National Wild & Scenic Rivers Program

National Park Service U.S. Department of Interior



WILD AND SCENIC River Currents

Photo by Craig Blacklock

Welcome to *River Currents*, a newsletter designed to recognize the accomplishments of the National Park Service wild and scenic river community. Our community includes locally administered partnership rivers, state administered rivers, rivers associated with national park units, and the many organizations that work to protect them. This first edition of *River Currents* highlights the events and activities held in 2018 to celebrate the 50th anniversary of the Wild and Scenic Rivers Act. Included within these pages are a collection of articles that feature many of you working tirelessly for volunteer and local organizations, states and tribes, federal agencies, and academia. We hope you enjoy reading this edition, seeing our collective impact, and looking back at the accomplishments of our river community during the 50th anniversary. We appreciate your contributions to *River Currents* and look forward to future editions. Thank you for all you do to keep our rivers clean, healthy, and free-flowing!

-Jennifer Back and Joan Harn, Co-Leaders of the NPS WSR Program

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Celebrating 50 Years





The year 2018 marked the 50th anniversary of the Wild and Scenic Rivers (WSR) Act. Communities across the nation celebrated WSRs by improving river access, increasing awareness of WSR designation, and enjoying the benefits of these special rivers.

Sudbury, Assabet, and Concord,

Photo by Lynne Damiano

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Content submitted by the Sudbury, Assabet, and Concord WSR Stewardship Council

The Sudbury, Assabet, and Concord WSR's River Stewardship Council celebrated the 50th anniversary of the WSR Act through exciting programming and updating the now 20-year-old River Conservation Plan. The 13-member Council, representing all river communities, state and federal governments, and two local nonprofits, kicked off the 50th anniversary celebration by participating in local parades. OARS, a non-profit partner, premiered the new River Connections: Partnership WSRs film at OARS' Wild & Scenic Film Festival in March, which featured the Sudbury, Assabet, and Concord River. The anniversary was the theme of the 2018 RiverFest celebration, with the Council and over 20 partners hosting events up and down the river, engaging over 1,000 people in paddles, hikes, fishing, kids events, and so much more! In October 2018, the Council held a special ceremony for partners, municipal leaders and volunteers at the Old North Bridge in Concord, including an award to their river champion, Congresswoman Niki Tsongas.



WINNE STAN

DID YOU KNOW?

NPS has responsibilities for two of the original eight WSRs designated in 1968: the St. Croix WSR (MN and WI) and the Wolf WSR (WI).



St. Croix and Namekagon, WI & MN

Content Submitted by Julie Galonska and Deb Ryun

The St. Croix National Scenic Riverway, which encompasses both the St. Croix River and the Namekagon River, celebrated the 50th anniversary with plenty of community outreach activities, film festivals, books, art, and so much more! As one of the original WSRs designated, 2018 also marked the 50th anniversary of the St. Croix WSR's designation. With the intention of increasing awareness of the riverway, inspiring new watershed stewards, and engaging new audiences in river appreciation, the St. Croix celebrated all year long, kicking-off the celebration with a press conference with Congresswoman Betty McCollum and Wisconsin State Senator Patty Schachtner. The St. Croix has reached over 33 million people through 40+ media stories, proclamations by the governors of Minnesota and Wisconsin, consistent key messaging, and special merchandise created by the non-profit organization Eastern National. A documentary film was aired on television several times, and 850 people attended the premier event. In addition, Craig Blacklock, an award-winning nature photographer, produced a book focusing on the beauty of the St. Croix. What's more, the St. Croix inducted over 1,300 new junior rangers in 2018!





Bluestone, WV

Submitted by Dave Bieri

2018 was a milestone year for Bluestone National Scenic River as they celebrated the 50th anniversary of the WSR Act and the 30th anniversary of the establishment of the park. The season kicked off with a special National Trails Day Bluestone Turnpike hike, a 10-mile long footpath following the length of Bluestone National Scenic River. The park enlisted the help of Active Southern West Virginia, a partner



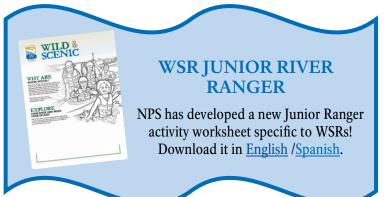
organization, to rent a bus for the day that would transport the 39 participants back to the trail head at the end of the hike. Throughout the summer and fall, park staff continued to lead shorter walks along a one mile stretch of the Bluestone River for a total of 20 walks that reached 339 visitors.

2018 culminated in a Celebration of Rivers event at Canyon Rim Visitor Center, New River Gorge National River, where staff celebrated the 30th Anniversary of Bluestone National Scenic River and Gauley River National Recreation Area, the 40th Anniversary of New River Gorge National River, and the 50th Anniversary of the WSR Act. This public event was held on November 17 and featured remarks by Superintendent Lizzie Watts and early park supporters who all reflected on the past, present, and future of the New River Gorge National River, Bluestone National Scenic River, and Gauley River National Recreation Area. The event also featured the launch of a new *Love Your Park* challenge which will offer numerous ways for park users to get out and enjoy their national parks.

Missisquoi & Trout, VT

Content Submitted by Lindsey Wight

As the newest locally managed addition to the WSR system, 2018 was an especially big year for the Upper Missisquoi and Trout Rivers in northern Vermont, which were designated in 2014. To celebrate these beautiful rivers and this significant anniversary, the Upper Missisquoi and Trout WSR Committee hosted an event each month to encourage people to enjoy and appreciate rivers all year long. From guided snowshoe hikes along the river, Paddle and Picnics events with provided boats and lunch, a first annual WSR Film Festival event, a town-wide River Clean-Up, and a second annual WSR Gathering at Big Falls (the largest undammed waterfall in VT), the communities around the Missisquoi and Trout Rivers had the opportunity to learn about and experience the amazing rivers with food and fun!





Upper Delaware, PA & NY



Content Submitted by Sherri Resti Thomas

In the spring of 2018, Friends of the Upper Delaware River (FUDR) held a press conference in Hancock, NY on the shores of the East Branch of the Upper Delaware River urging New York Governor Cuomo to personally attend a first of its kind Delaware River Summit in 2019. The summit aims to bring together the four governors of the states that border the Delaware River. FUDR was joined by Kris Heister, NPS Superintendent of the Upper Delaware Scenic and Recreational River, who talked about the 50th anniversary of the WSR Act and the 40th anniversary of the establishment of the Upper Delaware Scenic and Recreational River. Ms. Heister discussed the role of the NPS in the management of the Upper Delaware River, implementation of the Upper Delaware River Management Plan, and the unique partnership between local New York and Pennsylvania municipalities, state agencies and the federal government that comprise the Upper Delaware Council. Later, Ms. Heister joined event participants in a float down the river where she elaborated on how NPS engages with local landowners, municipal officials, and recreational users of the resource.

Photo courtesy of Lindsey Wight





Lower Delaware, NJ & PA

Content submitted by Marilyn Bullock

The Delaware River Sojourn is a guided paddling and camping event held every year to raise awareness and appreciation for the river. The 2018 Sojourn, *Still Wild After All These Years*, was held Friday, June 15 through Saturday, June 23, 2018 and celebrated the 50th Anniversary of the National WSR System. This was the Sojourn's 24th paddle down the Delaware River and was one of the most well-attended events in the program's history—three out of the eight days were sold out! Over the past four years the Sojourn has provided grants to schools to cover all costs of the sojourn for youth participation. Paddlers of many ages and abilities came out to enjoy the river, sometimes for a day, sometimes for all eight.

Flathead, MT

Content Submitted by Mary Riddle and Colter Pence

Glacier National Park and the Flathead National Forest organized and participated in two media float trips this past summer, which connected local print, radio, and TV media with the Three Forks of the Flathead WSR and introduced them to the 50th anniversary celebration. After getting prepped with their media-oriented information toolkits, journalists and staff set off down the Flathead River, taking in the sights, sounds, and stories of the river. Staff had a welcome challenge of simultaneously conducting interviews while operating the rafts and equipment. Visit <u>Montana Public Radio</u> to hear the sounds and learn about current events on the Three Forks of the Flathead River.



Taunton, MA



Content submitted by Bill Napolitano

The Taunton River Stewardship Council celebrated the 50th anniversary of the WSR Act through several activities. Celebrations included the 5th Annual Nemasket River Herring Festival, the Taunton River Festival, the Spirit of Somerset Days boat tour, and the "State of the Taunton" workshop and networking event at the Heritage State Park at Battleship Cove in Fall River.

Westfield, MA

Content Submitted by Cindy Delpapa and Katherine Baer

Photos by Meredyth Babcock

The Westfield WSR had two reasons to celebrate in 2018. Not only was 2018 the 50th anniversary of the WSR Act, it was also the 25th anniversary of the designation of the Westfield River as Massachusetts' first WSR. The Westfield started 2018 with a bang by co-hosting five WSR Film Festival events across the watershed with partner organizations. Hosting a film festival was a new undertaking for the Wild and Scenic Westfield River Committee, but their hard work—and popcorn-fueled film viewing and selection session—was rewarded with great attendance, cake, and broader community outreach for the Westfield WSR.

With special anniversary funding from River Network and Patagonia, the Committee and two local libraries developed a Families to the River program to share the power of story and the magic of river life. Children and their parents joined naturalists in an afternoon of splashing in the Westfield River, observing its insects, animals, and plants. Families were invited back to the libraries where every available table was commandeered to make river 'bugs' and plant shadow puppets. A special stage and advice from an expert puppeteer led to some amazing, creative, and amusing stories performed by each family. The children paraded from the library, puppets in hand and (hopefully) with river stories to tell.



National Program Highlights



Photo by Ken Hartlage

The NPS WSR Program and its partners have been hard at work assisting rivers in the WSR System. In 2018, their efforts included working to develop new funding opportunities for WSRs, supporting the designation of new WSRs, and providing new technical resources for WSR managers to better protect and enhance the rivers placed under their care.

Annual NPS Steering Committee Meeting

In 2018, the NPS WSR Steering Committee's annual meeting was hosted by Superintendent Julie Galonska at the Saint Croix National Scenic Riverway, one of the original WSRs designated in 1968. Committee members updated the group on ongoing projects, accomplishments, and challenges faced by NPS WSRs. The committee also met with the Saint Croix River Association, a watershed organization that works closely with the park to protect and restore the Saint Croix River. Portions of the meeting were spent in the field, travelling to two access locations on the Namekagon River to talk to maintenance staff about their plans to improve access points and to speak with cultural resources staff about the historic cabins within the WSR boundary. On the last day, the group toured the recently completed Stillwater Bridge with staff from Minnesota's Department of Transportation and learned about the decades-long process that led to its construction.



River Network Updates

Content submitted by Katherine Baer

River Network celebrated the 50th Anniversary of the WSR Act through a special focus on WSRs at their annual River Rally conference. In addition, they began an in-depth assessment of the needs of groups working on WSRs, gave subgrants to a handful of grassroots river and watershed conservation organizations, and assisted in storytelling about some of the inspiring work happening around the country. The future of WSRs depends on growing and strengthening the constituency for and awareness of these rivers and their benefits to communities, including vibrant economies, recreation, clean drinking water, and fish and wildlife habitat. With help from NPS, River Network gathered baseline information about engagement and the needs of local groups to sustain and build the future constituency for WSRs across the country and synthesized this into an assessment (to receive a copy, please contact <u>Katherine Baer</u>).

In addition to workshops and a plenary, as part of their focus on WSRs at River Rally 2018, River Network worked with partners, including American Rivers, to plan, organize, and facilitate a full day meeting to engage partners working on WSRs around the country. At the meeting, River Network shared the findings from their WSR needs assessment and engaged partners in a conversation about best practices and priorities for working together. This convening provided a chance to discuss what has been learned and define opportunities for better collaboration on topics, including stewardship and community engagement that formed the basis for a new WSR Coalition. The Coalition will work to support the protection, enhancement, and growth of the WSR System and work together to improve communication and capacity to increase public understanding and support for WSRs.



Southeast Region WSR Representative, Jeff Duncan, is helping foster a connection between RMS and the University of Tennessee-Chattanooga in order to offer RMS's River Studies and Leadership Certificate program there. Currently, nine universities offer the certificate across the United States.



NEW WSR LEARNING MODULES

BLM has created a set of free modules designed to help river stewards learn more about the management of WSRs. The course is free and available to all!

Course access instructions: if you do not already have a provalenslearning.com account, visit the link above and select 'sign up' on the top of the ProValens Learning site. Once you have an account, you will be able to access the training.



Content submitted by Risa Shimoda

2018 was the inaugural year of the River Management Society's River Training Center. To help celebrate the anniversary and to fulfill training needs conveyed by the Interagency WSR Coordinating Council, WSR Management was a primary focus of the River Training Center for the year. The 2018 River Management Symposium brought together river managers, river enthusiasts, and agencies to listen to speakers, participate on field trips, and attend seminars and workshops to discuss WSR management. Workshops helped participants increase their knowledge of the WSR Act as well as learn how to develop and improve comprehensive river management plans. The Symposium also provided an opportunity for the newly-developed WSR Coalition to reconvene after their first meeting at River Rally.





NPS Invests in the Next Generation of River Stewards

NPS partnered with Conservation Legacy's Stewards program to hire four Fellows to work exclusively on WSR projects. In 2018, they worked hard on developing tools, coordinating events, and providing assistance to NPS to address WSR needs and raise awareness of the WSR System. Read below about the main projects each Fellow accomplished for the 50th anniversary year:

JONI GORE - Seattle, WA: Joni promoted WSR needs and raised awareness of the WSR System through grants, geospatial tools, and more. After interviewing numerous NPS WSR managers, she and Fellow, Kelleen Lanagan, shaped the Rivers 50th initiative through the National Park Foundation and elevated WSR projects through the Outdoor Industry Association's Paddle Nation grant. On the geospatial side, Joni completed a geospatial database of Eligible and Suitable WSRs in all national parks, and developed a database of Federal Energy <u>Regulatory Commission</u> hydropower projects near WSRs across the country, research which she presented at the River Management Society Symposium in Vancouver, WA in October 2018. After a little time away from her desk and in the field, Joni also highlighted WSRs of the Pacific West in national parks such as Yosemite and Redwood through story maps and articles.

KELLEEN LANAGAN - Washington, DC:

Kelleen worked with Joni to interview NPS WSR managers, assist NPS efforts to promote funding WSRs, and write social media and promotional articles for the 50th anniversary. Kelleen's articles have been published by NPS, partner organizations, and the Department of the Interior Blog to highlight different events and projects happening on WSRs, including <u>#Findyourway to where rivers and</u> <u>trails meet</u>. In addition, Kelleen worked with Katie Willi on administering Swim Splash Smile (see <u>page 11</u>) and a watershed vulnerability assessment framework, which she presented at the <u>American Geophysical Union</u> in Washington, DC in December.

EMMA LORD – Concord, NH: Emma worked with the Interagency WSR Coordinating Council to develop <u>publications, tools, and other guidance materials</u> about WSRs for transportation and infrastructure proponents and river managers. She helped plan, organize, and present at a day long Transportation and Infrastructure Projects on Wild and Scenic Rivers workshop at the <u>River Management</u> <u>Society Symposium</u> in October. The workshop received good feedback, and she is working with RMS to help develop this into a recurring training with their River Training Center. She also worked with several Partnership WSRs in the Northeast to celebrate the 50th anniversary with public <u>outreach</u> and events.

KATIE WILLI – Fort Collins, CO: Katie assisted in several water quality-related projects for WSRs, including authoring a new Interagency WSR Coordinating Council report that <u>evaluated the water quality status of each WSR</u> and producing a story map (see <u>page 19</u>) summarizing her findings for NPS WSRs. Her work has helped guide river managers to better protect and enhance water quality of WSRs, as directed under the WSR Act. She also helped coordinate several WSR events in her local community, including a <u>storytelling event</u> that celebrated the Cache la Poudre WSR.





Potential Additions to the NPS WSR Community

Content submitted by Emma Lord

Not only did 2018 mark the 50th anniversary of the WSR Act, it also saw three rivers move closer to possible inclusion as Partnership WSRs: the Nashua River (Massachusetts and New Hampshire), Wood-Pawcatuck Rivers (Rhode Island and Connecticut), and York River (Maine). The Nashua, Wood-Pawcatuck, and York rivers are now officially deemed eligible and suitable by the NPS for designation as Partnership WSRs after finalizing the three-year NPS study process and a recent vote where all of the communities on the three rivers unanimously voted in favor of WSR designation. Read <u>the related NPS article</u> to learn more about their journey to designation.





DID YOU KNOW?

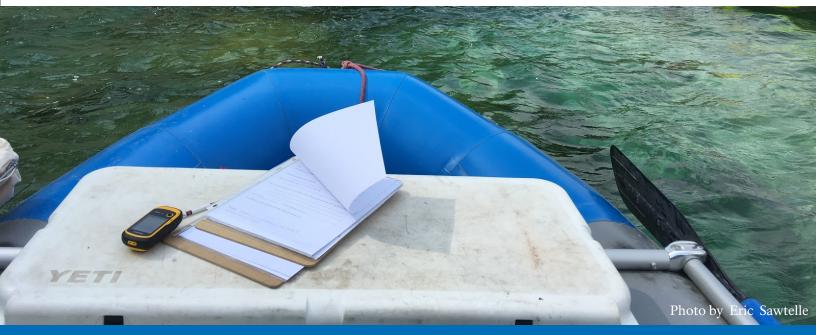
The Noatak WSR in Alaska is the longest NPS managed river with 330 designated miles.



Water Resources Division Helps Fund WSR Water Quality Monitoring

NPS's Water Resources Division received \$55,000 from the National Park Foundation to provide financial, technical, and communication assistance to citizen science groups monitoring water quality on WSRs for the new initiative, <u>Swim Splash Smile</u>. With these funds, the Water Resources Division was able to support eight projects across the WSR System—from helping high school students study dispersed campsite impacts along the Flathead River, to volunteers monitoring the effects of a dam removal on mussel communities in the Delaware River watershed. Connecting with and assisting local communities that are invested in WSR water quality will expand the NPS's ability to better protect these special rivers into the future.

The Water Resources Division was also able to assist the River Styx WSR and the Klamath WSR through the purchase of water monitoring equipment. The River Styx WSR will use their new equipment to help monitor water levels in the cave. The Klamath WSR previously had no continuous water quality data, but is considered one of the best Coho salmon streams on the north coast of California.



River Currents 2019

National Program Highlights



The National Park Foundation Offers Grants for WSRs

In celebration of the 50th anniversary of the WSR Act, the National Park Foundation raised funds to support eleven projects along and for WSRs. As part of the broader campaign related to both National WSRs and National Trails, *Find Your Way*, selected projects that focused on stewardship, increasing or improving access to recreational opportunities, and building relationships with local communities and organizations. The following WSRs and organizations were funded through the initiative (some of which are further highlighted in *River Currents*):

- •Bluestone WSR, WV
- •Eightmile WSR, CT
- •Missouri WSR, SD & NE
- •Musconetcong WSR, NJ
- •Niobrara WSR, NE
- •NPS Water Resources Division
- River Management Society
- •Smith WSR, CA
- •Sudbury, Assabet, and Concord WSR, MA
- •Virgin WSR, UT
- Westfield WSR, MA

All project descriptions can be viewed on the Rivers and Trails 50th Anniversary Grants Map.



Connection and Protection

From improving recreational opportunities to increasing stewardship through community engagement and restoration activities, this section highlights the myriad of unique projects that NPS and its partners carried out in 2018 to safeguard and connect people to NPS WSRs.



Improvements to Recreation

River Management Society's National Rivers Project

Content submitted by Jack Henderson

The National Rivers Project is an RMS-managed interactive web map and GIS-rooted trip planning tool where paddlers can encounter and learn about river trips in the United States. The Project is centered around the National River Recreation Database, this country's most comprehensive and extensive geospatial database of navigable WSRs, water trails, whitewater rivers, public boat access points, and riverside campgrounds. RMS and NPS have frequently partnered on this project to create and bring high-quality information on NPS-managed rivers to the public. RMS worked with unit and regional park managers, GIS data staff and agency leads to add five 'WSR-Like' rivers to the National Rivers Project, including: Big South Fork Cumberland River, TN; New River, WV; Gauley River, WV; Chattahoochee River, WV; and Little River, AL. They continue to collaborate to add more NPS rivers data. Contact <u>Corita Waters</u> to learn more.

REDWOODS NATIONAL AND STATE PARKS

In honor of the 50th anniversary of the WSR Act, the NPF provided a grant to Redwood National and State Parks to purchase new gear for their free ranger-led kayak program on the Smith WSR. Learn more about their successful program, <u>Come for the Redwoods</u>, <u>Stay for the River</u>.



A Wild and Scenic Paddle Down the Lamprey River

Content Submitted by Suzanne Petersen

Civilization is clearly visible along certain stretches of the Lamprey WSR in New Hampshire, but a 4-mile section between the towns of Epping and Lee is far more secluded and natural. For several years, paddlers have noted their frustrations trying to navigate through this section, where there is an abundance of downed trees in the river. The many obstacles force paddlers to portage over steep slopes—often covered with poison ivy. For paddlers who travel downstream, a return trip is not always possible, and once the trip has begun, there are no public access points.

With the Lamprey River Watershed Association and Trout Unlimited as partners, the Lamprey Rivers Advisory Committee took several trips over several years to map and document each obstacle. A plan was created to modify each obstacle so that paddlers would have a 6 foot wide gap with at least one foot of water depth at base flow of 100 cubic feet per second. Any wood cut would be relocated nearby within the channel to protect wildlife and ecological values. The New Hampshire Charitable Foundation awarded a grant of \$5,000 to support the effort, and landowners were contacted for permission to access their properties.

Over the summer for two full days, the team used chain saws, trimmers, pulley-systems, and other tools to enable canoe passage while protecting the river's ecological values. To test the real-world success of the project, the public was invited to join a guided paddle in mid-October. The flow of the river was at 315 cubic feet per second—three times the target base flow. With personal safety foremost in mind, the paddle started at the downstream end and went as far as possible without portaging. After paddling for about an hour and safely getting past two treated obstacles, a third obstacle presented an unsafe situation that warranted a turn-around.



While the project did not accommodate recreational passage during the unseasonably high flows, it did serve as an important pilot project. The partners created a model for evaluating woody obstacles for human safety as well as ecological value, gained experience with techniques for adjusting and relocating wood, and came to a much greater awareness of the river's complexity and richness. In the end, the scenic Lamprey River provides recreational opportunities, but it also remains semi-wild.

Beyond the work related to downed trees, the Lamprey River Advisory Committee and the Epping Conservation Commission began work on a multi-year effort to improve Tilton Conservation Area, a public canoe launch area within the Epping to Lee section. Improvements will include enhanced signage, rehabilitating the floodplain trail, and reconfiguring the launch to improve safety and reduce erosion.

PADDLE WILD AND SCENIC RIVERS FOR A WILD AND SCENIC SUMMER

The Department of the Interior published a blog, <u>Paddle Wild and Scenic</u> <u>Rivers for a Wild and Scenic Summer</u> that discusses advice about planning river trips on WSRs.

Photo by Think Out Loud Productions

Sudbury, Assabet, and Concord, MA

Content submitted by Sudbury, Assabet, and Concord WSR Stewardship Council

Small community grant funds from the Sudbury, Assabet, and Concord WSR Stewardship Council allowed for the purchase of a canoe trailer by the *Boat Billerica* recreation program as well as the production of a Concord River Recreation Map by OARS. In addition, the town of Concord received a National Park Foundation grant to improve two new boat access areas in the town of Concord for all to enjoy.

Photo by Marlies Henderson

Missisquoi & Trout Access Accomplishments

Content submitted by Lindsey Wight

In addition to the Missisquoi & Trout River's 50th Anniversary events, in the summer of 2018, they constructed a new access point to the Missisquoi river so that paddlers can more easily get into the northern section of and enjoy a family-friendly paddle. They also provided 10 grants through the second year of their River Community Grants program. Projects that were funded in their communities included: the purchase of canoes and kayaks that are now available for residents and visitors to use free of charge; and a new set of stone steps was constructed in a town park that provide easier access to the Trout River for anglers, swimmers, and paddlers, several educational programs for schools and summer camps.



Taunton Public Access and Information

Content submitted by Bill Napolitano

The Taunton River Stewardship Council (TRSC) was busy in 2018 improving recreation and education op portunities to their WSR! Some accomplishments in 2018 include:

- Improving public facilities and waterfront access at Berkley Bridge Village Heritage Park;
- Installing informational kiosks in Bridgewater as part of an Eagle Scout project at the Wildlands Trust's Great River Preserve and at the Summer Street put-in;
- Helping state partners open the new River Education Center, at Sweets Knoll State Park in Dighton.

Additionally, The Wildlands Trust (a TRSC member) received a \$24,000 NPS Challenge Cost Share Grant to develop all persons' access amenities at the Great River Preserve on the Taunton River in Bridgewater.

Connection and Protection: Stewardship and Science



Stewardship and Science

High School FREEFLOW Club Monitors Water Quality of Flathead WSR

Content submitted by Richard Menicke

The Whitefish, MT High School FREEFLOW Club recently began a long term project to study water quality and dispersed campsite changes along the North Fork of the Flathead WSR. Prior to time spent on the river, students reviewed past U.S. Geological Survey water quality studies and researched land use changes in the North Fork Valley. Based on initial research, students developed a study plan with the following goals:

- •Examine chemical, physical and biological water quality parameters.
- •Monitor and assess dispersed river-use campsites.
- •Increase student opportunities to work with scientists and natural resource managements professionals.
- •Integrate with Forest Service and NPS WSR managers and their long-term monitoring goals.
- •Make data publicly accessible through a student-created online ESRI Story Map.



This long-term project was piloted in October 2017, providing teachers and students valuable insights about ensuring the project's success in future years. FREEFLOW received funding from the NPS Water Resources Division's 2018 Swim Splash Smile (SSS) grant call, which allowed them to purchase a new raft and cold water field equipment that enables project protocols such as snorkel surveys to measure fish presence and abundance. SSS funds helped strengthen an established program of field-based science at Whitefish HS and provides invaluable infrastructure to successfully implement a long-term monitoring project in collaboration with Flathead National Forest and Glacier National Park on the North Fork of the Flathead.

Field-based science education can help in building the next generation of resource stewards for special places like the North Fork. Additional FREEFLOW project partners include the Glacier National Park Conservancy, Whitefish Community Foundation, Flathead Conservation District, Whitefish Lake Institute, Becker Busing, and Glacier Raft Company.

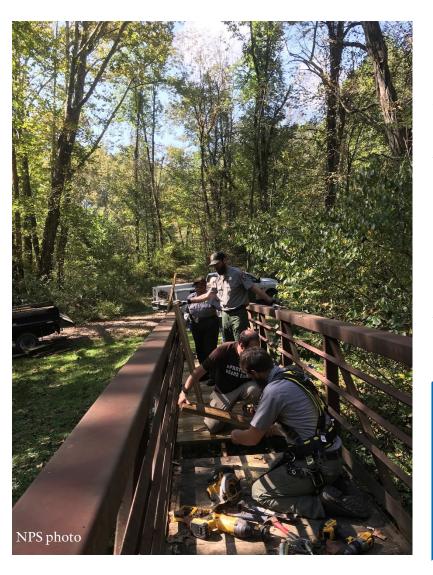


Ecological-Based Tool for Evaluating Potential Impacts on the Obed WSR, TN

Content submitted by Jeff Hughes

One challenge facing the NPS and other river management agencies is responding to notices and applications proposing development of water resource projects upstream of WSRs. Usually, the process to conduct these studies takes a lot of time and money. In 2018, the NPS worked with the U.S. Geological Survey Lower Mississippi-Gulf Science Center to create an ecological component to existing decision support software that can quickly estimate potential fish community responses due to changes in flow regimes from proposed projects near the Big South Fork National River and Recreation Area and the Obed WSR; both rivers are located on the Cumberland Plateau of Tennessee and Kentucky. This model will be used to work with the utility districts to adjust their proposed withdrawals and discharges as to not affect the fish communities of the park units. While the ecological flow component of this model is created specifically for the Cumberland Plateau of Kentucky and Tennessee, it could be used in other parts of the country if enough local biologic and flow data exist. Similarly, this tool could be adapted to other flow-dependent resources (such as riparian vegetation, geomorphology, etc.) if adequate relationships between flow and the resource of interest exist.

Bluestone Receives Love Your Park Grant



Content submitted by Dave Bieri

In 2018, the Bluestone National Scenic River in West Virginia received a National Park Foundation *Love Your Park* grant to build volunteer and partnership projects to help foster a sense of ownership and stewardship of national parks through service. The park held two volunteer *Love Your Park* service days at Bluestone National Scenic River. Although the weather was not very cooperative, a good deal of work was accomplished through these two events. Volunteers performed maintenance and trash clean up along seven miles of the Bluestone Turnpike Trail and installed new trailhead signs. Nine members of the National Citizens Conservation Corps assisted with this event. During the second event, volunteers and park staff replaced the decking on a footbridge crossing the Little Bluestone River.



For decades, an abandoned graphite lab on an island in the Musconetcong WSR made the popular location unsafe. Learn how the <u>Musconetcong WSR</u> is transforming the island into a safe destination with informational signage. Connection and Protection: Stewardship and Science

Great Egg Harbor WSR Updates

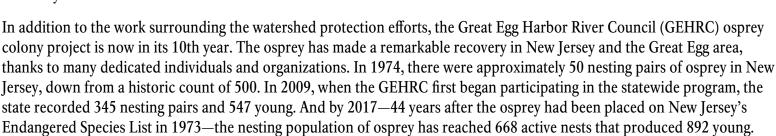
Content submitted by Paul Kenney, Fred Akers, and Lynn Maun

Utilizing the Preliminary Healthy Watershed Assessment (PHWA) tool, partner organizations along the Great Egg Harbor River have identified watershed areas that need additional protection, and are developing a plan to reduce impervious cover through improving green infrastructure.

The PHWA, developed by the EPA and adopted by the NPS Water Resources Division in 2017, identified HUC12 areas in Winslow and Monroe Townships at the top of the watershed as not being among 25% of the healthiest watersheds in New Jersey. And, the PHWA shows that these same Townships are under increased threat from development and water withdrawals. Protection efforts for Winslow and Monroe Townships are planned in three phases:

- (1) An Impervious Cover Assessment
- (2) A Reduction Action Plan
- (3) A Green Infrastructure Feasibility Study

The Great Egg Harbor River Council authorized the Great Egg Harbor Watershed Association to partner with the Rutgers Cooperative Extension Water Resources Program, the township governments, and the New Jersey Pinelands Commission to implement these phases, which will likely extend into the year 2020.





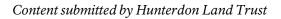
In partnership with a variety of groups, GEHRC placed additional nesting platforms over the past 10 years, expanding from 21 platforms in 2009 to 47 in 2018-where they have counted 442 chicks and banded 261. Old platforms were assessed for damage and either repaired or replaced, and over burdened platforms were cleared of excessive nesting material that made them unstable and prone to rot. Fred Akers, Administrator of the River Council, constructed the new and replacement platforms. All of the work done for the osprey—whether counting, banding, or building or repairing—was done through volunteer efforts for the state of New Jersey. These birds that once faced extinction in the state of New Jersey are an example of what can occur when many different groups and individuals work together.



WSR WATER QUALITY

A Look Below the Surface.

Lower Delaware Habitat Restoration



Hunterdon Land Trust (HLT) made progress on a habitat restoration project at the Zega-Lockatong Preserve in Delaware Township, NJ. As part of a multi-year project to improve habitat on the Preserve, Because water quality protection is a fundamental HLT hired a forestry contractor to remove invasive plants from the principle of the WSR Act, a recent effort assessed the water understory on nearly 4 acres of the Preserve in 2018. Freeing the quality status of the entire WSR System. Curious about the understory of these invasive plants will give native seedlings the water quality status of NPS WSRs? Explore the Story Map, chance to regenerate and maintain forest cover as older trees die and saplings grow to replace them. Native forest cover will benefit wildlife on the Preserve and help protect water quality in the Lockatong Creek, a Category 1 tributary to the Lower Delaware WSR.

Before





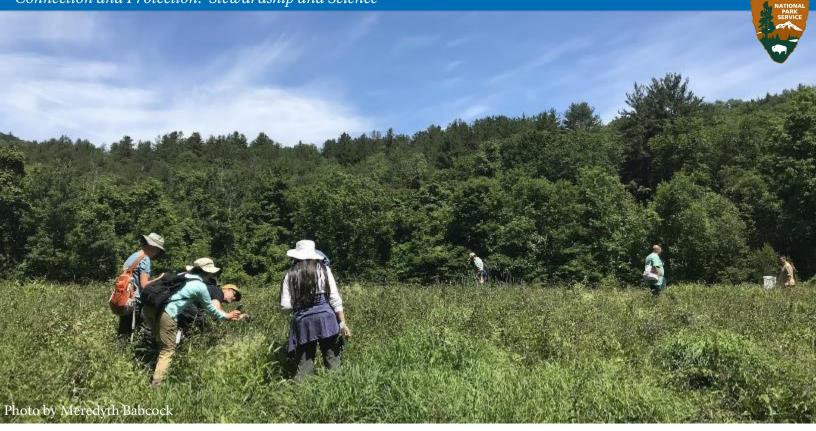
Citizen Science at SuAsCo

Content submitted by Sudbury, Assabet, and Concord WSR Stewardship Council

In 2018, the Sudbury, Assabet, and Concord WSR Stewardship Council funded important projects through their WSR budget, leveraging hundreds of volunteer hours as well as local resources and funds. The Council supported efforts to protect land through their partner organization, Sudbury Valley Trustees, and they supported urban/locally grown food efforts in the city of Framingham. The Council continued to assist water quality monitoring through partner organization OARS' long -term monitoring program where citizen scientists provide essential data for state and federal decision-making while engaging the community. Mass Audubon River Schools Program was funded to get students in the field to foster learning river science and stewardship on SuAsCo, with over 1,000 students participants across four towns.



The Lamprey River commissioned acoustic bat surveys at eight diverse sites in Epping, Lee, Nottingham, and Raymond, New Hampshire. Seven of the eight bat species expected in New Hampshire-including three species that are listed as endangered in New Hampshire-were detected and verified.



Bee Searches and Culvert Updates on the Westfield WSR

Content submitted by Cindy Delpapa

The largest of the Wild and Scenic Westfield River Committee's long term projects, the Watershed Blitz, once again brought dozens of volunteers together with dedicated experts to explore, assess and catalog flora, fauna, and function of the lower section of the West Branch River in 2018. Highlights included spotting several rare native bees in floodplain meadow. In preparation for the blitz, two internships were offered to local university students. The students designed and completed their own special river projects and assisted a river specialist with volunteer work days & workshops, programs, outreach events and the Blitz.

DRAGONFLY MERCURY PROJECT

The Dragonfly Mercury Project is a national-scale study tying scientific efforts to understand mercury pollution risks with citizen engagement and education in a resource management framework. Since 2014, the following WSRs or their tributaries have been sampled for mercury analysis: Delaware (Middle and Upper), Maurice, Missouri, Niobrara , Rio Grande, Saint Croix, Wekiva, Flathead, Snake River Headwaters, Sudbury, Assabet and Concord, and Virgin. Interested in participating in the Dragonfly Mercury Project? Visit the <u>project</u> web page and access the data map.

For several years the Committee also supported interns and volunteers to survey road-stream crossing to identify impacts to stream connectivity and function. The data collected was used to prioritize crossings for upgrades. In 2018, the Committee engaged a consultant to complete assessments, concept designs, and surveys for five priority culvert crossings. The consultant also assisted the towns to prepare grant applications for additional design and permit funding. Thanks to the preliminary work and grant assistance, at least one of the local towns received additional funding, and the other towns are poised to apply for funds. Replacing these inadequate culverts will benefit the connectivity and water quality of the river while protecting the towns from costly emergency road repairs and the inconvenience of detours around washed-out roads. With more inadequate crossings being addressed, people have more time to enjoy, enhance, learn about, and protect the Wild & Scenic Westfield River.

White Clay Citizen Scientists

Content submitted by Shane Morgan

In 2017 the White Clay Creek WSR Program partnered with Stroud Water Research Center to install stream sensors throughout the White Clay watershed. These instruments take continuous measurements of electrical conductivity, water temperature, water depth, and turbidity. As a participant in this initiative, Stroud provides technical assistance and training to watershed organizations building their own citizen science programs.

On a typical day, citizen scientists are out in the field taking water quality samples and stream measurements. They also help with sensor management and troubleshooting, uploading data, taking discharge measurements, and collecting grab samples for specific pollutants (nitrate, orthophosphate, total suspended solids, and chlorides). These data provide baseline information on streams that haven't been assessed by state agencies and help to detect changing water quality trends over time. Ultimately, information gained will inform decisions regarding land use, land management, and land protection—all of which have a significant impact on water quality and stream health.

Another citizen scientist is using his background in software engineering to create a stream data analysis program to interpret collected data. This software program is currently being tested by the White Clay WSR Program in collaboration with the Delaware Nature Society's Stream Watch Program and The Nature Conservancy Stream Stewards Program. The software program allows for quick and easy reporting of stream data, including identifying water quality trends and water quality issues. Once developed, this program will allow the WSR Program to easily and efficiently communicate information and educate others about water quality so they will be more engaged in watershed restoration and protection.

The White Clay WSR Program seeks to build upon the foundation laid down by these citizen scientists to engage more people in watershed management and to create a strong and informed network of volunteers who are stewards and advocates for our natural resources. In August 2018, the White Clay Creek was awarded \$11,321 in grant funding to support volunteer stream monitoring efforts. Funds came from the Swim Splash Smile and the National Park Foundation *Love Your Park* campaign. Over the course of the 2018-19, the White Clay WSR Program will be soliciting dedicated volunteers who would like to become actively involved in monitoring their local waterways.

DID YOU KNOW?

The River Styx in Oregon is the only subterranean river in the WSR system.









Land Additions

Content submitted by Cindy Delpapa, Patricia Ruby, Bill Napolitano, and Niki Nicholas

WESTFIELD: The Committee is especially pleased to have supported our partners' land protection efforts through small grants to help with acquisition costs. Of special note, a key 600 acre parcel was acquired in 2018, significantly augmenting existing open space to create an even larger contiguous block of protected lands that includes several key cold water fishery tributaries to the mainstem of the Westfield River.

LOWER DELAWARE: Hunterdon Land Trust was instrumental in the acquisition of 15 acres located in the Delaware River Scenic Byway. The property was between two preserved parcels and now serves as a bridge between a small three-acre property to the north and a 220-acre public park to the south. The public park has been expanded along the Delaware Bluffs and now includes a dramatic waterfall that descends over 100 feet. This property is strategically located amidst significant preserved acreage to lengthen a green corridor that safeguards clean water and provides woodland habitat for many species, including neo-tropical songbirds that need deep forested areas to breed.

TAUNTON: The Taunton River Stewardship Council (TRSC) provided technical assistance, appraisal funding, and worked with local and state partners as well as the Native Peoples to

acquire and preserve eight acres of the historic Council Oak field, which is adjacent to the Council Oak in Dighton, MA. The Council Oak holds a great deal of meaning for the Native Peoples and played an important role in the region's history. The Taunton Development Corporation contributed \$150,000, working in partnership with the Town of Dighton and TRSC members, to secure the purchase and preservation of the field. TRSC also provided assistance and appraisal funding to the Town of Middleboro to acquire and preserve the nationally archaeologically significant Ja Mar farm property. Middleboro worked with the Native Lands Conservancy, The Archaeological Conservancy, MA Division of Conservation Services, and the Wildlands Trust to purchase the 20.4 acre property.

OBED: In 2018, the Obed WSR purchased **a** 17-acre tract of land near Obed Junction that protects the viewshed of one of the most scenic parts of Obed Gorge, as well as a 19-acre tract of land that protects the viewshed of the park's most dramatic waterfall. The Obed also received donations of three tracts of land totaling 174 acres, including a 63-acre tract of land donated by the Nature Conservancy. The new addition from the Nature Conservancy protects one of the park's most iconic views at Lilly Bluff Overlook.

Looking Toward the Future





The year 2018 marked the 50th anniversary of the WSR Act. It was a time for celebration and reflection. Eight rivers were initially designated in 1968. Fifty years later, 209 rivers have been designated, representing nearly 13,000 river miles that are protected for their outstandingly remarkable values, free-flowing character, and water quality. The NPS has some level of responsibility for 60 rivers, representing about 3,200 miles. Congress is poised to designate several new rivers as part of a major land conservation bill in 2019.

Today, despite our successes, rivers remain under threat from changing hydrology, urbanization, and the pressures that accompany growing populations. WSRs are not immune from these threats and as a result, many WSRs face issues associated with water quality degradation and hydrologic alteration. In fact, 34 of the 60 WSRs that NPS manages, or assists state and local partners in managing, are not meeting their state-defined water quality standards. We still have much work left to do.

But WSR stewards should not be dismayed. Our river community has gained a wealth of knowledge as the National WSR System has expanded. We have learned the importance of integrating science into policy and resource management, the benefit of cooperation with multiple levels of government, and the power of engagement at the local level. We have recognized the value of not only WSRs flowing through wilderness, but the value of rivers flowing through populated areas. We have learned about natural flow paradigms and the importance of maintaining key hydrologic and ecologic processes. We now understand that the sustainability of our most special rivers requires looking beyond the river corridor and the structure of the WSR Act to practice conservation at a landscape scale.

It is time to imagine new possibilities; extraordinary people created the National WSR System, and our extraordinary river community can continue to build on this legacy. We must focus on strengthening our existing partnerships and developing new collaborations. Together, we can continue to protect our remarkable rivers for future generations.

DID YOU KNOW?

Flowing through the city of Sacramento, the Lower American WSR is the most heavily used recreational river in the state of California.

People and Resources



WSR Steward Spotlight



Joan Harn

A special thank you to Joan Harn! Joan has spent many years protecting and raising awareness of WSRs. She played a pivotal role in establishing the NPS WSR Program, improving our capacity to manage WSRs, and developing collaborative partnerships with national nonprofits that actively advance WSRs. Joan was instrumental in completing NPS Director's Order #46 for WSRs, which lays out NPS's roles and responsibilities in managing WSRs. Additionally, her longstanding contributions to the Interagency WSR Coordinating Council have helped develop consistent and effective guidance, policy recommendations, and technical assistance for WSRs at a national level. Joan plans to retire in 2019. Joan's thoughtful insights, quiet sense of humor, and graceful leadership will be missed. If you have questions regarding a specific WSR project or want more information on WSRs, please contact the appropriate WSR regional coordinator from the following list:

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