THE INSTITUTE

The Institute was founded in 1965 by authority of Congress as one of the 54 Institutes throughout the nation and is administered through the United States Geological Survey. The NDWRRI receives funding through section 104 of the Water Resources Research Act of 1984 and it applies its Federal allotment funds to research that fosters: (A) the entry of new research scientists into the water resources field, (B) training and education of future water resources scientists, engineers, and technicians; (C) the preliminary exploration of new ideas that address water problems or that expand understanding of water and water-related phenomena; and (D) the dissemination of research results to water managers and the public. The Institute has a State Advisory Committee consisting of three members representing the three principal agencies dealing with water issues – State Water Commission, State Health Department, and the USGS - and a Technical Advisory Committee consisting of faculty from NDSU and UND. The North Dakota State University and the University of North Dakota administrations consider the Institute’s activities important and are supportive of its efforts. The Institute’s core funding comes from annual appropriation granted under the authority of Section 104 of the Federal Water Resources Research Act by the US Geological Survey. The annual base grant is used to support a Fellowship research program. Though modest, the Section 104 program has provided crucial seed funding for research, education, and information dissemination activities of the Institute drawing on the water expertise of the two universities of the State – North Dakota State University, Fargo and University of North Dakota, Grand Forks. North Dakota State Water Commission supports the Fellowship program by providing an additional fifteen percent of the annual base grant subject to year-by-year approval.

ACTIVITIES

The NDWRRI continues to meet its mission by dedicating most of the Federal allotment funds toward competitive graduate student research fellowships. Each of the Fellowship is also a research project that will result in a master’s thesis or doctoral dissertation. Faculty advisors find matching or co-funding for the research through the university, or grants from local, county, state or federal agencies, foundations, or industry. The Institute encourages its research faculty to submit proposals through the Institute to various funding sources for water research. Also, the Institute co-sponsors seminars and conferences on water themes. A newsletter is published annually. Institute publications can be found at the institute web site: http://www.ndsu.edu/wrri
RESEARCH

NDWRRI awarded nine 2009-10 Fellowships.

- Brianna Schneck, M.S. in Biological Sciences, North Dakota State University, “Source Tracking of Cryptosporidium in Rural Watersheds”

- Chase Christenson, M.S. in Geology and Geologic Engineering, University of North Dakota State, “Effects of Iron Bacteria on Subsurface Tile Drains: Influence on Nutrient Transport”

- Dimuthu Wijeyaratne, Ph.D. in Biological Sciences, North Dakota State University, “Chemical Fingerprinting of Sediments and Water of the Souris River for Identification of Diffuse Pollution Sources”

- Halis Simsek, Ph. D. in Civil Engineering, North Dakota State University, “Fate of Biodegradable Dissolved Organic Nitrogen in Fargo Waste Water”

- Harjyoti Kalita, Ph. D. in Materials and Nanotechnology, North Dakota State University, “Iron Imprinted Polymer for Removal and Monitoring of Arsenic”

- Joseph Vistad, M.S. in Civil Engineering, University of North Dakota, “Regional Flood Frequency Analysis in the Missouri River Basin Based on L-moments and GLS Regression”

- Qigang Chang, Ph. D. in Environmental Engineering, North Dakota State University, “Development of GAC-NZVI Adsorbent for Arsenic Removal”

- Rabiya Shabnam, M.S. in Environmental and Conservation Sciences, North Dakota State University, “Interaction between Microorganisms and Metal Nanoparticles: A New Approach to Groundwater Remediation”

- Sita Krajangpan, Ph. D. in Civil Engineering, North Dakota State University, “Effective Delivery of Iron Nanoparticles by Amphipilic Vehicles for Groundwater Remediation”