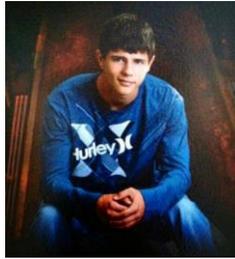


## Congratulations to the 2014/2015 WWA Scholarship Recipients



### Lance Kailey

My name is Lance Kailey and I was born and raised in Cheyenne, Wyoming. My parents are Ron and Linda Kailey. I am currently a junior at the University of Wyoming studying Mechanical Engineering. When I'm not studying I enjoy being with my friends and family. I am a 2012 graduate of Cheyenne East High School. I have also always had a love for sports as I used to wrestle for Cheyenne East and wrestling has taught me many life lessons, one being to stick out what you have started no matter how hard it may seem because hard work will pay off. I am dedicated in attaining my degree and am very thankful to the Wyoming Water Association for their generous scholarship and support of my education in achieving my future goals.



### Eric Nielson

Currently I am a senior at the University of Wyoming studying Communication with a minor in Business. I am from Rock Springs, Wyoming where I graduated high school in 2011. After high school I studied at the University of Wyoming for one year before enlisting in the Wyoming Air Force National Guard where I currently serve on drill status. My training for the Air Force took me from San Antonio, for basic training, to Biloxi, Mississippi for technical training. I aspire to be a television producer with an emphasis in sports. I have done numerous internships with Wyoming Athletics and am currently a campus correspondent for ESPNU Campus Connection and have had one story nationally published and one in the works. After graduating with my undergraduate degree this May, I plan on attending either the University of Georgia or Louisiana State University for my Master's in Business Administration.

### Krista Lawrence

## Water Supplies Will Shape the Future

By Krista Lawrence

It is a well-known fact throughout the State that Wyoming has been in a drought for many years, and that water must be used responsibly in order to preserve this precious resource. However, there is always the threat of the future and declining water supplies, and how the coming years will affect those supplies and the lifestyle of those living here. Between hot summers with little rainfall, winters with below average snowpack, growing populations, increasing demands, and the necessity of sharing river water with other downstream states as well, it is no surprise that the next two decades should be approached with concern. Luckily, the State has reservoirs which help us prepare for such unforeseen circumstances as well as help meet the current water demands within Wyoming.

Reservoirs are man-made bodies of water that act as safety nets in the midst of these hot, dry summers. They collect water throughout the year and store it until it is needed. This water can be used for many different things, including irrigating farmlands, industrial uses, recreational activities, and municipal uses, to include drinking water supplies. It can also be used as a power source to help with electricity demands. This prepares for the unknown conditions that will occur in the next twenty years, and will allow the state of Wyoming to keep from running out of usable water.

Of course, records are also kept that contain data of the amount of snowfall and snowpack during the year. Since snowpack is a large source of Wyoming's water, this data is very important as it allows the state to see patterns and predict when shortages or overflows may occur. This can help them maintain the aforementioned reservoirs and preserve or release as much water as is necessary to maintain balance. By having and keeping these records, the State can prepare for the coming years, and ensure that there will be enough water to compensate for any seasons that do not provide for enough water sources.

By utilizing reservoirs and keeping accurate data of the conditions of Wyoming's water resources, the State will be able to conserve water and prepare for fluctuations in water availability in the future, as well as growing population demands and recreational activities. This will allow the next twenty years to be carefully planned out in terms of water supply and demand. The State's continued monitoring of Wyoming's water supplies will allow its citizens to continue to feel safe and provided for.

How will our water resources shape the next 20 years?

By Lance Kailey

The management of our water resources in the next 20 years is very crucial and it is very important to spread awareness about maintaining and protecting these resources. As the population grows, so does the need for quality water. The protection of water resources will shape this quality of water for the future. Competition for water also becomes a big factor especially when it comes down to water resource location and quantity. We can't sit back and fold our hands and hope things will work themselves out. The demand for water will continue to grow most definitely shaping the interactions between states. Taking action through public awareness and even education about the different forms and location of water including in the air, on the surface, below the ground, and in the oceans should be on the agenda in the upcoming years as well. I think a lot of us take our availability of water for granted and should really learn the process including Human activity and natural occurrences are some challenges that can be met in the future through education. Getting the youth involved in our future as it pertains to water just as your group is offering scholarships to students. University of Wyoming should take the lead here in Wyoming and offer degrees in water technology, water engineering, and promote those careers to the high school students in Wyoming. Furthermore, oil companies that come to Wyoming and offer great jobs and dollars into our communities should be accepted but we need people working with those companies to insure our water quality. Fracking is good but let's make sure every well is done correctly and our water is protected. Water infrastructure should also be watched and maintained properly to ensure quality water. Wyoming's water future is bright for the next 20 years but we can't just sit back and hope it continues because something that is bright and shiny can become dull and corroded without care.

## How Our Water Resources Will Shape the Next 20 Years by Eric Nielson

Introduction Water is the most important resource for the survival of mankind. Our world is becoming vastly overpopulated and our resources are beginning to become tapped. We face a time period where if we do nothing to conserve water then we will all be doomed. However, if we act proactively then we can maintain our lifestyle while still accommodating for the increasing demand for water.

Agriculture Agriculture uses 70% of water consumption in today's world. We must begin develop more ways to conserve, reuse, and reduce water that go into the processes of agriculture. In order for this to happen, as a global economy, we must "produce smarter ways of using fertilizer and water, new pesticides and non-chemical approaches to crop protection; reduce postharvest losses; and ensure more sustainable livestock and marine production." (WWAP, 2012) The demand for food will rise with population creating an enigma where we must match food production with population increases without increasing the usage of water. Reducing spoilage, storage waste, and more efficient transportation of food will aid in this dilemma. If we do nothing then we will have to ration our food supply and regulate our usage of food.

Economic Water is an essential asset to our economic system. Sanitary water has become more financially advantageous to our economy than ever before. "In Indonesia, World Bank research estimates that the country lost US \$6.3 billion (2.3% of GDP) in 2006 from poop sanitation and hygiene. The result was increased health costs, economic losses, and offsetting costs in other sectors." (WB, 2008b) Our way of life, and our national budget, depends on sanitary water. Unsanitary water will lead to diarrhoeal disease, like those in Africa, and other medical problems. We must make our process of reusing water more efficient and safer by ensuring the standards of water

treatment plants and advancing our process of treatment. If we cannot maintain sanitary water then we will be facing major economical and medical expenses out of pocket.

Energy            With the increase in population we are demanding more and more energy every year. Water is involved in every aspect of energy production. Water is used for the extraction of raw materials, cooling machines, and in the cultivation of crops for biofuels such as ethanol. Contrariwise, energy is necessary for the distribution of water for human use. In order to support our energy sector, we must conserve our water resources for the production of energy in the future.

Conclusion        Water is the most important tool for survival. We must integrate all of our resources to ensure that we can maintain our quality of life for years to come. We are coming up on a crossroads as to whether we will run out of water and our world becomes a wasteland of desert or whether we use our resources in a way to conserve water and maintain our way of life.

(References are available by contacting Radona Williams at [radona@wyoingwater.org](mailto:radona@wyoingwater.org))