

# THE SPIGOT

from the NORTH DAKOTA RURAL WATER SYSTEMS ASSOCIATION

## NDRWSA Sponsors Science, Engineering Fair

By Lisa Schatz

North Dakota Rural Water Systems Association (NDRWSA) is a proud sponsor of the State Science and Engineering Fair. This year's competition marks the 65th annual event held at the University of North Dakota in Grand Forks. Students from six different regions from across the state competed for awards and scholarships. Since 1995, NDRWSA has presented awards to students for projects that address water and wastewater issues. This year's project winners explore many facets of water science, such as improving the quality of drinking water, effects of channelization, the impact of hydraulic fracturing on an underground water system, the effectiveness of inexpensive filtering systems, and decontamination methods for lake water.

Approximately 200 North Dakota students participate in this event enabling them to submit their work at the International Science and Engineering Fair held in Pittsburg, Pa. The International Science and Engineering Fair is the world's largest international pre-college science competition. Nearly 1,700 high school students showcased their independent research last month.

Les Sigette and Dan Hanson of NDRWSA helped judge this year's student projects. "I am amazed at the originality of projects and the effort put forth by students to uncover new knowledge about the universe we live in," says Hanson.

### Juliann Spilman

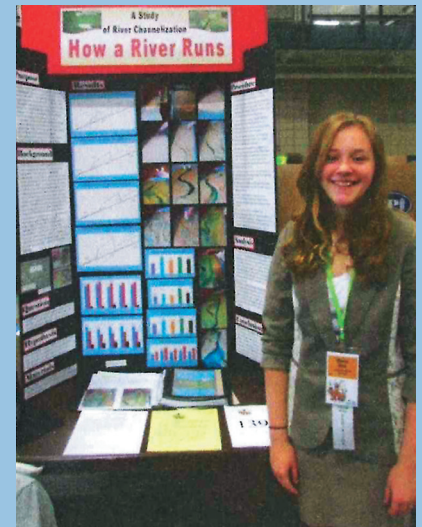
The recipient of this year's NDRWSA State Fair Award went to Juliann Spilman of Mandan High School. She received \$100 and a certificate of recognition. Her project was to compare the water quality of two lakes and the impact that land uses near each site would have on the water quality.



### Alyssa Kemp

Alyssa Kemp of Valley-Edinburg Public School received \$50 and a certificate of recognition. Her project depicted various examples of channelization. The determination was that flood water travels faster and arrives quickly downstream versus a meandering watercourse.

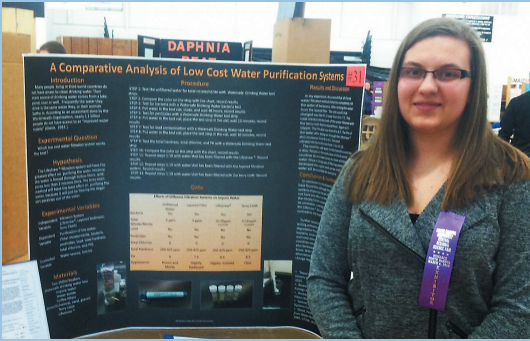
Farmers often are interested in straightening the channel to allow for easier farming. Kemp's project determined whether channelization causes more flooding.



### Trinity Stearns

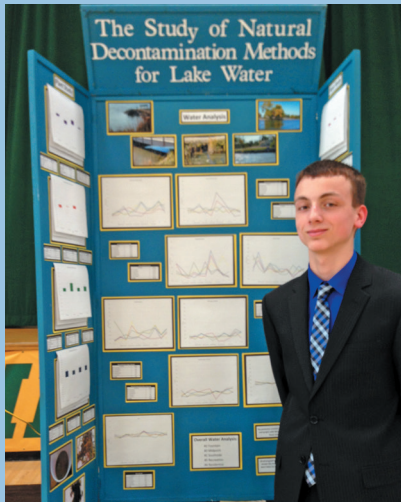
Trinity Stearns of Trenton High School received \$50 and a certificate of recognition. Stearn's project entitled, "The Fracking Effect" was to determine how hydraulic fracturing has affected North Dakota's natural underground water system. She determined six of the nine contaminants were found in the water; and bacteria, lead, and copper were not found in the water. She determined all of these items could be potentially harmful to society.





### Cassidy Tormaschy

Cassidy Tormaschy of Dickinson High School received \$50 and a certificate of recognition. “A Comparative Analysis of Low Cost Water Purification Systems” was the title of her project. She determined which low-cost filtration system accomplishes the best level of filtration. The results show that although the filtration systems improved the pH of the water, they did not have any effect on the bacteria.

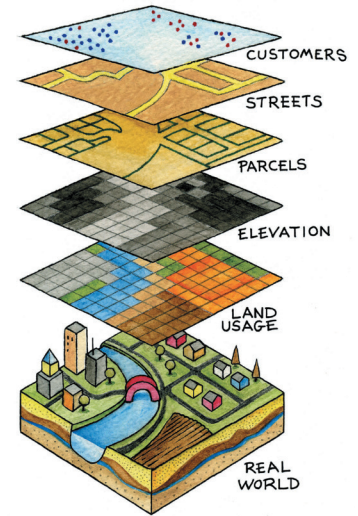


### Branden Skjoiten

Branden Skjoiten of Hankinson High School received \$50 and a certificate of recognition. Skjoiten analyzed Lake Elsie and a fountain at American Legion Memorial for their overall water quality. He was able to determine the overall best water quality and which area proved to have the poorest water quality.

NDRWSA is proud to be a part of this successful annual science fair event and would like to congratulate this year’s winners and wish these young leaders success in their future endeavors.

Save  
The  
Date!



# MAPPING & GIS WITH TERRASYNC SOFTWARE

Aug. 5-6, Bismarck

Intermediate Mapping

GIS-Certified Training Course

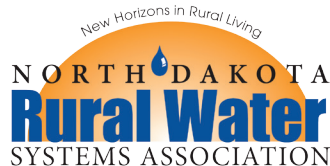
Training provided by Compass Tools and NDRWSA

Limited Space - Register Early

### Course Description

This course teaches five steps of a project – from mission planning to collecting, processing, and exporting data. Intermediate training covers the following topics:

- |   |                                |
|---|--------------------------------|
| GPS fundamentals  | Downloading data               |
| Mission planning  | Differential correction using  |
| Data dictionary creation  | GPS Pathfinder Office          |
| Configuring the GPS equipment   | Data editing in GPS Pathfinder |
| Data collection techniques/<br>Advanced data collection<br>techniques | Office                         |
|   | Exporting data to your GIS     |
|   | Field sessions                 |



Contact us for additional information at 701-258-9249 or 800-349-6951 or visit NDRWSA at [www.ndrw.org](http://www.ndrw.org).

Save  
the Date!

National Rural Water  
Association Conference  
Oklahoma City, Okla.  
Sept. 28-30