



Friends of Congaree Swamp News

www.friendsofcongarree.org

Summer 2024

Save the date

Butterfly Count

The September North American Butterfly Association Count at Congaree National Park occurs at the peak of butterfly diversity in the park; other fauna and flora put on a show as well.

This year's count will be held **Saturday, September 14**, starting at 9 a.m. Marty and David Kastner, members of the Midlands Chapter of the Carolina Butterfly Society, are organizing the annual event.

Participants will spend the day counting butterflies within various habitats in the park. The count will last until about 3 p.m., weather permitting, though you can help out for just a couple hours or stay for the entire day.

We will meet at 9 a.m. at the Harry Hampton Visitor

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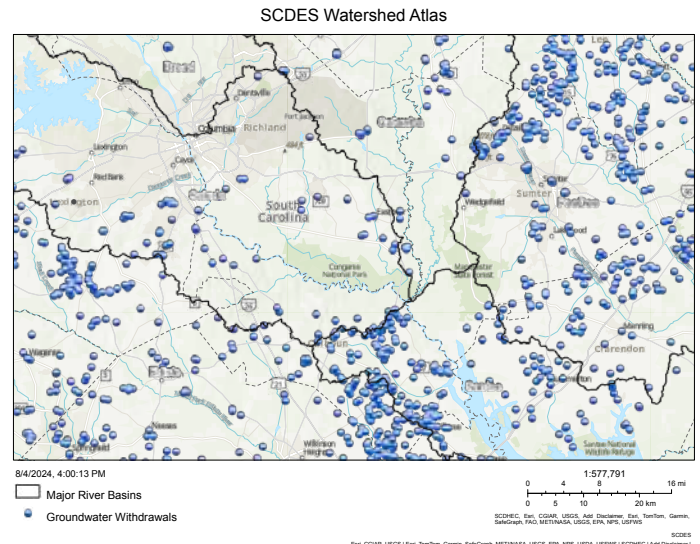
Groundwater withdrawals lower than permitted

We began an occasional review of groundwater withdrawals in counties surrounding Congaree National Park after Sammy Fretwell's April 2017 reporting in *The State* on groundwater withdrawal policy focusing on the impact of mega farms in Aiken County.

Results for the highest users of groundwater in 2017 for Calhoun County, Lexington County and Richland County were

featured in our Summer 2017 newsletter. Since that time, Lexington County and Calhoun County joined the seven-county Western Capacity Use Area, while Richland County (east of the fall line) and Sumter County joined the six-county Santee-Lynches Capacity Use Area.

Capacity Use Areas are established whenever there is a "significant threat to the long-term integrity of a groundwater source" (S.C. Groundwater Use and Reporting Act). Within capacity use areas, any withdrawal of more than three million gallons from one or more wells per month requires a withdrawal permit. Each of the capacity use areas develops a Groundwater Management Plan that is revised every five years. Plans can include improvements to the monitoring network, reductions in pumping, tighter permitting restrictions and stakeholder education and engagement.



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President's Corner

Dr. John Grego

Carrie Sinkler-Parker passes

We share with regret the passing of Carrie Sinkler-Parker on July 5, 2024.

Carrie received the Order of the Cypress during our Annual Meeting at the Harriet Barber House in March of this year. Carrie spent a career in child and adult protective services, and it was through her work with the National Council of Negro Women that Carrie first contacted the park.

An initial plan for library programs for children in South Carolina's Pee Dee region blossomed into a multi-year, grant-funded project for more than 6,000 children to visit Congaree National Park and receive ranger-guided field trips. Carrie developed close bonds with park staff and volunteers who led the field trips and we were proud of the part we were able to play in assisting with some of those trips.

Carrie was a remarkable woman and a proud advocate of the park who enriched the lives of



Carrie Sinkler-Parker

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Dr. John Grego, President

Sharon H. Kelly, Editor

thousands of children from a part of the state who would otherwise never have had the opportunity to experience Congaree National Park.

Membership fee increase

Look for new membership fees for Individual and Family memberships the next time you renew. The new fees are listed on the membership form on page 8.

We have not raised membership fees since our first newsletter in June 1999. That's right, membership fees haven't changed since the Clinton administration!

Friends of Congaree Swamp is an all-volunteer organization, but even we have overhead costs for this newsletter, webpage maintenance, postage and supplies, etc. and our current fees for basic membership categories didn't necessarily cover costs while also raising funds for the many other ways in which we support the park.

Thank you for your understanding and we look forward to your continuing support.

Dragonfly Mercury Project

We recently participated in the Dragonfly Mercury Project, a citizen science project organized by the National Park Service and U.S. Geological Survey to monitor mercury pollution in national parks across the country.

Dragonfly larva, which can bioaccumulate mercury over their surprisingly long life stage, are ideal study subjects. This year's study was led by Congaree National Park's new forester, Rob Heins. Other Friends members who assisted were board member Glenda Swearingen, David Schuetrum, Ray Davis and Scott Wietecha.



Scott Wietecha assists with sampling in Cedar Creek at Bannister Bridge.

Little changed in list of impaired waters

The S.C. Department of Environmental Services recently released the South Carolina Draft 2024 List for Impaired Waters—the so-called 303(d) list, named after the section in the federal Clean Water Act requiring states to compile a list of impaired waters every two years.

Little has changed since our last report in the Spring 2023 newsletter covering the simultaneous release of the 2020 and 2022 impaired waters lists.

Though waters within the park's boundaries are Outstanding Resource Waters, that status is no protection from water quality issues. Cedar Creek suffers from bacterial contamination (*E. coli*) and low macroinvertebrate diversity at Bannister Bridge; Wise Lake has *E. coli* contamination; and *E. coli* contamination and low dissolved oxygen levels have been found at the South Cedar Creek canoe launch.

Tom's Creek's monitoring stations are largely outside the park, but verify consistent issues with *E. coli*, pH and dissolved oxygen.

Water quality for the two major rivers bordering the park shows improvement. The Congaree River at the park's western boundary was delisted in 2022 for bacterial water quality and remained so in 2024; mercury is still detected in fish tissues at the Bates Bridge landing off U.S. 601 though. The river used to be

listed for copper at the Devro-Teepak sausage casing factory upstream, and appears to be de-listed this year; i.e., the draft document indicates it is "listed in error." The Wateree River two miles upstream from the confluence with the Congaree River, was previously listed for zinc, but has been delisted since 2022.

Draft TMDL

As we prepared public comments on the draft 303(d) list, DES sent another public notice the next week, sharing a draft TMDL (total maximum daily load) document for *E. coli* impairments at Myers Creek, Cedar Creek, Toms Creek and their tributaries.

We prepared public comments for that notice as well. In general, we strongly supported the establishment of TMDL's for bacterial water quality contamination for the five sampling stations and their subwatersheds included in the notice.

We did not feel the S.C. Department of Health and Environmental Control's target recommendation of an 11% reduction in *E. coli* at Cedar Creek at Bannister Bridge was sufficient, though we did support reductions of 54% for Cedar Creek at Wise Lake; 62% for Cedar Creek at South Cedar Creek landing; 71% for Tom's Creek at Bluff Road; and 71% for Tom's Creek at Red Bluff Road.

In addition to the station history shared in the draft

document, we relied upon the master's thesis of Aashka Patel studying the Tom's Creek watershed, and observations from our S.C. Adopt-a-Stream stations at Myers Creek, Tom's Creek and McKenzie Creek in Congaree National Park for our understanding of bacterial water quality in the study watersheds.

Cedar Creek and Myers Creek

Results from our Adopt-a-Stream sampling site on Myers Creek immediately upstream of the confluence with Cedar Creek at Bannister Bridge were particularly informative given the lack of DES sampling sites in the Myers Creek watershed. *E. coli* readings at Myers Creek indicate impairment twice as often as the DES monitoring station on Cedar Creek.

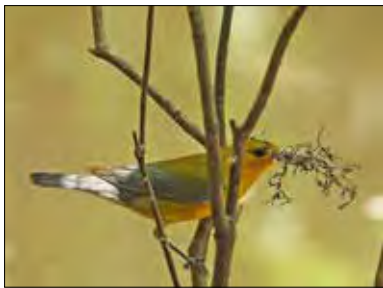
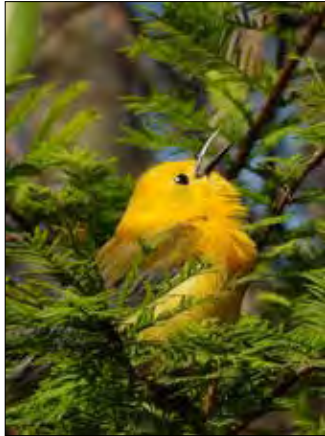
We were particularly concerned that no mention was made in the draft document of the substantial aquaculture facilities managed by Southland Fisheries Corporation and Congaree Bluff Farms LLC in the Cedar Creek watershed.

After the operations were expanded in 2021, more than 50 aquaculture impoundments now lie within the Cedar Creek and Reeves Branch watersheds immediately upstream of the park.

Southland Fisheries does not have a discharge permit, though they do have two surface water withdrawal registrations with a combined allowance of up

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Editor's Note: William P. Baldwin is a novelist, poet, and nonfiction writer. He lives in McClellanville and was kind enough to share his love of warblers with us.



Prothonotory: Love Poem

By William P. Baldwin

Sure there may be more to it. But, oh,
hardly a secret, my job as poet
is in part, as the Mississippi sage had it,
“to raise up the hearts of men and women.”
And yes, already
I hear you thinking “Done in my case
by reporting, yet again, on that same
woods ‘round a forty acre lily pond.” Yes, but
fertile wet grounds where tan-gray wide based
cypress and tupelos renew themselves...
though sometimes not. A woods where.
small golden-warrior-warblers
and equally-consistent-female-mates
through dipping limbs do acrobatics.
But actually these I speak of recently flew
down to South America,
where they stay ‘til spring brings ‘em
back to flirt, flit and sing chirping
songs of pure romance. Scuffling males
collide mid air. Then once paired, future parents
nest in well-selected rotted hollow trees
and stumps and cypress knees. Even wood duck boxes.
Eggs hatch. And through a constant
ferrying of grubs and insect heads, trunks and legs
their fuzzy pink gray rubbery young
are fed to a slight maturity. Bird children
which quickly enter beside them
in a pliable, but swiftly ruthless
world of odds defying true endurance,
all the while supplying what we humans
think we know of beauty.

Journal entries

9/3/80

Guy and I walked to Frenchman's Pond. We took pictures of a wooden structure half-buried in Horsepen Gut.

This terse entry from ranger Fran Rametta's journal raises an obvious question: “How did they do that?” And it's a question that arises again and again when reviewing accounts of far-ranging

hikes in ranger Guy Taylor's weekly reports and Fran's journals.

Fran and Guy did have the benefit of the park's Ramcharger for driving to the old hunt club clearing (the “Clubhouse”) on the road repurposed as Sims Trail, driving down the New Road (whose northern reach is now the Kingsnake Trail), or driving down the Upper Clubhouse Road (now the Western Boundary

Road). Nonetheless, the trips are a testament to the backcountry skills Guy and Fran practiced in the early years of the park.

The “wooden structure” was an old timber raft secured with lengths of chain still half-buried at the bottom of Dead River Gut.

9/5/80

Guy and I went downriver with Rudy Mancke. We located the wooden structure half-buried in Horsepen Gut, but it was underwater...

Impaired

continued from page 3

to 101.40 million gallons per year and up to 23.0 million gallons in any given month. We requested that further consideration be given to the impact of operations at these facilities when crafting the TMDL.

Tom's Creek

DES's summary of impairments in Tom's Creek largely matches results reported by Patel in 2010. The lowest bacterial counts in the Tom's Creek watershed are immediately downstream of Weston's Pond, then steadily increase downstream, peaking at Bluff Road, which Patel characterized as "chronically impaired."

Patel noted high bacterial counts in Tom's Creek inside Congaree National Park during high flows, but counts were generally attenuated downstream of Bluff Road for low to moderate flows.

Our Tom's Creek sampling results show good bacterial water quality in Congaree National Park farther downstream from Red Bluff Road. This compares favorably with DES observations at Red Bluff Road, which was impaired 10.5% of the time, though S.C. Adopt-a-Stream sampling generally takes place under conditions when stormwater runoff would not contribute to bacterial counts.

In addition to high counts during periods of high flow, Patel also noted high counts in the park sites at very low

flows, and identified feral hogs as the likely source of bacterial contamination during low flows.

Our observations during sampling trips to McKenzie Creek and Tom's Creek confirm extensive year-round feral hog rooting, despite feral hog removal efforts by U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS) and Congaree National Park in the immediate area of both sampling sites.

We noted that McKenzie Creek should be considered as a contributor to water quality problems on Tom's Creek. Both Patel and S.C. Adopt-a-Stream sampling found McKenzie Creek consistently impaired.

Recommendations

The draft TMDL document identified various approaches to improving bacterial water quality.

Richland County recently revised its Land Development Code, which left its water quality buffer ordinances unchanged, though the ordinances do require wider buffers for impaired waters for qualifying land development projects.

The revised code does include a Water Resources Overlay (WR-O) district that could further protect water quality, but its provisions are weak and it is not yet widely applied.

Patel built a convincing case that septic systems contribute to impairment in the Tom's Creek watershed. The draft TMDL

document estimates that 94% of households in Lower Richland rely on septic systems.

The draft TMDL's emphasis on education through outreach would be the logical initial approach to lowering TMDL's in the Tom's Creek watershed.

The draft TMDL document discussed Manchester Farms Inc.'s Hopkins Processing Plant, which has a permit to apply sludge to fields on either side of Horsepen Branch in one of the affected watersheds.

As part of the plan to meet TMDL reductions for the subwatershed at Cedar Creek at Bannister Bridge, it would be useful for Manchester Farms to finally retire its sewage sludge application in the watershed and connect to the available sewage line adjacent to its property.

Though Congaree National Park and USDA-APHIS have cooperated on feral hog control for several years with some financial assistance from Friends of Congaree Swamp, efforts have not resulted in a substantial reduction of feral hog activity and more intensive management would be needed to successfully impact bacterial water quality in the watersheds within the park.

Richland County has successfully applied for Clean Water Act Section 319 grants in the past, and a grant application for either the Cedar Creek watershed or Toms Creek watershed may provide a unifying approach to TMDL improvements.

Withdrawals

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Since 2017, we have requested groundwater withdrawal information a couple times, and here share results for our most recent Freedom of Information Act request, covering 2023 withdrawals. Typically, there are many more permits in each county than reported withdrawals (see map for total permits), in part from not pumping water in 2023 and in part from under-reporting, though under-reporting tends to decrease once a Capacity Use Area has been established. Permitted annual withdrawals can be much higher than actual annual withdrawals.

Richland County (1.2 billion gallons in 2023)

Richland County's groundwater use is much less than groundwater use of other counties adjacent to the park. User withdrawals are listed by water use and amount withdrawn (in millions of gallons) in 2023. The two largest users in 2023 are the same as in 2017: Sylvamo (formerly International Paper) and Dominion Energy Wateree Station coal power plant on the Wateree River. All other users withdraw only modest amounts of water. Ray Hill Farms is in Lower Richland, Two Rivers Farm is adjacent to Congaree National Park near the fork of the Congaree and Wateree Rivers, while Prospect Hill

of Edisto Island and Finlay/Tucker LLC Beckham Swamp are in the Congaree River floodplain along Gills Creek.

- Sylvamo, Industrial, 612
- Dominion Energy Wateree Station, Water Supply & Industrial, 251
- Ray Hill Farms, Irrigation, 78
- Two Rivers Farm, Irrigation, 47
- Town of Eastover, Water Supply, 36
- China Jushi USA Corporation, Industrial, 34
- Prospect Hill of Edisto Island, Irrigation, 31
- Finlay/Tucker LLC Beckham Swamp, Irrigation, 21
- Woodlands Country Club, Water Supply, 19
- S.C. Army National Guard Training Site, 16

Lexington County (5.2 billion gallons in 2023)

Most of the groundwater withdrawal permits in Lexington County are in the Edisto River Basin, rather than the Saluda River Basin (in which Congaree National Park lies). Walter P. Rawl & Sons Inc/Rawl & Sons Farm is by far the largest groundwater user in Lexington County, though its groundwater withdrawals are actually in the Edisto watershed. Large users of groundwater in the county are distributed among mining, industry, irrigation and water supplies for small municipalities.

- Rawl & Sons Farm/Walter P.

Rawl & Sons Inc, Irrigation, 2284

- US Silica Company — Columbia Plant, Industrial, 642
- Deer Hill Farms, Irrigation, 390
- Edmund Sand Mine, Industrial, 367
- Delano R Reese & Sons Inc, Irrigation, 338
- Gilbert-Summit Rural Water District, Water Supply, 334
- Gaston Rural Community Water District, Water Supply, 308
- Clayton Rawl Farms Inc, Irrigation, 182
- T&E Farms c/o Tony Rucker, Irrigation, 81
- Michelin North America, Industrial, 36

Calhoun County (4.9 billion gallons)

Calhoun County uses groundwater primarily for irrigation, along with smaller municipal water supplies. Most of its groundwater withdrawal permits are in the Santee River Basin, downgradient from Congaree National Park. Haigler Farms was the largest groundwater user in 2017 too, though it withdrew twice as much water back then. The second-largest user, Inabinet Farms, was not among the top ten withdrawals in 2017.

- Haigler Farms, Irrigation, 997
- Inabinet Farms, Irrigation, 765
- Palmetto Farms, Irrigation, 313
- Stabler Farm, Irrigation, 296

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Save the date

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Center then split into teams. All ages and experience levels are welcome. Appropriate clothing is required of all participants, including long pants and closed-toed shoes.

Butterflies like the sun, so bring sun protection and plenty of water. Snacks/lunch are also recommended. Close-focus binoculars are recommended as well, but not required.

To participate, please contact Marty Kastner at kastners@aol.com.

National Public Lands Day

As part of National Public Lands Day, Friends of Congaree Swamp members will meet at 9:30 a.m.

Saturday, Sept. 28, at our Adopt-a-Waterway site, Bates Bridge landing on U.S. 601, to collect trash at the Congaree River boat ramp, parking lot and access road.

Depending on attendance, some of us may drive to Bates Old River landing, Bates Ferry trailhead, Fork Swamp trailhead and Congaree Ferries pullout to clean those sites as well.

Keep the Midlands Beautiful, which sponsors Adopt-a-Waterway, will provide trash pickers, trash bags, gloves, etc. to assist with the clean-up and we will use the dumpster on site to dispose of non-recyclables. We will finish about 11 a.m.

Light hiking boots, plenty of water, sun protection and a

snack are recommended.

Migratory bird hike

Join us **Sunday, October 6**, for a fall hike to look for migratory birds moving through the park on their way to points south.

This is also a chance to see if we can still find some of our breeding migrant species that have not yet moved on or whether over-wintering species have arrived.

During the hike, we will have the opportunity to practice identification skills (mostly of resident and lingering summer species) and will be able to observe several species up close—American Redstart are always found in large numbers and thrush may be found foraging in undergrowth.

We plan to cover other areas of the park both preceding and following the morning hike and welcome additional volunteers.

We will meet at the Harry Hampton Visitor Center at 8:30 a.m. and the hike should last until noon. Bring water, insect repellent and binoculars. The hike will follow portions of the Sims Trail, Boardwalk Loop Trail and Firefly Trail. There should be an opportunity afterwards to visit the eastern end of the park.

To sign up for either or both of the above hikes, contact John Grego at friendsofcongarreeswamp@gmail.com or 803-331-3366.

Withdrawals

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- Calhoun County-Municipal Water and Sewer-Sandy Run, Water Supply, 221
- K&R Farms, Irrigation, 161
- Moss H Perrow Farms, Irrigation, 160
- Cameron Farms, Irrigation, 141
- Low Falls Wholesale Nursery, Irrigation, 128
- J D Rast & Sons, Irrigation, 114

Sumter County (11.0 billion gallons)

We do not track Sumter County withdrawals as closely, perhaps because most of the groundwater withdrawal permits are in the Pee Dee River Basin. It is interesting to see that the City of Sumter relies upon groundwater for its water supply. Otherwise, most large groundwater withdrawals are for irrigation.

- City of Sumter, Water Supply, 4651
- Atlas Farms, Irrigation, 1710
- High Hills Rural Water Company, Water Supply, 750
- KDW Farms LLC, Irrigation, 475
- Triple J Farms, Irrigation, 345
- Caughman and Son Farms LLC, Irrigation, 252
- U.S. Air Force, Shaw Air Force Base, Water Supply, 228
- Triple C Farms, Irrigation, 203
- ME Dubose-Willards, Irrigation, 184
- Garnay Inc, Irrigation, 140



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Yes, I want to support conservation of Congaree Swamp for future generations. Enclosed is my tax-deductible contribution of \$ _____. (Please make checks payable to Friends of Congaree Swamp.)

_____ Individual \$25	Name(s) _____
_____ Family \$40*	Mailing address _____
_____ Advocate \$50	City _____ State _____ Zip _____
_____ Nonprofit \$50	Phone _____ Email _____
_____ Partner \$100**	
_____ Benefactor \$500	<i>Please keep your information current to receive special notices about field trips, events, scheduling changes and acknowledgements in addition to a quarterly newsletter.</i>
_____ Patron \$1000	
_____ Corporate \$1000	

*For a contribution of \$40 - \$99, you may choose one of the following gift options:

Baseball cap maroon _____ tan _____ tan visor _____

Bandana imprinted with map of Congaree National Park teal _____ red _____ forest green _____

**For a contribution of \$100 or more you may choose either a copy of *The Natural History of Congaree Swamp* _____
or one of the six gift options listed above. I do **NOT** wish to receive a membership gift _____

I would like to donate an additional \$ _____.

Thank you for supporting Friends of Congaree Swamp!

Friends of Congaree Swamp, P.O. Box 7746, Columbia, SC 29202-7746
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