

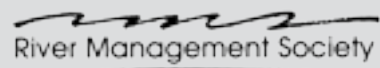
Congratulations!

2015 RMS Award Winners

The competition was stiff this year and the Awards Committee, led by outgoing

The work of this committee requires careful and thoughtful review of painstakingly-written submissions from nominees' colleagues. We appreciate their time, and send a particularly big round of thanks to Susan James and Jay Kreinitz, who served their three-year terms with fair and thoughtful contributions to the

(continued on page 28)



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professionals who study, protect, and
manage North America's rivers.*

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purpose of this policy is to encourage the
free exchange of ideas concerning river
management issues in an open forum of
communication and networking among the
RMS membership. Unless indicated, points of
view are those of the author and not RMS.

Executive Director's Eddy

Not better or worse,
just different.

I received an email recently from an individual who suggested that we change the name of our organization. He offered that the concept of managing rivers was overly assumptive, since there is much that rivers pursue on their own whether we are around or not and often in spite of our efforts. While it's not likely that RMS will be changing its name any time soon, the comment reminded me that the phrase 'river management' and what it represents deserves awareness and relevance.

The interests and expertise of our members are too varied to be defined neatly. Instead, they remind me of a scatter plot graph and its defining line that represents the data in total, but no persons or jobs, exactly. We are working with members and partner organizations to not only produce workshops and trainings, but to capture river data in a mega database, develop hydropower license summaries, summarize permit information annually and host webinars on topics ranging from Wild and Scenic River management to the design of whitewater parks. The River Studies and Leadership Certificate and the advisors who are its champions on their respective campuses are putting us in front of students and early career individuals who were not alive when the Internet did not exist.

Similarly, RMS Chapter presidents hold an impressive variety of positions: Senior Environmental Planner for multi-national consulting firm (Louise Kling – Northwest); Park Manager for one of our nation's most visited rivers (Rob White – Southwest); Director for our largest state's water resources (Dave Schade – Alaska); State Scenic Rivers Coordinator (Jane Polansky – Southeast); honcho for all trails in Minnesota (Peter Hark – Midwest); hydropower project expert and agency lead (Jim Eicher – Pacific) and GIS graduate student (Marina Metes – Northeast), who are all working on projects and programs affecting the future of rivers. It would be tough to draw



Risa Shimoda

a neat line around the definition of their responsibilities and priorities!

In late June, RMS will be partnering with the National Park Service, River Network and several southeast Michigan Water Trails organizations to host the National Water Trails Forum, described in this issue. That the individuals, keynote, and panelists represent areas of expertise that are quite varied supports our instinct that the work of water trails and watershed leaders and their organizations represent a new and important genre of river management. We welcome getting to know them and will see over time if we provide to these new members sufficient benefit to encourage continued interest and participation.

The path of our river management community will be drawn by the success we create connecting individuals, organizations and programs who conduct field-based design, construction and maintenance; allocate resources in budgeting and personnel decisions; develop and train personnel; and shape policy and its administration. Oh, and they love rivers. Hope to see you at the National Water Trails Forum or on a chapter river trip this summer! ♦

Risa Shimoda
Executive Director

From the RMS President



What is River Management?

What is river management? The more I think about it, the longer my answer gets. River management is such a varied field. Some think of river management as the traditional work of river rangers (such as the wonderful Desolation Canyon Crew profiled in this issue) who interact with visitors, pick up the trash, and monitor the conditions of important resources along the rivers. For others, river management may be dealing with the water in the river and the complicated system of laws and regulations that govern everything from allocation of water among competing uses to issues regarding water quality.

There are so many fields that are part of or related to river management – archaeology, botany, fisheries biology, hydrology, geology, geomorphology, recreation, wilderness, agriculture, law. Please note this is just a sample, not a comprehensive list. River managers are involved in everything from addressing all forms of aquatic life, to addressing the needs of various types of recreational users (along with access, campsites, toilets), to dealing with the myriad of legal issues surrounding water, ownership, allocation. I could fill this page with single words and short phrases that encompass the diversity of river management.

River managers are often involved in addressing conflicts – be they among competing recreation users – anglers vs. floaters, motorized vs. non-motorized boaters, guided vs. self-guided visitors. Other conflicts involve the allocation of water for instream flow, agricultural uses, industrial uses, recreational uses. River management involves planning, public engagement, public education, collaboration, implementation, monitoring and evaluation, adaptation, and the list goes on.

River management happens in diverse landscapes from places such as the small remote streams traveled by people using pack rafts to major waterways such as the Mississippi and Missouri rivers suitable for a wide variety of craft. We manage remote wild rivers such as Alaska's Selawik River to the Suwanee that is part of the Okefenokee Swamp in Georgia.

River managers work for a diverse host of organizations: federal agencies including the Forest Service, Bureau of Land

Management, National Park Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, U.S. Army Corps of Engineers. There are a myriad of state agencies, departments of Fish and Game or Fish and Wildlife, Natural Resources, State Park agencies. Local agencies of all sorts—from irrigation districts to city parks departments.

Then there is the amazing non-profit sector—organizations such as those profiled in the awards article—the Missisquoi River Basin Association and the San Joaquin River Parkway and Conservation Trust. Increasingly, river management is collaboration among these diverse entities.

And, of course, river management is people – wonderful people like Michael Greco who have contributed so much to the field and to the River Management Society, John Little from the Missisquoi River Basin Association and Dave Koehler of the San Joaquin River Parkway and Conservation Trust. The young people such as Ross Parsons and others participating in our River Studies and Leadership Certificate program, our amazing interns, and those of you who serve RMS in a variety of capacities are all part of river management.

This issue of our journal highlights some of the diversity of our profession, and we hope it will inspire and inform you about the work we do and the resources we care so much about. Have a happy and safe summer boating season! ♦



Helen Clough

Helen Clough
RMS President

How Did I End Up in This Place?

by Tom Christopher

When I received an email from Marina Metes, the newly elected Northeast Chapter President, asking for contributions for the summer Journal issue, I was immediately struck by the excitement and enthusiasm of her note. She was interested in getting to know other chapter members so she asked us to fill out a brief four-question survey about what we did in our river management jobs. I thought to myself, “boy, there’s nothing like youth bubbling over with energy to stimulate reflection over one’s career.” Yikes! So, I thought to myself, what does a river manager actually do and does my work on rivers qualify me as a “river manager”?

I’m not sure our institutions of higher learning will develop a specific curriculum for those yearning to become a river manager as their career. After all, what would you study? Would you embrace civil engineering, hydrology, fluvial geomorphology, and structural design? Those would be good choices if you were going to build dams for

hydropower or water supply, and there are always opportunities to manipulate and change rivers if you work for the Army Corp of Engineers (ACOE).

If that doesn’t excite you there are always studies in aquatic biology, environmental science, chemistry, and ecology to lead you into the world of state, federal or other agencies that have a role in developing plans to manage river habitats for different aquatic and terrestrial species.

Water quality and quantity are a big deal in our “climate changing” world and learning to adapt, protect and provide adequate resources including for our own survival is now a fact of life.



Tom Christopher

Every year we now face extreme weather variations that cause drought and crop losses throughout the world while other regions suffer devastating floods. As groundwater aquifers and rivers dry up, everyone suffers. Habitats disappear, farmers fail and go out of business, and municipalities issue water bans to residents in an effort to conserve water resources.

Management decisions need to rely on good science and sound economics if any policy will be effective or if they will be supported by the cross-section of variant population groups.

This brings us to another option. Should budding river managers embrace a curriculum of environmental economics, population demographics, resource management and political science? Basic understanding of scientific facts coupled with competing social values, cultural lifestyles, and differing worldviews need effective communication to solve problems, including those daily issues every river manager is confronted with.

So what are river managers? They may be folks who work for the ACOE who build the campgrounds and control the recreation facilities at the Gauley and New rivers in West Virginia. This work needs large numbers of employees and resource dollars to manage river recreationists during the summer and fall drawdown seasons. Above them are the engineers who designed the facilities

they manage and a host of supervisors and upper level executives making policy decisions to keep facilities financially sound and available for the public to use. Remember when the Gauley suffered dry years and the season had to be shortened? How would you like to be the person who made that decision?

All of these folks are river managers to an extent, even if they don’t know it. They may have a different title according to their job description, but in the end their cumulative tasks all help to manage a river.

We cannot ignore the value and efforts to improve rivers by regional and community watershed groups and other non-profit organizations (NGO’s). Their work is usually centered on a specific river or watershed and often entails the drudgery of weekly water sampling, river cleanups, classroom education, and fundraising. The outreach and efforts of such groups clearly have proven to be the catalyst of stimulating major changes in policy that have improved many rivers throughout the United States. Does this collective effort bestow the river manager title on the executive director of an organization and does this transcend down to the group of boy scouts and members helping on a river cleanup? Maybe so!

Early in my river career a colleague of mine once said, “The best way to protect a river is to bring people to it.” Oh boy, be careful what you wish for! What happens when you do a great job of restoring a river and people conflicts arrive through overuse and crowding?

The river use pictured below is a good example of what you may find



Paper sludge at Erving Paper Mill gets loaded into trucks for landfilling. Photo: Tom Christopher

on any sunny day in July or August on Massachusetts’ Deerfield River after a successful relicensing in 1997 brought tubing use to what was once the domain of kayakers and fishermen. Who will ultimately be called upon to manage a growing population of river enthusiasts that arrive after a successful relicensing?

Mention should be made of dam owners who, historically and to this day, have used any number of structures to change how rivers flow, because clearly these folks have been managing rivers to their detriment. The public perception of what happens to rivers has dramatically evolved in the last 25 years, and what

was acceptable in the name of economic development and industrial prowess is no longer acceptable. Paper mills, hydropower, and other businesses badly managed rivers and used them strictly in the name of low-cost power and as waste repositories as a source of profit for their owners.

These river managers were considered successful on the basis of how they cut manufacturing costs and returned profits to businesses at the expense of river health and water quality. Yes, these individuals were also river managers and what could be better than a free ride?

In my world of hydropower

(continued on page 35)

Azicohos Dam, Wilson Mills, ME. Photo: Union Water Power Company



Crowding on the Deerfield River, Charlemont, MA. Photo: Frank Mooney, Crabapple Rafting Company



Recovery at Frog Rock

by Stew Pappenfort

Arkansas Headwaters Recreation Area manages 152 miles of the Arkansas River in central Colorado. It is one of the most recreated rivers in the country. One of the primary uses is recreational whitewater boating, both private and commercial. Boating use in 2010 was just over 286,000 user days. With such high boating use, river rescue is one of the management challenges at AHRA. All temporary river rangers and full time rangers are certified in swiftwater rescue and conduct numerous search and rescue missions each season. What follows is a synopsis of one of the more challenging missions.

On July 11, 2010, a group of off-duty guides planned a 3-raft trip on the Arkansas River from a put-in at Clear Creek Reservoir to the boat ramp in Buena Vista, Colorado, approximately 15 miles total. There were 11 people on this after-work trip. Most were guides or employees of a local rafting company. The group had planned to complete the raft trip and celebrate the birthday of one of the guides with dinner in Buena Vista. The raft trip had already completed running some of the most dangerous and difficult sections on the Arkansas River without incident when they approached Frog Rock rapid at around 6:00 pm. The guide of the 2nd raft and his crew had never seen this section of river but had known there was a danger



associated with Frog Rock rapid. Nobody in that raft had seen the ‘Danger’ sign on the left bank above the rapid nor did they know they were even at Frog Rock rapid.

As the second raft entered the rapid, it followed the main channel down the right side. Statements from the passengers indicated they were surprised by the difficult left turn maneuver at the flat rock near the bottom. As this raft attempted the maneuver, the front of the raft rode up onto a medium-sized rock that lies to the right of the large flat rock separated by a small chute. The current pushing the raft against this rock caused it to “high side” dumping a first-year guide overboard. Other paddlers climbed up on the high side of the raft, probably keeping it from capsizing. From there, the remaining passengers were able to climb across the stuck raft onto the rock itself and were then able to pull the boat up onto the rock, completely out of the water. One passenger stated that nobody actually saw the victim fall out of the boat. The other two rafts saw the incident and quickly eddied out. At this time it was immediately apparent that a young first-year female guide was missing. From their location at the site where she was last seen, the guide and remaining passengers began a hasty search. Using paddles to probe, they tried to locate their missing friend. After a few minutes, the victim’s helmet surfaced on the downstream side of the big flat rock. By this time, the crews from the other two rafts had begun to arrive to assist with the search. One member of the group notified Salida Dispatch via cell phone.

Emergency personnel were dispatched at approximately 6:10 pm. Initially, there was confusion on the location of the accident because the reporting party was unsure of the location as he had never been to Frog Rock rapid. When AHRA River Rangers heard of the approximate location of the accident they knew where

to go, Frog Rock. They had been there on two previous fatal accidents, one a double fatality. Members of Salida Fire & Rescue, Chaffee Search & Rescue, and Rangers from AHRA were on scene within 30 minutes. It became obvious to rescue personnel that the point last seen was also the location of the three other rafting fatalities. Using 10 to 12 foot probes, the team felt contact with the victim had been made about an hour into the search. While working in the blind with probes under the rock and trying to secure the victim she moved and contact was lost. Probing and searching continued until 10:00 pm. Now operating in recovery mode, it was too dangerous to search in the area due to darkness and water velocities. However, just before that nights’ search was called off, a ‘Keen’ sandal belonging to the victim surfaced near the downstream side of the flat rock.

The following day, members of Chaffee Search and Rescue, AHRA Rangers, and several employees of the raft company continued the search. Arrangements were made with water engineers to have the river level dropped temporarily to accommodate the search efforts. River flow during the afternoon part of the search was 411 cubic feet per second (cfs), 248 cfs less than the previous day. The bridge about a mile and a half below the rapid had been manned with rescue personnel and lights the entire night to ensure a victim had not gone by. The search focused on the area around the ‘flat rock’ and the point last seen. Various probes were used to explore all around this area. This type of search continued the entire day with only the deep pockets and undercuts beneath the rocks being discovered. It began to become obvious that our missing person was not in the rock sieve where previous victims were recovered but most likely in one of the pockets under the large flat rock. At

the end of the day, searchers agreed to continue the following day.

On July 13, the search continued with primarily the same personnel but additional equipment. An underwater camera was used with limited success. Aeration of the water limited the visibility with the camera to a very small area just in front of the lens and it was not possible to get the camera into some of the pockets under the rock. A large sheet of plywood was used in an attempt to redirect water around the area of point last seen, but failed to divert enough current to allow access. A diver explored all of the calm water below the incident scene but found nothing. The probing continued the entire day and into the next few days.

On July 16, search dogs were brought in from a nearby county in an attempt to verify a positive location of the victim. The dogs had limited experience in moving water but did indicate scent at the search site. Additional personnel were brought in from neighboring counties and the river flow was reduced to native flow. Cameras and probes were again used without success.

On July 28, a plan was developed to again drop the river to the lowest possible flow for a concentrated search. The search dogs were brought back and reconfirmed the presence of scent. However, this effort was thwarted by heavy rains that raised the river flow and clouded any clear visibility in the water.

On August 17, search dogs were again brought in to again verify any possible scent of the missing woman. The dogs alerted in numerous locations around the Frog Rock rapid area. This indicated the continued possibility that the victim was in the area originally suspected and a plan was set into motion for a massive search the following day. State water engineers, Division of Wildlife, Colorado State Parks, and the Bureau of Land Management developed an unprecedented plan to have the Arkansas River flows reduced to the lowest possible level (<200 cfs) to accommodate the search. On August 18th, 65 personnel from 9 different agencies met at Frog Rock in an effort to locate and recover the body. Rope systems were set up, under water cameras were used, various probes were

deployed. Scuba divers searched the area the best they could but the current was still too strong for them to access areas under the rock. Attempts were again made to divert water around the rock. This search continued the entire day and at 5:30 pm it was called off without finding any sign of the victim. At the end of this extensive search there were still pockets around the ‘flat rock’ that remained inaccessible to searchers, probes, and cameras.

On Monday, October 25, preparation began for the third major attempt to recover the missing woman from Frog Rock Rapid. With the confirmation on October 5th by search dogs that scent was still present at the rapid, construction of a diversion dam started. The dam diverted the flow of the rapid into the river left channel to bypass the rock hazard where it was believed the victim lay. After completion of the diversion, the structure was allowed to settle all day Tuesday.

On Wednesday, October 27, rescue teams assembled to attempt the recovery. Participating teams included Colorado State Parks, Colorado Springs Heavy Rescue, Summit County SAR, Chaffee

Search dogs were used to verify a positive location of the victim.





Above: Two days after the July 11, 2010, accident (with normal flows around 600 cfs), Search and Rescue personnel attempt to look under the rock with underwater photo equipment. Below: The rock hazard is isolated on October 25 after the construction of a rock dam to divert the rapid's flow to a channel on river left. The victim's body was successfully recovered after a third major attempt on October 27, 2010.



County SAR, as well as individual members from Swatch Rescue, and Salida Fire Department. Also present were Chaffee County Sheriff and Undersheriff, Chaffee County Coroner and Deputy Coroner, Bureau of Land Management AHRA River Manager, U.S. Forest Service, as well as the Colorado State Parks Communications Manager.

With the support of the other rescue personnel, the Colorado Springs Heavy Rescue Dive Team was able to access areas underneath Frog Rock that had previously been inaccessible. At about 1:18 pm contact was made with the victim's body in a 10' by 10' by 5' high chamber under Frog Rock about 12

feet underwater. She was recovered at approximately 1:30 pm and turned over to the Chaffee County Coroner at about 1:50 pm. Colorado Springs divers then went back under Frog Rock and videoed the area and chambers under the rock.

On Friday, October 29, the removal of the diversion structure was conducted. Construction of the diversion and its removal were performed by a local construction company in consultation with a river engineering company at a cost of \$7,600. That cost was split between Arkansas Headwaters Recreation Area, Chaffee County Sheriff's Office and the Bureau of Land Management.

On November 4, AHRA received a

letter forwarded from Chaffee County Coroner. The letter verified via dental records that the body recovered from Frog Rock Rapid was the woman missing from the raft trip.

Of the many recoveries AHRA has conducted during its 25 years of existence, this was the most unorthodox and extended. The staff of AHRA would like to thank all of the entities that assisted in returning the remains of this young woman to her family. It would not have happened without their cooperation and hard work. ♦

Stew Pappenfort may be reached at: stew.pappenfort@state.co.us.

What is River Management?

Divers look at the entry point to pockets under the rock and plan the final recovery attempt. Photos: AHRA staff.



Broom Slaying Along the Klamath



It took nine folks to pull a stubborn Scotch Broom queen out of the sands of Bullfrog Camp on July 4, 2011. Photos: Dave Payne

by Dave Payne

For the past ten years a major focus along the Klamath River has been the removal of invasive plant species within the immediate river corridor. I recall when I first came to the Klamath River in September of 1978 there were widespread populations of Scotch Broom scattered about. They stood out in spring as the showy blossoms added color to the landscape. Little did I realize that some thirty years later we would be pulling these plants before they took over the river corridor.

The Klamath River in far northern California was designated a National Wild & Scenic River in 1981 when California Governor Jerry Brown petitioned Secretary of the Interior Cecil Andrus to add several northern California rivers into the national system. This was allowed under Section 2Aii of the Wild and Scenic River Act of 1968. Sadly, no federal “wild & scenic” dollars would come with this designation as this river was not a congressionally designated river, but a state petitioned river.

Over time I have developed a management philosophy pertaining to the Klamath River. I like to use the golf course analogy to explain things to folks who ask, “What do you do?”

Imagine a river corridor as a long linear golf course. The “tees” are the river access points that allow the public on the course. The “greens” are the camping beaches that are manicured to remove invading weeds and willows just as greens are manicured on the golf course. The “traps” could be considered the rapids. In my

case, the river ranger crews are just like golf course maintenance personnel. We use rafts, inflatable kayaks, and river boards to access our work sites just like golf course personnel would use golf carts. We choose a segment of river to float each day and perform various duties pertinent to that segment. Duties are typical as with most rivers: pick up trash at access points; mow river access parking areas to prevent fires in tall dry grass; pull trash from riverside vegetation; pull pioneering weeds from sandy beaches; break up fire rings on camping beaches; remove graffiti from rocks and signs; brush river access roads and trails; and remove invasive plant species from the river corridor. These are the maintenance aspects of the job.

We also greet and educate the public. We issue free California Campfire permits to river users and explain California fire laws to many out of state vacationers. We plan trips for folks over the phone; we developed a Google Earth river map for folks on our forest website; and we check folks at put-in for various required equipment. We direct folks to alternate floats when Karuk Ceremonies close certain segments of the river during August. This is the social aspect of the job.

In the case of the Klamath River, we are considered a “public golf course” not a “private country club.” We have a highway that runs parallel to the river. We have 27 river access points that allow the public to enter the course. Therefore, the Klamath River is a Recreational component of the National Wild & Scenic

River System. A “private country club” is a river with a single controlled access and a permit system that tends to filter out those who can “play” the course.

I publish a “Leader Board” at the end of each season for our commercial river guides. “Par” for our course are the smiling faces of river users as they challenge the course under the beautiful blue skies of summer.

In recent years noxious weeds and invasive species became the buzz. Several of my botanist friends opened my eyes to the problem along the Klamath River. Larry Abers was a great friend who was a member of the California Native Plant Society. Larry would volunteer to float with us and do whatever was needed that day, including pulling non-native weeds such as Scotch Broom.

The problem of invasive weeds became apparent to me when I visited other great rivers in the southwest and witnessed the tamarisk invasion. Then I saw what Scotch Broom could do to a river corridor in northern California. The Upper Sacramento River from Dunsmuir down to Delta is choked with both Scotch Broom and Spanish Broom. Early efforts to begin to pull the broom species there began with local groups from the Dunsmuir area as early as 2008.



Matt Heath with a bundle of broom (Upper Sacramento, May 21, 2011).

I took notice and slowly began a “war” on Scotch Broom and other invasive weeds within the Klamath River Canyon. Larry came on several river trips and pulled Scotch Broom on July 11, 2009. This trip would serve as a catalyst to begin a full scale war against Scotch Broom. This particular trip was the last Larry would do with me as he unexpectedly passed away on July 31, 2009. As a tribute to Larry and the California Native Plant Society I started keeping track of the numbers of Scotch Broom plants we were pulling from the Klamath River corridor.

I was thinking about numbers. Our society tracks everything with numbers. Since sports folks track all sorts of ridiculous statistics, why not keep track of how many weeds we pull on an annual basis. I consider river personnel to be athletes so we began to keep a daily tally of our weed casualties.

In the spring of 2010, Facebook was on the internet and would serve as a great platform to publish our “war on broom.” On Earth Day, April 20th, 2010, I began the Facebook group “Klamath Broomslayers” to chronicle the war on Scotch Broom, French Broom, and Spanish Broom within the Klamath River corridor. The original cover photo showed Larry and me with a large Scotch Broom we had pulled from a river campsite. The group was dedicated to Larry’s memory and Earth Day.



Larry Abers and Dave Payne with Scotch Broom pulled at Corner Camp on July 11, 2009.

A few days later I created a second Facebook group page called “Klamath Mustard Mashers” to chronicle our war on Marlahan Mustard. The original photo here shows me with a huge Marlahan Mustard plant in blossom that was pulled from the mouth of Clear Creek.



Dave Payne with Marlahan Mustard pulled at Clear Creek in May, 2007.

So now we had a cause, but a limited army. I used the carrot of a river trip to get people out on the water and to help pull Scotch Broom or other invasive weeds. I had to look at the big picture, we had an invader in many small populations scattered up and down the river corridor. Ground zero became Happy Camp and we went after isolated remote populations that we could treat. I treated the whole endeavor like a war correspondent, describing battles and posting daily casualty lists to the Broomslayer page when appropriate.

Our “war zone” included the Klamath River corridor which has two National Forest Scenic Byways associated with it. California Highway 96 is also known as the “State of Jefferson Scenic Byway.” It runs from CA Route 263 west 63 miles to Happy Camp. At the Bigfoot statue on the east end of Happy Camp, the “Jefferson Scenic Byway” turns north to follow the Indian Creek Road into Oregon. The Bigfoot Statue marks the beginning of the “Bigfoot Scenic Byway” heading west on Highway 96 some 80 miles to Willow Creek, CA. I stay within the boundaries of Siskiyou County, so I do battle as far as 40 miles downriver of Happy Camp and east 70 miles as far as Interstate 5. We also plan to expand north several miles along the “State of Jefferson Scenic Byway” as it follows Indian Creek road north into Oregon.

Scotch Broom is unique in that it can be pulled all year long in northern California. It develops into a scrub that can get quite large in this area. One of the first pulled in 2015 was a 15 foot tall “queen” only a few feet from the edge of the river. I return to “battlefields” each year and remove “new recruits” which are mostly seedlings or whips. Usually after several years of treatment the battlefield becomes broom free.

Scotch Broom is not the only invasive weed we pull. We also have French Broom populations to the west of Happy Camp and an isolated Spanish Broom population east of Happy Camp. French Broom are the easiest to hand pull. Spanish Broom have a deep tap root and are the toughest of the three broom species to pull by hand. I try to give folks the opportunity to complete a “Broom Trilogy” by pulling all three species of broom at some point.

We gained an important tool in our arsenal when we discovered “Extractigators.” These are a weed wrench that clamps on to the stem of the plant and levers the plants out of the ground when you put your weight on the handle. They weigh about ten pounds and have proved to be the best tool for extracting plants from the ground. This tool also works to remove pioneering willows from sandy camping beaches. We obtained our first Extractigator on August 31, 2010.

In the month of May we turn our attention to Marlahan Mustard. This is a great weed for school kids to pull. We pull mustard until the seeds mature and turn black which is usually late June. I publish the casualties on the Facebook Group page, Klamath Mustard Mashers. We have used school groups since May 2005 to sweep river bars pulling Marlahan Mustard.



Here are the Dunn School of Santa Barbara students with the Marlahan Mustard collected at Independence River Access on May 24, 2005.

In late July we begin searching for Puncture Vine or goat heads at river access points and camping beaches. In 2013, Puncture Vine populations exploded within the Klamath River canyon. We found “Medusa”, a 25 lb monster Puncture Vine with six foot tentacles, growing on Crawford Beach on September 5, 2013. The plant had thousands of seeds or “goat heads” on it. It was collected, bagged, floated out and later burned. We

pulled Puncture Vine into October that year. We used “wetsuit bootie” covers over footwear to step down on goat head seeds as a method to pick up the thorny seeds. We continued to find goat heads in 2014 in various places. We did manage to eliminate Puncture Vine in several high use recreation sites and other locations.

The numbers are impressive when added up. What is tough is trying to convince folks to count the plants they pull. We occasionally have large groups that pull large amounts of weeds but we can only guesstimate how many plants are actually removed. The numbers reported below are actual numbers of weeds that were counted and written down, and do not include totals from several large groups where no accurate tally was kept. The key here is to pull a few weeds, take a break, write down that number and start at zero

Our totals from 2009 included:

Scotch Broom	3,748
Marlahan Mustard	110

In 2010, several large groups began to attack the broom forest at Bullfrog, just upstream of Ferry Point. It grew like bamboo shoots there after fires moved through in 2008. Our totals included:

Scotch Broom	20,828
French Broom	5,224
Marlahan Mustard	325
Tamarisk	2

In 2011, I volunteered for the Botany Department to pull broom during the winter. It is great exercise and does wonders to prevent cabin fever. Our totals that year included:

Scotch Broom	37,671
French Broom	1,884
Spanish Broom	96
Marlahan Mustard	3,490

In 2012, we recorded a good year of broom slaying.

Scotch Broom	57,860
French Broom	172
Spanish Broom	1

In 2013, we had a long season without fires pulling:

Scotch Broom	46,340
French Broom	3,809
Marlahan Mustard	8,022
Puncture Vine	20,253
Spotted Knapweed	119
Tamarisk	1

In 2014, large fires closed segments of the river in August and September yet still:

Scotch Broom	44,136
French Broom	7,760
Spanish Broom	102
Marlahan Mustard	11,806
Puncture Vine	3,279

In late 2014, the Broom Gall Mite (*Aceria Genistae Nalepa*) was found on Scotch Broom plants east of Happy Camp on Cade Mountain. These dudes had naturally crossed state lines from Oregon and found a new home in the Klamath watershed. This is significant because these mites had been considered as a high priority for introduction as a biological control for Scotch Broom. These mites evidently induce galls that are associated with stem dieback and plant death. We hope to treat and monitor Scotch Broom populations with the Broom Gall mite in the near future. We have noticed they seem to be spreading naturally to different Scotch Broom populations without our intervention. Maybe the cavalry has finally arrived!

As 2015 rolls along we will continue our war on invasive species along the Klamath River using school groups, volunteers, and whomever wants to help. Mild weather in northern California during January allowed for the removal of 8,456 Scotch Broom plants. Despite minor flooding we pulled 5,411 Scotch Broom plants in February.

The heavy rains in early February 2015 created the highest river flows we have seen since the January 1, 2006 flood event. What seeds were washed in and what new populations of invasive weeds were established remains to be seen. Folks are invited to come join us, float the river, pull some invasive weeds, and help us care for our riparian environments along the Klamath River. ♦



Above: Hannah Goelz preparing to remove “Medusa” from the sands of Crawford Beach on September 5, 2013. Below: Hannah is triumphant in removing this giant puncture vine!



What is River Management?

by Fred Akers

I got my connection to the outdoors and the Great Egg Harbor River from my upbringing on the Jersey Shore, my parents, and active participation in the Boy Scouts of America.

I graduated from Drexel University with a Bachelor of Science Degree in 1973, and started a career in production planning for factory manufacturing.

After about seven years and chasing three different manufacturing jobs in PA, NJ, and NY, I decided that a sense of place was more important than chasing jobs, so I moved back to the Jersey Shore in the Great Egg Harbor Watershed around 1980.

I chased a number of different regional and local jobs to support my wife and two children for about another 20 years, and then reconnected with the Great Egg Harbor River around 2000.

My wife and other local river advocates, not I directly, got involved with finding a meaningful way to protect the Great Egg Harbor River through the Wild and Scenic Rivers Act.

Working with Congress and the National Park Service, these river advocates were able to craft a plan to have 129 miles of the Great Egg Harbor River System, including parts of 17 tributaries and a tidal estuary, designated by Congress into the National Wild and Scenic Rivers System, but to be protected by local jurisdictions as there were no federal lands involved in the designation. This was a brand new and novel planning innovation to try to protect private lands rivers that were not part of any existing National Parks by working in cooperation with local partners who were not federal employees.

The first Comprehensive Management Plan for the first Partnership Wild and Scenic River took eight years to develop and publish, and included a full-fledged Environmental Impact Statement and Alternatives Analysis.

The Preferred Alternative for the local management of the Great Egg Harbor National Scenic and Recreational River was to establish the newly created non-profit Great Egg Harbor Watershed Association as the host organization, which would



Fred Akers measuring pH and conductivity on the freshwater tidal South River, a designated tributary of the Great Egg Harbor National Scenic and Recreational River. Photo: Great Egg Harbor Watershed Association

then manage and operate a river council of 12 local towns that today represent over 198,522 citizens.

I became a Trustee of the Great Egg Harbor Watershed Association (GEHWA) in 1999, and the Great Egg Harbor River Council was started in 2000, the same year that the Great Egg Harbor National Scenic and Recreational Comprehensive Management Plan and Environmental Impact Statement were published.

The council began to meet in 2000, and one important funding component of implementing the Comprehensive Management Plan was to hire an Administrator to staff the River Council. As a Trustee of GEHWA, I was on the hiring committee for this new position, and we ran ads to find a person who would be capable of making this new planning innovation really work.

During this process, it occurred to me that this was more than just a job, and that to make it really work and be successful, the new River Administrator needed to have a deep seated connection with the river, which none of the small field of applicants had.

So it was then that I resigned as a Trustee, applied for the job myself, and had to compete with the other applicants.

My strengths for the job were that I had a BS in Business Management with financial and managerial skills to administer the River Council, I had extensive corporate planning and supervisory skills to implement the Comprehensive Management Plan, and I also had over 35 years of experience as a recreational paddler and a Boy Scout Leader leading youth outings on the Great Egg Harbor River.

A few months after I got the job, I came to realize that while river management and watershed management had significant similarities to business management, there were so many differences that I had to learn so many new things, like land use planning, geographic information systems (GIS), ecosystem science, river morphology, water quality, aquatic life, education and outreach, core curriculum integration, volunteer management, fund raising, organizational capacity development, and strategic planning, just to name a few.

After a few years on the job, I had to learn even more new things, like how to deal with federal agency bureaucracy, how to communicate with Congress, and how to work with and help lead other Congressionally designated locally managed rivers that were like the Great Egg Harbor in NJ and other states that were starting up and learning themselves how to protect their rivers through a local perspective.

Today there are 13 Partnership Wild and Scenic Rivers in 8 eastern states that are private lands rivers that are planned to be protected by local managers and local jurisdiction, and are intended to be supported by federal funding through the National Park Service.

Some other things I have learned over the 12+ years I have been a non-federal river management professional is that river protection and the implementation of private lands river management plans takes not only dedicated advocates, volunteers, and non-federal funds leveraging, but it also takes significant federal funding.

The Partnership Wild and Scenic River Program that protects these 13 private lands rivers -- with additional new rivers under study -- is a fragile mechanism that can be broken by Congress adding new rivers without adding new funding, and National Park Service bureaucrats redirecting Partnership Wild and Scenic Rivers appropriations to other programs that do not implement local river management protection plans.

With over 22 years of sustained success, and the expansion to 13 federally designated Wild and Scenic Rivers in 8 states, the Partnership Wild and Scenic Rivers Program is a model of success for protecting Outstanding Resource Values on some of the east coasts most valuable free flowing rivers on private lands.

As the River Administrator for the first one of these locally protected rivers, I intend to continue protecting my river, and the PWSRs Program that makes this protections possible, for as long as I can. ♦



RMS Receives Corporate Foundation Support from RBC Blue Water Funds

The River Management Society (RMS) has announced receipt of a \$5,000 grant from the RBC Blue Water Fund to support its participation in the Cross Watershed Network (XWN) and the upcoming Cross Watershed Workshop.

Risa Shimoda, RMS Executive Director and XWN Steering Committee member notes, “We are thrilled to receive this award as a representative of the Cross Watershed Network, the innovative collaborative we helped get started, and appreciative of RBC’s initiative that acknowledges the importance of grassroots freshwater initiatives.”

“This grant will help the XWN reach new heights in 2015 by fostering relationships between XWN participants and enabling them to share expertise at the annual workshop this fall,” notes Stacy Beough, Executive Director of the Tamarisk Coalition and XWN Steering Committee member. “We commend RBC for investing in the innovation and creativity which is the XWN.”

Chip Norton, Verde Watershed Restoration Coalition leader and XWN Steering Committee member, cites his unique and tangible benefit from participating in the XWN. “The annual XWN workshop provided our watershed partnership with a great return on time investment. We departed the workshop with valuable new tools and relationships that have enhanced our capacity to conserve rivers.”

Launched in 2007, the RBC Blue Water Project is a 10-year global charitable commitment of \$50 million to help provide access to drinkable, swimmable, fishable water, now and for future generations.

XWN – The Cross Watershed Network, for which RMS is a founding member, is an initiative that strives to connect practitioners through information sharing, collective capacity building, and collaborations across watersheds. ♦

Midwest Chapter Celebrates Riverology

by Molly MacGregor

To some, the words “river” and “management” don’t necessarily fit together. Rivers move away from us. Management keeps us on point.

That’s not a problem for an experienced river manager. “You’ve got to go where the river goes,” said Verlen Kruger, perhaps the Midwest’s most accomplished paddler. According to a handful of long-time Midwest river managers, the successful river manager is a resourceful risk taker, able to coordinate government agencies, review scientific reports, navigate unknown channels and explain it all to the public. Michigan’s Doug Carter said that complex knowledge and skills made him a “riverologist”—by which he may have meant the ability to master any subject.

What pulls all that together? It’s the connections made with other people who inspired them, the people who want to be on the river and with other people who know and love rivers.

“Dozens of rivers later, I’ve found my professional and personal relationships with river advocates to be incredibly rewarding—what a dedicated and passionate group,” said Sue Jennings, of Michigan’s Sleeping Bear Dunes National Lakeshore. She is one of four managers who contributed thoughts for this article area. The others are: Ed Fite (Director, Oklahoma Scenic Rivers Commission), Randy Thoreson (Project Manager, NPS Rivers and Trails Program), and Erik Wrede (Water Trails Coordinator, Minnesota Department of Natural Resources).

None of them planned on a career working on rivers. *“For me it’s not really ‘river management’ in the academic sense, but the working appreciation and love of rivers which is a strong thread running through who I am,”* said Randy Thoreson.

Ed Fite studied accounting, finance and business as an undergraduate. *“Back in the 1970s there were very few programs to train up a riverologist,”* he said. *“My first job was to sort and stack recyclable soda drink bottles (3-5 cents paid to customers each when returned) at our local Walker’s Superette Grocery Store in Muskogee, Oklahoma. My first job on a river is my present job, still Oklahoma Scenic Rivers Commission Administrator, 32 years later.”*

“My career meandered from a variety of positions that eventually led me to rivers, or perhaps rivers found me,” said Sue Jennings. She studied Forestry and Natural Resource Management at the University of Michigan and started working on specific natural resources challenges in forests. This work led to working with people whose use of forests influenced forest health. Jennings explained: *“My first job was with Union Camp, a forest products company. I worked in their genetic tree breeding program in Georgia. I then took a term position with the US Forest Service in forest pest management in Asheville, NC. That led me to my first permanent federal job, and where I felt I fit in with the mission, working for the NPS out of Asheville on the Blue Ridge Parkway. I was helping with a project to protect a sensitive plant population in a high use area. It was a great combination of field work and public outreach/education.”* Having knowledge plus a willingness to learn is a critical skill these river managers have developed. Sue Jennings said the most

important skill she has learned is *“an understanding of the laws/policies that we work within and to find a workable solution using river science, law/policy, combined with the ability to do a whole lot of listening to understand the needs/positions of those I’m working with. This helps build the framework for finding a solution that benefits everyone involved,”* she said.

“Oh my, there are so many skills I’ve learned,” Fite said. He listed several:

- Pursuing an issue related to USEPA-approved water quality standards to U.S. Supreme Court;
- Understanding and utilizing applied fluvial geomorphology techniques;
- Coordinating and cooperating in whole river basin (multi-state) strategies;
- Recreational law enforcement;
- River-based recreation management;
- Providing educational outreach;
- Negotiating politics and special interests groups;
- Teaching river rescue;
- Mentoring others of the importance/value of rivers.

The most important skill is basic, he said: *“Do more listening and less talking... Mentoring the younger team members and interested stakeholders, paying forward passion of how important rivers are to our state, country and the world... As I’ve gotten older and am looking back on my career to date, water is the lifeblood of the human soul.”*

“It’s as much about human relationships as it is about river science,” Jennings said. *“Most of the river management that I’ve been involved with included development projects and/or projects to reduce impacts from certain types of human caused problems (horse crossings, transport of aquatic nuisance species, waste management). Having all your ducks in a row is essential—knowing where you can be flexible (law/policy/science), what you can (and cannot) compromise on, staying involved in professional organizations to stay abreast of issues and maintain contacts/experts in various fields (hydrology, fisheries, etc.), and cultivating working relationships with everyone involved, from all sides, is part of getting the ducks in a row. Successful projects often result in creating new river advocates.”*

Midwest river managers say their careers help them connect to important people and experiences in their own lives. They each spend a lot of time on the water.

Working with rivers *“stems from my early childhood years enjoying and crossing the St. Croix and Mississippi rivers to sitting along and fly fishing the Gallatin River in Montana, where I lived for several years. I bring this passion and love to my job with the NPS’s Rivers and Trails Program, sprinkled with personal time along and on rivers throughout the country,”* said Randy Thoreson. He added that he tries to get out on the St. Croix River weekly in the summer.

“My river instincts were honed as a toddler by my Grandpa Oscar Baldwin Reppe,” said Minnesota’s Erik Wrede. *“Whenever my family visited my grandparents, the first thing*



‘Riverologist’ Doug Carter along an Irish trout stream. Randy Thoreson enjoying a fine paddle!



What is River Management?

Sue Jennings sports RMS logo wear! Right: Ed Fite catches a rainbow trout in Oklahoma on the lower Illinois River, below Tenkiller Ferry Reservoir, using a Tenkara Rod (“no reel required—if Gary Marsh asks, direct him to TenkaraUSA.com” says Ed). Photo: Kent Halsell



he would say to me was ‘When are we going fishing?’ Then we would get out the pitchfork for the best job a kid could ever ask for – digging for worms. For Grampa, fishing meant trout fishing on rivers. We would drive through SE Minnesota looking for a likely spot, which coincidentally often had a farm auction en route (Grampa had scouted the newspaper). At an early age, I learned the practice of scouting water conditions while passing over a bridge. This included smelling to determine whether the trout were active that day. I still slow down and sniff the wind at every bridge I cross, and on a good day, I’ve got either my fly rod or my canoe with me. Eventually, I was bringing my elderly Grampa fishing, and repeating the stories he used to tell me because he was too tired to tell them. He would smile, though, with the satisfaction that he had taught me well. I know that the more time I spend on rivers for personal recreation, the better I am at my job. I know that the more I bring my children and their friends with me, the more likely it is that someone will be bringing me fishing when I’m old. They will be sniffing the wind, and maybe even be working in the river management field,” Wrede said. “Nothing makes me prouder than to hear my son tell his friends what a cool job I have. It’s a great combination of work, passion and pleasure,” Wrede added.

Ed Fite uses river time to decompress from a busy season, so you will find him on the river in the fall and winter. “I tend to float more times in the period of late fall, all winter and springtime. Summertime is all about work (water quality monitoring, abatement of navigational hazards, law enforcement, trash/litter clean-up, rescues, etc). My favorite time to float is in the winter while it is snowing or sleeting, the ordinary floaters have gone home and you have the river all to yourself. On those overcast days, the river is at its very best majesty, one can see every rock/gravel on the bottom of the stream and the adjacent riparian area comes alive with turkey, deer, squirrels, Kingfishers, an occasional elk, hawks and Bald Eagles. If one listens, the sound of the water running over/ around limbs of ice covered strainers and submerged logs is mesmerizing... Simply, all of my river trips are labeled “fun”... there’s never a bad day on a river,” Fite said.

Jennings works with lakes now, but she paddles often. “I try to get on a river at least two to four times a month, depending on other excursions. Extended river trips occur once every two to three years. Fortunately, I live close to a number of wonderful rivers, but then, don’t we all?” ♦



Erik Wrede spending time with his young son Lukas on the river.

These managers shared favorite quotes about rivers.

Jennings’s quote is from Winnie the Pooh:

“If you stand on the bottom rail of a bridge and lean over to watch the river slipping slowly away beneath you, you will suddenly know everything there is to be known.”

Thoreson’s quote is a life motto:

“The mark of a successful person is one who has spent an entire day on the bank of a river without feeling guilty about it.”

Ed Fite returned to the challenge of riverology for his summary of river management:

“Preservation of scenic rivers is a cause that has no end point. There is no point at which we may say our work is finished as riverologists.”

Lastly from Wrede, a quote from Grampa Oscar Baldwin Reppe:

“When are we going fishing?”



What is River Management?

Check it out.... RMS Members hold many different job titles:

Administrator	Fundraising Coordinator	Project Manager
Adventure Faculty Education	General Manager	Public Affairs Officer
Advocacy Chairman	General Professional IV	Recreation & Trails Manager
Alaska Field Representative	Geologist	Recreation Business Program Manager
Alaska Representative	Graduate Student	Recreation Manager
Assistant Field Manager	Grant & Contract Coordinator	Recreation Planner
Assistant Professor	Hydraulic Engineer	Recreation Program Manager
Assistant Ranger	Hydroelectric Coordinator	Recreation Specialist
Associate	Hydrologist	Refuge Manager
Associate Director, Northern Rockies	Land Protection Director	Regional Park Manager
Associate Field Manager	Land Specialist	Regional Water Specialist
Associate Professor	Landscape Architect	Researcher
Attorney	Law Enforcement Ranger	Resource Conservation Manager
Attorney / CPA	Lead Planner / River Ranger / Park Ranger	Resource Planner
Biological Science Technician	Leader, Community Assistance Programs	Restoration Biologist
Biological Scientist	Liaison	Retired
Biologist	Maintenance Ranger	River Administrator
California Stewardship Director	Management and Program Analyst	River Guide
Captain	Manager	River Manager
Chairman	Managing Partner	River Office Management Specialist
Chief	Marketing + Education Officer	River Ranger
Chief of Resources Stewardship	Membership, Events and Office Manager	River Ranger Intern
Chief Ranger	Mitigation Projects Manager	River Ranger Supervisor
Civil Engineer	National Rivers Program Manager	River Recreation Manager
Conservation & Recreation Planner	Natural Resource Planner	River Recreation Supervisor
Conservation Director	Natural Resource Specialist	Sales Manager
Conservation Planner	Natural Resources Administrator	Senior Consultant
Consultant	New Hampshire Projects Director	Senior Environmental Planner
Consulting Recreation Planner	NOC Associate Director	Senior Geomorphologist/Geologist
Coordinator	NRCS Idaho Conservation Easement Program	Senior Ranger
Corps River Restoration Director	Coordinator	Senior Scientist
Deputy Assistant Director	Officer	Socioeconomic Specialist
Deputy Commissioner/Director	Operations Manager	Special Uses and Wilderness
Deputy Division Chief	Outdoor Recreation Planner	State Park Ranger
Director of Field Operations	Outreach Coordinator	Stormwater Environmental Specialist
Director of Recreation	Owner	Stream Program Manager
Director of Research	Pacific Northwest Stewardship Director	Student
Director of Water Resources	Park Ranger	Supervisor
Director, Blue Trails	Partner	Town Manager
District Engineer	Ph.D. Candidate	Trail Director
District Ranger	Planner	Training Coordinator (SCEP)
Division Director	Postdoctoral Fellow	Visitor Services Coordinator
Environmental Planner	President	Volunteer
Environmental Specialist	Principal	Water Quality Analyst
Environmental Studies	Product Engineer	Water Recreation Outreach Specialist
Estimate Manager	Professor	Water Trails Coordinator
Executive Director	Program Analyst	Watershed Education Coordinator
Executive Director Marketing	Program Assistant	Wild & Scenic Rivers Coordinator
Field Manager	Program Biologist	Wild & Scenic Rivers Program Lead
Field Officer Manager	Program Director	Wilderness & WSR Program Leader
Fisheries Biologist	Program Leader	Wildlife Biologist
Floodplain Administrator	Program Manager	Wilderness Planner
Forest Geologist	Program Specialist	Writer
Forest Planning/Env. Coordination	Project Coordinator	

River Management at Arctic National Wildlife Refuge

by Jennifer Reed

The Arctic is described by overt, and often confounding, contradictions: How can some of the coldest places on the planet also host some of the warmest recorded temperatures in their regions? Do you realize that the largest mammal to walk the Arctic, the polar bear, is no bigger at birth than a rat (about a pound in weight, a foot in length, blind, toothless, hairless, and immobile)? And, even though Arctic Refuge is remote, vast, and rugged, it also hosts increasing numbers of visitors, in concentration along its rivers and coasts, during just a few short pulses over the year, upon a landscape that is profoundly fragile and slow to heal.

How can Arctic Refuge managers deal with such contradictions in visitor management? Each national wildlife refuge develops management direction for the future to best meet its purposes and goals, so that habitat is protected for the benefit of plants, animals, fish and for their enjoyment by people. Arctic National Wildlife Refuge finalized its Comprehensive Conservation Plan, its guiding management document, on April 3, 2015. The effort employed extensive public involvement, and generated a high level of national interest and controversy—so approval of the final plan is something to celebrate! This Record of Decision lays the foundation for management of the Refuge’s rivers into the future, and documents the U.S. Fish and Wildlife Service’s selection of the Plan’s Preferred Alternative, which recommends approximately 12.28 million existing acres of Arctic Refuge for Wilderness designation, and four additional rivers within the Refuge be included in the National Wild and Scenic

Rivers System. With more than 19 million acres total (and 7.2 acres already designated Wilderness), more than 1000 named and unnamed tributaries, more than 20 regularly-visited river corridors, and three already designated Wild Rivers, there are a heck of a lot of rivers to manage!

When I came to Arctic Refuge more than ten years ago, my role was to provide general outreach and information to a diverse range of audiences with curiosities about Arctic Refuge, including answering the wonderings of international and national citizens; helping visitors plan their wanderings on the refuge’s vast landscape; and fostering meaningful relationships with our rural neighbors who live within and along the boundary of the Arctic Refuge (for whom we have a direct responsibility to protect subsistence opportunities). My role morphed dramatically, and as you might guess expanded over the years, in part due to the demands of helping to author the comprehensive plan. But my role also expanded in part due to my own enthusiastic dedication to the nexus between professionalism in conservation management and the effects of visitor use on landscapes and “gateway” communities.

Where did that dedication come from? We all have mentors we can name who have influenced our priorities. Through the years, I would have to say numerous individuals whom I got to know through the River Management Society have been some of the most critical to my professional development. RMS colleagues across the country have helped build my individual capacity to identify the most compelling management needs, the tools available to address those needs,

and the methods for implementing tools—all to help influence the best possible management of Arctic Refuge’s rivers.

The comprehensive plan names goals specific for management of wilderness characteristics across the refuge, identifies how we inform various audiences about Arctic Refuge and sets a good foundation for effective visitor use management. So, where do we go from here? The Arctic Refuge comprehensive plan identifies developing a more detailed Visitor Use Management Step-down Plan as a high priority. This next level of planning will address management of visitor use along refuge rivers and arctic coastline, where visitor use and management issues of concern are concentrated.

I invite you to continue to follow the great mystery of the Arctic Refuge and its endless contrasts by being a part of the next chapter of planning for Arctic Refuge’s future. Occasional contributions to the RMS Journal will provide updates about public involvement opportunities for river management at Arctic National Wildlife Refuge and the results of this planning effort.♦

Jennifer Reed, Visitor Services Coordinator at Arctic Refuge, can be contacted by phone (directly at (907) 455-1835 or toll free at (800) 362-4546) or by email at jennifer_reed@fws.gov.

For more information about Arctic Refuge, visit the web: information about the Refuge’s Comprehensive Conservation Plan and Final Environmental Impact Statement is available at <http://www.fws.gov/refuge/arctic/conservation.html>; for current topics visit <https://www.facebook.com/arcticnationalwildliferefuge>; and for general refuge information: <http://www.fws.gov/refuge/arctic/>.



Polar bears are using coastal habitat increasingly as sea ice diminishes, challenging local residents and Arctic Refuge staff to address visitor use management on both water and land. Photo: USFWS Susanne Miller



Though polar bears are not likely to be encountered on inland rivers, the Arctic coastline is traveled by both polar bears and visitors. Arctic Refuge has polar bear-human safety information available at: <http://www.fws.gov/refuge/arctic/>. Photo: USFWS Jennifer J. Reed

Author Jennifer Reed conducts wilderness conditions assessments of popular Arctic Refuge rivers via foot and packraft. Photo: USFWS Jeff Brooks

Giving a Voice to *Rock Skipping* Enthusiasts

by Ross Parsons

When asked recently about my relationship with rivers, I quickly blurted, “I guess I’d have to say that it’s a paradoxical one.” This of course confused my listener and even myself. “It’s paradoxical in the sense that despite

Idaho to pursue a Master of Science in Natural Resources. This was no surprise to my friends and family, for I held strong passions for science, the outdoors, and education. The program was partially located in McCall, Idaho, at the McCall Outdoor Science School (MOSS). For



While at MOSS, I quickly discovered how well students resonate with outdoor science—even those who claim to “hate” science. Photo: University of Idaho

growing up in and around Idaho’s rivers, I’m not sure I fully understood and appreciated them until a few years ago.” I’ll be the first to admit that although multi-day river trips were a part of my upbringing (as well as a torturous 7-day stint of being on a boat with my sister), I was never fully aware of the true value that came from a river. True, I knew they were wild, unforgiving, and offered a recreational haven for boaters, fisherfolk, and sightseers, but I never grasped the value—aesthetic and monetary—of rivers until well into my teens.

In the fall of 2013, I enrolled in graduate school at the University of

two semesters, my graduate cohort and I dedicated half of our studies to preparing lesson plans and teaching environmental science to 4th, 5th, and 6th graders. All of the teaching was completed outdoors in Ponderosa State Park, a true paradise where students from all over Idaho can come for a week and explore their natural surroundings. As I quickly discovered from the school children that came to MOSS, kids are incredibly intuitive thinkers (more so than adults, perhaps). As long as they are presented with clear and relatable information, they can process the most abstract ideas and put them into their own words.

I remember one specific conversation I had with my student group while on the shore of Payette Lake, near the headwaters of the North Fork of the Payette River. In preparation for our second field day, which concerned learning about the water cycle, gathering and analyzing water quality data, and exploring the economic and social impacts of water in Idaho, I presented the students with a simple question. “Why should we care about water in Idaho?”

To minimize the predictable silly responses, I asked them to think silently for a few moments. Their answers were serious and well thought out.

A brave, smaller than average boy spoke up. “My mom and dad grow alfalfa, so they need water to make money.”

“I like to fish with my brother in the summer, and fish need clean water with lots of oxygen and macroinvertebrates,” said a rather unsuspecting, usually quiet girl.

Eventually, each student added his or her two cents, confirming the notion that we all use water for recreating, growing food, and creating electricity to power our communities.

Later in the day, after having explored the steps of the water cycle and having gathered water quality data, the students engaged in a water allocation debate. In pairs, students “represented” various water stakeholders—farmers, scientists, hydroelectric companies, private guiding services, and municipalities. After whispering to one another, a group of boys asked, “Can we represent a coalition of rock skipping enthusiasts? A lot of people like to skip rocks and deserve a say in the matter.” Considering they had such a compelling and professional argument, I agreed to their idea so long as the debate was taken seriously. It also didn’t hurt that I too was an avid rock skipper.

Students respectfully asked other groups hard-hitting questions and gave thoughtful, civilized responses. They surprisingly listened to one another and although encountering disagreement, sought to understand the thought process of other stakeholders. The debate went better than I expected—so great, in fact, that I did this exercise with each one of my groups thereafter.

From my time spent working at MOSS, as well as being a substitute teacher in Jackson, Wyoming, and field instructor at SOAR (a summer camp for kids with ADHD, ADD, OCD, and a variety of other disabilities) in Dubois, Wyoming, I’ve learned one thing—if we give kids adult-like options, we see them perform at an adult-like level. By no means am I suggesting that we give a selected bunch of 6th graders the key to river management; instead, I believe that as river managers we have a duty—an obligation—to reach out to young students in whatever way possible. If information is presented in an engaging and interactive manner which young minds can connect with, introducing students to the world of river management will surely wow them. Sharing the tools of critical thinking and collaboration can propel even the least suspecting student to have that breakthrough “ah-ha” moment. This would have greatly benefited me as a kid, for I knew rivers were great, but I didn’t know why they were great. I had very little scientific education to support my love for rivers.

In the summer of 2014, just after having finished my first two semesters at the University of Idaho, I was fortunate to work with the Boise BLM’s Owyhee Wilderness Rangers in Southwest Idaho. I was profoundly impressed with their dedication to educational outreach. Lead rangers, botanists, and outdoor recreation planners from various field offices teamed up and delivered outreach activities throughout the year, and went well beyond their job description to connect with students from across Idaho. As one example, the team had initiated a community garden at a rural elementary school, which educated students about the unique local flora and geology of the Owyhee Desert. As enthusiasts, proponents, and managers of rivers, it is pertinent to provide educational outreach to students, for they can play a very insightful role in the collaborative process of river management.

Moving into my own professional career, I will remain humble and attentive. This summer, I look forward to working with the BLM river rangers on the Rogue River near Grants Pass, Oregon. I have more questions than answers as I enter into the professional world of river management. I realize that I have a lot to learn, more than any college or university can possibly teach. One thing is for sure—I remain adamant that education is the key to change. Be it this year or next, I look forward to delivering educational outreach programs involving river management to youth in the communities where I live and work. ♦

Ross Parsons, who is the first student to earn the River Studies and Leadership Certificate, received a Master of Science in Natural Resources from the University of Idaho’s College of Natural Resources in December, 2014. Dr. Tamara Laninga, who coordinates the River Studies and Leadership Certificate at the U of I, is an Assistant Professor in the Conservation Social Sciences department. Check out: <https://www.youtube.com/watch?v=ID3xoWdHcAI>

River Studies and Leadership Certificate

The River Studies and Leadership Certificate (RSLC) is a program that offers students a foundation of knowledge, skills and experience in river-based science, policy, conservation, education, and recreation. Colorado Mesa University, University of Utah, University of Idaho and Prescott College offer courses that fulfill the certificate requirements. Faculty members from these institutions collaborate with students to design a personalized academic program that empowers them to address the real world challenges facing our nation’s rivers.

The coursework required by the RSLC program is focused specifically on river systems, yet it is interdisciplinary in nature; students explore and study river systems in ways that integrate the life and earth sciences, policy and conservation, socio-cultural and economic factors, as well as education and recreation. See the RMS website for program details.

RSLC Coordination

RMS, the awarding agency, is responsible for:

- Coordinating updated versions of the Accepted Classes and matrix (reviewed annually for updates);
- Coordinating communication with colleges;
- Developing / maintaining a RSLC website;
- Providing a certificate of RSLC completion; and
- Maintaining a database of RSLC recipients.

RSLC Student Support

Students are required to share with the RMS community by presenting at RMS events or publishing an article in the RMS Journal. RMS will support current RSLC participants as follows:

- Award a one-year RMS membership;
- Invitation and waived registration to attend and present at an upcoming training or workshop; and
- Consideration for scholarship applications.

College / University Requirements

While there is no fee to participate, RSLC universities and colleges will:

1. Offer the participation of at least one faculty member on the RSLC Coordinating Committee;
2. Maintain a membership in good standing in the River Management Society by the RSLC advising faculty or the institution.

Contact RMS for more information.

What is River Management?

Allagash Wilderness Waterway User Impact Study

A 15-Year Comparison

by Walter Opuszynski

In 2014 the Northern Forest Canoe Trail was contracted by the Allagash Wilderness Waterway Foundation to perform a User Impact Study on every campsite located in the 92-mile Allagash Wilderness Waterway (AWW) in Maine. The Allagash Wilderness Waterway is a state-managed National Wild and Scenic River, and is a magnificent part of the 740-mile Northern Forest Canoe Trail (NFCT). Founded in 2000, NFCT has evolved its stewardship program to include progressive trail management techniques. Although, putting out the biggest fires is a part of any land managers annual work plan, effective user impact studies are a great tool to have in the toolbox.

2000 AWW User Impact Study

In 2000, an initial User Impact Study was produced by the University of Maine’s Parks, Recreation and Tourism Program. It addressed regulatory requirements and management techniques aimed at maintaining a wilderness character of the waterway. Released in March 2000 as a technical report entitled “Monitoring the Condition of Campsites in the Allagash Wilderness Waterway” under the guidance and direction of John Daigle and Jennifer Collenburg, it outlines the product of three field seasons of collected data. During this time 76 campsites with 134 campsite cells were evaluated with measurement parameters established for the following user impact characteristics: campsite cell area, loss of ground cover, exposure of bare mineral soil, damage to trees, trees with exposed roots, extent of development, cleanliness, social trails, condition of toilets, condition of picnic table, amount of vegetation between campsite cells, and amount of vegetation between campsite cells and water.

The parameters were set to a 1–5 scaling system with 1 being the lowest degree of impact and 5 being the highest. For impacted ground and cell area measurements a center point was established for each campsite cell. Radius measurements were made from the center point out to the perimeter of compacted soil and cell area every 22.5° making for 16 radius measurements. Cell area is considered to be the outer boundary of a campsite. Compacted area is the bare earth space within a campsite which receives higher levels of user impact than the rest of a campsite and is typically located in the center of a campsite.

Compacted area and cell area data was entered into MapInfo™ mapping software, to create campsite maps and cell area measurements. The areas were set into scaled categories of measurement to adequately relate to degrees of impact. Field data was compiled and averaged and each campsite was given

a score. The scoring created a list of campsites with individual parameter scores and a campsite average. This data was linked to a user survey that was conducted giving land managers a better understanding of the types of impact that most detracted from visitor experiences. Combined, the two resources helped define the waterway’s management strategies. An example is a new commitment to allow vegetative growth between the cell areas at campsite locations with multiple cells. The information also provided the waterway managers a better understanding of locations that have had more pressure from usage compared to areas of the waterway that have a lower degree of use.

2015 User Impact Study

In 2012, the state of Maine approved a new management plan for the Allagash Wilderness Waterway. An identified goal of the management plan was the implementation of a new user impact study. The Northern Forest Canoe Trail was bought in to help develop the structure of the study; recruit, train, and support two interns to implement the survey; and write report documents to summarize and describe the results found during the study.

Reviewing the previous User Impact Study and working with the AWW Superintendent Matt LaRoche, we identified elements of the first study that we would want to replicate for comparison value as well as new measurements to include. The areas of replication were focused on cell area, area of compacted soil, vegetation between the cell and the water, and vegetation between cells. The new measurements were primarily associated with campsite water access points, a campsite feature that was mostly excluded from the 2000 study.

We were presented with the challenge of accomplishing this new user impact survey in one field season. To do this we decided to refine some of the measurements of the comparison study, one of which was the number of radiuses from cell center point, reducing them from 16 to 8. Because the 2000 study had recorded the collected data with a high degree of detail it was possible to develop a comparison by only using the radiuses captured every 45° from center. We found that there were limits of accuracy based on measurement collection techniques and changes in campsite center points that occurred between studies. Even with these limitations we feel that the data creates trigger mechanisms that allow for management decisions to be made.

To effectively measure the degree of erosion at water access points and trails, we developed a system of measurements that would record the extreme depth, width and length of the eroded area. Some access points would have no erosion (exposed bedrock or sandy beaches) and others had structures



ABOVE: Brendan Shumway records measurements taken at one of the 80 campsites along the Allagash Wilderness Waterway. Notice the measuring wheel placed at cell center, used with a measuring tape to efficiently take radius measurements for compacted and cell areas. Photo: Robert Kacir
BELOW: Robert Kacir holds steady an Old Town canoe as the survey crew is shuttled to a new section of the waterway. Photo: Brendan Shumway

such as wood or log steps. The structures were evaluated using a 1–5 scale, 1 being an access in poor condition and needing management and 5 representing a structure in good condition and not requiring immediate management action.

The scale system for measurement of vegetation between cell and water was altered to reflect new management initiatives. The current practice in the waterway is to provide mixed screening in the vegetative strip between the cell and water rather than a thick wall of vegetation or no vegetation at all. This allows a view of the water from the site and better penetration of wind, keeping the bugs down at the site, and making for a more pleasurable user experience. It also shields the campsite infrastructure and users from those traveling the waterway, giving a more remote feel to the travelers.

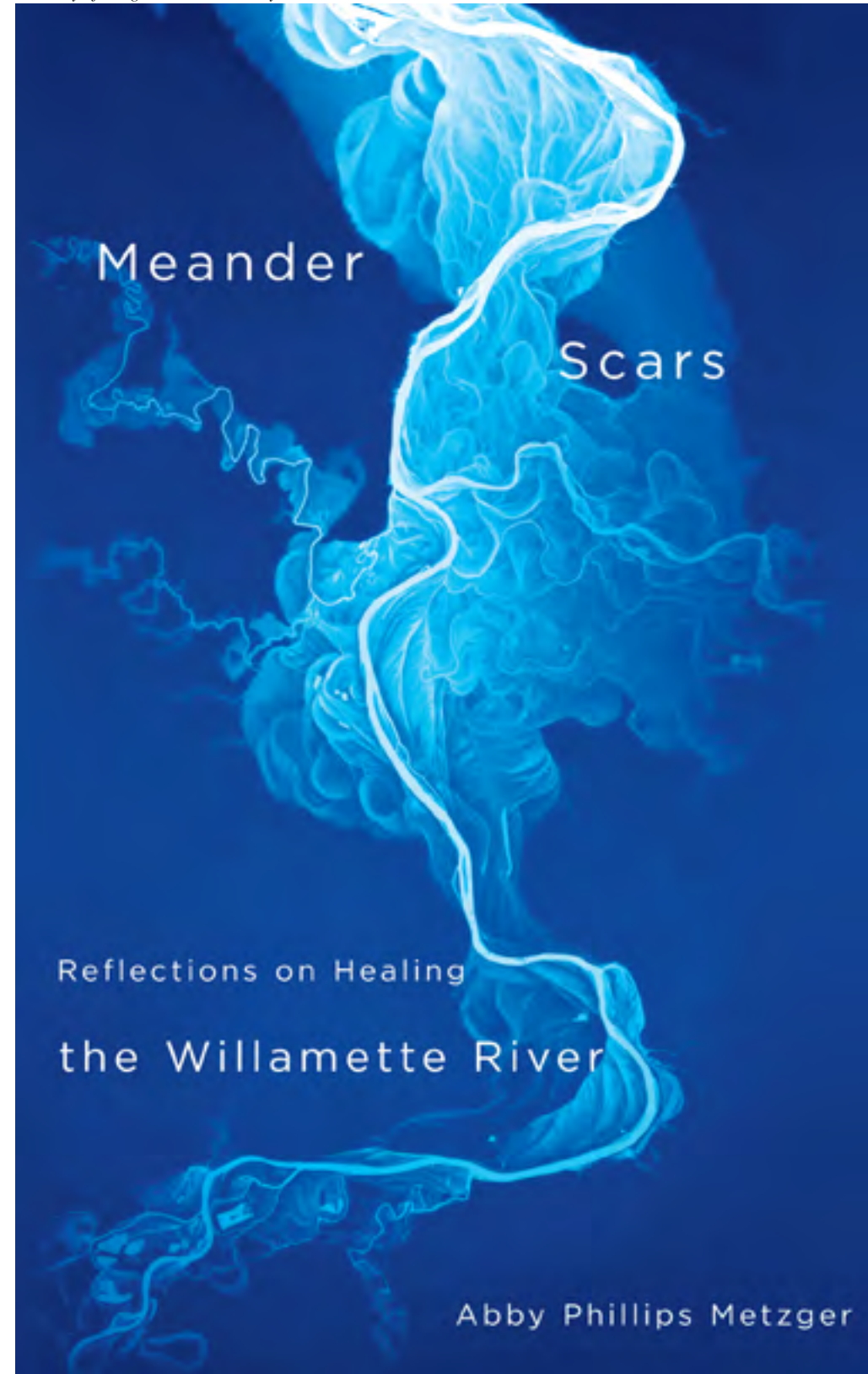
NFCT Field Interns Robert Kacir (Paul
(continued on page 42)



Book Review

Title: Meander Scars: Reflections on Healing the Willamette River
Author: Abby Phillips Metzger
Publisher: Oregon State University Press
Year of Publication: 2013
ISBN: 978-0-87071-726-0

Courtesy of Oregon State University Press



by Michael B. Whitney

After reading Abby P. Metzger's Meander Scars: Reflections on Healing the Willamette River I left with a sense of puzzlement about what the underlying theme might be. I was so puzzled in fact that I re-read the book a second time before writing this review. In the introduction the author purports that she'll discuss the river's history, its impacts on the land, humankind's impacts on it, and the efforts to restore some measure of its natural flow. While it's true the author does write about all of those points, the book reads more as a series of essays, only loosely connected in that each has a, sometimes only tangentially, connection to the Willamette River.

Meander Scars is not a history of a river, a catalogue of human impacts on it, or an in-depth look at its restoration. Rather, it is a series of vignettes written by a person with a deep personal connection to it, writing about her own relationship with the river and her own struggles to understand how she feels about its changes through history and the nascent attempts to restore some of its wildness. Judged on those criteria the book still leaves the reader wanting. The prose is wordy, the allusions hard to follow, and even taken as individual essays it's often difficult to tell what the point might be. The only redeeming feature is the author clearly does care about the river and bringing up the idea of whether restoration is necessary or even a correct course of action is discussion worth having; I just wish Ms. Metzger had spent the time to ground those arguments in a good history of the river.

Bottom line: the book fails to educate, provoke, or entertain and I'd be hard pressed to recommend it to even the most passionate fan of the Willamette. ♦

We're on the lookout for you...



Huron River Watershed Council

to attend the
2015 National Water Trails Forum
June 24 -26, 2015
Ann Arbor, MI

River management is about people connecting to, having fun in, and being responsible for our rivers. Or, in the words of RMS policy issues, river management is about the use and enjoyment of rivers and the public perception and support of river resources.

Water trails are one tool to help a broader public connect with, enjoy, and care for our river resources. As river managers, our voice is needed to help hewn and sharpen that tool.

Join us! You are invited to join and share your expertise at the inaugural National Water Trails Forum in Ann Arbor, Michigan, June 24-26, 2015.

This forum will bring together water trail partners and managers who exemplify the high standards required for national water trail designation. It will allow for fellow and aspiring National Water Trails (NWT) leaders and river and water trail managers

to train each other, learn from one another, share best management strategies and practices, and establish a lasting national network that encourages more people to connect with and protect their waterways.

What's in it for you?

- Learning and networking
- Plenary sessions on the "Blue Economy" and "Reaching our Future Majority"
- Interactive panel sessions on innovative conservation and stewardship, building community support, creative trail management, planning and liability, mapping and signage, and engagement through education
- Field workshop focusing on recreation access, promotion and managing multiple uses on the river
- Opportunity to explore two Michigan national water trails
- Opportunity to dig deeper on key water trail management issues

Register online:

<http://bitly.com/18hoYCR>

And, find details regarding the event, venue, travel and lodging.

Registration Deadline:
June 12

Workshop Dates:
June 24-26, 2015

Location:
University of Michigan
911 North University
Ann Arbor, MI 48109

(*Awards, from page 1*)
evaluations (Jason Carey served for two of his three years: thank you also, Jason)! Continuing committee members are Bo Shelby, Alan Vandiver, Cathi Bailey, Lelia Mellen, Jennifer Jones and Risa Shimoda. If you would like to contribute as a member of the RMS Awards Committee, please contact RMS!

Outstanding Contribution to the River Management Society Award

This award category recognizes an individual who has contributed to the success of the River Management Society. **Michael Greco** is the recipient of the Contribution to RMS Award for 2015. We would not have a Canadian chapter without Michael. He was responsible for showcasing river management and stewardship in Canada and changing our name from American River Management Society (ARMS) to River Management Society (RMS). Michael was the founder of the Canadian River Management Society in 1995, which became the Canadian Chapter of the River Management Society in 1997. This initiative connected Canadian river managers and scientists to the broader North American river conservation community. He successfully acquired Canadian government charitable status in 1996, and was President of the organization until he suffered a stroke in August of 2013.

Over the years, Michael participated in many CRMS-related projects, coordinated communication between his members, and made sure their accomplishments were duly documented. In 2000, he coordinated the River of Dream project— the objective was to float hundreds of model canoes through Canada’s vast network of watersheds to highlight their vastness and connectedness.

Michael has contributed more thoughtful notes and time to his committee assignments and related deliberation than any other current or past board member. He worked on and contributed substantially to the formalization of our Sponsorship and Fundraising policies, collaborated with other officers to raise the technical quality of the RMS Newsletter, turned RMS Journal. He has also contributed generously to every RMS symposium silent auction since 1991.

Michael worked with others on a River Management certification concept in the mid-2000s, and in 2011 expressed his continued belief in its value, encouraging another visit to the concept. He became a quiet but powerful supporter of the River Studies and Leadership Certificate (RSLC), championing this project through its first years of development. Michael continually applauded its vision and potential for cultivating the interdisciplinary skills and experiences required to manage North American rivers wisely. The RSLC would simply not exist if not for his enthusiasm and support for RMS staff and participating advisors.

Michael has cared so very much for RMS, and is always extremely supportive of the individual board members. He was always there to ask the hard questions with budget, especially in the early days when we were learning to become the best we could be as an organization. He brought sometimes overwhelming attention to detail that was balanced and insightful.

Not only has Michael served the River Management Society, he also has made many other contributions to North American river management:

- He was one of the founding fathers of the Canadian Heritage Rivers System (CHRS), Canada’s national river conservation program, inaugurated in 1984. This system is now the world’s largest river conservation program including 42 of Canada’s most outstanding rivers and more than 4,000 river miles protected.
- He served as the first National Science Advisor for the CHRS and developed innovative methods for monitoring water quality and natural heritage values for Canadian Heritage Rivers. Michael developed a series of instruction booklets for river ecology monitoring by citizen organizations such as the Girl Guides of Canada. Michael was one of the originators and main organizers of the Canadian River Heritage conference series, held triennially since 1995. This conference series attracts delegates from around the world, and is recognized as the premier conference series of its type in Canada. This successful conference series is going strong and continues to attract over 250 delegates to each event.
- Michael led a series of national meetings of rivers managers from across Canada to discuss and resolve issues and challenges facing Canadian Heritage Rivers. This network of Canadian river managers is ongoing and still meets annually. He facilitated Canadian participation at River Management Society events by funding Canadian participants’ travel and promoting their work. Michael supervised the writing and illustration of the book ‘Voyages: Canada’s Heritage Rivers’. This book won the Natural Resources Council of America Book of the Year in 1996, the first Canadian publication to do so in the 50-year history of the Council. This book was listed by Al Gore as one of his favorite books of the year.
- Michael was the driving force behind the four-year series of Canadian Heritage River stamps published by Canada Post from 1992-1996. These stamps were packaged with a message promoting river conservation to the Canadian public. Michael actively engaged Canada’s Aboriginal Peoples involvement in river management through the CHRS designation process. This resulted in aboriginal communities taking a bigger role in the care and management of rivers under their jurisdiction.
- In 2002, Michael supported Rivers Canada (a Canadian non-governmental organization) in the proclamation by the Canadian government of Canadian Rivers Day (the second Sunday in June), an annual celebration of Canada’s rivers.

In all facets of Michael’s professional and personal life, he has been an outstanding advocate for river conservation spending countless volunteer hours working with communities, church groups, aboriginal organizations, nonprofits, municipalities and academic institutions to further the agenda of wise river management. He has personally contributed his own time and money to artists, writers and researchers to support their endeavors to bring wider awareness of the importance of healthy river environments, truly gifts from the heart.

The award was accepted on Michael’s behalf by Don Gibson, Michael’s former boss and mentor, who traveled to River Rally from Ottawa.

Frank Church Wild and Scenic Rivers Award

This award recognizes management, enhancement and/or protection of congressionally-designated Wild and Scenic Rivers. **John Little** of the Missisquoi River Basin Association (MRBA) was recognized for his outstanding and sustained commitment to Wild and Scenic Rivers that led to designation of the Missisquoi and Trout rivers in Vermont as that state’s first National Wild and Scenic Rivers in December, 2014.

John is the long-time President of the MRBA, a volunteer organization consisting of farmers, teachers, retirees, foresters, business owners, naturalists, outdoor enthusiasts, and concerned citizens who work together to improve water quality in the Missisquoi watershed. John first learned about the National Wild



John Little received the 2015 Frank Church Wild and Scenic Rivers Award. Photo: Ken Secor

and Scenic River System while attending the 2004 River Rally. He was intrigued by the National Park Service’s partnership approach to managing Wild and Scenic Rivers in the Northeast, and decided to pursue designation of Vermont’s Missisquoi and Trout rivers into the system as Partnership Rivers.

John led the 10-year effort to achieve designation for the Missisquoi and Trout first by campaigning for congressional authorization for the Park Service to study the rivers, and subsequently by pursuing their congressional designation. Between 2009 and 2013, John played a key role in the development of the study, the locally-based management plan, and ultimately successful town meeting votes in favor of Wild and Scenic River designation in 9 out of 10 Study communities. His leadership—with the support of many other individuals and organizations—culminated in the successful designation of 41 miles of the Missisquoi and Trout rivers into the National Wild and Scenic River System under Public Law 113-291.

John worked tirelessly building support to achieve this goal. He combined his position as a respected local resident, avid paddler, local high school science teacher, and activist member of the Missisquoi River Basin Association to build broad-based support for the rivers and their protection.

Specifically, John accomplished the following:

- Sponsored meetings through MRBA among key national, state and regional agencies, and hosted public forums;
- Worked with dairy farmers along the Missisquoi and Trout to plant riparian buffers and implement best management practices in a “cows and clean water” campaign;
- Engaged high school students in river conservation science and management through his professional position, and successfully promoted scientific approaches to river management through spearheading local grants for geomorphic assessments of the Missisquoi and Trout;
- Leading trips of the Trout and Missisquoi for local, state and congressional interests to build support for the study and designation;
- Spoke at many (if not all) public meetings held throughout

the ten year process, and always helped ensure that everyone understood that the Wild and Scenic River proposal was locally led and motivated – a critical factor to success; and

- Played an instrumental role in designing Bugworks, a hands-on learning program (for Grades 5 and 6) that teaches children about the importance of invertebrates and their effect on stream health. This program brings awareness of river issues to local students and their families, and allows river information to be well received in local communities.

River Manager of the Year Award

This award recognizes field-oriented individuals and focuses on recent accomplishments. The Desolation Canyon River Rangers **Mick Krussow, Jim Wright, Dave Kelly, Ryan Hygon, and Katie Byrd**, and their supervisor **Matt**

Blocker, received the 2015 award. This is the first time this award has been presented to a group rather than an individual.

The Desolation Canyon River Rangers are a crew of five dedicated seasonal employees of the Bureau of Land Management (BLM). Mick Krussow started as a ranger in Desolation Canyon in 2003. Jim Wright also signed on in 2003. Dave Kelly was first hired in 2010. Ryan Hygon joined the crew in 2011. Katie Byrd has been there since 2012. Matt Blocker, Outdoor Recreation Planner, is their main office contact and he allows them the freedom to succeed. This team shares a dedicated passion for the place, a desire to enhance the user experience and a deep understanding of the natural resources. The crew is able to identify and respond to issues with minimal direction. They excel at working with the public, cultivating partners and working to benefit public lands and resources.

Desolation Canyon contains a large National Historic Landmark and an Archaeological District. Identifying a need for more complete cultural resources inventory and monitoring in the context of cultural resource management, the rangers partnered with the Colorado Plateau Archaeological Alliance. The rangers provided support for nine Alliance expeditions, enabling the Colorado Plateau Archaeological Alliance and volunteers to inventory and record over 1,000 sites in the canyon. The rangers

supported these trips as guides, getting the archeologists to sites and areas in the most efficient fashion. In turn, the rangers learned skills in site identification and documentation, which they were then able to incorporate into their patrol monitoring.

Desolation Canyon is bordered by the Ute Indian Reservation. The rangers work with tribal employees and have conducted trips with the Ute Youth Conservation Corps. The rangers have hosted/supported trips for the local alternative high school, engaging youth that would not normally have the opportunity to do river work. A visit to Desolation Canyon has been a life changing experience for a number of people, and these youth from Carbon County are no exception.

To address the problem of invasive species, particularly Russian olive and Russian knapweed, the rangers have worked with plant specialists in developing a treatment/eradication program and have become certified in herbicide application. Due to their efforts, Russian olive is largely absent from the canyon. Russian knapweed spread has been kept in check, and the size of infestations reduced.

The rangers work with the public on a daily basis. They see their mission not as enforcers or garbage collectors, but as facilitators for great user recreation experiences. They assure the high quality wilderness settings, upon which those experiences are dependent, are maintained. They share their passion for place and strive to create appreciation for the canyon and its

resources. Their approach is low key and friendly—compliance checks are conducted in the spirit of “we want you to have a great experience,” rather than searching for defects and “gotcha” moments. Desolation Canyon is one of the only places where users report that rangers enhance their experience. This past season, the rangers helped host a River Management Society Southwest Chapter seven-day float through the canyon. Also along was a film crew from BLM public affairs. One of the purposes of the trip was to produce a video on the river permit system and stipulations. That film has been released and is an excellent product for the general public.

The rangers have worked to improve their working environment and public spaces. They completed major renovation of the ranger quarters and office space. They created interpretive materials and installed them around the Sand Wash put-in, with creativity—this is one of the few locations that have interpretive signs in the outhouses! Another creative effort was naming campsites and public rental cabins for members of the Powell Expedition rather than merely assigning each a number.

Along with their primary work in Desolation Canyon, the rangers patrol Labyrinth Canyon on the Green River, and tributaries of the Green, San Rafael River, Muddy Creek and Price River. The rangers are the main eyes and ears for the BLM on these river segments for resource conditions and hazards identification.

Outstanding Contribution to River Management Award

This award recognizes someone with longer tenure in their career with a history of accomplishments (as opposed to more recent accomplishments highlighted by the River Manager of the Year Award). The 2015 winner is **Dave Koehler**, recognizing his accomplishments in 25 years as Executive Director of the San Joaquin River Parkway and Conservation Trust.

In 1985 the Fresno Bee broke the news of several development plans for the bottomlands of the San Joaquin River, the second biggest river in California, essential habitat on the Pacific Flyway, a lynchpin in the vast agricultural economy of the Great Central Valley, and a major source of drinking water for the people of a growing semi-arid region. Although the river was largely inaccessible and even invisible to much of the public, a few concerned citizens mobilized to conserve what they could. As a result the San Joaquin River Parkway and Conservation Trust, a non-profit corporation, was established in 1988 to create a 33-mile greenway on the San Joaquin in the rapidly urbanizing Fresno-Madera region.

Dave Koehler has skillfully and patiently guided the Trust through the complex, politically-sensitive and lengthy process of assembling the Parkway into not only a regional but a national treasure. He brought to his job the ability to focus on the long view and the detail, a keen sense of timing, and a disarmingly friendly approach to friends and adversaries alike. Under Dave’s leadership the Parkway Trust assembled 2,864 acres through 18 different land transactions including fee title, conservation easements, and donations, and earned the Land Trust Accreditation given only to community institutions that meet national quality standards for protecting important natural places and working lands forever. The State of California established the San Joaquin River Conservancy in 1992 to help acquire, operate, and maintain the Parkway, and some 20 years later the Interior Department identified the San Joaquin as a high priority of its American’s Great Outdoors initiative.

In 1988 the fledgling Trust launched its first River Education Program with three area school districts. Today, with the help of trained River Docents, Guides and Hosts, more than 25,000 people of all ages participate each year in the Trust’s river-related education programs including school field trips tied to California State Science Standards; “River Quest” classroom presentations; week-long River Camps for children in preschool through high school; canoe tours with trained river guides; conferences and seminars at the River Center; and nature walks on properties not usually open to the public. The work of the Trust affords volunteers regular opportunities to participate in river clean-up, restoration, and invasive weed control projects.

Dave has a genius for fostering innovation and partnerships. For example, a crowd-sourcing project has brought River Camp downstream to farm-workers’ children in Firebaugh for the last two summer, and next year the Trust will work with a local

non-profit to restore a former gravel pit to a farm for community supported agriculture. For over two decades the Trust’s famous “Party for the Parkway” and “Take me to the River” fund-raising strategies have successfully engaged generous friends and leveraged public and private funds needed to acquire land and develop programs for the Parkway.

In 2008, prompted by settlement of a 20-year lawsuit over dewatering and loss of salmon runs in the San Joaquin,



2015 Outstanding Contribution to River Management recipient, Dave Koehler. Courtesy of San Joaquin River Parkway and Conservation Trust, Inc.

L to R: Award recipients Jim Wright, Mick Krussow, RMS President Helen Clough, Shana Steward Deeds (accepting for John Little), Don Gibson (accepting for Michael Greco), and Dave Koehler attend the awards ceremony at River Rally in Albuquerque, NM, May 2015. Photo: Tim Palmer



Dave spearheaded a gathering of non-profits to share ideas about improving conditions on the San Joaquin and enhancing California’s quality of life. Auspiciously, a year later federal legislation created the multi-agency San Joaquin River Restoration Program to focus on river flows, salmon restoration and water supply projects. The 15-member San Joaquin River Partnership made it their mission to support and enhance these goals by working with local governments and landowners to improve land management practices and by inspiring the public, especially youth, to envision a balanced, ecologically viable, and accessible river system.

Dave with his many friends and associates put together multi-day San Joaquin River Conferences in both 2012 and 2013 that drew enthusiastic participation from agencies, educational institutions, advocacy groups, foundations and other “believers” in the San Joaquin from the region and across the state. Most recently, the Trust and the Partnership with assistance from the National Park Service Rivers, Trails and Conservation Assistance Program and others published an online public access guide to the San Joaquin River, the first to highlight the recreational and educational features along its 300-mile length from the headwaters in the High Sierra to San Francisco Bay.

Dave Koehler has recently stepped away from his job as Executive Director of the Parkway Trust, to lead another conservation organization in California. This award is timely testimony to Dave’s long, productive, and loving commitment to the San Joaquin River and its community.

Congratulations to all worthy recipients of these awards!♦



American River. Photo: Robert Wick (BLM)



Beaver Creek. Photo: Robert Wick (BLM)



Share some super fun, exciting, breathtaking, or simply silly river moments on any Wild and Scenic River managed by the Bureau of Land Management, and you may become eligible to win prizes or cash for yourself ... and a river charity of your choice!

The River Management Society, in partnership with the Bureau of Land Management, is looking for striking digital images and videos that capture the unique qualities of federal Wild and Scenic Rivers that flow through lands managed by the Bureau of Land Management. These are rivers with special protected status as *Wild*, *Scenic* or *Recreational* due to their "outstandingly remarkable" natural or cultural values, and are protected from the building of new dams, roads and other development.

To learn more about the Wild and Scenic Rivers managed by the BLM, visit http://www.blm.gov/wo/st/en/prog/blm_special_areas/NLCS/Rivers.html

Submissions will be accepted through August 31, 2015. RMS thanks the the Bureau of Land Management and our awesome advisory committee members Cathi Bailey, Josh Hammari, and Bob Wick for their time, expertise, creativity, and enthusiasm. We also thank the Interagency Wild and Scenic Rivers Coordinating Council for their support of RMS, and coordination of www.rivers.gov.

Contest Details

Images or video can be serious ...or seriously funny: they should do justice to the amazing rivers and the experiences they offer.

Subject Categories

- Youth
- Special Landscapes
- Recreation

Media Categories

- Still photo
- Video up to six (6) seconds
- Video up to three (3) minutes in length

Individuals may submit up to three photos and three videos of any length. First, second and third place will be awarded in each of the three media categories.

Category Prizes

1st Place - Jack's Plastic Welding Bucket Bag
2nd Place - Petzl Headlamp
3rd Place - Deuter 'Nomi' Daypack

One (1) **Grand Prize** Winner will be determined by a RMS Facebook page vote among finalists! The winner will receive a GoPro® Black camera.

Honorable Mention

Honorable mention will be awarded by judges based on the quality of the submissions in each category. Photos and videos not taken on BLM rivers may be considered for Honorable Mention awards.

Eligibility

This contest is open to ALL photographers and videographers 18 years of age or older, as long as the laws of their jurisdiction allow participation. The only exceptions are River Management Society (RMS) employees, board members, and photographers currently paid by RMS and their immediate family members: these individuals are not eligible. You must 'like' the River Management Society Facebook page to be eligible.

Legal Conditions

By entering this BLM-RMS WSR Contest, you agree to certain legal conditions, available at www.river-management.org/wild-and-scenic, and upon request.

Questions

Questions and inquiries about WSR Contest rules can be emailed to: wildandscenic@river-management.org.

Full Contest Details

<http://www.river-management.org/wild-and-scenic>

River Management Society

Slogan (or Tag Line)!

In April, we sent our RMS members a request to participate in a poll to help us develop a tag line for the organization. The tag line would align with our mission ‘to support professionals who study, protect and manage North America’s rivers’ and be used in outreach efforts that call for a brief and memorable label for what we do. The results were not overwhelming for any of the options:

Which tag line or slogan do you think best suits RMS?



One option received more votes than others, but receiving 31.3% was not very convincing: we want our tag line to be a hands down winner!

Several members took the time to say in an email message that none of the options stirred them. So, RMS will be going back to school with a slightly expanded team of member volunteers, and we’ll be back to you again soon with the results of our efforts.

What makes a strong tagline? See the graphic below... the words most frequently used in “winning” taglines are shown in the largest font size. Food for thought...

Thanks to those who offered opinions, and stay tuned!

—RMS



The Nonprofit Tagline Report, 2013. (Nancy Schwartz)

(How Did I End Up, from page 5)

relicensing, stakeholders compete with project owners, state and federal agencies and each other, fighting for an outcome that serves their interests. Seeking changes to licenses that were granted over 50 years ago, stakeholders now bargain competitively for their own perceptive management improvements to the way a river will be managed for the next 50 years. Stakeholders and agencies now try to balance how a river will be used in a way that conserves water, protects river ecology, serves an industrial interest, and provides numerous amenities to the public interest at large. Yes, I do believe that all the players in this mix play a role as a river manager.

I should not forget to mention the glorious act of dam removal as part of this essay. How does one characterize the process of coming to the decision of removing a dam? In my mind it is an easy decision that I come to in a rather cavalier way, but for a state or federal agency, or for any small community who looks at dam removal costs as a burden to their town budget, this may not be a simple decision.

Dam removal is not a simple undertaking and any sentient human being will recognize the complexities of managing a process that requires an understanding of hydrology, aquatic science, sediment transport, emergent wetlands, and construction management. Everyone who takes part or plays a role in this process is, in some way, a river manager, even those citizens who voted at a town meeting for

the removal.

Some folks, I’m guessing it would be those managers working on major waterway projects and have large salaries, may scoff at the characterizations I pose, as ridiculous assumptions.

2014 Bartlett Dam Removal Project—Lancaster, Massachusetts



Above: Removing spillway.

Below: 5+ miles of restored trout habitat. Photos: Tom Christopher



But I think not. Like rivers themselves, the fluid ever-changing decisions or steps taken to interact with rivers by any one individual, is by itself, a management action at some level, regardless if the individual is conscious of the action being a management decision or not.

In writing this article I have come to the idea that river managers do many things and make decisions that affect both rivers and their daily lives. At some point something occurred that brought them to the side of a flowing river or stream, and it is probably likely that their personal journey started out in some other direction or endeavor. In my case I started out as a

logger, then an arborist, and along the way became a farmer, land developer and kayaker. That’s when my river management training began.

The idea of gaining whitewater through relicensing just seemed like the right thing to do and eventually brought me to my place today—I’m now a river manager. Well, sort of. I run a small environmental consulting company but have worked on relicensing rivers in New England for over 25 years. I have had the great pleasure to work with others in making decisions that have changed the way some rivers in New England will be managed—more efficiently and economically—making decisions that have improved habitat, created economic benefits, and I hope, brought more people to the river. If this is river management, then it’s a pretty good job and I love going to work every day. ♦

Tom Christopher is a Director of New England FLOW and the Principal of Christopher Environmental Associates.

Note: RMS offers a River Studies and Leadership Certificate (RSLC) through its partnership with colleges and universities. See an article submitted by the first RSLC student, Ross Parsons, in this issue.

Welcome New RMS Board Members

As 2015 debuted, so did two new members as additions to the RMS leadership team, and we now ‘officially’ welcome Lori Potter and John Putnam as legal advisors to the RMS Board of Directors. RMS Board Advisors hold non-voting positions that enable them to participate fully in board discussions, and more importantly allow our board and staff to call on them as they are available. Lori and John are partners at the law firm Kaplan Kirsch & Rockwell, and for many years have been involved in issues related to rivers, their use and their users. Lori chaired the Continuing Legal Education workshop held adjacent to the 2014 RMS Denver Training Symposium, and John has already provided terrific input to one of our 2015 internship projects and the BLM Wild and Scenic Rivers photo / video contest. We are extremely fortunate to have them on board for both their experience and enthusiasm, and we look forward to running rivers with them soon!

John Putnam is a partner and environmental lawyer at the law firm of Kaplan Kirsch & Rockwell in Denver. As part of his practice, he works on a variety of river law issues. John represents public and private entities in federal and state environmental reviews and litigation regarding water and other projects affecting river resources. He represented a Colorado county in water rights litigation that led to a settlement that removed conditional water rights to build dams on the Crystal River. He has also provided counsel to the Colorado River Outfitters Association on transportation regulatory issues and advice regarding funding and approvals for post-flood river restoration projects near Lyons, Colorado.

In addition, John is the co-founder and Vice President of Team Colorado Whitewater Racing Club, a Boulder-based nonprofit providing coaching, teaching and races for youth and adults interested in slalom and wildwater canoeing and kayaking. Whenever possible, he enjoys being in the saddle of his OC-1 and surfing with other peoples’ dogs.

Lori Potter has a long history of working on river law issues. She has represented both private and commercial boaters in gaining access to float western rivers and in defense of trespass charges. She and her firm represented the Grand Canyon Private Boaters Association in increasing the allocation of permits to private boaters to float the Grand Canyon and in defending the new allocation in federal court. She has also worked on enforcing stream flow requirements, opposing or scaling back inefficient water projects, and challenging the validity of speculative water rights.

Lori is currently a partner at the Kaplan Kirsch & Rockwell law firm in Denver. She has previously been a regional managing attorney for the Sierra Club Legal Defense Fund (now Earthjustice). River trips are high on her list of favorite reasons for being out of the office.



Mike Wight is a newly-appointed At-Large member of the RMS Board of Directors. In fact, he is the first to hold an At-Large position, made possible through a bylaws change in 2014 that allows us to bring in a person who can lead broad initiatives with specific or unusual expertise.

Mike has been an active RMS member as a presenter in the 2013 River Management Workshop hosted with the Tamarisk Coalition and 2014 RMS Symposium in Denver, CO; contributor to listserv postings; connector to colleagues who are eager to help us build resources for early career professionals; and, advisor to RMS staff on our fundraising planning. He will serve the newly-reconstituted Membership Committee, and we look forward to his leadership and support.



Mike Wight is the River Restoration Director for the Southwest Conservation Corps and Conservation Legacy, a non-profit organization focused on job training, serving young adults to provide skill-building service opportunities and creating the next generation of land and water stewards. He supports and represents six Conservation Corps programs working in four, large-scale, multi-year, riparian habitat restoration initiatives on the Verde, Gila, Dolores and Escalante rivers. His responsibilities include fund development, sharing best practices for project implementation, engaging new partners, outreaching their work, and representing the Corps on several partnership committees.

The author of a unique riparian restoration training that he has fielded with over 500 young adults, Mike has obtained and managed over \$1 million in grants to support invasive species project work, in collaboration with many agency and non-profit partners.

Mike is a Prescott College graduate with a Bachelor’s degree in Environmental Studies (Ecology and Natural History focus). Besides leading a wilderness trail crew, fighting fires and serving as a lookout and wilderness ranger for the Forest Service, working as a project coordinator for the Rocky Mountain Youth Corps and as a river instructor with Outward Bound, he has racked up hundreds of days private boating on Southwest rivers.

Welcome! New RMS Members

Associate

Sean Reynolds, Maintenance Ranger
Bureau of Land Management
Fort Benton, MT

Organizational

Andy Fisk, Executive Director
Connecticut River Watershed Council
Greenfield, MA

Professional

Bjorn Fredrickson, Recreation and Lands Officer
USDA Forest Service
Ramona, CA

Andrew Hilligoss
Missoula, MT

Lance Murray, Undergraduate
Prescott College
Prescott, AZ

Chip Rawlins, Owner
StreamCraft
Jelm, WY

Drew Ross, Writer / Researcher
St Paul, MN

Paul Sloan, Chairman
Cumberland River Compact
Nashville, TN

Diane Taliaferro, District Ranger
USDA Forest Service
Santa Fe, NM

Analeisha Vang, Water Recreation Outreach Specialist
MN DNR / Conservation Corps
St Paul, MN

Student

Peter Lo
Cornell University
Ithaca, NY

RMS Chapters

Northwest by Louise King

Todd Neville is a River Manager on the Bureau of Land Management's Prineville District in Oregon. He is responsible for managing the Crooked, John Day, and Deschutes rivers – each of which contain segments designated as Wild and Scenic.

Todd took time out of his very busy schedule to answer some questions about his role managing three of Oregon's most treasured rivers.

Todd Neville (back right) with the Deschutes River Staff on the porch of the Historic Railroad Depot House.

Interview With a River Manager

Q: You are a River Manager charged with managing three rivers – a job so demanding that it was described by one of your colleagues as requiring a “super human”! Can you summarize the top three areas you focus on in your role?

First of all, it would require a super human if it weren't for competent, seasoned staff who know what to do and do it well – namely Patrick Kollodge, Lead Ranger on the Deschutes; Jim Mueller, Lead Ranger on the John Day; and JD Elam, Maintenance Lead.

Top three areas of focus are: 1) hiring and training higher than average seasonal staff who work independently and have a passion for the rivers we manage; 2) keeping everyone assigned to specific areas and projects for efficiency and coverage; and 3) communicating amongst each other to deal with the routine and flexible situations that come up.

Q: Is there a “typical day” as a River Manager – how does that differ across the winter vs. the summer season?



I try to balance my time in the office and in the field, spending more time in the field during the busy summer season, helping trouble shoot and filling in gaps. Winter time still requires a field presence, but more time is spent in the office working with colleagues on planning documents and shoulder season projects.

Q: What aspects of your work do you find most rewarding?

I most enjoy getting out in the field to work alongside staff, greeting the public and the professionals that are using the rivers for recreation purposes. I'm able to make more informed and educated decisions if I can see the work in action out in the field.

Q: What was the most complex or challenging issue you have faced (or are facing) as a river manager and why?

- 1) Using less resources than in years past to provide a minimum service standard on three rivers which are used for various purposes.
- 2) Meeting with other agency representatives who have a different set of expectations and goals, therefore requiring negotiation and compromise in co-managing the rivers.

Q: What is the best career advice you've received and how has that led you to your current position?

Never burn bridges: keep friends close and enemies closer. Be sincere and realize people for the most part have good intentions and want to get along. Don't take things personally and be who you are!

Q: The John Day, Crooked and Deschutes rivers each contain segments designated as Wild and Scenic. What is the biggest difference in management approach across each of these systems?

Keeping other partners in the loop with decisions and understanding the sensitivity of using the rivers for multiple purposes. Not everyone gets everything they want.

Q: 2015 has proven to be a low water year across the west, and Oregon is no exception. How has this affected management, specifically how you may be handling competing uses?

We will expect less floating and access to the John Day this year as a result of the drought, which will put more pressure on the Deschutes. John Day seasonals will be converting over to operations on the Deschutes once the John Day season wraps up.

Q: Management of the Crooked, John Day, and Deschutes requires partnerships with the USFS, USFWS, and the State of Oregon. What do you consider a notable example of how agencies come together for a common river management-related goal?

We meet semi-annually as an Interagency Implementation Team and Manager's Group to discuss the needs of each agency. Included in this list of key team players is the Confederated Tribes of the Warm Springs, local government, and others.♦

Southwest by Greg Trainor

Save the Date!

River Ranger Rendezvous August 11-13, 2015

A gathering of river and land managers...

Sponsored by:

SW Chapter of the River Management Society & Dinosaur National Monument

Location:

Split Mountain Campground
(Green River take-out, upriver of Jensen, Utah)
Dinosaur National Monument

Course:

Two days of “ranger-related, resource management topics and discussions,” training, and one day on the Green River in Split Mountain

Early Registration: Before July 10

Late Registration: After July 10

Registration opens May 15 on RMS website and covers campground fees, all meals, and permits.

Member Registration

Early \$110 / Late \$130

Non-Member Registration

Early \$135 / Late \$155

(Portion of fees applied to RMS membership)

Contact:

Greg Trainor, Vice President
SW Chapter River Management Society
ptrainor7@msn.com / 970-260-4670

All welcome! More details coming shortly...



RMS Chapters

Southeast by Mitch Reid

Flowing in Rhythm

At first blush, the term “river management” evokes a sense of control: that we, as civilized people, can tame the torrent; that we can “put loafing streams to work.” Indeed, this was the mindset of our nation for much of our history. Unfortunately this was a mindset based on an ignorance of the natural world even as our feats of engineering soared to new heights. In Alabama, this mismanagement resulted in the conversion of our great rivers from free flowing arteries of the Mobile Delta, one of the nation’s most prolific river basins, into a disconnected series of man-made lakes. The consequence was the greatest extinction event in modern history with the Coosa River alone losing nearly 40 freshwater species. Too often today we live with and “manage” the consequences of our past mistakes.

Today, with the wisdom of hindsight and the knowledge of science, we must strive to approach river management from a different perspective. River management today means finding balance. We rely on, we need, the rivers and the services they provide to our society. Their waters provide the life of our communities and they receive, assimilate, and restore the tainted water we return. River management means understanding that our rivers are natural forces that have evolved over the eons into incredibly complex systems, and appreciating that we are not the only users of these waters—that we share these waters with our fellow man and all the creatures of this earth. This does not mean going back a thousand years and taking out all the dams. It means that, as we borrow the rivers’ waters, we acknowledge that altering the flow or consuming without returning stresses the system, changes the balance. We use the rivers with a recognition that there is a threshold and that overuse can cause far-reaching, often catastrophic consequences.

The challenge for future river managers is finding this balance and growing our society in accordance with the rivers’ flow. As a society, we must operate under the principle of precaution. Future decisions must presume that the rivers can only give so much and accept that our understanding of our



Holding a sign that says DefendRivers.Org, Mitch Reid overlooks the Tennessee River. Photo: ARA

impacts will almost always be incomplete. This means reducing our demands to meet what we know the river can provide; being conservative in our growth; and understanding that rivers fluctuate between bounty and drought then adapting our uses accordingly. Ultimately, river management must evolve from a profession focused on directing the rivers to one centered on understanding the rivers and our relationship with them. This will enable our society to be in

harmony with the rhythm of the rivers on which we depend. ♦



Mitch Reid (RMS Southeast Chapter Vice President) is the Program Director for Alabama Rivers Alliance (ARA), Alabama's statewide nonprofit river protection network, and works with both the state and federal governments towards real and lasting protection of Alabama's rivers. Some of his work projects include: a petition to the Environmental Protection Agency to reform the Alabama Department of Environmental Management's pollution permitting program, the relicensing of several Alabama Power hydroelectric dams under the oversight of the Federal Energy Regulatory Commission, and working with partner groups from around the state to develop protective and sustainable water policies for Alabama.

Mitch hales from Bellwood, Alabama, a small town in Geneva county on the Choctawhatchee River. He is a graduate of the United States Military Academy at West Point and the University of Alabama School of Law. He has completed the United Nation's Institute for Training and Research (UNITAR) course on International Water Law and participated in the 2014 Water Diplomacy Workshop hosted by Tufts University, MIT, and Harvard Law School.

RMS Chapters

Northeast

Mark your calendars!

Come Celebrate the Missisquoi!

The Missisquoi River recently became Vermont’s first Wild and Scenic River. It is also one of the rivers that comprise the Northern Forest Canoe Trail (NFCT). There are many celebrations planned around this wonderful milestone, and RMS will be part of one such event— the Richford River Fest in northern Vermont.

On Saturday, June 27, the NFCT will be collaborating with the Town of Richford’s Conservation Commission to put on a family friendly River Fest and Paddle Pedal Race, designed to celebrate recreation along this canoe and rail trail. Risa Shimoda, RMS Executive Director, will be the guest speaker at the River Fest event, and among other fun activities, the local library will be hosting a BBQ.

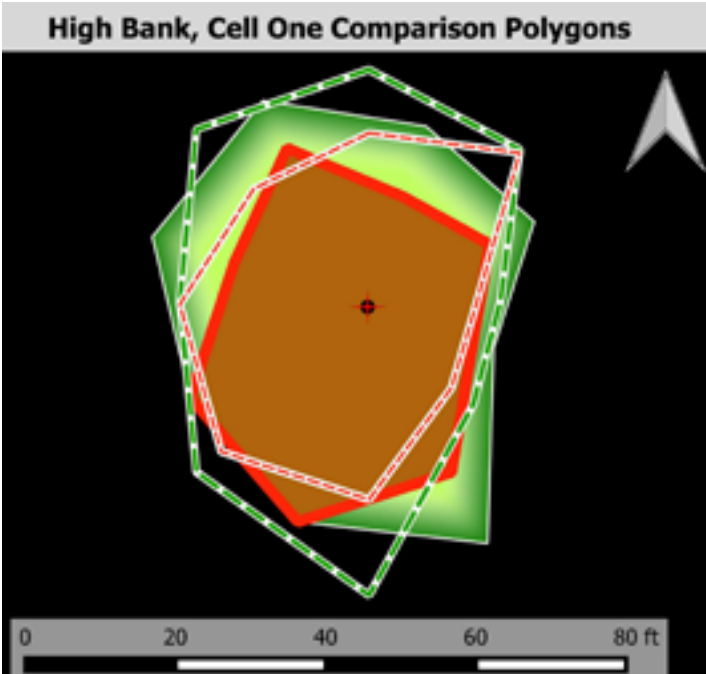
Missisquoi River. Photo: NFCT Staff



Bronx River Paddle

The Bronx River Alliance has organized an eight-mile paddle trail on the Bronx River in New York, and even had the Bronx River Blueway designated into the National Water Trails System. The Alliance will lead RMS members and friends on a trip through the New York Botanical gardens, Bronx River Forest, cityscapes and the Bronx Zoo. The Blueway (and trip) begins at 219th St and ends at Riverside Park, in the estuary to Long Island Sound. Exact dates TBD, but we’ll aim for June, July or in the fall (when water levels are more predictable).

Boat launch in Shoelace Park, where the Bronx River Alliance begins its annual Amazing Bronx River Flotilla, which kicks off the paddling season and brings out nearly 200 people to paddle five miles of the river. Photo: Bronx River Alliance



Above: The High Bank polygons depicting compacted area and cell area are overlaid with data from the 2000 study. Due to inaccuracies created through being unable to replicate center points or a shifting of picnic table locations over time, a dramatic difference (+30%) would trigger the need for a closer look at the site to determine if management actions are needed.

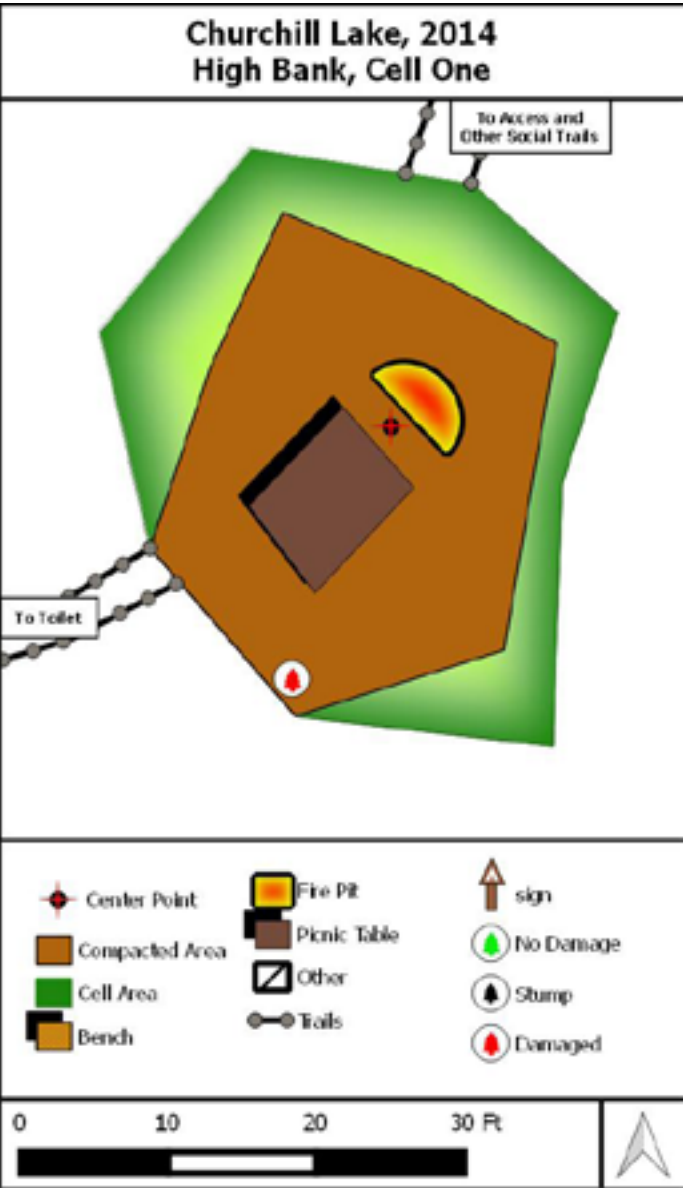
Right: One of the 1,200 maps created depicting the campsite infrastructure at High Bank Campsite on Churchill Lake. The two polygons were created with the radius measurements from center point and compare the compacted area (brown) to the cell area (brown and green). Note: Site images, above and adjacent, were developed using QGIS (not survey accurate).

(Allagash, from page 25)

Smiths College) and Brendan Shumway (University of Maine Orono) were extremely committed to this project collecting an average of 21 measurements at each of the 80 campsites along the 92-mile waterway. There were more than 1,400 photos processed and 1,200 individual maps created. This data was used to create reports with statistics and tables for each identified parameter (compacted area, cell area, access, vegetation between cells, vegetation between the cells and water). The report listed the top 20 worst locations for each parameter allowing waterway managers to target areas most in need of action. This year, the data has been used to create informational packets for each campsite which will be used by waterway personnel to better understand and manage the resources throughout the waterway.

We found the collection of user impact data using this system to be efficient and effective. It is a process that we hope to replicate on other NFCT campsites to give us a more objective feedback loop linking the degree of user impact occurring on campsites to our management decisions. ♦

Walter Opuszynski is the NFCT Trail Director and can be reached at: walter@northernforestcanoetrail.org.



RMS Journal

Care to share? Submissions are due by:

Fall 2015	Vol 28, No. 3	Southwest	Jul 1
Winter 2015	Vol 28, No. 4	Northwest	Oct 1
Spring 2016	Vol 29, No. 1	Northeast	Jan 1
Summer 2016	Vol 29, No. 2	Special Focus	Apr 1
Fall 2016	Vol 29, No. 3	Pacific	Jul 1
Winter 2016	Vol 29, No. 4	Alaska	Oct 1

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Rivers you manage _____

Membership Category (please check one)

- ☐ Professional \$50/yr (\$200 for 5 years)
- ☐ Associate \$30/yr
- ☐ Organization \$120/yr (government/corporate)
- ☐ Organization \$60/yr (NGO/non-profit)
- ☐ Student \$25/yr
- ☐ Lifetime \$500 (for individuals only)

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Next Journal Deadline - Southwest Chapter Focus - Submissions due July 1, 2015

A WSR Poetic Primer

Wild and Scenic Rivers.

Free flowing. Fast water, slow water. Moving water. Unimpeded.
Free willed water, through its sections, segments, and reaches.

Quality water. Fresh, clear, unpolluted. Natural water.
America's best remaining examples of river environments, full of value, full of values.

Outstanding, remarkable, river related, the best of the best. Rare, unique and exemplary within its area.
Premium.

Scenic grandeur, sublime, carved, water formed, pleasing to the eye.
Recreating water; on water, in water, on bank. Fish, float, swim, wade, watch, drink in the water.
Useful water, life giving water; fish and wildlife habitat, rare species, special species, any species.
Functioning water; soaking, storing, spreading, replenishing. Twisting, turning, meandering.
Doing what water will if left to its own devices.
Water formed land; revealed over eons, or quickly by flood, quake, or slide. Water working to sculpt the land.
Examples in time, ongoing, ever changing.
Historic water; sustaining life, building society, remnants of past reliance on the flow.

Chosen. Classified. Designated.
Wild. Scenic. Recreational.

Free flowing water; free flowing forever.

by Randy Welsh
Past Chair, Interagency Wild and Scenic River Coordinating Council
Retired, Forest Service