Newsletter – Winter 2020

NEWSLETTER - WINTER 2020

#UGRWCD

FROM THE DESK OF THE GENERAL MANAGER

Sonja Chavez, General Manager

I can't believe how quickly this fall has gone by. Our staff and Board have worked diligently over the past few months to review current programs and financial accounts and prepare for the new budget year. I'm happy to report that the District is in good financial position and we have once again set-aside $200,000 for our 2021 District Grant Program which opens in February. This is one of our favorite District activities, as we love seeing our community come together to implement important water resource projects and then getting to share them with you.

We also like sharing our board member profiles. In this edition we are featuring Michelle Pierce, Board President. Special features for this edition include an interview with Trout Unlimited (TU) employee, Gunnison native, and local, Jesse Kruthaupt. Jesse's work in the Upper Gunnison Basin has focused on collaborating with the community on important irrigation infrastructure projects, restoring riparian areas and improving the fishery. Also, biologist Allison Del Gizzi of the Coal Creek Watershed Coalition talks to us about the ecological role of algae in our streams. Joellen Fonken of Gunnison Nordic Club shares some exciting improvements they made at Mill Creek this summer thanks in part to a grant from the District, and just in time for cross country skiing and snowshoeing!

We hope you have enjoyed the first year of our newsletter! We look forward to 2021 and providing you with legislative updates and interesting pieces on the relationship between forest and watershed health, soil health, cloudseeding, basin snowpack monitoring, water-quality, water quantity, wet meadows resiliency, etc. I could go on and on but instead will let you get to the good stuff.

On behalf of our District Board, General Counsel John McClow, myself and all our staff, we hope you have a very safe and happy holiday season!

Sonja

UGRWCD Board Member Profile

President Michelle Pierce

Michelle Pierce was appointed to the UGRWCD Board of Directors in June 2015 representing Division 1, Hinsdale County. Michelle currently serves as the President of the Board. Her term expires in 2023.

Michelle describes herself as a "layman" when it comes to water issues even though she was instrumental in helping facilitate one of the most important watershed management projects in the history of Hinsdale

County. During her tenure as Town Manager for the Town of Lake City, Colorado from 1985 to 2012, it came to light during the severe drought years of 2002 and 2003 that Lake City could be in serious trouble if drought conditions continued. She and other local officials realized that there was a need for a secure source of augmentation water for Lake City's water wells.

"The understanding prior to 2002 was that the Town of Lake City could rely on its long term lease for augmentation water in Blue Mesa Reservoir which could be released, or exchanged, to meet calls by downstream senior water users, rather than having to curtail its own use. But then we were made aware of in instream flow right held by the Colorado Water Conservation Board on the Lake Fork River, upstream of the Blue Mesa Reservoir, that could interrupt this exchange in dry years," said Michelle.

It was well known locally that, for many years, the level of water held in Lake San Cristobal in Hinsdale County was artificially raised by up to three feet at certain times each year by strategically placing boulders to increase the water level in the Lake. Michelle and others in the county surmised that perhaps this process could be formalized as a "control structure" and the waters of Lake San Cristobal could serve as an augmentation source for Lake City and Hinsdale County.

"During this process, I learned all about augmentation plans, senior and junior water rights and I came to have an increasing awareness of our water supply and the importance of water resources in our state," said Michelle.

Hinsdale County approached the UGRWCD about developing a joint water management plan for Lake San Cristobal to address the water augmentation issues for the Lake Fork Valley. As it turned out, in order for this joint contract to be formalized, the voters of Hinsdale County had to approve the measure by a ballot issue. Michelle, in partnership with the Hinsdale County Administrator, then developed a power point presentation to educate voters about the importance of having a secure source of augmentation water, which they presented to various groups in the county over 20 times before the election. The measure ended up passing by just 23 votes.

In 2005, Michelle was appointed by the Lake City Board of Trustees to serve as the representative for Lake City on the Gunnison Basin Roundtable, where she served for 10 years. The Gunnison Basin Roundtable was one of nine such groups created earlier that year by the Colorado legislature with the goals of protecting, conserving, and developing water supplies within Colorado, including the Western Slope, for future needs. After Michelle retired in 2012 as the Town Manager of Lake City, she fulfilled her remaining term on the Gunnison Basin Roundtable and was then approached in 2015 to join the UGRWCD.

"I am happy to serve the District," said Michelle, who believes she was elected president of the district in part because she is a "neutral party" with experience to help organize, manage and facilitate the Board's involvement in District programming.

"I love our Board," said Michelle. "We are a very diverse group with incredibly different backgrounds, yet we listen thoughtfully to each other and treat one another with respect, even when there are disagreements."

Michelle feels that one of the District's greatest challenges is the comprehension and execution of the Watershed Management Plan and its importance in guiding the Board and staff into the future. "The Watershed Management Planning Process will take a lot of coordination and leadership from the District," said Michelle.

Michelle said the UGRWCD is the "gatekeeper" of all water issues in our district and that in order to protect our water supply and conserve our resources, the District must make our issues understandable to a layperson and all stakeholders in our basin.

When not tackling water issues, you'll find Michelle engaged in her passion of genealogy research. "I am an avid researcher," said Michelle, who admits to discovering a few "scoundrels" in her lineage. Michelle enjoys using her genealogy research skills by serving as the registrar for the Gunnison Valley Chapter of

the Daughter of the American Revolution.

"Over the years, I've had the opportunity to observe Director Pierce in her various leadership roles throughout the Gunnison Basin, and always with admiration," said UGRWCD General Manager Sonja Chavez. "I'd definitely describe her as more than a "layperson" in the water world and so would many others who have had the pleasure of working with her. As a Director and our Chair, she works really hard to understand all water resource issues and perspectives and leads with a strong, fair and balanced approach. Our organization has grown under her leadership and we're very lucky to have her."

Buckey Lehman Diversion Improvement Project

Hyzer Ditch Diversion Improvement Project

Marshall No. 2 Ditch Improvement Project

Fishing for Improvements

Sue Uerling, UGRWCD Administrative Assistant

For most people, “fishing” conjures up thoughts of a relaxing day at the local fishing hole, but for Jesse Kruthaupt, it just means another day at the office. Jesse began his career with Trout Unlimited (TU) by doing some contract work for the nonprofit organization in 2012 and was hired full time as a Project Specialist in 2013. TU works “to conserve, protect and restore Colorado’s coldwater fisheries and their watersheds” and what is good for the fish is good for all water users. As Jesse points out, the Upper Gunnison District’s mission and TU’s mission really overlap well, and this has resulted in Jesse’s involvement in a number of watershed improvement projects in cooperation with the District.

“In 2015, the legislature adopted the Colorado Water Plan which, in part, provided some funding through grant programs and that’s when I really began working closely with the District,” said Kruthaupt. “Through the grant program, I can work cooperatively with the District and landowners on irrigation infrastructure and habitat improvement projects by updating diversion and irrigation control structures

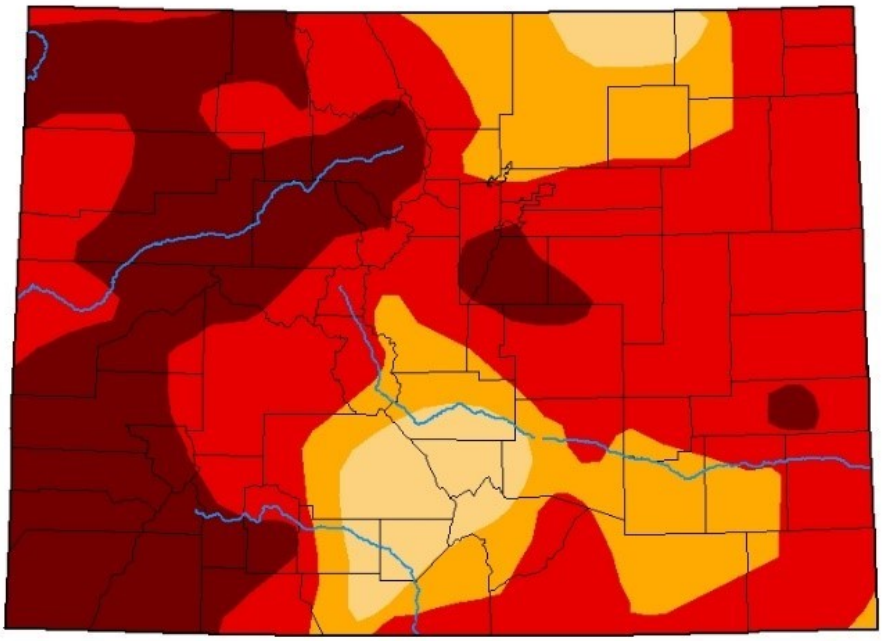
For those who don’t know Jesse, he’s a Gunnison local. Jesse grew up on a cattle ranch east of Gunnison where he learned the complexities of water rights, irrigation and hay production. As a member of the District’s Watershed Management Planning Committee and a regular attendee at the Gunnison Basin Roundtable meetings, Jesse has come to have a broader understanding of the goals and challenges of all of the stakeholders involved in watershed management in the region.

“Working with the District and water leaders in the valley has helped me understand the complexity of pressures on our water resource and opportunities to protect it,” said Jesse. “Since funding is limited, it really comes down to determining the most effective and efficient approaches we use to benefit the most water users.”

Recently, Jesse helped complete Phase I of the Upper Gunnison River Basin Watershed Assessment & Management Planning Process for the District which focused on the Lake Fork of the Gunnison, the East River and Ohio Creek. Through this assessment phase, Jesse had a lot of conversations with water users in the District about their challenges and needs. “I understand that these conversations are inconvenient and rather a pain for these people who are very busy with their day to day operations, trying to make a living,” said Jesse. However, Jesse explained that it is his goal to try to turn these conversations into a coordinated effort for watershed management planning and eventual implementation. “I am hoping that these conversations will lay the groundwork for brainstorming projects to benefit fisheries, irrigated agricultural lands and water recreation and then coming up with creative ways to fund and implement these projects.”

“Jesse has been an integral part of the District’s watershed management planning process from the very beginning. His knowledge of the basin, agricultural practices, fisheries, and watershed environment has provided a strong commitment to moving this process forward. In Phase II, Jesse will be involved in assessing water uses in the Tomichi, Taylor, Cebolla, and Gunnison mainstem sub-basins as well as completing on the ground projects that will provide support to water users now and into the future,” said Beverly Richards, Water Resource Specialist for the District.

As Jesse continues to work on projects for Trout Unlimited, in cooperation with the District, we can all look forward to future relaxing days at our favorite fishing hole.



Drought Conditions Predicted to Persist into 2021

Beverly Richards, UGRWCD Water Resource Specialist

Drought conditions continue to exist in most of the western United States and Colorado is no exception. In November, the US Drought Monitor showed that 74 percent of the state was in extreme (D3) to exceptional (D4) drought conditions. Most of Gunnison County falls within the extreme category though northern areas fall within the exceptional category as do most of Mesa, Montrose, Delta, and Pitkin counties. Water year 2020 has been classified as the third driest water year on record behind 2002 and 2018.

The National Oceanic and Atmospheric Administration (NOAA) predicts that the El Niño-Southern Oscillation (ENSO) climate pattern will last through the winter. This pattern often means there will be less moisture and precipitation in southern areas of the state, which includes the Upper Gunnison Basin. The three-month outlook indicates above average temperatures are likely to be a constant. Due to this, a variety of conditions are likely to occur.

With less precipitation, runoff will likely be lower than normal, resulting in lower storage amounts in Taylor Reservoir, Blue Mesa and the entire Aspinall unit. With reservoirs already at low storage levels, Taylor Park at 63% and Blue Mesa at 48%, conditions this coming runoff season could continue to deteriorate, though demands will likely stay the same.

Soil moisture will also add to the problems water managers will encounter this coming water season. The topsoil moisture in the entire state is classified as either the second lowest or record lowest in the 10-year average. This will have implications on streamflow if the soil profile must be filled first.

As part of the UGRWCD Mission Statement and Goals, the District “accepts the preponderance of scientific evidence indicating that warmer temperatures are already having effects,” such as extreme drought, on our watershed. Therefore, it is important for the UGRWCD Board to adapt planning assumptions to meet these changing conditions. In the coming weeks, various committees of the Board will be meeting to propose ideas and strategies to help conserve water through what could be a very dry summer. It will take the cooperation of everyone in our District to help conserve and meet our water needs and we welcome your input. In the meantime, do your snow dance!

Winter Trail Repaired in Mill Creek

Joellen Fonken, Gunnison Nordic Club

Water has a way of flowing through the easiest route and sometimes this can cause problems for the surrounding grounds. Such was the case for the Little Mill Creek, which had been slowly intruding on a popular trail and ditch alignment for almost a decade. During this time, it became more and more difficult for Gunnison Nordic to maintain winter ski grooming. In the Spring of 2008, Little Mill Creek had a major blow out at the intersection of the trail and the creek. Users had to divert around the major "hole" in the area to continue on their route. Unfortunately, this also meant that Gunnison Nordic was forced to suspend their snow grooming in the area since they could not get their grooming equipment through the historic route.

A grant from the Upper Gunnison River Water Conservancy District allowed Gunnison Nordic to repair the canal in Mill Creek by placing a culvert in the area to realign the runoff. The culvert was then covered with a natural trail surface material. In October 2020, a team of community groups came together to complete this scope of work and make the winter trail accessible. Instrumental in this project were the UGRWCD, Gunnison County 4H Horse Club, Morrill Griffith of Sun Sports, Brett Redden and masterful heavy equipment operator Raymond Ray.

"We really appreciate the support of the Upper Gunnison Water Conservancy District and all of the partners involved in this project," said Gunnison Nordic board member Sandy Snell-Dobert. "This is a prime example of what makes Gunnison County shine."

On November 24, 2020 the improved trail was groomed for skiers, unofficially starting the Gunnison Nordic grooming season.

ALGAE IN OUR RIVERS

Alli Del Gizzi, Coal Creek Watershed Coalition

You have probably seen it, maybe even slipped on it the last time you went fly fishing, but have you ever wondered about the slimy stuff growing on the bottom of our streams and rivers? That slippery slime is probably some kind of algae, and it is part of the natural ecology of our rivers and streams.

Algae is a term used to refer to a highly diverse group of plants that grow in water. Freshwater algae come in a variety of shapes, sizes, and colors, and are an essential component of all freshwater ecosystems.

In most of the rivers and streams throughout the Upper Gunnison Watershed, algae can be seen growing on rocks, logs, and other underwater surfaces. If you were to visit a particular fishing spot or boat ramp consistently, you might notice that the algae population varies week-to-week, month-to-month, and even year-to-year.

The observable increasing and decreasing of algae populations is a result of many different influences such as climate and hydrology, vegetation coverage, riverbed material, aquatic life, water management practices, nutrients, and water chemistry.

Seasonal temperatures, climate driven events, and the way water moves through an ecosystem affect algal growth and development in various ways. In high alpine environments, spring snowmelt typically scours algae from river bottoms allowing for a fresh start in the summer. However, years with a smaller snowpack see weaker spring runoff and flows fail to fully clean streambeds, resulting in larger amounts of algae the following summer. Other climatic events such as drought and fire can also alter algae growth patterns.

Algae, like other plants, need light to survive. Shade can play a major role in algae production since it limits algal growth. The amount of shade over a stream depends on many factors such as elevation, stream size, native vegetation type, and vegetation health. A stream surrounded by degraded vegetation or no vegetation could be expected to see a rise in algal growth due to increased access to sunlight.

Riverbed materials vary in different environments and can include bedrock, cobble, sand, silt, and wood. The size of riverbed material present in a stream determines the amount of surface area available, controls access to light, and influences invertebrate communities, therefore affecting algae's ability to grow and reproduce.

Algae are at the base of aquatic food webs, which means they are usually being eaten by other organisms. Some invertebrates, commonly referred to as "bugs", consume algae. Generally, fish eat the bugs that consume the algae. These relationships between algae, bugs, and fish influence algae growth and distribution.

You may be an angler, or know one, who looks for slippery reaches to fish in. Such thinking is well-founded, as a slippery reach could suggest that numerous fish are eating bugs rapidly, preventing the bugs from consuming algae and, therefore, making the stream slippery.

The way water is managed by humans affects flow rates which can heavily impact algae growth. Man-made alterations like diversions and dams can have a particularly noticeable effect. If streamflow is reduced due to a diversion, algal growth immediately downstream may increase. If a flow is reduced to zero, the algal community could be killed in that stretch of river.

When algae have access to high quantities of nutrients, they can grow faster and become more abundant. Nutrients occur naturally in any stream system. For example, when leaves fall off of trees in autumn, they decompose and add nutrients to rivers and streams. Human inputs such as agriculture, stormwater, and wastewater runoff also deliver nutrients to stream systems.

All aquatic life, including algae, can be impacted by water chemistry. Many species have a range of water chemistry conditions that they do well in. For example, if a particular stream had a high concentration of

arsenic, many species of algae and bugs would have difficulty growing and surviving.

All of the factors described above control algae growth and distribution simultaneously and to varying degrees. Determining which factors are most heavily influencing algal growth at any one time in any one location can be challenging, to say the least.

Exactly what algae communities' impact on environmental health is and methods to determine which factors are most heavily controlling their distribution are developing topics both locally and nationally.

Recent sampling conducted by the Coal Creek Watershed Coalition (CCWC) with the help of UGRWCD indicated that algae concentrations are within the state's current standard. The most effective way to use that data to implement beneficial management practices is also an emerging subject.

For more about algae in our rivers look for CCWC's upcoming Washington Gulch Watershed Plan, expected to be completed in Spring 2021.

Recent Posts

GUNNISON HIGH STUDENTS PRESENT AT HEALTHY RIVERS YOUTH WATER SUMMIT

THANK YOU WESTERN VOLUNTEERS!

UGRWCD Board Meeting – January 25, 2021

Water is Life: Some Local Color

Water is Life: Who's Behind the Tap

Upcoming Events – Stay current with all the water-related events in the Upper Gunnison. **CLICK HERE**.

Miss a newsletter? Check out our past newsletters. **CLICK HERE**.