

Dear UAWCD,

We are 7th graders from Darren Patterson Christian Academy. We have been studying about water conservation and sustainability. We have seen videos and read articles about water sustainability. We have learned how much water we use on a day to day basis. Did you know that an average american use 80-100 gallons of water each day? That was something that was really surprising to us.

We were wondering what some of the water issues here in Buena Vista are. What is the crop that uses the most water in Colorado? What are some of the challenges with water and agriculture? We also want to find out more ways to use less water.

Thank you for taking the time to read this for us. We appreciate it. We hope you can answer our questions and we thank you for your time.

Sincerely,

Abby, Wylie, and Klayt

Dear UAWCD,

We are two 6th grade friends from Darren Patterson Christian Academy in Buena Vista. We both enjoy learning here and are thrilled to have you help us with our education.

In language and science class this quarter we have been learning water sustainability. In language we have learned about how water is an ancient relic and how important it is today and in the future. We are doing so many things that are affecting water and even the earth in general, such as wasting water in agriculture by over watering our plants and animals, making things out of water that we don't need such as fountains and one way we sometimes waste water is when we take long showers that are unnecessary and yet we always expect water to be there. In science we have learned how much saline water we have compared to freshwater we have, how much freshwater we have access to, and the water cycle. We also have done diagrams of each to better understand the concept.

And for these reasons we are wondering if Chaffee County has any water problems? And if so what are they? How do they affect us? Where do they take place? Why are they happening? And when did they start happening?

Thank you for your time and help with our questions. You have really been a big help. We can't wait to hear back from you and we are excited to see what you have to say.

Sincerely,

Cora and Maya

Dear UAWCD,

Hello, my name is Royal and I am a student at Darren Patterson Christian Academy in Buena Vista. I am writing to you because I have some questions about water in Chaffee county. In language class we have been reading and watching videos about water sustainably.

We watched a video in which Charles Fishmann said water isn't totally a global problem but a local problem. Do we have any water problems in Chaffee county? Another question I have is, is Colorado's water really abundant as I think is. I understand that we do have bad winters and summers, but it seems to me that it only affects agriculture, is that true?

I thank you for your time.

Sincerely,

Royal



UPPER ARKANSAS
WATER CONSERVANCY
D I S T R I C T

PHONE: 719-539-5425 ♦ FAX: 719-539-7579 ♦ P.O. BOX 1090 ♦ SALIDA, COLORADO 81201

February 1, 2019

Dear Abby, Wylie, and Klayt,

Thank you so much for your letter and for your desire to learn more about water. We certainly appreciate you sharing some of the things you have learned so far and for asking such great questions! Education is very important to us at the Upper Arkansas Water Conservancy District and we are so glad that you reached out.

You asked about water issues in Buena Vista, which we think is great, because knowing about the place we live helps us care more about it and be better stewards of things like land and water. If you look around Buena Vista, what are some of the things you notice? I for one can't take my eyes off of those big mountains! I also notice that Buena Vista sits in a valley along with the Arkansas River and there are a lot of green fields in the summer.

Chaffee County has a lot of agricultural land and, to keep that land green, water is diverted from streams and rivers. This is called irrigation. Irrigation helps keep things green and allows farmers and ranchers to grow crops and raise livestock. The problem is that there is not always enough water in the stream for everyone all the time. Sometimes water for irrigation has to be turned off up here in the high mountain valleys because other people downstream are in priority and have a right to use that water first.

Well, do you remember those big, beautiful mountains that you can see from Buena Vista? Those mountains play a really important role in our water in the Arkansas River valley. A lot of our water comes in the form of snowmelt, which means the more snow we get in the winter, the more water there is in the summer. Some years are wet, some years are dry, and some years are just plain average. Wouldn't it be great to have a place to put extra water in those wet years, when everyone is getting enough, and be able to use it in the dry years when there's just not enough to go around. That's one thing that's really important to us- we call it storage.

Think of storage like a bucket, or a place to put all the extra water that you save. That bucket can be above ground, like a reservoir. Have you ever been to Cottonwood Lake? Well, that's a reservoir. But water can be stored below ground too and this is called alluvial storage. Our area

has great potential for storing water underground and that's one thing we're working on here at the Upper Ark. We are always working hard to find solutions and better ways to manage water.

You also asked what crop uses the most water in Colorado and that would be alfalfa. You can find more information about crop water requirements through the Colorado State University extension website. Here's a start! <https://extension.colostate.edu/topic-areas/agriculture/seasonal-water-needs-and-opportunities-for-limited-irrigation-for-colorado-crops-4-718/>.

In order to manage our water resources wisely, we, just like you, continue to ask questions and keep learning. We even work with other organizations to do studies, like Colorado State University and the Colorado Water Institute. Did you know that a research study is happening right now that looks at irrigation in our area and hopes to provide irrigation scheduling tools to make systems more efficient? It is much easier to manage something as important as water when we have a good understanding, and good data, to support our decision making.

To learn more about this study, or to find information about other water related topics, please visit our website at www.uawcd.com. The website has details on different water projects taking place in our area, along with a local water news page with informative articles, photos, and current updates. There is also a list of water terms and definitions if you need help with words like "priority" or "irrigate" or "diversion".

Thank you again for taking the time to share about your water education journey and for including us in the process. We hope you enjoy the water education materials being sent your way and trust that you will remain lifelong learners about this most important resource!

Sincerely,

Your Friends at The Upper Arkansas Water Conservancy District



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Dear Cora and Maya,

Thank you so much for your letter and for your desire to learn more about water. We certainly appreciate you sharing some of the things you have learned so far and for asking such great questions! Education is very important to us at the Upper Arkansas Water Conservancy District and we are so glad that you reached out.

You asked if Chaffee County has any water problems and how those problems might affect us. Did you know that our area is considered a high mountain desert and is one of the driest places along the Arkansas River? You might wonder why we have so many green fields if we live in a desert. And what about those big mountains?

Chaffee County has a lot of agricultural land and, to keep that land green, water is diverted from streams and rivers. This is called irrigation. Irrigation helps keep things green and allows farmers and ranchers to grow crops and raise livestock. The problem is that there is not always enough water in the stream for everyone all the time. Sometimes water for irrigation has to be turned off up here in the high mountain valleys because other people downstream are in priority and have a right to use that water first.

That's where those big mountains come in and play a really important role. A lot of our water comes in the form of snowmelt, which means the more snow we get in the winter, the more water there is in the summer. Some years are wet, some years are dry, and some years are just plain average. Wouldn't it be great to have a place to put extra water in those wet years, when everyone is getting enough, and be able to use it in the dry years when there's just not enough to go around. That's one thing that's really important to us- we call it storage.

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In order to manage our water resources wisely, we, just like you, continue to ask questions and keep learning. We even work with other organizations to do studies, like Colorado State University and the Colorado Water Institute. You mentioned over watering plants and animals. Did you know that a research study is happening right now that looks at irrigation in our area and hopes to provide irrigation scheduling tools to make systems more efficient? It is much easier to manage something as important as water when we have a good understanding, and good data, to support our decision making.

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We think it's great that you are interested in learning specifically about local water issues. Knowing about the place we live helps us care more about it and be better stewards of things like land and water. And since water is managed differently from region to region, state to state, and even country to country, it's important to consider issues specific to the Arkansas River Basin.

If you look around Chaffee County, what are some of the things you notice? I for one can't take my eyes off of those big mountains! I also notice that much of Chaffee County sits in a valley along with the Arkansas River and there are a lot of green fields in the summer.

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In order to manage our water resources wisely, we, just like you, continue to ask questions and keep learning. We even work with other organizations to do studies, like the United States Geological Survey (USGS). You asked about the abundance of water in Colorado- well did you know that the USGS did a study that looked at that very same question for our area? Lots of people are asking these same questions!

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