



*The whole crew — from L: Vida Dillard, Courtney Blackmer Reynolds, Hayley Stuart, Kestrel Kunz, Nan Campbell, Hattie Johnson, Natalie Kellum, Kathryn Jacaruso — at Phantom Ranch for some cold lemonade and toilets with seats. Photo: Tom O'Keefe*

## Eight Women, a World Wonder, and a Water Crisis

by Hattie Johnson and Kestrel Kunz

The plan to do a women's self-support kayak trip through the Colorado River in the Grand Canyon was seeded when American Whitewater's (AW) Southern Rockies Associate Stewardship Director Kestrel Kunz put together an all-female trip on the Middle Fork Flathead River (MT) in 2018 to celebrate the 50th anniversary of the passage of the Wild and Scenic Rivers Act. The success and joy that the trip produced solidified plans for future such excursions. A shocking, yet successful bid in the Grand Canyon lottery put wheels in motion for this year's trip, led by AW's Southern Rockies Stewardship Director Hattie Johnson. The timing turned out to coincide well with high-level discussions and decision making around how we manage water throughout the Colorado River Basin specifically, and the southwest in general. During our trip through the stunning canyon walls, we learned about what is at risk, what is on the

horizon, and what we can do about it.

The future of the Grand Canyon is unknown. The Colorado River links two critical reservoirs – Lakes Powell and Mead – whose construction, filling, and management provided for growth and development of the arid southwest. Dividing up of the river's water was calculated during a wet period not experienced again in the 100 years since the foundational agreements were inked. Further, human-induced climate change has aridified an already dry southwest. Scientists, states, water users, river conservation organizations, and the federal agencies that manage the river don't have a clear solution to address the rapidly decreasing water levels in the country's largest reservoirs sitting behind Glen Canyon and Hoover dams.

The federal government has asked the seven basin states – Colorado, New Mexico, Utah, Wyoming, Arizona, Nevada,

*(continued on page 4)*





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## Executive Director's Eddy

### Partnering to Grow Our Effectiveness and Impact

We have been redefining our network over the last dozen years to respond to the seismic shift in how 'traditionally-managed' rivers have become staffed, managed, and funded, or not. Specifically, federal river staff position support has been decimated, particularly on Wild and Scenic Rivers. Several state river management programs have disappeared by eliminating funded positions or not replacing veterans as they retire. Of the dozens of 'state scenic river' programs that formed in the wake of the passage of the Wild and Scenic Rivers Act in 1968, only a few remain.

A contributor to the unraveling of institutions supporting wise river-based resource management is the loss of a paddlesports trade association through which recreationists show their interest in enjoying rivers with their pocketbooks.

The outlook for growing RMS membership and programming in 2011-2013 was dim.

#### Enough whining. What has RMS done in response? Plenty!

We work with agency partners more closely than ever. We are appreciative and proud about being able to develop and deliver training workshops, webinars, River Management Roundtables, annual River Ranger Rendezvous (2022 on the San Juan in Utah and this summer on the Flathead in Montana), and biennial Symposium (2025 in Ashland, OR).

And... RMS members who are both individuals and representatives of new or re-imagined communities have stepped into entire, or portions of, river management roles previously led by river administering agencies, in some instances partnering with local offices to provide programming support. Today's members include new, regional organizations — [We Love Clean Rivers](#) and [Thrive Outside in St. Louis](#) — as well as the veterans at [RiversEdge West](#), [Great Egg Harbor River](#) or [Farmington River Watershed Association](#) whose work celebrates 70



Risa Shimoda, RMS Executive Director

years of stewardship. We are impressed each month with the project pursuits, including river management-related initiatives by many skilled and talented staff at [American Whitewater](#), [American Rivers](#), and [Adventure Scientists](#).

The river management network relies on individuals and organizations beyond river staff, more than ever, and we believe we are making partnerships more possible through programs and outreach. Today's members and volunteers represent a broadening platform of river professionals, whose interests and work are increasing the depth and variety of expertise among us. Growing among RMS' member ranks are:

- Members of the paddlesports and outdoor trade, including Jack's Plastic Welding, OARS, USA Raft, Pyranha, RiverMaps, and Liquidlogic Kayaks.
- College and university students, including those enrolled in the River Studies and Leadership Certificates and their advisors, and the [River Field Study Network](#)
- Members of the [A-DASH Collaborative](#) co-founded by RMS in 2019 to serve members and their public partners and customers with resources that address sexual harassment, bullying, and unwelcome behavior in our river workspaces. The A-DASH Collaborative is

## President's Corner

### The 2023 high water boating conditions are making everyone giddy.

It is likely these favorable conditions will continue through much of the summer as steady rains continue to fall over the greenest meadows I have seen since my move out west in the 90's and the rolling thunderstorms are still producing fresh snow on the Colorado and Wyoming mountain ranges.

Outfitters, private boaters and river rangers likely have soloed a familiar stretch of river many times, but during the challenges of high water and the increased likelihood of a long swim, now is the time to rebuild our river communities.

Remember when a solo boater, whether a river ranger, outfitter or private boater, would be welcomed to join a group heading into a particular rapid no matter if they were local or not? Remember when boaters carried throw ropes when scouting rapids or grabbed an eddy until the first boat on the next trip coming downriver made it safely through the rapid?

The rebuilding of this type of river community is afoot, as is the sharing of institutional knowledge of what a particular rapid may be like at the current CFS, which can be carried forward to the next generation of boaters.

2023 has been a time of self-reflection for each boatman, private, commercial or river rangers to double-check our physical capabilities and the boating policies and safety protocols we operate under. As river rangers, our hope is the hard work and collaboration to create solid boating programs have the checks and balances in place that will keep the river rangers and other river based specialists safe during the 2023 boating season.

Collaboration continues to be a River Management Society strength so that we may all be able to enjoy these high water boating conditions both professionally and as private boaters. When you have a question, reach out to those on the list-serve for answers whether it is now or after your program has reflected on the 2023 boating season. It is never too early or too late to improve our boating skills, our knowledge and our willingness to say, *I Will Not Boat Today*. ❖



Judy Culver, RMS President

- offering a seven-part 2023 webinar series, "[Understanding, Preventing and Assessing Sexual Harassment on Rivers](#)," featuring A-DASH Collaborative trainers and leaders of two of the nation's most well-respected rafting companies.
- RMS staff and members serve in leadership roles on committees for the [National Wilderness Skills Institute](#) (NWSI), [Wild and Scenic Rivers Coalition](#), and North American chapter of the [Global River Protection Coalition](#).

#### New Collaboration on the Horizon

The July 11th "On the River" River Management Roundtable (visit the [RMR website](#) if this date has passed) will feature a discussion about the roles and alignments between RMS (and you as a member), National Association of Boating Law Administrators (NASBLA), and Society of Boating Access (SOBA). I bet few of us are conversant in each group's responsibility and attendees will see opportunities for us to each rely on each other as allies without 'giving up' equity or collaborative value.

#### Optimism for the Messiness of Sharing

As RMS continues to honor the experience and invaluable institutional memory you, our members, possess, we welcome a variety of new members to the RMS family as we pursue our mission 'to support professionals who study, protect and manage North America's rivers.' Working collaboratively without a 'head person' or relying on consensus among a large number of volunteers is, as they'd say in my hometown of Sherrill's Ford, NC, "a mess." However, collaboration grows a group's sense of ownership in whatever has been decided and, if facilitated with wisdom and patience, a superior outcome.

Let's prepare for future collaborative messiness and the strong, wise partnerships we discover along the way. ❖

Risa Shimoda  
Executive Director

Judy Culver  
RMS President



and California – to collectively conserve massive amounts of water to protect the plumbing that provides water to over 40 million people in two countries. Whatever the outcome of these negotiations, it is clear that failure to make significant cuts in water use and changes to how the reservoirs are managed and operated could result in drastic impacts to flows through one of the true wonders of the world, the Grand Canyon of the Colorado River.

Regardless of the actions and developments of the past, we now have a system that supports the livelihoods of millions of people; but that system was built to support more than it can. For instance, there are 30 federally recognized tribes with water rights to the Colorado River. A 1908 U.S. Supreme Court ruling *Winters v. The United States* held that Tribes have a reserved right to water sufficient to fulfill the purposes of their reservation. However, Native American homes are 19 times more likely than white homes to lack indoor plumbing. Tribal water rights have been undercut and have lacked the necessary infrastructure to be developed across the Colorado River basin. About 20 percent of the river’s historic flow is dedicated to quantified Tribal water rights, while many other Tribes lack quantification of their rightful and needed water supply.

The problem on the Colorado River is not a drought. Climate change is making the southwest more arid. Water supply and demand is drastically unbalanced and has been for over a century. The impact is a one-two punch and the still-changing climate makes that imbalance even harder to maintain. As water users in the Colorado River basin try to figure out how to cope, we have an opportunity to advocate for the health of the Colorado River, especially as it flows through the Grand Canyon.

This past April, when Hattie Johnson, Kestrel Kunz, and six of their female comrades set out on an 11-day self-support<sup>1</sup> kayak trip through the Grand Canyon, a wet winter triggered river managers to send more water than expected down the river, despite imperiled reservoir levels that had led to significantly reduced releases from Glen Canyon Dam in 2022. We had expected flows to be on the low end, however, we got to enjoy healthy flows (8,500 - 17,900 cfs) and milk chocolate water below the confluence with the Little Colorado River. More lines opened up for us and our crew got the pick of punching the meat or skirting right or left of bus-sized hydraulics.

We had some swims, gear malfunctions, and spilled dinners, but we left the canyon with so much more than we had when we put on. Traveling through 226 miles of one of the grandest canyons with a crew of women left us filled with so much love for each other and for the place that had brought us all together. The canyon also left us with a heightened responsibility to protect this place for future generations, further fueled by half of our group being mothers to current and future river rats.

On April 11, just as we were likely navigating Hance or Sockdolager rapid, the Bureau of Reclamation (BOR) released the draft supplemental environmental impact statement on alternatives for reservoir management in the short term. This planning process is specific to the operations at Glen Canyon and Hoover dams and is one of many public processes on the table right now that could have a significant effect on how the river flows through this special place.

The draft plan puts forward three possible alternatives for

how the reservoirs are managed in the 2024 operating year through 2026, when longer term management decisions need to be finalized. The first is the “no action” alternative. In this option, Reclamation lays out what happens if we keep operating the reservoirs as we have been. The other two action alternatives are very similar in how Glen Canyon Dam would be operated and vary in which lower basin states take cuts.

If nothing is done, meaning the “no action” alternative is selected, chances are much higher that water levels in Lake Powell will drop below minimum power pool levels (i.e. the reservoir height at which water would not reach the turbines that produce power and serve as the current outlet channels for flows below the dam) and would not come back up. Under that scenario, we would be releasing downstream flows through river outlet works that have not been tested to consistently pass water. This would significantly lower opportunities to send variable and high flows downstream, creating a much more static flow regime. Both action alternatives provide protections for power pool elevation, allowing for seasonal variability and high flow opportunities to optimize downstream recreation and ecosystem function.

When the government makes any decision that has the potential to affect the human and natural environment, this triggers the National Environmental Policy Act (NEPA). If an initial assessment determines the impacts could be significant, then a full Environmental Impact Statement is prepared. Between 2013 and 2018, the average time to complete these processes was 4.5 years.<sup>2</sup> Reclamation has committed to fast tracking these processes due to the current water crisis. American Whitewater has worked tirelessly to protect the integrity of the National Environmental Policy Act and to ensure that these assessments are thorough and include adequate time for public engagement, while also being efficient. The public comment period is an important chance for organizations like American Whitewater and its members to share perspectives on the federal action being contemplated. Despite the pressures of the government and Mother Nature, we will have to act fast on this one.

The managers of the Colorado River Basin have a bold task ahead of them, with *at least* three big NEPA studies to complete between 2023 and 2026. We say at least three because there are new, unanticipated issues affecting the Basin every day that could result in further public scrutiny, such as the appearance of smallmouth bass in the canyon, and the sedimentation of Glen Canyon, as well as the returning rapids and side canyons to that once drowned place.

We had expected Reclamation to release the supplemental Environmental Impact Statement for near-term (now through 2026) Colorado River Operations while we were on the river. It was eerie to know that while we were enjoying the splendor of the Grand Canyon, there were very real decisions being proposed about its future. This step in the process is where we will need our community’s engagement and the voices of many others who realize the importance of the Grand Canyon. As we tried to quickly adjust back to life above the rim, we began reviewing the proposed operations and will aim to provide specific guidance through our online channels by the time you’re reading this with how you can make your voice really count. Subsequently, or more likely concurrently, we will be tracking a similar NEPA

process for Colorado River operations that will be initiated after 2026. Please take this opportunity to engage!

On our trip, we missed a High Flow Experiment release by just a few days, and while it would have been really interesting, we were all a little relieved. From April 24-27, the Grand Canyon was running at 39,500 cfs (for 72 hours) for the first time since the last High Flow Experiment in 2018. If you’ve been lucky enough to go down the Grand Canyon in the past few years, you may have noticed that the beaches are in disarray, which is caused by diminished or non-existent peak flushing flows and the massive drop off of sediment in the upstream reservoir, Lake Powell.

Sandy beaches have shrunk in size, eroded, or in some places been replaced by cobble bars. For our small group of self-support kayakers we had no problem finding plenty of room to lay our weary heads. The High Flow Experiment comes as an unexpected relief for both the environment and for recreation in the Grand Canyon, especially in the midst of record low reservoir levels behind Glen Canyon Dam. Environmental, recreational, and Tribal interests are not represented on the High Flow Experiment working group like they are on numerous other working groups for the Grand Canyon. However, we do have an opportunity to advocate for continued High Flow Experiments and other flow scenarios through the myriad of management processes underway this year.

Spending 11 days within the Grand Canyon gave us plenty of time to reflect on our desire, motivation, and vision for protecting this place. Circled around our Luci Light “fire” in the glowing canyon dusk, we talked about the uncertain future for

the river that we called home during this brief moment in time. Despite the omnipresent uncertainty of flows in the Colorado River, it was unimaginable to think about a canyon choked with encroaching vegetation, a result of little to no variation in a seasonal hydrograph. We saw the threatened humpback chub up close as they swam towards our dishwater just above the Little Colorado. If flow management continues as it has, predation from smallmouth bass would severely impact their existence. At Diamond Creek we chatted with Hualapai rangers who spoke about the importance of the health of the river and canyon which is their home, and also provides important income to the Tribe.

Looking toward the long-term future of the canyon, we will ensure that recreational flow preference studies completed by American Whitewater and our partners in the Upper and Lower Basins are available and included as a part of decision-making processes. We will continue to advocate for management that fully considers the impacts to recreation and the environment, prioritizing flows that have overlapping benefits for both. Staying true to our values and mission, when the opportunity arises, we will push for a Colorado River that one day might flow free again. But what’s most clear is that an issue this complex, and for a place this special, will require a lot of different people coming to the table. River runners, indigenous peoples, agriculturists, cities, and scientists need to work together to define both the probable and sustainable scenarios for the Colorado River and its grandest canyon.

Bouncing along Diamond Creek road provides one last journey, though this time in reverse, through the layers of rock that tell a long history. The changing vegetation, in full bloom

this time of year, eased us back to “rim world.” Being on the river for an extended period is a gift that allows for self-reflection and connection to your team that cuts deeper than it does up here. If you are reading this, we hope you’ve received this gift and that, if you haven’t yet had that chance, a permit or invite is in your future. Being in the flow of life of the canyon, depending on and supporting those around you, provides a good reminder of how taking care of those around you is required for a successful journey through life. A trip through the Grand Canyon leaves a lasting impression on all who are so lucky. The river that carved it is one of the hardest working in the country. Keeping the river flowing and healthy is integral to protecting the safety and welfare of the people and crops who rely on it. It’s time to figure out how to work with what nature provides, and to do so together. ❖

*We spent a long morning at the river’s confluence with the Little Colorado River to appreciate the importance of that place to the Navajo and Hopi peoples. This special place is the site of many proposed developments that would change its face forever. Some of these proposals, like a pumped hydropower project on Big Canyon - a side canyon to the Little Colorado - are still on the table despite vast and loud opposition.*

*Photo: Hayley Stuart*



<sup>1</sup> During our trip, we decided that team-support is a much more worthy title for this kind of adventure.

<sup>2</sup> [https://ceq.doe.gov/docs/nepa-practice/CEQ\\_EIS\\_Length\\_Fact\\_Sheet\\_2020-6-12.pdf](https://ceq.doe.gov/docs/nepa-practice/CEQ_EIS_Length_Fact_Sheet_2020-6-12.pdf)





*Gunnison Gorge, Colorado. Photo: Stuart Schneider*

by Stuart Schneider

“I am haunted by waters.”

— Norman Maclean

I live near the Gunnison River in Gunnison, Colorado. Not right on the banks, but about a mile east. Although a part of me would love to literally live right along the river, a better part of me feels it unwise for various reasons: a large dam upstream on the Taylor River (i.e., flood insurance costs); too cold and wet — especially in the winter when it’s -30 F; and leaving a river corridor as unspoiled as possible seems a good idea. Not that the banks are unspoiled. There are many houses and cabins along the corridor between Almont, where the Gunnison begins at the intersection of the East and Taylor Rivers. And the banks from this juncture to well below Gunnison are lined with rip-rap and irrigation canals — the river channeled for over a hundred years to irrigate valley hay meadows.

I’ve been pretty blessed in my life to usually live near rivers. I grew up in Central Missouri, along Mill Creek, only a few miles from the Missouri River. Each

day our school bus would pick us up at the bottom of our hill and drive through farms and fields and wooded hills to McBaine on the way to Rock Bridge Elementary School. McBaine was a small, moldy, semi-abandoned river town. During most springs this rustic village flooded when the Missouri overflowed its banks. The school bus would stop at the edge of the bluffs where kids would have to take a flat-bottomed boat from their flooded house to where the pavement lay exposed to catch the bus. I never understood why folks lived there. The bottomlands were a rich alluvial soil and grew good crops of corn and soybeans, but the tradeoff was living in a farmhouse on the flats that flooded nearly every year. These folks were generally poor, dressed plainly, often went barefoot. They kind of stuck out from a lot of the other citified school kids.

Mill Creek was a wonderful place to explore. It was my backyard. It too flooded every spring and, in the summer, when heavy rains quickly raised the creek’s level. There were many acres of woods and fields alongside the creek. My brother and I built trails (really modified game trails) to various places in the gullies

and bottomlands. We swung on grape vines, had hedgeapple fights, collected walnuts and pecans galore, built forts and dug Hogan’s Hero-like tunnels. We even constructed a small cabin and a suspension bridge across the creek, which washed out the following spring. The creek bed was composed of limestone and chert rocks, with lots of fossils from ancient seabeds (Mississippian time to geologists) that we found and collected. There were lots of copperheads, black snakes, blue racers, garter snakes, spread-heads, and even an odd timber rattler. I was not fond of snakes like some boys were. Bobwhite quail were common, as were white-tailed deer, possums, fox squirrels, raccoons, ground hogs, coyotes, red-tail hawks, and lots of other bird species. It was a wonderland for a boy growing up in the 1960’s.

Mill Creek flowed into Hinkson Creek which flowed into either Perche Creek or directly into the River (I don’t remember which). I always wanted to take a canoe all the way to the Missouri from home, but that was an adventure too big for my pants. Later during high school and college I spent a lot of time along the Missouri River climbing limestone

bluffs, shooting a Hawken .50 caliber at the river (not too smart), walking out on the ice-flows in winter (dangerous and foolish) and after college, finally floating a canoe for a couple of days on the Mighty Mo and camping on a sand bar while tugs and barges chugged by.

My first assignment after college was as a National Park Service (NPS) Park Aide with Ozark National Scenic Riverways at Akers Ferry on the Current River. I had grown up canoeing this river each summer in Boy Scouts and although I knew the river fairly well, it still instilled a healthy amount of respect and fear in my heart. As a ranger, I saw it in flood stage often, and helped evacuate campers and rescued floaters clinging to log jams. One of my main duties was to drop off and pick up the law enforcement rangers who made daily river patrols in motorized canoes or johnboats. They were cool, larger than life, and had lots of stories about dealing with wild and crazy people. I had the privilege to canoe the river once a week and get paid for it. That was quite a treat.

My next assignments took me to Rocky Mountain National Park and Zion for another eight years. I got familiar with the headwaters of the Colorado and the Cache la Poudre rivers as a backcountry ranger. I poled a raft down the Big Thompson in Beaver Meadows a few times and hiked the Virgin River on patrol. Years later after assignments at Zion (again) and the Great Sand Dunes where I learned what surge flow<sup>1</sup> was on Medano Creek (yes, we even kayaked it in high water!), my family moved to Nebraska for twelve years where I helped start a new NPS unit on the Niobrara River. I must have floated that river 500 times or more, in all seasons and conditions. It still held many surprises, but I secretly wished I could’ve lived right on the river, like I did at Welch Springs (75-million-gallon flow per day) on the Current River that first summer.

After thirty-four years with the National Park Service, I abandoned ship and went over to the Bureau of Land Management for seven years as a manager in Gunnison country. Although I see this river almost daily, either driving on the highway or walking a nearby trail, I can hardly say I know this river like my Mill Creek or the Niobrara of the Great Plains. Managing rivers seems to be a somewhat complicated thing, but if we were really honest with ourselves, they generally manage themselves just fine. Sometimes they do need our help, like when the Cuyahoga caught fire, and we push for dam removals, or there are so many darn tubers, rafters, or canoers that no peace is to be found, no solitude or quiet. They need our protection and wise use.



*Rangers enjoying Egelhoff’s Rapid on the Niobrara River, NE. Photo: Stuart Schneider*

that we can only live a few days without water; that the earth’s surface is 71% water; that we are “born of water”... baptized in water and nourished and cleansed by water. And yes awed, and fearful of water, too. As a retired ranger and manager, I would encourage all of us to spend a little less time in the scientific/manager mindset and more time in the quiet, sit on the bank, swim, and slowly float and contemplate role to get some down-to-earth perspectives that may be lacking in our technological, busy and mad world that we operate in now. Well, enough said. I think I’m getting thirsty after all of this thought stuff hits the paper.

Oh, by the way...Gunny Gold is a manure/fertilizer compost made in town. But that’s not really what I meant by using it as an article title. This river, as changed and channelized as it is, is still a golden place, a place of wonder, and peace, and calm, and holds a future for all of us if we just listen to its voice.❖

<sup>1</sup>A somewhat rare, bizarre pulsating/surge flow on sandy creek or river beds with sufficient gradient.



# SCOUT WAVE 2.0: Salida’s New River Surfing Wave

by Mike Harvey

*(Posted November 16, 2022, on the Badfish SUP Blog. Reprinted with permission from the author.)*

The steel tracks of a Volvo 340 D excavator make a high pitch screech as they crawl along in our high desert environment here in Salida, CO. When an end dump truck drops a load of granite boulders on the ground you can feel the ground shake from 100 yards away. For me these are familiar sensations and the soundtrack to the process of building a river wave.

For the past 22 years I have worked as a whitewater park designer for [Recreation Engineering and Planning](#) (REP). Whitewater parks are sort of a generic brand name that have been assigned to a wide variety of river improvement projects that all share the goal of increasing access to public waterways. The vast majority of rivers in the US have been impacted by industry and development. From dams to flood control projects, rivers in most towns in the US are “working” rivers, modified to suit the needs of the humans that live along their banks. Whitewater parks are a solution some communities turn to when reimagining their river corridors as hubs of recreation that can drive economic stimulus.

I started working on developing a whitewater park in Salida back in 1999. Salida has a long history of whitewater paddling, sitting in the middle of the Upper Arkansas River Valley and surrounded by over 80 miles of world class whitewater. Salida also hosts North America’s oldest whitewater competition, the [FIBArk Festival](#).

In the early days, whitewater parks were designed around whitewater kayakers. In 2009 I was working with the City of Salida to plan for two new whitewater features. At that time Zack Hughes (co-owner) had already started to shape river surfing boards in his garage and we were messing around with river surfing, looking for waves to ride all over the State of Colorado. I had the idea that instead of designing the typical, foamy-style of hole favored by kayakers, we could try to make a wave that would stand

up and have a green face to ride on a board.

The two features were completed in the spring of 2010 and were named the Office Wave and Scout Wave. Both waves worked pretty well and the combination of these waves and Zack’s boards were the inspiration for us to start Badfish. While these waves were successful for the era they only really worked well at high flows, which limited the surf season in Salida to summers with big snowpacks and long runoffs.

Over the past 12 years, river surfing has exploded and it’s fair to say that in most whitewater parks around the country, river surfers have become the dominant user group. There have also been improvements in the technology used to create the waves and in places like Bend, OR, Boise, ID, and Denver, CO, there are modern waves that allow surfers to ride shortboards and make more powerful, ocean-style turns.

The downside to these modern features is they have operable elements that require constant attention and semi-regular maintenance. There are also increased capital construction costs associated with this type of structure.

In Salida this type of feature was a non-starter for reasons related to the costs and permitting requirements. So, when we set out to come up with a design plan for the Scout Wave 2.0, which would replace the structure built back in 2010, the challenge we had to meet was designing a modern surf wave that wouldn’t require a bunch of moving parts. Additionally, the Arkansas has flows between 250cfs-1000cfs for 85% of the year. Instead of a wave that only functioned at the highest range of flows, what if we could have a wave that was rideable during most of the year?

For this project I was working with Badfish Team Rider Spencer Lacy and his brother Mason Lacy. Spencer and Mason are the sons of the founder of REP, Gary Lacy, who is a legend in whitewater park design and my mentor. Spencer was able to travel to Europe to check out some waves including the legendary [Eisbach](#) wave in Munich. The Badfish crew did

a couple of trips up to the [CityWave](#) at Lakeside Surf in Lake Chelan, WA. This is a completely artificial wave pool but the hydraulics were very interesting to study up close and it served as an inspiration.

Our team took all this research and combined it with understanding of the existing structure and local conditions in the Arkansas River in Salida to develop a design we thought would work ... “thought” being the operable word here. Ultimately rivers are unforgiving to mistakes and we wouldn’t know for sure what we had until we had water flowing over the structure.

We started the project construction in early September 2022 with a team of contractors here in Salida that we have worked with extensively over the years. Working in a river channel requires some very specific techniques, including the construction of temporary coffer dams to “dry” out your work area. Spencer and I were on site nearly every day working with the contractor to ensure that the geometry of the structure was achieved — and our contractors were a great check against ideas we had that weren’t very easily constructible.

One of the coolest parts of the project was working with Spencer who is 18 years younger than I, and someone I have watched grow up. In addition to being a world-class paddler, Spencer is an Engineer with a Master’s degree from Berkeley. I come to the table with a lot of experience all over North America in building structures in rivers, but Spencer had new ideas and a fresh perspective that helped push me out of my comfort zone.

The day we turned the water loose was among the most stressful days of my life. We had invested so much into this design and we were about to see if our assumptions would be born out by the water flowing downhill over our concrete and rock feature. Seeing the results is never automatic. You have to shape the pool below the drop and the run in above in order to get the proper hydraulic response. The result was about a day and a half of Spencer and I chewing our fingernails and running back and forth waiting for the magic moment when the

wave would (hopefully) appear.

I always pour myself into these projects ... there’s really no other way, but this one had so many layers of meaning for me personally. Salida is my home, my friends would all be riding this wave, my kids love to surf and they have grown up playing in the Ark in Salida and ultimately the success of the wave is significant to our business as well. So yeah ... I was a nervous wreck. And then all the sudden, when the last scoop of cobble had been moved out of the pool ... we saw it. The wave popped — it literally changed from a foamy hole to a green wave in a matter of seconds — and I was euphoric. I hugged Spencer and called my son, Miles, and Zack to get down here and surf.

When I saw Miles rip across the wave the first time it was just pure joy. The river was only running 350cfs and if we had a wave at this flow I knew it was possible that we had achieved what we had set out to do.

Over the past month the river surfing community has descended on Salida to experience a completely novel Colorado river surfing experience ... riding waves in October and November. While I am extremely happy with the results, we have only seen the wave across a very narrow range of flows and we will need to monitor it closely over the next year to see how it responds with higher flows.

However for now I am just trying to enjoy all this surfing and looking forward to a new experience this winter ... snowboarding in the morning and surfing in the afternoon!❖



*Aerial view of construction underway on the Scout Wave 2.0.*



*Winter surfers enjoying the new Scout Wave.*

For more information on getting a park in your town, visit REP’s website or reach out to me at Badfish ([info@badfishsup.com](mailto:info@badfishsup.com)) and I can help point you in the right direction. Most importantly, come see us and go surfing! — Mike





Interagency Hydropower Workshop in Kernville, CA. Photo: Togan Capozza



Interagency 2(a)ii WSR Workshop's field visit to Dutch Creek Channel Rehabilitation Project on the Trinity River in CA. Photo: Togan Capozza



Interagency WSR Workshop for Rio Chama in Taos, NM. Photo: Leigh Johnson

## RMS's River Training Center Empowers Instructors – A Recap of Fall 2022 Instructor Training and Exciting Opportunities for 2023

by Angie Fuhrmann

Creating and sustaining an effective learning environment is crucial for instructors aiming to make a lasting impact in educating river managers and other professionals who are shaping the future of effective river management practices. Recognizing this need, the River Training Center (RTC) conducted a four-part virtual workshop series in the Fall of 2022 to empower instructors with the necessary tools and strategies. Sarah Johnson of Wild Rose Education provided participants with an immersive and collaborative environment to enhance their instructional abilities. Using tools such as Zoom, Google Slides, Jamboard, and Padlet, Johnson guided participants through adult learning theory, virtual resources, and facilitation techniques. Participants were encouraged to consider the structure and sequence of training and adopt learner-centered teaching strategies. The workshop also explored reflection, assessment, and evaluation strategies to ensure participants learn and continually improve RTC instructional practices. The RTC instructors further amplified the benefits of this training as they employed their newfound skills in various workshops and training sessions throughout 2023.

The six-part Wild and Scenic River Training Series, conducted from January through June 2023, was a significant opportunity for instructors to apply the skills acquired in the previous year's instructor training. The comprehensive series covered various Wild and Scenic River (WSR) topics, including management, Partnership WSRs, river values, Section 7 of the WSR Act, restoration, and visitor use management. Blending theoretical knowledge with real-world case studies and hands-on activities, the participants in the series immersed themselves in a rich learning experience. One participant reflected upon the series by saying, "The instructors were extremely knowledgeable, and they delivered a lot of technical information with confidence that comes from experience, yet did so in everyday language and a transparent demeanor."

Beyond the WSR series, other recent training events showcased the impactful outcomes of the instructor training series, where instructors applied their acquired skills. These included training at the River Management Symposium in San Antonio, TX, such as "Wild and Scenic Rivers Act 101 Training," "Study Process for Wild and Scenic Rivers," "The River Access Planning Guide parts I, II, and III," "They Will Come... Universal Principles for River Use Management," "Applying Emerging Tools for Handling River Use in our Changing Times – A Guided Discussion," and "A Helpful New Planning Tool for Applying Visitor Use Frameworks in Non-federally Managed Rivers." Additionally, RTC instructors led a virtual workshop on "Planning for River Ranger Programs," a virtual one-day seminar in partnership with American Rivers on "Conserving Rivers in Michigan: Natural Rivers and Wild & Scenic Rivers," and sessions at the 2023 National Wilderness Skills Institute, which included the history of the WSR Act, the art of being a river ranger, and a river restoration case study.

Instructors also led several in-person, multi-day workshops, including the "Interagency Wild and Scenic Rivers Workshop for

Rio Chama" in Taos, NM, the "Interagency Workshop: Federally Regulated Hydropower on Wild & Scenic Rivers" in Kernville, CA, and the "Interagency Northern California 2(a)ii WSR Workshop - Evaluating Water Resource Projects" in Redding, CA. One participant commented, "The scheduled layout was extremely effective to learning - brief but thorough introductions, class exercises, pre-test, field trip to see and discuss projects/impacts, post-test and more discussion. Ample opportunities to hear, see, and learn about a topic and formulate questions as you begin to grasp things." Another workshop participant noted, "The instructors are top-notch! The material was clear, and they were more than capable of answering all the questions presented to them. They were engaging, and that was reflected in the participation of the attendees."

Looking forward, the River Training Center recognizes the value of ongoing training and the need to adapt to emerging challenges and trends. In the fall of 2023, the River Training Center invites instructor cadre members to participate in a workshop that aims to be an enriching experience. Spanning four 90-minute live sessions on October 25th and November 1st, 8th, and 15th, this training aims to equip instructors with essential skills in lesson design and knowledge of adult learning theory and apply these by creating a lesson plan on a river-related topic of their choice. Asynchronous work between the live sessions will provide dedicated time for instructors to develop and refine their lesson materials. This hands-on approach ensures that instructors can apply the concepts and strategies learned during the training to their specific topics. Additionally, optional office hours will be available for instructors who may require guidance or support during the lesson design process. This personalized assistance will help instructors navigate challenges, brainstorm ideas, and optimize lesson plans. Through this training, instructors will be better equipped to create engaging, impactful, and learner-centered educational experiences on topics that directly relate to emerging issues in river management and can be used in future training and workshops by RTC instructors.

The RTC remains committed to staying at the forefront of the ever-evolving field of river management. By providing instructors with the latest tools, research, and training opportunities, the RTC positions them to be effective educators and leaders. Recognizing the critical role instructors play in the management and stewardship of North American rivers, the RTC invests in their professional development to ensure they are well-prepared to address the challenges and opportunities that lie ahead. Kristen Thrall beautifully captures the transformative impact of the RTC's training programs, stating, "It has been a highlight of my career to learn more from the cadre and through teaching." This sentiment reflects the dedication and passion of instructors who strive to make a positive difference in river management through their continued growth and knowledge sharing. ❖

*If you want to join the RTC instructor cadre, please get in touch with Angie by email: [training@river-management.org](mailto:training@river-management.org)*



# Waiting for Fannin – A True Story of a Real Adventure

By Paul H. Gore DVM (1957-2020)

Illustrated by Sharon Gore Higby

It was a sunny October day, dry and warm, when the Colonel and I set out to float a nine-mile stretch of the Obed River. It was the wildest and most dangerous ride in Cumberland County, Tennessee, according to a source then considered reliable. To attempt it was folly; to actually expect to survive it – well that was just plain optimistic.

Thus, with graphic visions of raging, death-dealing whitewater cascading through our minds, it was not without



“Our farewell committee saw us off noisily”

apprehension that we carried our fragile little scrap of a boat down into the steep canyon and placed it at the edge of a quiet pool of water beneath a highway bridge near Crossville. Our farewell committee saw us off noisily, shouting promises to pick us up at the next bridge downstream later in the day.

We had been assured of ample water by a self-styled expert on such matters, but that commodity soon proved a scarcity. After putting in we paddled through a hundred yards or so of quiet water – at least the Colonel paddled, for I was busy checking my implement for warps and splinters before we “made land.” That is, we ran out of water and were forced to carry our canoe overland to the next pool, a distance of about thirty feet. From there we pushed off again with renewed confidence and determination and fresh fanfare from the Committee, but no sooner was I settled comfortably and ready to pitch in with the paddling than we beached again.

This time we had covered only about thirty yards at most, and the meddlesome dry rock stretched before us a full twenty more to the next pool of open water. It looked like more of the same ahead too, but if we had any misgivings they evaporated as we looked back to the Committee on the bridge waving at us, and rooting for us, and wishing they could come along. We reminded ourselves too, that according to the map we had consulted a major tributary called Daddy’s Creek was due to throw in with the Obed at any time. It seemed the two together would be sure to give us a ride. Imagining that we looked to the Committee a little like Lewis & Clark, maybe, in the distance, if you squinted just right, we decided to forge ahead and “take the worst the river could throw at us,” in the Colonel’s words. It seemed like the starchy thing to do.

When we broke for lunch at noon, we had exhausted about three hours’ time and a mile and a half of the only stretch of the Rocky Mountains east of Colorado. Now out of sight of the bridge, and witnesses, the Obed had ceased even pretending to be a river and presented itself in its true identity -- a common, low down, bone-busting rock quarry. The Colonel estimated we had seen enough rock along the way “to build forty courthouses, three



Paul Gore

story with statuary.” I suspected he hadn’t been paying attention the entire time. He seemed to be examining his feet closely as we ate; they had taken a beating through the thin soles of his sneakers. Earlier he had admonished me for wearing nearly new, thirty-dollar boots on such a wet and wild adventure, but as his feet hurt and mine didn’t, I was not much offended. If I knew the Colonel, though, he would soon be trying to work a trade, and I resolved to be on my guard.

I took advantage of the break to get a grasp on our surroundings. The canyon was pretty enough when one wasn’t carrying a cast iron hulk of a canoe along the bottom of it. The sides, which rose a sheer hundred feet in places, were thick with laurel, giant hemlocks tilted out at lofty heights to confer in the middle, and red-headed hardwoods mingled about near the rim, crowded and jostled by spindly little pines. The soil was of a sandy nature, cool and pleasant to sit in, and everywhere one looked was acre after acre of hard, dry ornery rock.

When sufficiently refreshed we moved on, at a good rate, for we didn’t know how much further we would have to walk before we joined up with Daddy’s Creek and we were running late. At first, we had been careful to lift the canoe and carry it over the rocks, but soon tired of that and took to dragging it. We saw no point in sparing the rocks. (I don’t mean to sound as if we never paddled, for we did, on occasion, as often as three or four times an hour. But these were generally short trips, on spur channels, and seldom left us a great deal advanced towards our destination).

As the afternoon wore and wore, we began to get anxious about Daddy’s Creek, for we should surely have made its acquaintance by now. The more anxious we got, the more we upbraided ourselves for not having brought the map, or a compass, or a supply of food, or a good book, or a parasol, or any number of articles in place of that infernal, lead-filled millstone of a canoe. True, we passed tributary creeks right along, but they were full of nothing but sunshine and rock. We would not have cared for either of those commodities, even on speculation in a rising market.

At last, we were relieved to see, off in the distance, a great descending ridge which bespoke of a new canyon intersecting with our own. Greatly encouraged we raced over the broken and jagged bed of the river, dragging our little steamer behind, all the while straining to hear the sounds of the furious torrents stampeding out off the side canyon and drowning the wretched rocks of our own beneath countless tons of clear, sparkling,

boat-floating water. It was a beautiful canyon, too. I can still recall its smooth, sandy beaches, fine timbered shores, the great overhanging cliff in one bank and running down its middle, a long, continuous, much tumbled stream of fine, floundering rock. We were crestfallen.



“a common, low down, bone-busting rock quarry”

We sat down where we were, dejected and sorry, and regretted our sins that had brought us such punishment. It was now about three in the afternoon, the very time we had been planning to be booming by under the bridge, nimbly threading our way between mountains of froth and spray while the Committee waved, helloed, and fretted from above. But here we were, stuck high on the rock, dry as a politician’s flask the morning after election. Though less than a mile from two major highways the canyon was so wild and deep and secluded that it seemed we had wandered a thousand miles from civilization. (We later amended it to two thousand by unanimous vote.)

Presently the Colonel recollected that Daddy’s Creek was to come in from the north side of the canyon and this “feeble ditch” had entered from the south. Obviously, we were still too far upstream, he concluded, and would likely run into good water

shortly, farther on. He seemed to be making a reasonable effort to believe this, and that encouraged me sufficiently enough that I could. So, tired, and greatly disheartened, but determined to stick it out, we took up our burden and continued on; the Colonel, behind me, marching boldly over the rocks whenever I seemed to be watching, and gingerly picking his way between them whenever I seemed not to.

After another grueling hour of pulling the Titanic, and noting how tired the Colonel must be, how his feet were bothering him, and feeling overwhelmed with compassion, I volunteered to scout ahead for signs of good water, tired as I was, and call back to him to bring along the boat if I found any. But, do you think he would hear of that? Not likely. He said he would have to be awfully low to do anything of the kind. Awfully low. He gave his solemn pledge that tired as he may get, he would keep up with me, even if he had to hang onto the boat to stay even. That’s just the kind of man he was.

We dragged on a little further, only half enthusiastic, then rounded a bend and came jam up against a body of water fully fifty feet across, stretching 200 yards or more out of sight around the next crook of the canyon. The Colonel instantly let off telling me how wonderfully comfortable and well suited for rough travel his “expedition weight” shoes were and spurted out ahead to have a look. When he reached the slippery rocks at the edge, he kind of flailed his arms a little, like he was trying to describe an earthquake to a deaf man, threw his feet up in the air and disappeared from view. When I called out to find out what he was doing he answered back that he was “checking the water.” He brought sufficient quantities of it back in his clothes to carry out more experiments too, but seemed satisfied for the time being and let it go. He checked the water at seven or eight more locations before we were through, at the most inconvenient times, but he always was impulsive when it came to learning about a thing.

We got in and paddled, or he paddled, for I suspected that he had picked up my paddle in his haste to get under way, and by the time I was able to satisfy myself of it and break into his concentration to ask him about it, we had rounded the bend and shoaled out again. And what a dismal, waterless plain stretched before us. How we pined for that map now! We had discovered a shortcut to Death Valley and wanted to mark it for reference.

We pressed on again, dispiritedly – hot, heartbreaking work it was now – and it must have looked to anyone peering over the



*“he checked the water at seven or eight locations”*

canyon rim like two ants struggling along under a preposterously large and unwieldy crumb of bread. Not the air-filled store variety either, but heavy, homemade cornpone.

The spring was out of our step by this time. The Colonel had to pick his way carefully over the rubble on account of his bruised feet, and we managed to keep our furnaces going by fueling up with what we would do to the author of our river guidebook should we survive. Having passed half a kayak lodged in the rock six or seven feet above our heads (though I personally believe that kayak belonged to a contemporary of Noah) we had to admit there had been water in this canyon on at least one occasion and decided we’d let the villain live but transport him out of the region on a rail and burn all his possessions. We stoked up on a lot of other suggestions, but they are too colorful for print.

On both sides of the canyon numerous gullies, ravines, and small canyons appeared and disappeared as we trudged along, but they invariably greeted us with wide, toothy stone grins or pitiful

stagnate trickles that did nothing to further our cause. Finally, the Colonel called a meeting. “I know we agreed to take whatever the river threw at us,” he said with deliberation, “but I believe Daddy’s Creek had deserted and we have been waiting for Fannin.<sup>1</sup> On top of that it will be getting dark soon, and there are probably a hundred able bodied men in this County who would be willing to come in here tomorrow and carry this thing out if we bought them a Pepsi Cola...” (I saw what he was leading up to and was thinking the very same thing myself all afternoon, but as it was his barge we were dragging, I left it for him to give the order). “I move we leave it here and save ourselves.” Motion carried. We turned the canoe belly up in an open space so its yellow hull could be seen from above and lit out down the pike. We figured to make the last mile or two to the bridge before dark and come back the next day for the boat, with reinforcements.

How we then raced along making wonderful time! We paused only occasionally for the Colonel to check the water but he never took much time with it as we were in such a hurry. His conversation was increasingly punctuated with limps and winces, but he kept up a steady discourse about how sorry he was that I had to wear such heavy, inconvenient shoes on so long a trek, and how all the leading authorities now advocated lightweight footwear, and that a fellow only had to try it once to be convinced. He expounded briefly on the benefits of having an inquisitive and experimental nature, such as his, and touched on the tradition of the older generation passing on its accumulated wisdom to the younger. Eventually, though, he realized that I wasn’t biting, and he reeled in his line to ponder some new kind of bait.

When darkness came, we had still not made the bridge, nor even heard any cars, and since it was impossible to travel the rocky basin at night without great risk of spoiling a leg, or worse, we reluctantly shipped oars and coasted into a laurel thicket for the night. We soon had an admirable fire going, and just in time. The weather turned remarkably cold soon after the sun went down. Having no provisions with us for a meal, and being hungry as mountain lions, we grumbled a good deal and felt generally dissatisfied. With hunger gnawing incessantly at our insides, we finally decided to try the inner bark of a pine tree, which is

<sup>1</sup> Fannin was the commander ordered by General Sam Houston to reinforce and rescue the defenders of the Alamo. He was not a good commander though and after weeks of waiting, the Alamo fell, immortalizing its defenders – and Fannin.

always lauded as just the thing when one is starving to death in the woods. While fishing through my coat pocket for a knife with which to carve a couple of drumsticks out of the young pine we’d caught napping, I found a package of chocolate cupcakes that had been left in there the previous summer. They were a little smashed and a great deal past their prime, but sweet manna from heaven just the same. A dying man would’ve been a scoundrel to ask for more. I stood off at a distance and weighed the kindnesses the Colonel had ever done me against the lobbying of my own stomach, and added to the distance I would have to travel from the warmth of the fire to open the package undetected. Humanity won out in the end and I shared with the Colonel, though it did strike me as amazing how cold it gets away from the fire and how far sound will travel along a river bed.

After supper we got comfortable on beds of laurel branches around the fire, and spun yarns — we forgot to order dessert and had a wonderful time. There is nothing like a campfire to lift a man’s spirits when he is low. The Colonel warmed his feet near the coals and thoughtfully left his shoes out in the open in case anyone would want to try them on and walk around the soft sand a bit to get the feel of them. I kept my boots on.

The temperature dropped as the night progressed, and the fire required constant attention to keep us warm. As I was always just drifting off to sleep as it was getting low, the Colonel — who had gotten his clothes wet and therefore had less patience — made numerous trips into the chill of the surrounding woods for fuel. Coming back into camp after one of his walks he announced that we had company. I awoke immediately, being a light sleeper, and craned around to see the sorriest excuse for a dog that ever walked on four legs. Thirty pounds of bone and hair and proud of it all! He thundered into camp kicking up sand, whipping us with his tail and upsetting our canteens, tried to thank us for this wonderful opportunity and wanted to know what was for supper.

We offered him some pine bark, but he must have taken his salad at another restaurant for he only sniffed at it and sat down to wait for the main course. Realizing finally that the kitchen was closed and the cooks gone home, he curled himself up by the fire and went to sleep.

I’m convinced that was the longest night of my life. I know it was the coldest. The first half we spent worrying we might freeze to death, and the second half we spent wishing we would, if only to get to a warmer region. We could have used twenty dogs such



as the one we had to keep us warm and there was active bidding for him. Neither could strike a price that suited him though, and he kept off to himself. I have always kept plenty of dogs since that time to provide for just such an emergency.

Along toward daylight we did manage to drift off to sleep and slept just long enough to wake up groggy and stiff, feeling like casualties. I awoke first and tried to remember where I was, for the place had taken on a new look. A thick fog covered everything along the ground; nothing under a yard tall was visible from a distance of fifteen feet. The sun was just winking up over the rim and the whole acre looked peaceful, solemn, and heaven-like. It was truly beautiful. I got up and hobbled lamely down to the river’s edge and presently noticed the Colonel’s head bob up out of the cloud. His face at first wore an expression of confused amazement as he took in the heavenly spectacle. Then he kind of slumped down looking regretful and sorry. It wasn’t long though before he eased over into a sly grin and looked relieved like a man who had just gotten away with the biggest lie of his life or gotten an income tax refund. He sat looking around, satisfied, and patted the dog’s head when it floated by on the cloud and even started to wave at me. Then he stopped, fished up his glasses, took a closer look, and his cake fell. That was too much. He got up and built a fire.

The pool before our camp was full of good-sized fish of some denomination, and several attempts were made at catching one for breakfast. We could see them well enough, as the water was clear and the bottom smooth, but they could see us too. After thrashing about a good deal with rocks and clubs, and the Colonel checking the water a time or two without any luck, we elected to forgo breakfast and hurry on toward lunch.

We had traveled nearly three hundred miles the previous day, according to our calculations, and figured the bridge to be the next thing out of sight down the river. After toiling along hour after hour on game legs and tender feet though we had seen nothing and sat down to take a rest.

It was then that someone hailed us and we looked across the river to find ourselves in the company of a rough-looking desperado cradling a shotgun. The stranger wore a dilapidated hat that had seen better days, a scruffy growth of beard, and clothes that looked like they had been slept in. His aspect, in short, was somewhat menacing, which later he confided was exactly how we appeared to him. He said hello again and asked casually if

we knew how far it was to such and such a place. We said we should be happy to oblige him if he would only be so kind to tell us where we were now. As that was the information *he* was really after, he couldn’t help us and we all fell into a melancholy silence. At last he decided that the best thing to do was pitch in with the biggest crowd, and he waded over to our side (the river was pretty much continuously full of water now which hindered our speed a great deal and made me lament the Colonel’s hasty decision to abandon our little boat).

The stranger’s situation proved to be even worse than our own. He was a soldier on leave from Germany who had come to Cumberland County to visit his sister, newly married. Having quickly grown tired of the society, he did what any normal person would have done – borrowed a shotgun and “slipped out back to hunt.” Having only been in the territory a few hours he was now lost, friendless, and mindful of the fact that he hadn’t taken the time to learn his sister’s new name or address. Now he was even confused as to which side he had even struck the river from. We agreed that he was in a bad way and offered to give him our dog, but he declined.

We decided to help our guest, figuring that if his sister’s farm were nearby it would be easy salvation for us. We struck out on both sides of the river and ranged up and down a good deal, singing out and working up a sweat but could find no sign. All we found was a cannonball which had rested undisturbed since the Civil War and, our minds weakened with hunger and fatigue, we immediately decided to carry it out, sell it, and split the proceeds. I drew first turn at toting it and after a very few minutes declared how glad I was that we hadn’t found the cannon. This set off a round of speculation and the Colonel, who had been an artilleryman and knew about such things, directed us in some exploratory bushwacking over some rather vertical terrain. He sat on a comfortable rock and leaned back with his eyes closed “trying to picture the ballistics,” in between shouting instruction. Interest in the relic quickly began to fade though, as the day was getting warm, and we suspended the search without finding anything.

Shortly after, when each of us had taken a turn carrying the cannonball, we developed a new marketing strategy which consisted of leaving the item in the canyon, in some conspicuous spot, and knocking down the price. We felt it could not matter to any serious collector where it was located, and we had no interest



“that infernal, lead-filled millstone of a canoe”

entering into the business of selling souvenirs to mere tourists, anyway.

Along about noon, with all of us dragging our tails, the old bridge finally hove into view — and a welcome sight it was, too. With our last strength we stretched toward it as fast as we could, finally scratching our way up the bluff and onto the road and salvation.

The Committee was there, with some food and a great quantity of questions. The four of us, dog included, waded straight through the questions, and tore into the provisions single-mindedly, leaving of manners behind for lack of space. The Committee had to just stand around the trough waiting for one of us to come up for air and try and piece together the story from the odd morsels we threw at them between chewing, reaching, flinging food wrappers, and generally straining the rules of etiquette.

**Colonel:** “No water!” (The Committee looked at his soggy clothes, then over the rail at the watery expanse below.)

**I:** “Waiting for Fannin!” (The members of the Committee

looked inquiringly at the stranger and then the dog.)

**Stranger:** “I forgot my sister’s name...” (The Committee looked at each other.)

The dog, for his part said nothing, and this seemed to be a great relief to the members of the Committee.

Eventually the frenzy subsided and after eating the last crumbs, licking our fingers and paws, and rooting through the sacks for stragglers, we got into the car and headed home, telling our story along the way. The Committee joined us in feeling sorry for the stranger. All of them were natives of the region, but he could provide so little specific information about his sister’s new situation that they were unable to be of the least assistance in knowing where to take him.

Stopping at a country gas station nearby to make inquiries, we had just about come to accept the fact that we had two strays on our hands when the stranger gave a cry, jumped out of the car, and lit out across a field of corn stubble.

“There’s her house!” he shouted as he ran, and we never saw him again. I tried to get the dog to chase after him, but he had played that game before.

In a few minutes we were safe and comfortable with our feet propped up on cushions at home, the Colonel roundly extolling the benefits of not having to carry “too much shoe” on a long and difficult hike. The Committee brought us more food, and in the space of twenty minutes I never wished to see food again I was so full. But of course, I took supper that evening with the rest of them, like a gentleman.❖

❖ ❖ ❖

*Paul H. Gore (1957-2021) was a man of many talents: soldier, dog/cat-lover, restorer, canoer, newspaper editor, AWACS navigator, veterinarian, and author, to name a few. He was one of my best and longest friends (since 4th grade) and we shared many adventures together. As far as I know, this story has never been published. It was written sometime prior to 2003, but likely occurred on a trip with his dad, Paul Gore Sr. (i.e., the Colonel), in the late 1970’s - early 80’s. (Stuart Schneider)*





## Letter to the Editor

by Bud Hoekstra

Users of Big Bar Launch on the Mokelumne River, CA, chop trees, which removes shade from the river's edge, which can expose the water to direct sunlight, which can heat the water, theoretically, to a higher temperature, thus, reducing the spawning range. Oddly, anglers who stand along the river get their lures caught in the trees (at least one incident I saw) where the lure was \$100, and the tree where it was lodged was cut down to free the expensive lure.

The US EPA has a brochure of sorts reminding that vertical banks are vegetated and the bank's architecture (less angle for the sun's rays, beetling vegetation that shades) keeps the water cooler for spawning. Cattle tend to disintegrate the banks and open them up to sunlight. Cattle also browse the willows where deer calve and where the now endangered willow flycatcher has its nests.

In the 1930's, to prevent overgrazing and abuse of government-owned rangeland, the U.S. set up an allotment system for ranches where the allotment was attached to a specific ranch so that cattle returned, year after year, to the same allotment. It was thought that ranches, knowing they had the same forage area the next year, would be better stewards of the land. That worked for years, but as ranchers died, and ranches were sold off, lawyers stripped the allotment rights and sold them separately from the ranch. Thus, allotments are auctioned off each year by entities (that don't own cattle) to ranchers who want to get their money's worth.

For example, years ago, an animal unit-month (cow + calf) was \$1.50, which the holder of the allotment paid, and then by auction, the holder charged the rancher \$10 or \$11, after the bidding. Corporate ranchers tended to exploit the rangeland and abandon the allotment next bidding, because cattle are trucked in and out ('turn-out' & 'gather-up'). Hence, the exploitation leads to worn-down embankments, loss of habitat, warmer water in streams and rivers, disrupted spawning, and more turbidity from hooves (erosion). Correcting these conditions in national forests starts with the personnel who inspect rangeland — it requires ranchers to do "willow recruitments" and the range scientist or technician to walk transects in upcountry meadows, itemizing species (where the toe of his/her pointed boot steps) and using a formula to calculate the condition of the meadow, comparing the 'ice cream' species that cows seek out versus the 'cod liver oil' plants that the cows find distasteful and avoid. If properly managed, the range thrives with suitable forage, overgrazing causes a shift in species composition.

This has nothing to do with floaters and rafting, but it affects fish habitat, and maybe impacts the floating experience — much like a mother bear and cubs splashing in the river on a hot day.❖

*Bud Hoekstra (Crop Advisor #359600) is certified in California, Arizona, Hawaii, and internationally.*

## Remembering Nomi

John Peter "Nomi" Nahomenuk, 62, of Salida, CO, died March 6, 2023, at home after an extended illness. Born in Philadelphia, PA, to John and Ann (Michalchik) Nahomenuk, he graduated from Slippery Rock University in 1985. Immediately after graduation, Nomi hopped on a bus to Canyonlands National Park with a bike and a backpack to start work with the National Park Service as a seasonal ranger. Following his Canyonlands experience, Nomi worked seasonally for 10 years with the Bureau of Land Management as a river ranger in summer, and lift operations manager for Powderhorn Mountain Resort in winter.

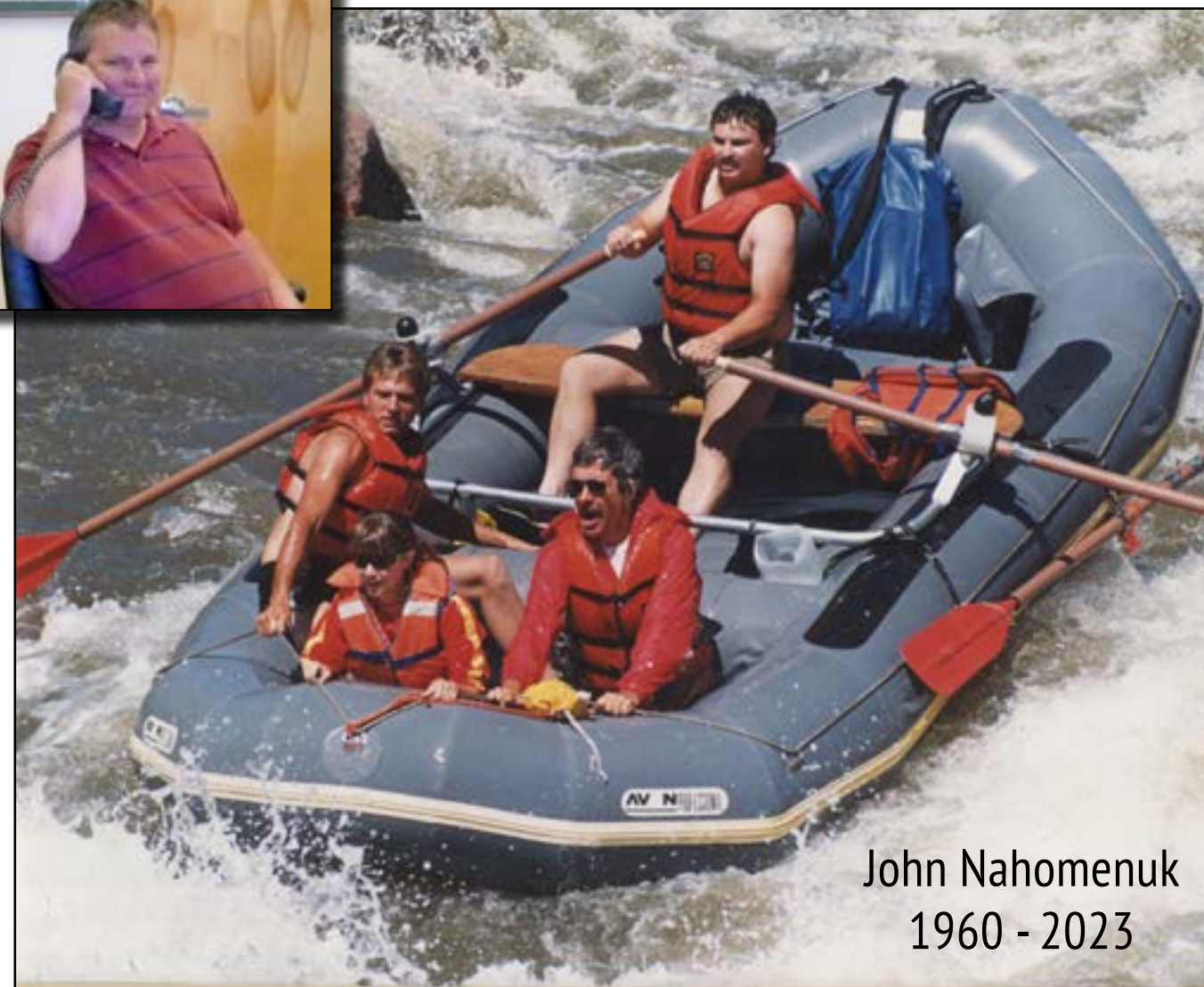
In 1994, Nomi obtained a full-time position with BLM in Cañon City, CO, where he worked in multiple capacities — the last several years as River Manager of the Arkansas Headwaters Recreation Area (AHRA) — until retiring with 29½ years of service. Nomi was an important player in the formation of the AHRA and was a strong advocate for the partnership between the BLM, USFS, and Colorado Parks and Wildlife in the day-to-day management of the AHRA.

Nomi was also involved with Greater Arkansas River Nature Association, AHRA Citizen Task Force, and Chaffee County Heritage Board — he was an active participant in all these organizations, as evidenced by the Citizen Task Force, who recently recognized him with the Fred Rasmussen Citizen Task Force Exceptional Achievement Award.

Nomi loved to raft and fish on the Arkansas River, enjoyed snowboarding at Monarch Mountain, and was the Western Chapter president of the Buzzard Town Flyers Ski Club from Seven Springs Ski Resort in Pennsylvania. Golfing was also a passion for him, and for years he organized and ran the annual Carl Spackler Invitational Golf Tournament in Salida.

Friends and family said he had a knack to make everyone he met feel like a longtime friend. Nomi had a kind, loving heart and had many people who loved him. Friends also said he had a wicked sense of humor and would have had a career as a stand-up comic if the BLM had not worked out so well for him. Nomi was an active member of the local meetings of Alcoholics Anonymous and died a sober member.

Memorial donations may be made to the Greater Arkansas River Nature Association (GARNA) in Salida, CO.❖



John Nahomenuk  
1960 - 2023





# Using Fluvial Geomorphology to Improve Stream Restoration and Watershed Management

The River Management Society is pleased to announce a virtual short course with Dr. Field from November 6-8, 2023, with an optional virtual field trip on November 9. More details on the content, price, and registration can be found at: <https://rms.memberclicks.net/stream-restoration-course-2023>

## Course Description

Stream restoration has become a catch-all phrase nationwide to describe all sorts of river management activities including flood and erosion control, habitat enhancement and endangered species recovery, and sediment and nutrient reduction efforts. An understanding of fluvial geomorphology can be helpful in establishing the underlying causes for stream degradation and bank erosion, anticipating how the stream will change over time if no restoration occurs, developing appropriate restoration strategies for the given setting, and foreseeing how streams will respond to a proposed restoration project. In this way, the actual needs for restoration can be documented, restoration projects tailored for a given site, and better restoration outcomes achieved. This course will utilize examples from around the country (and in fact the world) with particular focus on New England, the Pacific Northwest, and the Chesapeake Bay Watershed, but will be of value to all, regardless of location, as the basic principles of fluvial geomorphology and stream restoration to be covered in the course are applicable everywhere.

An optional virtual field trip of stream restoration sites in the Chesapeake Bay region and possibly other locations is also available and will include live interaction with the field trip leader. The course is designed for government officials, environmental and engineering consultants, non-profit watershed groups, construction contractors, educators and students, and others trying to sustainably address flooding, erosion, habitat, and sediment and nutrient loading issues along rivers and streams.

While some quantitative methods will be introduced, the course will focus on the underlying concepts of fluvial geomorphology that are needed to effectively apply and interpret the results of quantitative analyses used in stream restoration designs. Fluvial geomorphology is also critical for anticipating how streams respond, both positively and negatively, to human activities along rivers and streams, including stream restoration projects. The short course will highlight process-based restoration practices, which are typically more effective, sustainable, and cost effective than form-based practices. Whether designing stream restoration projects yourself or reviewing plans to determine their potential effectiveness, this short course will

## About the Instructor

Dr. John Field, President and founder of Field Geology Services, received a PhD in 1994 from the University of Arizona with concentrations in fluvial geomorphology and hydrology. As a university professor, Dr. Field received two excellence in teaching awards and was active in training teachers and government agency personnel on techniques for assessing the stability and habitat conditions of rivers and streams. Dr. Field's research on flooding and habitat issues has been published in numerous peer-reviewed scientific publications and presented at professional meetings throughout North America. In addition to his academic experience, Dr. Field has 20 years of consulting experience that has included geomorphic assessments on over 1,000 miles of rivers and streams in 15 states and 11 other countries worldwide to identify the causes for riverine problems such as erosion, flooding, elevated sediment/nutrient loading, and habitat degradation. Since starting Field Geology Services, Dr. Field has offered short courses that have been attended by hundreds of participants. Dr. Field's excellence in assessing and restoring unstable streams was recognized through receipt of U.S. EPA's Environmental Merit Award.



provide you with the background and practical experience to identify the best restoration approaches for a particular setting and set of project objectives.

The course will consist of visual presentations, small group exercises, and hands-on activities that will provide participants with practical experiences and examples to recognize unstable channel reaches in a watershed and identify the most appropriate stream restoration techniques that will best address the identified instabilities, if present. The first day will focus on the basic concepts of fluvial geomorphology. The second day will consist of hands-on activities in small breakout groups to reinforce the geomorphic concepts learned during Day 1 and will provide practical experiences using resources (e.g., topo maps, aerial photographs) critical for completing geomorphic assessments at the watershed scale. The final day will apply the knowledge gained to examine numerous stream restoration practices through a series of case studies (working in small groups) that will highlight the many issues that must be considered to successfully and sustainably restore rivers and streams and to anticipate potential problems even before a restoration design is complete. The optional virtual field trip will tour examples of restoration sites that will reinforce the concepts and lessons of the first three days.❖

# Wyoming river adventures just a click away in nation's top river map

## River Management Society announces addition of river data to interactive map, directory

With a click or a swipe, paddlers and anglers can now "shop" the rivers in Wyoming when planning outdoor excursions. The National Rivers Project (NRP) website [www.nationalriversproject.com](http://www.nationalriversproject.com) now features 850 river miles and nearly 120 access points with the recent addition of rivers managed by the Bureau of Land Management (BLM) in Wyoming.

"The National Rivers Project allows recreationists to explore new parts of Wyoming, whether they're looking to float, fish, camp, or just hang out along public rivers," said Katy Kuhn, BLM Outdoor Recreation Planner. "This way, we introduce new users to public lands and waters while protecting important resources like riparian ecosystems and clean water."

Newly added rivers include the North Platte River, recognized among the top five fisheries in the state as a Blue Ribbon Stream, and the Bighorn River Blueway Trail, which is set to gain recreational facilities through a partnership with the Bighorn Basin Outdoor Recreation Collaborative and local communities. Both are popular for floating, fishing, observing

wildlife, picnicking and camping.

The River Management Society launched the NRP in 2015 to increase visibility for water trails, whitewater rivers and Wild and Scenic Rivers. Site visitors can search for rivers by location, difficulty, managing agency and related activities. Nearly 60 federal, state and local watershed partners have provided the data, making it the most comprehensive and reliable river map on the web. For this project, RMS gives special thanks to BLM Wyoming and its outdoor recreation planners for their partnership.

"It is wonderful to have river access information in one easy-to-use database," said Lochen Wood, fellow BLM Outdoor Recreation Planner. "It's all about access."❖

*With dozens of access points mapped on the National Rivers Project website, it's easy to plan a paddling or camping trip on the North Platte River. Photo of Bessemer Bend by BLM Wyoming.*





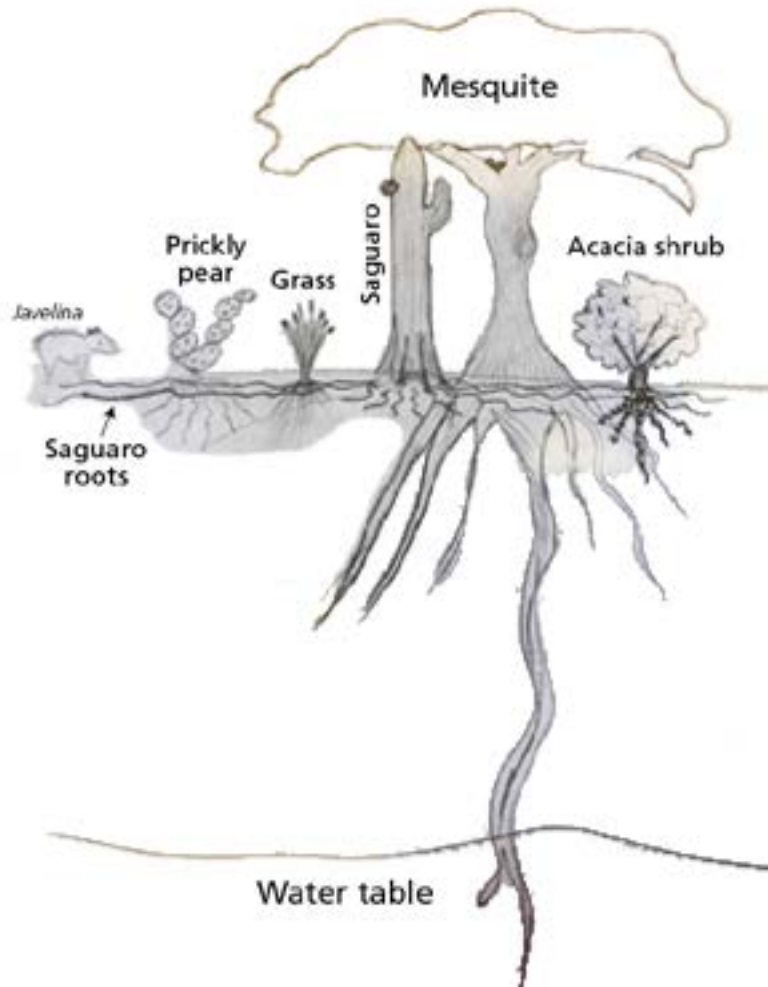
# A Mesquite’s Tale

by Kevin Chaves

I grew up hearing grand stories of *El Rio Colorado*. Epic tales of adventurers, conquistadors, and the roaring of great waters — these stories gave me respect and perspective on the waters that give me life. My family has passed on the stories of *El Colorado* for generations, and we have made our home here at the river’s end, on the silty soils of the delta. I come from the *Prosopis* family, but you know me better as the Mesquite tree.

Life on the delta is simple for a mesquite — I live in a quaint silty bar next to a calm green lagoon surrounded by friends and family. Throughout the seasons I provide shelter and food for various birds that come and go. I love to hear their songs and stories of vast deserts, giant forests, and grand mountains in lands far away. My friend *Callipepla Gambelii*, Gambel’s Quail, runs along the sand bars telling fables of mischief and hard work. My friend *Ptychocheilus Lucius*, the Colorado Pikeminnow, tells stories of endurance and turbulent waters, and of cold crystal-clear streams. We pass our time telling stories, listening to the songbirds, and watching the seasons go by. In the summer months we feel the strong humid winds from the Pacific Ocean move across the delta, signaling the coming monsoon waters. We wait for springtime to return, the most exciting time in the delta. *El Colorado* returns — bringing massive floods of water, soil and nutrients that give life to all of us who call this place home.

Warm humid winds stroll in from the west, waking up the trees and animals all around me; spring is coming. It’s in these days that we normally start receiving larger flows of water that transform muddy ponds into glistening green lagoons, but so far this spring, not much has come. We wait for the floods to arrive as the days pass by and the air starts to get warmer — yet, still no water. The days turn to weeks and a month passes by — still no water. Nobody knows where these difficult circumstances come from, but we do know our roots are strong, providing us the resiliency to survive. The summer months bring scorching heat and little water. My roots grow deep and wide for me to drink water from various parts of the soil.



The roots of mesquite are able to draw water up from deeper soil layers, enhancing soil moisture and creating microclimates that allow other plants to grow.

- Drawing by NPS/Sarah Studd

Surviving is a family effort, and we all work together. *El Rio Colorado* never came back. Spring returned the next year, but the river still ran as a trickle. The years passed and so did my friends and family. Water became scarce, vegetation desiccated, and the birds sang no more. The fish gasped for oxygen, and the insects burrowed deeper. *El Colorado* provided us with life — without it we wasted away, one by one.

What is left of the green lagoons of the Colorado River delta? The Colorado River would end its journey at the Sea of Cortez, giving its last breath of life to one of the most beautiful places in North America. Now it ends its journey behind the stoic walls erected by men and society, providing us with the same gift of life it once gave the delta. We receive it through

the light bulbs in our bedroom, the salads on our table, and the water in our faucet. It provides us with this life... should we not also give back? With record-breaking snowpacks in the Rockies and Colorado River Basin. With reservoirs expected to fill to the brim. With so much abundance we receive from our planet. I hope we remember the delta and the legacy it has left. I hope we can give back to our rivers and our planet, who so graciously provide us with life each day.❖

*Kevin Chaves is finishing a Bachelor of Science in Management and Restoration of Aquatic Ecosystems at Utah State University. He is also a River Studies and Leadership Certificate student — and, this submission fulfills his RSLC presentation requirement.*

# Get to know our River Studies and Leadership Certificate alumni – the next generation of river professionals

by Bekah Price

RMS launched the River Studies and Leadership Certificate (RSLC) program in 2015, in partnership with various universities, to help students build a foundation of knowledge, skills, and experience in river-based science, policy, conservation, education, and recreation.

Since then, 53 students have graduated with the certificate, and most have gone on to pursue careers in river management and stewardship.

In this RMS Journal column, we showcase their success so that our members can get to know them and learn more about what the pathway from student to river professional looks like today.

Welcome New RMS Members	
Associate	Tim Romano, Owner / Managing Editor Angling Trade Media, Boulder, CO
	Matt Terry, Executive Director Ecuadorian Rivers Institute, Columbia, MO
Individual	Wesley Berry Customer Service / Webstore Manager Pyranha U.S., Inc., Erwin, TN
	Trecia Cintron Landscape Architect Resource Assistant US Forest Service, Albuquerque, NM
	Cody Kenyon Blackfoot Recreation Ranger Montana Fish Wildlife & Parks, Missoula, MT
Student	Alex Sholes Region 4 Regional Recreation Manager Montana Fish, Wildlife and Parks Great Falls, MT
	Lydia Joukowsky Utah State University, Boulder, UT



Juliane Perry  
Northeastern State University Alumna

My name is Juliane Perry (she/her) and I am currently the Central Region Fisheries Management Technician for the Oklahoma Department of Wildlife Conservation (ODWC). I am honored to be the first person in Oklahoma to receive the River Studies and Leadership Certificate, and I am very thankful for the knowledge I gained in pursuit of the certificate that helped lead me into my dream career with ODWC.

My job focuses on fisheries management of lakes in central Oklahoma. We work hard to provide opportunities for anglers to catch fish and enjoy their time doing it. We also create habitat for fish and collect data to ensure the conservation and sustainability of fish in Oklahoma waters. I love my job, and I believe it is important to continue to obtain knowledge of aquatic environments and the organisms that live in them. I also believe it is important to continue to encourage the public to spend time on our waters and to have a connection with nature that can then be passed down to future generations. Managing and protecting fish populations has always been my dream and I am so grateful for the ability to go to work and do so!❖



## Southwest

by James Major

Before regaling you with the story of our adventures on the Wild and Scenic Rio Chama, let us first extend a big *thank you* to Ericka, the Southwest Chapter Events Coordinator, for working over a two-year period to put this trip together. You are awesome!

Yes, this trip was two years in the making. Originally planned for Memorial Day Weekend 2022, it was postponed due to extreme fire danger and public land closures in the area for much of last year's boating season. Fortunately, 2023 has brought abundant moisture to northern New Mexico and no such obstacles prevented the trip from occurring this year.

However, nature still took a swing. A robust monsoon in 2022 contributing to above average soil moisture content, along with headwater snowpack levels nearly double the average during the winter and spring, set the stage for epic streamflow potential. A few weeks before our trip, warmer weather finally arrived in the high country and began to release that potential. Flow at the USGS gage below El Vado Dam peaked at about 4,500 cfs on May 18th, about a week before we put in, and fell to about 3,000 cfs for our trip. A few folks decided against running the river at this level and a few others quickly filled all but three of the vacancies. In the end, we filled 13 of 16 roster spots allowed by the permit system and were ready to get down the river.

Friday was a travel day as people from three of the five states that make up the Southwest chapter (where you at, Texas and Arizona?) made their way to within striking distance of put-in for Saturday morning — well, except for the local contingent from Taos, who made their way down on Saturday. I won't say who got to put-in last that morning, but I will say they didn't sleep in tents, trucks, or unfamiliar hotel beds.

In any case, there were several other groups launching ahead of us and the river was swift, so we had plenty of time to get rigged, chat with fellow river runners, get some last-minute supplies at the little store, launch, float, take some side hikes, and still land, set up camp, and have dinner with all kinds of daylight left.

Once we were all rigged and ready to go, we set off downriver. While the launch went smoothly, the Chama

## Rio Chama Float Trip Memorial Day Weekend, 2023



Sunset on first evening at Beaver Camp. Photos: Matt Blocker

attempted to claim its first victim only a few short minutes later. Sarah's brand-new RMS cap, that she had gotten at the Symposium in San Antonio just a few months prior was blown off into the water. After a desperate scramble in the ducky to retrieve it, she had to watch in dismay as it sank below the turbid surface — only for the hat to reemerge from its watery grave seconds later! Which again set off a mad dash to retrieve what the river was trying to claim. With the assistance of Stuart and Margaret in their paddle raft they were able to corral the hat and return it to safety. Strapped into the duckie this time.

One of our side hikes was a short walk to the burnt-out ruins of Ward Ranch near the hot springs. Trip leader Barry of the BLM told us a probably not-all-tall-tale about the homesteader who lived there and her exploits, including using a lantern to signal to her paramour when she wished him to come down into the canyon to visit (among other salacious details best left to the river).

Our own dinner that evening was a boisterous affair as we enjoyed some river potables along with a delicious BBQ chicken dinner, with all the fixings, including baked beans, salad, applesauce, and delectable brownies, which were all prepared by Judy and Mark on their home grill and packed along for the ride — and, all of which was amazingly gluten free. All I can say is that gluten free baked goods have come a long way over the past decade!

As the sun disappeared behind the canyon walls, Matt (SW Chapter President) and I were walking by the river, headed to a cooler probably, when we saw a beaver swimming peacefully in the eddy by camp, seemingly without a care about the high flow and humans that were encroaching upon its domain. I remembered that Barry had told us that the name of the camp we chose was Beaver Camp, so clearly it was aptly named. With the flick of its tail and the smallest splash, the beaver was gone. The next day was the most exciting — at least in terms of situations that make you go “oh, *expletive!* this could, and is going, sideways fast.”

We started out with a wonderful french toast, sausage, and egg breakfast prepared by Stuart (SW Chapter Secretary) and Margaret which we washed down with coffee and orange juice. We didn't have far to go that day but decided to eschew a layover day and enjoy a side hike and early camp just a few miles downstream. By late morning we were ready to go and again launched in three duckys, a two-person cat, a paddle raft, and three oar-frame rafts.

We zipped along the river and in short order approached the landing site for the Dark Canyon side hike that leads up a wash to dinosaur tracks. The landing zone is along a long stretch of shoreline on the outside of a bend, meaning that even at lower water there is not much of an eddy to catch and certainly not at the level we were floating. Along this bank a single small, wizened, dead tree stands. While appearing flimsy, it also looked like maybe the best spot to secure the raft. I was in the lead raft with Barry and prepared to jump off the front of the raft to secure the bow line to the tree once the craft bumped into shore. Barry skillfully brushed the shoreline in very swift water, and I managed to accomplish my end of the task with the grace of a rhinoceros on roller skates.

When I next had time to look around there was a bit of chaos ensuing. John and Mari were in the raft behind us and coming in hot, with Tom right behind them in his ducky. I think Mari tried to grab and hold onto our raft and Tom, seeing that it was not at

all easy to do so, tried to help. Very soon after this, there was a ducky paddle abandoned in our raft, Mari took a swim, and Tom was headed downstream in his ducky, sans paddle. So, as we are taught to do on the river, everyone panicked. I kid! Everyone self-rescued themselves. Mari hung on to the tow line and John swung her end of the raft to shore, where she established footing and brought their raft to a stop, and Tom hand-paddled to shore and got his ducky on dry land.

Elsewhere, Stew (SW Chapter Vice President) and Alisa had landed just downstream from us and had a little trouble landing (with Stew getting a cut on his leg in the process). The others had been far enough back and seen enough to decide to land further upstream and seemed to have had a little bit of an easier time doing so. With the situation sorted and Stew patched up, we set off up the trail. Unfortunately, most of the Allosaurus trackway was covered in sediment washed down by rainwater and snowmelt, but we did see one great specimen, and certainly enough to know we were happy to be 150 million years behind this 16-foot tall, 3,300-pound, top predator.

Later that afternoon we landed at Ponderosa Camp and had some interesting moments trying to get everyone ashore, but it was easier than the Allosaurus landing! This camp has an excellent kitchen/hangout area and we all sat around chatting until we again were fed an excellent meal — this time burritos created by John and Mari. After dinner we were even able to have a campfire, which has been very rare for me on past river trips out west and only possible due to the wetter-than-normal conditions of this year. Most folks turned in pretty early, so I sat and tended the fire until the embers died away.

We arose Monday morning only halfway from put-in to take-out, and everyone was eager to get going so that they could get off the river, de-rig, and get home, with several people having pretty far to go that day. Barry of course knew that everyone would be ready to make waves and provided a simple and quick breakfast setup for us. That is certainly not to say that the morning float wasn't fun, too! The bottom section is the splashiest and even though many of the rocks were washed out as they had been further upstream, there were some good wave trains and a great tributary confluence creating current coming in from the side to navigate.

Time in a specific sense is rather pointless when you are on the river, but I will mention it here to illustrate the swiftness with which we completed the second half of the river miles of the entire trip. We launched from camp at 9:39am and landed at Big Eddy at 12:38pm; we completed 15 of the 30 river miles in three hours. Despite all the fun we had and great chats while on rafts and in duckys, our total float time was probably just over six hours and certainly not more than seven for the whole trip thanks to the high flow of the magnificent Wild and Scenic Rio Chama.❖



BLM River Ranger Barry Weinstock tells stories of an old homesteader along the Rio Chama.



FOR IMMEDIATE RELEASE

Nation’s Only River Certificate Program Propels 17 Students into River Management, Science and Stewardship Careers

TAKOMA PARK, MD (June 20, 2022) — The River Management Society (RMS) has announced 17 recipients of the River Studies and Leadership Certificate (RSLC), a unique program which gives university students the foundation of knowledge and experience required to pursue river-related careers. Each recipient has completed interdisciplinary coursework and a field-based practicum in river-based science, policy, conservation, education and recreation.

“Having met several RSLC students, I am excited by their passion and drive to explore careers in river management,” said RMS President Judy Culver. “As many professionals who were inspired to work on rivers in the 1980s and 1990s retire, we appreciate our educational partners for introducing these highly qualified and energetic students to careers in service to rivers and river communities across the nation.”

- Recipients include:
- Northern Arizona University: Caitlin Brogan, Christian Fauser, Adam Bringhamst and Gabriel Baca
  - Northeastern State University: Juliane Perry, Emma Mills, Viktoria Stallings and Keegan Stallings
  - Colorado Mesa University: Dalton Robberson
  - Utah State University: Kevin Chaves
  - Virginia Commonwealth University: Pat Reilly, Edward Lukas, Megan Black, Caleb Rivera, Toolen Meyer, Grace Lumsden-Cook and Rose Brown

Students enrolled in the RSLC program went paddling and camping together at Canyon Lake, Texas, just days before the 2023 RMS Symposium. Photo: James Vonesh



A benefit of the program, RMS covered students’ expenses for the recent national River Management Symposium, where they presented their work and networked with industry leaders and hiring managers.

“I became comfortable venturing into the outdoors through the certificate program and fell in love with recreational paddling and freshwater conservation,” said certificate recipient Megan Black. “Attending the Symposium allowed me to meet student peers from other schools’ RSLC programs, engage professionals in the field I plan to work in, and learn even more about river conservation and access. I have never felt more excited, inspired or confident about my career aspirations.”

Many 2023 RSLC graduates have already begun river-based careers in positions such as fisheries technician, river ranger and microbiology researcher.

The River Management Society established the River Studies and Leadership Certificate in 2018 to underscore the multi-disciplinary nature of wise, holistic river management for students interested in river-related careers.❖

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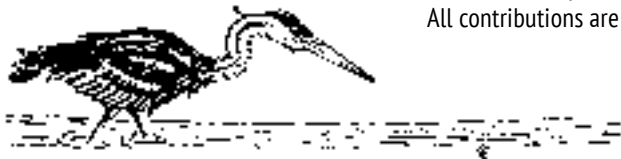
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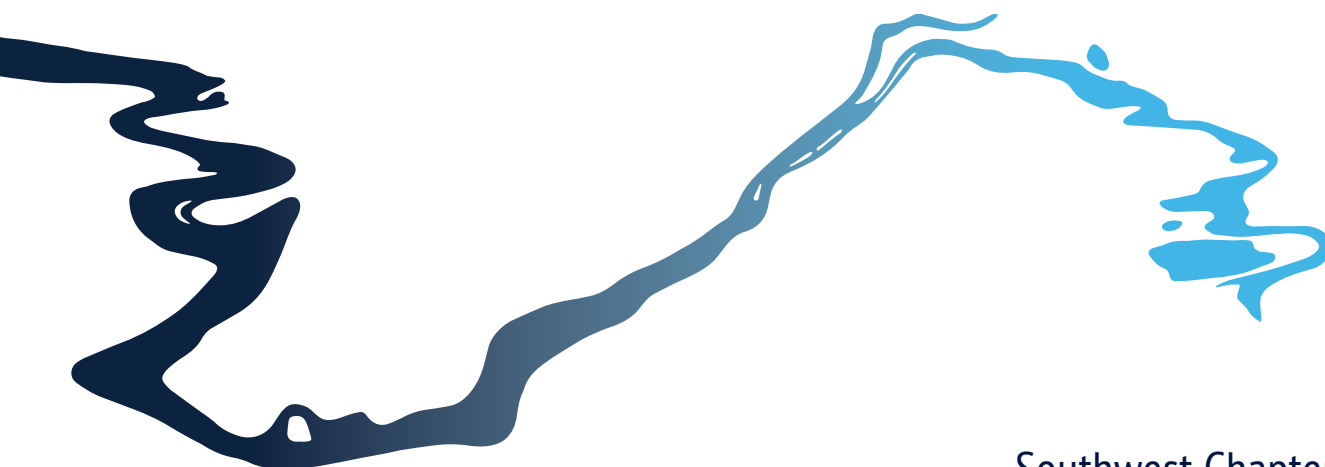


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