



You Are the ReasonPage 3
Wildlife Watch Page 4
READY ProgramPage 5
The Impossible Stream Page 6

Watershed Watch

Restoring, Preserving, Protecting and Celebrating Maryland's South River Watershed

Middle School Spills Hundreds of Gallons of Oil in Crab Creek

On January 28th, a concerned citizen called the Federation reporting an oil spill into the stream across the street from Annapolis Middle School on Spa Road. Our Riverkeeper, Jesse Iliff met the Emergency Response Team from Maryland Department of Environment (MDE) at the stream that flows into the South River's Crab Creek.

"Upon exiting my car, I could clearly smell the oil, and as I trudged through the snow to the stream, I saw that enough oil had spilled to create large pools of orange, greasy,

foamy residue near any obstructions or bends in the stream," explained Iliff.

While some members of the response team deployed white, absorbent oil booms and square absorbent pads into the stream, others used bright green tracing dye to track

the source of the oil spill. "The orange oil on top of the stream dyed a bright green looked pretty nasty, but the dye was used to confirm that no more oil remained in the pipeline," said Iliff.

MDE determined that the oil spill originated from a leaking transfer pump in Annapolis Middle School's boiler room, which pooled into a 100-gallon sump pump before emptying into a storm drain that led to the stream. Due to the record breaking blizzard the week before, the

maintenance team did not check the boiler room the day prior as per their regular routine.

Early the next morning after the spill, Federation staff patrolled from the culvert delivering the oil to where the freshwater stream meets the tidal portion

"The orange oil on top of the stream dyed a bright green looked pretty nasty, but the dye was used to confirm that no more oil remained in the pipeline."



of Crab Creek, and confirmed that oil had reached tidal waters. The Coast Guard had also deployed personnel to the area to investigate the extent of the spill.

The Federation obtained water and soil samples at the confluence of fresh and tidal water to confirm visual observation of oil sheen, and ensured that all appropriate enforcement and remediation was undertaken, given the spill's intrusion into navigable water.

continued on page 7



Watershed Watch is the South River Federation's official newsletter. The Federation has emerged as the river's most visible and effective guardian because thousands of people who live, work and play on the South River are willing to invest themselves in its healthy future.

Won't you join us?

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The Federation teamed up with Bywater Mutual Homes and invited residents to a Barbeque dinner to discuss our upcoming restoration project! Above: Staff member Nancy Merrill and young participants sharing a diagram of their ideal riverside homes.

Who to Call

Questions about dredging, clearing in wetlands:
Maryland Department of the Environment Water Management
Administration Compliance Program
410-537-3510

Report fish kills, lesions: Department of Natural Resources' Fish Health Hotline
888-584-3110

Questions about tree clearing, sediment runoff, illegal building:
AA County Critical Area Hotline
410-222-7777

To report oil spills or other hazardous waste spills:
Maryland Dept. of the Environment Haz-Mat Response Office (24 hrs/day)
1-866-633-4686

Concerns about anything unusual in South River Watershed:
South River Federation office
410-224-3802 and/or

Call before you cut!!!
410-222-7441

YOU ARE THE REASON!

You may not live right “on” the River, but the South River is a backyard for ALL of us and this special place is part of our everyday lives. And like all of our backyards, we want ours to be beautiful, healthy, and useable. You are helping make that happen through your partnership with the South River Federation and we applaud you!!

YOU are the reason that we have become a **regional leader** among watershed protection organizations. Did you know that we are currently managing more than 60 projects on the River focused on resorting the South River and its creeks and tributaries?



YOU are the reason that we can see the improvements in our water quality and fish and wildlife habitats. This year the **chain pickerel returned** to the South River’s Church Creek for the first time in many decades—a clear indication of improving water quality!

YOU are the reason that the South River Federation is helping put the South River on a path to recovery. Did you know that this is the third straight year of **measurable improvements in water clarity?**

YOU are the reason that our dedicated staff, interns and volunteers are able to conduct extensive **scientific monitoring, restoration work** and **advocacy** with our local and State governing bodies. Did you know that we are putting the Watershed Protection and Restoration Fee (Stormwater Utility Fee) to work, making sure your taxes benefit OUR River and OUR communities?

The South River Federation exists to serve you, and every person in our community as well as future generations who want to live in and enjoy a healthy, thriving river. We appreciate the role you have chosen—leading the charge in the quest to make effective change for your river.

We are grateful for your gifts—of all sizes and kinds. We appreciate the time you spend planting trees with us. We are grateful for your donations. We are so very grateful for your partnerships, with your business, with your school, with your Church, with your neighborhood. To fix the River we need to work together and that is exactly what is happening. THANK YOU!!

Upcoming Events

info@southernriverfederation.net



South River on the Half Shell Auction

Saturday, March 19th
6:00 – 10:00 pm

Homestead Gardens Davidsonville, MD
Join us for a fun-filled night of fabulous food, drinks, oysters, and live music!
Visit www.southernriverfederation.net to buy your tickets!

Project Clean Stream

Saturday, April 2nd
10:00 am – 1:00 pm

Annapolis
Say yes to a cleaner, healthier river for you and your family and help us clean up the trash around Church Creek on April 2nd!

State of the South River Report Card

Tuesday, April 12th

Our Riverkeeper Jesse Iliff will share what our water quality monitoring data shows about the health of the South River in 2015.

Oyster Boat Parade

Saturday, May 21st

Join the South River Federation and Box of Rain in celebrating South River’s oyster sanctuaries!

Participate by boat in our oyster boat parade and help restore an oyster reef by setting adult oysters free!

WILDLIFE WATCH

By Sarah Giordano

Chesapeake Conservation Corps Volunteer

Spring is on its way! At the Federation, we are eagerly looking forward to the warm season so we can monitor the South River on a more frequent basis and once again witness the seasonal shift for the river wildlife.

Many diving ducks like the Bufflehead, Canvasbacks, and Scaups which could be spotted on the river and its creeks this winter will begin migrating back north towards their spring and summer breeding grounds.

Hopefully, in future years, we will have a greater abundance of underwater grass in the South River, the decline of which has caused ducks like the Canvasback to winter elsewhere, as this species relies on aquatic grass for sustenance.

Sandpipers and Black ducks will be passing by on their journey north, and if we are lucky, they will stop and refuel at some of the Federation's restoration sites as they have in the past. Their use of our restoration projects is indicative of the projects' ability to support prey and habitat necessary for these species.

This is especially good news for the Black duck population, which is considered a keystone species by Chesapeake Bay Program. If you see these birds, it is a great sign that the restoration project is doing its job. Similarly, we are very excited to see Wood Ducks utilizing our Church Creek Restoration site this winter and are pleased to see that our efforts to create improved habitat for wildlife is starting to pay off.

If we are right that spring is coming early this year, look for what time the Osprey return to the river. Traditionally, the Osprey will reunite with their mates around St. Paddy's Day, on



March 17th, after taking separate six month winter vacations in South America. Despite taking separate 3,000 mile voyages back to the U.S., the male and females usually meet back up within days of each other at their nest. Many believe that if the Osprey show up in the first week of March, it predicts a warm and pleasant spring.



Most of the Canada geese will start their northern migration to Canada in March. However, due to people feeding the geese, which prevents them from migrating (Hey, why fly all that way if there is free food here!), two distinct populations of geese are now present in the Chesapeake, residential and migratory. The feces of the residential geese, (as well as dogs)



are responsible for a lot of the high bacteria counts in our creeks during the summer. Beware, geese are highly protective over their nests. Luckily, they hiss to let you know if you have come too close.

While every species has different courtship behaviors, the Great Blue Heron's is quite spectacular. The male will attract females by ruffling his feathers and showing off twigs. Once a female becomes interested, they partake in what seems like a dance where both stretch their necks up and splay the feathers atop their heads. Count yourself lucky if you catch a glimpse of these love birds.



We also had a large population of Bald Eagles winter on the South River this year. We hope some have enjoyed their time

with us enough to build their summer home here too! Please email us at info@southriverfederation.net with any interesting bird sightings or antics!

The Federation Partners With New READY Program

By Rev. Johnny R. Calhoun, Pastor of Mount Olive AME Church & Executive Director of Our Creeks & Conservancy and Nancy Merrill



Getting under-served communities involved in environmental restoration has been a challenge, to say the least! That is until the READY (Restoring the Environment And Developing Youth) came on the scene. READY is an initiative that was birthed and funded by Howard County, administered by the Alliance for the Chesapeake Bay and supported by PATH (People Acting Together in Howard County).

Amongst many things, READY

- ❖ Provides living wage jobs for young adults who have a hard time finding work
- ❖ Engages minorities in environmental preservation activities
- ❖ Helps meet federally mandated stormwater management obligations
- ❖ Provides congregations and non-profit organizations with pollution and flooding management help they might not otherwise be able to afford
- ❖ Reduces pollution to local water ways and the Chesapeake Bay

The Annapolis/Anne Arundel chapter was initiated as a six-week pilot program in October, 2015 and hired fifteen youth and two adults. The program developed from a partnership with the Alliance for the Chesapeake Bay, Mount Olive Community Development Corporation (Our Creeks & Conservancy), Anne Arundel Watershed Stewards Academy and Anne Arundel County Community Action.

After receiving basic storm water runoff and pollution

prevention training, as well as instruction in watershed

management basics; READY crews participated in several hands on practical experiences, including: sizing and planting rain gardens, removing invasives, clearing meadows for conservation landscaping, planting trees & native plants, and conducting restoration activities.

The Federation Provided Hands-on Experiences

“Working with the Federation gave READY the opportunity to have several hands on experiences,” stated Rev. Johnny Calhoun, the READY Program Manager.

Dimitria Weston, one of the READY crew leaders, exclaimed, “this is the muddiest job I’ve ever had, in my life,” when she planted

trees in the Flat Creek marsh and served as a team leader for several youth from St. Ann’s School.

While touring the Federation’s restoration projects on Church Creek, READY

“This is the muddiest job I’ve ever had, in my life”

participants examined the real world impact of erosion and stormwater runoff. They witnessed first-hand the great need for restoration and community engagement. Working with the Federation, they planted hundreds of trees at Church Creek and Flat Creek, while also assisting in building tree cages and replenishing oyster spat into the South River.

Calhoun noted, “We are very excited about the work that READY was able to accomplish in the fall and I’m looking forward to working and expanding our partnership with the Federation in the summer.”



READY participant Dimitria Weston (left) with St. Anne’s School Children at Flat Creek in Davidsonville, MD



Welcome Aboard

Scott Warner is the Federation’s new Assistant Project Manager with our Restoration Program.

Welcome Scott!



Congratulations!

Kincey Potter, a Federation founding board member, received the prestigious Chesapeake Bay Trust’s 2016 Ellen Frites Wagner Award for Chesapeake Bay Stewardship. A well-deserved award, thanks Kincey!

Photo Credit: Capital Gazette

THE IMPOSSIBLE STREAM

By Kirk Mantay

In 2011, the South River Federation launched our ambitious \$16 million Church Creek Initiative, to help repair the South River's sickest tributary. The western tributary that runs between Annapolis Harbour Center and Home Depot (off Old Solomon Island Road) is one of the last major projects in the Initiative. At over 80% paved drainage area, some federal wildlife programs consider the stream to be "not saveable." State metrics for stream health call the area "severely impaired."

The Federation does not know that the stream can be truly "saved." However, we strongly believe that by using modern restoration techniques, the Federation can filter the water in the stream, using physical and biological methods, so that the intensely polluted run-off does not reach the South River. We hope our work on this Harbour Center Project will restore the basic ecological functions of the stream and significantly improve wildlife habitat.

Even if the Federation is successful, proving it is challenging. The resources needed to properly scientifically monitor the stream are far beyond the means of a small non-profit. Fortunately, good timing and good partnerships came to the rescue, as the Smithsonian Environmental Research Center (SERC) was looking for a partner for a research project as part of the 2015 Interagency Pooled Monitoring Grant, administered by our friends at the Chesapeake Bay Trust (CBT).

Using Emerging Science to Help Urban Streams

SERC and CBT approached us with a question: did we have an impossibly urban stream—as much as 40% paved - that was up for stream restoration construction in 2016? At 82% paved, the "Harbour Center" tributary fit the bill.

SERC sought to "pair" the stream's pollution data with that of a badly eroding rural stream in Southern Anne Arundel County—where the watershed is only 4% paved. In 2015, monitoring equipment was installed to take the "baseline data" of the upper and middle section of the valley. Luckily, Anne Arundel County Department of Public Works has been taking water pollution data at the downstream end of this site for 15 years,

and has agreed to share the data with us!

All the construction permits have been obtained, and construction began at the start of 2016. Much of the site will be repaired using an innovative new technique we have coined "valley-wide grade control riffles." These structures will help increase the residence time of stormwater in the valley, help

recharge the remaining wetlands, will likely add new wetlands, and will have some impact on water quality variables, as studied by SERC's scientists.

One thing that the Federation has learned about reconstructed urban stream-wetland systems is that they do different "jobs" at different times of the year, sometimes stripping nitrogen, sometimes stockpiling sediment. Our partners at SERC seek to understand the conditions under which the greatest environmental benefits are received in these types of projects, and as a result, the Federation will likely try to recreate those conditions as a "project goal" in future projects.

The Harbour Center Project offers multiple challenges. In addition to all the other insults the stream valley has borne, it is also the location of thousands of feet of sewer line and other (sometimes) buried utilities. A few spots in the stream valley have still retained their historic natural springs and some high value wetland plants, which complicates the design and

construction of a new stream and wetland system.

By using emerging science to inform our restoration program, we continue to be regional leaders in the implementation of meaningful-scale watershed restoration projects instead of merely waiting for other partners to come to the South River and do the work for us.

We have a vision that the South River will be restored within a generation, and as George Clooney's character says in the Disney movie, *Tomorrowland*, "I built it because I got tired of waiting for someone else to build it, and because I thought if someone saw what I did, that they might think that anything is possible." We look forward to sharing fascinating stories and the newest and brightest science on urban stream restoration. Thanks for coming along.



Membership Application/Renewal Form

Your membership and involvement will help the Federation heal the River



Name _____

Family members _____

Address _____

City/State/Zip _____

Tel. home _____ work _____ cell _____

Email* _____

*Email addresses are very helpful in relaying information on upcoming events and sharing other important information.

Homeowners Association _____

Closest body of water _____

Occupation _____

Payment information

Check payable to South River Federation VISA MasterCard

Card # _____ Exp. _____

Signature _____

Online Donations can also be made at www.southernriverfederation.net.

Guardian Society

- Thomas Point Circle — \$10,000 and above
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- Bacon Ridge Circle — \$1,000 – \$2,499

Membership/Giving Levels

- Terrapin — \$500
- Family/HOA — \$50
- Blue Crab — \$250
- Individual — \$25
- Wood Duck — \$100

Please clip out form, enclose check if applicable, and mail to:
South River Federation, 2830 Solomons Island Road, Suite A, Edgewater, MD 21037

South River Federation, Inc. is registered as a 501(c)(3) non-profit organization. All donations are tax deductible to the fullest extent of the law.

Middle School Spills Hundreds of Gallons of Oil in Crab Creek — continued from page 1

Chris Ralston from the MDE Oil Control Program estimated based on tank size and reported tank levels that between 208 and 238 gallons were missing. He noted “that these types of tanks are not metered (like at a gas station) so a precise amount is often difficult to determine”. The school estimated they could be short of oil as much as 313 gallons.

Troubled Tributary

This is not the first environmental incident for this stream, which has been on the Federation’s stream watch list, its water quality monitored every other week. In August 2015, the stream turned milky white and its enterococci bacteria (e. coli) levels reached 105,000 cfu/100ml (CFU= colony forming unit.) EPA has determined that levels over 104 cfu/ml



Riverkeeper Jesse Iliff and Chesapeake Conservation Corps member Sarah Giordano check the amount of oil in the stream next to the Smithsonian Environmental Research Center's wood clad water quality monitoring station.

means the water could be harmful to human health. The Federation was unable to find the cause of the incident.

This is not even the first oil spill for the stream. MDE confirmed two prior oil spills

from Annapolis Middle School in 1987 and our Riverkeeper is following up on assertions from community members of two additional spills at the school in the late 70s and early 90s.

The stream is also part of a research effort just starting in 2016 involving the Smithsonian Environmental Research Center (SERC) and the South River Federation to compare urban and rural restoration projects. The prior monitoring of the site by the Federation and SERC provides a good baseline to compare water quality before and after the spill, and accurately measures the impact to marine life and habitat.

Kate Fritz, the Federation’s Executive Director said “this string of incidents means we will be launching our Crab Creek Campaign ahead of schedule.”



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Spring 2016



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