUCATION	EDU
FLOODS	FL
GEOMORPHOLOGICAL PROCESSES	GEOMOR
GEOCHEMICAL PROCESSES	GEOCHE
GROUNDWATER	GW
HYDROGEOCHEMISTRY	HYDROGEO
HYDROLOGY	HYDROL
INVASIVE SPECIES	INV
IRRIGATION	IG
LAW, INSTITUTIONS, AND POLICY	LIP
MANAGEMENT AND PLANNING	M&P
METHODS	MET
MODELS	MOD
NITRATE CONTAMINATION	NC
NONPOINT POLLUTION	NPP
NUTRIENTS	NU
RADIOACTIVE SUBSTANCES	RAD
RECREATION	REC
SEDIMENTS	SED
SOLUTE TRANSPORT	ST
SURFACE WATER	SW
TOXIC SUBSTANCES	TS
TREATMENT	TRT
WASTEWATER	WW
WATER QUALITY	WQL
WATER QUANTITY	WQN
WATER SUPPLY	WS
WETLANDS	WET