

# And the winners are...

North Dakota Rural Water Systems Association (NDRWSA) wants to help make it happen for its members. Every year, associate members and individuals donate items to be auctioned off during the NDRWSA Water Systems EXPO and Conference. Money raised during the auction is given to deserving students to help defray college costs. This year's auction raised \$7,300, with an additional \$3,600 in cash donations. These contributions funded eight scholarships. Recipient Robert Shelton received \$1,500 and the remaining seven students received \$925 awards. Since its inception in 2012, the Patrick Denne Scholarship Committee has been rewarding students based on career goals, leadership activities, financial need and an essay. If you are interested in donating to the Patrick Denne Scholarship, please contact the NDRWSA office at 701-258-9249.

## ■ Essay Topic: Importance of the Water Industry ■

### Robert Shelton Bismarck

The modern water industry is a vastly important staple of society. In the past, water supply was the sole factor in population growth in any given area. Now with a country of over 350 million people, it is no different. Here in North Dakota we have seen a huge population increase in the past years and with it a need for bigger and better water treatment systems. Without a clean, reliable and cost-effective source of water, the population of an area cannot flourish.

Water is the single most important resource to the planet and the people living on it. Water is used by far the most in agriculture. Agriculture is impossible without proper irrigation during crop season, especially when the weather has been dry like this past year. Our state's economy relies heavily on agriculture, so you could say that water treatment is the catalyst that allows for this success.



The oil and gas industry in the Bakken uses huge amounts of water. Water is used in all stages of oil and gas development, extraction and processing. Operations may consume water or remove large quantities of water. The water is then used for drilling, washing and processing. In many cases, it is vital to have pure or otherwise processed water to complete the extraction of oil and gas. Without the abundant supply of water reserved for this use, our state would not be able to benefit from the wealth the oil has brought to our state.

Industry requires large supplies of water. Machinery relies on water to cool it to a temperature that allows the manufacturing process to keep going. The mining industry needs water to wash off the material that has been brought up from underground in order to sort out the genuine product from other particles. Water is also used to clean machinery, buildings and even, in the case of the meat processing industry, the carcasses of the cattle, pigs and other animals that will be trimmed into the items found in the meat section of the local supermarket.

The water and wastewater treatment industry both nationally and locally in North Dakota are many times overlooked in their importance to our society. Many people go about their daily lives without ever contemplating the impact our water plants have had in their daily lives. I am proud and enthusiastic to be entering into such a beneficial industry to our society.

## Kaitlyn Boucher Rugby

Water to me is more than a basic function needed for life. Growing up, water has been more than something to drink. My dad has worked in the industry for almost 30 years, therefore I grew up knowing the importance of water in my everyday life. In today's world, there is more water pollution than ever before and continuing to worsen, so water treatment plants are even more important. Water is more than just something we drink, the uses in industry is never-ending. Therefore, both quantity and quality of water is very important. Many people today that walk into the water plant think that producing clean water is as easy as turning on a pump. However, what they don't know is the process and amount of time and energy it takes to produce a clean glass of water. Besides drinking, water can be used for manufacturing and just about anything else! In years past, farmers have relied on wells to produce their water. As years go on, farmers and ranchers are becoming more and more dependent on water from a rural/city water system.

The water industry or lack of has affected my family directly. I've heard my grandpa talk about growing up without water. Grandpa's parents ran a cafe, bar and gas station for 17 years, raised a family of five children, plus had a herd of cattle. Every drop of water was hauled. A well was not possible because the water was not close enough to the surface of the ground. Five years after closing a well was finally operational to a point. However, the water was salty and not fit for humans or animal consumption. The water was still hauled from miles away. Just think what good, safe water would have meant to them. Maybe the business of Yellow Corners would have operated for many more years.

The water industry has affected my life both directly and indirectly. I fully believe that water is the most important resource we have available. I'd like to thank the scholarship committee for even considering me for this Patrick Denne scholarship. I've heard my dad talk about Mr. Denne multiple times. Dad has said "Pat was an excellent circuit rider that found many broken water lines for me."



## Karlie Dockter Harvey

One of the most important components of sustaining life in an environment is also the same compound that most people take for granted each day. It is one of the missing puzzle pieces scientists discuss when theorizing why other planets cannot maintain or even support life. The human body is an unexplainable phenomenon, 70 percent of which consists of water.

The human body needs water to survive. Bone marrow requires water to produce blood, which helps carry the oxygen from the lung to the rest of the body, therefore assisting the functioning processes. Water upholds the human body temperature and provides the common nutrients needed. It ensures the body is properly hydrated, thus allowing the body to complete the tasks asked of it.

Water is essential in every aspect of a human's life. It is needed to complete daily tasks such as cleaning, commercial use, wastewater, cooking, and bathing. The type of water that is referred to and used by many people today is known as purified water. Water undergoes many processes in order to remove the bacteria and microorganisms.

The population has dramatically increased within the last hundred years, consequently increasing the consumption of water to six times the previous amounts. How can our world possibly maintain the supply-demand ratio? Ninety-seven percent of the Earth's water is salt water, which means the human race had to come up with a plan in order to preserve or reuse the resource we most desperately need.

Water treatment processes are vital to our society and should not be thought of lightly. There are countless jobs that are involved in the water industry. The water industry is composed of three very important procedures: wastewater treatment, purification and desalination. Purification of water enables life forms to be able to utilize water for cleaning and consumption purposes. It removes all of the contaminated articles in natural water that could be potentially dangerous to the consumer of it. Desalination is a newer industry that involves the heating of ocean water in hopes of purifying it for human use. This process



will be extremely dynamic to survival some day because of the earth's ever-changing population and constant demand for water. The final process in the water industry is extremely important as well. Our world has industrialized, thus creating numerous forms of waste water. Whether it be toxic chemicals, agriculture waste or even domestic sewage, it all has to be disposed of properly, so we don't endanger the wildlife or even pollute the environment we call home. The water and its components are filtered out through different treatment plants and the quality is tested before it is released back into the ecosystem.

Overall, water proves to be a daily necessity used not only by the organisms on earth, but also in all of the commercial tasks those organisms complete as well. The water industry is essential and will continue to be necessary until the end of time because of the consistent increase of life forms born each second. The water industry both directly and indirectly touches the lives of everyone and changes them for the better. The occupations may go unnoticed in the rush of everyday life, but no matter how busy people get, water will always be significant to them.

### Kaylyn Grzadzieleski Bismarck

Water is the binding force of all life. Every living thing, every person, needs access to clean water to live. People, of course, need water to drink, but that is not where the necessity ends. People also need water to clean themselves, their dishes, their laundry. They need water to cook for their families. They need water to keep pets and plants thriving and to deal with their wastes. Some people even use water for power or manufacturing. Now, imagine if we in America had no reliable access to clean, safe water. Imagine how quickly our lives would fall apart. This is why the water industry is so important for everyone in America.

The water industry is the lifeblood of every American. Every day, people wake up and shower, brush their teeth, go to the bathroom, all with water. People drink from water fountains at the gym, they clean their clothes and their dishes, all with water. Without the water industry, none of that would have been possible. The water industry is what



helps keep the American life easy and safe. No one has to worry about not being able to find safe water to drink, because the water industry supplies that for us. No one has to worry about how they will clean their things, or where they should go to the bathroom, because the water industry supplies access to that, too. However, the water industry goes much deeper than that.

The water industry allows major manufacturers to function. Many manufacturers use water at least once somewhere in their manufacturing process. The water industry also allows farmers and ranchers to irrigate their crops and water their livestock. It allows chemicals and medicines to be safely created and tested. The water industry is the backbone of the American economy. It is not just important because it helps keep things safe and simple; it is also important because it is involved with nearly every aspect of our lives.

However, there is still one part of the water industry that needs to be addressed: rural water. Rural water is one of the most important aspects of the water industry, because it ensures that every small community, every single person, has equal access to their services. In today's world, smaller communities are typically abandoned as companies search for greener pastures. However, the rural water portion of the water industry stays to make sure no one is left without safe water to drink and use or water treatment for their community.

Overall, the water industry is by far the most necessary industry in America. It keeps people alive by providing access to clean drinking water. It makes lives easier by providing access to water for cleaning. It keeps other industries running, such as food and medicine. Without the water industry, America as it is would crumble. We need the water industry in every aspect of our lives; that is what makes it so important.

### Nate Haman Towner

There has always been a dire water storage on the farm. Although there are a large number of wells, supply could not keep up with the demand of the cattle, house and dairy barn. During times of drought, we subsidized our water supply by hauling large





tanks of water from town. I remember one extremely dry year when I was very young that my grandpa brought five gallon jugs of water to pour in our toilets just so they could be flushed. Imagine my parent's excitement when given the opportunity to have a rural water system installed.

Water is so important and vital to life that even our bodies are primarily composed of it. Now, as a result of installing rural water, the entire family can shower within a short period of time without running out of it. Additional water availability even allowed for a dishwasher to be installed. Not only did the additional supply of water help in the house, but it also allowed more efficient ways to farm and ranch. For example, it has given us an ample supply of safe drinking water for the cattle. Also, it makes spraying of crops less time consuming by having more on-site water instead of running pond-to-pond to fill tanks.

The increase of water has enabled us to enlarge the size of our farming and ranching operation. We have added additional farm acreage and more head of cattle. As a result of being able to increase the herd, I have been able to start my own herd of cattle.

Since having experienced a shortage of water, I have witnessed how important water is to everyday life. This has also taught me the importance of conserving it. Everyday habits that we can all be mindful of to conserve water are shutting of the faucet while brushing teeth, having a full load in the dishwasher or washing machine, don't over water lawns and more. My way to conserve water is by taking shorter showers.

## Hallie Mann Fargo

Very little can exist without water. Life is completely dependent on the consumption of the resource, and many other industries such as agriculture and petroleum rely on water to make or obtain the product at hand.

The water industry itself aids the world in functioning. Without services that provide drinkable water and manage wastewater, society would not be as advanced as it is today.



Basic sewer systems and running water are almost always expected in modern countries. Without them, people would spend much more time doing everyday tasks such as bathing, washing clothes and dishes, and preparing food. Running water eliminates the need to travel to get water for these daily chores. The water industry is what provides the water needed in everyday life. Rural and city water systems are put in place to reach as many customers as possible, to provide the maximum amount of people with the resource that runs our lives.

On a larger scale, the water industry aids other businesses and large corporations in the production of goods and services. Water is used to transport, cool, wash, dilute, and create an abundance of products used by billions of people daily. Without the water industry, it would be impossible for these other corporations to get the resource necessary for producing the goods used by the masses. Economies would be drastically smaller, and the world's overall productivity would be cut tremendously if there wasn't a business set up to process water.

One of the most critical things the water industry provides is the sanitization of water used in these daily applications. It is estimated that 3.5 million people die every year from a lack of clean water or illness caused by dirty or polluted water sources. Not only does consumption of properly sanitized water prevent such diseases, it can also help to cure those who are already sick. Drinking clean and safe water boosts the immune system and helps the body to repair itself. The key words in that sentence are clean and safe, two things that are unable to be achieved in a sustainable way without a well-developed city or rural water system. It is extremely unlikely that someone would be able to clean their own water efficiently and effectively, and the water industry is consistent in the quality of purification achieved to ensure safe drinking water.

The water industry makes it so people do not have to worry about drinking good water, because they know that there are others working to ensure their health is maintained through processing water to safe drinking and consumption levels. Whether this water is used for domestic or corporate affairs, the water industry plays a crucial role in providing the resource needed for many of the operations going on around the world every day.

## Taylor Reilly Hoople



My father works for the water industry and because of his job, I have really been able to realize the importance of the water industry itself and appreciate the resources that we have. In North Dakota today, we have the ability to use running water almost everywhere. Our homes, schools and even some campgrounds all use running water in numerous amounts of ways.

With my father's job, however, I have seen how important it is when a water line breaks in our area. His phone rings off the hook with messages and voicemails from people living without water. My father will have to be up at any time of the day or night to respond to these messages and take action. He spends hours on the job going out and attempting to fix these water lines in order to give people back one of their most basic needs. It is hard work, but the people in this industry are able to get the job done as quickly as they possibly can.

When this happened last summer in my town of Hoople, I was able to experience this situation firsthand. I would not consider this to be a scary situation, but it was a struggle nonetheless. When our water stopped running, it made me realize how much we use it in our everyday lives. We were not able to use the bathroom, take a shower or bath, wash our hands, brush our teeth, or even drink tap water. All of our water had to come from bottles for that day and, if we did not have any on hand, we were out of luck.

I could not imagine having to live without running water for any longer than we had to. We are very fortunate that North Dakota has a water industry that allows us to have clean drinking water and running water at all times. If we are ever unfortunate enough to lose our water for a day, the workers in this industry always try their hardest to fix the problem as quickly as possible. Many people do not realize how important water is until they have to experience time without it, myself included. This industry is taken for granted sometimes, but I know that our state would be lost without it. After seeing my father do his job and listening to his experiences, I have really been able to realize the importance of the water industry and appreciate the resources that we have.

## Taylor Troska Bottineau



Water is the most important resource on Earth. It is what feeds the plants and animals making Earth such a beautiful place to live. Water is important to humans as our body is 70 percent water.

The water industry is who we get to thank for giving us clean, fresh water that comes out of our faucets. We take for granted the accessibility of water, when it is so important to all of us, that we get fresh, clean water. This is why the water industry is so important so we have this accessibility to clean, fresh water. We use water every day for our everyday life, things like showering, cooking and washing, so it is important that we have the water industry keeping the water that comes out of our faucets clean and healthy for us to drink and use. Without the water industry testing and cleaning our water, it could become contaminated with harmful bacteria. It is important that we have people going out to be sure that our water is safe and free of bacteria.

There are three main industries when it comes to water treatment: there is purification, wastewater treatment and desalination. It is purification that helps in keeping our water safe for us to drink. They purify the water for us, so we can drink it without all the harmful organisms in it. Wastewater treatment manages our wastewater, purifying it to save on water pollution. They clean up after chemical wastewater that comes from factories, wastewater from our homes and water from polluted lakes. They kill the bacteria and remove smell and solid impurities from the water. A very important industry such as water is vital; if we pollute it all that will have detrimental effects on the environment. We also need it to keep our lakes clean, so they can be used for generations to come. Then we have desalination that transforms salt water into purified drinking water for us to drink. This a new method to help out with our lessening supply of natural water. As our population continues to grow and water is used up, new ways of getting fresh water are being developed. The water industry is important in cleaning our water for us to use and make sure we have it for generations to come.

The water industry is so important, and we don't even realize it. The industry is what gives us clean water to use and keeps the water on the planet safe for all living creatures. This is so vital to keep our water supply clean and to make sure we have plenty of water for generations to come. Thanks to the water industry, we will have clean water running through our faucets for generation to come.