

## Southeast Focus

RMS Pro-Purchase News.....	4
Virginia's Scenic Rivers .....	6
Restoring the Mulberry River.....	8
Tennessee Wildlife Federation Gift.....	9
The Obion Basin Fight.....	10
Family Fun on the Pascagoula.....	13
Tennessee River Basin Network.....	14
Conservation Easements - A Tool.....	15
Bama's Bone Dry.....	16
Wonks, Water, Walls, and... ..	18
Georgia Water Trails.....	21
San Antonio River Authority.....	24
RMS Chapter Updates .....	27
Innovative Tennessee River Project ...	28



Google Earth aerial image of the Franklin sewer plant and Harpeth River.

## False Dichotomy Between Growth and Clean Water?

### The Harpeth River Experience with Citizen Suits and Beyond

by James M. Redwine

So often, the choice is portrayed to be between clean water and growth, with clean water inevitably the loser. The Harpeth River Watershed Association (HRWA) does not believe that this always has to be the case. Rather, HRWA's recent experience with a citizen suit under the federal Clean Water Act (CWA) (and its aftermath) shows that the story can be far more complex, that there does not have to be a choice between clean water and growth, and that clean water needs to be a community choice in which all are involved and have a stake in the outcome.

*The State Scenic Harpeth River, Greater Nashville, and the Harpeth River Watershed Association*

The Harpeth River is among the unique freshwater river systems of the Southeast. These systems contain some of the greatest variety of aquatic life in the world. The 125-mile-long State Scenic Harpeth River and over 1,000 miles of tributaries flow through both rural landscapes and rapidly developing urban and suburban areas of the greater Nashville region, one of the fastest growing regions of the country.

Founded in 1999, the Harpeth River Watershed Association is a 501(c)(3) not-for-profit, science-based conservation organization dedicated to protecting the State Scenic Harpeth River and clean water in Tennessee. To protect the river and effect change, HRWA collaborates with landowners, businesses, community, local, state, and federal decision makers and others to put solutions in place to maintain healthy landscapes, reduce pollution, and implement restoration in order to achieve water quality standards set to protect public health and wildlife.

(continued on page 34)

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**Editorial Policy:** Articles are not edited for content and may not reflect the position, endorsement, or mission of RMS. The purpose of this policy is to encourage the free exchange of ideas concerning river management issues in an open forum of communication among the RMS membership. Unless indicated, points of view are those of the author and not RMS.

## Executive Director's Eddy

### A bit about stewardship and advocacy...

I am a whitewater paddler with a love for both running rapids and ‘screwing’ a squirt boat down below the water’s surface for extended periods to observe a river’s wonders. As a river recreationist, I had to learn how to wear the mantle of ‘river management’ when I stepped up to my position six years ago. I learned quickly that while our members all enjoy working on, around and for rivers, they do so from a wide variety of personal and professional vantage points. Heck, our most enthusiastic representative, RMS President Helen Clough, reminds us often that she met RMS not because she was a fervent river fan, but to meet and learn from the experts when she learned she would be responsible for river management.

As our membership profile has broadened (happily) our mission has not changed, but how ‘RMS Members’ support and specifically work to its pursuit, collectively, has. National river conservation and conservation/recreation professionals have become important and highly appreciated partners; faculty members at colleges and universities are leaders of our River Studies and Leadership Certificate program; and several of our newest staff and volunteer leaders are geospatial information system specialists. Perhaps most importantly, the ‘work’ of managing rivers has shifted from the responsibility of federal, state and local agency hands to an amalgam of partnerships. Today, hundreds of non-profit organizations, hybrid or partnership organizations are participating in the management of rivers in an effort to grow holistic approaches to river health and safe enjoyment. RMS cannot be more appreciative of its members who are river experts representing American Whitewater, American Rivers, River Network, the Snake River Fund, Huron River Watershed Council, San Antonio River Authority and other groups, each logging amazing accomplishments.

Feeling a bit fuzzy about the use of



Risa Shimoda, RMS Executive Director

the word stewardship, largely because of what sometimes seems like overuse, I have checked the definition. According to Miriam-Webster, stewardship is “the conducting, supervising, or managing of something; especially: the careful and responsible management of something entrusted to one’s care.” Okay. We can claim this for ourselves comfortably.

The term ‘Advocate’ requires a bit of parsing, as we have previously steered clear of its use as a component of our outreach activity: “one who defends or maintains a cause or proposal, or who supports or promotes the interests of a cause or group.” Advocacy is an important, and in fact a primary role for some of our members and their organizations: no news there. What is, or could be a new role for RMS is advocacy on behalf of our mission and members in the context of supporting river management, planning and supervisory jobs.

One example to illustrate this point is the recent designation of special public spaces, such as the Bears Ears National Monument in Southeastern Utah. The designation did not include a long-term funding program or a designation-related staffing and training plan. Are the precious petroglyphs along the San Juan River that flows through this new area at risk due to its new notoriety? Will river managers receive new capacity to greet larger numbers of visitors? Since I am not too much of an expert in the various aspects of monument designation, I will leave this as

*(continued on page 42)*

## RMS President's Corner



Helen Clough, RMS President

Pacific Chapter. We accomplished our work in time (if not according to the schedule) and were able to meet with chapter members and visit a short stretch of the South Fork of the American River. While having an in-person meeting is expensive,

...no technology can duplicate the wonderful interactions that happen when people get together.

Spending time listening to Pacific Chapter President Jim Eicher recount some of his past accomplishments was incredible. Getting to know each other and learning how to better function as a team is critically important for your board to lead the organization more effectively.

In late October, yours truly and Louise (Weezie) Kling, Pacific Chapter president, began working in earnest as 2018 symposium co-chairs. We, along with Executive Director Risa Shimoda, began to organize our committee structure for the next major RMS event, celebrating the *50th Anniversary of the Wild and Scenic Rivers Act* (October 13-17, 2018) in Vancouver, Washington (not Canada). For those of you not from the northwest, Vancouver, Washington, is on the north side of the Columbia River adjacent to Portland, Oregon.

In 2017, we’ll continue our regular work and focus on a number of specific projects:

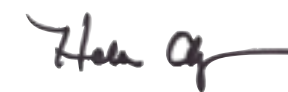
- Updating our website
- Establishing committees for the 2018 symposium in Vancouver, WA
- 50th Anniversary of the Wild and Scenic Rivers Act activities (Risa has a major leadership role)
- National Rivers Project
- Overseeing the River Studies and Leadership Certificate program
- Chapter activities including the Northwest Chapter’s River Ranger Rendezvous
- Raising funds to support our work

- Planning and conducting Wild and Scenic Rivers training – including a “train the trainer” class
- Revitalizing our membership committee
- Determining how to continue expanding our Handy Hydropower Summaries
- Holding elections for national officers for 2018-2020

I encourage each of you to get involved in an activity or event – be it leading a trip or educational event for your chapter, serving on a symposium committee, helping with 50th Anniversary events, writing an article for the RMS Journal, sharing information for the weekly digest or posing a question/ or responding to one on the listserve, buying great gear from one of our new professional purchase program vendors, or \_\_\_\_\_ (you fill in the blank).

And, please consider running for a national office – all four positions (Secretary, Treasurer, Vice-president and President) will be open for nominations shortly. If you are interested, contact Succession Committee Chair, Linda Jalbert for more information. ♦

Happy Spring,



Helen Clough  
RMS President

As I finally put away the holiday letters I received from friends and family describing their 2016, I reflect on 2016 and 2017 – no, I will not regale you with tales of my salmon fishing and upcoming boating plans. I will share some of the amazing highlights of the last year for River Management Society and a few of our plans for 2017.

We began the year deeply involved in planning for *Rivers and Recreation in a Changing Climate*, the 2016 Symposium with our partner the Society of Outdoor Recreation Professionals. RMS committee heads and conference co-chairs were busy raising money, organizing the program, planning field sessions and the visual resource management training, and a myriad of other tasks large and small. At the same time, we hired Jack Henderson as a part-time employee to work on the National Rivers Project. All year he has been working with partner organizations to obtain data and expand the database. Check out <http://www.nationalriversproject.com>.

By the end of March and during April, symposium arrangements were close to a full-time job for many of us. All that hard work paid off with a very successful joint conference attended by 400 outdoor recreation and river management professionals. We enjoyed the many educational sessions, amazing diversity of field trips, and mingled with our sponsors, exhibitors, friends, and colleagues.

At the end of the symposium, we did breathe a small collective sigh of relief and then the executive director and board got to work finalizing a new strategic plan, preparing for our fall in-person board meeting, attending to chapter activities, and hopefully also finding some time to get out on the water. By summer’s end we could officially recognize five colleges and universities as partners (via MOUs) in the River Studies and Leadership Certificate program, and awarded a certificate to Prescott College graduate Lance Murray.

In October most members of the board attended the meeting hosted ably by the



# RMS Pro-Purchase News

by Anja Wadman, RMS Professional Purchase Coordinator

We all joined River Management Society for one simple reason: we love rivers. We stayed members for different reasons. It may have been to network amongst our colleagues, to go on exciting chapter trips, attend the river symposiums, or to be able to participate in the RMS Professional Purchase (Pro-Purchase) program. Whatever your reason for being a member, choosing to upgrade your membership or advocating membership to others, RMS thanks you for your support and dedication. We sincerely cannot do this without you.

Keeping our members in mind with their needs, we are developing partnerships with a variety of companies who share our passion for rivers and the outdoors, and believe we have added awesome pro-purchase partnerships to our growing list! We will be announcing these companies in the RMS Journal, RMS News Digest, and on the website.

## Annual Purchase

We have added a new component to the RMS Pro-Purchase program. We will be offering an annual group order once or twice a year from specific companies. We are excited to announce the following companies that are participating in the Spring 2017 Annual Group Purchase:

CGear	AIRE
MTI Adventurewear	BIC Sport
Hydro Flask	Travelon

**CGear** is known for their Sand-Free “Quicksand Mat.” Sand falls straight through the quicksand mat and doesn’t come back up. The mat provides a smooth top surface, is easy to clean, and is made from resilient materials. A new product for 2016 is the smaller sized “Quicksand Mat.” This is ideal for tents, picnics and anywhere sand is found. These mats, whatever size, are great for whitewater trips. RMS members can get up to 30% off. <http://www.cgear-sandfree.com/>

**CGEAR**  
SAND-FREE TECHNOLOGY



**MTI Adventurewear** is celebrating 25 years of building great life jackets. Whether it is Canoe, Kayak, Raft, Sail or SUP –MTI makes a life vest for it. The company was founded in 1991 outside of Boston and the headquarters is based near historic Plymouth, Massachusetts. They know people have a choice when it comes to buying a life jacket. They hope it will be MTI. All lifejackets are USCG approved. RMS members can get up to 40% off. <https://www.mtiadventurewear.com/>



**BIC Sport North America** was founded in 1979. From saltwater to freshwater, if you love to recreate, BIC Sport North America has the gear for you. The website is user-friendly; three simple questions get you on the path to find the right SUP to Dinghy. RMS members can get 30% off retail. We are excited to announce that all qualifying members will receive a 1 time use code for 30% to purchase. The code is valid for until 12/31/2017. Contact Angela Wadman to receive your code. <http://www.bicsport.com/>



**AIRE** is based out of Meridian, Idaho. AIRE manufactures the world’s finest inflatable rafts, catarafts and kayaks for whitewater rafting and touring. If anyone has ever patched a raft, you know that AIRE’s design can make patching simple. At the end of the day, it is Aire’s passion to get on the water and boat. RMS member can get up to 30% off retail. <http://www.aire.com/>



**Hydro Flask** is based out of Bend, Oregon. Hydro Flask was founded in 2009 and launched the first all-insulated bottles. You want ice to last 24 hrs? You got it. Want a beverage to stay hot for 6 hrs? You got it. Their patented TempShield™ technology guards the temperature of your drink. Bring ice water with you in the morning, and they promise you’ll still have ice in the afternoon. RMS members can get up to 30% off. <http://www.hydroflask.com/?gelid=CPWQxp7yvM4CFRSCfgodLnMF0Q>



**Travelon** is known for their anti-theft bags. They discovered that bag slashing is the #1 method of thieves to rob unsuspecting travelers. By using flexible high-tech chainlink stainless steel mesh in the fabric, they offer the ultimate anti-theft stylish bags. RMS was interested in their waterproof items. Check out the waterproof smart phone/digital camera pouch. It has ifloat. RMS members are able to get up to 60% off retail on any of their items. <https://www.travelonbags.com/>

## DISCRETION

The RMS Professional Purchase requires members to agree to be discreet about their participation in this program. Please do not mention the deals you may receive on these brands in any outdoor specialty stores or outdoor department stores. RMS wants our outdoor businesses to be successful and for the dealers of our pro-purchase partners’ products not be hurt or undercut due to our program. Comments from a RMS member boasting about better discounts he/she can get through our program rather than purchasing gear at the retail store can fracture relationships with our partners, and we want to do our very best to avoid this happening. RMS wants our whitewater business dealers, small and large, to be successful. Members also need to agree not to use any retail store for returns.

## ORDERING

If you are interested in purchasing any items from these companies, please contact:

**Angela “Anja” Wadman**  
[awadman@blm.gov](mailto:awadman@blm.gov)

I will send you information and forms to fill out. We would like to get all orders in by **April 28, 2017**. Some companies require a minimum purchase. If we do not meet the minimum requirements, we will hold off on the order. Since this is a group purchase, these companies would prefer (1) payment method. I will be collecting payment before placing a purchase for companies who will not accept multiple credit cards. Many will ship to multiple addresses so we will try to make that our standard to keep shipping expenses as low as possible.

If you know of other companies that would potentially partner with RMS, or that you are interested in having us contact, please send me (or Judy Culver: [judyculver@fs.fed.us](mailto:judyculver@fs.fed.us)) an email. If you can provide us with specific contact name(s), that would be great.

Let us know if you have any questions. Thank you!◆



# Virginia's Scenic Rivers

by Lynn Crump, PLA

Like many other challenges, comparing oneself to another is always hard. It can never be apples to apples, as each is so different. So goes it for the Virginia Scenic Rivers Program. While Virginia does not have the longest designated river or the most river miles, it is worth looking at how Virginia's program stands up against other state programs and the National Wild and Scenic River Program. Virginia's is one of the most robust programs in the country and one that continues to designate rivers nearly every year.

So why are rivers so important? American Rivers answers this question while trying to protect and bring back all rivers. But in Virginia they are the basis of the history of the United States and many are celebrated through the Captain John Smith Trail, the Potomac Heritage Trail and the Star-Spangled Banner Trail. [Consider putting text box 2 here] History is grounded in the rivers of Virginia and, as we move toward the program's 50th anniversary, we begin to see how important our rivers are to our health, quality of life, our natural resources and sense of place.

The Virginia Scenic Rivers Program is 46 years old this year. When the program started in 1970, many conservation initiatives

across the country were at their height. Virginia's 1965 plan for outdoor recreation and land conservation, *Virginia's Common Wealth*, set the stage for the program with its heavy focus on cleaning up state waters. That led to a statewide study identifying 28 river segments to be considered for Virginia scenic river designation.

[Virginia's Scenic River code](#) requires that in order for a river to be included in the system the state must identify the scenic and natural beauty, fish and wildlife, and recreation, historic, geologic and cultural attributes of each river or river section. While the code was enacted in 1970, it took nearly five years before the first river was designated. Today 33 river segments encompassing approximately 815 river miles have been designated through the legislation. This covers only about 2% of the nearly 48,000 river miles in Virginia.

Communities have participated in this grassroots program for a variety of reasons from creating opportunities for land-use tax credits, protecting land through conservation easements and promoting the high quality of life rivers provide their residents.

Richmond skyline. Photo: Courtesy of DCR.



Designation through the Scenic Rivers Program also:

- Provides opportunities to consider scenic and other resources in planning and design.
- Requires General Assembly authorization for dams on designated rivers.
- Provides for greater consideration for state and federal projects to consider and mitigate for scenic assets within the river corridor.
- Gives localities a greater voice in the planning and implementation of state and federal projects.
- Gives greater consideration to grant projects along designated corridors.
- Provides for continued existing appropriate riparian land uses.
- Allows for project review and monitoring of designated river segments by governor-appointed Board of Conservation and Recreation and DCR.
- Provides framework for appointment of a local Scenic River Advisory Committee

As with most river protection efforts, the greatest concerns are loss of property rights, government intervention and lack of landowner control. The Virginia Code explicitly notes that 'all riparian land and water uses along or in the designated section of a river which are permitted by law shall not be restricted by this chapter.'

The imposition of land-use controls, restrictions for fishing and boating and additional federal or state controls on designated scenic rivers are unfounded and in the 46 years of the program have not occurred. Though the original requirement for designation included an appointed local committee to oversee the river, this has been eliminated. Local communities and non-profits have taken up the cry to protect and enhance the awareness of the special qualities of Virginia's rivers. These groups champion many rivers by sponsoring events that bring broad-based recognition to the rivers. Some of the efforts include local clean-ups along hundreds of river miles with thousands of tons of trash, tires and debris being removed, leaving many Virginia rivers in better shape they have been in decades.

The challenge in Virginia is to keep all citizens aware of river resources and to expand the program in a way that protects resources, but allows for appropriate development. Despite the program's success, over the last several years the vote to support scenic river designations has gone from a 90+/-% support vote to a 70+/-% support vote. State senators and delegates who have rivers in their jurisdictions are voting against river designation in part due to concerns that future controls by the state will be passed. As administrator of the program, the Virginia Department of Conservation and Recreation has worked hard to assure our constituents that this program is purely a recognition program and is not related to state and federal clean water programs.

In 2016, only one river went forward for designation. The Historic York was pulled before the General Assembly could vote to support the bill. The localities for two other

(Photo left) "Richmond is focusing on this portion of the James as a treasure, a heritage treasure— something to be treated with an extra bit of reverence, protected, enjoyed and promoted as such." — Tricia Pearsall, Historic Falls of the James Scenic River Committee [Piedmont]



Photo: Courtesy of Twin River Outfitters, Upper James River

"[Virginia's] Scenic River designations are outdoor recreation features that attract tourists and benefit local economies."

— Justin Doyle, Community Conservation Manager, James River Association

"We are very excited...the Virginia Scenic River designation for the Upper James River will help show others what we already have known—that we have a beautiful river to paddle with diverse and healthy wildlife, mountain views, clear water, fun rapids, great fishing, limited development and lots of great access points. We are hopeful the designation will also help increase regional tourism in Botetourt and Rockbridge counties."

— John Mayo, Owner, Twin River Outfitters

qualifying rivers withdrew their support before even going to the General Assembly. This trepidation is happening more and more frequently as personal property rights and the roles of government are being challenged. It is our hope that the James River extension, slated for the 2017 General Assembly, will get the vote and support it needs to be designated and to move the program forward.

In an attempt to address these challenges DCR has produced a [video](https://www.youtube.com/watch?v=qNKeXPiGvTo) (https://www.youtube.com/watch?v=qNKeXPiGvTo) about the program and process. This effort along with support from our river groups and the nonprofit Scenic Virginia will keep the program viable and secure the next 40 years.◆



# Restoring the Mulberry River One Streambank at a Time

Submitted by the Southeast Aquatic Resources Partnership

This summer, Arkansas Game and Fish Commission (AGFC) and partners began work to stop erosion, reduce sedimentation and elevated water temperatures, and restore a riparian zone of the Mulberry River, a state-designated Extraordinary Resource Waterbody and nationally designated Scenic River. Restoration is taking place on the Cathie Brown private property adjacent to U.S. Forest Service (USFS) lands and is a partnership with the AGFC, the U.S. Fish and Wildlife Service, the U.S. Forest Service, Clarksville Chamber of Commerce - Johnson County Development Foundation, Johnson County, and Oark Public School. Supported in part with funding from the Southeast Aquatic Resources Partnership, this cooperative community effort, is restoring the streambank, reestablishing the riparian zone 60 feet out into the floodplain, and educating citizens on water quality and river protection. This project will also benefit the health of the land and water utilized by citizens visiting the nearby USFS property.



*Cathie Project, April 2016, Mulberry River. Photo: AGFC*

*Eroding streambanks on the Mulberry River. Photo: AGFC*

On December 7th, 2016, students from Oark High School and employees from AGFC and USFS planted 520 native trees, shrubs, and grasses. This past fall, AGFC and the USFS completed 835' of livestock fencing. An isolated community, the people of Oark regularly come together to help each other. Residents know Ms. Brown's property and are aware of the problematic and unsightly erosion issue she is dealing with. This project is also the center piece of a historical site known as the "swinging bridge," originally constructed in the late 1930s and restored in 2015. It is a 150' long foot bridge that people can walk across from Highway 215 to access the river. Many people drive up and down Highway 215 every day and can see the vertical walls of exposed soil that are dumping sediment into an "Extraordinary Resource Water" and a "Natural and Scenic Waterbody." This project will have a tremendous impact

*(continued on page 42)*



# National Ecological Foundation Assets Gifted to the Tennessee Wildlife Federation

by Jay Sheridan

When conservationist J. Clark Akers decided to take on the U.S. Army Corps of Engineers in 1963 over the channelization of the Obion and Forked Deer rivers, he had no idea that it would be a 30-year fight. Akers and his small group of cohorts formed the National Ecological Foundation (NEF), ultimately prevailed in saving 15,000 acres of West Tennessee wetlands and later established the state's first wetlands mitigation bank. Now that non-profit organization has dissolved its charter, and is donating approximately \$2 million in assets to the Tennessee Wildlife Federation (TWF), a statewide non-profit conservation organization.

"The Ecological Foundation was created in the early 1970s primarily around that lawsuit, with the basic mission of wetlands preservation," said Tony Campbell, who has served as NEF's executive director for the last 20 years of its history. "In 1995 we had the

opportunity to establish the state's first wetlands mitigation bank, and we've worked closely with the Tennessee Wildlife Federation through all of it. We are longtime supporters of the Federation and have admired their conservation efforts which includes wetlands mitigation, so it made sense to fold our work into theirs moving forward."

The Federation was a plaintiff in the West Tennessee rivers lawsuit, which challenged the Corps of Engineers' plan to dredge and channelize the two rivers, drain the tributaries and wipe out miles of bottomland forest. It was a precedent-setting case, and one of the state's first major environmental lawsuits. The momentum behind wetlands preservation soon led to the establishment of mitigation banks, which allowed developers to buy credits for projects that disturbed wetlands. Those funds were used to acquire other wetlands, under a no-net-loss concept. Since then, thousands of acres of

critical habitat have been saved as a result.

TWF Chief Development Officer Kendall McCarter applauds Akers and Campbell for their lifelong commitment to wetlands, and pledges the Federation's continued commitment to Tennessee's wildlife and wild places.

"This gift represents the largest in our organization's history, and will establish our first endowment. The J. Clark Akers and Anthony T. Campbell Endowment Fund will work to advance our mission, which is leading the conservation, sound management and wise use of Tennessee's great outdoors," McCarter said. "We stand as champions for wildlife, habitat and the people who love them, from the wetlands to the mountains to the lakes and rivers that make Tennessee such an incredibly rich and diverse place to enjoy. Mr. Akers and Mr. Campbell have left quite a legacy with this gift, and it will give the Federation a long term financial future to do even more critical work." ♦

*Tony Campbell and Mitchell Parks of the NEF present a check to TWF CEO Mike Butler and CDO Kendall McCarter. The gift includes approximately \$1.4 million in cash and a piece of real estate, together totaling approximately \$2 million. Photo: Karen Vaughn*





# Clark Akers and The Fight for the Obion Basin

by Jay Sheridan

*Originally published in the Fall 2012 issue of **Tennessee’s Out of Doors** magazine, the following is a classic David and Goliath story, adapted from Dr. Marge Davis’ book **Sportsmen United: The Story of the Tennessee Conservation League**. It remains one of the greatest grassroots victories in the history of the American conservation movement.*

As part owners in two hunting clubs on the Obion River of West Tennessee, four men—J. Clark Akers III, Bill Dillon, Dr. John Tudor, and Dr. Sam Harwell—together laid claim to about 1,350 acres of wild timber and pin oak flats in the river’s basin—a “duck hunter’s paradise.”

A section of the river that flowed through their property had been channelized, and was scheduled for more dredging. Years earlier, a massive log jam at the Gooch railroad bridge had flooded thousands of acres of good timber. To the Corps, the only way to prevent it from happening again was to widen and deepen the man-made channel and abandon the river’s original natural flow.

In 1963, the U.S. Army Corps of Engineers contacted affected landowners, asking them to donate an easement so the project could proceed. Akers refused; so did three others. So the Corps simply condemned the land. Soon, what few trees had not been claimed by the flood were felled by machines; the river became a broad, muddy ditch. The project lowered the river channel by thirty feet; all the feeder creeks eroded down to the level of the main stream. Neighboring farmers “cleared every remaining tree and bush up to the banks and converted as many acres of timber as they could burn into bean fields.”

Almost overnight, the duck hunter’s paradise had become a nightmare. For the next six years, no more work was done in Akers’ area. But in 1969, he learned that the Corps had let a new contract that would extend the ditch into Weakley County—and into some of the best remaining duck habitat in the basin.

Akers decided to pay a visit to the Corps engineers. “Given the disaster in 1963,” he said, “shouldn’t you guys at least study the effects of what you’ve done so far, before you do any more?”

## The Long, Slow Road of Litigation

The environmental impact statement we know today did not come into official existence until New Year’s Day 1970, when President Richard Nixon signed into law the National Environmental Policy Act, which required any “major federal actions... significantly affecting the quality of the human environment” to first prepare a detailed statement of impact, including a list of alternatives. Moreover, since the NEPA could apply to projects started before 1970, the new law could—

and eventually would—be applied to the work affecting West Tennessee tributaries.

In April of 1970, Akers and his three fellow duck hunters sued the Secretary of the Army in U.S. District Court in Nashville. By every measure, it was a remarkable action. Suits brought by private individuals against giant government bureaucracies are fairly common nowadays, but not so in 1970. The idea that four duck hunters could overturn a massive federal project was preposterous, unthinkable, un-American.

In West Tennessee, whole towns sided with the Corps; Eighth District Congressman Ed Jones declared the drainage project “essential to the health and well-being” of every citizen. An editorial in the *Dyersburg Mirror* railed against wealthy sportsmen who “[sat] comfortably in their plush offices” in Nashville while Dyer County farmers braced for the next season of floods.

Ironically, the floods were worse now than ever, but that was beside the point. “[I]t may have been a big mistake to have started the dredging years ago,” conceded Henry Pierce, an outspoken landowner from Dyersburg, “but now that they have [started], they just can’t leave us here to drown in a half-finished job.”

Akers must have been brave, but he wasn’t foolhardy. He and his partners knew that most judges would take a dim view of four people claiming to represent the conservation interests of the entire state. That was why they hired Charles H. Warfield, “one of the best courtroom lawyers in the state,” according to then-Tennessee Conservation League (TCL) President Tony Campbell, and partly why the four men organized under the impressive-sounding name of the “National Ecological Foundation.” It was also why they sought the support of the League (now the Tennessee Wildlife Federation).

## The Corps, The Court and the Plaintiffs

In January 1971, TCL petitioned to enter the lawsuit as co-plaintiff, along with its much bigger brother, the National Wildlife Federation (NWF). The Sierra Club and the International Association of Game, Fish and Wildlife Commissioners intervened as friends of the court.

NWF and the League retained Charles Newman, a Memphis attorney who was already gaining some experience with NEPA. Newman was the plaintiffs’ attorney on a high-profile case centering on the planned routing of Interstate 40 through Overton Park in Memphis.

At any rate, the League was fortunate to have a good Memphis lawyer: at the Corps’ request, *Akers v. Resor* had been moved from Nashville to Memphis. Thanks to the inevitable

delays, continuances, hearings, injunctions and general quibblings, however, it would not actually go to trial until April 1972. In the meantime, the Corps was enjoined from doing further work in the basin while it prepared a mitigation plan. Its first proposal, offered for public review in early 1971, offered to give the state 14,400 acres of wetlands, including 9,000 acres next to the Gooch and Tigrett WMAs, in compensation for the wetlands it had destroyed.

At about this time (early 1972), the U.S. Attorney in this case, Thomas Turley, reminded the court that, under the Flood Control Act of 1936, the Corps of Engineers must have a local sponsoring agency to maintain the channels once they were cleared. Governor Buford Ellington had volunteered the state of Tennessee to be the sponsoring agency back around 1960 when the channelization first began. The Highway Department was put in charge of the maintenance work, even though “they didn’t have so much as a canoe,” as Clark Akers put it. In 1970, however, the General Assembly failed to make its usual appropriation for the channel work; no one seems to know exactly why.

As a result, in 1972, the state created an all-new sponsoring agency, the Obion-Forked Deer River Basin Authority, to work with the Corps and generally “develop” the water and land resources in the basin.

When at last the case went to trial, testimony lasted little more than a week, most of it not very flattering to the Corps. Expert witnesses testified how up to 95 percent of fish and

wildlife habitat was at risk from channelization; how farmers were already getting government subsidies not to farm in the floodplain; even how the basin would in all likelihood continue to flood even after the project was finished. In fact, after pointed questioning, the head of the Dyer County Levee and Drainage District acknowledged that the channelization upstream of Obion County would almost certainly make things worse for the folks in his county.

In May, Judge Bailey Brown delivered his ruling. The environmental impact statement was inadequate, he said. Until the Corps’ engineers could come up with a better one, they would have to sit tight on their West Tennessee Tributaries Project.

For the next several years the ball went back and forth between the Corps, the courts and the plaintiffs. First, the Corps appealed Judge Brown’s injunction, but in 1973, they reached a settlement. Chief among its provisions: 32,000 acres of prime basin wetlands as compensation for the damage already done. In return for the mitigation lands and an acceptable EIS, Akers implied, he and his fellow plaintiffs would settle the lawsuit.

Things seemed to be nearing a resolution; the newspaper even hailed it as such. But in 1976 the plaintiffs realized that the mitigation lands being purchased by the Corps were not in the designated areas. Back to court they went. Meanwhile, the Corps presented its revised EIS, two thousand pages worth of data, studies and comments.

Judge Brown held another hearing to consider its merits,

*Clark Akers, Dr. Greer Ricketson, Tony Campbell, and Dr. Edward Thackston pose for pictures during the National Wildlife Federation’s 1980 annual convention in Miami. Akers received one of the whooping crane statuettes for his success in stopping the West Tennessee Tributaries Project. Thackston accepted the other “Connie” for the Tennessee Conservation League as outstanding NWF affiliate for 1979. Photos: Courtesy of Tennessee Wildlife Federation*





and ruled for a second time that it was inadequate, the only time since its inception that an EIS had been rejected twice. The judge renewed his injunction against further digging, and again ordered the Corps to produce an acceptable impact statement.

The final Consent Agreement was signed by all parties in May 1985, and it stated that the Corps must mitigate for current damages by purchasing 32,000 acres of wetlands. Eventually, the Corps would purchase just over 14,000 acres of wetlands before shutting the West Tennessee Tributaries Project down.

**In the End, Mother Nature Has the Final Say**

The 1980 National Wildlife Federation Convention in Miami was a seminal moment for the League. The League itself was honored with a “Connie” Award for legislative work, and longtime TCL supporter Clark Akers won a whooping crane statuette in honor of his decade-long fight to preserve the Obion-Forked Deer watershed.

The League’s win—its first since 1954—was gratifying proof of the progress it had made in the decade just ended. Akers’ award, on the other hand, was a promising omen for the years to come. This man, this David who had successfully challenged a government Goliath, would come to be seen as a metaphor of ‘80s activism, a symbol of the growing clout and stamina of the citizen conservation lobby.

It was a tall order, taking on the Corps and their \$30 million project, but Akers was in a position to fight it. He was a civil engineer by training, and had done well enough in business to have the time and resources.

“A lot of people eventually woke up to the fact that what the Corps was telling them wasn’t the truth, that their land wasn’t going to flood anymore,” Akers says. “You can dig a 300-foot wide ditch, but if you drain all the oxbows and grade the low spots, there’s nowhere for that water to go.”

Locals were excited by the prospect of more land to farm, and less enthused about landowners from another part of the state messing with their prospectus. The local paper ran a cartoon of the “Nashville Four” as one great big hand pushing a bunch of farmers down into the mud.

“They hadn’t been digging for several years, but here they were again,” he says. “I managed to get an environmental injunction and went to see the Colonel. I asked him to at least look at the environmental impact first, and he told me nothing could stop them.”

Even after the 1985 settlement, the legal maneuvering continued. The Obion/Forked Deer River Basin Authority tried to revive the channelization project as a state surrogate for the Corps of Engineers, and the Conservation League and Akers’ National Ecological Foundation sued the state and then-Gov. Lamar Alexander to stop it. The courts ruled that the River Authority was in violation of the agreed-to order, issued yet another injunction, and eventually a second settlement was reached. In 1996, Gov. Ned McWherter formed the West Tennessee Tributaries Task Force in response to a group of farmers still trying to find a way to reactivate the project. McWherter was trying to find a solution, but the state’s official policy eventually became “no channelization.”

Fifteen years later, it was a procedural stalemate. Akers sums it up aptly, and is victorious in the knowledge that Mother Nature will have the final say.

“You have righteous people arguing for the natural river on one side and farmers arguing for flood control on the other,” he says.

“We in the middle say that channelization clearly doesn’t work, and the damage is not worth the cost—these rivers are going to revert to meanders over decades anyway, so why not just leave them alone?”

Since 1946, the Tennessee Wildlife Federation leads the conservation, sound management, and wise use of Tennessee’s Great Outdoors. Over the course of 70 years, TWF has led the development of our state’s wildlife policy, advanced landmark legislation on air and water quality and other conservation initiatives, helped restore numerous species, and introduced thousands of kids to the Great Outdoors. To learn more, visit [www.tnwf.org](http://www.tnwf.org). ♦

*About the author: A Tennessee resident, Jay Sheridan owns a full-service public relations firm, Sheridan Public Relations, which specializes in comprehensive strategies that help clients win in the marketplace. Jay’s work has spanned industries ranging from fashion to conservation, industrial manufacturing to historic tourism, real estate to retail, healthcare, higher education, and just about everything in between.*

*A rising sun burns the fog from the West Tennessee flooded timber.*



# Enjoy family fun on Mississippi’s free-flowing Pascagoula River

by Jenni Frankenberg Veal

I wasn’t expecting to lose my heart in Mississippi. However, on a recent trip with my family, I was entirely surprised by the outdoor adventure to be experienced along the Mississippi Gulf Coast.

One of the destinations that charmed me was the Pascagoula River, one of the largest free-flowing rivers in the Lower 48. The Pascagoula forms at the confluence of the Leaf and Chicawhay rivers near Merrill, Mississippi, and flows 81 miles to the Gulf of Mexico. More than 70,000 acres of land surrounding the river have been preserved for the public.

We visited the Pascagoula River Audubon Center in Moss Point, a beautifully constructed nature center that serves as a gateway to the river. The center offers educational programs, exhibits and information about the Pascagoula River Basin. They also rent kayaks and schedule boat excursions with McCoy’s River and Marsh Tours.

We met Capt. Benny McCoy, owner of McCoy’s River and Marsh Tours, one sunny morning. McCoy grew up boating and fishing on the river with his brother and talks about the Pascagoula like an old friend. We walked with him down to the dock to begin our boat tour of the river and its tidal marshes and swamps.

Touring the Pascagoula is an escape to the natural world. More than 300 species of birds either live or pass through the Pascagoula River Basin. Within the first 30 minutes, we spotted a bald eagle in a snag and several osprey and osprey nests. Throughout the trip, we enjoyed watching American coots swimming alongside us and tricolored herons and egrets hunting for fish. McCoy is a master of the river and can easily identify different species of birds, fish, turtles, plants and trees. He pulled over to point out an alligator nest where a mother alligator had settled on eggs this summer. He pointed our gaze to the top of a tree in the middle of the river where bees were hovering at the entrance to their hive. We felt the sharp needlelike



*Explore the Pascagoula River along the Mississippi Gulf Coast. (Photo: Jenni Veal)*

point of the common black needle rush in the marshes, watched a raccoon swimming in the river to shore and spotted a giant splash indicating we had startled an alligator back into the water. He introduced us to the wax myrtle tree, also called the bayberry, and all of its uses. When boiled, the berries of the tree yield a wax that was once used to make candles. Later that day, my daughters were inspired to experiment with the berries by placing them in hot water in a coffee mug. We were excited to see and feel the wax for ourselves—and imagined how many berries (and how much work) would be required to make one candle.

There is so much more to the Pascagoula that we didn’t see, but that makes it special. The river is home to more than 22 threatened and endangered species and more than 300 plant species. One section of the river is bordered by a national wildlife refuge that is home to endangered Mississippi sandhill cranes;

and river otters, beavers, wild boars and black bears make their home along its banks.

Our hearts were filled by the Pascagoula River and all that resides there. After our boat tour, we stopped in the town of Pascagoula at Bozo’s, a popular seafood eatery, and then toured the charming Round Island Lighthouse before heading back to the Gulf Hills Hotel in nearby Ocean Springs.

To learn more about Pascagoula River tours, visit the Pascagoula River Audubon Center and the Visit Mississippi Gulf Coast website. ♦

*Jenni Veal enjoys exploring and adventuring in the great outdoors. Visit her travel website ([www.YourOutdoorFamily.com](http://www.YourOutdoorFamily.com)) to learn more about outdoor family travel adventures in the United States. The opinions expressed in this column belong solely to the author, not Nooga.com or its employees.*



# The Tennessee River Basin Network:

A joint effort to protect one of the most diverse areas  
for aquatic species in North America

by Gillian Bee

The Tennessee River Basin is recognized nationally for its significant biodiversity. The extent of the river basin's reach and the breadth of changes in its geography and geology help to explain why the area harbors one of the most diverse freshwater ecosystems in the world. Along with its unique flora and fauna, there are numerous stakeholders working to conserve and enhance this biodiverse landscape. In 2014, the Tennessee River Basin Network (hereafter, Network) was formed to bolster synergy among this diverse set of stakeholders (states, cities, counties, federal agencies, academic organizations, business, and other non-governmental organizations) to enhance the efficiency and effectiveness of conservation for aquatic resources.

Through in-person meetings and regularly scheduled conference calls, the Network provides a unique forum for collaborative work on identified issues, promotes resource sharing (i.e. data, tools, outreach materials), tracks conservation action and derived products of partners, and identifies opportunities to communicate and engage key audiences on the value of aquatic resources within the river basin. The priority actions identified by Network members include: conserving and restoring areas of high biologic diversity, improving the quality of water resources, increasing stewardship through communication, education, awareness and engagement, and improving data access and sharing.

The Network is comprised of two Communities of Practice (Science & Management, Communication & Outreach) to promote engagement and collective learning within these two disciplines. By bringing members of shared expertise and experience together regularly, partners are given the opportunity to help one another and share information and resources, thus enhancing the efficiency and effectiveness of their conservation efforts. Several Network members co-lead the Communities of Practice. These folks engage members within these two areas to ensure value-added communication and action related to the Communities of Practice purpose enhances the whole Network's collective learning and conservation efforts.

The Network is also a great forum to celebrate successes within the river basin and honor individuals and organizations who are making a difference. Each year a solicitation for award nominees is circulated to Network members and winners are honored during the Celebration Gala at the Annual Meeting. For 2016, two awards were presented during the evening reception. For the Communications and Outreach Community of Practice award, Eric Romaniszyn, Executive Director of Haywood



Waterways Association, Inc., was recognized for his outstanding contributions to educating and instilling the value of natural resources to the community of Haywood County. For the Science and Management Community of Practice, Dr. Carl Zipper, Associate Professor at Virginia Tech, was recognized for his continued efforts and leadership in research and partnerships to ensure actions we take are science-based and partnership driven.

Over the next year, the Network will focus efforts to connect with the conservation community and key audiences that utilize or influence the River Basin. Connecting and engaging is the foundation of the Network and what makes this effort unique and extremely value-added within the Tennessee River Basin. Several sub-groups are currently being formed to 1.) Improve the Network's web-presence to provide a platform that promotes resource sharing, 2.) Identify Network members' current conservation efforts and resources derived from those actions and 3.) Inventory available outreach/communication materials to market a "Pride of Place" for the river basin.

To learn more about the Tennessee River Basin Network and its efforts, please visit: <http://applcc.org/projects/trb/> or contact Gillian Bee, Appalachian LCC Landscape Conservation Fellow ([gillliab@clemsun.edu](mailto:gillliab@clemsun.edu)).◆

*Education and Outreach 2017 award recipient Eric Romaniszyn of Haywood Waterways Association Inc. pictured with Evan Crews of Tennessee Valley Authority. Photo: TVA*



*Sandbar on the Congaree River, South Carolina. Photo: Mary Crockett*

## A Tool for Riparian Conservation

by Mary Crockett

A conservation easement (CE), one of many tools for river managers and riparian landowners, can be used to voluntarily protect land. Simply put, a conservation easement is a legal agreement between a landowner and a private, nonprofit conservation organization like a land trust, or a government agency, that *permanently protects property from development and subdivision*. One of my colleagues calls a conservation easement the "ultimate property right" as it allows the current landowner to determine the future of the property as the CE tool is used to preserve the uses and character of the land for generations to come.

When a landowner owns a piece of riparian land, they inherently have rights that come with such ownership, however if they decide to place a CE on the property, the owner then agrees to voluntarily and permanently give up some of those rights. For example, a landowner may give up the right to divide and develop the property for housing or industrial purposes, yet continue to own and live on the land while managing it as before whether it be for farming, forestry, hunting, fishing, or

general outdoor recreation. The landowner will still have the right to sell the property or leave it to heirs, however those new future owners will be bound to the terms of the recorded CE which is attached to the deed of the land. So again, once a CE is legally recorded in the county courthouse, all future owners are bound by its terms – *forever*.

When a landowner gives up the development rights to a property, the CE holder, such as a land trust or agency, accepts the responsibility to monitor the easement and enforce its terms *forever*. The land trust or agency will need to visit the land annually, and must be prepared to defend the terms of the agreement in court.

Giving up development rights on a piece of property, legally referred to as a "donation," has a value. If the donation meets the federal tax code requirements for protecting the conservation values of the land, the donation of a CE is treated as a charitable gift and its value can be deducted from the landowner's federal income taxes. In addition, if the donation meets the federal requirements, a landowner also may in some states

qualify for state tax deductions/credits. As river managers and educators talking to a riparian landowner, one should always end the conversation by asking the landowner to consult with an accountant or tax advisor as to whether he or she may qualify for such tax or estate benefits.

The Internal Revenue Service recognizes the gift of rights as a charitable donation to a charity, such as a land trust or agency. The value is determined by an appraisal, which calculates the highest potential and best use of the land before the CE is in place, and the value after the CE is recorded. The difference is the value of the gift and becomes the amount of the deduction. For example:

100 acres of land valued at  
highest and best use: \$300,000

Land value after CE  
is in place: \$200,000

**Amount of your federal  
tax deduction: \$100,000**

*(continued on page 42)*



# Bama’s Bone-Dry without a Blueprint

by Mitch Reid

2016 was an important year for protecting flowing waters in Alabama. The year kicked off with near record high flows due to torrential rains that began around Christmas of 2015 and it ended with the entire state locked in a devastating drought that resulted in streams across Alabama setting record low flows and in far too many cases drying out completely. With this as the backdrop, the development of a state water plan moved forward as the Governor appointed Focus Area Panels to deliberate on five critical issues: the legal control of water resources in Alabama, instream flow, permitting water withdrawals, conservation and efficiency, and the role of local and regional government in water management. These Focus Panels were guided by various representatives from the state agencies that comprise the Alabama Water Agencies Working Group or AWAAG. All together the Focus Panels met over 25 times in 2016 not counting sub-committee meetings and working group calls. Alongside this, the Alabama Rivers Alliance and other conservation groups participating in the Focus Panels convened a “conservation caucus” to periodically meet to discuss each panel’s progress and ensure that each member had the most current information. This joint effort allowed for a common conservation message in each panel that the future of water management in Alabama must include protections for stream flow.

By October each panel had produced a report which was compiled by the AWAAG. The AWAAG will use these reports to prepare a final report to Governor Robert Bentley which will include recommendations for a comprehensive water management plan. While the rains were plentiful during the first of the year, there was a sense among many panel members, particularly those representing industry, that the status quo was sufficient for now despite the absence of protections for water users and the lack of an instream flow policy; however, by the fall exceptional drought conditions across the state revealed that there were virtually no provisions in the current policy for responding to drought emergencies and balancing water use throughout the State.

As the drought hit its peak in November, citizens began sending hundreds of letters to Dr. Nick Tew, the State Geologist and Chair of the AWAAG, asking him to include strong protections for our rivers in the AWAAG’s final report to the Governor.

In 2017 the AWAAG will submit its report and then Governor Bentley must make his determination. It is expected that the focus will then shift to the Alabama Legislature which must revise Alabama’s current legal regime to allow for better planning for and managing our water resources. Throughout this process stakeholders will need to remain vigilant and involved to ensure that the resulting program provides sustainability, security, and predictability for all water users into the future.◆



Patton Creek in Hoover, Alabama, which went dry in September resulting in a significant fish kill.

Mitch Reid, J.D., Program Director, Alabama Rivers Alliance



(Above) Coosa River at Logan Martin reservoir. (Below) Little River, at the National Preserve, ran dry in October. Photos: Alabama Rivers Alliance





# Wonks, Water, Walls, Wilderness and Wildlife

by Bryan Brown

## Shared Custody Means Shared Responsibility

Rivers like the Rio Grande are pragmatic geopolitical borders even though they virtually always split watersheds in half. Practically speaking, however, border ecosystems are co-owned. Political parents living on opposite sides of an international border effectively share joint custody of a minor. The minor is an ecosystem that requires a fiduciary because it cannot speak for itself. Whether we like it or not, the world is shrinking -- and border walls are unenlightened agents of change. Jointly owned assets like ecosystems must be managed to the mutual benefit of all stakeholders. Walls are both cages and barricades. They fail to address fundamental generational stewardship issues. If you tear a dollar bill in half, neither half has value. The dollar is wasted. So it is with watersheds.

## Wonks and Water

Merriam-Webster defines “wonk” as: a person preoccupied with arcane details in a specialized field -- a nerd. It is a term of professional endearment that applies to the River Management Society (RMS), a wonk-driven organization that focuses its considerable energy upon water – clean, moving water (and its related habitat). Such organizations walk a fine line. On the one hand, they usher important policy initiatives through complex bureaucratic and administrative mazes. On the other hand, they represent deeply committed constituencies and must galvanize action without alienating stakeholders.

Tellingly, RMS policy wonks keep boats strapped permanently to their trucks. Policy shops can concentrate so heavily upon doctrinal matters that they drift from anchor issues. Effective policy shapers: 1) keep stakeholders engaged, 2) stay on message, 3) treat the future as a stakeholder, and 4) make \$10 purchases with \$1 donations. These organizations are fiduciaries -- agents of collective conscience. They champion interests that otherwise have no voice. Such interests (watersheds, ecosystems, biota) are old souls. As Norman Maclean put it so eloquently in *A River Runs Through It*: “all things merge into one, and a river runs through it.”

## Walls

With respect to the U.S./Mexico border, a river *definitely* runs through it (most of it anyway) -- and a wall stands to join that river if Blueway defenders allow exclusion to trump environmental stewardship. We are facing a watershed moment for watersheds. The border is 2,000 miles long. Some 1,350 miles (68%) of it is composed of river channels -- specifically, the Rio Grande River and roughly 24 bone-dry miles of the Colorado River. Today’s border territory was acquired between 1848 and



*Figure 1. What most people think the U.S./Mexico border looks like. Source: MJCdetroit via Wikimedia Commons*

1853 (via the Treaty of Guadalupe Hidalgo, the Mexican Cession, and the Gadsden Purchase). Acts of national definition over 150 years old have now coalesced into a single issue that could permanently alter the Southwest.

Perception and reality warrant mediation before the border-policy train runs off the rails. Though important, immigration issues related to border porosity are arguably best addressed by technology rather than by walls. Many people seem to visualize the entire border as it appears in Figure 1 -- inconsequential wasteland. Desert ecologists know better. Unintended consequences loom large.

The international border follows what hydrology wonks call a “thalweg” -- the deepest channel of a river. Mexico will never allow bullying to force it to build a wall on its own sovereign territory. Moreover, a wall along the actual thalweg will irreparably damage the Rio Grande watershed for two-thirds of the border’s total length. A wall built on the American side of the river will block access to regions of unparalleled historical, cultural, environmental, and recreational value -- and effectively cede sovereign territory to foreign control. A wall built farther back from the actual border will cede even more turf. These options are all suboptimal.

## Wilderness

In addition to creating an impenetrable barrier to animals, a wall will create profound visual blight and damage some of the finest desert wilderness remaining in the Southwest. Figures 2, 3, and 4 show border habitat in a region larger than many states. Oases and waterways in this wilderness support biodiversity that ranges from isolated stands of aspen and bigtooth maple

trees in the Chisos Mountains to a unique stand of Comal Snakewood at Hueco Tanks. Sensitive archaeological sites date to roughly 10,000 years ago. This desert vastness is strikingly beautiful. How could we possibly build a wall there?

## Wildlife

My wife and I boated the Rio Grande during the 1980s in what was then Big Bend National Monument. At the time, one fired a shot into the air at the end of the day so everyone in the area knew where everyone else was camped. The night traffic was more genteel then. On one trip, a rainstorm triggered the simultaneous hatches of millions of tarantulas and the remarkably colorful lubber grasshoppers upon which they feed -- along with a proportionate hatch of striking tarantula hawks (parasitic wasps). This powerhouse desert was alive with insects hatched with symphonic precision.

A continuous border wall has potentially cataclysmic environmental ramifications for regional biodiversity. Few remaining pristine desert corridors feature water (and the food it sustains). Aside from the undeniably negative impact of habitat fragmentation upon land animals, migratory flyways also warrant consideration. For instance, Arctic Terns (which migrate from Antarctica to the Arctic) traverse the western border reaches twice each year. Other migratory birds depend upon hereditary flyways as well. Billions of monarch butterflies migrate along the eastern Rio Grande. Monarch populations are crashing at the moment. Tipping points are fragile things. Jaguars, black bears, margays, jaguarundi, ocelots, mountain lions, and Mexican Grey Wolves are among the animals that a wall might block forever from native ranges. Over 100 rare or endangered species call border country home. Up to a dozen critically endangered species with total populations of 500 individuals or fewer live within 75 miles of this border. The total population of vaquitas -- a critically endangered porpoise the size of an 8-year-old child -- is now fewer than 100 individuals. The 450 remaining Yuma Clapper Rails share habitat the size of a city park. While specially constructed overpasses that allow animals to cross busy roadways have been used to great effect in Wyoming and Colorado, such overpasses would be counterproductive if immigration is the only issue commanding attention.

*(continued next page)*

“Walls are both cages and barricades. They fail to address fundamental generational stewardship issues.”



*Figure 2. The U.S./Mexico border: Rio Grande River in Santa Elena Canyon (Big Bend National Park, TX). Source: Daniel Schwen via Wikimedia Commons*



*Figure 3. The U.S./Mexico border: Rio Grande River in Mariscal Canyon circa 1975 (Big Bend National Park, TX). This is the most remote part of the border. Source: Texas State Archives via Wikimedia Commons*



**The Law Of Unintended Consequences**

Those of us who are umbilically attached to Blueways recognize the proposed border wall as a potential existential moment featuring the law of unintended consequences. Rational environmental stewardship argues that such a wall could seriously impair the Southwest’s most fragile watershed ecosystems. Vaquitas are a perfect example of unintended consequences. Along with large drumfish called Totoaba, vaquitas adapted to unique conditions in the Colorado River delta. Totoaba swim bladders are worth \$10,000 each in China (they are used in soup). Vaquitas (see Figure 5) drown in Totoaba nets. If this happens 100 more times, it will never happen again.

**The Promise of Water**

Politics aside, consider a desert panorama that offers a hint of river and the possibility that a jaguar might walk slowly into view in its native range. Then consider the same panorama permanently scarred by a horizon-to-horizon wall -- without the promise of water or the essence of jaguar. Visualize a world without vaquitas. Which possibility will make our grandchildren proudest?◆



Figure 4. The U.S./Mexico border: Rio Grande River in Boquillas Canyon (Big Bend National Park, TX). The thalweg runs through the channel on the right. Source: ArchiPhoto via Wikimedia Commons

**Author’s Note:** Bryan Brown is a solo expedition kayaker who focuses upon big-picture environmental stewardship issues in the world’s remaining wilderness watersheds. His most recent article for RMS was “Blind Spots in the Administrative Fabric of Parkland America” (RMS Journal, vol. 29, no. 2, Summer 2016). Portions of this particular article were excerpted from the upcoming book *Delivering Brother Bruce*, which features Brown’s solo source-to-mouth kayak descent of the Colorado River.



Figure 5. Full-grown Vaquita—fewer than 100 survive in the wild. Source: www.flickr.com/photos/semarnat/22476348956



by Gwyneth Moody

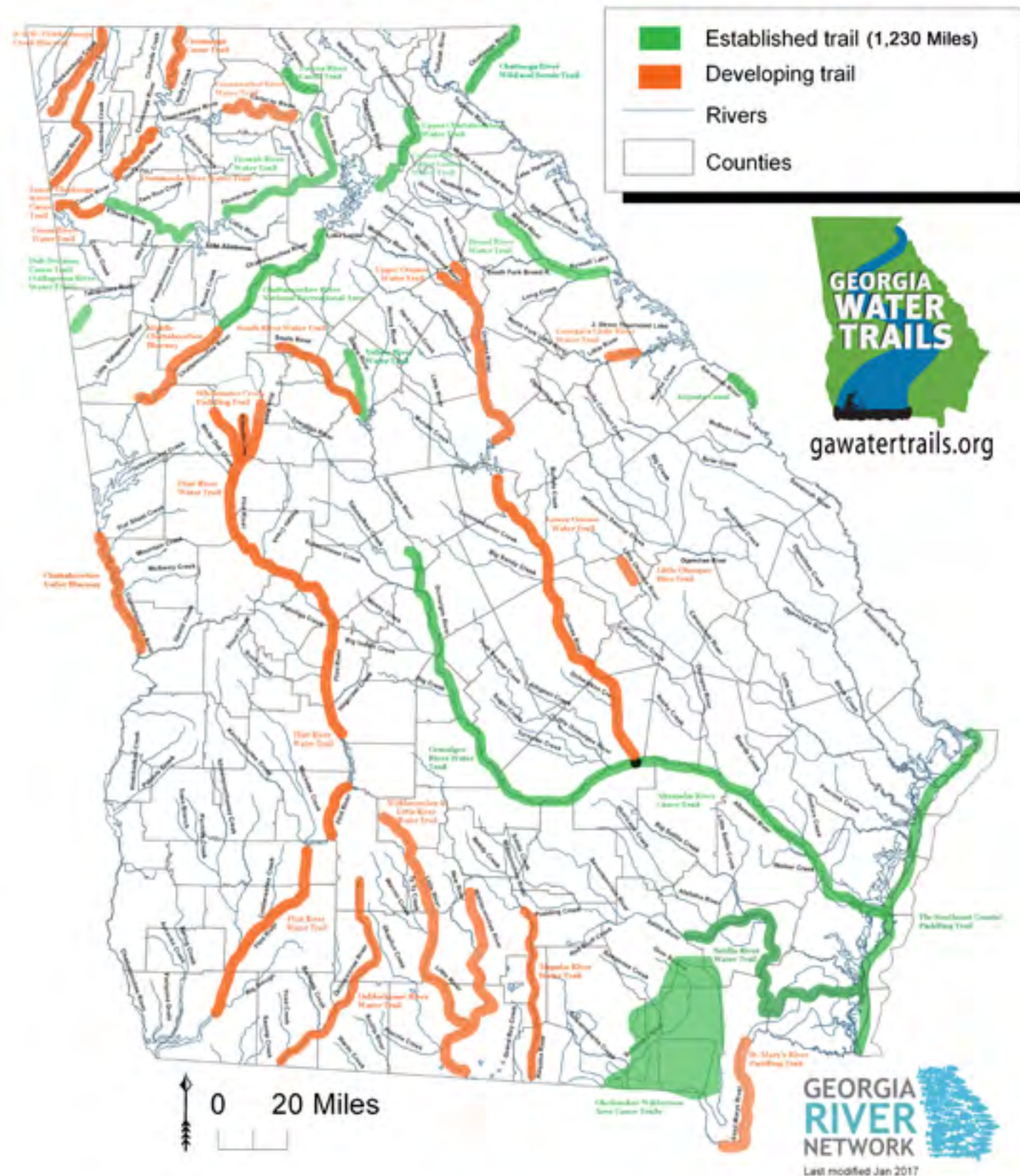
Georgia River Network (GRN) launched the Georgia Water Trails Program in 2010 in response to the need for a comprehensive source of information regarding the creation of water trails, to support representatives and communities in developing their water trails, and to provide information to recreational users about Georgia’s Water Trails. Currently there is no state agency in Georgia that serves this function. To unify the planning and management of the water trails throughout the state, the technical staff from GRN used Best Management Practices from national organizations and other state and Federal agencies to develop criteria that promote safe, legal and sustainable water trails. Encompassed within the Georgia Water Trail Program are a variety of resources and projects supported and maintained

by GRN. The Program helps form water trail stakeholder partnerships that encompass all sectors of a community (landowners, local and state agencies, county and city officials, river enthusiasts, educators, watershed groups, local businesses, attorneys, outfitters, etc.,) and introduces people to recreational opportunities, boosting tourism and economic development within communities and throughout the state. Water Trails are an effective way to introduce people to river issues and to engage them in the protection of their local waterways. We believe that the relationships we build by supporting communities who build water trails will strengthen our ability to effectively advocate for strong protections for Georgia’s rivers.

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# Georgia Water Trails Network



## Georgia Water Trails Network

The Georgia Water Trail Network is a statewide network of 15 established water trails covering over 1230 miles that have successfully fulfilled all of the criteria required to be considered an ‘established’ water trail. An additional 18 trails are under development. The Georgia Water Trails Network was established in an effort to promote a cohesive and uniform identity for Georgia’s water trails. A logo is used for all Network trails to indicate adherence to the criteria. All trails materials include the logo thereby enhancing and fostering the validity, reliability and security of water trails throughout the state.

## Georgia Water Trails Criteria

1. Trail is sponsored, maintained and promoted by a local entity or partnership.
2. Trail has publicly accessible areas that paddlers can legally access and safely unload boats and park vehicles.
3. River access sites are appropriately spaced apart on the river so that they may be reasonably paddled in a few hours or a full day.
4. Depending on the length of the trail, water access to public overnight camping sites.
5. Information about the water trail provided to paddlers through a website and maps created by the sponsoring entity.
6. Signage/ kiosks placed at all water trail access points that include: river etiquette information, paddling safety information, and a map of the water trail.

## Georgia Water Trails Network Steering Committee

The Georgia Water Trails Network Steering Committee was established by Georgia River Network in 2013. The Steering Committee is comprised of representatives from Georgia’s established Water Trails and was created in order to build relationships and collaboration between water trail groups, create a framework for developing, promoting, and marketing successful water trails, increase resource conservation, and strengthen the Georgia Water Trail Network.

## Testimonial

*The Satilla River Water Trail wouldn’t have happened without the expertise and assistance from Georgia River Network and Gwyneth Moody. What began as a local county interest in connecting to and celebrating its backyard river became an ideal partnership with a positive impact for the community and river.*

*In 2015, we worked closely with Gwyneth to begin the process of establishing the first Satilla River Water Trail for the region. GRN’s plethora of resources, including templates and toolkits, numerous contacts from mapmaking help to legal advice, plus years of experience in assisting other water trails groups helped us tremendously. Now we have a strong partnership of over 15 entities with support from neighboring municipalities and a soon to be official Satilla River Water Trail that includes printed maps, access signage, website, social media and kiosks. GRN was essential to our success, and we are forever grateful!*

— Ashby Nix Worley, Satilla Riverkeeper

## Georgia Water Trails Website

The staff of Georgia River Network coordinate with partners both statewide and nationally to provide the following technical information on the Water Trail Website:

## Clearinghouse

The Clearinghouse was created to function as a statewide resource for water trail information. It includes a directory of all established and developing Georgia water trails and links to resources that allows people to plan a river trip.

## Toolkit

The Georgia Water Trail Toolkit found on the Georgia Water Trails website ([www.gawatertrails.org](http://www.gawatertrails.org)) provides resources for communities interested in developing water trails in the areas of planning, funding, recreational opportunities, public information, community support, conservation, restoration, education, trail maintenance and more.

## Georgia Water Trails Technical Assistance

GRN’s Director of Programs and Outreach, Gwyneth Moody, provides water trail development technical assistance to watershed groups throughout the state and intensive technical assistance to one or two water trail groups for a one year period. This assistance helps water trail groups fulfill the criteria required for a trail to be considered an ‘established’ water trail within the Georgia Water Trail Network by providing planning and a framework in the areas of: funding, public information (signage, map, brochures, website), recreation opportunities (increased public access), outreach, community support (Resolutions of Support), conservation/restoration (water quality monitoring and cleanups), trail maintenance and education.

## Georgia Water Trails Newsletter

A quarterly e-newsletter which includes water trail updates news, useful resources, paddling trips and tidbits about water trails throughout the state and the nation.

## Georgia Water Trails Interactive and Illustrative Maps

GRN is working to develop web-based interactive maps and illustrative maps for Georgia’s water trails. These interactive maps can be embedded in each water trail’s respective website, and the illustrative maps can be used in marketing materials and placed in kiosks, visitor centers, educational facilities, etc.

## Georgia Water Trails Workshops

2010 - Georgia Water Trails – Covington, GA  
 2010 - Water Trails Nuts and Bolts – Canton, GA  
 2011 - Weekend for Rivers - Water Trail Panel – Atlanta, GA  
 2012 - Water Trails that Work – Porterdale, GA

## Hidden Gems Paddling Series

These events highlight rivers that are relatively unknown to the general public and those in the process of becoming established water trails. GRN partners with supporting community organizations ranging from watershed groups to county/city governments to colleges and universities. These events help fulfill GRN’s mission of engaging people to get out and explore Georgia’s beautiful resources.◆



# Beyond the Alamo and the River Walk

## River and Water Trails Management Success in San Antonio

by Risa Shimoda

RMS has been fortunate to become acquainted with the San Antonio River Authority (SARA) during the past two years. We met Matthew Driffill, SARA's Recreation Superintendent, at the 2015 Water Trails Forum and are delighted to have him boost our presence in the great state of Texas with both his membership and his participation as a partner with the National River Recreation Database (NRRD). This year, Matthew and his team worked with RMS' GIS and Program Assistant Jack Henderson to add geospatial information about San Antonio's Mission Water Trail to the NRRD, now viewable at [nationalriversproject.com](http://nationalriversproject.com).

There's nothing better than receiving feedback to advise us on our project work, so we asked Matthew to provide input as both a data partner and member of the public for whom the National Rivers Project is designed.



San Antonio River Authority Recreation Superintendent, Matthew Driffill paddles along the Mission Reach of the San Antonio River. Photo: CamilleJWheeler.com

**RMS:** What was it about this National Rivers Project that caught your attention to have reached out with an offer to help out?

**Matthew:** The San Antonio River is well known internationally as a destination for tourism in the form of the River Walk as well as history and culture at the Alamo and San Antonio Missions National Historic Park (inscribed as a World Heritage Site in 2015) but the vast majority of people who have visited the river or live within driving distance are unaware that you can actually paddle on the San Antonio River. The resources are there, but they aren't widely known. The San Antonio River Authority (SARA) already has high-quality GIS data on the paddling trails and access sites that SARA operates, it was just a matter of reaching out to the River Management Society and converting our data to the right format to work with the NationalRiversProject.com database.

Hopefully, when paddlers are planning a trip to South Central Texas, the National

River Recreation Database can help steer foot traffic to some of our paddling opportunities.

**RMS:** How do you see this benefitting SARA and your water trail (system)?



**Matthew:** I think this website has a great potential to market paddling opportunities on the San Antonio River to visitors. San Antonio already has a vibrant tourism industry, but many of those tourists don't travel too far from their downtown hotel. I hope that visitors coming into town for a conference or vacation who are active paddlers at home, or who maybe have been to San Antonio before and are looking for something other than the traditional River Walk section will take the time to rent some equipment and experience the San Antonio River in a new way. The River Walk gets over 12 million visitor-days of tourism annually. If only a fraction of a percent of these visitors get a chance to paddle on the San Antonio River, it will exponentially grow the current annual number of paddlers.

**RMS:** What are a couple of cool types of information that a visitor to the [nationalriversproject.com](http://nationalriversproject.com) will see when they click one of your access points and click the 'more info' link (that goes to your site)?

**Matthew:** The San Antonio River Authority (SARA) provides current flow information at multiple sites along the river, weather forecasts, as well as weekly bacteria counts and information as to what those counts mean. We realize that our particular river system is subject to flash flooding which can create rapidly rising and hazardous flow rates. It can also

increase the level of bacteria and other contaminants in the river. Our goal is to provide good information to the end user so they can make informed decisions about their paddling trip.

Web visitors can also find information and download trail maps for the 15-mile hike and bike trail system and the 400+ acre, 8-mile-long Mission Reach Ecosystem Restoration Project that they will paddle through along the San Antonio River Walk. This work was completed in 2013 with funding from Bexar County, and this park and trail system acts as a buffer for and a hike/bike/paddle transportation system between the UNESCO world heritage site designated San Antonio Missions. Additionally, visitors can learn more about how SARA inspires action for healthy creeks and rivers through sustainability, water quality analysis, flood management, park programming and community outreach.

**RMS:** What advice, message or comment do you have for other water trail professionals who are thinking about partnering with this project?

**Matthew:** Just reach out with questions; it never hurts to ask. If you think your resource can benefit from



Local elected officials taking the first run down the canoe chutes along the Mission Reach of the San Antonio River. Photo: SARA

having your trail marketed to a wider audience, this is a simple first step. Even if your agency or management group doesn't have extensive GIS capability, the River Management Society can help get your trail information online. On a state level, SARA's trails have been designated as "inland paddling trails" by Texas Parks and Wildlife. There are certain trails we

would like to be recognized on a federal level. This is a first step at elevating the profile of those sections of the San Antonio River to a national audience, and I'm excited to see where this project goes in the future as more river segments across the country are added. I personally plan to use this resource when I travel to line up excursions before I go.◆

Paddlers celebrating the grand opening of the Mission Reach on October 5, 2013. Photo: San Antonio River Authority





## Welcome New RMS Members

### Associate

Emma Lord  
Wild and Scenic Rivers Fellow  
National Park Service  
Concord, NH

Ches Russell  
Principal  
Scenic River Tours, Inc.  
Gunnison, CO

Travis Seaberg  
Park Ranger  
Bureau of Land Management  
Salmon, ID

### Organization

Steve Markle  
Vice President Sales & Marketing  
O.A.R.S. Companies, Inc.  
Angels Camp, CA

### Professional

Jon Benson  
Lead Deschutes River Ranger  
Bureau of Land Management  
Prineville, OR

Madeline Bule  
AmeriCorps VISTA  
Harpeth River Watershed Association  
Brentwood, TN

Erik Dahlstron  
Paddlesports Coordinator  
Five Rivers MetroParks  
Dayton, OH

Scott Hacking  
District Engineer  
Utah DEQ  
Price, UT

Rebecca Urbanczyk  
Outdoor Recreation Planner  
Bureau of Land Management  
Cottonwood, ID



*Former RMS Board Advisors, Dave Ryan (left) and Gary G. Marsh.*

## Reflections, by Gary G. Marsh

In reviewing my relationship with the RMS, I realize so much is analogous to a river trip. It seems to me that we in the RMS are on a continuous river trip. We plan, strategize on which river to travel, are inclusive in our invitations to a diverse party of adventurers — some new, some old, some experienced, some virgin. We collect fees for food, provisions, workshops, and events to spread out the costs. We launch into rapids not knowing whether we will make it through right side up, but safe in the knowledge we have experienced hands leading the way downstream and boaters at our backs to rescue us if we should flip or get into trouble. We partner with other boaters and share campsites, stories, memories, experiences, equipment, inclement weather, and bond on the journey. We cannot turn back as we are committed downstream, with faith and courage thinking only the best. The most valuable part of each unique trip is the memories and lifelong friendships that are formed based on our love for rivers and each other. The value of meeting new people who turn into lifetime friends is immeasurable. The RMS is part of my extended family.

Gary G. Marsh has been a member of RMS since 1985 and served as Advisor on the National Board of Directors for 27 years from 1989 to 2016.

## RMS Chapters

### Southeast by Jane Polansky

2017 is an election year  
for SE Chapter Officers!

Our current chapter officer positions are:

President:	Jane Polansky	jane.polansky@tn.gov
Vice President:	Mitch Reid	mreid@alabamarivers.org
Secretary:	Glen Bishop	glen.bishop@atu.edu
Events Coordinator:	Karen Swank Kustafik	kakustafik@columbiasc.net

All officer positions will be open for a three-year term. If you are interested in running or would like to nominate someone for a position, please contact me or one of the current officers. Information describing officer duties can be found on our SE chapter website under chapter officer roles. Nominations can be sent to: jane.polansky@tn.gov. Elections will be held this Fall.

### 2017 Duck River Trip (Day Trip)

October 8, 2017 (Chapel Hill, TN)  
Cost \$20 per person for boat and shuttle (\$10 shuttle only)  
Hosted by TN Division of Natural Areas & Higher Pursuits  
Contact: Jane Polansky, RMS SE Chapter President  
615-456-3843 (or) jane.polansky@tn.gov

*The Duck River is one of Tennessee's most biodiverse rivers with an exceptional mussel population and other features attributing to its Wild and Scenic River status. Photo: Stephanie Williams*



### Thank You!

My sincere thanks to all the individuals who contributed articles for the 2017 Southeast Chapter focused edition of the quarterly RMS Journal.

Let's keep our chapter tradition strong by continuing to submit articles about our region for future editions of the RMS Journal. Fall submissions are due July 1.



# Visionary by Design: Contemplating a New Century of Innovation in the Tennessee River Valley



Students from the University of Tennessee College of Architecture and Design, shown here at the Fort Loudoun Lock, toured the Tennessee River as part of a new multi-year teaching, research and outreach initiative: The Tennessee River Project.

by Brad Collett

## Introduction

During the fall semester of 2016, students from the University of Tennessee College of Architecture and Design helped launch the Tennessee River Project, a new research initiative that took them on a tour of the Tennessee River Valley that covered more than 1,100 miles and introduced them to the many voices that influence the river system, including TVA.

## A Legacy of Innovation

The Tennessee River Valley is looked to the world-over as a model landscape of innovative, integrated resource management. From the Middle East’s Jordan River Valley to China’s Yangtze River, the influence of the Tennessee Valley Authority’s multifunctional infrastructures and its watershed approach to providing for flood control, commercial navigation and rural electrification—prevailing challenges throughout the Valley during the early- and mid-20<sup>th</sup> century—is far reaching.

As the communities that rely upon the Tennessee River system for energy, commerce, water supply and recreation look ahead to the 21<sup>st</sup> century, new and increasingly complex challenges present themselves. Unprecedented population and economic growth, dynamics of a changing climate and protecting a level of aquatic biodiversity unrivaled in North American river systems headline this list of emergent challenges, each compounded by aging infrastructure, shifting landscapes of agricultural and industrial production, and pressures from point- and non-point sources that will impact the river’s water quality.

Meeting these emergent challenges requires best practices, novel ideas and multi-scalar thinking along the river system and throughout the Tennessee River’s 41,000-square-mile watershed advanced by a range of constituencies, including land owners, public officials and agencies, and water resource professionals. Architects and landscape architects may not immediately come to mind as the most likely group of 21<sup>st</sup> century river stewards. Their professional competencies are sometimes associated only with site-based projects operating in the cultural margins of horticulture, art and civic beautification. Research and innovation related to water management have typically come from engineering and wildlife resource management disciplines.

While these disciplines and TVA are established agents of water resource management, large-scale ecological and cultural systems, long-range planning, and multifunctional infrastructures represent emergent practice territories for designers. The complexities of challenges posed to our river systems require collaboration amongst diverse and complementary disciplines.

Architecture and landscape architecture’s capacity for multi-scalar design thinking; synthetic understandings of relationships between land use, social needs, infrastructural approaches, policy and water resources; and creative talents can be leveraged beyond finding *solutions* to water resource problems. Collaborative design creates a productive space through which innovative *possibilities* can be discovered, including how the river system, the communities it supports, and the watershed’s elemental landscapes and infrastructures may be recalibrated to thrive amidst the grand challenges of the next century.

## University of Tennessee River Studio

These capacities were put to the test during the fall 2016 semester by students from the UT College of Architecture and Design, who launched The River Project. This initiative, led by the UT School of Landscape Architecture in partnership with the college’s Governor’s Chair for Energy and Urbanism, is aimed at gaining an understanding of the Tennessee River system’s contemporary challenges and inserting design and planning disciplines more robustly into discussions around the Tennessee River.

With a mission to contemplate speculative, visionary proposals that steward the Valley’s resources while maintaining its legacy of leadership and innovation, six students from the School of Landscape Architecture and six from the School of Architecture embarked on this 15-week regional Tennessee River Studio under the leadership of Brad Collett, Assistant Professor of Landscape Architecture.

Understanding the multiplicity of demands on the Tennessee River that affects its operation and management, the nuances of the river system and its watershed’s landscapes, and the value of these resources to multiple constituencies presented a difficult challenge for the students. Instruments of their research included the development of a GIS-based watershed atlas, visits with water management professionals local to Knoxville including many at TVA, and a five-day tour of the river’s main stem that covered more than 1,100 miles and multiple stakeholder interviews.

## River Atlas

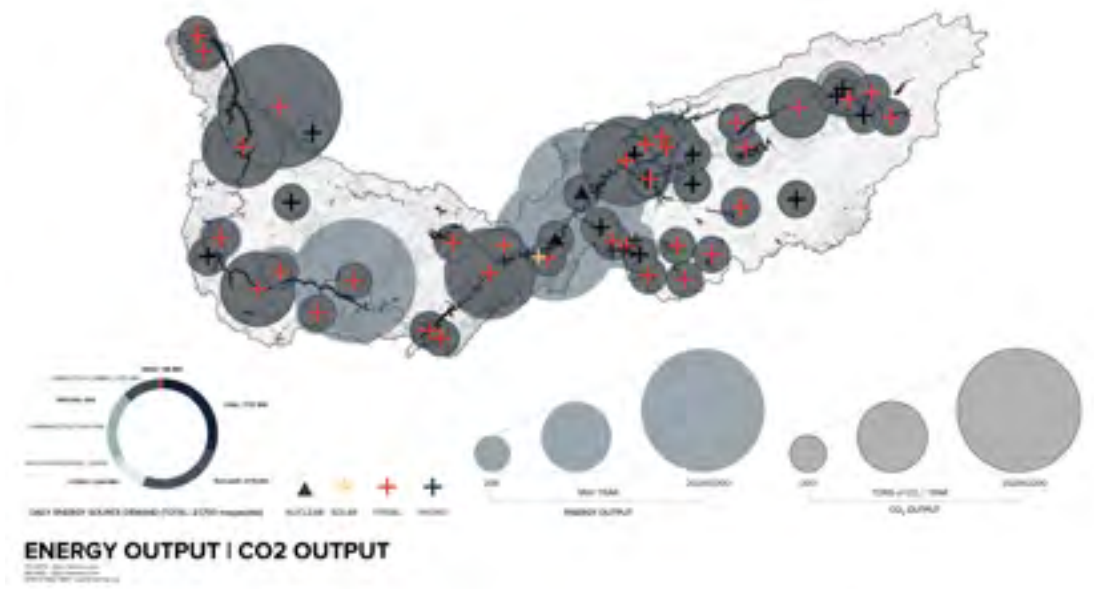
The Tennessee River Atlas examined the watershed’s component landscapes, settlement patterns, and infrastructural systems. Students created thematic maps that included the region’s transportation networks, biodiversity status, water pollution hotspots, protected landscapes, and population centers. Students used GIS and other graphic tools to develop this resource that not only served their own short-term interests but that also will be made available as a resource to support ongoing efforts.



Students synthesized their research findings in order to identify 21<sup>st</sup> century assets and challenges for the river system.



Pages from the Tennessee River Atlas reveal the complexities of the landscapes within the watershed.







The river tour included 18 stakeholder meetings, including one with a farmer (Ron Robertson) who grows corn, soybeans and cotton on 3,000 acres of river-bottom land, and the use of a drone to capture unique perspectives of the river's landscape (in Savannah).



## River Tour

With the atlas in hand, the class began their journey at the confluence of the Holston and French Broad Rivers for their trek along the Tennessee's 652-mile main stem, ending at its confluence with the Ohio River in Paducah, KY. During that trip, they crossed the river 27 times, saw all nine main stem TVA dams, collected water samples and met with 18 stakeholders, each of whom benefit from and directly impact the river system in a unique way.

Farmers, non-profit directors, river system engineers, economic development coordinators, civic leaders, and retired veterans of inland navigation were among the many voices heard among the communities, fields, cultural sites, offices and infrastructures nestled along the river's edge. Each provided a powerful testimonial to the importance of a healthy river system and the challenges that lay ahead, all while the dynamic landscapes of the Tennessee River—in Tennessee, Alabama, Mississippi and Kentucky—acted as a scenic backdrop and sublime muse.

The experience of interacting with resident experts during The River Tour left an indelible impression on the students. Fifth-year Architecture student, Journey Roth, was deeply influenced by these interactions, which, she says, became part of her design proposal.

*"Each individual has a deep understanding of the river, which they have gained from personal experiences," said Roth. "This gives them a unique view. The collaborative approach of this project is the only way we can grow to understand the river deeply and offer ideas for lasting changes. Understanding people's needs and the needs of the river are key in being able to move forward with design."*

## Visionary Proposals

Upon returning to their downtown Knoxville design studio—a laboratory for speculation and iteration—students reflected on their observations to identify what they considered to be the river systems' assets and challenges. Based on these observations, the studio collectively drafted a vision statement and a set of guiding principles that would shape their work moving forward.

**A 21st Century Vision:** *The Tennessee River System, its contributing watershed and the people who call it home comprise a vibrant community defined by its unique hydrogeography, celebrated for its cultural heritage, bound by its legacy of multifunctional infrastructures, and connected by its shared dynamic landscapes. As a community, we proactively seek to reassert the Tennessee River Valley as a global model for innovative, integrated resource management, environmental resiliency, and energy efficiency in the 21st Century and beyond.*

The ideas explored through ensuing individual project work were as diverse as the watershed the students had just experienced; this shared understanding enabled them to advance separate, yet complementary projects as though authored by a single voice.



A 4' x 8' CNC-milled model of the Tennessee River Watershed helped students visualize its dynamic physiography.

Students' bold proposals challenged traditional concepts of public versus private, land use regulation, and systems logistics to imagine a future for the river system and its watershed that is visionary, credible and attainable. Among the transformative ideas that were offered by the students are:

- A Tennessee River Trail that drives tourism and economic growth, connects communities, and protects water quality through riparian buffer enhancements that it may catalyze as part of shared use agreements with land owners.
- Motivated by flooding on non-regulated tributaries and urban stream syndrome, a Complete Creeks concept to serve as a regional and national model for riparian corridor restoration and planning.
- In the face of anticipated growth of agricultural production in the Valley, new regional patterns for working landscapes that seek to not only find a more sustainable, energy efficient mode of food and commodity production but that also foster an integrated cooperative network of exchanges between urban and rural agricultural territories.
- Novel applications for wetland landscapes to mitigate riverbank erosion and buffer water resources against failures of industrial waste management systems, and a more flood-tolerant mode of agricultural production that would help alleviate river operation complexities in West Tennessee that may be compounded by changing precipitation patterns.

Industrial waterfronts were also a common territory for speculation, as shifting economies present territories for new economic growth, novel ecological industries and enhanced public accessibility.





The River Tour offered students the opportunity to witness the many challenges posed to the river system, including the impairment of urban streams as seen here at Pinhook Creek near Huntsville, AL. These observations served as a foundation for their proposals.



Proposals included re-imagined agricultural landscapes that embrace the river’s dynamic properties and productively leverage flood conditions (above), and innovative industrial waterfronts that afford economic productivity, public accessibility, and environmental resiliency (opposite).

The diverse audience of academic peers and community members who attended the student project presentation in November, 2016, each remarked at the comprehensiveness of the investigation, the thoroughness of the research methods, and the credibility of the proposals.

Curt Jawdy, lead hydrologist for TVA who attended the presentations said, “All of the TVA folks [in attendance] were ‘blown away’ by the amount of understanding the students brought to the table after such a short period of study.”



Students presented their final work to community leaders, faculty advisors and peers at the end of the semester.

### A Look Ahead

By affirming the capacity of landscape architects, architects, and students to make valuable—if not essential—contributions to the dialogue of river management and watershed stewardship, the collective body of research and speculation assembled through this course becomes the foundation upon which future multi-disciplinary River Project efforts and relationships will be built. These relationships include an emerging partnership between the UT College of Architecture and Design and TVA.

Over the coming months, the students’ proposals will be shared with a range of audiences through a diversity of media to raise awareness of the proposals’ potential benefits and catalyze interest, support and participation around their further development. Perhaps more importantly, however, sharing this work will also help to establish a forum within which the diversity of voices and professions can assemble to establish and curate a shared vision for the Tennessee River’s next century.◆

For more information about the Tennessee River Project, visit: [archdesign.utk.edu/watershed-visioning/](http://archdesign.utk.edu/watershed-visioning/). Brad Collett is an Assistant Professor in the UT School of Landscape Architecture and Faculty Director of the Tennessee River Project. Connect with him at: [bcollett@utk.edu](mailto:bcollett@utk.edu).





*The Harpeth River, Franklin, and Its Sewer Plant*

The City of Franklin, which is located in Williamson County (which itself has the highest median income in Tennessee and among the top-10 in the nation), is home to the largest single point source on the river, the Franklin sewage treatment plant (STP). As the 2004 Total Maximum Daily Load (TMDL) pollution reduction plan for organic enrichment/low dissolved oxygen noted, in 2002 Franklin received 89% of the allocated wasteload for all continuous point sources discharging to the mainstem of the Harpeth River. In October 2016, a low-flow month, effluent from the Franklin STP represented 55% of the river’s flow. Franklin’s own monitoring data show that just one (1) river mile downstream from the plant, over the period 2009-2014, 73% of the load of Total Phosphorus in the Harpeth, and 50 % of the river’s load of Total Nitrogen, were from the Franklin STP, when effluent is 15% or more of the river’s flow.

The Harpeth River is listed by the State of Tennessee as an impaired (polluted) waterway because it fails to meet water quality standards for Fish and Aquatic Life during periods of low summer flow. Sewer plant discharge is high in Nitrogen and Phosphorus, which fuel algal blooms that cause oxygen levels in the river to drop to low levels daily. Low dissolved oxygen levels stress fish and wildlife and can create conditions harmful to public health and livestock. For the section of the Harpeth that is downstream of Franklin’s STP discharge, the 303(d) list specifies that “municipal point source discharges” are the “pollution source” for phosphorus and low dissolved oxygen. (The other listed source is Franklin’s stormwater runoff, which is also identified as a source for sediment/siltation.) Conditions like these have contributed to toxic situations around the country – and internationally.

In 2015, American Rivers named the Harpeth River among America’s Most Endangered Rivers ® highlighting the threat sewage pollution and excessive water withdrawals pose to clean water and public health.

*HRWA’s Historic Collaboration with Franklin*

HRWA had a long history of collaboration with the City of Franklin. In 2005, the Franklin Board of Mayor and Aldermen, desiring “to be recognized as a leader in how it manage[d], protect[ed] and improve[d] the water quality of our community to ensure the long term health of the Harpeth River, ... [and] recogniz[ing] the significant contribution and expertise provided by ... HRWA and desir[ing] to facilitate a more integral role of the HRWA into City projects and initiatives” ... urge[d] all consultants ... and staff led internal projects that have bearing on water quality to include participation of the HRWA ....”

HRWA’s history of working with Franklin included managing a multi-agency collaboration and a large federal grant for the Harpeth River Restoration and Lowhead Dam Project in 2012. This project gained national and state recognition for Franklin and was selected to be included in President Obama’s America’s Great Outdoors Rivers’ Initiative in 2012. The project received the 2013 Tennessee Governor’s Environmental Stewardship Award for Excellence in Natural Heritage. In June 2016 the

Southeast Aquatic Resources Partnership recognized the Harpeth River Lowhead Dam Removal and Stream Restoration Project as one of the National Fish Habitat Partnership’s 10 “Waters to Watch” Legacy projects.

*HRWA’s Citizen Suit Under the Federal Clean Water Act*

Over the years, HRWA attempted to bring to Franklin’s attention a number of issues regarding compliance with its Clean Water Act discharge (NPDES) permit for the STP. Recent attempts were rebuffed, and HRWA was forced to send Franklin a 60-day notice of its intent to sue under the CWA. (At the same time, HRWA gave two smaller sewer plants notice under the CWA of their permit violations; these two facilities promptly and amicably settled with HRWA.)

- Among other reporting and discharge violations detailed in HRWA’s 60-day notice, HRWA claimed that Franklin, in some cases over a span of five years, had failed to:
- Conduct studies of the river’s water quality that had been a permit requirement since 2010;
  - Prevent sewage overflows;
  - Determine the sources of several violations of pollution limits;
  - Develop a Nutrient Management Plan to identify ways to operate the sewer plant to reduce nitrogen and phosphorus loads to the river;
  - Implement a continuous, 24-hour summer water quality monitoring program; and,
  - Accurately measure raw sewer influent flow into the plant, which is needed to determine accurate pollutant removal from the sewer plant operation.

HRWA provided a formal settlement offer at Franklin’s request in early May 2014 that was similar to the terms agreed upon promptly by the two smaller sewer facilities. That settlement offer was provided with the statement that it was openly subject to negotiation. The offer included no monetary penalties or attorneys’ fees to be assessed for the numerous past permit violations. The City never responded. Franklin’s lack of response gave HRWA no choice other than to file the complaint, putting the facts before an impartial judge in order to resolve the parties’ differences.

*Franklin’s SLAPP Counter-Suit for Abuse of Process*

Apparently not accepting the plain language of the CWA citizen suit provision, which provides that citizens are allowed to complain of CWA violations when regulators do not have the resources or desire to pursue them, Franklin counter-sued HRWA for alleged “abuse of process.” Franklin’s counter-suit made various allegations about HRWA’s intentions, such as that HRWA sought to extort a settlement and / to impose conditions not contained in Franklin’s permit, or substitute itself as the regulator.

HRWA moved to dismiss Franklin’s counter-suit. HRWA argued, among other things, that Franklin’s counter-suit was a form of Strategic Lawsuit Against Public Participation (SLAPP lawsuit), which are prohibited under Tennessee law. After extensive briefing, HRWA’s motion came on for hearing in November 2015.

As reported by the Tennessean, before Franklin’s City Attorney could begin her argument defending the counter-suit, the federal judge “asked whether the city’s attorneys could cite a Tennessee case in which a settlement proposal had been deemed an abuse of process. ‘Can you think of any Tennessee case where [even] an outrageous settlement demand is an abuse of process?’ ‘You know, “We’ll settle if you get a pack of elephants to run down West End Avenue”?’ ‘Any case?’ When Franklin could not, the judge dismissed the case summarily from the bench.

At the same time, the judge deferred ruling on Franklin’s motion to dismiss portions of HRWA’s complaint. In doing so, he “reiterate[d] [his] suggestion to the parties that they engage in meaningful settlement discussions in an effort to resolve this case for the benefit of the citizens of the City of Franklin.”

Franklin’s unsuccessful attempts to hinder HRWA’s ability to exercise its rights under the CWA were also an expensive use of taxpayer resources. The Tennessean, in October 2015, reported that Franklin had spent in excess of \$300,000 through June 2015, before many significant expenses were incurred, on an out-of-town law firm on its counter-suit.

In March 2016 the court ruled on Franklin’s motion to dismiss. Again apparently believing that portions of the CWA did not apply to it, Franklin had raised a number of arguments, including that several of HRWA’s allegations were “beyond the scope” of the CWA. Franklin’s arguments drew an unusual intervention by the US Department of Justice in defense of the applicability of the CWA. In its ruling, the court rejected many of Franklin’s arguments and ruled that the bulk of HRWA’s allegations could proceed to the next stage of litigation. The court allowed HRWA’s allegations over 35 sewer flows, regarding Franklin’s failure to prepare a nutrient management plan, failure to conduct instream monitoring, and certain whole effluent toxicity test failures, to proceed. The court also rejected Franklin’s arguments that certain of HRWA’s counts were beyond the scope of the CWA. As the court noted, “[h]opefully, this ruling will provide the parties with some idea as to how this Court presently views this case and they will redouble their efforts to settle before more taxpayer time and money is spent.”

*Successful Settlement*

Fortunately, shortly after the judge’s ruling, Franklin and HRWA were able to agree to settle all matters at issue in the complaint and Franklin’s counter-suit for abuse of process.

The major points of the federal court-enforceable settlement, which if faithfully implemented, should help protect public health and improve the river’s water quality, include the following requirements for Franklin to:

- 1) Study and monitor the river’s water quality, including fulfilling obligations that have been in Franklin’s current permit since 2010.
- 2) Participate along with HRWA and other parties in the formulation of a new TMDL pollution reduction plan for nutrients led by the Tennessee Department of

Environment and Conservation (TDEC) for the entire river. This new TMDL plan will “fairly determine [Franklin’s pollution load allocation] in the context of the entire watershed.”

3) Fund up to \$150,000 to conduct studies in support of the TMDL pollution reduction plan.

4) Conduct an “optimization study” for the current sewage treatment plant focused on reducing phosphorus and nitrogen inputs to the river to reduce the risk of harmful algal blooms. The City also agreed to prioritize the installation of portions of the new sewage treatment facility up front to have the ability to remove phosphorus to low levels.

5) Spend \$10 million over five (5) years as a part of Franklin’s planned capital investment planning efforts to prioritize the upgrading of existing, aging sewer collection infrastructure. HRWA will have input to this process. Franklin also agreed to use emerging technologies to identify and prioritize improvements in its sewer collection system.

6) Develop a sewer overflow response plan, similar to those already implemented in many other Tennessee cities. This plan is designed to reduce public health risks from exposure to raw sewage and increase public transparency regarding sewer overflow issues.

7) Not to raise sewer rates based on the lawsuit, counter-suit, or the settlement. In fact, both the HRWA and its attorneys followed through on their offers to Franklin prior to the filing of the lawsuit and agreed not to collect any attorney’s fees, either for the main action – the prosecution of the citizen suit under the federal Clean Water Act -- or for the defense against Franklin’s counter-suit of abuse of process against HRWA. HRWA also agreed that it would not receive any money as a result of river study projects funded by Franklin.

The parties retained their respective rights to appeal permit and TMDL conditions if they are not satisfactory. The settlement also provides for a method of resolving disputes without asking the court to intervene, but the court retains jurisdiction to enforce it, if necessary.

HRWA worked with Franklin so that the settlement could be embodied in a settlement agreement, as opposed to a consent decree. Franklin has thus entered into a court-enforceable contract with HRWA to take the agreed steps to monitor, protect and clean-up the Harpeth River. The settlement was subject to approval by the court and the US Department of Justice. These approvals were obtained and the settlement was finalized.

*What the Settlement Achieved*

The settlement that HRWA achieved resulted in the seeming reversal of a number of positions taken by Franklin over several years. For example, in its 2013 comments to the state on proposed



new permit conditions, Franklin opposed the proposed lower limits for phosphorus and the current permit’s requirement to perform an optimization study to find ways for the STP to reduce phosphorus and nitrogen discharge into the river. The settlement provides that “[b]ecause the Harpeth River is listed by TDEC on the Section 303(d) list as impaired for Total Phosphorus and a water quality-based effluent [limit] will therefore be required for this parameter in the Permit, and given the City’s commitment to reduce its nutrient discharge as reflected in its design for the [STP’s] expansion, the City agrees to within ninety (90) days of the date of this agreement to hire [its consultant] to conduct an optimization study consistent with the studies previously conducted by TDEC ....” In addition, Franklin dropped its opposition to the current permit’s 24-hour water quality monitoring of the river, which is needed to determine the impact of Franklin’s sewer plant pollutant discharge on the river and set appropriate permit conditions.

*What’s Next – A New Permit and a New Total Maximum Daily Load for Nutrients*

The settlement left as next steps to be addressed: 1) the permit for the proposed expansion of Franklin’s STP from 12 million gallons per day (MGD) to 16 MGD (the Draft Permit), which is necessary to support projected population growth in the area, and 2) a new TMDL pollution reduction plan for nutrients.

The permit process to date shows that it is sometimes difficult to change institutional inertia and faithfully follow-through, notwithstanding the parties’ intentions in their settlement.

As it is proposed, the Draft Permit would not “hold the line” on current pollution, let alone make progress towards the restoration of the Harpeth River, but rather double the actual pounds of phosphorus that Franklin is allowed to discharge into the river. (Franklin’s own monitoring data show that it is discharging approximately 72.5 lbs. / day of phosphorus. The Draft Permit would allow Franklin to discharge approximately 174 lbs./day. Franklin requests permission, in its comments on the Draft Permit, to discharge even more, approximately 195 lbs. / day of phosphorus.) This requested increase in

discharge capacity (including questioning in permit comments whether sufficient scientific basis yet exists for regulating phosphorus in the river) is notwithstanding Franklin’s recognition in the settlement that the river is impaired for phosphorus and that it is “committed” to reducing that pollution.

As a nationally known expert on algae issues noted:

*“The WRF [sewer plant] discharge dominates not only the river flow, but also the N and P entering the river during low-flow periods, based on ... (City of Franklin river monitoring data and effluent data in monthly reports to TDEC).”*

“[Under t]he draft permit ... both N and P supplies will still be *extreme* in comparison to what the natural algal assemblage needs. The ... high N and P supplies, added in unhealthy proportions, will increasingly encourage noxious algal overgrowth when other conditions ... are conducive ....” The shift is so extreme that the river has a “sewage signature” ....”

“... [I]t is the *excess* of N and P loads that is at issue in present-day waters, .... In the Harpeth River ..., managers’ mistaken view that N rather than P is “limiting algal growth” is analogous to the following situation: A man sits down to have dinner at a restaurant. The server apologetically informs the man that 200 steaks are available for him to eat, but only 150 potatoes. Which will the man run out of first, steaks or potatoes? This question is nonsensical. Obviously, one person cannot consume 200 steaks or 150 potatoes at a dinner – the supplies of each are so high that they are at saturating (non-limiting) levels.”

“... Yet, TDEC has designed the draft permit for the WRF ... based on the irrational premise that “N is limiting” in the Harpeth River. The draft permit reflects no understanding by the writers of the critical importance of N:P stoichiometric balance in aquatic ecosystems, or of the fact that N:P ratios can only be used to interpret nutrient *limitation* when N or P are in *limited supply* (that is, limitation should only be invoked when something is limiting).”

Moreover, Franklin’s own plans for the

expanded STP show that it is capable of significantly reducing phosphorus pollution. Franklin, however, does not want to be required to consistently achieve such performance, even though it can do so without significant additional cost, or that the river’s nutrient pollution levels remain unacceptably high, or that such performance is required to maintain or improve river conditions.<sup>1</sup>

At least holding the line on current phosphorus levels is not a question of growth v. no-growth, of the need for new environmental rules, or of asking Franklin to do anything it cannot easily accomplish, or to expend significant additional funds. Franklin is already committing \$100 million to the expansion of its plant. And, improving river conditions should improve the economic vitality of the area. Rather, it seems to be a matter of Franklin’s willingness to live by the same CWA rules that apply generally.

The new TMDL for nutrients has become even more important in light of the Draft Permit for the expansion. The Draft Permit defers action on setting a water quality-based effluent limitation for phosphorus for the river pending the completion of the TMDL, even though that postponement does not appear permissible. TDEC announced the start of the TMDL effort in 2015, with HRWA, Franklin, USEPA, and the US Geological Survey as the core partners. The process of formulating the TMDL plan may, if done properly, require several years of significant joint time and effort to determine how much pollutant the Harpeth River can receive and still meet water quality standards, and to allocate that pollutant load among the various sources. (The new TMDL is also important now that conditions have changed with the removal of the low-head dam, a project that HRWA coordinated.)

It appears that the best way to formulate a plan to restore the river is to foster a broad community involvement in this effort. Although Franklin and HRWA have already agreed on locations for water quality monitoring in the river as required

<sup>1</sup> Further information about the Draft Permit can be found at [http://environment-online.tn.gov:8080/pls/enf\\_reports/f?p=9034:34051:::NO:34051:P34051\\_PERMIT\\_NUMBER:TN0028827](http://environment-online.tn.gov:8080/pls/enf_reports/f?p=9034:34051:::NO:34051:P34051_PERMIT_NUMBER:TN0028827).

in the settlement, and Franklin has installed required equipment necessary to collect data to inform the TMDL effort, Franklin has renewed its questions – in comments on the Draft Permit – on whether phosphorus limits are needed or supportable at this time. It raises these questions even though it recognized in the settlement agreement that the river was impaired by phosphorus pollution and that phosphorus limits would be needed. Thus, it appears broader community involvement will be required to establish standards and restoration plans that Franklin will accept and consistently implement.

HRWA’s experience with citizen suits under the CWA and subsequent follow-through show that achieving clean water is not – and does not need to be -- a choice between clean water and growth. Rather, in our experience, it seems to be as much a question of belief that clean water is in the long run, as well as the short term, vital to the economic vitality of a watershed, and that, therefore, rules to achieve those laudable goals can and should apply to all concerned. To ensure that standards for achieving clean water are well-formulated and consistently implemented, all stakeholders in a community must be involved and be willing to hold regulated parties accountable.◆

*Main Harpeth River, in the vicinity of the Franklin sewer plant discharge at Williamson County Recreation Center. Photo: HRWA*



Mr. Redwine is the Director of HRWA’s Water Quality Protection and Sustainability Program. He received his A.B. magna cum laude from Harvard University and his J.D. from the Vanderbilt University School of Law. A member of the Tennessee, Michigan, and California bars, Jim received the American Bar Association’s 2011 Award for Excellence in Environmental Stewardship for his work in the General Motors bankruptcy.



## RMS Website



Chet Crowser



Rick Waldrup



Ben Schmidt

## Inside Assistance

As we go to print, the RMS website is beginning a two or three month-long updating process. While some of the changes may not be apparent to members, they will greatly enhance the administrative capabilities and we are excited to be moving forward with them.

Most of the conversion process will be completed by our website vendor Memberclicks, but at the beginning of our planning process we were asked to move the News Digests and RMS listserve archives over ourselves. Eek!

Well, we reached out through the listserve for assistance with downloading and saving these documents, and were thrilled to hear from members Rick Waldrup and Ben Schmidt. Rick and Ben will assist our longtime Website Coordinator, Chet Crowser, with the transition which is now underway. The new site will offer many ageless archive suggestions and advice, news stories and reports through an easy word search.

Thank you, gentlemen on behalf of our organization and your fellow members!

## RMS National Officer Elections

### Call for Nominations

- ✓ Would like to become more involved with the professional river community?
- ✓ Do you feel out of touch with other river and watershed stewards and managers?
- ✓ Do you want to play a role in the future of the River Management Society?

If you answered “YES” to any of these questions, please consider running for office!  
**RMS is seeking nominations for President, Vice President, Secretary and Treasurer** to serve as National Officers.

The River Management Society Board of Directors proudly serves the membership and promotes the RMS mission of *supporting professionals who study, protect and manage North America's rivers.*

In addition to the National Officers, the board is comprised of Chapter Presidents and Ex-Officio Advisors. Recent changes to the RMS bylaws allow the board to appoint at-large members. All board members work closely with the Executive Director and play an important role in guiding the business of the Society and serving the membership.

National Officers serve a three-year term beginning January 2018. The duties of each officer and additional information can be found at: <http://www.river-management.org/board>. Interested members are encouraged to contact current and past board members to gain insight on the responsibilities and roles of the individual officers and the board as a whole.

Get involved. It's fun. It's important.  
Nominate yourself, nominate a fellow member.

Questions?

Contact Risa Shimoda at: [executivedirector@river-management.org](mailto:executivedirector@river-management.org) (or)

Linda Jalbert at: [l\\_jalbs@yahoo.com](mailto:l_jalbs@yahoo.com)



# RMS Chapters

## Northeast by Marina Metes

Greetings! The Northeast chapter wrapped up 2016 with a beautiful fall paddle down the Anacostia River in Washington, D.C. We began our trip at Bladensburg Waterfront Park in Prince George’s County, Maryland, where the Anacostia Water Trail begins. Paddling the water trail is a unique experience, with views of birds, native wetlands, the Amtrak bridge (to remind yourself that you are still in an urban area, in case you forget), and chances to stop at the U.S. National Arboretum and Kenilworth Park and Aquatic Gardens. We only had enough time to explore about one fifth of the nine-

mile trail, which eventually ends at the confluence with the Potomac River. We were gladly joined by Bob Ratcliffe, RMS member and Division Chief for the National Park Service’s Conservation, Recreation, and Community Assistance Programs. He has spent much of the last three decades developing new and progressive national policies enhancing visitor experiences and community engagement while balancing protection of resources. He has helped lead the development of urban, youth, recreation, health, and other proactive policies

and strategic efforts for the NPS, the Department of Interior, and the White House. Thank you Bob for joining us to talk about your experiences and share some of your knowledge on water trails and other outdoor recreation programs!

If you are interested in exploring the Anacostia Water Trail on your next visit to Washington, D.C., you can find the Water Trail map here: <http://www.anacostiaws.org/userfiles/image/FINAL%20-%20AWS%20Map%20and%20Guide%20Combined%20Reduced.pdf> ♦

The group stopped at the U.S. National Arboretum to have lunch and check out some of the gardens.



(Above) Steve Chesterton and Corita Waters paddle underneath a newly added section of the Anacostia Riverwalk Trail at Kenilworth Park and Aquatic Gardens. This newly added 4-mile section connects 15 miles of trail in D.C. with over 40 miles of trails in Prince George’s County, Maryland.

(Below) The Anacostia River is home to 188 species of birds and 43 species of fish. Considering its close proximity to downtown D.C., the Anacostia Water Trail provides a pleasantly surprising escape from the hustle and bustle of the city. Photos: Bob Ratcliffe

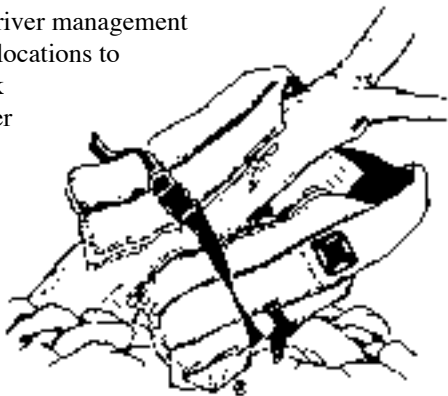




RMS Chapters

Southwest by Rob White

Boating season is upon up! The Southwest Chapter is excited to announce its summer 2017 Chapter Float Trip! We invite you on a leisurely float down the Gunnison River in Colorado on July 28-29. Don’t miss the valuable campfire talks in the river management field! Put in/take out locations to be determined. Check the Southwest Chapter website for more information and to sign up. Our Chapter has also been working on corrections to its membership directory, so if you have information that needs updating, please email: rob.white@state.co.us. ♦

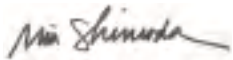


# RMS Journal

Care to share?  
Submission deadlines:

Summer 2017	Vol. 30, No. 2	Midwest	Apr 1
Fall 2017	Vol. 30, No. 3	Southwest	Jul 1
Winter 2017	Vol. 30, No. 4	Northwest	Oct 1
Spring 2018	Vol. 31, No. 1	Northeast	Jan 1
Summer 2018	Vol. 31, No. 2	Special Focus	Apr 1
Fall 2018	Vol. 31, No. 3	Pacific	Jul 1
Winter 2018	Vol. 31, No. 4	Alaska	Oct 1
Spring 2019	Vol. 32, No. 1	Southeast	Jan 1
Summer 2019	Vol. 32, No. 2	Midwest	Apr 1
Fall 2019	Vol. 32, No. 3	Southwest	Jul 1
Winter 2019	Vol. 32, No. 4	Northwest	Oct 1

(Executive Director, from page 2)  
but one example among many with which you may be familiar. It may be time to speak up for ourselves as stewards of our rivers through advocacy within our respective organizations and beyond our own walls on behalf of our professional community. I would really appreciate your thoughts, advice, concerns on this topic because it is pretty big and, I think, pretty important. ♦



Risa Shimoda  
Executive Director

(Mulberry River, from page 8)

on the community and it is likely that the nearby Environmental Science class at the Oark School will use this site as an educational opportunity.

The Arkansas Game & Fish Commission captured some fantastic footage capturing the beauty and restoration of the Mulberry River in Oark, Arkansas. View the video [here](http://www.southeastaquatics.net/resources/videos/mulberry-river-shortie-for-usfws/view?searchterm=Cathie). (http://www.southeastaquatics.net/resources/videos/mulberry-river-shortie-for-usfws/view?searchterm=Cathie)

This exciting project received national recognition as one of the National Fish Habitat Partnership’s 2016 “10 Waters to Watch.” To learn more [click here](http://www.fishhabitat.org/waters-to-watch/detail/cathie-brown-streambank-stabilization-and-habitat-project-mulberry-river-0a). (http://www.fishhabitat.org/waters-to-watch/detail/cathie-brown-streambank-stabilization-and-habitat-project-mulberry-river-0a) For additional project details, contact AGFC Biologist and project lead, Matthew Irvin, at Matthew.Irvin@agfc.ar.gov. ♦

(Conservation Easements, from page 15)

The IRS allows the landowner to annually deduct to 50% of the adjusted gross income (AGI), with a period of 15 years allowed to take the deduction. One can learn more about tax incentives and finding a land trust organization near the river you manage by going to the Land Trust Alliance website.

You are probably asking yourself, now how does this really help protect a river ecosystem? Well, in the midlands of South Carolina, the COWASEE Basin task force was established 11 years ago to help conserve the riparian landscape along three rivers that converge in the heart of South Carolina near the state capital of Columbia. The three rivers that comprise the name “COWASEE” are the Congaree, Wateree, and Santee Rivers located just south of Columbia. The Task Force members are landowners, government agencies, and nonprofit organizations all working to conserve the Basin. So far these organizations have protected 45% of the 315,000 acres within the Basin. Of the 45% protected land, 31% is publicly conserved land currently owned and managed by a government agency and 15% is under private landowner conservation easements held by nonprofits. ♦

Mary Crockett works as a Land Protection Director for the Congaree Land Trust in South Carolina.

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A membership in RMS makes a great gift for a colleague or friend!

RMS Membership

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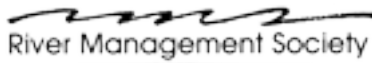
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Summer 2017 - Midwest Chapter Focus

Fall 2017 - Southwest Chapter Focus - Deadline July 1

## SAVE THE DATE — 2017 RMS National and Chapter Events

- |            |  |
|------------|--|
| May 1-4    | National Outdoor Recreation Conference, Creating a Relevant and Inclusive Future. Scottsdale, AZ   |
| June 6-9   | River Ranger Rendezvous, Lower Salmon River, ID.<br>Contact Joe O'Neill: <a href="mailto:joneill@blm.gov">joneill@blm.gov</a> (or) Ryan Turner: <a href="mailto:rturner@blm.gov">rturner@blm.gov</a> |
| June 22-25 | Deschutes River trip, OR. Contact Jon Benson: <a href="mailto:jabenson@blm.gov">jabenson@blm.gov</a>   |
| July 28-29 | Gunnison River trip, CO. Hosted by Southwest Chapter. Contact Stuart Schneider: <a href="mailto:stuartschneider@gmail.com">stuartschneider@gmail.com</a>   |
| Sept 15-17 | Snake River trip, WY. Contact John Newman: <a href="mailto:jnewman@fs.fed.gov">jnewman@fs.fed.gov</a>  |
| Oct 8      | Duck River trip, TN. Hosted by the Southeast Chapter. Contact Jane Polansky: <a href="mailto:jane.polansky@tn.gov">jane.polansky@tn.gov</a>  |
| TBA        | Owens River trip, CA. Hosted by Pacific Chapter. Contact Larry Frielich: <a href="mailto:lfrielich@inyocounty.us">lfrielich@inyocounty.us</a>  |

