

# Journal





# AIRE



# MAKE WAVES

aire.com | 844.243.2473



**AMERICAN  
WHITEWATER  
JOURNAL**



A volunteer publication  
promoting river conservation,  
access, and safety

**Editor-in-Chief**

Evan Stafford  
[evan@americanwhitewater.org](mailto:evan@americanwhitewater.org)

**Copy Editor and Member-Contributed  
Content Coordinator**

Emerald LaFortune  
[editor@americanwhitewater.org](mailto:editor@americanwhitewater.org)

**Art Direction/Production**

Scott Lewis/Parts & Labor  
[partslabordesign@gmail.com](mailto:partslabordesign@gmail.com)

**Contributors**

Clinton Begley, Tom Christopher, Kevin Coburn,  
Teresa Gryder, Donald Iverson, MD,  
Courtney Modaff, Richard Montgomery,  
Len Necefer, Buffy Pollock, Charlie Walbridge

**Photo Contributors**

Rafal Gdowski, Justin Harris, Jana Johnson,  
Jeff Macklin, Richard Montgomery, Len Necefer,  
Evan Stafford, Sam Swanson, Skip Volpert

**Industry Partnerships and Adverstising**

Bethany Overfield  
[bethany@americanwhitewater.org](mailto:bethany@americanwhitewater.org)

**Safety Editor**

Charlie Walbridge  
Route 1, Box 329F, Bruceton Mills,  
WV 26525  
[ccwalbridge@cs.com](mailto:ccwalbridge@cs.com)

**Missing Copies and Address Changes**

Bethany Overfield  
[bethany@americanwhitewater.org](mailto:bethany@americanwhitewater.org)

*Publication Title:* American Whitewater

*Issue Date:* March/April 2024

*Statement of Frequency:* Published Bimonthly

*Authorized Organization's Name/Address:*

American Whitewater  
P.O. Box 1540, Cullowhee, NC 28723

**STEWARDSHIP**

**5 Horizon Lines**

*Clinton Begley*

**10 Paddlers Protect Lower Big Sandy with  
Purchase of River Left Corridor!**

*Kevin Colburn*

**14 Converging Currents: The Interplay of Law,  
Culture, and the Colorado River**

*Photos and Words by Len Necefer*

**DEPARTMENTS**

**7 Member Spotlight**

Paul Raymond, Tracy Davis and Mara Hancock

**8 Community Voices**

Ask AW: Swiftwater Rescue Course?

**20 Community Voices**

Dear Salmon River

*Jonna Schuller*

**22 Rememberance**

Oregon Rafter Inducted Into  
International Whitewater Hall of Fame  
*Buffy Pollock*

**26 Safety**

WhasSUP?  
*Teresa Gryder*

**30 Safety**

Techniques To Prevent Flush Drowning  
*Donald Iverson, MD*

**34 River Recipes**

Apple Spice Crumb Cake  
*Courtney Modaff*

**36 Community Voices**

Requiem: New England FLOW Dissolves Organization  
*Tom Christopher*

**41 Safety**

Fatal Whitewater Accident Report:  
July – December 2023  
*Charlie Walbridge*

**48 Community Voices**

Bald Rock, Part 2 - 2023  
*Richard Montgomery*

**Cover photo:** Len Necefer

**RIVER STEWARDSHIP: AN INTEGRATED APPROACH**

Our mission: "To protect and restore America's whitewater rivers and to enhance opportunities to enjoy them safely," is actively pursued through our conservation, access, safety and education efforts under the umbrella of River Stewardship. The only national organization representing the interest of all whitewater paddlers, American Whitewater is the national voice for thousands of individual whitewater enthusiasts, as well as over 85 local paddling club affiliates. AW's River Stewardship program adheres to the four tenets of our mission statement:

**CONSERVATION:** AW's professional staff works closely with volunteers and partner organizations to protect the ecological and scenic values of all whitewater rivers. These goals are accomplished through direct participation in public decision-making processes, grassroots advocacy, coalition building, empowerment of volunteers, public outreach and education, and, when necessary, legal action.

Founded in 1954, American Whitewater is a national nonprofit organization (Non-profit # 23-7083760) with a mission "to conserve and restore America's whitewater resources and to enhance opportunities to enjoy them safely." American Whitewater is a membership organization representing a broad diversity of individual whitewater enthusiasts, river conservationists, and more than 100 local paddling club affiliates across America. The organization is the primary advocate for the preservation and protection of whitewater rivers throughout the United States, and connects the interests of human-powered recreational river users with ecological and science-based data to achieve the goals within its mission. All rights to information contained in this publication are reserved.

**EDITORIAL DISCLAIMER**  
The opinions expressed in the features and editorials of *American Whitewater Journal* are those of the individual authors. They do not necessarily represent those of the Directors of American Whitewater or the editors of this publication. On occasion, American Whitewater publishes official organizational policy statements drafted and approved by the Board of Directors. These policy statements will be clearly identified.

**RIVER ACCESS:** To assure public access to whitewater rivers pursuant to the guidelines published in its official Access Policy, AW arranges for river access through private lands by negotiation or purchase, seeks to protect the right of public passage on all rivers and streams navigable by kayak or canoe, encourages equitable and responsible management of whitewater rivers on public lands, and works with government agencies and other river users to achieve these goals.

**SAFETY:** AW promotes paddling safely, publishes reports on whitewater accidents, maintains a uniform national ranking system for whitewater rivers (the International Scale of Whitewater Difficulty), and publishes and disseminates the internationally-recognized American Whitewater Safety Code.

**EDUCATION:** AW shares information with the general public and the paddling community regarding whitewater rivers, as well as river recreation, conservation, access, and safety. This is accomplished through our bi-monthly AW Journal, a monthly e-news, americanwhitewater.org, paddling events, educational events, and through direct communication with the press. Together, AW staff, members, volunteers, and affiliate clubs can achieve our goals of conserving, protecting and restoring America's whitewater resources and enhancing opportunities to safely enjoy these wonderful rivers.

AW was incorporated under Missouri nonprofit corporation laws in 1961 and maintains its principal mailing address at PO Box 1540, Cullowhee, NC 28723; phone 1-866-BOAT-4-AW (1-866-262-8429). AW is tax exempt under Section 501 (c) (3) of the Internal Revenue Service.

**AMERICAN WHITEWATER BOARD AND STAFF**

**BOARD OF DIRECTORS**

- Brent Austin  
Cosby, TN  
baustin@jbrentaustin.com
- Melissa Driver  
Mills River, NC  
melissaanndriver@gmail.com
- Lily Durkee  
Fort Collins, CO  
lily@diversifywhitewater.org
- Susan Elliott  
White Salmon, WA  
Elliott.Susan.H@gmail.com
- Brian Jacobson  
Long Creek, SC  
brianjacobson@gmail.com
- Greg Lee  
Portland, OR  
gregliest@gmail.com
- Bruce Lessels  
Buckland, MA  
bdlessels@gmail.com
- Megi Morishita  
Trout Lake, WA  
megi1971@gmail.com
- April Montgomery  
Norwood, CO  
aprilmontgomery@gmail.com
- Chris Neuenschwander  
Pike Road, AL  
Chris.Neuenschwander@jacksonthornton.com

Erin Savage  
Mills River, NC  
savage.ee@gmail.com

Chris Tulley  
Folsom, CA  
chris.tulley@gmail.com

Charlie Walbridge, Honorary  
Bruceton Mills, WV  
ccwalbridge@cs.com

**BOARD OFFICERS**

President: Brent Austin  
Vice President: Erin Savage  
Secretary: Megi Morishita  
Treasurer: Bruce Lessels  
At Large: Melissa Driver, Chris Tulley

**STAFF**

Clinton Begley  
*Executive Director*  
Springfield, OR  
clinton@americanwhitewater.org

Kevin Colburn  
*National Stewardship Director*  
Asheville, NC  
kevin@americanwhitewater.org

Scott Harding  
*Stewardship Associate*  
Forks of Salmon, CA  
scott@americanwhitewater.org

Heidi Heisler  
*Finance Director*  
Springfield, OR  
fiscal@americanwhitewater.org

Hattie Johnson  
*Southern Rockies Restoration Director*  
Carbondale, CO  
hattie@americanwhitewater.org

Kestrel Kunz  
*Southern Rockies Protection Director*  
Crested Butte, CO  
kestrel@americanwhitewater.org

Sadie Mathison  
*Membership and Operations Specialist*  
Wild Rose, WI  
sadie@americanwhitewater.org

Bob Nasdor  
*NE Stewardship Director*  
Sudbury, MA  
bob@americanwhitewater.org

Thomas O'Keefe  
*Pacific NW Stewardship Director*  
Seattle, WA  
okeefe@americanwhitewater.org

Bethany Overfield  
*Membership & Engagement Director*  
Brevard, NC  
bethany@americanwhitewater.org

Theresa Simsiman  
*California Stewardship Director*  
Sacramento, CA  
theresa@americanwhitewater.org

Evan Stafford  
*Communications Director*  
Fort Collins, CO  
evan@americanwhitewater.org

Dave Steindorf  
*Hydropower Specialist*  
Chico, CA  
dave@americanwhitewater.org



# Horizon Lines

By Clinton Begley

---

**IT IS SOMETIMES DIFFICULT TO FIND THE RIGHT BALANCE BETWEEN** venerating the victories that got us here and painting a clear vision of what opportunities lie ahead.

But anniversaries, those rare eddies in the stream of time, offer us all a moment to pause and reflect upon the confluence of past and future. As we mark the seventieth year of American Whitewater, we both acknowledge the pathfinders who have charted the course to where we are now, and aim to keep the fire burning for the next generation who will light the way for those who follow. Our mission is multi-generational.

Even so, I will occasionally get the question, “What has American Whitewater done for me recently?” I have many examples, but the deeper answer can be heard in the sounds of lands and waters themselves. To measure success annually by dollars, or even by river miles conserved, is to evaluate the health of an oak forest by the acorns on the ground. Some years are for masting, others are for deepening the roots. Success is ultimately measured by relationships to place and the depth of connections there.

The whitewater community has deep roots. Theirs is a history you should know because they continue to feed all of us. In this issue of the Journal, you’ll read an article by Tom Christopher about New England FLOW. Tom’s work in the Northeast alongside Rick Hudson, Bruce Lessels, Pete Skinner, and many others is emblematic of the multi-generational contributions of paddlers. The legacy they leave nourishes our whitewater family today.

Polluted and off-limits rivers should be rare. Everyone should feel welcome on the water. Yet as we all know, that is not yet the case. The ongoing impairment of water quality and routine public exclusion serves as a stark reminder of the path still before us. Len Necefer’s article in this Journal reminds us of a parallel history - the ways conservation efforts have contributed to the exclusion experienced by those with ancestral ties to these places. It too is a history we should know. Reflecting honestly upon the complex and woven threads of our history allows us to see patterns, reconcile the distance between our values and behaviors, and heal.

Looking ahead to the next 70 years, let us build upon the good foundations laid by those who came before. Let us also learn from our mistakes. Let us be the ones our successors remember as those who built and rebuilt the broad coalitions necessary to ensure rivers run free. And, perhaps most immediately, the ones who kept 2024 from being the year of “peak clean water.” Let us be the ones who leave a legacy of stewardship and love for the wild waters that sustain and inspire all of us.

With a heart full of hope and hands ready to work, thank you for showing up and stepping up for your home waters, and through your enduring support for American Whitewater.

Have a wonderful spring, I hope to SYOTR soon.



Clinton Begley  
Executive Director



 @PyranhaKayaks

[PYRANHA.COM](http://PYRANHA.COM)



**LEADING  
THE WAY  
FOR OVER  
50 YEARS**

**pyranha**  
ADVANCED WHITEWATER KAYAKS SINCE 1971



# Member Spotlight



**Name:** Paul Raymond

**Location:** Colorado Rockies, usually Crested Butte

**Years as an AW Member:** 11

**Why American Whitewater?** River advocacy through collective action is too important not to be a part of!

**What is your “home river”?** Oh Be Joyful!\*

**What piece of gear will you not get on the water without?**

Got to have a good pair of shoes that won't come off!

**What's your boating motto?**

Always have fun!

*\*Editor's Note: The Oh Be Joyful race, organized by Paul, occurs on Oh Be Joyful creek near Crested Butte, CO.*



**Names:** Tracy Davis and Mara Hancock

**Location:** Berkeley, CA

**Years as AW Members:** 8

**Why American Whitewater?** In addition to amazing advocacy for river conservation and access, American Whitewater and its staff are a critical resource for river information, community connections, and community building. When we volunteer for AW at different events, the love and respect from members shines through!

**What is your “home river”?** South Fork of the American River in the California Sierra Nevada foothills

**What piece of gear will you not get on the water without?**

*Mara:* Aside from all the basics, I always bring an extra energy bar. You just never know when you — or someone else — are going to need one!

*Tracy:* I've learned the hard way to always carry a backup pair of my prescription glasses!

**What's your boating motto?**

*Mara:* One eddy at a time! I find that if I approach the river like that I can breathe, take my time, and enjoy each moment while also continuously working on my skills!

*Tracy:* I'm not nervous, I'm excited :)



## ASK AW:

# Swiftwater Rescue Course?

---

*Dear American Whitewater,*

*I grew up doing outdoor activities with my family including flatwater canoeing, but am pretty new to whitewater. I just started kayaking a year ago after taking a course in my college's outdoor program. I got my roll about six months ago and did my first Class III run last week! I love kayaking so far and have been thinking about trying to find a whitewater-related summer job like safety boating or guiding.*

*I've seen swiftwater rescue courses advertised but none of my current kayaking buddies have the certification. I'm a college student and funds are tight. Paying for the course would be a big commitment. My question is this: is a swiftwater rescue certification necessary if I want to continue kayaking and potentially work in the field? Or should I wait until I'm a better kayaker to make the investment? Are swiftwater courses just a money-making scam?*

*Thanks,  
Z-Drag*

Dear What's-A-Z-Drag,

Welcome to whitewater! It's great you're enjoying learning to kayak, most outdoor programs are a solid place to start. There are a few different factors to consider when exploring swiftwater rescue courses. First, is how you intend to use the course. If, as you mentioned, you plan to be a whitewater professional such as a guide, your legal duty of care to participants is heightened. For this reason, many employers will require, as part of their risk management practices, a swiftwater rescue certification before guiding guests on certain sections of river. With that said, it's variable across the industry if these courses are required before applying for employment. Many employers offer in-house swiftwater training during the pre-season or will help compensate for your training in some way.

Beyond employment in the industry, swiftwater rescue courses are a great way to build and practice your technical whitewater rescue skills and in general, we highly recommend taking one as soon as it makes sense for you. Accidents can occur on rivers of all difficulty levels and it is always helpful to practice in a more controlled environment. If you take a course, we recommend making sure it is whitewater specific. You will want to make sure you are taking a course that focuses on instruction for river runners. Your outdoor program will likely have a recommendation for both an instructor and a company that fits your needs. It's important to be discerning about who you train with. This will help you ensure a great return on investment in your course.

Swiftwater rescue certification is a significant financial commitment. If the cost is prohibitive, consider: is there a mentor in your community, an American Whitewater affiliate club, or a more experienced kayaker in the outdoor program you could call on? Spending a day on a mellow stretch of water with the express purpose of practicing whitewater rescue scenarios is more valuable than no practice at all. Or, commit to learning about and practicing a technical skill each month. Just make sure you are assessing your current skill accurately, so a practice scenario doesn't turn into a real-life accident.

Happy paddling,  
American Whitewater

PS: Z-Drag is a line and pulley system that creates a mechanical advantage, great for getting boats unpinned from rocks mid-rapid! ■



Paddler: Sven Lammler  
Photography: Gonzalo Robert



On tour in California | Yuba Gap, South Yuba River | Summer '23



# IMMERSION RESEARCH





# Paddlers Protect Lower Big Sandy with Purchase of River Left Corridor!

*Kevin Colburn*



## **AMERICAN WHITEWATER IS THRILLED TO ANNOUNCE**

that on Friday, January 26, we completed the purchase of a large portion of the classic Lower Big Sandy River landscape. Located in northern West Virginia, the land includes 4.25 miles of river frontage spanning almost the entire river left side of the gorge, the remainder of which is already under conservation ownership. This purchase safeguards the river left Rockville Access and portage routes at Wonder Falls and Big Splat.

This purchase effort was led by longtime American Whitewater board member Charlie Walbridge and retired Cheat River outfitter Dave Hough. It was made possible by major gifts from over two dozen paddlers. Thanks to their generosity the land will now be protected for its recreational and ecological values in perpetuity. American Whitewater has worked closely in partnership with the Waterfront Development Group, which owned the land, as well as the West Virginia Land Trust to ensure long-term protection. This is the kind of work American Whitewater's members and donors are uniquely positioned to make happen.

The Big Sandy has welcomed generations of paddlers into a highly scenic and richly forested whitewater gorge and has sufficient flow to support paddling on an impressive average of 180 days annually. The river contains numerous classic rapids formed by polished boulders and ledges, each of which is separated by deep pools. The renowned Wonder Falls was first paddled by Jim Snyder in 1973—50 years ago last year—and has since offered many thousands of paddlers their first waterfall experience. The Big Sandy is an enchanting place in which countless paddlers have learned the skills and discipline required to navigate challenging whitewater in an intensely beautiful setting, serving as both a rite of passage and a sublime destination. This is a very special river, and protecting it safeguards an irreplaceable piece of West Virginia's ecology, economy, and quality of life.

The land was previously owned by a hydropower company that planned a large dam on the Big Sandy. It was then owned by a petrochemical company, a timber company, and most recently a development company. Through all of these owners, the Big Sandy endured, and the riverside land remains





Photo: Jeff Macklin

today in a relatively wild forested state. We are perhaps the last generation that can purchase and conserve large portions of privately-owned river corridors of our community's most cherished rivers like the Big Sandy. American Whitewater was able to recognize this opportunity thanks to local paddlers and had the flexibility and support to take advantage of this urgent and historic purchase. With the land now purchased, American Whitewater plans to transfer the land to the West Virginia Land Trust for long-term stewardship.

As we enter American Whitewater's 70th anniversary year, this purchase is an affirmation that we can do big things with the support of the paddling community! We would like to share our deep gratitude to the following people that made the Big Sandy purchase possible: Bob Alexander, Kathrin Allen, Pope Barrow, Dave Bassage, Scott Bortree, Dave Brisell, Peter Bross, Phil Coleman, Bret Corchoran, Jack Ditty, Cyndy and Steve Donelon, Strat Douglas, Mike Fentress, Bob Gedekoh, Ken Gfroerer, John Guilfoose, Katie Heisler, Eric and Sara Henrickson, Dave and Cindy Hough, Ned Hughes, Chris Kirkman, Henry Labalme, George Martin Foundation, Robert Milvet, Jim Murtha, Nori

Onishi, Peggy Pings, Adam Polinski, Randy Robinson, Jenn Sass and Mike Graham, Patricia Schifferle, Dave Smith and Nancy Petroski, Timothy Smith, Margot Stiles, Imre and Janet Szlagyi, Steve Taylor, Mac and Molly Thornton, Barry and Kitty Tuscano, Charlie and Sandy Walbridge, Wick Walker, Jeff Byard - West Virginia Trails Association, Barry Whittaker, and Fred Wright.

Transferring the land to the West Virginia Land Trust for long-term stewardship will ensure that the land is managed for its conservation and recreational values in perpetuity, including guaranteed paddler access and the potential for trail development. Before that transfer happens, we need to be certain the resources for perpetual stewardship are in place. Right now we need to raise funds to complete the transfer and seed a stewardship endowment to guarantee long-term management. Our grass-roots fundraising goal is \$75,000. Any donations received in excess of our goal will be directed toward additional river access and protection opportunities.

To give, please go to [americanwhitewater.org/donate](https://americanwhitewater.org/donate) and put "Big Sandy Fund" at the bottom of the form. ■



Right: Jamie Gray's expression immediately after her personal first descent (PFD) of Zoom Flume rapid. This was her first run of Lower Big Sandy, during Cheat Fest weekend in spring 2016. There is a "wow factor" to this rapid, and to the whole river ... the beautiful Big Sandy Creek, WV. Jamie always had fun on this river and would have no doubt celebrated this purchase and protection of the river corridor with a smile at least this large. Mixed with expressions of determination and wonder, her most frequent "river face" was a smile. Jamie passed away on the Middle Fork of the Tygart River, WV, on February 9, 2020. Photo and words by Jeff Macklin.



A land purchase of 4.5 miles of riverside property on the Big Sandy is an affirmation that we can do big things when we come together as paddling community!  
Photo: Justin Harris







# WATERSHED<sup>®</sup>

WATERPROOF BAGS | MADE IN USA  DRYBAGS.COM



Proud to be a sponsor of



**AMERICAN**  
*Whitewater*

SUPPORT COMPANIES THAT SUPPORT YOUR RIVERS!



# CONVERGING CURRENTS: The Interplay of Law, Culture, and the Colorado River

*Photos and Words by Len Necefer*

---





**“WHAT DO YOU MEAN THE WATER HAS EYES AND**

**ears like us?”** I said to my uncle. His head turned and locked eyes with mine. “Water is alive like us and as Navajos, we treat it with that respect.” This was not the response my ten-year-old self expected after gloating about how much I loved water parks in the summer. It made sense to hear this coming from my uncle who had grown up, like many on the Navajo Nation, without running water. I grew up in Kansas where my parents had met, and I spent weeks at a time with my family on the reservation during summer breaks. I was different from my family on the Navajo Nation, and growing up Navajo, I was quite a bit different from my peers in Kansas. Looking back, this moment was a pivotal point in shaping my cultural relationship with water and in shaping the direction of my work in recent years. Years later, when I was researching these topics in graduate school, I began to see how differently this cultural orientation and view of water translated into law and policy around major waterways like the Colorado River.

Tribal water rights in the United States are wildly complex and deeply rooted in a combination of federal law, treaties, and court decisions. Tribes’ water rights largely stem from treaties made between the United States

government and Native American tribes, where these rights were guaranteed as part of the Tribes’ sovereign status over their lands. Most notably, “Winters v. the United States,” a landmark Supreme Court decision in 1908, established that Native American tribes have the right to sufficient water to fulfill the needs of their reservations with what is known as the “Winters Doctrine.” This ruling recognized that water rights were implicitly reserved for Tribes when their reservations were created. However, significant questions remain regarding the quantification and management of these rights.

Tribes pursuit to answer these questions is contentious, often involving negotiations and legal battles with states, private water users, and the federal government. Tribal water rights are not only vital for the basic needs and economic development of Tribal lands, they also hold cultural and spiritual significance for many Tribes. However, during this period, these ideas about cultural values, water law, and broader policy felt too abstract, given that this was all happening in my own backyard. My desire to learn was transformed into a desire to learn about these rivers hands-on.





There aren't many Navajo folks today who spend a lot of time on the rivers that border our reservation, like the San Juan or the Colorado rivers, nor the snowpacks in Colorado that feed them. In part, this is the sticky historical residues of past law and policies of economic, social, and political isolation and marginalization that shaped the treatment of Native peoples in the United States. Until 1912, it was illegal for any Native American to leave their reservation without permission, and in many instances, the federal government was reluctant to grant permission, as such trips were seen to detract from "civilized" labor.

Decades of policies like these meant that Native people would be separated physically from places that historically we considered home, but also removed the memory of these places from our collective consciousness. Compounding this, decades of misinformed and bad-intentioned economic policies have meant that many Navajo people still live below the poverty line. For example, the Navajo Livestock Reduction Program, led by the Department of Interior during the 1930s, culled over a quarter million livestock on the Navajo Nation to address concerns of soil erosion into the San Juan and Colorado Rivers. This program had a massive and near irreparable impact on the Navajo economy, as sheep and cattle were the main cash commodities from the reservation. Policies and programs like this have led to economic stagnation and poverty, decades

after their implementation. The thought of pursuing cost-intensive recreational activities like rafting or boating, when one is struggling to survive day to day, makes little sense. In a real way, the rivers that once flowed through our homelands became the uncrossable borders that have contained us.

A large part of my work with my company, NativesOutdoors, has been two-fold in response to this history: first by creating an economic engine for indigenous talent to work in the outdoor recreation industry and conservation non-profit spaces, and secondly creating media and stories that amplify indigenous perspectives and voices in these arenas. Our media work today spans both commercial and documentary films. The impetus to work in these areas came from a place of frustration. Far too often we have had our stories told and filtered through those not from or unfamiliar with our communities. Often the stories and characterizations that result miss important nuance and in the worst instances reinforce the worst stereotypes about Native Americans and the poverty afflicting our communities.

I don't fully fault filmmakers and media creators for misrepresenting our stories and perspectives. In many respects, this is reflective of the poor foundational education we as Americans receive about Native peoples and their histories. As one of





my doctoral advisors once told me, “We don’t know what we don’t know.” In an economic sense, the means of producing film and media is costly, with equipment often costing tens of thousands of dollars. The budgets to produce these types of content can be significant. Instead of watching these dollars flowing around our communities while our stories were taken, I saw an opportunity to change that.

In recent years the two-decade megadrought gripping the Southwestern United States has refocused much of my work and created an opportunity to document the snowpacks and the rivers that flow from them in this region, and the immense legal and political complexity surrounding it all. In 2021, Peter McBride, an accomplished photographer and storyteller who has worked extensively on documenting the Colorado River, invited me on a “float” of the Yampa River at its lowest recorded levels.





The “float” was more of a hike down the river with a packraft in tow. In retrospect, this should not have been surprising given that it was flowing at 30 cfs when we put in. We walked a little over thirty of the sixty miles between Deer Lodge and Echo Park. This moment was pivotal in my understanding of the scale of the drought. The ankle-deep water we walked through was already spoken for by downstream users, and all of it would flow right past the Navajo Nation. On paper, Tribes hold around 25% of the water rights of the Colorado River. In practice, however, very little of these rights have been fulfilled, as the US Government has asserted that it's the Tribe's duty, rather than theirs, to do so.

Fulfilling these rights is incredibly expensive given the infrastructure and energy required to move water long distances. It should not come as a complete surprise that today, over one-third of Navajo homes lack running water. In 2003, the Navajo Nation sued the federal government on the basis that they had violated treaty obligations by failing to consider their water rights in managing the river. In 2023, twenty years after that first filing, this case was argued in front of the Supreme Court. In a narrow 5-4 decision, the court determined that the 1868 treaty, which established the Navajo Reservation, allocated sufficient water resources for its purposes. However, the treaty did not require the United States to proactively fulfill these water resources for the Tribe. In the twenty years since the filing of this suit, the two-decade drought has dramatical-





ly changed the context of how this river will be managed. It is almost certain the tribe will sue again and any decision in favor of the Navajo Nation's position will have significant repercussions.

The current megadrought gripping the Colorado River basin and the renegotiation of the operations on the river post-2026 will bring all these challenges on the river into sharp relief. Climate change and decreasing and more variable snowpacks have become a serious challenge to determining how we move forward managing the river's operation in the future. However, there is hope. My time in Glen and Cataract Canyons has provided one glimmer of what is possible, the low water levels are revealing parts of these canyons that have been submerged for decades under the water and sediment of Lake Powell. This emergence has led to a rapid return of the river and riparian ecosystems once decimated by water and sediment. Ecological memory runs deep and if we give nature the opportunity to exist, it will find a way. ■





# Dear Salmon River

*Jonna Schuller*

She flows freely, her arms stretching through the wilderness of Idaho

Mighty and fierce, her waters aren't to be taken lightly  
Known to many as the "River of No Return" some may run in fear

But I run in jubilee  
knowing I will soon be in her cool embrace

See, I have only known the Salmon River  
for one sweet summer  
And yet, I still feel her forces pulling me back, magnetic  
Calling me to spend my life  
Lingering, encapsulated in her canyons, along some of the best whitewater, people, and wildlife in the world

Her banks will take care of you at night  
Allowing you to rest your tired eyes and sunkissed body  
Under some of the most spectacularly bright stars and constellations you've ever seen  
Her sweet waters allow for endless memories  
Running rapids and escaping triumphant, plunging into eddies after scorching days,  
Hot springs tucked away within her walls, chilly mornings contrasted by warm coffee  
Pure relaxation, isolated from the outside world

But don't let these fleeting moments of peace trick you  
As her waters are also quick to go from calm to pure chaos  
With enough power to flip one-ton rafts  
Delicately dancing with the devil through her furious waters  
She reminds you of her abilities, whispering an ominous reminder  
never underestimate her

Fear creeps its way in, a prominent playing factor in the choices, the lines, the technique  
But remind yourself to not let it phase you  
Once you embrace the mindset  
Your eyes are opened to excitement  
What's around the following bend  
The adrenaline that accompanies this dance with Mother Nature's greatest creation

It's been a year since I've seen her  
I mourn the past season in winter  
being away is like losing a best friend  
But just like grief, winter fades away

The ever-changing cycle of winter to spring, and eventually spring into summer and so begins the flock to her defrosting waters  
As we return, I reflect on who I was the previous year, how I have changed  
Despite our best efforts, everything changes  
Rapids and people alike  
The movement of the earth shifts her flow parallel to how life events change us

That doesn't matter here though, everyone knows  
Who we are, where we came from, our families or lack thereof  
Our backstory  
As we slowly morph into a community day-by-day  
We all have one thing in common  
Our respect for these wild places

Because the Salmon River can flow out of your grip  
Just as easily as she flowed in  
She will break your heart into a million pieces, sending them down her rapids  
She will comfort you  
She will test your limits  
And she will grin along the ponderosas and river otters when you succeed

We all carry a part of her with us  
Because while she can leave you in a blink, she's not that simple to forget  
So if you are lucky enough to meet her  
Please tell her I said hello and while you're at it  
Make sure to write her a love letter



Say hello to the Hot Whip Series!

# HOT WHIP



## A PLAY MACHINE FOR THE ENTIRE RIVER, PLAY SPOTS AND RAPIDS INCLUDED

The Hot Whip is the ultimate boat for those who want to play hard on the entire river without sacrificing comfort and style going downstream. As a half slice, it's designed with play in mind, but can still take on river running with confidence.



## **NEW** HOT WHIP 60

### **NEW SIZE. SAME FUN**

We took the playful hull and river-running chops of the OG and scaled it down just for you by 12 gallons. Now every paddler can experience the magic!



MADE IN THE USA





# Oregon Rafter Inducted Into International Whitewater Hall of Fame

*Buffy Pollock*

---



*Editor's Note: This article, now a remembrance of the late Bryce Whitmore, is republished with permission from the author Buffy Pollock, Bryce Whitmore's daughter Jana Johnson, and the original source, the Rogue Valley Times (October 2023). Photographs courtesy of Jana Johnson.*



## HAILED AS AN EARLY INFLUENCER IN THE COMMERCIAL

rafting industry, 97-year-old Medford, Oregon resident Bryce Whitmore is one of six new inductees in the International Whitewater Hall of Fame. Added to 55 previous “leaders and legends” in the international hall, Whitmore was honored as a “whitewater pioneer” in September 2023, in Lyon, France.

An Ohio native who ventured into research chemistry before trading business attire for river shoes, Whitmore ran a rafting company for three decades that ran rivers in Northern California and Southern Oregon, including the Klamath, Trinity, Rogue, and Illinois.

Born in 1926 in Wooster, Ohio, Whitmore was drafted into the Army the day he graduated high school in 1946. Two weeks later, he was on a hospital ship in the San Francisco Bay as part of a group of “Army soldiers that served on ships.”



I was basically in the Army’s Navy. We did transport...We would take over a load of officers’ wives to be with their husbands, then we’d bring back the wounded,” Whitmore recalled, noting that he traveled to Hawaii, Japan, and Guam.

While fellow soldiers were hitting the bars during leave, Whitmore spent every free moment exploring the outdoors. When he left the military, Whitmore used his G.I. Bill to study paint chemistry at the Case Institute of Technology in Cleveland.

‘As soon as I finished school, I kept remembering how great it was out in California, so I packed up my stuff and got in my car. I told my mom, ‘I’m done with Ohio and snow in the winter-time.’ I remember it was a cold February,” Whitmore said.

Moving to Berkeley, Whitmore landed a job with Sears and Roebuck Paint Company. A working stiff “in a room without windows,” Whitmore didn’t last long in the 9-to-5 world. Spending his free time roller skating, ice skating, sailing, and racing cars, a neighbor’s invite to go kayaking forever changed his path.

“A few people got kayaks and applied to the Sierra Club to have a river touring section. It had been going on for about a year when I discovered it. I had been doing other things, like racing. I was looking for new fun,” Whitmore said.

While living in El Sobrante, California, Whitmore and several club members ventured to Europe and discovered a new style of kayak featuring a wood frame with canvas “skin,” an alternative to often-fragile Inuit-style kayaks made of animal skin stretched over whalebone.



Taking things a step further, Whitmore designed a fiberglass kayak. The boat worked so well that Whitmore’s kayaking cohorts all wanted one. Whitmore and his friends also worked with a surf shop owner to devise short-sleeved wetsuit tops that were warm but buoyant. Building kayaks and spending time on the river filled much of Whitmore’s time—and his garage.

Whitmore excelled at slalom kayak competitions, placing first at the Salida, Colorado, whitewater races in 1960. He was later chosen to represent the U.S. in the 1961 World Competition in Dresden, Germany, although he didn’t attend due to expense and work schedule. He took first place at the National Kayak Championships on the North Fork of the Feather River a year later, but he was disqualified when judges learned he owned a rafting company, which made him a “professional.”



In 1960, Whitmore returned home from a race to find his house had burned to the ground. Only his garage, filled with kayaks, survived.

Still working as a chemist, he saw the fire as a sign.

“When my house burned down, I thought about the prospect of being a chemist for the rest of my life. I thought, ‘Well that’s no fun.’ So I quit my job and grabbed my kayak and said, ‘I’m gonna kayak all summer long.’ I never did go back to my chemical job.”

After a summer of guiding Sierra Club river trips, Whitmore wanted to find a way to do what he loved for a living.

“In the fall, I got ahold of some rafts. There were really no rafts you could buy in those days. You had to go to war surplus or

“I had still been using those old surplus rafts for a few years. They were pretty terrible. A fella back in West Virginia that owned a big rubber fabricating place, he saw a picture of me rafting on one of the rivers, on the cover of a magazine, and could see that the raft was not...all that dandy,” Whitmore said.

“He called me up and said he would make me some rafts that would be a lot better. He made me one raft to start with and it was fantastic. They had four tubes, side by side, and you’d sit on top of the tubes. I used those over the whole 30 years I was in business.”

After moving to Galice in 1971, Whitmore began guiding rafting trips on the Rogue and Illinois rivers.

A decade after quitting his chemist gig, in 1971, Whitmore relo-



someplace like that. I patched up some Army surplus rafts and got my business going,” he said.

He went from guiding “four or five people” downriver on weekends to teams of river guides offering several multi-day floats per week. Helping to fine-tune the industry even more, Whitmore designed a self-baling “Huck Finn-style” rubber raft that offered improved maneuverability and safety.

cated to Galice and focused his business around the Rogue and Illinois rivers.

“The Rogue River is the best river for rafting because the water level is dependable, the rapids are just right. There really hadn’t been any raft trips on the Rogue, so that took off like crazy,” Whitmore said. Laying claim as the first company to commercially navigate the Illinois River, Whitmore said the Illinois was a fierce competitor—in terms of beauty—for the Rogue.



“The Illinois is fantastic whitewater and beautiful. It’s really so much more than the Rogue, even. You don’t think that’s possible, but it’s an amazing river, right in our backyard,” he said.

His favorite spots on the Rogue were the lodges that offered a reprieve from camping. When he moved to Southern Oregon, riverfront lodges were mostly used by fishermen during late summer and fall.

“I convinced (lodge owners), if they opened up in summertime, I’d bring them customers,” he said.

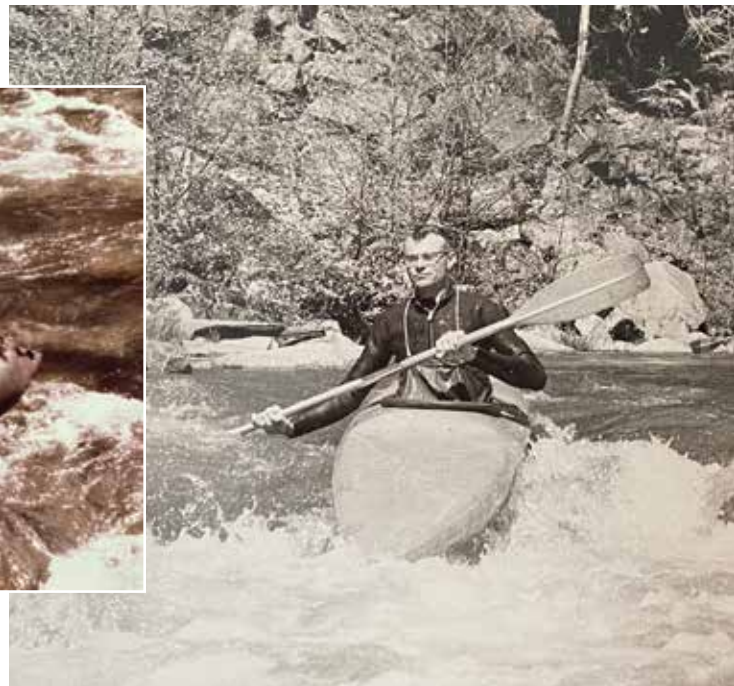
“Black Bar Lodge and Marial Lodge were just wonderful. Those were the nights where we didn’t have to cook or anything. We would just pull in like celebrities, send people off to their cabins, and have a little cocktail and a nice dinner.”

He remembers countless evenings cooking over campfire and playing guitar. Former guides of Whitmore’s still visited—he lived at an assisted living facility in Medford—to tell stories or play guitar with their old boss.

When he retired in 1986, Whitmore left Galice and moved onto 50 acres along Anderson Creek in Talent, Oregon. For several decades, he returned to sailing, collecting cars, and skating. He even installed a roller-skating rink floor on the upper level of an old barn.

The best memories from his more than three decades of rafting were the relationships with customers and fellow river guides.

“My guides all stayed with me for years and years. Some of them



Whitmore’s daughter, Jana Johnson, who lives in Canada, remembers a childhood on the river and her dad’s sense of humor, including a bear costume he’d wear while tubing down the river or visiting campsites.

“I’d hear them at breakfast, talking about the bear,” Whitmore remembered with a laugh.

Another favorite memory for Whitmore was a black lab named Charlie Brown who enjoyed being in a kayak when it rolled.

started when they were so young that their moms had to drive them to work. A lot of them eventually started branching off and starting their own river companies. It was really great I was able to influence their lives like that,” Whitmore said.

“I guess the other part of it was that it was just really great to get to do what I did. It was hard work, but it was so good to be outdoors all the time. To be able to show the beautiful river canyons to all those thousands of people. It was really quite a life.”

“And to think,” he added, with his 18-year-old border collie, Raven, by his side, “I could’ve been a chemist for the rest of my life.” ■



# WhasSUP?

*Teresa Gryder*

Photo by Evan Stafford

**YOU PROBABLY ALREADY KNOW SUP STANDS FOR** standup paddle board. There are many YouTube videos of people shredding river waves and doing cool tricks while standing up. It doesn't matter if it's not the easiest way to get the job done; for some, the challenge is the whole point.

For others SUPing is about freedom; being able to just jump on a board and go. It's about balance. It's about the core. It's about spending some time outdoors and enjoying some sunshine. Whether you ocean surf, run rivers, or both, you've likely seen more SUPs around in the last decade than ever before.

Unfortunately, in the river, there is danger with SUPs that doesn't exist in the ocean. In the American Whitewater accident database you can find one report per year, for the last five years, of a SUP paddler drowning because they were trapped underwater by the leash tethered to their board. All five victims were women, their average age was 43, and each accident occurred on Class II or easier water. They probably thought they were keeping it safe. Before 2019, there were zero leash entrapment fatalities in the database, although we know more occurred. One friend of mine could list three more just in the Eugene, Oregon area. What's going on here?

After interviewing a few experienced SUPers, I have a few ideas. I could be off base, but we need to raise this as a major safety concern because too many people have already died.

SUPing originated in the ocean, where people have been using boards to ride waves for millennia. There are cave paintings from the 12th century of Polynesians riding waves. They sailed

the Pacific and introduced board surfing to Hawaii. For the Hawaiians, the ocean and the making of surfboards was a spiritual practice. In the 1700s, James Cook, the British naval captain who landed in Hawaii, observed the Native Hawaiians surfing. Two centuries later, Dennis Wilson, the only actual surfer in the American band The Beach Boys, wrote songs about riding ocean waves. Board surfing is not new.

What is relatively new is taking this ocean technology onto rivers. There are waves to surf on rivers, and many do so without incident, accurately assessing the risk and their skill level. Others on boards, however, are taking uncalculated risks in swift water.

The biggest risk comes from not recognizing how river dangers are different from those in the ocean. In the river, there are no tides, reefs, jellyfish, or sharks. Instead there are logs, roots, branches, and bridge pilings. There is a powerful, stubborn, and unrelenting current.

In the ocean, if you fall off your board, the waves can take it far away from you. The wind can fly it away. If you fall off your board and it isn't tethered to you, it could be very hard to get back to shore. Leashes are accepted, standard, and normal in the ocean. This technology has saved a lot of lives.

On the river, if you fall off your board, it's a bit different. On most rivers, it's not that far to the shore, and in easier whitewater, it's often not that difficult to swim to the bank. On the river, if you and your board get flushed downstream on opposite sides of a rock, tree, or bridge piling, you could find yourself dangling by your leash in a similar way to a foot en-



trapment, a situation in which your foot gets trapped between rocks in the river bed and the current pushes a swimmer underwater. Leashes can also get caught in between rocks or hung up on branches in strainers leading to the same kind of situation. In fast moving current, if you don't have a sure way to release yourself from your leash attachment, these hang-ups can be fatal.

This is why some river surfers and SUPers say no to leashes. They don't want the risk. At the play park in Bend, Oregon, they banned tethers altogether after a 2022 incident in which a 17-year-old's leash likely played a role in his drowning. Investigators say his entrapment was partly due to a tangled board leash, but some think it was foot entrapment. It's unclear. Whatever the cause, the fatality inspired the park to make a change. The Bend Whitewater Park has embraced a "no leash rule" and instead requires life jackets.

The vast majority of river SUPers use leashes. Experienced paddlers use quick-release systems, giving them the ability to quickly free themselves from the board. Based on my survey, the more knowledgeable and skilled river SUPers are also using waist belts instead of attaching a leash to their ankle. If you are paddling where there is current, even just a little bit of current, you want the option to swim free. One of the five documented drownings was in a tidal current, on a bridge piling.

You can buy board leashes and waist belts with quick-release systems. At a paddling shop, they may have advice for you about it, but at a big box store, they might never say a word. They might sell you a system without a quick release. Some quick-release tether systems have plastic balls (I call them toggles), a lot like what you'll see on Type V life jackets that have a rescue harness around the chest. Some have velcro attachments that can be adjusted to release easily, or not so easily, depending on your situation. Some systems have multiple possible release points given enough force, like sewn bar tacks designed to fail, buckles that fail at 200 pounds of force, or cables that have been crimped.

Corran Addison described in a 2017 video all the release points in a system he designed. He made the point that in a pin situation, your hands might be occupied trying to keep your head above water. It might be hard to reach your toggle. It might be impossible to reach your ankle. You might not have a knife. There is a lot to consider.

People coming from the ocean aren't used to unrelenting river currents. People coming from the flatwater of lakes and reservoirs have no idea about the risks of the ocean or the river. We somehow need to reach these new river boarders and help them understand the risks of the activity.

Leashes are not the only river hazard that takes SUPers by surprise. When you fall from a SUP, it's easy to accidentally plunge into the water out of control where it may be shallow. It's also

easy to think that standing up and walking in shallow but over-knee-depth water is a safe way to try and get to shore with your board. This is a recipe for foot entrapment. River runners know about avoiding foot entrapment by not standing up in fast current, and by balling up when a hole pushes you deep.

If you've been around wild rivers much at all, you know how easy it is to get your foot stuck between rocks, because it can happen when you're walking around on shore. If you're on shore you can stop, back up, and extricate your foot without having to break your leg. If you plunge into fast water and end up with your feet on the river bottom, you are taking a chance of a foot getting stuck where you aren't able to get free.

Falling correctly from a SUP is a skill that must be learned. Ideally, you want to land flat on the water's surface instead of penciling in feet or head first. Back or belly are good, a side flop is the best. Use your arms to limit how deep you go. Maybe, if you can, grab the board on your way down.

Many folks who SUP on rivers collect protective gear for their bodies. A helmet is baseline protective gear. A life jacket protects your chest and back. Some people wear body armor for their hips, tailbone, knees, and shins. Kayakers often have gear to protect elbows and forearms; that will come in handy too. The rocks will find the gaps in whatever gear you have.

There's plenty more to say about SUP safety for the river but this is a start. Leashes are essential for safety in some situations and deadly in others. If you SUP on the river, it's up to you to learn the difference. It's worth learning and practicing how to fall and how to swim in the river as you will certainly be doing both. And it's more than worth the price of protective equipment to keep you from beating up your one precious body.

### **SUP River Safety Checklist**

- Always wear a life jacket (also known as a personal floatation device or PFD)
- If using a leash, always use a quick-release or break-away leash/tether for all moving water, including rivers and tidal currents. Know how to use the release mechanism and practice using it
- Consider not using a leash on smaller whitewater rivers, especially small ones with lots of wood, or any river with lots of wood strainers. If not using a leash, train your friends to help you recover your board
- Always wear a helmet and consider wearing other personal protective gear such as knee and elbow pads, shin guards and full body armor padding
- When falling off your board, land flat, ideally on your side. Avoid falling in head first or "penciling" in feet first

Credits: Many thanks to all the boaters who helped inform me about SUP, including Thomas O'Keefe, Paul Meier, Teresa Rogerson, and Luke Spencer. ■



# New Research and Changing Ideas About Leash Use for River Surfers and SUP

*Evan Stafford*

---

## **A LEASH CAN BE BOTH A LIFE-SAVING SAFETY DEVICE**

and a life-threatening entrapment hazard. Leashes (sometimes referred to as tethers) have proven the cause of numerous recent river accidents and some fatalities (see Fatal Whitewater Accident Report on pg.41 and online American Whitewater Accident Database). An entanglement or entrapment happens when a leash gets hung up, caught, or wrapped around a rock or woody debris in the current and holds a swimmer down, preventing them from reaching the surface of the water.

River recreation is an inherently risky activity. This article is meant to educate and open for further discussion how to potentially minimize that risk for river users on stand up paddle boards, surfboards, and other boards, in relationship to wearing a leash in the river. At a minimum, before participating in these activities SUPers and river surfers should understand and acknowledge the general hazards involved in river running, surfing river waves, and the unique risks these pursuits present.

The choice to wear a leash should not be taken lightly. Any leash worn on the river should have some form of emergency release mechanism. This mechanism can be what is referred to as a “quick-release,” utilizing a release ball similar to the type of system a rescue-specific life jacket uses for its harness and tether, or a “break-away” leash that incorporates an attachment element designed to release or fail under a specified amount of force. Knowledge of how to properly use a leash and any release system is a prerequisite to its use.

**Ankle leashes, of any type, should never be worn in a river environment.** Reaching your ankle in an entrapment situation in a moving current is often impossible.

**Quick-release calf leashes are not recommended for river use.** They were developed for leash hold-downs in the ocean and have not been studied for river use. Currents in the ocean work much differently than in rivers, and while waves come in sets, the river current is continuous and unrelenting. American Whitewater does not recommend the use of quick-release calf leashes for SUP or river surfing because reaching the pull tab on your calf, similarly to your ankle, may also be impossible in a hold-down entrapment situation in strong current.

**There is some inherent danger in wearing a leash. Wearing a leash is a personal choice and your choice may depend on a number of variables.** One consideration for wearing a leash is the likelihood your board will get away from you and how fast it will travel away from you downstream. The rate of instream flow (low or high water relative to the size of the riverbed, low or high volume in general) and the continuous or pool drop nature of the river plays a significant role in this calculation. Where a risk of flush drowning is present (flooding, high water and/or continuous or unrelenting rapids), keeping your board with you as an option to regain control or aid in your self-rescue may make a leash a valuable asset. Your comfort and experience swimming in dynamic river currents may also be a consideration.

A leash may feel less necessary to you personally than the inherent danger it poses itself, especially in easier whitewater and in park and play river surfing scenarios where there are no significant hazards immediately downstream. Consider discussing the benefits and dangers of wearing a leash with your group before downriver travel on boards. When deciding not to wear a leash, talk about how other group members can potentially aid in the recovery of your board when you fall off.

Some river surfers and others are advocating for no leash use at all. The “no leash” movement by these river surfers does not reference downriver SUP paddling and advocates that for most whitewater park river surf waves, the inherent entrapment hazard is not worth the risk of wearing a leash at all.

**Notes on a new leash study:** Recently, a major paddle sports organization in Great Britain, the British Canoeing Awarding Body (BCAB) banned leash use in all of its sanctioned events and instructional courses. This ban was in large part due to an academic study they commissioned which revealed high failure rates among some quick-release systems. The study claimed failure rates between 10% to 42% of the tested subjects held underwater by a quick-release belt leash in a controlled test environment. The British Canoe Association, recently re-named Paddle UK, plans to issue a full report of their study later this year. The exact methods of the study and the exact leash systems involved were not yet included in any of the materials they’ve released publicly. We look forward to the full report so that we can analyze the results. Without the results





Photo by Rafal Gdowski

it's hard to interpret and apply their results, and the leash ban in general was not a very popular decision among many in the SUP community.

American Whitewater does not support the outright banning of leashes on rivers, however many river whitewater park surf waves are set up in a way that is conducive to not wearing a leash, with pools or slow current below them. A leash ban in Oregon at the Bend River Wave was introduced after a fatality where a leash entanglement was thought to be involved. American Whitewater believes more research into the true risks for leash wearers is necessary, alongside a community-wide effort to educate existing and new participants taking boards on the river.

**Whether wearing a leash or not, never stand up in fast-moving current above your kneecap.** When exiting the river or recovering from a swim, float and swim with your legs up until you are out of significant downstream current in a pool or eddy, or until the water is shin depth. Foot entrapment, when a foot is trapped between rocks in the riverbed which will not al-

low the leg to go forward, while the current will not allow the leg to go backwards to free itself, is another well-documented cause of whitewater accidents.

**Knowledge of the river and how to play in it safely is a life-long pursuit and we recommend starting this pursuit with research and in easy whitewater with the least hazards present.** Finding knowledgeable mentors, taking both technique and swiftwater rescue skills courses, and researching river safety (such as familiarizing yourself with the American Whitewater Safety Code) are also great places to begin to acquire river knowledge.

The key point of this article is for those interested in playing with boards in the river to understand what they're getting into with or without using a leash. Though boards in rivers are not necessarily new, it often takes time to understand what unique hazards exist when there is a new approach to having fun on the river. And in the end, that's what it's all about. How do we make it fun? It's all about having a good time and enjoying the river, and if you can be safe, then that makes it a lot more fun. ■

# Techniques To Prevent Flush Drowning

Donald Iverson, MD

## THE TERM “FLUSH DROWNING” GENERALLY REFERS

to drowning resulting from a prolonged swim through river hydraulics, rather than drowning from underwater entrapment. The American Whitewater accident database cataloged 11 fatal flush drownings in the first six months of 2023, likely a result of a record snowpack in the West and the following high river flows.

The World Health Organization defines “drowning” as the process of experiencing respiratory impairment as a result of immersion (airway above the water) or submersion (airway below the water) in a liquid. Given the potentially lethal effects of immersion or submersion not only on respiration but on cardiac rhythm, I believe that this definition should be expanded, e.g. the process of *cardiorespiratory* impairment resulting from immersion or submersion. This will be discussed further.

There are methods, including proper selection of gear and swimming techniques, that can reduce the risk of flush drowning. Some are widely practiced; others may not be. On a recent high-water canoe trip on the Alsek River in British Columbia, I used a combination of the following techniques that almost certainly saved my life during a 15-minute swim in 34-degree water; I will recount the story after reviewing the techniques.

**Don't Paddle Alone.** The only reason most of us paddle alone is that we can't get our friends to join us. If you are alone and swimming in high water, your only hope is to reenter your boat or swim to shore. Additional paddlers allow the option of climbing on or into a boat and/or getting an assist getting to shore.

**Have a Plan—Stick With Your Boat or Swim to Shore.** Having a plan before entering a long rapid is key—make note of eddies to catch and river features to avoid. Panicking swimmers often jettison their boat, but the boat usually has much more flotation than the paddler (unless it's a kayak with no float bags). It is best, in most circumstances, to grab the boat first and then assess the situation. Holding onto the boat (preferably from the upstream end) allows the swimmer to better keep their head above water (see below), especially when navigating large waves, holes, eddylines, or whirlpools. The paddler can then

decide whether to attempt to swim to the shore with or without the boat or await rescue by another boat, throwline, etc.

**Pick the Right Life Jacket.** The amount of flotation required depends on the lean body mass of the paddler/swimmer. To put it bluntly, meat sinks, and fat floats. A typical new life jacket has about 16 lbs... of flotation in still water, which is more than adequate for most body types; however, larger, more muscular paddlers may approach the limit of flotation for a regular life jacket. Note that older jackets lose their flotation and that flotation figures are calculated in still water; they do not apply to aerated whitewater. High-flotation life jackets (20–30 lbs..) should be considered for usage by larger paddlers, and those paddling high-volume rivers with continuous rapids due to the reduced flotation of the life jacket in aerated water.

Type I life jackets have a minimum of 22 lbs.. of flotation and an extra foam chamber meant to keep the head of an unconscious victim above water. They are designed for prolonged open-water exposure but have been used by some commercial rafting companies.

## Make Sure the Life Jacket Fits and is Strapped Properly.

A life jacket only provides as much flotation as the volume of water it displaces. A loose-fitting life jacket will float up over the swimmer's head and provide only a fraction of its usual flotation; it may also impair vision and restrict swimming. In some cases the loose life jacket may slip completely over the swimmer's head, possibly accounting for some of the “no life jacket” statistics in the accident database. A properly-strapped life jacket—tight enough to keep it from floating over the swimmer's head—may be a little uncomfortable, but less so than a violent swim. For spherically shaped paddlers (waist circumference greater than chest circumference), it may be impossible to cinch the waist strap tightly enough to prevent “high riding.”

Paddlers of all shapes may benefit from the addition of a crotch strap to their life jackets. The crotch strap keeps the life jacket from riding up over the head in case of a swim. They are not as uncomfortable as they sound. Most life jacket models do not include a crotch strap (maybe that could change?); there are retrofit options available.

**Dress For a Swim.** A full wetsuit provides about two lbs. of flotation per millimeter of thickness. A large drysuit can easily sequester a gallon of air, which is an additional eight lbs.. of flotation, without restricting the paddler. It also provides a significant additional thermal barrier.

Datta and Tipton detail the effects of sudden immersion in cold water (below 60 degrees Fahrenheit). Stimulation of cold receptors in the skin (and especially the face) triggers “cold





**One hand (left) and two hand (right) breathing maneuver to protect from aspiration. The nose is plugged and hands form a seal over the mouth during breath holding. Hands are lifted very slightly but remain in place for breathing.**

shock,” a reflex that stimulates adrenaline release (the “fight-or-flight”) response—increased cardiac output, vasoconstriction, and hyperventilation. More ominously, it triggers a gasping reflex, which peaks within the first thirty seconds of submersion. Gasping is particularly dangerous in a whitewater situation where one poorly-timed breath can lead to water aspiration (inhalation), laryngospasm, and a vicious downward cycle of inefficient respiration, gasping, and more water aspiration. Maximum breath-holding time is reduced to just a few seconds in water colder than 60 F. Dressing for a swim may mean that the paddler is uncomfortably hot out of the water; however, as most of us have learned, it’s a lot easier to cool off than to warm up on the river.

The adrenaline shock of cold water immersion can produce life-threatening abnormalities of cardiac rhythm (“dysrhythmia” or “arrhythmia”), especially with head submersion. Bierens et al reported an incidence of arrhythmias in healthy volunteers immersed in cold water of only 2%; this increased to 82% with facial submersion and breath holding. Facial submersion of more than 30 seconds stimulates the diving reflex, which is the opposite of the cold shock reflex—the heart rate and breathing rate both slow. The occurrence of this “autonomic conflict” in physiological processes—one foot on the gas, one on the brake—is thought to provoke life-threatening arrhythmias, including vagal cardiac arrest, particularly in predisposed people (e.g. older paddlers, or those with prolonged QT syndrome). Some victims who have been characterized as having a “heart attack” (lack of blood supply to the heart muscle) may have in fact had such lethal arrhythmias.

Longer cold water exposure and the resultant loss of body temperature leads to further arrhythmias (body temperature 91 F), decreased nerve and muscle function, and loss of consciousness at body temperatures below 90 F.

Farstad and Luttrell reviewed the AW accident database and concluded that the higher prevalence of flush drownings on Western rivers resulted from lower water temperatures. Their findings have been challenged, since their study did not evaluate river flows, gradient, or length of the swum rapid(s). Nevertheless, there is ample physiological evidence that cold water has deleterious effects on both breathing and cardiac rhythm, in addition to neuromuscular and cerebral effects, and is a likely risk factor in flush drowning.

If, despite all of the above preparations, one exits their boat, a few techniques may prove to be lifesaving.

**Get Your Head Out of the Water.** This admittedly obvious recommendation warrants further discussion. The method for doing this may vary, depending on the circumstances; it may involve holding onto a boat and swimming it to shore, ditching the boat and swimming for shore or towards another boat, or riding out the rapid and then swimming. It is best to at least have a swimming plan in case of a mishap (see above). As discussed, submersion of the head increases the risk of aspiration and cardiac arrhythmias.

The “universal swimming position”—on one’s back, feet downstream—helps to keep the face and airway out of the water, reducing the chances of water aspiration (which leads to the vicious cycle of choking and laryngospasm) and brain cooling, which leads to reduced motor performance. The “elementary backstroke” (think breaststroke on your back) is a surprisingly effective stroke that conserves energy and reduces the risk of aspiration. Aggressively swimming away from a hazard, or towards the shore, may require flipping onto one’s abdomen (freestyle or “Australian crawl”). When possible, one should still try to swim with their head above water.

**A Time to Hold Your Breath, A Time to Breathe.** A 150 lb. paddler with three liters of air in their lungs has about six pounds more flotation than one with empty lungs. However, resumption of breathing after prolonged breath holding (15-30 seconds) increases the risk of arrhythmia. Furthermore, longer breath holding can result in gasping upon cessation, increasing the risk of aspiration. Thus, it is important to breathe as often as is safely possible. This requires timed breathing: holding one's breath as one is cresting a wave and breathing on the downward slope of the wave. Turning the head to the side as the wave is crested reduces the risk of aspiration. If one is not actively swimming, I would suggest that this be used in conjunction with...

#### **Plugging Your Nose and Keeping Your Mouth Covered.**

Exhaling against a closed glottis (the "Valsalva maneuver") only generates a few pounds of positive pressure, which may be inadequate to withstand the hydraulic forces of a long and/or violent swim. I recommend the illustrated technique of plugging the nose AND covering the mouth BOTH during breath holding AND breathing. If you're still hanging on to the boat or paddle use the one-hand technique; full survival mode warrants the two-hand technique. Keeping an airtight seal over the mouth during breath holding and lifting the hands slightly during breathing greatly reduces the risk of inhaling water (aspiration) and the resulting vicious drowning cycle. This technique should be considered when swimming is not practical (e.g. in holes, violent eddylines, back curling waves, etc.).

**Practice Breath Control.** A healthy person may be able to hold their breath for two minutes when floating passively in a warm pool, yet they might fail after just a few seconds when contending with cold water, inefficient breathing, and the increased metabolic demands of the adrenaline surge plus vigorous exercise. The "easygoing phase" of breath-holding soon deteriorates into the "struggle phase," where reflexive (involuntary) diaphragmatic contractions begin. These involuntary contractions can be somewhat minimized by a) "breathing" with the nose and mouth plugged (the motion of the chest and diaphragm subdues the reflex) and/or b) swallowing (Bierens, 2016). If one chooses to practice this technique, it should be done in calm conditions with a spotter, as prolonged breath-holding can cause fatal complications.

**Practice Cold Water Immersion/Submersion.** Repeated voluntary submersion in cold water (<50 F) can reduce the "cold shock" hyperventilation/gasping response and arrhythmias by over 50 percent.

**Yes, They Work.** I had contemplated all of these techniques after a friend lost a participant to flush drowning on a high-volume river. In preparation for canoeing the Alsek River in British Columbia, I bought a high-flotation life jacket with a crotch strap and a new non-leaking drysuit. Days of paddling into a headwind, followed by trying to keep my canoe dry in high-water continuous Class III-IV rapids and the Turnback

Canyon "portage from hell" left me weary. We re-entered the water upstream of the usual helicopter portage put in; half-awake, within the first minute, I went around a turn and blundered into a sidecurler. I didn't have time to catch a breath and took a deep dive into the swirling abyss. I resurfaced, immediately went back under without catching a breath, and began experiencing involuntary diaphragmatic contractions. The urge to breathe under those circumstances is only completely understood by those who have experienced it. I did the "breathing with the nose plugged" maneuver described above and swallowed to subdue this fatal urge.

When I finally resurfaced, I aspirated water and was breathing uncontrollably; I floated on my back, but with my head facing downstream to help block the waves. I held my breath at the wave's peak and breathed on the downslope, using the one-handed variation of the above-mentioned nose and mouth covering technique. I had lost my boat but still had my paddle. The river was high, wide, and continuous, with undercut cliffs on the outsides of the turns; all I could do was try and keep off the cliffs, requiring me to swim across the river at every S-turn, but unable to reach the shore. Once I resumed semi-normal breathing, I used the "elementary backstroke" technique, using my canoe paddle to stroke, facing downstream, and attempting to ferry diagonally/laterally. The only other solo boater had left the trip and the rafts could not keep up with me.

After 15 minutes of swimming in 34 F water, I felt myself becoming helpless and thought of my children. I had no choice but to swim towards an undercut midstream monolith. The "holds" were downsloping and wet; I failed and went deep. The rafts saw me and presumed I was gone for good. I popped up; mercifully the rock was sharper there; I unleashed my Spiderman grip, and hauled myself out of the water. After recovering, I climbed over the rock, saw the rafts, and jumped in again to reach them (using the above techniques). Of note, I was only wearing long underwear under my drysuit; I believe the extra air helped to maintain my body temperature (along with swimming for my life).

These recommendations will likely generate further discussion and perhaps refinement; however, as they say, if they save a single life (besides mine)... ■

---

#### **Sources**

Farstad DJ and Luttrell JM. Flush Drowning as a Cause of Whitewater Deaths. *Wilderness and Environmental Medicine* 31(1):11-15

Datta A and Tipton M. Respiratory responses to cold water immersion: neural pathways, interactions, and consequences awake and asleep. *Journal of Applied Physiology* 100(6) June 2006:2057-2064

Bierens JJLM, Lunetta P, Tipton M, Warner DS. Physiology of Drowning: A Review. *Physiology* 31(2) March 2016:147-166



# Learn the ropes...

...and the strokes and the lines and just about everything else you need to become a competent Class II-III river boater.

OARS Rowing Clinics are taught by professional OARS guides with formal swiftwater rescue training and extensive guiding experience.

Learn from the Pros.

## OARS Whitewater Rowing Clinics

COLORADO RIVER • GREEN RIVER • SALMON RIVER • ROGUE RIVER

Put in at [oars.com/rowing-clinics](https://oars.com/rowing-clinics)





# Apple Spice Crumb Cake

By Courtney Modaff. Photos by Skip Volpert.

## EVERY TIME I SERVE THIS CAKE, SOMEONE ASKS FOR

the recipe, so it is a keeper! Published in River Food Cookbook, available at [www.idahoriverfood.com](http://www.idahoriverfood.com) with part of sales going to support Idaho, Wyoming, and Montana Guides via The Redside Foundation.

Serves 8 to 10 depending on how you serve it.

### Apple Mixture

3	Granny Smith apples, cored, peeled, sliced, tossed with sugar, vinegar, cinnamon, and cardamom.
1 tablespoons	Cider vinegar
2 tablespoons	Sugar
½ teaspoons	Cinnamon
½ teaspoons	Cardamom

### Cake

¾ cups	All-purpose flour
¼ cups	Sugar
1 teaspoons	Baking soda
teaspoons	Baking powder
¾ teaspoons	Cinnamon
¾ teaspoons	Nutmeg
¾ teaspoons	Ginger
1/8 teaspoons	Salt
¼ cups Milk	
1	Large egg
2 tablespoons.	Brandy
¼ cups	Coconut, olive, or vegetable oil, or melted butter.

### Topping

1 ½ cups	Flour
¼ teaspoons	Salt
1/3 cups	Brown sugar
¼ cups	White sugar
1 teaspoons	Cinnamon
½ cups	Unsalted butter, melted and cooled



Butter and flour an 8" springform pan or a 12" Dutch oven.

Preheat oven to 375°F or light 25 to 30 charcoal briquettes.

Core, peel, and slice apples. In a medium-sized bowl toss apple slices with cider vinegar, sugar, and apple mixture spices. Set it aside.

**Tip:** Tossing the apples in the cider vinegar gives the cake a tart snap and slows the reaction time with the baking soda and powder helping the cake to turn out fluffy around the fruit. A trick I learned from Mom.

In a small bowl mix dry crumb topping ingredients with fork. Add the melted and cooled butter and toss lightly until the mixture forms crumbs. Set it aside.

**Tip:** For a great crumb topping melt the butter, then cool it before mixing into the rest of topping ingredients. This makes good clumps of crunchy topping that won't sink into cake or melt.

In a medium bowl whisk flour, salt, baking powder, baking soda, and spices.

Separately, in a small bowl, whisk together brandy, milk, egg, coconut oil, and vanilla.

Combine wet and dry cake ingredients without over-mixing. Lumps are ok. Over mixing will create a flat not fluffy cake. Pour batter into springform pan or Dutch oven. Lay out apple slices in a thick layer over the cake batter, then top with crumb topping mixture, covering completely.

Bake for 30 to 35 minutes or until the topping is light brown.

My 12" Dutch oven took 15 coals on top and four under it to bake for 38 minutes (it was snowing I when baked it). Next trip, I doubled the recipe and used my 16" Dutch oven it was 25 coals on top and 7 on the bottom, baking for 34 minutes. In my springform pans the cakes were done after 30 to 35 minutes and I cover them with foil after 25 minutes to avoid crumbs burning.

Allow to cool before removing springform sides or attempting to remove from your Dutch oven which I wouldn't bother to do if serving right away.

Keep covered for 5 days in the refrigerator or freeze for up to one month.

I bake this in an anodized aluminum Dutch oven in camp, and in a spring form pan at home. But you can make it as muffins just as well. Any method it is baked, it freezes great, even tasting good cold. To serve cold, neatly slice it before fully thawed. If you plan to reheat it on your next river trip, bake it in the Dutch oven you will take on your trip. I freeze 12" rounds for small trips of 6 to 8, 14" rounds for trips of 8 to 15, and 16" rounds for trips of 15 to 24. ■



# REQUIEM: New England FLOW Dissolves Organization

*Tom Christopher*

## AFTER THIRTY-FIVE YEARS OF INTERVENING IN

hydropower license applications in New England, on November 13, 2023, the remaining Directors of New England FLOW gathered together and voted to dissolve the organization. The remaining funds held in the FLOW bank account were divided equally, and both American Whitewater and the Appalachian Mountain Club, being organizations that FLOW Directors felt well represented the values and commitment of FLOW, were presented checks of \$2,400 each.

I think a lot of folks who paddle and enjoy our rivers, especially young boaters today who enjoy the benefits of scheduled whitewater releases from hydro facilities, might ask what FLOW was and why it was important. Taking a walk down memory lane tells a story that should not be forgotten. A small group of volunteers who were chasing whitewater had an impact on the way hydropower dams would be granted licenses in the future and how they would be required to share important benefits with other river users.

The move to relicense hydropower dams in New England became known as “the Class of ‘93” and began with eight dams on the Deerfield River which has its headwaters in southern Vermont and flows through northwestern Massachusetts to its confluence with the Connecticut River. As early as 1987, kayakers and other whitewater enthusiasts became aware of the relicensing process because Bruce Lessels, a well-known member of the U. S. Whitewater Team, founded a commercial rafting company called Zoar Outdoor and used limited flows of the Deerfield. His goal was to secure regularly scheduled releases for the benefit of his rafting operation, and other whitewater paddlers quickly recognized the importance of the relicensing process.

In 1988, a group of boaters approached the owners of the dams, at that time the New England Power Co. (NEP) and their project manager, Hugh Sullivan, and politely requested eight or ten releases annually as part of the new operating license. Mr. Sullivan informed the boaters in no uncertain terms that NEP considered these resources as “our dams, our land, and our water,” and the boaters were shown the door.

When NEP and the Federal Energy Regulatory Commission (FERC) scheduled the first public hearing in the tiny, obscure town of Readsboro, Vermont they did not expect any significant attendance by stakeholders. They mistakenly held the meeting on the Friday night before the well-known releases of the West River in Jamaica, Vermont, which draws boaters from all over New England and New York. Since the hearing was on the way to the West River, approximately 100 whitewater boaters showed up and burned the ears of FERC staff for over three hours. NEP knew then that they were in for a fight, and FERC staff knew they couldn’t ignore the issues.

Shortly thereafter, New England FLOW was born, coalition collectively representing thousands of whitewater boaters from New York to Maine. FLOW took the lead on the Deerfield relicensing and immediately began to aggressively challenge NEP on every issue. In 1990, NEP remained steadfast in their opposition to boating flows. They also opposed increased minimum flows for fisheries, land protection, or economic balance, and did everything possible to distance themselves from any substantive dialogue.

FLOW was able to acquire the services of a pro-bono lawyer, Charlie Harris, who researched the intervention process and helped FLOW to become formal interveners with standing. American Whitewater (AW), one of the first to join the FLOW coalition, through their secretary Phyllis Horowitz, provided a grant of \$1,000 to help with the expenses of the intervention. Other paddling and river organizations followed including the Appalachian Mountain Club, American Rivers, the American Canoe Association, and the U. S. Whitewater Team.

Fed up with the stonewalling from NEP staff, FLOW wrote a complaint letter to Mr. John Rowe, Chairman of the Board of NEP, citing the obstructionist behavior of his staff and lack of “good faith” negotiations. Mr. Rowe responded to FLOW’s concern and indicated he would direct his staff to address concerns with the process. To their credit, NEP placed John Ragonese in charge of relicensing, and progress on a settlement agreement began.





In 1992 NEP staff met with FLOW and agreed to perform a “boating usability study” on six weekend days to determine if there was enough interest to provide a schedule of guaranteed releases. NEP agreed to do this if FLOW would agree to not send any more letters to John Rowe. They did not have a clue what they were in for when they agreed to the study.

Much to the surprise and chagrin of NEP, between 500-600 whitewater boaters showed up for every release day over the six weekends of study. NEP knew then they would ultimately be challenged in front of FERC, based on the independently collected data generated as part of the study. At this point, NEP agreed to develop an agreement only if and when FLOW could collectively bring other interest groups to the table. FLOW agreed and over the next two years brought in thirteen other stakeholder groups, including Conservation Law Foundation, Trout Unlimited, National Park Service, U.S. Fish & Wildlife, the Deerfield Compact, and various Vermont and Massachusetts state agencies, to develop a comprehensive plan to balance the use of the Deerfield River resources.

In 1994, the “Deerfield Settlement Agreement” was signed and became the became one of the first agreements of its kind ever signed in the U.S. in the U.S. This agreement incorporated significant land protective measures, fishery and recreational benefits, and financial enhancements never before available in FERC relicensing including:

- 32 releases on the Class IV Monroe Bridge section of the Deerfield at varying flows between 900 cfs and 1,100 cfs. These releases occurred essentially every weekend and holiday throughout the summer as well as six Friday releases;
- 50 releases on weekends and 55 releases on weekdays on the Class II-III Fife Brook section of the Deerfield at varying flows between 700 cfs and 900 cfs. Essentially, this reach of the river is now available almost every day throughout the summer;
- In the event of low water years, representatives of New England FLOW, AW, and other boating organizations meet with NEP staff to work out reduced schedules. Any canceled releases will be made up over a two-year period;
- A 24-hour-a-day informational FLOWPHONE that provides data on river levels and release schedules during the boating season;
- Improvement of existing recreational facilities and installation of canoe portage trails throughout the Deerfield River system extending from its reservoirs in Vermont into Massachusetts;
- Guaranteed minimum flows in dryways to establish fisheries and improve habitat;
- Conservation restrictions on over 18,000 acres of land extending from Vermont through Massachusetts. This permanently restricts development and ensures that boaters and fishermen have clean water and less pollution;
- The establishment of a \$100,000 Enhancement Fund to finance watershed conservation, development of low-impact recreational projects, and educational projects within the watershed. These funds are not used for other various NEPCO obligations outlined in the settlement provisions of the agreement.

Over the years I have been asked how FLOW was able to achieve this historic settlement agreement when the FERC Traditional Licensing Process had been industry-friendly since the inception of the Federal Water Power Act in 1920. I have often said, “It was because no one knew what we were doing.”



**Mark Ciborowski and FPL's Ernie Deluca at the Kennebec River New Access Stairway.**

but the reality of the success was the result of selfish stakeholder groups recognizing the benefits of working together, and the good fortune of having an “enlightened” public utility willing to recognize the overall societal and economic value of settlement. Plus, it was discovered that water previously used for hydro generation in the Deerfield had more value for recreation and tourism.

#### **Other Ongoing Activities with the “Class of ‘93” Relicensing:**

Good news travels fast, and FLOW’s reputation was growing in the boating community in New England. In 1990, FLOW was asked by the Penobscot Paddle and Chowder Club to help with the relicensing of dams on the Kennebec and Penobscot Rivers. On the Kennebec River, the dam owner Central Maine Power (CMP), was now charging a \$1.00 access fee to private boaters to walk across their property to reach the put-in. CMP was an “old school” public utility with a reputation for heavy-handed company policies and taking no prisoners. So when an out-of-state bunch of “do-gooders” came to their state, war was declared. CMP was also the owner of the Union Water Power Company which had control of dams in Western Maine on the Rapid and Magalloway Rivers, known as the Upper Androscoggin Project. Unsurprisingly, bitter conflict quickly developed between FLOW, recreational boaters, commercial outfitters, and to some extent fishermen.

By 1997, after the signing of the Deerfield Settlement Agreement, CMP saw the writing on the wall when public utilities were de-regulated, and CMP sold their generating facilities to Florida Power and Light (FPL). FLOW found FPL much more amenable to reaching settlement agreements and after three years came to agreements on the Kennebec in 1999 and the Rapid & Magalloway Rivers in 2002.

FLOW continued its work in Maine and, with other stakeholders, began negotiations with Great Lakes Hydro America (GLHA) on the Canada Falls & Seboomook sections of the South Branch of the Penobscot. These dams and others in the

watershed were used for storage to ensure power to the Great Northern Paper Mill operations in Millinocket and were under FERC’s jurisdiction, even though no generation was produced at these dam sites. GLHA as an applicant worked well with stakeholders in completing important studies and analysis to find solutions rather than create conflict. They reached a settlement agreement in 2007. Later that year, Dave Preble (GLHA) and Tom Christopher (FLOW), representing the settlement stakeholders, were presented awards by Governor John Baldacci for their work in relicensing those projects.

#### **The Post-Deerfield Relicensing World**

In 1991, the National Wildlife Federation, led by a young David Conrad, who is now their Senior Water Resources Director, hosted a two-day summit conference in Washington, D.C. They invited river groups from across the U.S. to join in the effort to use the “Class of ‘93” relicensings as an opportunity to improve environmental protection and develop mitigation on FERC-licensed hydropower projects. This brought together a nationwide diversity of groups interested in protecting fisheries, water-based recreation, wildlife habitat, land, water quality, and other resources damaged by hydropower operations in the U.S.

Collectively, the attendees immediately recognized the opportunities before them and despite many divergent viewpoints and well-known historic user conflicts regarding how these projects should be managed, attendees knew the best chance for the success was to work together within the framework of settlement agreements with project owners.

Even though FLOW was the smallest non-profit group in attendance, they were already well on their way to accomplishing this, and it was noted by larger groups as “quite remarkable for a tiny coalition with no money.” What made FLOW successful was access to expertise with experience in contingent valuation. FLOW also presented aggressive challenges to all information presented by applicants and was skilled in negotiating with political experience. FLOW’s success was also the result of thousands of volunteer hours and the dogged determination of the individuals in leadership positions.

Later that summer, Peter Skinner organized a meeting with river groups and state agencies in Watertown, New York on the Black River. Representatives from FLOW addressed the participants on how FLOW successfully intervened on the Deerfield River. Shortly thereafter, New York Rivers United was formed by Pete Skinner. By 1992, the Hydropower Reform Coalition in Washington, D.C. came into existence on the na-



tional scene. It was clear that it would take the work of organized coalitions on a national and regional scale if any real gains would be realized in the “Class of ‘93” relicensings.

On a historical basis, FERC was just as much an adversary as project owners under the traditional licensing process. FERC, quite frankly, was overly prone to accepting data from licensees without adequate analysis, had limited knowledge of the resource issues involved, demonstrated a clear industry bias, and was quick to dismiss or deny interventions without any explanation.

Prior to the development of settlement agreements, FERC’s only consistency in their decision-making record was clearly in favor of applicants, and when the Deerfield Settlement Agreement became incorporated into license articles, it opened the door to another process that became defined as the “Alternative Licensing Process” (ALP) during the negotiations of the Kennebec and Upper Androscoggin Projects.

The “Class of ‘93” relicensings were a war that had to be fought by interveners on two fronts—with project owners and with FERC.

### **How Have Things Changed?**

Perhaps the most notable change in the relicensing climate is the continual change in project ownership. For example, the Deerfield Project was first sold to Pacific Gas & Electric, next to US Generation-NE, and then broken up with some of the facilities sold to Brookfield Power and others sold to Great River Hydro, a hedge fund. Central Maine Power’s dams were sold first to Florida Power & Light during relicensing and subsequently, FPL sold their Maine facilities to Brookfield Power. On the Connecticut River in Massachusetts the dam at Turners Falls and the 1,100 mega-watt pump storage project known as Northfield Mountain were owned by First Light Power Resources a subsidiary of GDF SUEZ, and then acquired by Canada’s Quebec Pension Fund.

Transfer of ownership and industry consolidation on a global scale continues to make relicensing since the Deerfield River contentious on various levels, depending on who is the current applicant. The one exception has been the post-Deerfield relicensing of the “Fifteen Mile Falls” Project on the Connecticut River in Vermont and New Hampshire. This project was also originally owned by NEP, and based on the success of the Deerfield negotiations, it was recognized that settlement would be preferable and less expensive than dragging all parties through the traditional FERC process.

Following the “Class of ‘93,” settlement groups and state and federal agencies who had not been invited to the table are now asked to participate. Fortunately most groups, by now, were intervening on their own issues and gathering around the table anyway. Now larger project owners began inviting known stakeholders to participate to save time and money for the applicant. Today, however, small dam owners on the many rivers undergoing relicensing still have incomplete studies, poor data gathering, and operational plans with little or no resource mitigation. Stakeholder requests for studies are still often ignored, and

***It’s important to note how a small group of kayakers chasing whitewater changed history and re-wrote how hydropower dams would be relicensed through FERC.***



material presented to FERC is often factually incorrect or limited in scope. It is only through the efforts of the stakeholder groups that projects will see any meaningful mitigation. In this respect, FERC has been more responsive to interveners' requests for additional studies in recent years. FERC has also been more diligent in clearing the docket of projects held in limbo because of conflicts with state 401 issues. State's issue water quality certifications under Section 401 of the federal Clean Water Act as a part of hydropower project licensings.

In New England, it is usually the same people with the same issues that would participate in relicensing at every new project. Over time most have learned to work together more effectively in order to come to agreement, and have built respect for each other's position. There is a level of trust. FERC staff have become an integral part of this positive change. In some projects, FERC has offered staff skilled in mediation to settle difficult issues between project owners and stakeholders, or sometimes between stakeholders themselves.

Truthfully, it was the interveners, who, over time, reached out to each other, shared information, and educated themselves as well as project owners and FERC staff in the art of developing settlement agreements. It was the interveners, over the past 35 years, who pushed FERC into the framework of "equal consideration" reform, and balanced use of resources.

Today we can view FLOW's success in New England as an unintended educational process that has benefited every stakeholder now sitting at the table. FERC staff now have a more thorough understanding of what issues may arise out of any relicensing project, be it fisheries, whitewater flows, land protection, or other project-specific needs. FERC and others now work diligently to reach out to both stakeholders and project owners in an effort to be more creative, develop alternatives to the traditional process, and be consistent in their interpretation of regulations and policies.

The "Alternative Licensing Process" has now morphed into the "Integrated Licensing Process." By offering these alternatives, both stakeholders and project owners have greater opportunities for developing settlements that provide better opportunities for resource mitigation and economic stability for applicants.

In writing this final chapter for FLOW it would be proper and important to note how a dedicated small group of kayakers chasing whitewater changed history and re-wrote how hydropower dams would be relicensed through FERC. In their 35 years of existence, FLOW has initiated and participated in settlement agreements on seven different rivers in New England and has helped to develop a relicensing template from the Deerfield Settlement Agreement for other stakeholders to follow in project relicensings across the U.S. FLOW has helped to protect over 30,000 acres of land, miles of riparian and lake shoreline, acquired millions of dollars in resource and recreational mitigation, opened up over 60 river miles to multiple types of recreation, and negotiated over 675 days of boatable flows in New England.

This requiem is not so much an attempt to allow New England FLOW to "rest in peace" but more a remembrance of good deeds and good people who made a difference that would be shared by many others. Their work is now left to others because the work will never end, and it is with the belief the success of FLOW will be continued and measured in the future by the success of others who follow in their footsteps. ■



# Fatal Whitewater Accident Report: July – December 2023

*Charlie Walbridge*

**FOR PEOPLE WHO FOLLOW WHITEWATER ACCIDENTS,** this past year has been a busy one. This year's fatal accident count, 66, is one of the five highest annual totals reported to American Whitewater (AW). The number from July to December, 32, includes 11 kayaks (three in whitewater boats, eight in recreational kayaks), three open canoes, 11 rafts (four commercial, seven private), two stand-up paddleboards, an inflatable kayak, and a drift boat. The influx of new paddlers continues. Fifteen of the deaths happened in Class I-II whitewater, and more than a third of the victims (12) were not wearing life jackets. There were also five flush drownings, five strainer pins, and three rock pins. Washington State had the greatest number of deaths with five, followed by Colorado with four and North Carolina with three. Seven of the dead were under 30, and eight were over 60. Once again, Charlie Duffy has provided considerable help by checking this data and preparing graphics. His ten-year graphs are very insightful.

## Whitewater Kayaking Accidents

Two whitewater kayaking deaths were reported to AW. On September 17, a large group from a college outing club encountered trouble at Little Falls, the last drop on the Potomac River near Washington, D.C. According to Mike Mather, who debriefed the group, eight instructors and 15 participants broke into four pods, each with an experienced lead and sweep boater. The group had done flatwater training the day before and most of the experienced paddlers in the group were trained in swiftwater rescue. The water level, 2.65', is low for this Class III drop, and many rocks were exposed.

At the start of the trip, several people in the first group flipped and swam while crossing a fast chute at the top of the rapid. Ella Mills, 25, was hung up on a downstream poulover. When she bailed out, her sprayskirt snagged on the undercut upstream face of the rock, and she was held underwater. The pin spot was very difficult to reach. A local paddler was able to paddle right up to it, and a few others got close, but the water was too fast and deep to offer effective help. Finally, the Cabin

John Rescue Squad arrived and used a telfer lower to put a man in a raft right above the pin. He was able to reach down, make contact, and pull her free.

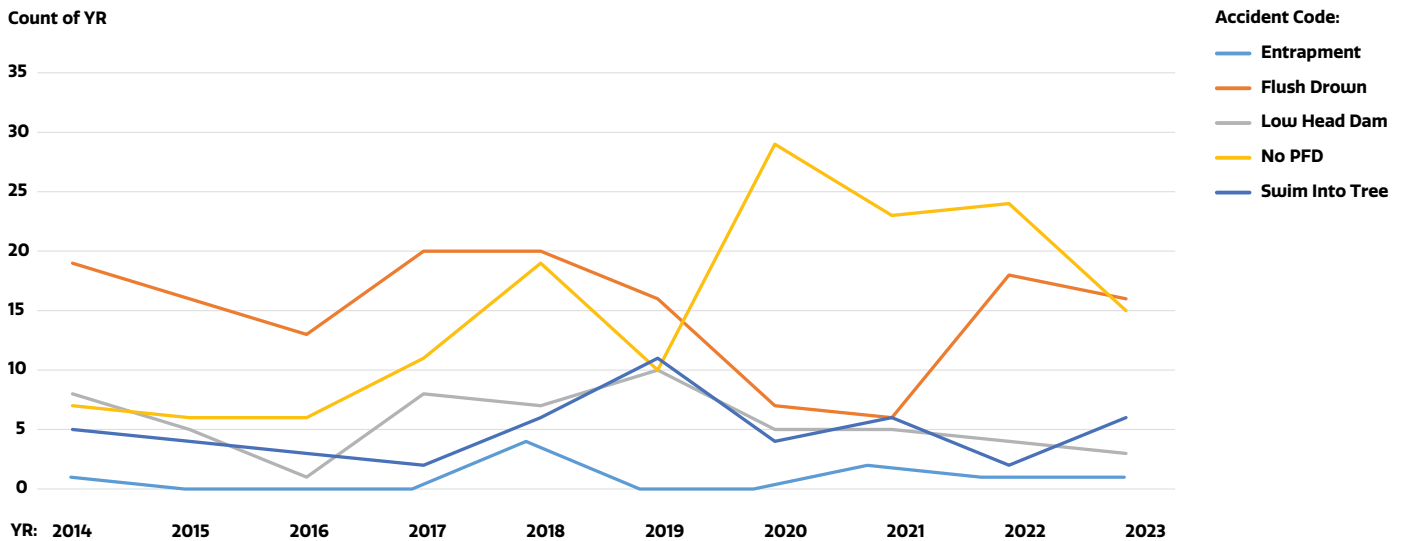
After these tragedies, people often ask how an accident could have been prevented. A sprayskirt "equipment trap" is a very unusual and unexpected event. Although there was a lot of bad luck involved and no single clear preventative step, there are things that can be done to reduce risks overall. Charlie Duffy, who often runs this section with Team River Runner and other novice groups, says that paddlers need to move slowly and take extra precautions when leading inexperienced people. Given the group's makeup, it might have made sense to choose an easier stretch of river, like Mather Gorge, just upstream. If a group's choice is to run Little Falls or any significant Class III whitewater rapids with novices, as similar groups have done in the past, scouting and setting multiple layers of safety are recommended.

On December 15, Wes Gilligan and his partner launched at the BZ Corners put-in on the White Salmon River in Washington. This is a popular section that the pair had run many times. The put-in is in the middle of a Class IV rapid. Gilligan, 36, ran through an avoidable hole at the bottom of the rapid, flipped, and rolled up. The pair eddied out below the drop and had a brief conversation. His partner noticed that Gilligan's demeanor had changed slightly, and he flipped after exiting the eddy. When he did not attempt a roll, his partner moved in quickly. He did several "hand of god" rescues but could not keep Gilligan upright. Finally, he flipped, bailed out, and pulled Gilligan from his kayak. He then swam him to shore at an outfitter access and began CPR. After an extended effort, he sought help. There was no evidence of head trauma, and some kind of health problem is suspected. An autopsy is pending.

## Recreational Kayak Accidents

Most of this season's kayaking deaths occurred in recreational kayaks, which have become increasingly popular in the last

## Top Accident Trends



decade. All but one accident occurred in Class I-II whitewater, and in six of the eight reported accidents no life jackets were worn. Properly fitted life jackets may have prevented most of these tragedies.

Two of these deaths occurred on Tennessee's Lower Caney Fork River, where a Class I section below Center Hill Dam has become popular with novices from the Nashville area. The American Canoe Association's Andrea White notes that the dam provides reliable water in the river all summer, but since Tennessee Valley Authority replaced the generators a few years ago, the releases have been significantly higher. The speed of the flow and the icy water can cause trouble! On August 26, Jerry Osman, 65, failed to surface after his kayak flipped on an eddyline. Then, on October 28, Robert Lester, 69, disappeared after his kayak hit a tree and flipped. Neither man was wearing a life jacket and both were later found by emergency responders. These accidents follow the descriptions of "sudden disappearance syndrome." This is when a person becomes disoriented after a sudden immersion in cold water and drowns because they can't find the surface. The upward pull of a life jacket offers the best protection.

There were three similar incidents on other rivers. On July 28, Jason Bollinger, 48, was paddling the Class I Current River near Eminence, Missouri, when he flipped near Martin's Hole and did not resurface. Then, on August 12, Jeffrey Ellis Spade disappeared on Michigan's Grand River near Burchfield Park. The river here is flat, broken by shoals and shallow riffles. Spade, 30, fell behind his group and did not show up at the take-out. First responders found his body later that day. Lastly, Jebediah Voyce, 29, went missing on the Skagit River on October 11 after falling out of his kayak at the Cape Horn Community Park near Concrete, WA. Three search and rescue boats and a drone were deployed, but only his kayak and paddle were found. Again, no life jacket was in use.

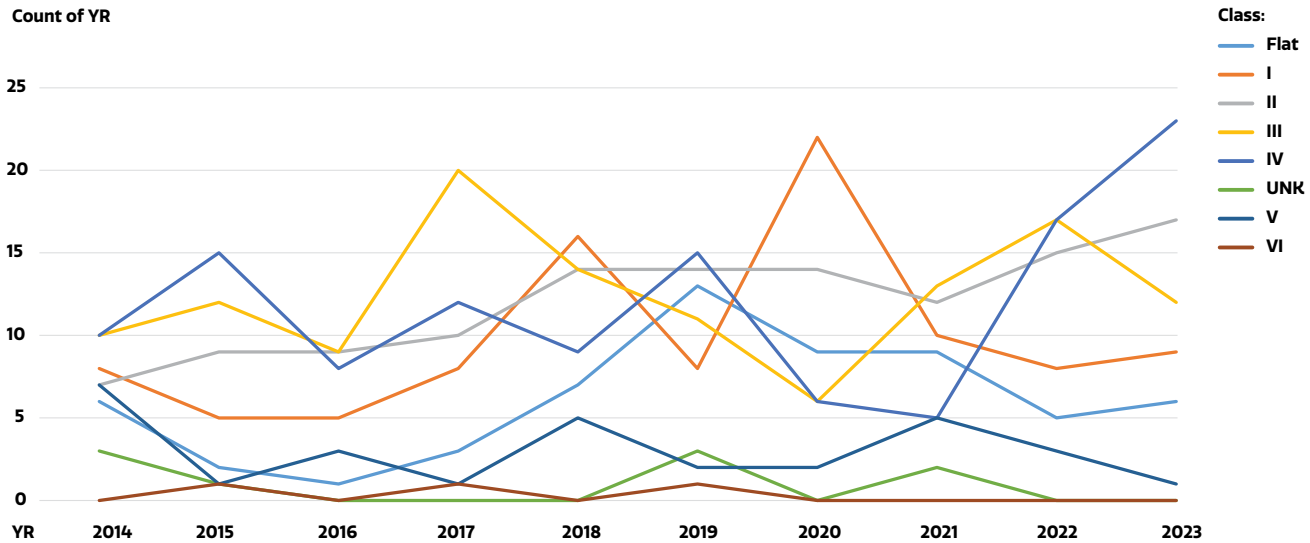
Veteran kayaker Charles Albright reported the disappearance of two kayakers on the Carson River south of Reno, NV. On July 2, James Martin, 59, and Robert White, 52, put in for the Brunswick Canyon section, which was running high from snowmelt. Albright believes that the pair, paddling recreational kayaks, may have encountered trouble in Train Wreck Rapid, a big water Class IV with large holes and waves. Local paddlers later found Mr. Martin's body caught in a strainer and notified the authorities. He was not wearing a life jacket. White is still missing.

Another pair of kayakers encountered trouble on Idaho's Boise River. Former AW Board Member Kevin Lewis tells us that the accident site is miles below the heavily used town section. Although nominally Class II, it's not paddled often because of strainer hazards. At Eagle Island, the river splits into two, and both passages are often blocked by downed trees. On October 9, two men washed into strainers here. James Laughlin, 69, was trapped in his kayak under a tree. The other man escaped, swam to shore, ran to a nearby home, and dialed 911. Sheriff's deputies arrived quickly but were unable to affect a rescue.

Finally, on December 29, a group of five kayakers launched on the Cape Fear River south of Raleigh, North Carolina. Buckhorn Rapid, Class III at high water, is a few miles downstream. Local paddler William Holman notes that this rapid is seldom paddled because it's miles away from the nearest access. "I've always recommended that novice paddlers don't go there over three feet," he says. "It tends to flip recreational kayaks carrying camping gear." The water was quite high, over seven feet, and the entire group found themselves in the water. Emergency personnel were contacted quickly but the means of that contact is unknown at this time. Four members of the group were rescued immediately by first responders in motorized rafts. The body of the fifth man was found a week later.



## River Difficulty Trends



### Canoeing Accidents

There were three canoeing accidents in this period. Stephen Craig, 67, was canoeing with a friend on Alaska's Class II Little Susitna River on July 5 when he was knocked out of his canoe by overhanging branches. He was not wearing a life jacket and disappeared before his friend could reach him. Rescue boats and a helicopter were called in and his body was found the next morning, caught in a logjam near where his canoe capsized.

On June 23, Tom Taylor, 68, suffered a heart attack and fell out of his canoe shortly after launching on the Colorado River near Dotsero, CO. This happened just above a fast Class II+ rapid. His group got back upstream with difficulty and found him floating face down in an eddy. They got him ashore, started CPR, and called for help. Their efforts, and that of EMS, were not successful.

The third canoeing accident occurred in the Southeast. A 49-year-old woman died on July 2 after a tree fell on her during a trip down the North Toe River, north of Asheville, North Carolina. The tree landed on the canoe Yumiko Virant was paddling with her husband. Also present was their 12-year-old child, paddling a kayak. Her two family members sustained minor injuries. This type of accident is fortunately quite rare, but not unique. We have two similar reports in the accident database.

### Guided Rafting Accidents

There were four commercial rafting accidents this past summer; the first occurred on Washington's White Salmon River near the start of the Orletta Section. On July 15, a 58-year-old woman who fell out of her boat in the second drop of Triple Drop was caught in a sieve. Guides freed her and performed CPR. She was transported to a nearby hospital where she later died. We have limited information on two other deaths. On July 7, the Colorado River through Glenwood Canyon was quite high when Cornelis Booyesen, 55, drowned after his guided raft flipped. He was unresponsive when brought ashore. On

September 12, a 69-year-old man was killed after a guided raft flipped at Ti'lomikh Falls on Oregon's Rogue River. These may have been flush drownings. Anyone with further details is urged to contact us.

While not a rafting accident, it seems reasonable to include this report here: On October 9, there was a fatality on a guided fishing trip at Cascade Rapid (Class II) on the Clark Fork near St. Regis, MT. A driftboat hit a good-sized hole and swamped. No one on board was wearing a life jacket and one person drowned. We've had other reports of deaths on fishing trips where life jackets were not worn in whitewater.

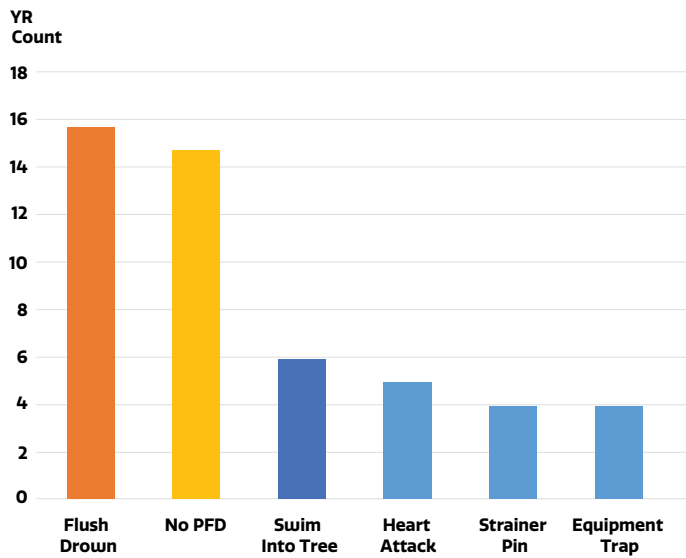
### A Bad Start to Gauley Season

The first weekend of West Virginia's Gauley Season saw two rafting fatalities, one commercial and one private. On September 7, a small private raft flipped in Class V Iron Ring Rapid, throwing all three boaters into the river. Two paddlers were able to swim ashore, but one of the boaters, 62-year-old Norman Cassell, was unresponsive. He was grabbed by several off-duty raft guides who got him ashore and administered CPR. Then, on September 9, a guided raft bumped a rock while running the conservative right line at Shipwreck Rock Rapid. Lenora Doyle, 63, fell out, washed into Shipwreck Rock, and was pinned. Doyle had rafted the Gauley before. Several rafts in her group attempted rescue but could not reach her without endangering their crew. A line was thrown, and they shouted for her to swim towards them, but got no response. Divers recovered her body a week later.

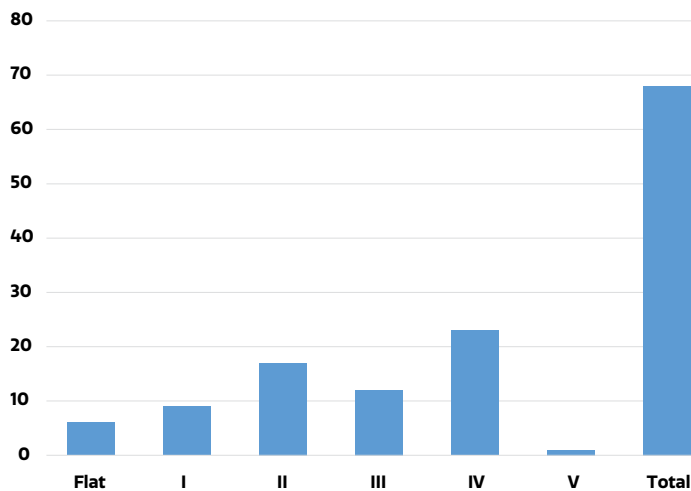
### Private Rafting Accidents

Several people drowned on July 2 when a raft with six paddlers went over a low-head diversion dam on the Henry's Fork River. The dam is near the Fun Farm Bridge north of St. Anthony, ID. According to EastIdaho.com, Kaede Butikofer, 23, Lyle Faulkner, 28, and Jasmine Flores, 28 all died. Three others survived;

## 2023 Top 5 Accident Causes



## 2023 Incidents/Class



a survivor called for help, setting a rescue in motion. Fremont County Sheriff Len Humphries later said that the dam, “Has a tremendous amount of turbulence on the downstream side, and it’s hard to get out of. They get trapped.” He noted that no warning signs exist above the dam, that it’s important to know the river, and important to stay away from diversion dams.

In Alaska, well-known North Slope biologist Craig George died on the Chultina River on July 5. Water levels were high, but not unusually so. George and his rafting partner were in the lead when they encountered a huge log jam on a blind corner just

below the confluence with Antimony Creek. The raft did not overturn, but George was knocked out of the boat by a sweeper. As he attempted to re-enter the raft he and the boat were swept into the logjam. The boat pinned, and he was pulled underwater. His partner stayed with the boat, and another raft in the party landed on an upstream gravel bar. They activated a satellite communication emergency response function (Emergency Position Indicating Radio Beacon or EPIRB); searchers arrived quickly, but George’s body wasn’t found for almost two weeks.

An experienced raft guide drowned during an attempt on Maine’s West Branch of the Penobscot River between Ripogonus Dam and McKay Station. Water levels were high on July 24 and the “Dryway”, which normally isn’t runnable, was booming. Scott Newton, 38, and two others had just launched a raft on Monday when it flipped in continuous big water rapids. His two companions got to shore and later told officials they saw Newton float past them, face down and unresponsive. His body was recovered in Big Eddy, several rapids downstream.

On August 29, Benjamin Sheehan, 38, died after falling out of his raft in Gore Canyon of the Colorado River. The accident occurred in Pyrite Rapids, described as “a 10-foot drop with several large pourover boulders in the center.” We don’t have a clear idea of what happened, but Sheehan took a bad swim and was unresponsive when picked up and brought to shore. CPR was not successful.

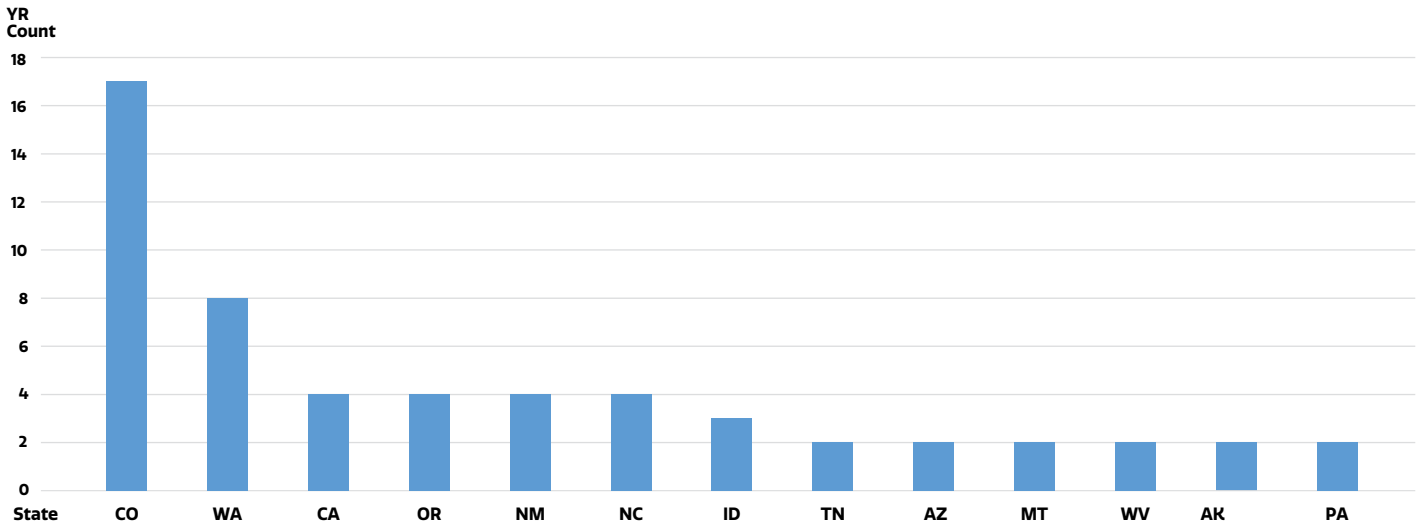
Outfitter Kelsey Helfrich reported a September 28 drowning on the Rogue River in Oregon, five miles below the Graves Creek boat ramp. David Bartecchi, 46, was in a raft that pinned in Wildcat Rapid. He was attempting to free his boat when he slipped and fell into a tight place between two rocks. His foot got caught, and he was in desperate trouble. His crew was able to place an oar across the two rocks, and Mr. Bartecchi held on for a while, but the force of the water was just too much. Witnesses believe that he broke his leg as he was pulled underwater. Afterward, Helfrich had these observations: “I believe that Wildcat is technically classified as a Class III. However, at low water, it seems to be one of the toughest spots on the river, more of a Class IV. The guidebook is a little deceiving, suggesting that people can run on either side of the island. However, the left side gets very tricky for boaters at certain flows. This boat ran left of the island and got wrapped right where the bad sieve is.”

### An Inflatable Kayak

On July 22, Peyton Schartner, 30, drowned on the Class I Colorado River near Palisade during a family trip. Her brother Michael Taylor told WesternSlopeNow.com, “My sister had a life vest and my mother did ask her to wear one. She chose not to wear a vest because she was concerned about her tan lines.” After Ms. Schartner was thrown from her inflatable kayak her mother threw her a life jacket. “At that point, it was too late. She’d been pulled under the water and the asphyxiation had begun.” She was found unresponsive in the water. Paramedics



## 2023 Top 10 States



tried CPR, but she was pronounced dead at the scene. In the hopes fewer families will experience the tragedy of losing a loved one, Taylor is spreading the word. “You could be the strongest swimmer in the world, and you are not stronger than the river, it will pull you under.”

### Paddleboard Accidents

There were two paddleboarding fatalities in the last six months; the rivers were different, but the stories were similar. On July 15, a 50-year-old woman died on the Class II Snoqualmie River in Washington State. She was paddling with her family when her board caught in a log jam. She was caught by her leash and pulled underwater. On July 28, Charles Classen, 52, was paddling the Class I Skagit River below the Gorge Dam with his fiancé when he washed into a strainer. His board went over the tree, and he went under. His leash was attached to a rescue life jacket, and he was held underwater and drowned. There have been more than a few fatalities linked to leashes over the past few years and a third near miss was reported this past season. The whitewater safety community is revising its recommendations for wearing leashes in river environments and there is a rising consensus that wearing a leash may not always be worth its inherent entanglement risk. Any leash worn in whitewater should be attached utilizing an easy to reach quick-release system on the front of the chest or waist area of the body. Research into potential “break away” leash systems, designed to release or fail under a specified amount of force is happening and more research into leash safety is encouraged.

### Miscellaneous

Lastly, a man died on October 24 after being swept away by the Colorado River near the Green River confluence. Clay Petty, 53, was at the Potash Boat Ramp when he saw an 83-year-old woman struggling in the water. His rescue attempt was unsuccessful;

he was pulled underwater and swept downstream. His disappearance led to a multiday, multi-agency search of the river. Several days later his body was found about a mile downstream of the boat ramp. Swimming in big-volume rivers is surprisingly hazardous, even for experienced river runners. It’s always best to wear a life jacket whenever you enter fast water.

### Near Misses and Rescues

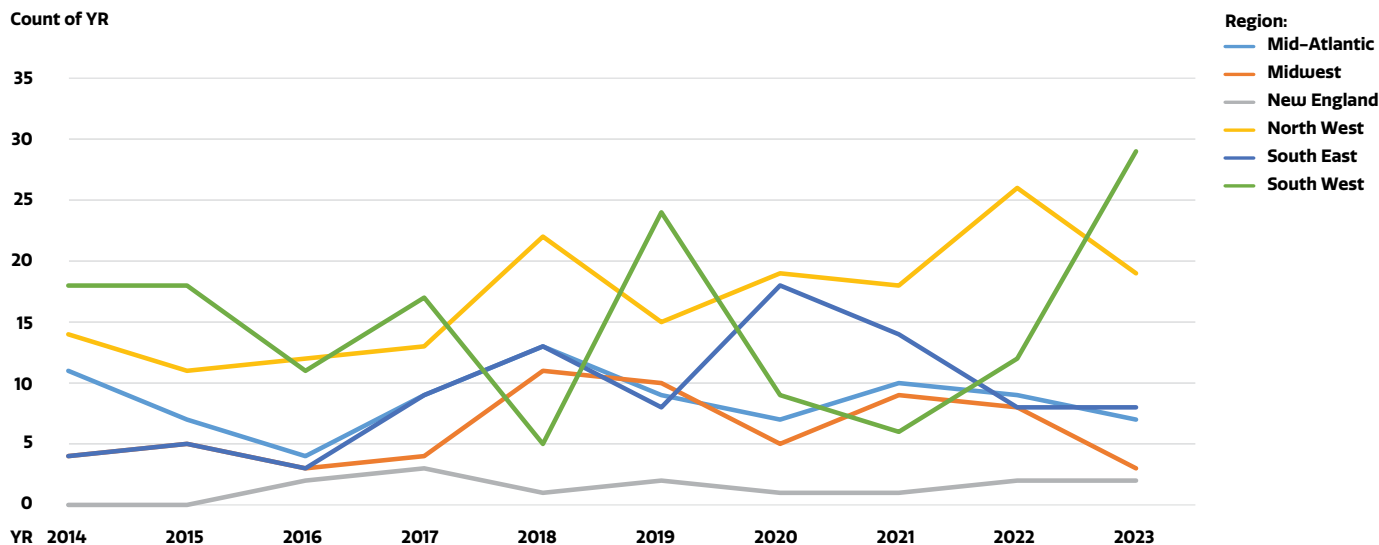
Shane McManus spent a long afternoon helping a group of recreational paddlers who were in over their heads in West Virginia’s Cheat Canyon. On July 23, he and his partner were scouting Lower Coliseum when they saw a sit-on-top recreational boat paddling through Pete Morgan Rapid. Reading his description, I’m amazed that this group got that far. And I am very impressed by Shane’s work! Here’s the rest of his story:

“As I rushed to my boat we also noticed two white water kayaks floating downriver with no one in them. Seconds after, I see two people, one in the river and one on river left shore. Even from river right I could see that their helmet and PFD were extremely poorly suited for the Class V rapid. They needed help badly.”

“Then I saw a young man in an American flag recreational PFD and what looks to be a BMX helmet vertically pinned in the rapid about 20-25 feet from the river left. His upper body was out of the water, but he was being shoved into a body pin. I saw two more kayakers, both also pinned on rocks, one about 15 feet from shore pinned directly on Pete Morgan Rock.”

“My attention was on the pinned paddler, I yelled for him to remain calm. I waded into the river and lifted him onto a rock. Then I brought him to safety and proceeded to unpin the boat.”

## Regional Annual Incidents



“Assessing the boat pinned at Pete Morgan, I knew it needed to be retrieved but daylight was quickly fading. I paddled over to the group where my partner was keeping them calm while providing me with safety on the river. It was then I learned that the group had all their phones, keys, and everything in a dry bag in the pinned kayak on Pete Morgan Rock! I then knew the only path forward was to get that kayak off the rock.”

“I hiked up to the middle of the rapid, put in, and surfed into the middle of the river, eddying behind the first large rock in the drop. I got out of my kayak and, finding safe and sure footing, waded over to the pinned boat, an orange whitewater kayak with a thin, blue dry bag floating above it. I tied a rope to the stern and pulled downstream, upstream, and all around with no hint of movement. I unclipped the dry bag, and then re-tied the rope to the bow. I climbed up on Pete Morgan Rock and was able to pull the boat up and out while my partner waited downstream for the recovery.”

“That was just the beginning. We had to help them paddle out, and they had a very challenging time. After lots of bumps, we arrived at the takeout at 10:00 where we reunited with our crew who were worried and waiting for us with pizza!”

On July 31, a part-time raft guide and kayaker ran Cumberland Falls, a 68-foot drop on Kentucky’s Big South Fork of the Cumberland. He was intoxicated, and while surfing a wave upstream he decided to “go for it.” It’s a perfect example of how alcohol lowers inhibitions and impairs judgment. He landed hard, injuring his neck and breaking his back in three places. He bailed out and was clinging to a mid-stream rock when a fisherman spotted him and brought him ashore, clinging to the side of a jon boat. He was later evacuated by EMS. Falls running is illegal here, and he was cited and fined. The falls were run successfully in 2016 by professional kayakers who were also cited. Paddlers put a lot of time and energy into safely

running big waterfalls, and AW has worked hard to demonstrate that this can be done safely.

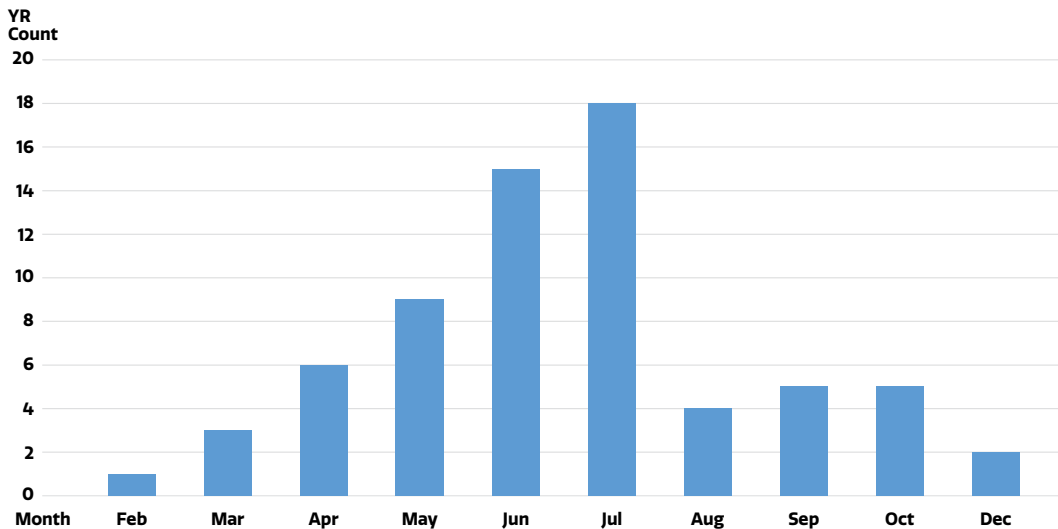
On August 27, Sheriff’s deputies rescued a paddle boarder on Oregon’s Willamette River. David Card, 61, was clinging to a log and fighting to stay above water. The man’s paddleboard was stuck under a log, and the tether was strapped to his right ankle. This type of tether is particularly dangerous because it is often impossible to reach and release in an entanglement scenario with strong current, similar to a foot entrapment. A deputy passed him a knife to cut the tether, tossed him a rope, and brought him to shore.

A kayaker got into serious trouble on the Klamath River north of Yreka, California on October 12. His wife, who had been following along in her car, watched as he capsized, swam, and ended up clinging to the top of a submerged tree. Although well-equipped with a life jacket and wetsuit, he’d been in the water too long by the time help arrived. He was weak and incoherent from hypothermia. It’s not clear why he didn’t swim to safety, but as he was paddling alone he may have been too weak or shaken to try. First responders got him to shore and a waiting ambulance.

A kayaker had a very close call on November 3, the day before the Green River Race in North Carolina. “Go Left” rapid, one of the harder drops on this Class V run, has changed slightly and gave boaters trouble all during practice week. There were two boats already pinned here when a third paddler dropped in. His boat wrapped and he was caught underwater. He was under for 3-5 minutes before a nearby paddler pulled him free. They washed through the drop, and the man was brought ashore where five rescue breaths revived him. He was well enough to make the steep hike out of the gorge but wisely spent that night under observation in the hospital. ■



## 2023 Incidents/Month



## You can help!

American Whitewater needs your help to gather accident reports to share with other paddlers. First-person accounts from experienced paddlers, newspaper articles, and online posts are all useful. Since media accounts are often inaccurate or incomplete, clarifying comments from paddlers familiar with the area are helpful. And while serious incidents among skilled whitewater paddlers are quite rare, they help us learn how to avoid future trouble and better manage emergencies. Accurate accounts of accidents also help keep malicious rumors at bay.

Your report will also be entered into the AW Accident Database, the largest collection of moving water accidents in the world with over 2200 entries spanning 48 years, all sent in by whitewater paddlers. While not completely comprehensive, it provides AW with an excellent snapshot of river problems nationwide, helps refine AW's safety message, and provides real credibility when interacting with government agencies on your behalf. Your story helps the paddling community on many levels.

To report a whitewater accident, near miss, or serious injury, please go to the Safety page on [americanwhitewater.org](http://americanwhitewater.org), click "Report An Accident", and enter the information. Or you can email me at [ccwalbridge@cs.com](mailto:ccwalbridge@cs.com) or message "Charlie Walbridge" on Facebook. Feel free to share newspaper articles, chat room posts, or even rumors! I'm not an "investigator" but often use sketchy reports as leads to find out what actually happened. Everything I receive is posted on the American Whitewater Accident Database Facebook Page. I can also help you prepare or edit an accident report if needed.

# Bald Rock, Part 2 – 2023

*Richard Montgomery*

*Editor's Note: Part 1 of this story, Bald Rock 1980, can be found in the 2024 Winter issue of this Journal.*

Richard and friends camped at Atom Bomb in 2009. Photo courtesy of Richard Montgomery.

## AUGUST 2023, TREGASTEL, FRANCE

Why am I so sad at the news?

I am here visiting a friend, Yves Colin de Verdier, at his house. Yves, like me, is a retired mathematician. His is an old stone house near a public beach along a tide-dominated fractal coastline. Nearly every summer of his life, Yves has spent a month or so in Tregastel. Yves kayaks in the ocean here. He has extra boats so we paddle together. Sit-on-tops. This trip is a mix of vacation and work: i.e. math conferences and math conversations.

Old paddling friends update me on paddling news. A week ago, while I was waiting in the San Francisco airport for my flight to France, I got a text from Mark Buckley of Bend, Oregon. Mark had also been on our 2009 trip down Bald Rock, a trip organized by Phil DeReimer to honor Lars Holbek's life and death. The text I got from Mark in the airport had drone video footage of the first intentional run of Atom Bomb Falls, that hard portage, the crux of the Bald Rock run. By some guy I'd never heard of.

A week later, here at Yves' house, in this land of 30-foot tides and wave-sculpted pink granite boulders, I got a second text about Atom Bomb, this one from Terry Allen of Coloma, California.

Terry's text included a photo and a blurb of Nouria Newman doing the second run of Atom Bomb. Nouria is the famous French paddler, and world champion K-1-er, born 11 years after our first descent of Bald Rock.

I became unaccountably sad after reading Terry's text. Mark's text made me smile and internally shake my head. As in "foolish youth." But Terry's news of Nouria shook me and saddened me.

Why? Why am I so sad? Lars, Chuck, and I had "discovered" Atom Bomb Falls, down there on the Middle Fork of the Feather River, on our first descent (like Columbus had discovered America? Hah! Doubtless, the falls had been known for millennia by the locals). On that first descent of Bald Rock, a highlight of my life, we were all clear that running Atom Bomb was not a possibility.



On numerous subsequent runs, perching our boats on precarious rocks to get out and carry that falls on river left, or, earlier on, to lower them down to do the Death Ferry just above the falls, I was convinced a slip on exiting the boat, or an error in ferry angle, could quickly lead my body into the falls and certain death by pinning in that sieved-out granite falls. Why should it make me sad that someone had run this falls and run it in style?

I had really thought it unrunnable. Nouria has proven me wrong. I want to write her a letter and shake her hand. Nouria, if you read this, consider this paragraph a thank you and a congratulations letter.

If Atom Bomb had been run by mistake or by an out-of-control yahoo, like those falls on the Briceburg to Bagby section of the Merced, or like Niagara Falls, allegedly run by a baby in a life jacket who had fallen out of a motor boat above the falls and was retrieved at the bottom in perfect health, it would not have bothered me. It had not made me sad that the first person had run it.

I hadn't heard of him and his run didn't look that elegant. I could pass it off as a one-off, a fluke. Foolishness.

But no. There is no arguing that Nouria knew exactly what she was doing in running that drop. I am sure she was right on the money—within inches of her planned entry to the key drop, and likely on target the whole way down. Atom Bomb Falls is being run by the best paddlers on earth. And I am sad. Why? I tried to discuss my sadness with Yves. This discussion seemed hopelessly futile. How do you describe running serious whitewater, doing first descents, with someone for whom the extent of serious kayaking is to pay attention to tides, wind, and waves on his sheltered small bay at the edge of the English Channel? But, with the aid of several glasses of whiskey, I did try with Yves and his son Jann. It did not work.

I tried again later that evening with Yves as we walked together across the low-tide mud flats for our final swim together in the cold waters of Bretagne. The only way I could think to re-enter the conversation was in analogy with mathematics.

“Do you ever get sad when someone proves one of your conjectures?” A conjecture is a guess, something you are almost certain is true, something for which you may have a lot of circumstantial evidence and hints of internal beauty but have no clue how to prove. The uncertainty of struggling to prove a conjecture is reminiscent of the uncertainty of whether you will make it out alive from that first descent.

You do not have literal skin in the game of mathematics. Instead, you have your intellectual pride, your sense of identity. Our sense of identity is something we guard fiercely, often more fiercely than we guard even our lives. This, Yves got. “We want math to be pure. We like to think we are doing it with a

pure heart, only to further knowledge, to further science,” he started in.

“But this is not always true! In principle, it should not matter who proves the theorem first. But sometimes, sometimes if I think I had the idea first, if it feels like it was my idea, then I feel like it is mine. I should be the one who proved that theorem! It should not bother me. But it does.”

Is it this then, a wanting to have a kind of “ownership” of a rapid, or even a run? Do I think somehow I should get a little credit for someone running Atom Bomb because I was among three who saw it first while paddling down the gorge that holds it?

That answer smells ridiculous but has hints of truth. The ridiculousness, for the most part, shines through. I do not want to run that rapid. I am old. I have grandsons. I no longer see much glory in being the first to run an intimidating rapid.

### **September 2023 – Bend, Oregon**

Chuck's retired here with his wife Laurie. Judith and I are finally visiting them in their new home. My emotional response of sadness at Nouria's first run has faded but I remember its strength. On a walk down to the Deschutes River, I talk to Chuck about this intense sadness of a month ago, back in France, on hearing the news. Chuck understands the sadness. As usual, he has his own take on it.

“I got over that 10 or 15 years ago. Watching paddlers run huge multi-level drops on YouTube. They've taken it up to a whole other level. Two levels. “I realized I won't be doing that,” he pauses, “I don't even want to.”

Chuck's explanation for sadness is that it is a response to the closing off of opportunities. Getting old is an interminable closing down of possibilities. I'm no longer going to be an astronaut. I'm no longer going to get the Fields Medal. I'm no longer going to run a marathon. Et cetera, et cetera, as our knees and shoulders and eyes go one by one.

Always the realist, Chuck. This is the man who, on some long shuttle, after someone had favorably compared the early Yosemite rock climber's first ascent feats to our first descent exploits replied, “Logs run rapids all the time. You don't ever see logs climb mountains.” Thanks, Chuck. I will choose to remain thoroughly impressed by Nouria's paddling and let go of my sadness.

### **October 2023 – South Fork American River, California**

I see Phil DeReimer at the put-in to Chili Bar. We talk. I tell him of my sadness and surprise at Nouria's run. His reaction is, “Richard, we didn't have any INTEL! We couldn't see the drops. We were blind! They had a big advantage. Drones. They could scout the whole drop!” Phil is right of course. Nouria and Mr. First Run had scouted the whole drop before they had run. If we had run we would have been running totally blind. Big difference.

Nouria running Atom Bomb Falls.  
Photo: Sam Swanson



A memory of Lars trying to get views of the drop resurfaces. He would scramble around on the boulders trying to get a peek at the crux of Atom Bomb. I always imagined it was just to witness the glory of the water hurling over those falls. But of course, he would've been looking for routes. In this particular memory, it was twilight. We were camped there. We'd finished dinner. Mushrooms and perhaps alcohol had been involved. He told us he was going to "commune with Mother Earth." He climbed down along a thin log wedged between two huge boulders. Maybe there was a peek hole into the maw further on. The log broke. He fell a few feet, maybe five feet, and probably broke a rib. He was not a happy cowboy on our paddle out the next day. No intel.

Allow me to leave aside the questions of my personal sadness and return to the original question (posed in Part 1, previous issue): Why do we run hard water? Why do we intentionally put ourselves in situations that have potential to end our lives?

Let's leave aside my dirtier motives of achieving fame or glory and even the motive of challenging myself. Let's take Yves' tack and look for pure motives, motives like the pursuit of knowledge and the furtherance of science. In this nobler form Yves was speaking to our intentions to deepen our appreciation and love for the universe, the place we live, with all its terror and beauty.

At my best, I'm running rivers to feel, again, how I am an integral part of it all. I fit within the beauty of water flowing powerfully through a natural landscape. Along for the ride, came a completely unexpected benefit, the immeasurable wealth of deep friendships forged in river canyons, friendships that have carried me through a lifetime. ■



Photo by Austin Seback

It's never too early to think about leaving a lasting legacy to the rivers that made a difference in your life.



Become a member of the American Whitewater Enduring Rivers Circle, created exclusively to honor and recognize people who have helped to continue our river stewardship efforts through a gift to American Whitewater in their estate plans.

*For more information about making a bequest to American Whitewater contact Bethany Overfield at 1.866.262.8429 or [bethany@americanwhitewater.org](mailto:bethany@americanwhitewater.org)*

## AW'S ORIGINAL PURPOSE

By Bethany Overfield

American Whitewater's original purpose since 1954 has included distribution of information among its Affiliate Clubs. We have over 80 current AW Affiliate Clubs and they are all doing great work on your behalf; if you don't belong to a club, consider joining one.

American Whitewater has two levels of Affiliate Clubs - a Supporting Affiliate Club or an Affiliate Club. Affiliate Clubs that choose AW's \$100 annual level are recognized in the AW Journal, on our website club page, and in our annually published Honor Roll. In order to be recognized at this level, a club needs to maintain an annual \$100 contribution.

Affiliate Clubs that choose AW's \$400 Supporting Affiliate Club annual level are recognized in the AW Journal, on our website club page, and in our annually published Honor Roll as well as being listed as sponsors of an AW stewardship presentation each year. In order to be recognized at this level, a club needs to maintain an annual \$400 contribution. A Supporting Affiliate Club can revert to the \$100 Affiliate Club annual level at any time.

An Affiliate Club that is already being recognized as an AW Lifetime Member is recognized in the annual Honor Roll as a Lifetime Member. They do need to contribute either at the \$100 or the \$400 level annually to be recognized as an Affiliate Club in the *AW Journal* and under the Affiliate Club heading of the published Honor Roll.

Is your club missing from this list? It might have expired. Contact me at [membership@americanwhitewater.org](mailto:membership@americanwhitewater.org) to square your club membership away!

## AMERICAN WHITEWATER AFFILIATE CLUBS

### SUPPORTING AFFILIATE CLUBS

#### Alaska

Fairbanks Paddlers, Fairbanks

#### Arkansas

Arkansas Canoe Club, Little Rock

#### California

Smith River Alliance, Crescent City

#### Colorado

Dolores River Boating Advocate, Dolores  
Colorado Whitewater Association, Denver

#### Georgia

Georgia Canoeing Association Inc, Winston

#### Kentucky

Bluegrass Wildwater Association, Lexington  
Vikings Canoe Club, Louisville

#### Massachusetts

Appalachian Mountain Club, Boston

#### Nevada

Sierra Nevada Whitewater Club, Reno

#### New York

KCCNY, Brooklyn

#### North Carolina

West Asheville Canoe and Kayak Organization (WACKO), Asheville

#### Ohio

Keelhaulers, Cleveland

#### Oregon

Oregon Kayak and Canoe Club, Portland

#### South Carolina

Foothills Paddling Club, Greenville  
Palmetto Paddlers, Columbia

#### Washington

Paddle Trails Canoe Club, Seattle  
Washington Kayak Club, Redmond  
Washington Recreational River Runners, Renton

### AFFILIATE CLUBS

#### Alaska

Nova River Runners Inc., Chickaloon

#### Alabama

Coosa River Paddling Club, Wetumpka  
Huntsville Canoe Club, Huntsville

#### Arizona

Southern Arizona Paddlers Club, Tucson

#### California

Chico Paddleheads, Chico  
River City Whitewater Club, Sacramento

#### Colorado

Diversify Whitewater, Fort Collins  
Friends of the Yampa, Steamboat Springs  
High Country River Rafters, Wheat Ridge  
Rocky Mountain Outdoor Center, Buena Vista  
Royal Gorge River Initiative Org, Cañon City  
San Miguel Whitewater Assoc., Telluride  
Team Colorado Whitewater Racing Club, Longmont  
Upper Colorado Private Boaters Assoc., Glenwood Springs

#### Connecticut

New England Canoe and Kayak Racing Association, Meriden

#### Delaware

AMC Delaware Valley Chapter, Oaks (PA)

#### Idaho

Cutthroat Whitewater  
Idaho Whitewater Association, Boise

#### Indiana

Hoosier Canoe Club, Brownsburg  
Ohio Valley Paddlers, Evansville

#### Iowa

Iowa Whitewater Coalition, W. Des Moines

#### Kentucky

Elkhorn Paddlers, Lexington

#### Maine

Penobscot Paddle & Chowder Society, Freeport

#### Maryland

Baltimore Canoe; Kayak Club, Baltimore  
Blue Ridge Voyagers, Rockville

#### Minnesota

Rapids Riders, Eagan

#### Missouri

Missouri Whitewater Association, St. Louis

#### Montana

Beartooth Paddlers Society, Billings

#### New Mexico

Adobe Whitewater Club of New Mexico, Albuquerque

#### New Hampshire

Merrimack Valley Paddlers, Merrimack  
New England Canoe and Kayak Racing Association, Contoocook

#### New Jersey

AMC Delaware Valley Chapter, Oaks (PA)

#### New York

Zoar Valley Paddling Club, East Aurora

#### North Carolina

Carolina Canoe Club, Raleigh  
Landmark Learning, Cullowhee  
Mind Body Play, Asheville  
Watauga Paddlers, Boone





**Ohio**

Friends of the Crooked River, Akron  
Columbus Paddling Club, Columbus

**Oregon**

Lower Columbia Canoe Club, Portland  
North West Rafters Association, Roseburg  
Oregon Whitewater Association, Portland  
Willamette Kayak and Canoe Club, Corvallis

**Pennsylvania**

AMC Delaware Valley Chapter, Oaks (PA)  
Benscreek Canoe Club, Ebensburg  
Canoe Club of Greater Harrisburg  
Lehigh Valley Canoe Club, Lehigh Valley  
Philadelphia Canoe Club, Philadelphia  
Three Rivers Paddling Club, Bridgeville

**Tennessee**

Appalachian Paddling Enthusiasts, Jonesborough  
Chota Canoe Club, Knoxville  
Clean Water Expected in East Tennessee, Sevierville  
East Tennessee Whitewater Club, Oak Ridge  
Tennessee Eastman Hiking & Canoeing Club,  
Kingsport  
Tennessee Scenic Rivers Association, Nashville  
Tennessee Valley Canoe Club, Knoxville

**Texas**

Houston Canoe Club, Inc., Houston

**Utah**

High Jim and the A.S.K., Salt Lake City  
Utah Whitewater Club, Salt Lake City

**Vermont**

Vermont Paddlers Club, Montpelier

**Virginia**

Blue Ridge River Runners, Lynchburg  
Canoe Cruisers Association, Middlebury  
Coastal Canoeists, Richmond  
Float Fishermen of Virginia, Roanoke

**Washington**

Northwest Whitewater Association, Spokane  
Spokane Canoe & Kayak Club, Spokane

**Washington, DC**

Canoe Cruisers Association

**West Virginia**

Mason Dixon Canoe Cruisers, Bolivar  
WV Wildwater Assn, S. Charleston

**Wisconsin**

North East Wisconsin Paddlers, Inc., Neenah

**Wyoming**

American Packrafting Association, Wilson  
Jackson Hole Kayak Club, Jackson

**National**

Team River Runner

**CANADA**

**Ontario**

Kawartha Whitewater Paddlers

---

**DISCOUNTED AW MEMBERSHIP FOR AFFILIATE CLUB MEMBERS**

AW offers a discounted Affiliate Club membership of \$25, a \$10 savings. If you are renewing your AW Membership or joining as a new member, select the \$25/year Affiliate Club Member option online at [www.americanwhitewater.org/join](http://www.americanwhitewater.org/join).

A list of Affiliate Clubs can be found on our website under the Community/Clubs tab. If you notice your club missing from our list, please encourage club leaders to renew their club membership or join American Whitewater as a new Affiliate Club.

Your club's membership and your personal membership enable American Whitewater Staff to be active and engaged in the process of river stewardship across the country. Your membership support helps to meet the many challenges whitewater rivers face. If you have questions about the Affiliate Club membership, please reach out to Bethany Overfield at [membership@americanwhitewater.org](mailto:membership@americanwhitewater.org).

---

**10 REASONS TO JOIN AW AS AN AFFILIATE CLUB:**

1. Support river access and restoration through the AW River Stewardship Team.
2. Be part of a national voice for the protection of the whitewater rivers your club values.
3. Tap into the professional expertise of AW staff for river issues that come up in your backyard.
4. Your club's members can become AW members for \$25. A \$10 savings!
5. Receive the *American Whitewater Journal*, the longest continually published whitewater magazine.
6. Your club is recognized in the list of Affiliate Clubs posted to the AW website.
7. Recognize your club in the list of Affiliate Clubs noted in each bimonthly *American Whitewater Journal*.
8. Post club information on the AW website to help paddlers find you.
9. Gain club satisfaction from lending support to AW's stewardship efforts.
10. Improve your club members river karma.

For more information, contact Bethany Overfield:  
[membership@americanwhitewater.org](mailto:membership@americanwhitewater.org)

...or sign-up on line: [www.americanwhitewater.org/membership](http://www.americanwhitewater.org/membership).

# AMERICAN WHITEWATER PARTNERS

## \$20,000 – Class V



## \$10,000 – Class III



## \$7,500 – Class II



## \$5,000 – Boof



## \$2,500 – Wave





# • HYSIDE •

proud partner of



SERVING THE WHITEWATER INDUSTRY  
**1982**  
WORLDWIDE, SINCE

\*SAND coming Summer 2024

**HYSIDE.COM**  

 **BOULDER, CO**



*Dagger*

# WHEREVER THERE'S WATER.

FOLLOW US ON SOCIAL @DAGGERKAYAKS

