

**From:** [Stacey W](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products, NC #0000272  
**Date:** Saturday, January 9, 2021 1:57:04 PM

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Blue Ridge Paper Products, NC #0000272

## THIS PERMIT IS UNACCEPTABLE

- permit does not demonstrate the spirit of the Clean Water ACT NPDES (National Pollution Discharge Elimination System) permitting system in that it does not actually reduce pollution
- permit proposes an increase in the amount of chloroform
- permit calls for a 17% increase in water taken from the Pigeon
- permit calls for no changes and no reductions in pollution
- permit calls for removal of the color variance

As a concerned citizen and lover of the Pigeon River, I feel it is in the best interest of the public (including both people and publicly held lands), the residential and commercial users of the river, and the natural ecosystems found in the Pigeon River and surrounding watershed areas to have the following addressed concerning Blue Ridge Paper Products, NC #0000272:

Keep the color variance until water quality standards are met, and the water is as clear downstream as it is upstream from the paper mill

Make no increases to chloroform, a carcinogenic chemical

Don't take more water for the paper mill without an environmental assessment

Water quality improvements should be made in every 5 year permitting cycle

Sincerely,  
Stacey Whetstone

**From:** [Anne McGinn Smith](#)  
**To:** [Gurney, Anna](#)  
**Subject:** [External] No-- to the variance on NPDES RENEWAL NC0000272  
**Date:** Monday, January 11, 2021 6:01:35 PM

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No-- to the variance on Blue Ridge Paper Products.

Anne M Smith

**From:** [Steve Cox](#)  
**To:** [Gurney, Anna](#)  
**Subject:** [External] NPDES RENEWAL NC0000272  
**Date:** Monday, January 11, 2021 6:07:31 PM

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Please, No.

No to the variance on Blue Ridge Paper Products. Our river is dirty and toxic enough as it is.

Thank you.

**From:** [Bill Hale](#)  
**To:** [Gurney, Anna](#)  
**Subject:** [External] NO to the Variance on NPDES Renewal NC 0000272  
**Date:** Monday, January 11, 2021 6:50:03 PM

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NO to the variance on Blue Ridge Paper Products!

Sent from my iPhone

**From:** [William Woody](#)  
**To:** [Gurney, Anna](#)  
**Subject:** [External] No-- to the variance on NPDES RENEWAL NC0000272 Blue Ridge Paper Products  
**Date:** Monday, January 11, 2021 7:18:37 PM

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Mrs. Gurney,

I am sending this email to offer my opinion on the variance requested by Blue Ridge Paper Products company. The variance needs to be denied. The river in Newport Tennessee still 30 years later is not clean. It's still far from the pristine river it once was. Has it improved, it has, I remember standing on the banks with my father and uncles as we fished watching gobs of white foam floating down past us the smell unimaginable. Yet today, the fish still aren't safe to eat. Dioxin signs are still posted. Mercury signs have recently been added and posted. The water still has a smell that makes it clear that it's not clean and pure. Too much damage was done...we cannot walk it back. We've watched it slowly...ever so slowly get to where it is today. Eagles nesting in the cliffs across from the courthouse in downtown Newport. More wildlife coming in year after year. Cranes, geese, ducks. More fish, larger fish. Why risk undoing that, for a little bit more money in the pocket of the company that destroyed the river to begin with.

Choose what's right, Come down visit Newport and it's River Walk. See what an investment in the river does for communities.

Don't let them destroy it again.

William M. Woody  
Parrottsville, Tennessee

**From:** [Cheryl Vaughn](#)  
**To:** [Gurney, Anna](#)  
**Subject:** [External] Rivers-public comment notice.  
**Date:** Monday, January 11, 2021 7:14:39 PM

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No- to the variance on NPDES RENEWAL NC0000272.

No- to the variance on Blue Ridge Paper Products.

**From:** [couchx4](#)  
**To:** [Gurney, Anna](#)  
**Subject:** [External]  
**Date:** Monday, January 11, 2021 8:04:47 PM

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No-- to the variance on NPDES RENEWAL NC0000272. No-- to the variance on Blue Ridge Paper Products.

Sent from my Verizon, Samsung Galaxy smartphone

**From:** [pttenn@aol.com](mailto:pttenn@aol.com)  
**To:** [Gurney, Anna](#)  
**Subject:** [External] Variance  
**Date:** Monday, January 11, 2021 8:30:31 PM

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No-- to the variance on NPDES RENEWAL NC0000272. No-- to the variance on Blue Ridge Paper Products. Do your job and protect our environment, rivers and streams.

Karen Timmerman  
258 Co.Rd.227  
Cullman, Al. 35057

**From:** [elaine.stewart](#)  
**To:** [Gurney, Anna](#)  
**Subject:** [External] NPDES renewal  
**Date:** Monday, January 11, 2021 9:35:31 PM

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A resounding no to the NPDES renewal NC0000272. No to the variance on Blue Ridge paper products.

**From:** [JEFF LUSTER](#)  
**To:** [Gurney, Anna](#)  
**Subject:** [External] No-- to the variance on NPDES RENEWAL NC0000272. No-- to the variance on Blue Ridge Paper Products.  
**Date:** Monday, January 11, 2021 9:05:30 PM

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No-- to the variance on NPDES RENEWAL NC0000272. No-- to the variance on Blue Ridge Paper Products.

**From:** [melissa ottem](#)  
**To:** [Gurney, Anna](#)  
**Subject:** [External] NPDES renewal NC0000272  
**Date:** Monday, January 11, 2021 9:59:35 PM

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No to the variance on Blue Ridge paper products

Thank you,  
Meliss

Sent from my iPhone

**From:** [Mark Bourne](#)  
**To:** [Gurney, Anna](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Monday, January 11, 2021 10:27:40 PM

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Dear Ms. Gurney

I am writing in objection to the variance on NPDES RENEWAL NC0000272. No-- to the variance on Blue Ridge Paper Products. Until this company can prove that dioxin does not contribute to the rise in cancer seen in the affected region, we should not be permitting this potential risk for purposes of private parties profit.

Mark Bourne  
1631 Sequoyah Dr  
Mooresburg, TN

**From:** [stealthdf2@gmail.com](mailto:stealthdf2@gmail.com)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products, NC #0000272  
**Date:** Tuesday, January 12, 2021 8:03:45 PM

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Blue Ridge Paper Products, NC #0000272

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Keep the color variance until water quality standards are met, and the water is as clear downstream as it is upstream from the paper mill

Make no increases to chloroform, a carcinogenic chemical

Don't take more water for the paper mill without an environmental assessment

Water quality improvements should be made in every 5 year permitting cycle

**From:** [olparko@aol.com](mailto:olparko@aol.com)  
**To:** [Gurney, Anna](#); [SVC\\_DENR.publiccomments](#); [apharris40@gmail.com](mailto:apharris40@gmail.com)  
**Subject:** [External] Fwd: PUBLIC COMMENTS NC0000272  
**Date:** Wednesday, January 13, 2021 5:10:59 PM  
**Attachments:** [2020\\_BenMaamar-etal\\_Dioxin\\_EnvResearch.pdf](#)  
[pone.0046249.pdf](#)  
[2018\\_Nilsson-etal\\_EnvEpig\\_dvy016-1.pdf](#)  
[2014\\_ScientificAmerican\\_Article.pdf](#)

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Jan. 13, 2021

TO WHOM IT MAY CONCERN:

The emerging science on dioxin is telling us exactly what you have done to the residents of NC - but for my purposes, TN has had enough. History keeps repeating itself with this plant. Did NC DEQ decide that it would yield to political pressure? Shareholder pressure?

What would make NC think removing a color variance would help TN? It doesn't. It does nothing at all for us. It just makes you look like you are helping a plant that has long outlived its life expectancy. Are you trying to make it look acceptable? Now we're not taking anymore of your colored water, anymore dioxin, or anymore smell on that river. Would you want to receive TN's deadly garbage for 113 years? Would you like to swap our nuclear water with your dioxin? I am dealing with the NIH on this, and Canton's days of looking good are over.

Get it to the state line? And shove it down the river to TN? NO. We're not taking your garbage anymore. We're done.

I have engaged a environmental attorney- for this is a bridge too far. I want all of my letters to Anna Gurney- to date- added to the Public Record. I have been here once, 2 decades ago, and I am saddened and stunned that we are here again.

All of the downloads herein are to be added to the Public Record. I also request a 45 day extension as my secretary has had to quarantine due to Covid. I am behind schedule.

*Also in the 2007- [Blue Ridge Paper Products Shareholder Annual Report](#), it says, "International Paper has also agreed to indemnify us for liabilities, including any remediation or additional capital expenditures required by the North Carolina Department of Health. Environment and Natural Resources, associated specifically with the seepage of dark colored materials from the Canton Mill into the northern banks of the Pigeon River that occurred prior to May 14, 1999. International Paper's indemnity for the liabilities associated with the seepage from the Canton Mill does not have a going-forward time limit and is not subject to any dollar amount threshold or aggregate dollar limit."*

Ding. Ding. Ding. Please tell me more. What is the seepage? Exactly? Has it been dealt with? If so, when? I do not find it in your , "ABTCP, HPD, PULP AND PAPER MINIMIZATION TECHNOLOGY REVIEW," dated 2002." Where would I find information on that "seepage?"

Was the seepage dealt with? If so, who was the Engineering Firm that dealt with it? I will require those documents.

Further, I note that per the 2020 shareholder report this company is not doing financially well. Did NC decide to help them further? I also bought some stock yesterday so that I might have a real voice here. Money money money. Does NC really wish to continue this abuse on the backs of Tennesseans? We've had enough of that. And scientific studies are showing the abuse is stunning. See also Abstract I sent to Anna Gurney.

I look forward to timely and meaningful answers to my questions. Most specifically - the "seepage." The environmental choices we make today determine the future of this planet and NC has had it's way with TN for far too long. New science shows the damage done. And that damage is irreparable.

Ms. Park Overall  
1374 Ripley Island Rd.  
Afton, TN 37616

All attachments above and this letter below from Dr. Skinner are to be added to the Public Record.

Tue, Jan 12, 2021 3:40 pm  
Subject: Re: Dioxin help

Dear Ms Overall

Thanks for the email and information on your dioxin activity in Tennessee. I have enclosed in addition to our initial 2012 paper a recent paper to identify disease biomarkers after ancestral dioxin exposure. Also a review article on the epigenetic transgenerational inheritance impacts of toxicants like dioxin. I am a research scientist that specialized in a new non-genetic form of inheritance we have identified where environmental factors can impact your sperm or eggs to then pass on information to subsequent generations to increase disease susceptibility. So what your grandparents were exposed to will impact your disease, even know you have never seen the exposure, and you will pass this on to your great grandchildren. **This is very different from the direct exposure toxicology we generally think of and test for by the states and EPA.** A Scientific American review for this is enclosed as well for you reference. You can get more information at [www.skinner.wsu.edu](http://www.skinner.wsu.edu) under public and press.

In regards to your dioxin work, I am afraid most of the damage has been done and now we are determining what we can do about this for future generations. Stopping any further contamination will be critical. So testing the fish which if injected will be primary source of dioxin, as is found in the great lake populations. There the levels are high enough to have toxic effects after fish consumption. So one of the issue is you need to determine how good the testing has been in Tennessee to confirm negligible fish levels of dioxin. Multiple testing sources, not just EPA, would be suggested. In regards to industry contamination today, again the water levels need to be assessed accurately, and if present then you case is very strong. There are private testing firms that can help confirm or refute the EPA results as needed.

Since humans are exposed to hundreds of different compounds and exposures daily, it is very difficult to clearly state a specific compound is the source of any disease or pathology within the population. So focusing on known contamination sites and water or food sources that have contamination is best to get results to deter industry and reduce exposures. I hope that helps and good luck with your efforts. Let me know if you have questions.

Michael Skinner

From: [olparko@aol.com](mailto:olparko@aol.com)  
 To: [Gurney, Anna; apharris40@gmail.com; SVC\\_DFNr\\_publiccomments; jonathon.burr@tn.gov; duane.uhls@newportaintalk.com](mailto:Gurney, Anna; apharris40@gmail.com; SVC_DFNr_publiccomments; jonathon.burr@tn.gov; duane.uhls@newportaintalk.com)  
 Subject: Re: [External] CANTON  
 Date: Thursday, January 14, 2021 4:22:36 PM

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-----Original Message-----  
 From: Gurney, Anna <[anna.gurney@ncdenr.gov](mailto:anna.gurney@ncdenr.gov)>  
 To: [olparko@aol.com](mailto:olparko@aol.com) <[olparko@aol.com](mailto:olparko@aol.com)>  
 Cc: [jan.compton@tn.gov](mailto:jan.compton@tn.gov) <[jan.compton@tn.gov](mailto:jan.compton@tn.gov)>  
 Sent: Thu, Jan 14, 2021 8:15 am  
 Subject: FW: [External] CANTON

Hello Ms. Overall,

Below are responses to your follow up questions.

1. **Who is your lab (Name, phone number):** As mentioned DEQ has an in-house chemistry lab under its Water Science Section located in Raleigh. <https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page>. Questions for the lab group may be routed through me. Please be aware, generally paper companies over the past several years are no longer using the industrial process that creates dioxin. Lab work is not performed for dioxin in the Pigeon as it is no longer present in the permittee's effluent water.

Perhaps you did not read the articles I sent you. Or the Abstract. Oh yes, dioxin is present. That - for your/NC purposes - it is not present -is irreoneous, and in my opinion, criminal.

2. **Questions surrounding abstract:** Thank you for sending over. However it remains unclear as to your questions related to it. Please provide direct questions and I will provide responses to you, or refer you to the documents previously sent by Serge Chernikov and me.

request NC to use the best science and I expect TN to do the same. You have the article. I have no questions about dioxin. It is cumulative. I don't know anything else has to be said - and I don't know how you say I was wrong - I asked you what kind of dioxin - just to make sure. And you I don't want to be wrong either again. And I will you win.

3. **Mussels & the Pigeon:** As mentioned, DWR does not conduct testing specifically for mussels. The latest biological assessment data on the Pigeon can be found in the table below. Our normal five-year schedule is 2012, 2017 and next will be 2022. The 2014 data you have was from an additional study conducted between the scheduled ones.

Isn't that interesting? All those years of color and dioxin and you don't test the mussels? After all Canton has done to us for 113 years.....on the Pigeon River, formerly known as the, **Dead Pigeon River**. And NC doesn't test the mussels? And what with all those endangered mussels that only occur on the Western side of Appalachia.

From: "THE HISTORY of the PIGEON RIVER RECOVERY PROJECT:"

- Paper mill in Canton, NC began operations in 1908. Its toxic effluent extirpated all snails, mussels and most fish species
- Effluents included coffee colored tannins and lignins, toxins such as dioxin
- Under TN Water Control Act, TN has right to unpolluted water
- TN must reclaim polluted waters
- TDEC initiated efforts to restore the rivers ecosystem
- Modernization of mill processes drastically reduced waste effluent
- This led to a return of some fish species; however, 24 non-game species were still missing.

It was fascinating speaking to one of the scientists on this study.

Yet, you are just testing for bugs and snails? I don't call that an abundance of caution on North Carolina's part. By the way, I just received a video where the color of the Pigeon is dark and unacceptable. And the poor neighbors - say it stinks to high heaven. Really? After all these years? That's just not going to work for us anymore. Plain words are best understood.

**Benthic Community Table**

Stream	PIGEON R						
Site Location	I-40	OFF NC 215	OFF NC 215	SR 1338	SR 1338	SR 1642	SR 1642
County	Cooke, TN	Haywood	Haywood	Haywood	Haywood	Haywood	Haywood
Site ID	EB250	EB251	EB251	EB254	EB254	EB257	EB257
Collection date	8/22/2012	8/21/2012	8/24/2017	8/22/2012	8/23/2017	8/21/2012	8/24/2017
BAU sample number	11485	11489	12290	11490	12283	11488	12289
Sample method	Full Scale	EPT					
Criteria	Summer/ Mountain						

Richness							
Ephemeroptera	20	19	16	20	16	10	4
Plecoptera	3	2	1	5	3	0	3
Trichoptera	14	13	10	17	10	11	11
Odonata	2	12	10	11	7	9	
Megaloptera	1	2	2	2	2	1	
Coleoptera	3	7	7	9	8	6	
Chironomidae	6	17	13	6	12	8	
non-Chironomidae Diptera	6	2	1	3	2	3	
Oligochaeta	2	1	2	1	2	1	
Mollusca	4	6	6	6	7	3	
Other taxa	4	7	3	4	6	4	
Total taxa richness	65	88	71	84	75	56	

Other biological metrics							
Total EPT	37	34	27	42	29	21	18

Seasonal EPT							
Corrected EPT							
EPT abundance	244	189	80	203	176	121	100
EPT Biotic Index	3.25	3.45	3.30	3.52	3.65	4.15	4.29
NCBI	3.55	4.24	5.01	4.30	4.74	5.50	---
Seasonal Correction							
Corrected NCBI							
Bioclassification	Excellent	Good	Good-Fair	Good	Good	Good-Fair	Fair

\* denotes a tentative classification

4: "dark seepage" on the north bank of the river mentioned in the 2007 Shareholder Report . . . So is 2020. What is causing the color and the seepage?

DWR has no indication of issues related to "dark seepage. **Are you saying the Board of Directors lied to their shareholders in their annual report???**

What in the world would TN gain out of lifting this color variance? Did you get pressure? Political pressure? Shareholder pressure? Why in the world would NC do this?

From the reevaluation document, previously sent to you and located on our website, supporting the variance removal:

Based on the evidence and data presented, the Division of Water Resources believes that the current Blue Ridge Paper, LLC discharge (where is the evidence that your belief is valid, Anna?????) meets the North Carolina narrative standard, and that the facility *does not qualify for a continuance of the variance under regulations in 40 CFR Part 131*, as the original variance was written for an expected limited timeframe and purpose and the state may not adopt a variance if the criterion can be achieved. The Division believes that **through the past diligent application of advanced and innovative technology**, akin to a "Pollutant Minimization Plan", according to 40 CFR Part 131.14 (b)(1)(ii)(A)(3) and a reevaluation under the requirements of 40 CFR Part 131.14 (b)(1)(v), **the facility has achieved compliance with the intention of the NC narrative water quality standard at 15A NCAC 02B .0211 and is no longer eligible to continue the variance.**

**Anna, you did have not answered my very simple question. Again, what is the dark seepage? How that I thought clearly perhaps the company will turn off a filter that someone else, and I find it remarkable DWR NC comes knowledge of it. I have indications of it, whether NC DWR does or not.**

Please note that removing or "lifting" the color variance means that Blue Ridge would now be required to comply with our state's water quality standards, which they have successfully achieved through "application of advanced and innovative technology." Detailed info can be found in the documents sent to you previously.

Clearly - you did not read the articles I sent. I am not impressed with NC standards. The destruction of the Pigeon River is no longer acceptable to the TN side of the line. If I am not mistaken, I am not alone in this matter.

There comes a time- enough is enough. That's in human terms. That's just in plain old terms of humanity. At this point, I'm willing to put my money where my mouth is. Enough. Look at the history. All NC has done is defend this plant to employ NC folk. That's all NC has been done on the backs of the poor hill people of TN.

Look at the damage. Per the science-I sent you--- it's irreversible. So, you writing me as though I am an amateur is not to be tolerated. Send me to your supervisor if need be. Quoting NC law to me is not Federal law nor is it TN State Law. And if the EPA cannot arbitrate on behalf of TN on this - then there's a real big problem here. And the BFR Canton installed is how old? Exactly how old? 20 years or more? That would no longer be state of the art.

5. Your request to **extend the public comment period** and the emails from other citizens that were inadvertently sent to me, were routed to the correct email address. We appreciate the comments, but under requirements mandated by the CWA and state procedures, comments must be sent to the proper email address, which insures receipt and consideration. Thanks in advance for passing this info along to your group for any future comments.

Seriously? I'll ask my atty about that. I figure you got 10 or so notices from TN folk from concerned citizens that I alerted. I trust those comments will be included in the Public Comments for the Public Record. I will be looking for them.

Further, Anna, again, the decisions we make today determine the future of this planet and that paper mill has long since warn out its welcome in TN. Not to put too fine a point on it, Anna, but we're done over here. Between NC and TN, EPA, F&W, etc. all the regulators are dropping the ball and I'm done having to play this game.

Park Overall

Anna

From: [olparko@aol.com](mailto:olparko@aol.com) [mailto:[olparko@aol.com](mailto:olparko@aol.com)]

Sent: Tuesday, January 12, 2021 4:49 PM

To: Gurney, Anna <[anna.gurney@ncdenr.gov](mailto:anna.gurney@ncdenr.gov)>; [apharris40@gmail.com](mailto:apharris40@gmail.com); [jan.compton@tn.gov](mailto:jan.compton@tn.gov); [hesterlee.craig@epa.gov](mailto:hesterlee.craig@epa.gov)

Subject: [External] CANTON

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Hello Ms. Overall,

According to our phone conversation and a previous email from you, you are requesting from NC Division of Water Resources, the following information (my responses in red):

1. Balanced and Indigenous Species Study on the Pigeon River in January of 2014

I provided a link to the study on 1/9/2021; you confirmed receipt and that this was the document you requested

**In that case, I would like to formally request an extension on this permit. My secretary had to quarantine for Covid and I am running behind. Since we have a history with Canton since 1908, and we have not been on the winning side of the border, I formally request a 45 day extension due to the pandemic. The choices we make today determine the future of this planet and we feel the Pigeon is a**

**serious problem that requires serious work and attention. I will have to send the study you sent me to UPS to copy for me. They are available today. Again, this is a formal request for 45 day extension on this permit.**

Request for hard copy: Due to the COVID 19 pandemic, many of the NC staff members are working from home. Therefore there would be a delay in fulfilling your request, and as you mentioned a fee. I will have to check but I believe it's 10 cents per page and postage. Please let me know if you still wish to receive it.

2. In laymans terms, the exact kinds of Dioxin NC DEQ measures for, how often tests are performed - and if they appear, what happens?

Please review the following documents for answers, as all are written for public understanding:

- attached Draft Permit (the Dioxin Condition is on page 17. If they violate permit limit, there will be a fine or violation notice)

**The reason I ask is because – back in the day- on an NBC? ABC? news channel- the VP of Champion told me the dioxin in the river was from tires in the water. Tires in the water. I just don't want to be hoodwinked again. I hope you understand.**

- Draft Fact sheet link <https://files.nc.gov/ncdeq/272-Draft%20fact%20sheet%20-%202020.pdf>

- And from the EPA: <https://www.epa.gov/dioxin/learn-about-dioxin>

**I think I told you on the phone, I was not a beginner? Didn't I? I think I did.**

3. Who is your lab?

State of NC has its own lab. When the state examines waters for Dioxin, a certified contract laboratory is used

**Again, what is the name your lab? I also require the address and phone # for it.**

4. Request for a discussion w/Anna of abstract sent to Sergei C.

We have not received an abstract from you. Sergei has received emails with various comments in which he has responded. If you have specific questions related to an abstract, please email to me with questions and I will obtain responses.

**I have attached one of the abstracts here. The questions re: this particular abstract- speak for themselves. I have also contacted NIH and am waiting to hear back.**

5. Formal request for an extension on this permit comment time.

A formal request should be emailed to: [publiccomments@ncdenr.gov](mailto:publiccomments@ncdenr.gov). You can also make this request during Public Hearing as the decision on the extension of the comment period will be made by that Hearing Officer. <https://deq.nc.gov/news/press-releases/2020/11/24/deq-sets-public-hearing-date-and-accepts-public-comments-blue-ridge>.

**Will do.**

6. A contact person in the State of Tennessee, as you explained you were unable to locate the correct contact there later mentioning Johnathan Burr.

**I enjoyed him very much. I look forward to his comments on behalf of TN, to NC.**

Please contact Jan Compton for any inquiries related to Tennessee. I will be your contact for NC inquiries moving forward.

**I thought we had established that already?**

7. Mussels and the Pigeon DWR requires one biological assessment during a permit cycle (5 years). Our next biological communities assessment is scheduled for 2022. Our data and collection methods are not specific to mussels. The N.C. Wildlife Resources Commission (and some academia) conduct mussel-specific surveys, and they may have data to better address your mussel questions.

**The study you sent me is dated 2014? This is 2021? So where is your once every 5 year study? I require a copy of that.**

Why is there still color in the river? What is the color that is going in the river? How much of it is old? How old is it? How much of it is Dioxin? In fact, what is the chemical content of the color? In parts per million of each chemical you list for me. I'm not asking you for what you test for---I'm asking you for exactly--- what it is? Exactly what is in the color? If you don't know, who does? The natural color of ambient water varies across the state. Many factors can change the color such as leaf litter, natural decay of plant materials, presence or absence of clay soils, etc. Dioxin is colorless and numerical limits for the discharge are regulated by the permit (in accordance with applicable water quality standards) to assure protection of downstream uses. See Question 2 (above) for the US EPA link to published information on Dioxin. Again, more information can be found in the permit renewal fact sheet and other documents provided to you previously. Here are a couple more resource links in case you do not have these:

[https://www.tn.gov/content/dam/tn/environment/water/documents/Pigeon\\_02\\_Report.pdf](https://www.tn.gov/content/dam/tn/environment/water/documents/Pigeon_02_Report.pdf)

<https://deq.nc.gov/news/events/notice-intent-issue-npdes-wastewater-discharge-permit-nc0000272-proposed-removal-color>

<https://deq.nc.gov/news/events/notice-intent-issue-npdes-wastewater-discharge-permit-nc0000272-proposed-removal-color>

**My main question is re: the “dark seepage” on the north bank of the river mentioned in the 2007 Shareholder Report which I copied and pasted to you. It is also available online. So is 2020, which is very interesting. What is causing the color and the seepage? I have spoken with your, Lee Hill, today. He has no idea. He referred me to a geologist, Ms. Wiener, and she has not yet returned my call.**

**My other question is what in the world would TN gain out of lifting this color variance? Did you get pressure? Political pressure? Shareholder pressure? Why in the world would NC do this? Perhaps you could explain it to me in a way that would make sense to Tennesseans? That would be appreciated.**

I believe this covers all your inquiries. Lastly, thanks for your interest in these proceedings, and as mentioned above, please submit all public comments through the following email address: [publiccomments@ncdenr.gov](mailto:publiccomments@ncdenr.gov), with Blue Ridge Paper in the subject line. This assures that your concerns and comments are submitted for consideration in the official proceedings conducted by the Department.

**I have sent folks to you already. Please assure me you are forwarding those comments onto the correct email. I have 2 other comment periods coming due on the TN side of the line at the same time-ish. And, as I said, my secy has been out. So.**

Take care,  
**You too.**

**Park Overall**

Anna Gurney

**From:** [Anderson Huffman](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products, NC #0000272  
**Date:** Friday, January 15, 2021 7:18:47 PM

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The pigeon river has been ruined from the dumping of toxic waste. I was told as a child in the 1960s not to swim or drink from the dark brown water. I was amazed that the color of the river was absent just upriver from the canton paper mill. The river is starting to look better many years later. Don't let the paper mill ruin the river again.  
AK Huffman

**From:** [Monika Knizley](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper products, NC #0000272  
**Date:** Friday, January 15, 2021 12:13:22 PM

---

**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

To Whom It May Concern,

I can not fathom why you would remove the "color variance" protections from the permit. If the company is doing what it is supposed to and being a good neighbor, they should be able to meet or even exceed the testing standards. Instead they want it removed, this shows me that the company does not want to preserve the waterways and does not want testing. That means we need to test them and hold them to the highest standard for wild life, and our grandchildren. We do not get many chances in life to make a stand, here is the opportunity for the government to show the people that you know what is the right thing and do it! Clean Water is everyone's responsibility, and it sits on your shoulders to ensure that Paper Mill does it part and continues to clean the river above its current values to ensure that the future has clean water.

Sincerely a Concerned Citizen,

Monika Knizley  
122 Laurel Trail  
Cosby, TN 37722

**From:** [couchx4](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] FW:  
**Date:** Friday, January 15, 2021 4:11:27 PM

---

**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

Sent from my Verizon, Samsung Galaxy smartphone

----- Original message -----

**From:** couchx4 <couchx4@bellsouth.net>  
**Date:** 1/11/21 8:04 PM (GMT-05:00)  
**To:** anna.gurney@ncdenr.gov  
**Subject:**

No-- to the variance on NPDES RENEWAL NC0000272. No-- to the variance on Blue Ridge Paper Products.

Sent from my Verizon, Samsung Galaxy smartphone

**From:** [William Woody](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Fwd: No-- to the variance on NPDES RENEWAL NC0000272 Blue Ridge Paper Products  
**Date:** Friday, January 15, 2021 5:16:53 PM

---

**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

Mrs. Gurney and all those concerned,

I am sending this email to offer my opinion on the variance requested by Blue Ridge Paper Products company. The variance needs to be denied. The river in Newport Tennessee still 30 years later is not clean. It's still far from the pristine river it once was. Has it improved, it has, I remember standing on the banks with my father and uncles as we fished watching gobs of white foam floating down past us the smell unimaginable. Yet today, the fish still aren't safe to eat. Dioxin signs are still posted. Mercury signs have recently been added and posted. The water still has a smell that makes it clear that it's not clean and pure. Too much damage was done...we cannot walk it back. We've watched it slowly...ever so slowly get to where it is today. Eagles nesting in the cliffs across from the courthouse in downtown Newport. More wildlife coming in year after year. Cranes, geese, ducks. More fish, larger fish. Why risk undoing that, for a little bit more money in the pocket of the company that destroyed the river to begin with.

Choose what's right, Come down visit Newport and it's River Walk. See what an investment in the river does for communities.

Don't let them destroy it again.

William M. Woody  
Parrottsville, Tennessee

**From:** [stokely.jim@everyactioncustom.com](mailto:stokely.jim@everyactioncustom.com) on behalf of [Jim Stokely Chernikov, Sergei](#)  
**To:** [Chernikov, Sergei](#)  
**Subject:** [External] Re: Blue Ridge Paper Products, NC #0000272  
**Date:** Friday, January 15, 2021 8:57:59 AM

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Dear Water Resources Sergie Chernikov,

The purpose of the Clean Water Act of 1972, which has since been amended with no alteration to its main purpose, is to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” Two important variables contributing to the integrity of water are color and fecal coliform. I take extreme exception to the NC DEQ’s draft permit recommendation to remove the color variance, and to set a Fecal Coliform limit of 200/100mL monthly average, for Blue Ridge Paper Products. These revisions to the existing permit would severely impact any progress the City of Newport, Tennessee, has made with regard to utilizing the Pigeon River for primary recreation activities such as wading, swimming, or simply strolling beside the Pigeon River and admiring its beauty. With regard to color, a 2002 US Department of Agriculture Report noted that “Public perceptions of pollution influence decisions to recreate...Water clarity is important for swimming suitability...Similarly, water color influences recreation decisions with blue being most suitable, followed by green, and lastly yellow.” There are large perceptual differences between the light yellow at 25 PCU (Platinum-Cobalt Units), the barely tolerable yellow at 50 PCU, and the heavy yellow at 100 PCU. The current permit allows BRPP “an instream true color value of 50 platinum cobalt units,” and the current permit requires that “the facility meet an instream color of 50 PCU at the TN/NC state line.” The draft permit proposes removing the instream PCU limit altogether, and moving the monitoring requirement “that the facility meet a monthly average delta ( $\Delta$ ) Color of 50 PCU” to the Fiberville Bridge. These changes would reverse the incremental progress that has been made to get the Pigeon River to point where it suitable for primary recreation. Please retain the current permit’s provisions affecting color, and consider lowering the instream 50 PCU limit in order to encourage swimmers, waders, etc. With regard to fecal coliform, the EPA recommended 2012 recreational water quality criteria for E.coli in fresh water, even estimating that 32 of every 1,000 primary contact recreators would become ill, was an average 100 colony forming units per 100 milliliters (cfu/100 mL). The draft permit proposes a limit of 200 cfu/100 mL. Please lower the limit to 100 cfu/100 mL or below to be consistent with recommended EPA standards.

Sincerely,  
Jim Stokely  
60 Shuford Rd Weaverville, NC 28787-9478  
[stokely.jim@gmail.com](mailto:stokely.jim@gmail.com)

**From:** [Thomas Wasmund](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Regarding Blue Ridge Paper Products, NC #0000272  
**Date:** Friday, January 15, 2021 2:39:31 PM

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**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

To whom it may concern,

I'm writing to express my opposition to Permit #NC0000272. As stewards of our waterways it is essential that we enlist independent bodies to monitor and collect pollution data as is consistent with the Clean Water Act and especially that we should continue to require the existing color variance standards. Without independent monitoring we risk permanently injuring our waterways.

Thank you,

**Thomas Wasmund | PE**  
**Proficient Engineering, Inc. | Mechanical**

6025 BROOKVALE LN. SUITE 202

KNOXVILLE, TN 37919

D: 865.245.9198

C: 865.310.2563

O: 865.409.5755

[proficientengineering.com](http://proficientengineering.com)

Copyright - Proficient Engineering, Inc.

**From:** [JEFF LUSTER](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] "Blue Ridge Paper Products"  
**Date:** Saturday, January 16, 2021 1:45:23 PM

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NC is pulling a fast one. Say no to lifting the color variance. It does nothing for TN. It leaves us with stink and creepy color. I won't go in to the dioxins right now. The Canton Mill has done this to us for 113 years. That plant has long outlived it's life expectancy and to me, that is the most beautiful drive in the nation along the Pigeon. Yet they ruined it. The choices we make about this planet determine the future of the world.

Thank you

**From:** [Cheryl Vaughn](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Saturday, January 16, 2021 12:20:47 PM

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No- to the variance on NPDES RENEWAL NC0000272.

No- to the variance on Blue Ridge Paper Products.

**From:** [Mark Bourne](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Fwd: Blue Ridge Paper Products  
**Date:** Saturday, January 16, 2021 9:49:28 AM

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**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

Please see below. Obviously the fact that the previous email doesn't count if not sent to this email address says all we need to know about the intent of this regulatory body and process.

Mark B.

Begin forwarded message:

**From:** Mark Bourne <mgble@yahoo.com>  
**Date:** January 11, 2021 at 10:27:30 PM EST  
**To:** [anna.gurney@ncdenr.gov](mailto:anna.gurney@ncdenr.gov)  
**Subject:** **Blue Ridge Paper Products**

Dear Ms. Gurney

I am writing in objection to the variance on NPDES RENEWAL NC0000272. No-- to the variance on Blue Ridge Paper Products. Until this company can prove that dioxin does not contribute to the rise in cancer seen in the affected region, we should not be permitting this potential risk for purposes of private parties profit.

Mark Bourne  
1631 Sequoyah Dr  
Mooresburg, TN

**From:** [Steve Cox](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Fwd: NPDES RENEWAL NC0000272  
**Date:** Saturday, January 16, 2021 12:52:28 PM

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RE:

## **NPDES RENEWAL NC0000272**

Please, No.

No to the variance on Blue Ridge Paper Products. Our river is dirty and toxic enough as it is.

Thank you.

**From:** [Bill Gorman](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge paper mill 0000272  
**Date:** Sunday, January 17, 2021 3:41:34 PM

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We lived in the river and received part of the original settle years ago. We sold and moved to Cosby. The river has finally come back to life. It needs to stay that way and continue to improve and stay beautiful and healthy. This new variance let's the fix guard the hen house again. We all witnessed how that turned out. The Smoky Mountains have unprecedented beauty that those who live here, work here, respect and enjoy. This variance change is dangerous to the river and those people who use it, live by it as well as the fish and animals who have come back from when the river was poisoned by pollution from the paper mill. If anything the rules need to get tighter not looser.

Bill and Donna Gorman

Sent from my iPhone

**From:** [Gaye Norton](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Sunday, January 17, 2021 10:45:28 AM

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Vote No to lifting of the color variance  
Protect our water!!

Sent from my iPhone

**From:** [olparko@aol.com](mailto:olparko@aol.com)  
**To:** [SVC\\_DENR\\_publiccomments](#)  
**Subject:** [External] Public Comments NC0000272 Blue Ridge Paper/Evergreen Packaging  
**Date:** Wednesday, January 20, 2021 4:45:46 PM  
**Attachments:** [Abstract Dioxin \(1\).pdf](#)  
[Blue Ridge Paper Products changes name, moves headquarters \(2\).pdf](#)

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**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

Jan. 20, 2021

To Whom it May Concern:

When we began work on the Pigeon River it was in 1997. All the wells on Douglas Lake were closed due to the high rate of cancer; that's the fact.

In the Abstract from, *Chemosphere*, that was dated, Dec. 2019, that I mailed previously to your, Anna Gurney, it says, "Unchlorinated precursor elimination reduced but did not stop formation of 2,3,7,8-TCDD/F from elemental chlorine bleaching." That is a problem for TN. The Abstract is attached above.

Further, in the 2007 Shareholder Report entitled: **Blue Ridge Paper Products Shareholder Annual Report 2007**, it says: "International Paper has also agreed to indemnify us for liabilities, including any remediation or additional capital expenditures required by the North Carolina Department of Health, Environment and Natural Resources, associated specifically with the seepage of dark colored materials from the Canton Mill into the northern banks of the Pigeon River that occurred prior to May 14, 1999."

Yet, it is unclear to me and to my broker--- who now owns the liability for the Canton Mill? I require the name of the owner. Is it Rank Group? Reynolds Group? Who is the owner? On the NC Secretary of State page, only a manager is listed. A, Mr. Mark Lightfoot. And why is his email, redacted? Is he a state secret? Who is the owner of the Canton Paper Mill as of today?

I am a shareholder and am having trouble getting that simple question answered. Why is it so difficult to find out who owns the controlling interest in this flailing company? Reynolds Group Holdings Limited's, "Strategic Communications and Advisory," ICRINC, is stalling me.

As this paper mill just lost 7 million, per the attached article, is this an effort to save jobs? If it is, these jobs have been on the backs of the TN hill people for 113 years. And that's enough. Your cutting edge technology is now over 20 years old. And stalling a shareholder who simply asks for the owner, the majority interest- in a company - is unheard of in my financial life.

Who fixed the, "dark colored seepage?" When? What engineer was hired? Where is that paperwork? As a resident of TN, I require that paperwork. I am glad the dioxin numbers have gone down *-per those that make such regulations*. But, I want to know who fixed the seepage and when? Who is measuring the cumulative effect of this dioxin and where is NCDENR's reports on that? Who holds the controlling interest in this company? And who owns the liability?

Further: "(January 19, 2001) -- The National Toxicology Program announced today the publication of an addendum to its Ninth Report on Carcinogens that adds 2,3,7,8-tetrachlorodibenzo-p-dioxin, also known as TCDD or Dioxin, to the list of substances "known to be human carcinogens." Notice the date.

I want all this information herein added to the public record along with my

other Public Comments and Scientific Journal attachments sent to the NC Public Comment address on Jan. 13, 2021. I look forward to a timely response to my questions.

Ms. Park Overall  
1374 Ripley Island Rd.  
Afton, TN 37616

**From:** [Brown, Jamie Branam](#)  
**To:** [SVC\\_DENR\\_publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products, NC #0000272  
**Date:** Wednesday, January 20, 2021 2:15:17 PM

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North Carolina Div. of Environmental Quality,

I am writing to protest the proposed permit for Blue Ridge Paper Company for the Pigeon River. I was born and raised in Coker County and spent a number of years away securing my education. When I returned home in the early 80's I became involved with the Dead Pigeon River Council due to my passionate concern for the polluted river. My father had taken me to the head waters as a young child and let me get a drink of water and then took me down river to show me what the paper company had done to destroy this wonderful natural resource. This experience never left me and when I came home I was determined to be a part of the solution. We have fought all these years for this river and what it means to our community as well as our families. North Carolina, the people that work for the mill and the paper company has greatly benefited financially on the backs of a poor mountain community and people. I have personally watched families not able to make a living in our community having to move away and not have access to their extended family- a critical value in our community. When people visit and consider coming here to open businesses the river has always been a huge deterrent while you have enjoyed prosperity related to the paper mill.

I know they have not made ONE SINGLE improvement in the mill that was not a direct result of our efforts in pushing for a clean river. They fought us every step of the way and have lost multiple lawsuits. The man that currently owns the mill would not be allowed to operate this mill in his home country because it does not meet their environmental standards. Pause and think about that for just a few minutes.

Three years ago my husband retired and we bought a farm in Cosby and now our land joins the river. I have a front row seat on my front porch to the everyday condition of the river. It is certainly much better than when we became active in the 80's BUT it has deteriorated in the last year. We see beige and brown foam floating past our house and when we walk down to the river there are huge ugly mounds of the foam. The color varies from day to day and at times the color is horrible. The idea that any regulation should be lifted is reprehensible and less than honorable. The idea of the permit was to give them time to get the river to an acceptable place. This has not happened. There should be marked improvement with every cycle of the permit.

The technology exists to make this plant efficient and the river pristine. They should be required to purchase and install this technology. Canadian plants use this technology. If they

will not modernize to this point they should be shut down. Over 100 years of pollution is enough!

This fight will not end and we will as a community and as landowners find ourselves in the legal system again unless the improvements are made.

Thank you for your consideration,

Dr. Jamie Branam Brown

Jamie Branam Brown. PhD. HS-BCP  
Listed Rule 31 Family Mediator  
Graduate Coordinator Human Services  
Professor  
Human Services / Women's Gender & Sexuality Studies  
Department of Counseling and Human Services  
Clemmer College  
**[brownjb@etsu.edu](mailto:brownjb@etsu.edu)**

**From:** [rebekah asbury](mailto:rebekah.asbury@ncdenr.gov)  
**To:** [SVC\\_DENR\\_publiccomments](mailto:SVC_DENR_publiccomments@ncdenr.gov); [Chernikov, Sergei](mailto:Chernikov.Sergei@ncdenr.gov); [dina.sprinkle@ncdenr.gov](mailto:dina.sprinkle@ncdenr.gov)  
**Cc:** [Gabriel Asbury](mailto:Gabriel.Asbury@ncdenr.gov)  
**Subject:** [External] PERMIT NUMBER NC0000272 for Blue Ridge PaperProducts  
**Date:** Friday, January 29, 2021 8:00:08 PM

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I am writing to ask that permit number NC0000272 be strengthened to promote the health of both the Pigeon River and the communities along its banks.

More specifically, I ask that you do NOT delete the color variance requirements. Also I ask that you reduce the temperature requirements of discharge to no more than 37 degrees hotter than the water in the river. If most of the mills in NC already abide by this temperature regulation, Blue Ridge Paper should, as well.

Cocke County, Tennessee - where I live and work - is one of the most economically depressed regions of the state. One bright spot in recent years has been the revenue created by rafting business. Blue Ridge Paper Products should not be allowed to jeopardize this seasonal economic growth in any way. They can afford to meet the standards set forth by the EPA in 1987. They can afford to do much better than the proposed permit requires.

The Pigeon River has been polluted for over 100 years. The people and ecosystems of east TN have suffered for the gain of paper mills that have directly benefited western NC. The mistakes and excuses of the past should not be allowed to continue.

Thank you for your consideration.

Sincerely,  
Rebekah Asbury

Sent from my iPhone

**From:** [rebekah asbury](mailto:rebekah.asbury@ncdenr.gov)  
**To:** [SVC\\_DENR\\_publiccomments](mailto:SVC_DENR_publiccomments@ncdenr.gov); [Chernikov, Sergei](mailto:Chernikov.Sergei@ncdenr.gov); [dina.sprinkle@ncdenr.gov](mailto:dina.sprinkle@ncdenr.gov)  
**Cc:** [Gabriel Asbury](mailto:Gabriel.Asbury@ncdenr.gov)  
**Subject:** [External] PERMIT NUMBER NC0000272 for Blue Ridge PaperProducts  
**Date:** Friday, January 29, 2021 8:00:07 PM

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I am writing to ask that permit number NC0000272 be strengthened to promote the health of both the Pigeon River and the communities along its banks.

More specifically, I ask that you do NOT delete the color variance requirements. Also I ask that you reduce the temperature requirements of discharge to no more than 37 degrees hotter than the water in the river. If most of the mills in NC already abide by this temperature regulation, Blue Ridge Paper should, as well.

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The Pigeon River has been polluted for over 100 years. The people and ecosystems of east TN have suffered for the gain of paper mills that have directly benefited western NC. The mistakes and excuses of the past should not be allowed to continue.

Thank you for your consideration.

Sincerely,  
Rebekah Asbury

Sent from my iPhone

**From:** [Cameron Lail](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Saturday, January 30, 2021 3:41:09 PM

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To whom this may concern,

I am a Canton, NC resident and 21 years old. I grew up in Haywood County and have lived in Canton for a while. The paper mill is a large pollution source and continues to pollute the Pigeon River. I believe the new permit for the paper mill should require the color variation portion to ensure the river doesn't get more contaminated. The environment needs to be taken care of and we should be taking steps forward not steps backward. Tourism is a major economic driver for the mountains and every summer I see people tubing and kayaking in the Pigeon River. The mill does provide jobs but that cannot be an excuse to allow the mill to further pollute the river and surrounding area.

Thank you,

Cameron Lail

Canton Resident

**From:** [Philip Royer](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products, NC #0000272 - Pigeon River  
**Date:** Monday, February 1, 2021 12:06:25 PM

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**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

I urge you to DENY any new color variance to the Blue Ridge Products permit.

When will EPA and North Carolina ever admit that the Blue Ridge Products in Canton is simply too much paper mill on too little river? If the Pigeon River flowed completely inside North Carolina, the mill would have been closed long ago.

It's Deja Vu all over again. We fought this war with Champion 30 years ago, and that partial victory is the reason that the Hartford, TN Pigeon rafting business exists today. Before that no one would have dared get in the nasty brown Pigeon. NC masquerades as an environmentally responsible state, except for the dirty little secret, their Pigeon River "sewer" that flows into TN and has crippled Cocke County for 100 years. Hang tough. No more pollution, color or otherwise, in the Pigeon!

## **Philip Royer**

[philip.royer@asgarch.com](mailto:philip.royer@asgarch.com)

322 Triplett Lane, Knoxville, TN 37922

Also:

2004 Barnes Valley Road, Cosby, TN

865-470-9669 | 865-599-8245 cell

**From:** [Scott Porch](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products, NC #0000272  
**Date:** Monday, February 1, 2021 8:00:36 PM

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Do not allow removal of color variance. Please protect Tennessee water system.

Sent from my iPhone

**From:** [William Snow](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Thursday, February 11, 2021 12:50:20 PM

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I worked as a guide on the Pigeon River in Hartford, TN for 4 years between 2015-19. I can say without a doubt it is one of the dirtiest rivers that I have had the experience of being one. There is much room for improvement when it comes to the rules and regulations for dumping wastewater into the river. Tighter rules when it comes to what is allowed to be dumped and the temperature and color variance allowed would go a long way to improving the long term health of the Pigeon.

Any clothes that I wore on the river were usually thrown away at the end of guiding season due to the stink and stains that could not be washed out. I've gone on trips on numerous other rivers in different parts of the country and never had problems with my gear retaining a stink. That's something the Pigeon alone is responsible for. Other guides I worked with struggled with infected cuts, foot rot and other rashes from working on the Pigeon. I even had customers ask "what's that smell?" when we got to the put in for our rafting trips.

The Pigeon has improved a lot since the 70's and 80's. Pushing for tighter regulations will only help it improve more. It was always disheartening to stand at the confluence of Big Creek and the Pigeon, look up Big Creek at its crystal clear, cold water and wonder how the Pigeon would look if a more responsible approach to wastewater had been taken.

Thanks

William Snow

**From:** [Melissa Prosnak](#)  
**To:** [dina.sprinkle@ncdenr.gov](mailto:dina.sprinkle@ncdenr.gov); [Chernikov, Sergei](#)  
**Subject:** [External] Concerns about PERMIT NUMBER NC0000272 for Blue Ridge Paper Products  
**Date:** Thursday, February 25, 2021 10:41:46 AM

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Hello Dina and Sergei,

I am concerned that the new permit being issued to Blue Ridge Paper Products is not in accordance with EPA Clean Water Act Guidelines. Why should this company be allowed to violate an act that affects everyone downstream? I am specifically concerned this permit will not address the color discharges to the river and the high temperature that's I'll be allowed to be discharged. Please reconsider adding and making these two points more stringent. There are many cost effective methods to reduce the discharge that are in accordance with CWA.

Specific Measures that need to be addressed in the permit: the reduction in temperature of discharge and a daily temperature limit, a specific color limit or parameter that increases the clarity of discharge color reducing the release of toxic, cancer- causing chemicals into the river.

The pigeon rivers history is a dark and muddy one but the future does not have to reflect that. With stricter regulations for Blue Ridge Paper company the Biodiversity and life in the Pigeon River will return and it's dirty legacy would end. Please for myself and for the health and enjoyment of the families downstream, consider adding these aspects back into the permit for Blue Ridge Paper Products.

Thank you,  
Melissa Prosnak

**From:** [melissa ottem](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] NC0000272 permit  
**Date:** Sunday, February 28, 2021 8:30:49 AM

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I am sending this email about my concern regarding the upcoming change to the variance. Please do not remove the variance.

Thank you for your time  
Melissa Ottem

Sent from my iPhone

**From:** [Crystal Novotny](#)  
**To:** [SVC\\_DENR\\_publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Mill Permit  
**Date:** Tuesday, March 23, 2021 8:24:44 AM

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Good Morning

I am the owner and local of a whitewater rafting company on the beautiful Pigeon River.

The now very much alive Pigeon River that was once so polluted by the Same Paper Mill that it was a Dead river.

That same Paper Mill dba as Evergreen Packaging is reapplying for its regulations of discharge and color variances to be removed from or “lessened” in its permit.

Please do not allow this.

This company has Polluted the headwaters in North Carolina for years and years and years.

Finally when they are regulated and they are having to obey the environmental laws they are now seeking to change that so they can once more pollute the river, any amount of pollution is pollution in our river in our drinking water.

The pigeon river is not just used for recreational use and although my business depends on this river it runs into the French Broad river which is then used for drinking water for Cocks County.

I plead with you to please Not allow the paper mill to remove any of its regulations.

It actually needs more added not removed.

Best,

Crystal Novotny

Rip-Roaring Whitewater Adventures

1-800-449-RAFT

**From:** [Spring Duckett](#)  
**To:** [SVC\\_DENR\\_publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products permit NC#0000272  
**Date:** Tuesday, March 23, 2021 2:27:38 PM

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To Whom it May Concern:

In response to your request for public comments concerning the draft NPDES permit for the above reference application:

I am a permanent resident of Cosby/Hartford, Tennessee with residential property just 3 miles from the Pigeon River in Cocke County, TN. I am an avid outdoorswoman, angler, freshwater recreation enthusiast, and clean water advocate. I am a daughter, and a mother, which means that I currently represent 3 generations, ranging from 7 years old to 75 years old, that enjoy access to the Pigeon River.

Since the Pigeon River flows into Tennessee from North Carolina, I am keenly interested in upstream discharges into the river that may affect its water quality. It is my opinion and serious concern that some of the changes to the Blue Ridge Paper draft NPDES permit will impact the water quality of the river in Tennessee.

Below are specifics that I feel need addressed:

1. Color Variance

I believe color is still objectionable in the Pigeon River in Tennessee. Unfortunately, the draft permit proposes to eliminate the color variance. As stated in "Conclusions/Recommendations" in the History of NPDES Permit for Blue Ridge Paper, LLC, document, based in part on "the increased use of the river for recreational purpose[s], and facility requested removal of the Color Variance applicable to their permit," the color variance would be discontinued. The Division believes that "the facility has achieved compliance with the intention of the NC narrative water quality standard at 1A-NCAC-02B-.0211 and is no longer eligible to continue the variance."

Ironically, North Carolina submits that the success of the color variance is grounds for eliminating it, ignoring that additional improvement can and should be achieved. The color variance has been the foundation for the continued health and environmental improvement of the river over many years and there is continued necessity for the variance. Removal of the color variance will

simply kneecap the river's further progress. It appears North Carolina has declared victory and gone home when the battle is not yet won. It is also easy to see the huge difference in the color of the waters of the river above stream, and below stream, of the paper plant.

The NCEQ has a regulatory, fiduciary duty to protect the Pigeon River and the proposed color variance removal will retard rather than enhance the water quality parameter for color. The Division's rationale itself notes that EPA translated a narrative standard to a numeric value for the Pigeon River in the early 1980's, determining "an instream standard of 50 PCU (platinum-Cobalt units)." The Division's rationale recognizes that "in absence of acceptable site-specific color perception studies, North Carolina DEQ is forced to use 50 PCU as the de facto instream color standard" (emphasis in original). The Division's proposal contradicts the "de facto instream color standard" that its rationale recognizes and abrogates EPA's color standard would be legally questionable. It is by utilization of the 50 PCU standard that there has been such remarkable success in cleaning up the Pigeon River over the past several decades. The color standard has acted as a safeguard and catalyst for the progress. **If this mill is to keep discharging, the color variance continues to be required under rules of the Clean Water Act and so should not be removed.**

2.

The existing NPDES permit for this facility was issued in May 2010. Federal regulations require these types of permits shall be reviewed and reissued at five (5) year intervals. An eleven (11) year interval for review and public comment of this permit is not acceptable. **This delay in reissuance has not allowed for the public to make timely comments about the allowable discharges from Blue Ridge Paper Mill.**

3.

The 2010 NPDES permit calls for the papermill to submit reports to the State of North Carolina detailing any spills associated with color within the plant or proposed improvements at the facility. **I respectfully request copies of these reports for review and the required investigation of improved color removal technology that was to be conducted once during the term of the permit.**

4.

The draft permit calls for an increase in withdrawal from the Pigeon River at the plant from 29.9 mgd to 34 mgd. The summer 7Q10 at this location is 52 cfs (34 mgd). The Town of Canton's water treatment plant can process up to 4.0 mgd. This permit would allow the plant and Town to withdraw the entire flow from the

river during low flow conditions before discharging treated wastewater back into the stream. **This increase in flow withdrawal should not be permitted.**

**5.**

The proposed permit does not include maximum allowable concentrations for BOD5, total suspended solids, total nitrogen and total phosphorus. **This permit should include these values in order to continue to protect the health of the Pigeon River.**

I have been unable to find evidence that shows that the newest permit will be any marked improvement from the last permit that was issued, and if you have actual evidence I would love to receive copies of it. While I am not a scientist, I am fairly educated (I have a bachelor's in green and sustainable enterprise management) and I am under the impression that environmental accountability and responsibility are not unreasonable expectations of corporations such as Evergreen, but rather ethical requirements to navigate today's business models - that take much more than just profit into consideration as the "bottom line". In addition, I am confident that the choice by NPDES to allow Blue Ridge Paper to continue to operate under current conditions would be ignoring environmental accountability considering the ample scientific evidence of the impacts of industrial waste on water quality, ecosystems (and all inhabitants), and the public (including but not limited to health, financial values, recreational uses). It is the responsibility of NPDES to hold businesses accountable and protect the natural resources of their jurisdiction, period. This should not be in debate, yet the record seems to historically reflect a different stance.

I look forward to amendments being made to the current permit that reflect measurable improvements in environmental accountability prior to the permit being renewed.

Sincerely,

Laurie T. Duckett  
4250 Ground Hog Road, Cosby TN 37722  
[springduckett@gmail.com](mailto:springduckett@gmail.com)  
865-216-4282

**From:** [Patrick Rakes](#)  
**To:** [SVC\\_DENR\\_publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Friday, March 26, 2021 1:31:56 PM

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For Blue Ridge Paper's requested renewal of its National Pollutant Discharge Elimination System (NPDES) discharge permit please DO NOT loosen regulations, including removal of a color variance, on effluent entering the Pigeon River. Please prevent the possibility of returning the river to its past polluted state. We have participated with UTK, TWRA, TVA and others to restore aquatic wildlife, eliminated by past pollution, as the river recovered to the point it could again support the restored species. Efforts began with Gilt Darters and included many others, such as Mountain Madtoms and Tangerine Darters. Permission to wipe them out again should be criminal.

Patrick Rakes  
Conservation Fisheries, Inc.  
3424 Division Street  
Knoxville, TN 37919-3261  
[Office: 865-521-6665](tel:865-521-6665) [Cell: 865-385-4205](tel:865-385-4205)  
[www.conservationfisheries.org](http://www.conservationfisheries.org)  
[CFI on FaceBook](#)  
[YouTube](#)  
<http://smile.amazon.com/ch/62-1502226>



**From:** [jeffrey hatcher](#)  
**To:** [SVC\\_DENR.publiccomments](#); [Morton Barlaz](#); [Joe Mount](#); [Martha Mount](#); [Mark Denney](#); [mark singletary](#); [Lee Thonus](#)  
**Subject:** [External] Blue Ridge paper products  
**Date:** Wednesday, April 7, 2021 4:26:32 PM

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Dear Sir or Madame

I am writing concerning potential changes to water quality on the Pigeon River downstream of Canton, NC.

I have been paddling on this river for the last 15 years and enjoy it immensely. I am grateful that the water leaves less of a smell and no longer stings my eyes when I paddle there.

Please do not relax the requirements regarding the river having a normal color, high thresholds for coliform counts, and dioxin counts done to assure the quality of water.

This river has made tremendous improvement over the 15 years I have boated it. Now is not the time to relent.

Sincerely

Jeffrey C. Hatcher, MD FACP (Infectious Disease)  
401 W Bessemer Ave  
Greensboro NC 27401-1602

**From:** [Linda Tribble](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Cc:** [Linda Tribble](#)  
**Subject:** [External] Blue Ridge Paper products  
**Date:** Wednesday, April 7, 2021 6:21:43 PM

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I'm aware of the reevaluation of the restrictions on the Blue Ridge Paper Products paper mill in Canton, NC. I am concerned that the proposed relaxation of requirements will negatively impact the Pigeon River. I am a whitewater kayaker and paddle the Pigeon River at least once a week from April-October. Over the years the water quality on the river has greatly improved however, I have been on the river in very recent years where there was discoloration and odor to the water. More concerning is that several members of our paddling group reported that the water actually burned their skin. They had to come off the river and immediately shower to improve their symptoms. This has been reported to me on more than one occasion. It's for this reason that I do not think it's wise to relax any of the water quality standards that are currently in place. Additionally, all one has to do is drive on I-40 and breath in the horrific smell from that plant to know there is a paper mill. If that's what is being belched into the atmosphere I can only cringe at what they would release into the Pigeon River. Thank you for your time.

Linda Tribble  
100 Luther Bingham Road  
Bryson City, NC 28713

Linda Tribble

**From:** [Frank Ohrt](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Thursday, April 8, 2021 8:40:11 PM

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Dept. of Environmental Quality;

I have read that the wastewater permit for the Blue Ridge Paper Products mill is up for renewal. I have paddle the Pigeon many times in my summer trips to North Carolina, and, while I enjoy the river, its color is esthetically appalling and the presence of toxic chemicals in its water frightens me. I strongly support requirements to improve the water color, continue testing for dioxin in tissues of fish in the river, and stronger restrictions on fecal coliform in the mill's discharge water.

The river's water quality is barely acceptable as it is, and needs further improvement, not a relaxing of water quality standards. If that water quality actually gets worse, it would likely keep me from wanting to paddle on it (and spend any money in the area), and I suspect that the thousands of people who also paddle the Pigeon will agree. It would jeopardize a thriving paddle-sports industry and hurt the economy of the towns along the river. I understand that the mill provides jobs, but so does the paddle sports industry.

Thank you,

Frank Ohrt  
Houston, TX  
[fgohrt@gmail.com](mailto:fgohrt@gmail.com)

**From:** [Diane Petrilla](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Cc:** [Will Skelton](#); [Philip Royer](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Friday, April 9, 2021 2:56:07 PM  
**Attachments:** [Letter\\_BlueRidgePaperProducts\\_Pigeon\\_River.pdf](#)

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The attached letter from the Smoky Mountains Hiking Club, represents our organization's position on the proposed Blue Ridge Paper Products Wastewater Permit Renewal and Variance Removal. Please note that the Smoky Mountains Hiking Club represents over 500 members in Tennessee, North Carolina, and many other parts of the country. We respectfully request review and consideration of our comments and position strongly against any loosening of regulations regarding the effluent from Blue Ridge Paper Products.

Respectfully,  
Diane Petrilla M.D.  
President, Smoky Mountains Hiking Club



# SMOKY MOUNTAINS HIKING CLUB

Box 51592

Knoxville, Tennessee 37950-1592

April 9, 2021

North Carolina Department of Environmental Quality  
217 West Jones Street  
Raleigh, NC 27603  
[publiccomments@ncdenr.gov](mailto:publiccomments@ncdenr.gov)

Re: Blue Ridge Paper Products hearing

Ladies/Gentlemen:

I am writing on behalf of the Smoky Mountains Hiking Club (SMHC) in connection with the upcoming hearing on April 14 regarding Blue Ridge Paper Products' proposed wastewater permit renewal and variance removal. Please make these comments a part of the record for such hearing.

SMHC was founded in 1924 and is one of the original clubs responsible for making the dream of the A.T. a reality. Today, SMHC maintains 102 miles of the A.T., including the portion within the Great Smoky Mountains National Park (GSMNP) that is adjacent to the Pigeon River. SMHC has a longstanding tradition of hiking, fellowship, volunteerism, and conservation of the Great Smokies and surrounding lands.

Until the mid-1980s the Pigeon River that flows through Cocke County (between the GSMNP and Cherokee National Forest) and into the French Broad River (and then into Knoxville where SMHC is based) was a sensory mess, dirty, smelly, and polluted, all resulting from discharges by Champion International Paper Company (now Blue Ridge Paper Products) in Canton, NC. Successful lawsuits by citizens and regulatory action forced a cleanup of the river and has made Cocke County a budding adventure travel destination (around \$52 million in direct tourism expenditures in 2019 and especially rafting on the Pigeon). Now, Blue Ridge Paper is requesting renewal of its National Pollutant Discharge Elimination System discharge permit and seeks to loosen regulations, including removal of a color variance, on effluent entering the Pigeon River, thereby opening the possibility of returning the river to its past polluted state.

The quality of the water in the Pigeon River is important to the downstream residents, to the downstream recreation users of the Pigeon River, and to the adjacent National Park. We are therefore very much opposed to any relaxation or reduction of the existing permit requirements and urge you to continue to protect the water quality of the Pigeon River.

Respectfully,

Diane Petrilla M.D., President Smoky Mountains Hiking Club

**From:** [Haley \\*](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products Permit, NC #0000272  
**Date:** Saturday, April 10, 2021 2:13:57 PM

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April 10, 2021

Wastewater Permitting

ATTN: Blue Ridge Paper Products Permit, NC #0000272

To Whom It May Concern:

The renewal of the NPDES Permit NC #0000272 with the removal of the color variance must be denied and amended to better reflect the values of the Clean Water Act. This permit should be offering greater protection of water quality to show measured improvements in the wastewater pollution discharge. Water monitoring and collection should be conducted by an independent body. Blue Ridge Paper should not be allowed to police themselves.

Discharge of industrial, stormwater, municipal, and landfill leachate wastewaters by Blue Ridge Paper affects the physical and economic health of its neighbors downstream. It is vital to the residents of Coker County and particularly the rafting community that pollution of the Pigeon be limited further, not increased. Improvements in the water quality of the Pigeon River lead to improvements in people's physical, mental, and economic health.

Sincerely,

Haley Speer, LCSW

**From:** [Smith, Norman](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Monday, April 12, 2021 1:22:36 PM

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Good Afternoon,

It is my understanding that the Blue Ridge Paper Company is asking for the color variance to be removed or lessened from their permit. Please DO NOT allow this to happen. This river is vital to our counties future. Every since I can remember, the Pigeon River has been discolored. Although some progress has been made in the last several years to the pollution that has poured into our county from the river, the river still is nowhere close to the pristine mountainous waterway that it could be.

Our county is already listed on the distressed list due to our economic status. Please do not allow Blue Ridge to kill any possibility of our county growing the revenue stream the river creates for us from our rafting industry. Thanks for you consideration in this matter.

Sincerely,

**Norman Smith**  
**Cocke County Commisioner**

**3<sup>rd</sup> District**

**From:** [Anna Norton](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Monday, April 12, 2021 12:37:34 PM

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To Whom It May Concern:

I am writing with concern for clean water in the Pigeon River. I as that the permit for Blue Ridge Paper Products Mill in Canton be strengthened, and also to continue the color variance. This is imperative as the only standard by which to improve water quality.

Clean water is and should be a priority for our state. Our health and thereby the health of our ecology and economy depend on it.

Thank you,  
Anna Norton

**Anna Norton**  
*Senior Program Manager*  
The Literacy Council  
[www.maconncliteracy.org](http://www.maconncliteracy.org)  
828.526.0863 ext. 201

**From:** [Whitney Martin Eure](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Tuesday, April 13, 2021 4:11:13 PM

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Dear NC DEQ,

Thank you for the opportunity to comment on the Blue Ridge Paper Products' Discharge Permit renewal for the regulation of water quality on the Pigeon River downstream of the papermill at Canton, NC.

I am an avid kayaker, rafter and member of American Whitewater. My friends, family and I frequently run the Gorge section of the Pigeon River from the power plant at Waterville, NC to Hartford, Tenn. as well as the Hepco reach, just upstream of Waterville Lake. Our contact with the River on these trips involves occasional swims and would be considered "full immersion" under NCDEQ clean water standards.

There is considerable improvement in the water quality of the Pigeon River since I first kayaked the Gorge section in 1995. At that time, the River's water smelled like a papermill. Signs warning that it was dangerous to eat fish from the river, due to dangerous levels of dioxins from the paper mill, were posted at all of the access points. The water left a metallic taste in your mouth when you got splashed in the face. The water is clearly cleaner today, however, there is still a great deal of room for continued improvement.

I have concerns with deficiencies in the proposed permit renewal.

First, I object to the removal of the color variance from the Discharge Permit. The color of the Pigeon River is still abnormal, when compared with other streams in the region. Ask any kayaker. There is no better comparison than at the confluence of Big Creek and the Pigeon River at the Waterville Powerplant. Big Creek is clear and the Pigeon River is the color of coffee and is noticeably more turbid. Similarly, The Nolichucky River at Erwin, Tn, which has a similar average volume of flow to the Pigeon, runs clear while the Pigeon has a brownish tint. Continued improvement in water clarity and color is a must for any permit to be issued.

Secondly, reduced testing for Dioxins should not be allowed in the new permit. These compounds are known carcinogens that bioaccumulate in fish fatty tissue. Give that it is now more common for people to eat fish from the Pigeon River, it is imperative that testing for Dioxins continues.

Third, the new permit must include requirements to reduce **the significant temperature**

fluctuations allowed in mill discharges. It should also require improvements in containing releases of coliform bacteria during high water events.

Outdoor recreation and tourism have helped the cleaner Pigeon River become a huge economic driver in WNC and East Tennessee. Thousands of rafters run the Pigeon River Gorge every week during the summer months. Kayakers run different sections of the river all year long. New businesses have added riverside zip lines and ropes courses. Restaurants, stores, gas stations have all benefitted from this new outdoor recreation economy. Sustaining this economic development depends on continued improvement in water quality in the Pigeon River as it is the center piece of this new recreation hub.

This is not the time to move backwards. Instead, we must insure continuing improvement in the Pigeon River's water quality. Which is my hope and expectation for this permitting process.

Thank you again for the opportunity to participate.

Whitney Eure, DVM  
Asheville, North Carolina

**From:** [Mae Testerman](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Re: NC0000272  
**Date:** Tuesday, April 13, 2021 11:27:40 PM

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Just say NO to the variance. Appalachia has allowed all these beautiful rivers around us to be ruined. We really must change that, ya'll. It's past time. *I live on Pigeon River and have had 4 different cancers.*

*PLEASE VOTE NO NO NO*

*ALTHIE TESTERMAN*

**From:** [Crystal Ottinger](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Wednesday, April 14, 2021 2:31:30 PM  
**Attachments:** [Blue Ridge Public Comment Crystal Ottinger.pdf](#)

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All,

Please see the attached Public Comment regarding the proposed amendments to the Blue Ridge Paper Products Permit.

Thank you,

*Crystal Ottinger*

**Cocke County Mayor**  
**360 East Main Street**  
**Courthouse Annex Suite 146**  
**Newport, TN 37821**  
**Phone: [423-623-8791](tel:423-623-8791)**  
**Email: [cottinger@cockecounty.net](mailto:cottinger@cockecounty.net)**



# COCKE COUNTY GOVERNMENT

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CRYSTAL OTTINGER, MAYOR

On December 21st, 1979 I was born at Valentine Shults Hospital in Newport, TN on the banks of the Pigeon River. Forty-one years later, I am in my second term as Cocke County Mayor. My office is located in the Courthouse Annex, which is the retrofitted Valentine Shults Hospital. I have literally spent my entire life on this river.

Growing up I spent many weekends playing beside the river. I have fond memories of picnicking beside it or trying to skip rocks on it. However, both now and then, those fond memories have been overshadowed by the condition of the river. Can you imagine as a 10 year old, the disappointment of being allowed to only look at the river and never being allowed in it because of the amount of toxins coming down from the papermill? Or preparing for a day beside the water only to arrive and be welcomed by unnatural amounts of foam and water that smelled so offensive you could not stand it and had to leave? Those are my early experiences on the river. Thankfully, my children's experiences have been very different from my own. This is in large part due to the efforts of many Cocke Countians who have spent decades demanding that the papermill clean up their act. And to some degree, the papermill listened to our concerns and did just that. The river, once known as "The Dead Pigeon River" because nothing could survive in it, has now seen fish species be reintroduced and adapt to a cleaner version of the river. I am grateful for these improvements; however, that does not mean there is not more work to be done. Bottom line: the wastewater discharged from the mill that flows downstream into our county is not as clean as it could and should be.

As I sit here in my office writing this public comment, I'm looking out at the Pigeon River, thinking of all that it is and all it has the potential to be. In my youth the river was a dangerous liability. Today, the Pigeon River is a growing asset for our community. As you may not realize, Cocke County is one of the most economically distressed counties in Tennessee. We are also one of the most beautiful counties in the state and we take great pride in touting our scenic rivers and mountainous landscapes. In fact, to attract visitors and increase revenue, Cocke County rebranded itself as "The Adventurous Side of the Smokies" a few years ago. In 2017 The American Outdoor Association ranked The Pigeon River as the third most popular rafting river in America and it continues to prove its potential to be a huge economic driver for the county. It sees hundreds of thousands of visitors each year. Sadly, with those visitors comes an increase in the number of complaints and concerns regarding the color of the water. To continue attracting visitors to Cocke County, we must provide a positive and memorable experience that they will want to look forward to year after year. That experience cannot be had on an impaired and polluted river.

When both visitors and locals ask why the water in the Pigeon River is the color it is, I tell them it's caused by the wastewater discharge from The Blue Ridge Papermill in North Carolina. Their response is almost always, "How is that even possible in this day and time?" Well, I am asking you all the same question. How is it possible- with all the improvements and efficiencies in technology and with all the environmental regulations in place- that this company still needs to discharge pollutants into our waterways? Blue Ridge Papermill has not followed the previous permit and made incremental improvements as they were required to do. So, on what reasonable basis can you justify issuing a modified permit with less restrictions?

I concede that the Pigeon River today is not the Pigeon River from my youth and some improvements have been made. And, again for those improvements I am grateful. However, the river is far from clean and further advancements must be made, not the opposite as the proposed amendments to the permit would allow. Blue Ridge Papermill is a multi-million dollar for profit corporation making money off of the Pigeon River and at the expense of those downstream in Tennessee. Citizens in Cocke County are impoverished and would simply like a clean river where it's safe to swim and eat the fish you catch. Our waterways are one of our greatest assets and they play an essential part of our community, environment and economy. They are too precious to pollute and deserve to be protected. Cocke Countians have fought hard for years and made great strides to ensure that folks downstream from the Blue Ridge Papermill have access to a safe, clean river. We cannot go backwards where the health of our waterways are concerned. I oppose the new permit as written and ask NCDEQ and U.S. EPA to add stricter requirements to the proposed draft permit to ensure continued water quality improvements of the Pigeon River.



Crystal Ottinger  
Cocke County Mayor

**From:** [Jim Staley](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Wednesday, April 14, 2021 9:42:25 AM

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To whom it may concern, thats everyone btw,

This permit is unacceptable. It does not demonstrate the spirit of the Clean Water Act NPDES permitting system in that it does not actually reduce pollution to the Pigeon River during the next permitting cycle.

This permit in fact proposes an increase in the amount of chloroform, a dangerous toxic and cancer causing chemical, used in the bleaching process. The daily maximum load of 10.5/lb per day is enough chloroform to kill 321 people per day, in its concentrated form. No wonder river guides suffer painful rashes and allergic reactions to being exposed to the Pigeon's toxic waters.

This permit calls for a 17% increase in water taken from the Pigeon River at a time when water resources across the globe are in jeopardy.

As an organization comprised of members who have regular direct contact with the Pigeon River, members who are professional commercial river guides, members who are private boaters and kayakers, swimmers, and fishermen, our representatives can tell you that the color of the river is brown, dark and sweet tea colored on many days. The river smells like the acrid papermill, all the way to Newport, Tennessee. One can observe foam and often professional river guides deal with rashes and reactions to the many chemicals that comprise the color pollution.

This permit calls for no changes to color pollution with no reductions being called for whatsoever, a violation of the Clean Water Act and the 1997 Settlement Agreement between downstream communities and the paper mill.

The proposed removal of this color variance is basically an admittance by the NC DEQ that water quality standards are being met and no further reductions to color pollution are required. The color variance must not be dropped until color pollution is down to an annual average of 20,000 pounds per day with daily maximum limits of 50,000 lbs/day not 105,250 as currently stated, which downstream communities have called for over 20 years. This permit calls for a status quo of 36,000 pounds of color per day annual average, the same as the previous permit cycle, which is not an improvement.

There are problems with attempts to assess the true color units downstream in Tennessee. Members of CWEET has observed that testing for color at mile 24.7 Browns Bridge is conducted 1.3 miles downstream of the actual TN/ NC State line. This provides significant dilution to the Pigeon River from Big Creek and Tobes Creek. It has been observed that testing occurs when the dam is operating below 600 cfs, not at the minimum recreational flow for whitewater rafting which is 1200 cfs. When water is measured below 600 cfs we can observe that the majority of the water in the river is from Big Creek and Tobes Creek, not actual flow from the main Pigeon River as the majority of polluted water is being held back in Waterville Lake while the majority of water in the riverbed at flows of less than 600 cfs is primarily from tributaries downstream of the Waterville dam. Downstream testing should occur when the flows are operating an average recreational release ranging frois between 1200-2000 cfs which is the flow at which water color appears and smells worst. Measuring water flow at Brown Bridge when the dam is not fully releasing the polluted water is simply

not an accurate measurement for color in TN. One can observe that the water is clean and clear when the dam is releasing at small flows of 600 cfs or less and brown dirty and smelly at releases of 1200 cfs or more.

Also, it has never been observed that the company contracted to measure color on the Pigeon actually measures the water at the Pigeon River prior to mixing with Big Creek at mile 26, as called for by the 1997 Settlement Agreement. It would require a boat to access that flow of Pigeon River and Big Creek prior to mixing. We have never observed this type of testing at this location taking place. It should be measured from a boat at the mouth of the dam release for an accurate measurement, prior to mixing with Big Creek as dictated by the 1997 Settlement Agreement.

The color variance must not be removed until downstream communities are satisfied with the condition of the Pigeon River, which is currently not meeting all its designated uses and remains on the Tennessee 303d list for impaired rivers due to color pollution.

This draft permit ashamedly uses public health as a rationale for removing the color variance stating that there has never been a public health advisory related to color in North Carolina. There is an advisory, however, issued for color in Tennessee. The fact is that the Pigeon River is listed as impaired for color pollution by the state of Tennessee. Color is comprised of toxic chemicals. It is a public health issue for the hundreds of thousands of boaters who are yearly exposed to full body contact with its toxic waters.

Blue Ridge Paper Products has requested an increase in water usage from 29.0 million gallons per day to 34 million gallons per day. This is a 17% increase in water usage.

This increase should not be approved until an environmental assessment is conducted to determine what the impacts would be on water quality.

Additionally the draft permit calls for an increase in chloroform usage from the current limits of 5.1/lb day monthly average to a proposed limit of 6.27 pounds per day monthly average, which is a 22% increase in chloroform averaged monthly. As for daily maximums allowed an increase from 8.6 lb/day 10.5/lbs per day daily maximum is also unacceptable. That is a 22% increase of chloroform daily.

We know that chloroform is a dangerous toxic and carcinogenic chemical used in the paper making process and increases of this type of pollution are unacceptable. In a world of climate change and dwindling clean water resources the mill can and should become a leader in marketing non-bleached paper products. Consumer demand for environmentally friendly paper products is at an all-time high, and in the fast changing world of 2021, what better time for the mill to become an innovative leader in marketing brown, not bleached white paper products. Bright white paper is unnecessary and incredibly damaging to the environment and without good reason.

The chloroform cannot be increased. If so, CWEET and the public will call upon the EPA to again rescind this dirty permit.

It is time for the Pigeon River to be clean. It's time for our beautiful resource to be finally protected after 115 years of pollution. The water that flows above the mill is crystal clear and of high quality. We want the same crystal clear properties for the downstream communities of Hartford and Newport that are enjoyed by users of the river upstream of Blue Ridge Paper. Our whitewater rafting industry, our swimmers, our fisherman, our wildlife and microbiology, and all future generations depend on clean water. Water is life. When will the bureaucrats at NC DEQ remember that you cannot eat money?

Lets leave a legacy of tight regulations that actually protect our nation's waters and decrease pollution until is eliminated! If not us, then who will?

**From:** [Random Name](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Evergreen Paper Color Variance  
**Date:** Wednesday, April 14, 2021 9:34:18 PM

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To Whom It May Concern,

As a long time resident of Hartford, TN, I'm writing to urge you to not to remove the color variance for the Pigeon River.

Not only is the Pigeon River the 3rd most rafted river in the country, it's the only reason our community exists.

For years, the river smelled, had few fish, (none were edible) and had large piles of foam filling most eddies. Fortunately, these regulations have been helpful in cleaning up the river, but now is not the time to take a step back.

**From:** [C Walker](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Lifting the color variation  
**Date:** Wednesday, April 14, 2021 10:17:04 PM

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Hello, this letter is concerning the Canton mill's water quality permit and the subsequent "[Fact Sheet](#)".

While Evergreen is very quick to congratulate themselves for steps taken to improve water quality, they're ignoring the fact that these restrictions, (the very restrictions they are attempting to lift now) are the sole reasons for the improvements.

The fact is, improved water quality (after decades of pollution) should not justify a step back in protections that caused the improvements in the first place.

Please do not lift the color variation.

Thank you in advance.

**From:** [Veronica Cox](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Re: NC0000272  
**Date:** Wednesday, April 14, 2021 4:52:56 PM

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NO VARIANCE!!! Instead, please Work to protect/save the river!! & OUR Water supply!! NOW!!  
Veronica Cox

Sent from my iPhone

**From:** [KD W](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue ridge paper --color variance- vote no  
**Date:** Thursday, April 15, 2021 5:01:39 PM

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This is the 21st century, not 1898. Pls do not remove the color variance or any similar thing that would further reduce the quality of the pigeon river. This would be a dereliction of duty. If we cannot protect the water in 2021, anything else you do is futile.  
Kim Walker

**From:** [circuitcourt@cockercountytn.gov](mailto:circuitcourt@cockercountytn.gov)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products - Public Comment  
**Date:** Thursday, April 15, 2021 10:54:58 AM  
**Attachments:** [image001.png](#)

**CAUTION:** External email. Do not click links or open attachments unless you verify. Send all suspicious email as an attachment to [Report Spam](#).

Greetings;

Please find that per your post, I am submitting my public comment concerning the renewal of Blue Ridge Paper (Champion Paper) discharge permit.

Please find that this requested permit is unacceptable. It does not demonstrate the spirit of the Clean Water Act NPDES permitting system in that it does not actually Reduce pollution to the Pigeon River during the next permitting cycle. To do away with the removal of the color variance would cause irreparable harm to our river, wildlife and to our local economy.

-

-

### **Economic View:**

The Pigeon River brings to Coker County around \$52 million in direct tourism expenditures, according to a 2019 state report, which also ranked Coker in the top third of Tennessee counties for tourism impact. What's more, Coker County just received a \$6 million grant from the Appalachian Regional Commission for 50-75 miles of mountain bike trails. The potential for major corporate involvement is bright.

### **Environmental View:**

Per the University of TN-Knoxville's website -  
<http://fwf.ag.utk.edu/Sites/pigeon/webpages/history.asp>



## **Pigeon River Recovery Project**



- Gilt darters, stripetail darter, silver shiners, telescope shiners and mountain brook lampreys are re-colonizing the Pigeon River
- Evidence of reproduction in three additional fish species
- Spring 2007, CFI/UT released the first propagated juvenile tangerine darters into the Pigeon River (a first!)
- Mussels re-introduced for the first time in NC reach below mill in 2011
- Mussels re-introduced at new site in 2011 in TN

- To date, the PRRP has re-introduced 20 species of fish, over 39,000 individuals into TN & NC segments of Pigeon River
- Evidence of reproduction in 9 species of fish
- Biodiversity has increased – 2 snails and 6 fish species are re-colonizing the river

Allowing increased pollutants would do immeasurable harm to what this community and state has been working for years to try to restore. Please don't allow that to happen.

I am grateful for your time and attention in this matter.

Sincerely,

*Kristy L. Nease*

Cocke County Circuit Court Clerk

111 Court Avenue, Room 201

Newport, TN 37821

(423) 623-6124 Fax (423) 625-3889

[www.cockecircuit.com](http://www.cockecircuit.com)

**From:** [E.L. Morton](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Thursday, April 15, 2021 4:12:41 PM  
**Attachments:** [image001.png](#)

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I oppose any change to the color variance proposed by Blue Ridge. North Carolina companies should not pollute Tennessee waterways, but have done so for decades. It is time to stop the damage, not enable more.

*E.L. Morton* (US Army Retired)

Mayor

Campbell County, Tennessee

423-562-2526

[countymayor@campbellcountygov.com](mailto:countymayor@campbellcountygov.com)



**From:** [Julie Thomson](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Thursday, April 15, 2021 8:57:44 PM

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Dear NC DENR,

I am writing to ask you to negotiate a new permit for the wastewater discharge for the Evergreen Paper Mill in Canton. This permit has been renewed as it was for the last two permit cycles, without the incremental improvements that were supposed to be added. The last negotiation for this permit was in 2010.

I request that you **add a maximum daily water temperature limit** to the mill's permit that is within guidelines that support the fish and other aquatic life in the Pigeon River. The 2007 fish kill where 8,000 fish died can not be repeated. Climate change is already increasing the temperature of our state and its waters, and proper temperature limits need to be revised with that element now too.

**A color variance needs to be part of this permit** and it needs to be an incremental step towards improving the quality of the discharged water from the current permit's color variance requirements. Downstream reports of the Pigeon River after the river flows through the paper mill include mention of the river being dark brown in color and having a smell.

The proposed increase of their permit from 29.9 gallons to 34 million gallons of water discharged is **an increase of 4.1 million gallons of wastewater**. This **larger amount of wastewater** will have **a greater impact** on the River, and is further reason why the daily maximum temperature and color variance need to be stricter than the proposed permit. It sounds like it might be time for the city of Canton to start planning to build a separate water system to treat the city's wastewater too.

The Pigeon River has become a major rafting and kayaking destination in recent years, and it could be a beautiful place full of life, instead of a river that harms the creatures that live in it. North Carolina's economy is benefitting from our state's natural biodiversity. **A cleaner, and properly**

**managed permits for the Evergreen Mill on the Pigeon River means that more tourists and more money could result.**

I ask you to revise the proposed permit for the Evergreen Mill. North Carolina's rivers and the life in them needs to be protected. Once they are destroyed, they cannot be replaced.

Sincerely,

Julie Thomson  
114 Montford Ave  
Asheville, NC 28802

**From:** [Nick Lomas](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Saturday, April 17, 2021 7:48:54 AM

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I am writing to comment on the Blue Ridge Paper Products Permit renewal. I am a former NC state resident who recently moved downstream to Knoxville, TN and who has recreated on the Pigeon River for decades. I have family that lives in the Pigeon River watershed, downstream from the Canton, NC Paper Plant and I have friends whose livelihoods depend on the Pigeon River. I believe it would be a travesty to allow environmental standards in the Paper Plant permit to be relaxed given the success of past regulations to clean up the river. If it is your goal to get into shape, you would be remiss to end your fitness routine once you decide you are "fit" only to become a couch potato again. In the year 2021, I believe environmental regulations and protections in the permit should continue, particularly keeping in the color variance measures, if not be strengthened to allow continued recovery of the Pigeon river and protect the people and places downstream of the Canton Paper Plant.

Thank you for your consideration,

Nick Lomas

**From:** [Hobbit Hawes](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Sunday, April 18, 2021 11:29:04 AM

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This factory has been polluting the Pigeon river for far too long, it's time that they stopped making it discolored, smelly, foamy, and caustic. Please make them clean up their discharge.

Thank you.

Sincerely,

John A. Hawes

Asheville, NC

**From:** [Becky Rodrigue](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Sunday, April 18, 2021 11:53:34 PM

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Hello,

I forgot to include 'Products' in the subject line of my last email and wanted to make sure it was included in the public comments. I have realized since sending it that I forgot to address the color of the Pigeon itself, on the section I guide 6 days a week right now. Most days it is some shade of darker brown than you want in a river. The guests ask about it a lot and are surprised to learn there are fish in there. One day, I think it was two weeks ago, the river was obviously a completely different color, a glowing, tropical green. When we arrived at the put in I was shocked. I had never seen it that color before and it was difficult to look away. The trip felt very different, I could see through the water! After trips that day, a coworker went fishing in his usual spot and took a picture of his catch, which he later showed me. The water in the background still glowed green, nothing like the river I had seen the last seven years. We had a long conversation about it. We remembered one day last year while driving up to the put in in the evening to retrieve a vehicle, seeing very odd colors in the water at the Waterville bridge. A bright mud red was still mixing with a less-brown-than-usual shade of Pigeon water. As we approached the power plant, the separation of color become more defined, until right at the confluence it barely seemed real: the reddest mud color I've yet seen pouring out of the natural flow on one side, water color on the Big Creek Side. It hadn't rained in days.

Please do not approve anything that would allow a more polluted Pigeon River.

This is the copy of my original message:

Hello,

My name is Becky and I have been guiding rafting trips on the Pigeon River out of Hartford, TN for seven years. I've also boated privately at many other rivers in the southeast and across the country.

I am writing to comment on the water quality of the Pigeon River, as I understand there may be far fewer limitations on the amount of pollution in the river in the near future, and I find that highly alarming. Why? Well, to start, the section of river that I have worked on for 7 years is already the dirtiest river I've ever recreated in. I only do it for the money, because I would not subject myself to water that disgusting for free. The thick slime that covers the rocks here is great for preventing foot entrapment, but I assure you there is already enough of it, and customers slip on it all the time; I've not seen anything like it in any other river I've visited. Every summer when we get into the busy part of the season, all of us guides are fighting chemical burns on our feet from the river that can be debilitating. If you can't walk, you can't exactly guide. I've seen many customers jump into the "swimmer's stretch" and say they immediately felt their skin start burning. When I pull them back in the boat they are already more red than they were a minute before, the irritation typically worsening rapidly until they rinse off in fresh water (shower/hose water.) I rinse my feet with the hose after every single trip, wash them meticulously right after the last trip of the

day, and pour vinegar on them after that, and I STILL get chemical burns that keep me from a few days of work every year. And every year it gets worse. About one out of every five commercial boats comments on the smell of the river, some insisting it smells like the ocean. Sometimes I joke that we have our own ocean foam, especially during low water when the thick, brown foam pools up behind the big rocks. When it's that bad, the entire floor of the boat ends up being trapped foam by the time we make it to the takeout, can't even see my feet anymore.

I cannot imagine anyone boating on or enjoying this river if the pollution is allowed to worsen. Do the right thing for those of us downstream who have already been dealing with the industrial pollution for many years and do not approve any permit that would allow more contaminants in the Pigeon River.

Thank you,  
Becky Rodrigue

**From:** [Mike Arms](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Cc:** [Thomas.Chris@epa.gov](#); [Hesterlee.Craig@epa.gov](#)  
**Subject:** [External] ATVG Comments on "Blue Ridge Paper Products"  
**Date:** Monday, April 19, 2021 11:01:22 AM  
**Attachments:** [doc20210419104836.pdf](#)

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Please accept the attached comments from ATVG



Association of Tennessee Valley Governments

P.O. Box 3578  
Clarksville, TN 37043  
(931) 553-4265

April 20, 2021

Wastewater Permitting  
1617 Mail Service Center  
Raleigh, NC 27699-1617

Re: Blue Ridge Paper Products

Dear Reviewer,

This letter is written in opposition to Blue Ridge Paper Products' request to remove color variance in its wastewater permit renewal and submitted by the Association of Tennessee Valley Governments (ATVG). Our organization's ([www.atvg.org](http://www.atvg.org)) mission is to serve the mutual interests of local governments and their partners in addressing various issues in the seven-state Tennessee Valley region. We advance the interests of our members at the national, regional and state levels. ATVG represents the nearly 1,000 local governments that reside within the seven-state TVA region which includes local governments in Alabama, Georgia, Kentucky, Mississippi, North Carolina, Tennessee and Virginia.

Our organization's members realize that economic development and job creation are becoming closely dependent on quality of life. In evaluating company locations and possible relocations numerous factors related to water quality, air quality and environmental sustainability are of paramount importance. While we commend Blue Ridge Paper on the outstanding progress it has made in improving stream conditions from its effluent discharges, we do not agree that it is appropriate to remove the color variance at this time.

We are pleased that significant improvements to instream concentrations of color in the Pigeon River have been achieved. However, we believe the color variance continues to be necessary. The Pigeon River is an integral part of the French Broad River Basin which is critically important to East Tennessee and the entire Tennessee River Valley. The Pigeon River is still listed as impaired due to the color under the variance. In abundance of caution in ensuring water quality, we oppose removal of the color variance.

Thank you for consideration of these comments by ATVG.

Respectfully yours,

Mike Arms

Executive Director, Association of Tennessee Valley Governments

**From:** [Jon Larimer](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Monday, April 19, 2021 4:56:55 PM

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Hello,

I am writing to comment on the proposed renewal of the Blue Ridge Paper Products NPDES discharge permit.

My camp is on the banks of Waterville Lake, fed by the Pigeon River, so I am directly impacted by any proposed relaxation of discharge restrictions from the Blue Ridge Paper Products factory.

While I'm new to the area, many of my new friends in White Oak Community and the surrounding area tell me stories about "The Blackwater", as they still call the lake. The lake's water was black, it smelled bad, the fish were unsafe to eat. Wildlife was scarce.

Waterville lake is now one of Western North Carolina's hidden gems thanks to legal action against the paper factory and their compliance with water quality standards currently in place. The fish are abundant and safe to eat. There are beavers and river otters that can be spotted in the morning and evening. There are at least 3 bald eagles that make the forest around the lake their home. Every weekend I can see folks on boats and in canoes, kayaks, and even paddleboards enjoying what the lake has to offer.

Even so, the dark color of the lake allows it to absorb sunlight in the summer and warm to temperatures that promote toxic algae blooms that make the water unsafe to swim in and even the air unsafe to breathe.

Any step to relax the discharge standards or testing requirements is a step in the wrong direction. I still have some hope that one day the Pigeon River will be as clear downstream of Canton as it is upstream of the factory and that the lake will clear up as well - making it even more of a destination for folks who are willing to use the public access portage or the private boat ramp that my neighbors maintain. But that will never happen if we take a step backwards and allow Blue Ridge Paper Products to increase the temperature and color of their discharge and relax the testing standards as proposed by the new permit.

Thanks for listening,

Jon Larimer

White Oak Twp, NC

**From:** [Perrin Anderson](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Cc:** [cottinger@cockecounty.net](mailto:cottinger@cockecounty.net)  
**Subject:** [External] Sevier County opposes lessening of current color variance standards of the Pigeon River  
**Date:** Wednesday, April 21, 2021 11:23:19 AM

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From Sevier County Mayor Larry Waters:

**Sevier County opposes any lessening of the current standards concerning the color variance of the Pigeon River. We believe a change would be a detriment to our citizens, visitors, and the region's economic prosperity.**

Sincerely,

Perrin Anderson  
Sevier County Asst. Mayor for Governmental Affairs  
865.774.3643  
[www.seviercountyttn.org](http://www.seviercountyttn.org)



This communication is intended by the sender and proper recipient(s) to be confidential, intended only for the appropriate recipient(s), and may contain information that is confidential or proprietary. If you are not the intended recipient(s), the dissemination, distribution, or copying of this message is strictly prohibited. If you receive this message in error or are not the proper recipient(s), please notify the sender at either the email address or telephone number above and delete the email from your computer or return the fax to the sender. Thank you.

**From:** [Dick Crites](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products, NC #0000272  
**Date:** Thursday, April 22, 2021 3:29:45 AM

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The renewal of NPDES Permit [#NC0000272](#) with the removal of the color variance **MUST BE DENIED!** It is degrading the quality of Pigeon River and the ecosystem that it provides.

Richard "LOMEG" Crites

**From:** [Gary Kollman](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Cc:** [Mary P; T Price](#)  
**Subject:** [External] Blue Ridge Paper Products NPDES Permit Renewal  
**Date:** Friday, April 23, 2021 9:12:43 AM  
**Attachments:** [NCDEO canton NC Permit Comments submit.docx](#)

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Please review and respond to the comments contained in the attached file. We look forward to reviewing your responses to these comments, and others submitted. Please do not hesitate to contact me with questions, or need for clarification. Thanks for your time.

Best Regards,

Gary D. Kollman  
Environmental Review, Inc.  
[garykollman@comcast.net](mailto:garykollman@comcast.net)

April 22, 2021

Submittal of Comments Relative to the Following Project:

Draft NPDES Wastewater Discharge Permit #NC0000272 for Blue Ridge Pulp Mill, Canton, NC, with proposed removal of color variance and continuing use of Temperature Variance.

Comments:

## **NCDEC Fact Sheet for Draft Permit**

INSTREAM MONITORING, Page 4. Figure 1. I find this map very difficult to read for many reasons. The symbols for the USGS sites and NPDES dischargers are difficult to see. The one label that is different than the rest has the text cut off. Indicating downstream direction would be useful. It would also be useful to mark where the water treatment and paper mill locations are themselves, maybe in its own zoomed in section of the map.

## **Draft Permit**

Part I

A1-A3. Pages 4-9. Effluent Limitations and Monitoring Requirements

There looks to be 5 locations for monitoring: influent; effluent; the Pigeon River; and two other effluents of wastewater before entering the wastewater treatment plants. This does not seem to be enough locations, and, in some cases, not enough sampling frequency. What is the justification for those that are only tested quarterly and annually?

A5. Page 11. Instream Monitoring Special Condition

There are more sampling sites within Pigeon River for the special condition, what is the special condition? Is it relevant to Dioxin Monitoring?

A8. Pages 16,17. Requirements for Color Analysis and Compliance Special Condition

The pounds of true color are calculated for this permit only. Is there no standard otherwise? I believe 39 FR 430.11 is incorrectly referenced.

A9. Page 17. Dioxin Monitoring Special Condition

Dioxin has historically been an issue in this watershed. What is the justification for only annual monitoring? What are the monitoring requirements should other permit condition indices (e.g., fish tissue TCDD levels) exceed permit limits?

A10. Page 18. Dissolved Oxygen Special Condition

Are the oxygen injection facilities already in use, and do they help with maintaining a good dissolved oxygen level? It is suggested that DO be measured closer to the facility and downstream past milemark 57.7. It is recommended that DO be measured in more than two

locations so as to more complete data relative to the plant's impacts on the Pigeon River dissolved oxygen levels.

A11. Page 18. Town of Canton Inflow and Infiltration Special Condition

What efforts are being done to decrease the amount of inflow/infiltration into the Town of Canton? Should specific metrics be required to meet this condition?

A. (12.) Page 18. Clean Water Act Section 316(a) Thermal Variance

The renewed permit will continue the temperature variances approved for the 2010 Permit. During the last permit renewal, the variance requirements were changed and the temperature difference between upstream and downstream monitoring locations ( $\Delta T$ ) was reduced from 13.9°C to 8.5°C . What was the scientific reason for allowing this anthropogenic temperature increase.? The biological diversity and overall health of the Pigeon River has significantly improved over the last 10 years. It is proposed that the  $\Delta T$  Permit Variance be further decreased so as to provide steam conditions even more satisfactory to further support macroinvertebrate and fish species that appear to be recovering.

Thank you for considering our comments on this draft permit.

Regards,

Mary Plauche, MSc.

Gary D. Kollman

Environmental Review, Inc.

**From:** [Tracy Hildreth](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products, NC #0000272  
**Date:** Sunday, April 25, 2021 7:48:35 PM

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To Whom It May Concern,

The renewal of NPDES Permit #NC0000272 with the removal of the color variance MUST be denied and amended to better reflect the values of the CWA. This permit should be offering greater protection of water quality to show measured improvements in the wastewater pollution discharge.

Blue Ridge Paper Products Inc. has requested renewal of their National Pollutant Discharge Elimination System (NPDES) discharge permit NC0000272 allowing discharge of industrial, stormwater, municipal and landfill leachate wastewaters to waters of the state. This fact sheet summarizes the rationale used to develop the limits and monitoring conditions for the draft permit. North Carolina Division of Water Resources (Division) also recommends renewal of the temperature variance and deletion of the color variance.

Here is a list of reasons why the permit must be amended;

- The permit allows Blue Ridge Paper to simply collect and monitor their own data such as conductivity, temperature, and dissolved oxygen.
- The draft permit allows for more toxic pollution to the Pigeon River.
- In addition, Blue Ridge Paper submitted the latest Balanced and Indigenous Species Study on the Pigeon River in 2012.
- The regulations they adhere to for pollutants, discharge, and more, are from standards set primarily in the 1980's and 1990's THIS IS NOT ACCEPTABLE!
- Chloroform is dangerous!
- The effluent levels have not been lowered since the 2010 permit.

***We demand regulations and permits are consistent with the Clean Water Act, that monitoring and data collection be performed by an independent body from Blue Ridge Paper, and that the color variance continue to be required!***

A concerned resident,  
Tracy Hildreth-Deese

***"Rule .303 - If you have the means at hand, you have the responsibility to act."***

- Beau of the Fifth Column

**From:** [John Ortt](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] oppose lifting restrictions for color variant into pigeon river  
**Date:** Monday, April 26, 2021 6:00:06 PM

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To whom it may concern,

My name is John Ortt and I am a resident and business manager of a rafting outpost on the pigeon river in Hartford TN. I strongly oppose the lifting of restrictions on the color variant discharged into the pigeon. Over my 17 years of working on the river I have seen the river quality drastically improve. We have seen fish species return to the river as well as many mammals such as otters and beavers. All of these improvements happened while blue ridge paper had a plant operating up stream. This shows that we can coexist. As a business manager I am fully aware of the bottom line and the needs to make profit, but when making profit comes in front of the wellbeing of the people and ecosystems downstream we should rethink our priorities.

If you take anything away from this please understand that I am not asking for the closure of evergreen papermill. I'm only asking for us not to go backwards especially in a time where our global eco system is so fragile.

Thank you for consideration  
John Ortt

*NOC Pigeon Outpost Manager*  
3485 Hartford rd  
Hartford TN  
37753  
[John.ortt@noc.com](mailto:John.ortt@noc.com)  
[www.noc.com](http://www.noc.com)

**From:** [Jonathon Burr](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Cc:** [Jennifer Dodd](#); [Greg Young](#)  
**Subject:** [External] FW: Blue Ridge formal comment letter  
**Date:** Tuesday, April 27, 2021 9:34:51 AM  
**Attachments:** [image001.png](#)  
[Blue Ridge formal comments.pdf](#)

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To our colleagues in North Carolina:

Please receive these comments from Tennessee Dept of Environment and Conservation on draft NPDES permit NC0000272 Blue Ridge Paper Products Inc/Evergreen Packaging in Canton, NC.

Thank you for your consideration - JEB

---

**From:** Jennifer Dodd <[Jennifer.Dodd@tn.gov](mailto:Jennifer.Dodd@tn.gov)>  
**Sent:** Monday, April 26, 2021 9:43 PM  
**To:** Drake Smarch <[Drake.Smarch@tn.gov](mailto:Drake.Smarch@tn.gov)>  
**Cc:** Jonathon Burr <[Jonathon.Burr@tn.gov](mailto:Jonathon.Burr@tn.gov)>; Greg Young <[Greg.Young@tn.gov](mailto:Greg.Young@tn.gov)>; Michael Atchley <[Michael.Atchley@tn.gov](mailto:Michael.Atchley@tn.gov)>; John LeCroy <[John.LeCroy@tn.gov](mailto:John.LeCroy@tn.gov)>  
**Subject:** Blue Ridge formal comment letter

Drake,  
Will you please mail a hard copy of this letter Tuesday morning.

Jonathon,  
I'm guessing we can submit this electronically also. Please submit it electronically if possible, and feel free to email it to those that requested a copy.

Jenny



**Jennifer Dodd** | Director  
Division of Water Resources  
William R. Snodgrass TN Tower, 11<sup>th</sup> Floor  
312 Rosa L. Parks Ave, Nashville, TN 37243  
615-532-0643  
[jennifer.dodd@tn.gov](mailto:jennifer.dodd@tn.gov)  
[tn.gov/environment](http://tn.gov/environment)



STATE OF TENNESSEE  
DEPARTMENT OF ENVIRONMENT AND CONSERVATION  
**DIVISION OF WATER RESOURCES**  
William R. Snodgrass Tennessee Tower  
312 Rosa L. Parks Avenue, 11th Floor  
Nashville, Tennessee 37243

April 27, 2021

Wastewater Permitting  
Attn: Blue Ridge Paper Products Permit  
1617 Mail Service Center  
Raleigh, NC 27699-1617

Re: Draft NPDES Permit NC0000272, Blue Ridge Paper Products  
Comments – Tennessee Department of Environment and Conservation (TDEC)

To our colleagues at NCDEQ:

Tennessee has worked collaboratively with North Carolina and EPA for many years to improve the quality of the Pigeon River and we are pleased that this partnership has resulted in significant reductions in color between 1990 and 2005. Changes at the mill during that timeframe have improved the ecology of the Tennessee portion of the river and increased recreational opportunities for both Tennesseans and visitors. These visitor opportunities have helped the economy of one of the most economically depressed counties in Tennessee. Nonetheless, additional improvements are needed.

When Tennessee entered into a partnership with North Carolina and EPA in the 1980s, we accepted the idea of incremental progress towards clean water goals in the Pigeon River. However, it appears to us that incremental progress is no longer being made, as demonstrated by the last two permit cycles. Rather than continue historic progress, the new draft permit perpetuates existing water quality impairments and proposes to declare success by lifting the variance.

Please accept these formal comments from TDEC-DWR on the Blue Ridge NPDES draft permit and the proposed removal of the existing color variance. We appreciate the opportunity to provide our thoughts regarding these topics.

The Draft Permit

Section A(8.) Requirements for Color Analysis and Compliance Special Conditions

TDEC appreciates and supports the reopener clause in item #4 of this section, allowing for the permit to be modified if improvements in color removal technology were to be made available. The related

language in item #7 requiring the permittee to conduct a technical review of color removal technologies once during every permit cycle and provide a report to the DEQ is also appreciated. According to the permit fact sheet, a comprehensive review of color removal was last conducted in 2006. If this is correct another such review is overdue.

TDEC is also supportive of item #6 in this section, avoiding major maintenance outages during the months of June thru September to minimize color during peak recreational use and lowest river flow. Our records indicate that lowest flows often occur in September – November, not necessarily coinciding with highest recreational use. Low river flows can also occur unpredictably at other times of the year.

TDEC requests that this language be strengthened if possible, to avoid major outages during months of highest recreational use AND periods of low river flow near or below the 30Q5. If such major outages must be planned well in advance of known low flows, then TDEC would favor including October in the months to be avoided as well.

#### Section A(9.) Dioxin Monitoring Special Condition

This section and page 4 of the Fact Sheet state that under this draft the fish tissue sampling requirement will be reduced to one event every 5 years, with an additional sampling event required if a TEQ exceedance is noted. TDEC is supportive of this change. The dramatic reduction of dioxins in both the effluent and Pigeon River fish tissue has been one of the most successful aspects of the mill modernization, and less frequent fish tissue monitoring at this point is appropriate. However, it appears that the last fish tissue monitoring was conducted in 2014. If so, TDEC requests that the new permit specify that the next fish tissue monitoring effort be conducted in the first year of the new permit. If not, it could conceivably be over 11 years between monitoring efforts, an unacceptably long interval.

#### Section A(13.) Electronic Reporting of Discharge Monitoring Reports

TDEC requests that a requirement be added to this section for the permittee to additionally submit monthly DMRs to the following email addresses: [Jonathon.Burr@tn.gov](mailto:Jonathon.Burr@tn.gov) and [Richard.Cochran@tn.gov](mailto:Richard.Cochran@tn.gov).

Tennessee disagrees with several broader aspects of the draft permit.

1. Lack of progress towards clean water. The annual average, monthly average, and daily maximum color limits in this draft remain essentially the same as the previous NPDES permit. In the permit fact sheet, North Carolina suggests that since these limits were agreed to by the Technology Review Workgroup (TRW) as part of the 2010 permit renewal process, these agreed-to limits would be carried over to the draft 2020 permit. We agree that Tennessee was represented in this earlier process, but did not envision that these limits should be in place in all future permits or that the TRW would not meet again in the future.

In EPA's 2010 comments regarding the previous draft Blue Ridge permit, they stated, "The TRW has historically performed a valuable function in assessing color reduction efforts at the Mill and providing recommendations to the DWQ. We recommend that the permit include a provision

ensuring that the TRW will assess color reduction technologies and provide recommendations to DWQ at the end of this next permit term.”

There is no mention we could see of the TRW in the new draft permit and we do not believe the group met during the previous permit period, which gives the appearance that North Carolina considers that effort to have ended twelve years ago. If true, Tennessee does not consider this to be in the spirit of the original partnership. At a minimum, evaluation of new color removal technologies should be shared with EPA and TDEC.

Beyond the work of the TRW, North Carolina’s Water Quality Standards in 15A NCAC 02B .0203 state:

*Water quality based effluent limitations and management practices for direct or indirect discharges of waste or for other sources of water pollution shall be developed by the Division such that the water quality standards and best usage of receiving waters and all downstream waters will not be impaired.*

North Carolina apparently justifies the absence of additional color removal requirements in the draft permit on the basis that North Carolina now feels that the water quality standard in North Carolina is being met. Even if this was true in North Carolina, the water quality standard is not being met in Tennessee. Thus, the permit does not comply with the rule cited in the previous paragraph since all downstream waters are not currently protected.

2. Different interpretations of water quality standards. We recognize North Carolina’s right to interpret its water quality criteria and assess its streams. However, there are clear contrasts in water quality criteria and interpretations between North Carolina and Tennessee.

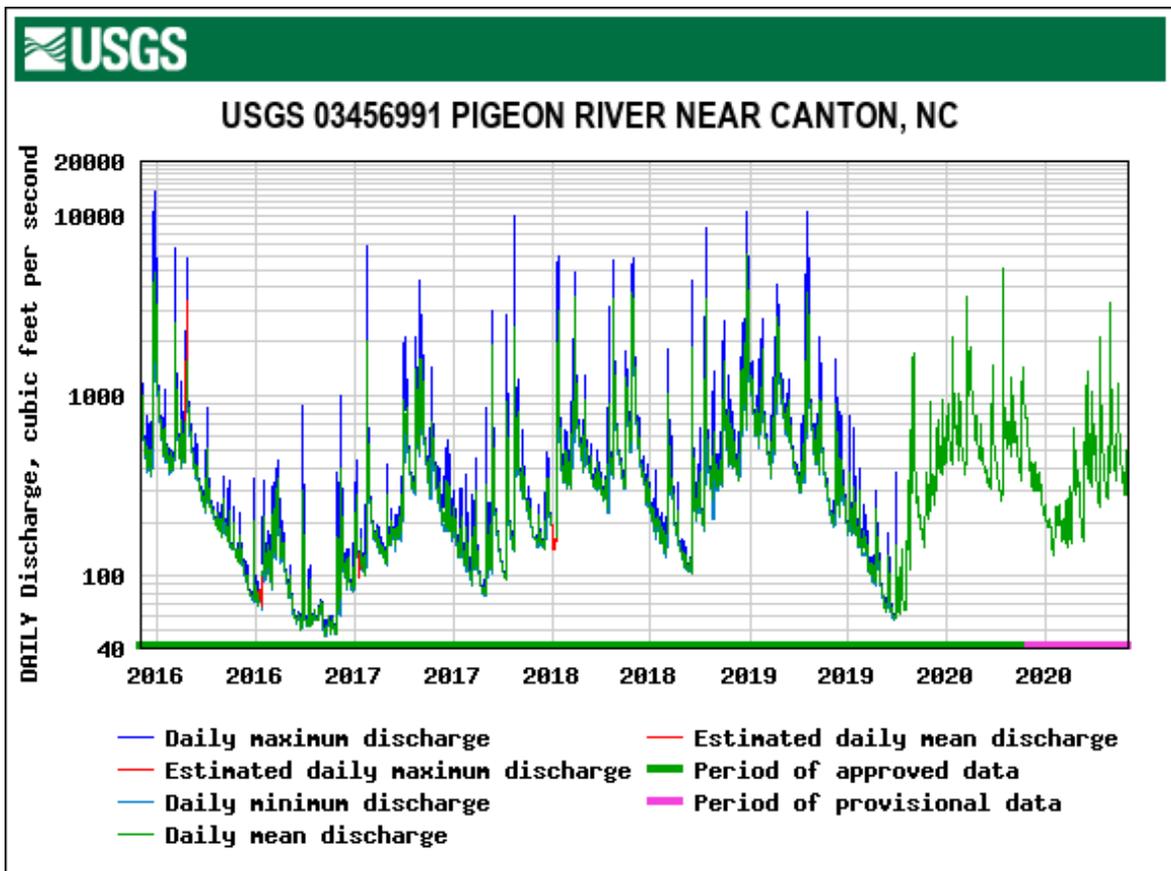
Regarding color, in the permit rationale North Carolina distances itself from the 50 true color criterion originally favored by EPA. In fact, the rationale suggests that North Carolina’s interpretation is much higher, but does not state what it is. We consider that debate to be between EPA and North Carolina, as long as it is recognized that even 50 true color units is higher than Tennessee’s interpretation of the color criterion in a Blue Ridge stream.

It is important to note that Tennessee agreed to 50 color units as an initial Pigeon River improvement target but never agreed that it represented our water quality criterion.

3. “Objectionable” color is an instantaneous perception by the public. TDEC therefore recommends that the color limits be based upon individual monthly averages with the application of an instantaneous daily maximum limit.
4. The flow basis for limits. According to the draft permit, the average concentration limit is only based on “flow equal to or greater than the 30Q2 of 129 cfs.” Tennessee has two significant issues with this approach.

The first is the generous interpretation of the 30Q2 flow. In the rationale, it is noted that 89.8 cfs is the actual 30Q2, not 129 cfs. The text notes that North Carolina has the flexibility to choose a different 30Q2 based on models approved by EPA, but the link provided in the text leads to the EPA criteria table rather than a discussion of models. TDEC requests additional explanation of this modeling approach used to derive an alternative flow basis that is 50 cfs higher than the actual 30Q2 in a stream that has frequent low flows.

Below are the USGS flow data for the Pigeon River at Canton for the last five years.

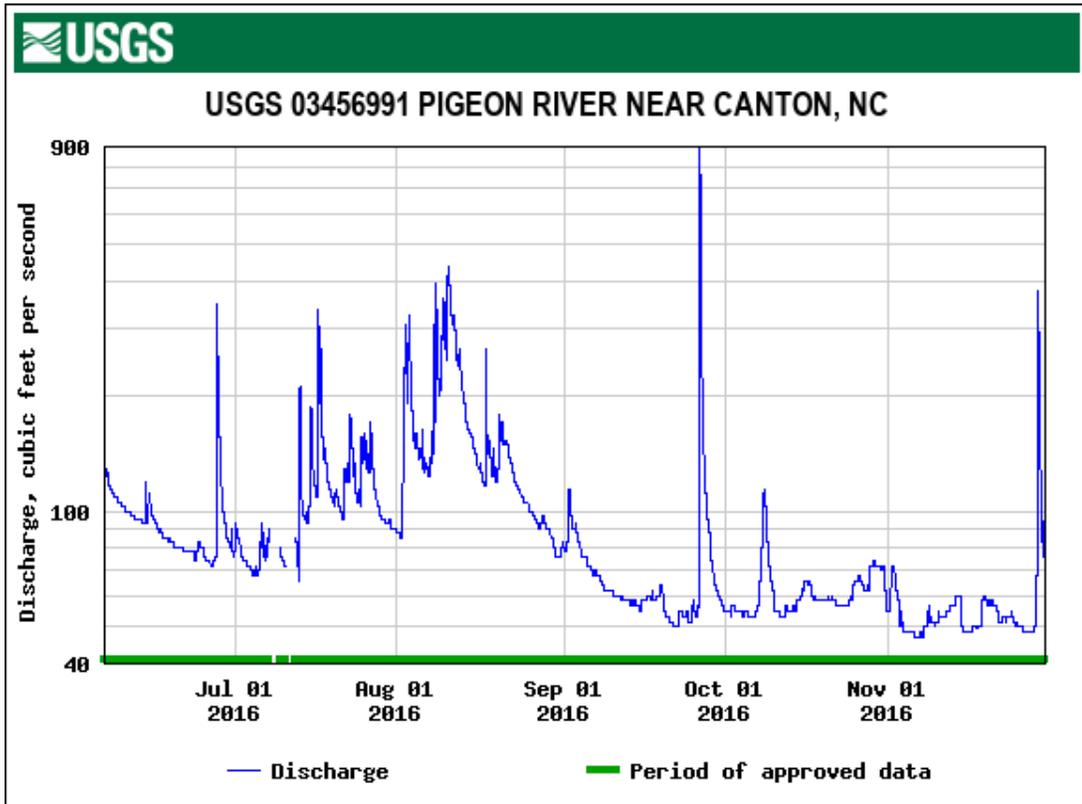


Only in the very wet year of 2020 did flows not go well below 129 cfs, and in several years, flows were lower than 129 cfs on a prolonged basis. Color limits should be based on the true 30Q2 for this stream and we ask that EPA carefully review this provision.

Secondly and more critically, the permit seems to imply that the criterion does not apply if flows are below the 30Q2. Criteria in Tennessee apply at all flows and it is this provision in the Blue Ridge permit that directly contributes to the objectionable color levels often noted in Tennessee at summer and fall low flows. As long as the permit disregards color contributions into the river at flows below 129 cfs, the water quality criterion in Tennessee will continue to be violated.

As an example of the magnitude of this issue, here are the Pigeon flows in the summer of 2016 as

measured at the USGS gage.



This graph illustrates how long Pigeon flows were below 129 cfs between June and late November of that year. As we understand the draft permit, color levels in the river during these low flows are not included in calculations of permit compliance. It is difficult for us to see how this provision adequately protects water quality in North Carolina or Tennessee.

It is clear that there were substantial periods of time in which the monthly average color limits did not apply. Data collected at the NC/TN border shows that color in the Tennessee portion of the river was most objectionable during these low flow periods. The draft permit perpetuates this downstream condition. The establishment of an extreme drought condition flow level below which color exceedances will not be considered permit violations may be defensible, however flows below 129 cfs do not represent rare or unusual conditions but are relatively common.

Note: In one of the support documents, North Carolina referenced the Bowater permit (now Resolute permit) in Tennessee as another example of a permit that allowed a similar provision regarding color as does the Blue Ridge permit. The Resolute permit for the discharge of color into the Hiwassee River, a much larger river in a different ecoregion than the Pigeon, is different in two notable ways. First, the amount of color change compared to an upstream point is lower than 50 true color units. Secondly, color limits apply at all flows, unlike the Blue Ridge permit.

## Removal of the Color Variance

It is clear that the annual average, monthly average, and daily maximum color limits in this draft remain the same as the previous NPDES permit. We acknowledge that the removal of the variance is a water quality standards issue to be decided between North Carolina and EPA.

However, TDEC disagrees with the technical basis for removal of the variance as stated in the NPDES Fact Sheet (pages 10-12) and in the appended "Reevaluation Rationale." The explicit or tacit acceptance of this rationale by EPA would create dangerous precedents for all NPDES programs in the interpretation of color standards, and perhaps other water quality standards as well.

The proper basis for lifting the variance would seem to be that it is no longer needed because the water quality criterion for color is no longer being violated. Tennessee does not believe North Carolina has met the burden of proof needed to demonstrate this point. North Carolina's position appears to be that the color criterion is being met because:

1. The draft permit is protective. As stated previously, the permit's reliance on monthly averages of only certain data, use of an extremely generous low-flow basis to derive limits, combined with the permit's disregard for color levels in the river both in North Carolina and Tennessee when flows are less than 129 cfs, makes it very difficult for us to concede that point.
2. Interpretation of criteria. As stated previously, North Carolina's handling of flow in the permit gives the appearance that the agency believes the color criterion does not apply if the flow is below the 30Q2 flow. If that is the case, we do not agree with either that interpretation of criteria or that the variance should be removed on that basis.
3. Noncompliance with existing permit. EPA's ECHO database indicates that Blue Ridge is not in compliance with its permit, but it does not provide any information on specific violations. Additionally, the permit fact sheet acknowledges noncompliance with color limits. TDEC requests specific compliance data covering the past permit cycle. Is this noncompliance due to violations of permit limits or is it related to other compliance issues such as failure to submit reports? In our view, even if the permit were protective, noncompliance would erode the argument that the water quality standard is currently being met.
4. Recreational use is not impacted by color. The rationale cites increased recreation in the Tennessee portion of the river as partial justification for removing the variance in the North Carolina part of the river. Nonetheless, the color of the Pigeon River in Tennessee is still found objectionable by citizens in the area and continues to be on the Tennessee 303(d) list due to color.
5. Aquatic life is not being impacted by color. This may be true, but has it been demonstrated? The Pigeon River is listed on North Carolina's 2018 303(d) List as impaired. The permit rationale states that the documented aquatic life impacts are likely due to other pollutants. A more detailed discussion of the biological data including direct comparisons to upstream or reference conditions is requested. We understand that a University of Tennessee study concluded that the river near Canton supported a

“Balanced and Indigenous” aquatic life population, as required by its 316(a) temperature variance, but North Carolina lists the river in the same segment as impaired for aquatic life support.

TDEC disagrees with the practice of averaging annual color values as a method of comparison to color standards. The rationale on page 11 of the Fact Sheet states that since the average of all color data points from 2014-2018 during all flow conditions is 41 color units, “long-term compliance” of the NC color standard has been met. The practice of averaging values with such a wide range allows instream values to often exceed the water quality standard by a considerable margin.

The Fact Sheet also states on page 11 that the average of true color at the Tennessee state line over the same period is 21 color units. TDEC acknowledges that exceedances of our narrative color standard at the border are not continuous but occur for the most part during lower river flows. Averaging high flow winter/spring color values in with the lower flow values obscures the fact that true color in the Tennessee portion of the Pigeon is sometimes measured in the 30-40 color unit range.

It was EPA’s position just a few years ago that there was insufficient basis for removing the color variance. Given that there have been no significant changes in the color discharge or the condition of the river since that time, on what basis would EPA consider removing the variance now?

In closing, TDEC does not dispute that the performance of the mill is among the best in the world and recognizes the difficulties of operating a mill of this size and complexity on a small Blue Ridge river. There is also no doubt that Tennessee has enjoyed significant improvements in water quality, ecological recovery, and recreational opportunities from the mill modernization. However, 40 CFR 122.4(d) states that no permit may be issued “when the imposition of conditions cannot ensure compliance with the applicable water quality requirements of all affected states.” The upper 5 miles of the Pigeon River in Tennessee (TN06010106-001\_4000) remain listed as recreationally impaired due to color from sources outside state borders, based upon occasional high color values observed at lower river flows. This listing and Tennessee’s interpretation of its narrative color standard will not change if EPA chooses to accept removal of the color variance in North Carolina.

We appreciate the opportunity to comment on the permit.

Sincerely,



Jennifer Dodd  
Director  
Tennessee Division of Water Resources

**From:** [Kevin Colburn](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Tuesday, April 27, 2021 3:41:14 PM  
**Attachments:** [2021 AW Pigeon WQ Permit Comments.pdf](#)

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Please accept the attached comments on Blue Ridge Paper (National Pollutant Discharge Elimination System (NPDES) discharge permit NC0000272)

Thanks!

Kevin Colburn  
National Stewardship Director  
American Whitewater  
[kevin@americanwhitewater.org](mailto:kevin@americanwhitewater.org)  
828-712-4825  
[Join American Whitewater!](#)



Kevin Colburn  
National Stewardship Director  
P.O. Box 1540  
Cullowhee, NC 28723  
828-712-4825

[www.americanwhitewater.org](http://www.americanwhitewater.org)  
[kevin@americanwhitewater.org](mailto:kevin@americanwhitewater.org)

April 27, 2021

Re: Comments on Blue Ridge Paper (National Pollutant Discharge Elimination System (NPDES) discharge permit NC0000272)

Dear NCDEQ,

American Whitewater is a national non-profit 501(c)(3) river conservation organization founded in 1954. We have over 6,200 members and 100 local-based affiliate clubs, representing approximately 80,000 whitewater paddlers across the nation. American Whitewater's mission is to protect and restore America's whitewater rivers and to enhance opportunities to enjoy them safely. The Pigeon River is one of the most popular paddling rivers in the Southeast and the nation thanks to regular summer dam releases, fun rapids, and improved water quality.

As recently as the 1990's the dark brown water of the Pigeon River burned paddlers' eyes and caused infection and other concerns. Brown foam was common. Many people would not paddle the Pigeon for fear of chemical poisoning impacts and because color, odor, and other water quality elements diminished the paddling experience. Since that time much progress has been made, with ample credit due to Blue Ridge Paper, state regulators, and public river advocates.

The result of water quality improvements is now a river that according to American Outdoors was the most rafted river nationwide in 2020. Pandemic aside, the recreational use has ballooned in recent years on the Pigeon, despite rafting trends elsewhere falling. Western North Carolina has a burgeoning whitewater gear building industry in part because of the Pigeon River, and a game-changing whitewater rafting economy in East Tennessee is based on the Pigeon. Smallmouth bass fishing has also picked up to the point that the river supports professionally guided fishing trips. The Pigeon River has long been a working river, and now it is working for more people.

With all of this said, the river is still obviously impaired. Fecal coliform levels and algal blooms occasionally threaten public health, temperature impacts can harm fish, dioxin remains in sediment and fish tissue, the water remains stained brown, and like nearly all inhabited river basins the risks of polyfluoroalkyl substances (PFAS) are becoming more clear. These impairments continue to threaten public and environmental health and diminish the beneficial uses of paddling, fishing, and swimming.

Paddlers ingest Pigeon River water. When we flip and get splashed the water enters our bodies through our ears, nose, mouth, eyes, and any cuts we may have. Over even a single day, this can add up to be a significant amount of water. Because of this fact, American Whitewater requests that progress continue to be made toward a clean and healthy Pigeon River that fully supports its beneficial uses. In practice this means the issuance of a new permit that is certainly no less protective than the prior permit, and that requires and inspires ongoing improvements.

### Color

Part of the proposed new permit would remove the color variance, essentially finding that the color of the river is normal and acceptable. It is not. The water is stained brown - more so than any other regional river. This fact is obvious to paddlers who travel around the region paddling rivers flowing through a wide array of watersheds. Color matters - no one wants to drink brown tap water or swim in a brown pool - yet that is what paddlers must do to enjoy the Pigeon River. Importantly, the color studies cited in the permit documents likely were not based on surveys of people who regularly immersed themselves in rivers or who drink/ingest the river water in question via recreation. Also, these studies are 25-30 years old, when perceptions and expectations of river quality were likely different. Color is an indication of impurities in the water which rightly concern river recreationists. For us, river water is drinking water, so color is not just an aesthetic consideration to be left to casual observers 30 years ago to decide. The mill operations significantly change the color of the water, and improvements should continue to be a goal. While we wholeheartedly appreciate the improvements made to improve the color impacts on the Pigeon River thus far, a variance should be maintained.

### Fecal Coliform

The mill treats the town's sewage along with the mill's waste, and there have been a number of instances in which there have been bacteria levels released that violate state standards. The new permit should strive to prevent these releases given the large number of people enjoying the river downstream. This issue is certainly not unique to the mill, but as more people are getting outside and enjoying Western North Carolina's and Tennessee's rivers, releases of dangerous levels of bacteria pose a real public health threat, and an economic impact, and should be avoided to the extent possible.

### Dioxin

Perhaps no chemical pollutant is as notorious in the Pigeon River as dioxin, a dangerous carcinogen that is still present in fish tissues. Fish tissue should be regularly tested and those tests should not be reduced in the new permit.

### Water Temperature

Paddlers know that warm waters are not as healthy, especially for fish, and the new permit should reduce the temperature fluctuations allowed by mill discharges. Average temperatures are simply not relevant to aquatic life, any more so than average flows are relevant to assessing flood risks. The biological impacts occur based on instantaneous temperature spikes (not average), something that is routinely measured by USGS gages and other instrumentation. We suggest continuous temperature monitoring.

#### Polyfluoroalkyl Substances (PFAS)

Toxic pollutants called polyfluoroalkyl substances (PFAS) do not biodegrade, often persist in organisms, and pose significant health concerns. The more scientists learn about PSAS the more clear it becomes that chemicals that produce PFAS should be tracked and when possible not discharged into waterways. We request analysis and protections regarding PFAS in the new permit.

Thank you for considering these comments and the interests of the tens of thousands of people who immerse themselves in the pigeon river while paddling each year. We are hopeful that Blue Ridge Paper can continue it's progress toward a healthy Pigeon River.

Sincerely,



---

Kevin Colburn  
National Stewardship Director  
American Whitewater  
PO Box 1540  
Cullowhee, NC 28723  
828.712.4825  
kevin@americanwhitewater.org

**From:** [Don Safer](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Cc:** [Jennifer.dodd@tn.gov](mailto:Jennifer.dodd@tn.gov)  
**Subject:** [External] FW: Blue Ridge Paper Products  
**Date:** Tuesday, April 27, 2021 5:01:19 PM  
**Attachments:** [Blue Ridge Paper Comments 4-5.pdf](#)

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The Tennessee Scenic Rivers Association (TSRA) and 13 co-signing groups or businesses respectfully submit the attached comments for the Blue Ridge Paper Products NPDES Wastewater Discharge Permit #NC0000272.

Please let me know as soon as possible that you have received these comments.

Thank you,  
Don Safer  
TSRA Board Member

Sent via [publiccomments@ncdenr.com](mailto:publiccomments@ncdenr.com)

April 27, 2021

North Carolina Department of Environmental Quality  
2090 U.S. 70 Highway  
Swannanoa, North Carolina 28778-8211

**RE: BLUE RIDGE PAPER: Permit Number: NC0000272**

To Whom it May Concern:

In response to your request for public comments concerning the draft NPDES permit for the above reference applicant, the Tennessee Scenic Rivers Association offers the following. In addition, the organizations and businesses listed at the end of these comments sign on and support these comments.

The Tennessee Scenic Rivers Association (TSRA) is a paddling organization based in Nashville, Tennessee. Protecting clean water and free-flowing rivers in Tennessee is one of TSRA's core missions. We represent approximately 600 members interested in paddling rivers, cleaning up waterways, and generally protecting this vital resource within our state. Many of our members paddle sections of the Pigeon River downstream from Waterville, North Carolina to and beyond Hartford, Tennessee.

Since the Pigeon River flows into Tennessee from North Carolina, our organization is keenly interested of upstream discharges into the river that may affect its water quality. It is our organization's opinion some of the changes to the Blue Ridge Paper draft NPDES permit will negatively impact the water quality of the river in Tennessee.

Below are our comments:

1. Color Variance

TSRA believes color is still objectionable in the Pigeon River in Tennessee. Unfortunately, the draft permit proposes to eliminate the color variance. As stated in "Conclusions/Recommendations" in the History of NPDES Permit for Blue Ridge Paper, LLC, document, based in part on "the increased use of the river for recreational purpose[s], and facility requested removal of the Color Variance applicable to their permit," the color variance would be discontinued. The Division believes that "the facility has achieved compliance with the intention of the NC narrative water quality standard at 1A-NCAC-02B-.0211 and is no longer eligible to continue the variance."

Ironically, North Carolina submits that the success of the color variance is grounds for eliminating it, ignoring that additional improvement can and should be achieved. The color variance has been the foundation for the continued health and environmental improvement of the river over many years and there is continued necessity for the variance. Removal of the color variance will simply kneecap the river's further progress. It appears North Carolina has declared victory and gone home when the battle is not yet won.

The NCEQ has a regulatory, fiduciary duty to protect the Pigeon River and the proposed color variance removal will retard rather than enhance the water quality parameter for color. The Division's rationale itself notes that EPA translated a narrative standard to a numeric value for the Pigeon River in the early 1980's, determining "an instream standard of 50 PCU (platinum-Cobalt units)." The Division's rationale recognizes that "in absence of acceptable site-specific color perception studies, North Carolina DEQ is forced to use 50 PCU as the de facto instream color standard" (emphasis in original). The Division's proposal contradicts the "de facto instream color standard" that its rationale recognizes and abrogates EPA's color standard. This would be legally questionable. It is by utilization of the 50 PCU standard that there has been such remarkable success in cleaning up the Pigeon River over the past several decades. The color standard has acted as a safeguard and catalyst for the progress. **If this mill is to keep discharging, the color variance continues to be required under rules of the Clean Water Act and so should not be removed.**

2. The existing NPDES permit for this facility was issued in May 2010. Federal regulations require these types of permits shall be reviewed and reissued at five (5) year intervals. An eleven (11) year interval for review and public comment of this permit is not acceptable. **This delay in reissuance has not allowed for the public to make timely comments about the allowable discharges from Blue Ridge Paper Mill.**
3. The 2010 NPDES permit calls for the papermill to submit reports to the State of North Carolina detailing any spills associated with color within the plant or proposed improvements at the facility. **We respectfully request copies of these reports for review and the required investigation of improved color removal technology that was to be conducted once during the term of the permit.**
4. The draft permit calls for an increase in withdrawal from the Pigeon River at the plant from 29.9 mgd to 34 mgd. The summer 7Q10 at this location is 52 cfs (34

mgd). The Town of Canton's water treatment plant can process up to 4.0 mgd. This permit would allow the plant and Town to withdraw the entire flow from the river during low flow conditions before discharging treated wastewater back into the stream. **This increase in flow withdrawal should not be permitted.**

5. The proposed permit does not include maximum allowable concentrations for BOD5, total suspended solids, total nitrogen and total phosphorus. **This permit should include these values in order to continue to protect the health of the Pigeon River.**

We appreciate your consideration of our comments. If you have any questions or need additional information, please do not hesitate to contact us.

Sincerely,

**TENNESSEE SCENIC RIVERS ASSOCIATION**

Sallie Barr, President

Cc: Ms. Jennifer Dodd, Division of Water Resources, TDEC  
U.S. Environmental Protection Agency, Region IV

The following organizations and businesses sign on to these comments:

American Canoe Association  
Andrea White  
State Director for Tennessee

ACE Kayaking School  
Joe Gudger and Morgan Cox, Owners  
Ocoee, TN

Appalachian Paddling Enthusiasts  
Jerry Smith, President  
Johnson City, TN

Beaver Creek Kayak Club  
Charlie Austin, President  
Knoxville, TN

Bluff City Canoe Club  
Paul Beebe, President  
Memphis, TN

Chota Canoe Club  
David McConnell, President  
Knoxville, TN

East Tennessee Whitewater Club  
Tina Owens, President  
Oak Ridge, TN

Harpeth Conservancy  
Jim Redwine, Vice President and COO  
Brentwood, TN

Nolichucky Outdoor Learning Institute  
Scott Fisher, Founder  
Erwin, TN

Tennessee Citizens for Wilderness Planning  
Mark Bevelhimer, President  
Knoxville, TN

Tennessee Environmental Council  
Jeffrey Barrie, CEO  
Nashville, TN

Tennessee Valley Canoe Club  
Darren Caputo, President  
Chattanooga, TN

West Tennessee Canoe and Kayak Club  
Daniel Rogers, President  
Humboldt, TN

**From:** [Dorothy Barnes](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Cc:** [dotbarnes@me.com](mailto:dotbarnes@me.com)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Tuesday, April 27, 2021 7:20:01 PM

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**North Carolina Department of Environmental Quality**  
**RE: Blue Ridge Paper 2021 permit 272 regarding pollution discharge to Pigeon River**

April 27, 2021

Dear DEQ Permit Review Committee Members,

These comments are written on behalf of my extended family, cc'd, and myself concerning proposed changes to [NPDES Permit NC0000272](#) regarding pollution discharge into Pigeon River. We East Tennesseans are proud of our Smoky Mountains, nature, and our waterways, but we are highly concerned that if the proposed permit changes are approved, river pollution will increase, affecting aquatic life, recreation, water quality, and industry downstream from the polluting facility.

**We believe that the proposed permit changes are unacceptable as they will likely introduce increased risks to our community and stray too far from the regulatory principles established through the Clean Water Act. We strongly urge you to reject the permit changes for the following reasons:**

**1. Increases in Toxicants**

- a. The permit acknowledges that several toxicant discharge rates were recalculated upwards based on increased production capacity at the facility but that they were to be maintained at current levels to protect the receiving stream. However, the permit increases the amount of CHLOROFORM, a dangerous, toxic, and cancer-causing chemical used by paper companies in the bleaching process but offers no explanation for why this dangerous discharge is acceptable. We feel that it is not acceptable.

**2. Increases in water extraction**

- a. The permit requests a 17% increase of water to be removed from Pigeon River for processing at a time when water reserves across the globe are in jeopardy.

**3. Questionable methods of color testing**

- a. There are problems with how testing of color is being done downstream. Testing is not at point of discharge from plant which allows clean water from mountain streams to mix in with toxic water, thereby likely diluting the toxicity levels. This testing should be done at initial point of discharge into the River NOT miles downstream.

**4. Increased risks to regional economy, local livelihood, recreation, and wellbeing**

- a. Though the State of North Carolina classifies the Pigeon River as a Class C where recreation is secondary and "*includes wading, boating, and other uses involving human body contact with water where such activities take place in an infrequent, unorganized, or incidental manner*", the State of Tennessee classifies the Pigeon River differently and, specifically, notes its use for Recreation purposes, which includes organized, regularly scheduled rafting excursions where there is human body contact with the water. In Cocke County, rafting brings in excess of \$200,000 annually in fees. Like most rivers, The Pigeon River does not recognize political boundaries. It enters Cocke County,

runs through Sevier County before emptying into Douglas Lake. So it is not only Cocke Countians at risk, but the many individuals who use these waters for recreational activities for rafting, fishing, kayaking, and swimming along its entirety.

- b. The professional commercial rafting guides from companies located in Hartford, private boaters, fishermen, kayakers, and swimmers will tell you that they often deal with rashes and reactions to the chemicals that are discharged upstream. Contrary to the rationale presented in the Permit proposal, color is NOT and aesthetic concern. The Pigeon River color varies from light to dark brown, or tea-colored many days and this discoloration is the result of the discharged chemicals.
- c. In the 1980's class action lawsuits, filed in federal court against the paper company, were for property damages with chemical pollution contributing to deaths. Hartford, Tennessee, the first town downstream of the paper company, used to be called "Widowville", due to deaths in the community caused by the River pollution. For example, the EPA checked one family's well where both parents had died from cancers induced by dioxin consumption. Children of that family were told by the EPA to not drink the well water as it was contaminated by dioxin.
- d. The River smells like the acrid papermill all the way to Newport, Tennessee. On non-rafting days, or days of low water flow, the water also has foam as it has for years.

5. **Increased risks to ecology**

- a. The proposed extension of the Temperature Variance notes that the facility is not able to meet the current State of North Carolina temperature requirement. Though the variance has been in place for multiple permitting cycles, the facility should be required to continue to enact ongoing efforts to lower the temperature impact on the river, not maintain an arbitrary status quo put in place many years ago. The temperature variance (Delta T) requirement should be made more stringent with every permitting cycle.

**Finally, the permit change request notes that there have been EIGHTEEN Notices of Violations issued to Evergreen in the last reporting period ranging from fecal coliform limits to toxicant discharge violations. This indicated that more stringent requirements and more strict monitoring is required, not less. NCDEQ should not allow more lenient measures.**

**PLEASE DO NOT ALLOW THE PAPER COMPANY REQUEST FOR LENIENCY TO BE HONORED.**

Respectfully submitted, this 27th day of April, 2021.

Dorothy (Dot) Barnes  
Chuck Smithpeters  
Brummitt and Joyce Smithpeters  
Carl and Felicia Shelton  
Amber Shelton

Sent from my iPad

**From:** [Jim Janney](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Tuesday, April 27, 2021 11:12:23 PM

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Greetings,

While I am not a resident of North Carolina, I live downstream from the Blue Ridge Paper Facility in Knoxville, TN and am a frequent user of the Pigeon River from its headwaters along the Blue Ridge Parkway down to its confluence with the French Broad River just upstream from Douglas Lake. I first paddled the Pigeon River in the summer of 2002 with my Mother and Brother while on a trip to visit local colleges. I've since paddled the Pigeon River with my Father and Wife, and hope to paddle the Pigeon River with my Daughter and future Son (anticipated September 2021). I've paddled most of the sections of the Pigeon River, starting with the headwaters of the Big East Fork, Middle Prong, and West Fork, continuing down to the Hepco stretch which flows into Lake Waterville, as well as below the damn on the Pigeon Dries (the normally dewatered section), the Pigeon Gorge, and the Lower Pigeon below Hartford. In the last year, I've recreated on the waters of the Pigeon River more than 10 times.

Unfortunately, while the other aspects of the river are fantastic throughout, the water quality is dramatically affected at the Blue Ridge Paper Facility in Canton, NC. Going into Canton is some of the most pristine water in all of North Carolina, emanating from the Shining Rock and Middle Prong Wilderness area. Coming out of Canton, the water is tainted, visibly darkened, offensively pungent, and irritating to exposed skin and mucous membranes. While this change does not prevent me from paddling the Pigeon below Canton, it certainly reduces the number of days per year I recreate there and reduces the quality of the experiences I have.

I've attempted to educate myself on the processes of paper mills; however, I'm certainly no expert on those processes and their by products. I do know that the EPA clean water act is intended to prevent activities which benefit upstream constituents at the expense of downstream constituents. I understand that Paper Mills are operations which inherently come with undesirable byproducts and their discharges may be difficult to bring into compliance; however, we should still strive for improving compliance over time. The permit renewal should not allow provisions for increased discharge, color and temperature variations and reduced monitoring. Instead this permit renewal, as well as future permit renewals, should aim to gradually steer Blue Ridge Paper operations in Canton, NC towards EPA Clean Water Act compliance, even if this forces additional investment and innovation to accomplish. I understand that full scale compliance is unachievable in the short term, and do not wish to see Blue Ridge Paper shutter their doors; however, this discharge problem will never be corrected if Blue Ridge Paper is not forced to apply resources to the problem through continually more stringent permitting until EPA Clean Water Act compliance is achieved. Simply passing the cost of not continually improving the Blue Ridge Paper Operations to the Pigeon River and downstream constituents is unacceptable.

In summary, the discharge of byproducts from the Blue Ridge Paper mill in Canton, NC has a negative impact on the water quality, quality of life, and property values along the Pigeon

River corridor and downstream into the Tennessee River. The Pigeon River has seen improvements in water quality since I began recreating on the river nearly 20 years ago; however it still has a long way to go to reach the potential offered by its pristine headwaters. I hope one day, 3 generations of my family can recreate together on the Pigeon River, without a noticeable decrease in water quality at the Blue Ridge Paper mill. If that's the case, I would certainly spend more time and money in Haywood County, NC and Cocke County, TN, and would consider moving to Haywood County to be closer to the opportunities afforded by a cleaner Pigeon River.

Thank you for your consideration,

Jim Janney

10700 Fox Park Lane  
Knoxville, Tn 37931

**From:** [Kountis, Elizabeth](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** SELC Comment on BRP  
**Date:** Wednesday, May 12, 2021 12:06:52 PM

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**From:** Debbie Carter [<mailto:carterdstx@gmail.com>]  
**Sent:** Tuesday, April 27, 2021 2:57 PM  
**To:** SVC\_DENR.DAQ.publiccomments <[DAQ.publiccomments@ncdenr.gov](mailto:DAQ.publiccomments@ncdenr.gov)>  
**Cc:** Debbie Carter <[carterdstx@gmail.com](mailto:carterdstx@gmail.com)>  
**Subject:** [External] Blue Ridge Paper, Public Comments

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April 27, 2021

North Carolina Department of Water Quality

Pubic Comment Submission

for Blue Ridge Paper Products Proposed Wastewater Permit and Variance Removal

RE: Public Comment on Canton mill's wastewater permit renewal

To whom it may concern,

The Employees of Blue Ridge Paper, Evergreen Packaging, and the citizens of Canton, NC should be recognized for their sacrifice and achievements over the past 30 years. The EPA has been instrumental in setting quantifiable requirements and enforcing the standards, which Blue Ridge Paper routinely meets. Although often contentious, the Pigeon River clean-up is an environmental, business, and community success. Incremental steps for further clean-up are

welcome, but the economic impact is important too. The Smoky Mountain News article [Ref 2], did a nice job of summarizing the issues surrounding the permitting process.

## **Temperature**

Because so much fresh water enters the Pigeon River downstream of the mill, by the time the river reaches the TN state line the added heat is probably difficult to detect. Temperature seems to be a localized issue for the EPA to resolve with the residents of Canton, and western North Carolina.

As mentioned in the Smoky Mountain News article [Ref 2] heat and drought are the bigger threats to the river's health because of reduced river flow. Weather variations related to climate change are a worldwide challenge. At some point in time, I would hope that Blue Ridge Paper move toward more efficient energy sources (away from coal) which could help the river temperature issue in Canton and reduce carbon emissions.

## **Color**

The North Carolina State rules for color are adequate. The Blue Ridge Paper variance has served its purpose, and could be dropped. Congratulations Blue Ridge Paper on the tremendous job clearing up the river! It's a remarkable achievement considering prior to 1990 sometimes the Pigeon River was 600-800 color units [Ref 2]. Now, Blue Ridge Paper measures waste water routinely around 41 color units 0.4 miles below the mill's discharge [Ref 2].

## **Chloroform**

Chloroform is no longer used in the paper making process. Loosening the permit limit on discharge of chloroform to mirror current EPA guidelines is a reasonable step.

## **Fecal Coliform**

Fecal Coliform results from the paper mill treating the town of Canton's sewage. Sewage treatment is a very important local issue for Canton and North Carolina to address in their own best interest.

Coliform has multiple sources including municipal sewage treatment plants and accidental discharge, plus many small distributed sources which include septic tank "leaks" and agricultural run-off. This is a widespread problem throughout the US and not specific to Blue Ridge Paper pulp processing [Ref 13]. Everyone should be working to reduce this problem throughout the US.

## **Dioxin Legacy Testing**

Dioxin is a legacy chemical. Once introduced into the environment, it remains for generations. Callie Moore, now the western regional director for MountainTrue reports, "Dioxin has not been detected in the discharge since 1989" [Ref 2]. Currently, there are no fish consumption advisories in effect on the Pigeon River," which is a very good sign.

But, vigilance is important. The legacy remnants of dioxin buried along the river may still be an issue if disturbed. Fish testing in Waterville Lake could be reduced; but, anywhere dioxin has become part of the environment, it should be monitored with some responsibility belonging to the original producers.

## **Independent Measurements**

I am in complete agreement that data should be independently collected and verified. ***Collecting river data should not stop.*** Tennessee and North Carolina should prioritize funding for sampling its rivers annually for pollutants, especially legacy chemicals, and report the findings. For example, "*A Report Card for the Tennessee River Basin* [Ref 13]" was produced

in 2018 by Appalachian Landscape Conservation Cooperative and University of Maryland Center for Environmental Science, with special thanks to the Tennessee River Basin Network.

In the most recent *Tennessee River Basin Report Card*, the state wide grade was a **C**. The Blue Ridge area received a **B minus**. Report Cards like this provide needed data to guide community initiatives, goals, and more importantly lead to improved local waters. Everyone in the region has a stake in the health of the land and water in Western North Carolina, and Tennessee. Community involvement with citizen science projects is an important way to stretch resources and effectively help reduce the expense of monitoring.

### **In Conclusion**

Blue Ridge Paper has achieved some good results sought by State of Tennessee and EPA, which began with a major litigation in 1983 [Ref 10]. The Pigeon River is now beautiful and aesthetically pleasing with economic benefit to Tennesseans. Its time for The State of Tennessee to recognize the goals sought in the 1980's have been met and in many cases exceeded by Blue Ridge Paper (and Evergreen Packaging).

Although, Tennessee must remain vigilant by monitoring its own river and lake health as a statewide initiative. Sampling should include agricultural, industrial, municipal, and other runoff pollutants. If legacy chemicals are discovered in the water, responsibility for cleanup should be tied to the original source if possible. The data should be compiled to provide local *River Report Cards* so all Tennesseans can measure success locally, and identify areas needing improvement.

Respectfully prepared as Public Comments

Deborah Carter

Knoxville, Tn (born in Asheville, NC)

I am a citizen scientist. My opinions are based upon personal memories, experience, and the

desire for others to have the chance to appreciate the beauty of the mountains and its waters.

#### References:

1. “Paper Mill Fights EPA Controls: Jobs vs. Pollution: 2 States Clash Over River Cleanup” by David Treadwell from July 11, 1989 available online in the Los Angeles Times.
2. “Paper and the Pigeon: Canton mill’s wastewater permit up for renewal”, written by Holly Kayes, dated 10 February 2021, published online in the Smoky Mountain News.
3. “Canton Mill pursues new pollution permit”, by Becky Johnson, dated 13 January 2010, online Smoky Mountain News.
4. “Quality Criteria for Water 1986”, Office of Water Regulation and Standards, Washington, DC 20460, EPA 440/5-86-001, Pages 17 and 18 (of 395)
5. “Dozens of cars collide during foggy weather near Canton”, UPI Archives (on-line), November 2, 1990, unknown author
6. “Industrial snow – how does it happen?” by Ryan Coutler, <https://wlos.com/news/local/industrial-snow-how-did-it-happen-in-canton>, February 10, 2021
7. “Accord Clears Way to Give River New Look”, New York Times article, <https://nytimes.com/1988/03/13/us/accord-clears-way-to-give-river-new-look>, writer’s name unreadable, March 13, 1988
8. “Canton, North Carolina”, Wikipedia

9. “1990 Interstate 75 fog disaster”, Wikipedia
  
10. “Champion Pulp and Paper Mill in Canton, NC Timeline”, Forest History Society, <https://foresthistor.org/digital-collections/champion-pulp-and-paper-mill-in-canton-nc-timeline/>
  
11. “How Fog Forms”, National Weather Service, [https://www.weather.gov/lmk/fog\\_tutorial](https://www.weather.gov/lmk/fog_tutorial)
  
12. “That Time A Paper Mill Was Blamed For A Massive Highway Crash”, [www.carthrottle.com/post/that-time-a-paper-mill-was-blamed-for-a-massive-highway-crash/](http://www.carthrottle.com/post/that-time-a-paper-mill-was-blamed-for-a-massive-highway-crash/), by Kyle Ashdown, 13 January 2018
  
13. “Tennessee River Basin Report Card”, by Dylan Taillie, Emily Nastase, Heath Kelsey, Bill Dennison, Andrew Elmore, 2018-02-09, <https://ian.umces.edu/publications/tennessee-river-basin-report-card/>

**From:** [Clean Water Expected in East Tennessee](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] NPDES permit # NC0000272  
**Date:** Thursday, April 29, 2021 1:10:22 PM  
**Attachments:** [Pigeon river comments to NC.docx](#)

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Please find attached comment for the overdue Pigeon River permit to pollute.

Than you,  
Deborah Bahr  
[cweet.org](http://cweet.org)

North Carolina Division of Environmental Quality

April 29, 2021

To Whom it May Concern;

I am writing on behalf of Clean Water Expected in East Tennessee. Citizens of Cocke and surrounding counties are distressed and concerned over proposed changes to the NPDES Permit # NC0000272 for the Pigeon River. Over 11 decades of degraded water inflicted on downstream communities is ENOUGH!

Dropping the color variance is unacceptable! This last week the color, odor, and general slime that is difficult to remove from gear and bodies has been especially rancid. This is toxic. Visitors and locals have been commenting on the smell also, a chemical smell that leaves a taste in the mouth. The Pigeon river is considered degraded by the state of Tennessee, perhaps because they are more aware of the state of the water than North Carolina? These factors of smell, color and foam impact the esthetic of enjoyment along the river and hurts our tourist economy!

Fecal coliform is an issue, and since the Mill treats the town's sewage it must also be considered in this permit.

Dioxin should continue to be tested in fish. This dangerous carcinogen has impacted the communities downstream for far too long. Recently the medical community is realizing the generational effects of dioxin in our environment and in humans. CWEET believes dioxin testing stopped in 2014, before the permit SHOULD have been reviewed, five years ago. Dioxin tests should not have been discontinued and SHOULD be stringently required in this permit and reported to downstream communities, in plain language so citizens may easily comprehend the results. An independent lab should do the testing and reporting.

Temperature of heated releases should be minimal. The trout stream quality of water above the mill should be of the same quality as below the mill, currently NOT the case. Toxic pollutants called polyfluoroalkyl substances (PFAS) are used in industries like pulp and paper packaging to enhance water-resistant properties of paper products, do not biodegrade, often persist in organisms, and pose significant health concerns. The more scientists learn about PSAS the clearer it becomes that chemicals that produce PFAS should be tracked and when possible not discharged into waterways.

The amount of effluent dumped into the Pigeon river should be lowered substantially. Decades ago, Cocke county citizens requested no more than 22,000lb. limit as opposed to the 36,000lb limit currently allowed. This amount should have been reduced in 2015.

The Clean Water Act calls for No Backsliding on permits. NC is already 5 years overdue in making any reduction, it is time to do the right thing!

Daily dumping limits should be set and enforced. Averaging the amounts weekly or monthly allows for conditions that are outrageous for downstream communities to have to deal with. Large piles of foam have once again become more common. The color and smell ARE impacting our ability to use the river for recreation and that does impact our economy. Tourists ask guides and locals about what they see and smell, how the water feels. The potential for our historically distressed economy to build and recover from over 100 years of pollution by the NC mill is impacted by the continued degradation of our precious natural resource, the Pigeon River!

No one has looked at the effect these changes are having through the ecosystem as some of the larger birds and mammals have come to river for sustenance. We know the raft guides who are continuously exposed to the degraded water of the Pigeon suffer from health issues. The pollution effects downstream communities in very real ways. Do the right thing, you were forced in the past to finally take a stand and clean up the river, this time take the initiative to get the job done. Downstream communities are proud of the recovery the mill was forced to take in the 1990's. Do not be idle, become good stewards and good neighbors, CLEAN UP THE PIGEON RIVER. Create a more stringent permit that addresses our issues, NO BACKSLIDING!

Deborah Bahr  
cweet.org  
865-453-8535  
966 Yellow Breeches Rd  
Cosby, TN 37722

**From:** [Sarah Hayden](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Cc:** [bclarke](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Thursday, April 29, 2021 2:35:58 PM  
**Attachments:** [Blue Ridge Paper"s Written Comments Following Public Hearing.pdf](#)

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Please find attached Blue Ridge Paper Product's Written Comments Following Public Hearing. The hard copy will follow via USPS.

Please let me know if you have any problems with the attachment or with the cloud link. A copy of the cloud link is below as well as in the attached Written Comments.

<https://rsnc1.roberts-stevens.com/index.php/s/sKyEnYHN2DMpS7q>

Thanks,

Sarah Hayden  
Legal Assistant | Roberts & Stevens, P.A.  
City Centre Building | 301 College Street, Suite 400, Asheville, NC 28801  
Office: 828-252-6600 | Direct: 828-210-6844  
[www.roberts-stevens.com](http://www.roberts-stevens.com)

**BLUE RIDGE PAPER PRODUCTS' COMMENTS IN SUPPORT OF THE RENEWAL  
OF NPDES PERMIT #NC 0000272 AND PROPOSED REMOVAL OF COLOR  
VARIANCE (via e-mail to publiccomments@ncdenr.gov )**

Blue Ridge Paper Products LLC d/b/a Evergreen Packaging (“Blue Ridge Paper”), submits these written comments in support of the renewal of NPDES Permit #NC 0000272 and removal of the color variance.

**1. Timing of Permit Renewal**

- A. Blue Ridge Paper timely filed application for renewal of its NPDES Permit on December 31, 2014. In March of 2015, work on the issuance of the permit was stayed at the request of Region 4 of EPA and the Tennessee Department of Environment and Conservation (“TDEC”), so that a study of the Pigeon River basin in North Carolina and Tennessee could be conducted.
- B. From March of 2015 to the fall of 2017, EPA collected existing information on the Pigeon River basin from Blue Ridge Paper, the North Carolina Department of Environmental Quality (“DEQ”) and TDEC.
- C. In March of 2017, EPA decided that the basin study was no longer a part of its core mission. Despite requests from DEQ, EPA has not produced any “report” of the basin study.
- D. Since the fall of 2017, Blue Ridge Paper has been working closely with DEQ on the renewal of the permit.
- E. Prior to issuance of the draft NPDES Permit and removal of the color variance, DEQ submitted the draft NPDES Permit and removal of the color variance to EPA Region 4 and TDEC for input and comment.
- F. The public hearing on the draft NPDES Permit and removal of the color variance was originally scheduled for January 20, 2021. The public hearing was rescheduled at the request of TDEC and held on April 14, 2021.

**2. Temperature**

- A. The current NPDES permit has a weekly average limit for temperature. Blue Ridge Paper believes the temperature limit should continue to be a weekly average, and has so advised DEQ.

- B. Blue Ridge Paper does not believe a daily temperature limit is necessary to prevent temperature spikes and fish kills. The temperature of the Mill effluent does not vary widely, and there is always a zone of passage at Fibreville Bridge not affected by Mill discharge. See comments of Charles C. Coutant, Ph.D. attached.<sup>1</sup>
- C. The most recent 316A study, which was required under the current NPDES Permit, was done in 2012 and 2013, as part of a settlement of contested cases challenging the 2010 NPDES Permit and Color Variance. The study determined there was a balanced and indigenous community above and below the mill. The study was approved by DEQ in January, 2019. The proposed NPDES permit includes, in Section A. (12) on page 18, a requirement that another 316A study be conducted during the permit term.

### 3. **Dioxin**

- A. Dioxin has been non-detect in the Canton Mill effluent since 1989.
- B. EPA did intensive high-volume sampling for dioxin in the Pigeon River downstream of the Mill in 2014. Dioxin was detected in the samples. None of the samples exceeded the North Carolina Water Quality standard for dioxin.
- C. Sediments were also sampled, and dioxin was detected in the sediment. There is no standard for dioxin in sediment. A report of the dioxin sampling is included with these comments.
- D. The draft NPDES Permit, A. (9.) on pages 17 and 18, requires fish tissue sampling for dioxin in the second year of the permit. If any of the sample results exceed NC DHHS' 4 part per trillion TEQ action level, Blue Ridge Paper will conduct additional fish tissue sampling in the 4<sup>th</sup> year of the permit

### 4. **Technology Based Limits**

- A. EPA publishes effluent guidelines for pulp and paper.
- B. EPA did not publish an effluent guideline for color. Instead, EPA decided color should be regulated on a site specific, case by case basis, using Best Professional Judgment (of the permit writer).
- C. In developing the draft NPDES Permit, North Carolina determined that the water quality standard for color is being met. So, there is no need for North Carolina to develop a technology based limit for color. Instead, North Carolina conducted a reasonable potential analysis to determine whether or not the water quality standard

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<sup>1</sup> The last fish kill in the Pigeon River was in September, 2007, during a drought period of extremely low flow and extreme ambient temperature (90°).

for color would be exceeded. DEQ determined there is no reasonable potential for violation of the color standard so long as the Canton Mill is required to meet an effluent limit of 36,000 lbs per day (annual average), 52,000 lbs per day (monthly average) and 105,000 lbs per day (daily maximum). As an additional check, DEQ included instream  $\Delta$  50 at Fibreville.

## 5. North Carolina Water Quality Standard for Color – Removal of the Color Variance

- A. North Carolina has a narrative water quality standard for color set forth at Title 15A North Carolina Administrative Code, Subchapter 2B.0211(12):

*(12) Oils, deleterious substances, or colored or other wastes: only such amounts as shall not render the waters injurious to public health, secondary recreation, or to aquatic life and wildlife, or adversely affect the palatability of fish, aesthetic quality, or impair the waters for any designated uses.*

- B. Tennessee also has a narrative water quality standard for color. Historically, EPA and others have interpreted the NC standard to be 50 platinum cobalt units of true color (50 milligrams per liter). Blue Ridge Paper believes all of the components of North Carolina's narrative water quality standard for color are being met.
- C. The 50 mg/l standard has never been formally promulgated as a water quality standard by EPA or North Carolina. Prior studies attempting to establish a new numeric interpretation of the NC standard for aesthetic purposes proved unsuccessful.
- D. Blue Ridge Paper, with the assistance of the AquAeTer consulting firm, analyzed Canton Mill effluent color, instream monitoring results for color and flow data for the period July 2010 through December 31, 2020. Results of the analysis demonstrate that color in the Pigeon River, at flows equal to or greater than 129 cubic feet per second, averages 50 mg/l or less true color at the Fibreville Bridge more than 90% of the time. Average color upstream of the Canton Mill is 13 true color units. Color at the NC / Tennessee state line averages 17 true color units. The AquAeTer report on data through 2017 and an accompanying submittal were provided to DEQ in January 2018.<sup>2</sup> Blue Ridge Paper submitted an updated report from AquAeTer including data through the end of 2018. An updated report including data through December 31, 2020, is being submitted with these comments.
- E. The Color Variance should be removed as all components of the NC standard are being met.

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<sup>2</sup> *Evergreen Packaging Submittal to North Carolina Regarding Compliance with North Carolina Water Quality Standard for Color, January 31, 2018.*

6. **Chloroform** – The proposed increase in chloroform is based on EPA’s revision of guidelines for chloroform.

A. The chloroform limit is not an effluent limit. This is a limit on the amount of chloroform coming out of the pine and hardwood bleach plants. Blue Ridge Paper would propose that the limits in the 2010 NPDES Permit be retained in the renewed NPDES Permit.

7. **Backsliding**

A. The proposed NPDES Permit, with corrected temperature limit, does not represent any backsliding. The effluent limits for color remain the same. In other words, no more color is allowed in the draft permit than in the current permit. The term, “backsliding,” is misplaced and is not applicable here.

8. **Fecal Coliform**

A. Blue Ridge Paper has treated wastewater from the Town of Canton since 1964. Blue Ridge Paper acknowledges that there were issues with chlorination of the Town of Canton’s wastewater prior to discharging to the Canton Mill’s waste treatment system. Blue Ridge Paper believes those issues have been resolved.

9. **Documents**

Blue Ridge Paper is submitting additional documents in support of the Permit renewal and removal of the color variance. A list of the documents being submitted is attached hereto as Exhibit A. The documents can be accessed at the following link:  
<https://rsnc1.roberts-stevens.com/index.php/s/sKyEnYHN2DMpS7q>

## **Exhibit A**

### **Documents Submitted with Blue Ridge Paper, LLC's Comments Following Public Hearing on Renewal of NPDES Permit and Removal of Color Variance**

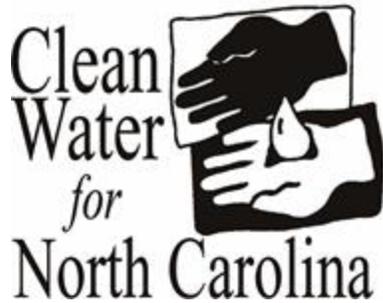
<https://rsnc1.roberts-stevens.com/index.php/s/sKyEnYHN2DMpS7q>

1. Letter to Sergei Chernikov
2. Evergreen Submittal with History of Color Standard in Pigeon River
3. AquAeTer Analysis of Color Concentration in Pigeon River (through 2017)
4. Evergreen Memorandum on History of 50 Color Unit Standard
5. Updated Color Concentration Report by AquAeTer (data through December 31, 2018)
6. Updated Color Concentration Report by AquAeTer (data through December 31, 2020)
7. Color Chart through 2019
8. Responses to EPA Region 4 questions February 2020
9. Charles C. Coutant Responses to Information Requests from EPA Region 4 to NCDEQ (July 2020)
10. Fact Sheet Temperature Edits Coutant 1-28-21
11. Evergreen Packaging – Color Tech Update
12. Color Benchmarking 2014 EKONO
13. Color Benchmarking 2018 for Evergreen Packaging by EKONO (2017 data)
14. US EPA Report of Pigeon River High Volume Sampling August 2014
15. NCDEQ Letter Approving 316a Report (Cindy Karolyi)
16. Engineering Alternative Analysis by AquAeTer

**From:** [Hope Taylor](#)  
**To:** [SVC\\_DENR\\_publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products--Clean Water for North Carolina Comments April 29, 2021  
**Date:** Thursday, April 29, 2021 4:43:32 PM  
**Attachments:** [CWFNC April 2021 comments on NC000272.doc](#)

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1070 Tunnel Rd. Bldg. 4, Suite 1, Asheville 28805 (828) 251-1291

April 29, 2021

Mr. Daniel Smith,  
Director, NC Division of Water Resources  
1617 Mail Service Center, Raleigh, NC 27699-1617

Mr. Sergei Chernikov  
Permit Engineer, NPDES Unit  
NC Division of Water Resources

Ms. Anna Gurney  
Public Information Officer, NC DEQ, Div. of Water Resources

Via Email: [publiccomments@ncdenr.gov](mailto:publiccomments@ncdenr.gov) subject: CWFNC Comments Blue Ridge Paper

Clean Water for NC Comments on the Draft Permit NC0000272 for Blue Ridge Paper Products dba Evergreen Packaging

Please accept these comments on behalf of Clean Water for North Carolina, a statewide, science-based, Environmental Justice organization that has worked extensively for fair and effective environmental enforcement, for safe and affordable water and for the quality of life, health and economic well-being of downstream and downwind communities.

**Introduction**

Again, we find ourselves in opposition to a draft permit for Blue Ridge Paper Products as drafted by the NC Division of Water Resources, and again we oppose the proposed removal of the Color Variance. The decades-long failure of the Division to take responsibility for reducing the impacts of a massive pulp and paper mill on a tiny mountain river, as required by the Clean Water Act, and a Settlement Agreement signed by Champion (or successor in interest), USEPA, the NC Division of Water Quality, and environmental organizations party to a contested case on the 1996 permit, has resulted in preventable and unjust ongoing degradation of the Pigeon River for downstream users, and a failure to restore it to its full designated uses, despite decades of efforts by advocates.

We recognize that significant progress was made by the “Canton modernization” in the early 1990’s and again following the Settlement Agreement and revised 1998 permit, both resulting from strong public pressure for improvements. We stated that the 2001 NPDES permit fell far short of requiring Canton Mill performance improvements that would fully restore the designated uses for the Pigeon River, and thus could not provide the basis for removal of the long-standing color variance, contrary to statements in the previous permit “fact sheet” and hearing officer’s report.

In drafting that 2001 permit, the Canton Mill, now Blue Ridge Paper Products, and the NC Division of Water Quality ignored much of the advice from both the EPA Tech Team and independent mill expert, Dr. Norman Leibergott. The Division and BRPP have not given cost-effective oxygen-based process changes judged feasible by both expert parties a chance to achieve significant color and other pollutant reductions in their discharge. As a result, despite oral promises in 2001 from BRPP, the EMC hearing officer and DWQ that the Mill would go -“beyond compliance,” this predictably has not happened.

As the Division’s fact sheet points out, international mill expert Dr. Norman Leibergott had previously been jointly contracted by environmental groups (including Clean Water for North Carolina) and Blue Ridge Paper for a 2001 study on chlorine-free production, referred to as the BEPER. Dr. Leibergott had pointed out to us repeatedly that, unless an NPDES permit called for substantial color or other pollutant reductions, the process changes most likely to reduce chlorine chemical usage and color to the River would not be implemented or would be installed or operated sub-optimally. Those were his words, encouraging us to demand significantly lower final permit limits for color. Any comments by Mill officials or Dr. Leibergott saying there are no known technologies to further reduce color are simply given the lie by Dr. Leibergott’s own reports, and those of the EPA Tech Team.

Before the 2010 permit renewal process, a representative of Blue Ridge Paper/Evergreen, in his contacts with various public officials, has included a single

page from the lengthy 2006 Leiber Gott report, as though it were a summary of the report. This has deliberately misled and confused those who have received it, as it is presented in justification of BRPP statements that “there’s nothing more that can be done” to clean up the Mill’s effluent. This one page from the report completely failed to mention the extensive recommendations in the same report by Dr. Leiber Gott for reducing both chlorine-based chemical usage in various pulping and bleaching stages, and color in the Mill’s discharge.

The 2001 BEPER and 2006 Leiber Gott report and the August, 2007 EPA Tech Team Memo all point to several remaining cost-effective process changes and best management practices that Blue Ridge Paper could reasonably expect to be collectively amortized in less than 3 years, substituting oxygen-based chemicals for part or all of the chlorine dioxide in a given pulping or bleaching stage. It is the failure of NC regulators to honor the principles of the National Pollutant Discharge ELIMINATION System of the Clean Water Act, and the Settlement Agreement in which all parties agreed that more work was needed to attain “further reductions in color in the river at the quickest possible pace.” (paragraph 15, 1997 Settlement Agreement) that have caused the stalled out pollution reduction for two decades.

The Settlement to a contested case on the 2010 permit was in no way an expression of the parties’ satisfaction with the condition of the River, and the readiness to consider removal of the remaining leverage to require cleanup of a massive discharge that should not have been permitted on a small mountain river, but was “grandfathered in” through continuing neglect. Based on our extensive study of the Canton Mill’s permitting history, fiberline processing, evaluations of process improvements and best management practices for the Mill, as well as reports from users of the Pigeon River downstream, we submit to NC DWQ and several parties the following comments on Draft Permit NC0000272.

### **Color Special Condition and the EPA Tech Team report**

The time is long past for studies and excuses. In the absence of clear and enforceable DAILY limits for instream color in the River, no greater than the 50 color unit interpretation from 30 years ago, and specifically prescribed process changes to achieve them, it’s no surprise that Blue Ridge Paper Products failed to make more than trivial progress in reducing color (mostly reducing variability) to the Pigeon River during another much-extended permit term. The 2001 permit was unacceptably weak and failed to require continuing progress on the River, or to provide support for strategies that could readily and affordably have reduced color below 33,000 lb/day of color annual average BEFORE the 2010 permit renewal. If that had been required, we could have been at an even lower level before the 2020 permit was announced, and the opportunity for full compliance with a standard of 50 color units at the Fiberville bridge could have been attainable early in the coming permit term, making

removal of the variance actually justifiable.

Instead, during the previous permit term, DWQ (and more recently, DWR) personnel have continued to delay permitting as a strategy to avoid public critique of the lack of progress and continued to deny the availability of feasible processes for continued reduction of pollutants in the Canton Mill's discharge. They have cherry picked the results of Dr. Leibergott's more recent study in the fact sheet to point to the Mill's high ranking in environmental performance, with no acknowledgement that such an industrial ranking refers only to the percent removal of pollutants per ton of production, and does not take into account the size of the impacted resource.

1) We strongly support the continued involvement of the EPA Tech Team in Canton Mill permitting for the indefinite future, until conditions in the Pigeon River have been declared by all parties to be supporting the River's designated uses, and until there are both enforceable and enforced standards to assure that the Canton Mill is not causing impairments to North Carolina and Tennessee waters. This will necessarily include implementation of a long term compliance schedule and daily enforceable numerical standard corresponding to the 50 color units (not 50 plus upstream color) for narrative standards, as well as continued oversight by state, regional and federal authorities responsible for protecting downstream waters.

2) The annual average color limit at the start of the renewed permit must be 33,000 lb/day or less. The Canton Mill has now been allowed to operate for nearly 2 decades with no significant decrease in color discharge, while the discharge levels could have been reduced by 11, 5000 to 15,200 lb/day that the Tech Team had estimated in 2001 to be achievable as a result of highest certainty and best management practices, along with one or more reasonable certainty process changes. Thus, it is completely appropriate that the Mill be expected to operate immediately with a limit of 33,000 lb/day annual average. The initial monthly and daily limits, to allow moderate variability, but still provide a stimulus to continued improvement, should be no greater than 50,000 lb/day and 75,000 lb/day, respectively.

3) A variety of specific Tech Team recommendations for improved BMPs and at least two process improvements can be implemented within the next three years to achieve performance at or below 30,000 lb/day, with several cost effective options remaining for subsequent permit periods.

***In-Mill Process Improvements Recommended by the EPA Tech Team (Aug, 2007) and BEPER (2001), All would have been implementable in the 2010-2013 Permit Term***

“ • Continue to improve the performance of BMPs to further substantially reduce and ultimately eliminate discharges of highly-colored wastewaters directly to the wastewater treatment system through further improvements (note – some of this has

been implemented, contributing to lowered variability due to reduced spills and leaks)

...

- On the pine bleaching line, implement the use of peroxide fortification of the Eo stage and decrease the target kappa factor as recommended in BEPER 2001 and by Liebergott / GL&V 2006. Evaluate use of high temperature for the peroxide- fortified extraction.
- On the hardwood bleaching line, implement the use of oxygen and peroxide fortification of the E stage and decrease the target kappa factor as recommended in BEPER 2001, 2006. Evaluate use of high temperature for peroxide-fortified extraction.
- Complete an expedited and detailed evaluation of and install an additional oxygen delignification (OD) stage for the pine pulping/bleaching line.
- As chlorine dioxide use is reduced through second stage OD on the pine line and other options on both fiber lines, further investigate increasing the amount of hardwood filtrates recycled; investigate introducing some of these hardwood filtrates to the BFR..."

#### *Color treatments and other measures to reduce BRPP effluent color discharges*

- “• Continue to evaluate the impact of the CRP purge on treated effluent color to determine if CRP color is removed in secondary treatment, and avoid releasing the CRP purge during periods of low stream flow;
- Continue to investigate and implement strategies for improving color removed by the Canton Mill wastewater treatment plant: Further analyze color formation when acid wastewater is mixed with mill wastewater in the current configuration, particularly in the activated sludge aeration basin, and identify other techniques, such as minimizing sulfide releases to the mill sewer from white and green liquor leaks, spills, and/or diversions, to reduce this effect. Increase the performance for pretreating highly-colored wastewaters prior to introducing them to the wastewater treatment system, including further optimizing adding polymer and other pretreatment chemicals to the highly-colored wastewater diverted to the extra primary clarifier and/or any additional facilities that may be provided.
- Curtail pulp production during periods of low stream flow.

We disagree with the EPA Tech Team that production reductions should only be viewed as a last resort for low flow contingency. The fact that the Mill's management of spills and leaks during shutdowns and startups has been inadequate only mandates that production levels be adjusted for longer periods seasonally or in low

flows until spill management can be improved. Because production levels have been allowed to increase over time on this small River, reducing production is a remediation that should be implemented now, providing a positive incentive for future production increases to previous levels through achieving further documented, substantial in-plant reductions.

4) The EPA Tech Team called, over fourteen years ago (August, 2007), for a final annual average discharge limit for the pending permit of 32,000 lb/day, a conservative level of achievement for the process optimization, best management practices and one oxygen based process change considered to be “highest certainty.” In fact, we assert that final compliance limit for this permit of under 30,000 lb/day would have been readily achievable at pre-1999 production levels by the end of a shortened permit term if several of the strategies recommended by the Tech Team and 2001 BEPER and 2006 Leibergott reports were implemented. It is critical that no more time be lost in implementing those changes called for by the Tech Team, and that the final compliance date for the conservative 30,000 lb/day annual average be no later than April 1 of 2023.

Given the impact of increased production on BRPP’s effluent, and the negligible improvement in color loading, increases in production must be unconditionally prohibited in the current permit and production levels must be publicly available. It is also a reasonable public expectation that unannounced independent sampling, split sampling and monitoring of parameters including color, whole effluent toxicity, BOD, toxic compounds and spectrum of coliform bacteria released and in downstream sediments be included in the permit to restore public trust following continued agency resistance to further improvements in discharge quality from the Canton Mill.

As the Tech Team pointed out, even without use of a Bleached Filtrate Recycling system, the Gladfelter mill has complied with permits requiring stricter color performance on a production-normalized basis.

5) The EPA Tech Team Memo states:

*“Daily maximum and maximum 30-day average permit limits would enhance the consistency of day-to-day in-stream water quality, and would be consistent with limits for other parameters controlled in the present BRPP permit (BODB5B, TSS, AOX, etc).”*

To make progress toward consistent protection of water quality, we call for more rigorous daily and monthly limits, rather than considering it acceptable to risk only two violations during a permit period that must be moving toward levels of color discharge. To motivate further improvements, we contend that the mill must be at risk for more operating days, consistent with prior evaluations that identified 95% performance levels. Occasional color spikes are still reported as unacceptable many miles downstream, so variability must be steadily decreased.

6) Until the Mill is achieving, on a daily basis, 50 true color units or lower instream at the end of the discharge pipe, not at the end of a newly created “mixing zone,” the facility’s discharge must continue to be judged out of compliance with NC’s narrative standard. As a long-term variance has been an insufficient tool to motivate either Blue Ridge Paper or the Division of Water Quality to seek or even accept significant water quality improvements, we call for a long term compliance schedule to continue forward into the subsequent permit terms, with additional color reduction achievements as a percentage of current color discharge. A continuing compliance schedule resembling the model set by the Settlement Agreement and resulting rewritten 1998 permit, will be a more predictable and productive approach than a vague variance, which must nevertheless be kept in place until full restoration of the River is achieved. Such a schedule will result in unambiguous expectations and a lessening of historic tensions for future permit cycles and a steadily cleaner River.

7) As the NC Division of Water Quality has allowed excessive administrative extension as one of its tools for reducing what it sees as the regulatory burden on the permittee, there must be a specified date for issuance of the next draft permit in order to prevent extended permit cycles and the associated lack of water quality improvement. We call for the pending renewal permit to include a final compliance and renewal date no later than April 1, 2026, with no administrative extension and a final limit of under 30,000 lb/day annual average.

8) According to the Color Special Provision, the Mill is not permitted to increase production unless it can, at the same time, reduce color releases. This has apparently been seen as a loophole through which BRRP can increase production while achieving almost no progress in water quality. As long as there is some trivial actual or apparent reduction in color discharge, such as occurred in the current 8 year administratively extended permit term, this would seem to allow for unspecified increased pulp production at the Mill. In fact, it is reasonable to suppose that such an increase in production could have accounted for the quite minimal improvement in color performance over the last 8 years, even as some limited color reduction activities were in fact carried out! Instead, the company must be required to report its daily production levels publicly on a monthly basis, must roll back its production to the pre-1999 level and not be allowed to increase pulp production until such time as it is able to comply, on a daily basis, with an instream standard for color at least as strict as the 50 color unit standard interpretation of EPA from 33 years ago.

9) A Low Flow Contingency Plan must be an integral part of the permit’s Color Special Provision, subject to public review, rather than just filed with the Division of Water Quality. The plan must have specific flow triggers for implementation of additional color reduction methods, and must be a fully enforceable part of the permit. The Plan must include the full range of strategies for color reduction to assure

compliance with a 50 color unit instream standard, including scheduled outages and curtailment of production.

10). The NC Division of Water Quality must implement a numerical color standard applicable to colored discharges throughout the state. Starting with the 2002 Triennial Review, Clean Water for North Carolina has advocated for implementation of a simple, colorometric method, using the wavelength of maximum absorbance of a given colored discharge, and regulating by limiting the % increase of optical density as measured at that wavelength for any given discharger to add to a water body, as compared to upstream color measured at the same wavelength.

CWFNC has offered to provide color spectra (which we have previously provided under Triennial Review) for example color discharges. Such a method is simple and inexpensive to implement and can be applied even-handedly to a discharge of any color, yet the Division has previously stated that it would be too difficult to implement and would need to be individualized for each location. These excuses make no sense, except to prevent any effective regulation of color added to public waters by permitted facilities.

In any case, NC must implement a standard for receiving waters immediately below a pulp and paper discharge that is no less stringent than the 50 color unit instream standard which was the US EPA's interpretation of NC's narrative color standard. Further, the method we propose would include spectrophotometric analysis of waters downstream of Waterville Lake, as we believe that reducing chemistry may be actually re-generating color or shifting its color spectrum.

In addition, CWFNC calls for use of an "apparent color" measurement relative to upstream apparent color, as scattering due to particulates can be a significant contributor to color and opacity of the River. As a paddler who canoed downstream of the whitewater Pigeon River section near Hartford TN, not long ago, I had to cut short a canoeing trip due to the low visibility of obstacles in the stream caused by dark color and particulates in the water column. This occurred in clear weather conditions, and was not the result of rain or sedimentation events, but simply due to color and particulates coming through the powerhouse turbines.

### **Temperature Impact and Variance**

Clean Water for North Carolina is grateful for the objection of the USEPA to the proposed continuance in the 2010 permit term of the previous thermal variance, reducing the average temperature difference from up and downstream waters from 13.9 degrees C to 8.5 degrees C, nearly as much as we had called for in our comments on the 2010 draft permit. We agree with the continuance of the adjusted thermal variance, but call for DAILY monitoring and enforcement, rather than enforcement

based on averages. Benthic impairments observed by DWQ and the Western NC Stream Monitoring Information Exchange team and even biological anomalies observed in the 2014 study performed by University of TN cannot be dismissed as only due to other impacts.

We also call for the permit to implement a daily discharge temperature limit less than 10 degrees C above intake temperature, to prevent thermal shock and loss of dissolved oxygen, especially in elevated ambient temperatures or drought conditions. This provides a further argument, beyond color impact, to reduce production levels and thus the volume of hot discharge during low flow conditions.

### **Biological and Chemical Waste Assimilation**

BOD—while BOD removal per ton is high for this mill, this limit is still marginal to ensure sufficient oxygen, even in the flowing River, and probably contributes to chemically reducing conditions in Waterville Lake that may be intensifying color with a different spectrum downstream of the power plant. BOD limits must be sequentially lowered with each permit until oxygen levels are protected even at low flows.

We believe that some of the colored compounds that may have been in an oxidized form in the Canton Mill's discharge may be experiencing chemically reducing conditions in Walters (Waterville) Lake and may be discharged at higher color levels or with a shifted visible spectrum, and perhaps with altered characteristics including chemical irritants, increased odor or foam, as compared to conditions when the river containing BRPP wastewater flows into the Lake at Hepco. These characteristics must be studied as part of a full ecological assessment of the River and Walters (Waterville) Lake which USEPA had committed in the 1998 Settlement Agreement to convene, including a full sediment sampling effort with analysis for all known chemicals used and produced at the Canton Mill.

The failure to fully monitor, limit and assess the impacts of Biological and Chemical Oxygen Demand may be reflected in some of the chemistry taking place in the reservoir, both in the water column and in the Lake sediments. We call for color, BOD, COD and turbidity measurements of influent water to the Lake and effluent discharged directly from powerhouse turbines, as well as detailed studies on the chemical changes in the Lake that may be affecting color, odor, foam and other observed water quality problems below the Progress Energy powerhouse and into Tennessee's impaired reach of the River, and in major drinking water and recreational reservoirs further downstream.

## **AOX and Chloroform**

The previous permit allowed for increased release of adsorbable organic halides, noting that the limits had been recalculated as per current production levels. This was a clear indication that the Mill's production has been allowed to increase, at the same time that the long term goal of the Settlement Agreement was to reduce color and other pollutants discharged to the Pigeon. The current permit proposes an increased limit for chloroform, also claiming that it is justified based on current production levels. These toxic compounds include known or suspect carcinogens, and we continue to object to any increased discharge of chloroform or AOX or other toxics, or any increased pulp production over pre-1999 to enable the restoration of the Pigeon River.

We call for AOX and chloroform limits to be reduced at least 15% each permit cycle, along with all TRI chemicals that are carcinogens or released at a rate of 1,000 pounds per year, and for all such chemicals to be sampled daily in the effluent and explicitly limited in the permit.

## **Other Monitoring Requirements, Frequency and Limits**

**Fecal coliform** was the parameter for which the Mill's discharge was most frequently in violation. While we know this is due to the mill's wastewater system treating wastewater for the town of Canton, rather than pulping and bleaching wastewaters, this indicates that the treatment train is not optimized for removal of bacterial pathogens and should be evaluated and process improvements required to prevent future violations.

**Turbidity** must be explicitly included as a daily monitoring parameter and limited to the NC water quality standard in the discharge, as we believe there are times that turbidity levels may exceed the standard. Further, turbidity levels downstream of the Walters powerhouse may be significant, and monitoring for apparent color and turbidity must be included in the permit.

## **Dioxins and Furans, Fish Tissue Sampling, Full Ecological Assessment**

The draft permit apparently changes the effluent limit, monitoring frequency, and locations at which the full range of dioxin and furan congeners is to be sampled and analyzed. No increase in the limit for dioxins must be allowed from requirements of the 2001 permit, nor any decrease in monitoring frequency or locations.

Annual fish tissue sampling for dioxins and furans must continue for the foreseeable

future, as use of chlorine-based chemicals continues at the Canton Mill, and dioxins and furans have been deposited in unknown but potentially high concentrations in sediments in Waterville Lake for many decades. In addition, a selection of organic and metal toxins in BRPP's discharge, including acetaldehyde, formaldehyde, catechol, manganese, lead, vanadium and zinc must be added to the tissue analysis for at least three years. Until a full ecological assessment is carried out, as required by Paragraph 33 of the Settlement Agreement on the 1996 permit, it must be assumed that these persistent toxins can be remobilized with a severe storm event, draining of Waterville Lake or other disturbance of sediments.

### **Fish palatability, Odor, Irritants in Water in Relation to Color**

Clean Water for North Carolina strongly disagrees with the statement included under "Rationale for Removal of Color Variance" with the statement that "fish palatability is not a parameter associated with palatability of fish." First anyone who has spent significant time in, on or close to the Pigeon River downstream of the Canton Mill will know that the level of color in the river is, in fact, strongly associated with the extent of odor, bad taste of the water, as well as irritants from the Mill's discharge. Using the word "associated" even in a strictly statistical meaning, is entirely appropriate. NC regulators should long ago have evaluated fish palatability as part of NC's narrative standard, but have simply failed to do so, and they have deflected all comments from raft guides and downstream users that the perceived color in the water does indeed serve as an indicator of other adverse characteristics of the water, even over 40 miles downstream of the Mill.

### **Implications of Unfulfilled Provisions of the Settlement Agreement on 1996 Permit**

A summary of key provisions of the Settlement Agreement on the 1996 permit that have not been fulfilled follows.

Paragraph #15: Makes it clear that the provisions in the SA and the resulting permit and variance were only a "major step" toward the restoration of the River, but that more work was to be done "at the quickest possible pace." The data for discharged color since 1997, coupled with the failure to require implementation of several feasible process change and BMPs in the 2001 permit demonstrate a clear abandonment of the approach that lead to significant progress under the "near term package" compliance schedule.

Paragraph #18: The Technical Review Workgroup was given the responsibility to make recommendations for improvements in the variance during NC's Triennial Review of Water Quality Standards every three years. The TRW has reviewed the variance only in the context of permit renewals up to 2010, and efforts by advocacy groups to call for consideration by DWR or the NC Environmental Management Commission during Triennial Reviews have sometimes been rebuffed.

Paragraph #25 All parties agree to an approach of stepwise moving the compliance point for a 50 color unit instream standard back up the River toward the discharge. This approach would be a reasonable one, with a staged compliance leading to a 50 color unit limit in the discharge itself. At the rate that progress has occurred in the past 10+ year permit cycle, achieving this goal could take another lifetime.

Paragraph # 26 Requires a low flow contingency plan that would mandate a change in Mill operations in the case of low River flows, including the curtailment of production. NC Division of Water Quality has not drafted or required a credible and enforceable contingency plan as part of the permit subject to public review.

Paragraph #27 NC committed to take the lead in reviewing and recommending further process changes to improve water quality. On the contrary, NC has consistently resisted expectations of progress and ignored feasible approaches to reducing pollution discharged to the Pigeon River.

Paragraph # 29 Champion (or successor in interest) committed to not increasing production until color can be reduced at the same time. CWFNC believes that NC has viewed this provision as a loophole allowing only trivial reduction in color (or, as in the current draft permit, only “apparent” reduction, with no actual improvement in performance) to allow an unspecified increase in production. The fact that AOX levels, calculated from the production level as per the Cluster Rules, were allowed an increased limit and similarly chloroform in the current draft permit, indicates that production has been allowed to increase. The Canton Mill must be required to return to pre-1999 production levels for pulping and bleaching and report daily production on a monthly basis to DWQ, TN and EPA, until all parties agree that the River is fully restored. No increases in production can be considered until that time. It is widely acknowledged that such a huge mill should never have been constructed on a small mountain stream. To allow for increases in production without significant further implementation of oxygen based process changes and further closure of the water loop is inimical to protection of the resource.

Paragraph #32 Both Champion (or successor in interest) and EPA were to undertake various efforts to support the economy of downstream communities impacted by many years of pollution. No significant effort has been made to implement substantive supportive actions.

Paragraph #33 Ecological Assessment of River and Waterville Reservoir. EPA was to take the lead on this. While various studies have been done by BRPP and TN, no comprehensive assessment has been undertaken, especially on toxic sediments in Waterville Lake.

Paragraph #34 called for a specified deadline for issuance of the next permit after the

revised 1998 permit was finalized. As the settlement had taken a year of the permit period that started in 1996, the next five year permit was still to be issued in 2001, by a specific date. We did not have a similar enforceable deadline for the end of the 2001 permit, so North Carolina was able to “administratively extend” the permit until 2010, further lengthening the period in which no improvements were required. While Settlement negotiations and EPA objections did delay full implementation of the 2010 permit for a few years, it has been 7 years since the Settlement Agreement on the previous permit. As a result, the current permit must require a final compliance deadline within 4 years, to make up for lost time, but no later than April 1, 2024, and should specifically prevent such administrative extensions for all future permit renewals to achieve a consistent 5 year renewal cycle with no delays, as required by the Clean Water Act.

### **Restoration of the Pigeon River**

Residents downstream of the Canton Mill have been deprived of a treatable drinking water source, a safe and palatable fishery, an attractive clean river for recreation, free of foam, odor and color. As the Mill was in full operation long before passage of the Clean Water Act, agencies have failed to hold this long standing polluting discharge accountable for the full scope of degradation it has caused to habitat and downstream uses.

Apparently, to advocates for weak regulation of Blue Ridge Paper products, it's as if the River is at fault for being too small, as if the River was created for the 113 year old Mill's use, and appropriate that people who depend on a clean river downstream should simply be grateful that a small fraction of the billions of dollars in profits from operations over a century have finally been used to partly clean a River that should be a safe and magnificent resource for all. A commitment to fully restore the Pigeon River through an accountable and sustained regulatory effort would provide a national symbol of a re-invigorated Clean Water Act.

Yours truly,

A handwritten signature in cursive script that reads "Hope C. Taylor". The signature is written in black ink and is positioned below the "Yours truly," text.

Hope C. Taylor, MSPH  
Executive Director Emerita  
Clean Water for North Carolina

Cc

**Central EPA**

Michael S. Regan, EPA Administrator

Radhika Fox Principle Deputy Admin. Office of Water 202-564-5700

**EPA Region 4**

Region 4 Administrator

Region 4, Director of Water Protection Division

**Tennessee Agency**

David Salyers, PE, Commissioner, TN Dept. of Environmental Conservation

**From:** [Lauren Catalano](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Mill, Canton, NC  
**Date:** Thursday, April 29, 2021 2:34:33 PM

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To whom it may concern,

I am contacting you regarding the Blue Ridge Paper Mill affecting Canton, NC and all folks downstream to Newport, TN.

Please keep the color variance that protects and improves the water quality of the region. In order to continue creating a healthier world, we need to hold companies accountable to do their part in contributing to do better.

Best,  
Lauren Catalano

**From:** [overholtj@charter.net](mailto:overholtj@charter.net)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Thursday, April 29, 2021 2:27:29 PM

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To Whom it Also Concerns:

I have lived downstream from the paper mill in Canton, NC most of my life. The mill, no matter who owned it, has had a negative impact on the environment, health, and welfare of all life downstream, due to the level of pollution it produces, even now that it has met some prior permit standards.

We can not go backward in the fight for clean water, since water (creeks and rivers) are the lifeblood of nature. [This permit is unacceptable. It does not demonstrate the spirit of the Clean Water Act NPDES permitting system in that it does not actually reduce pollution to the Pigeon River during the next permitting cycle.](#) This permit calls for a 17% increase in water taken from the Pigeon River at a time when water resources across the globe are in jeopardy.

The company contracted to measure color on the Pigeon actually measures the water at the Pigeon River prior to mixing with Big Creek at mile 26, as called for by the 1997 Settlement Agreement. It would require a boat to access that flow of Pigeon River and Big Creek prior to mixing. We have never observed this type of testing at this location taking place. It should be measured from a boat at the mouth of the dam release for an accurate measurement, prior to mixing with Big Creek as dictated by the 1997 Settlement Agreement.

It is time for the Pigeon River to be Clean! It is critical at this time of climate awakening that we leave a legacy of tight regulations that actually protect our nation's waters and decrease pollution until it is eliminated! If not us, then who will? Jill Hodge Overholt

**From:** [Tommy Smith](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Thursday, April 29, 2021 9:36:57 PM

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100% against ANY variance being granted. Water below the plant needs to look like the water above the plant! The poor water quality below the plant are the fault of Blue Ridge Paper Products. Emissions should be REDUCED not increased!

Sent from my

**From:** [charik@ucla.edu](mailto:charik@ucla.edu)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Thursday, April 29, 2021 12:12:14 AM

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Dear NC DEQ,

I live in Knoxville, TN, and frequently travel to the Pigeon river in Hartford, TN for recreational kayaking. It is a wonderful resource to have so close to home. Although roadside, the setting is natural enough to refresh our minds and senses after days in urban and indoor environments. On the stretches I have visited, the whitewater varies from tame to moderately exciting, attracting people of a wide range of skill, age, and physical ability, in a wide range of water craft.

I have read the Fact Sheet for NPDES Permit NC0000272 and found it very informative, if also somewhat above a laymen's understanding of what is being measured and how. I am grateful that experts are assessing and protecting the river's health. Nonetheless, I dispute the removal of the Color Variance. The Pigeon River is lovingly known to boaters as the Dirty Bird. Anyone can see and smell the pollution. We spend time not just next to or on top of the water, but also in and underwater. I am afraid to open my eyes in the dark, brown water. The smell gets stronger as the water gets lower, so that, on low water days, I will choose to go to a different river, when I otherwise would have liked to go to the Pigeon. Even if a numerical target for allowable color was reached, that target was too high. I do not need special testing to see that.

And, why should a target set decades ago be the goal today? Technology has progressed by leaps and bounds. At the same time, our natural environment, on which all life depends, is being degraded, at an increasingly fast pace. If we can't take a stand on this small issue here and now, what hope do we have to face the more difficult challenges? Hold the paper mill to improving water quality, not settling for less gross.

Thank you for your time.  
Charlene Hellman, MD  
Knoxville, TN

**From:** [Leah Waldo](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Thursday, April 29, 2021 8:42:44 AM

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To Whom it May Concern:

I am contacting you regarding the Blue Ridge Paper Mill affecting Canton, NC and all folks downstream to Newport, TN.

Please keep the color variance that protects and improves the water quality of the region. In order to continue creating a healthier world, we need to hold companies accountable to do their part in contributing to do better.

Best,  
Leah Waldo

**From:** [deborah bahr](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] NPDES permit # NC0000272  
**Date:** Thursday, April 29, 2021 12:52:16 PM

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North Carolina Division of Environmental Quality

April 29, 2021

To Whom it May Concern;

I am writing on behalf of Clean Water Expected in East Tennessee. Citizens of Cocke and surrounding counties are distressed and concerned over proposed changes to the NPDES Permit # NC0000272 for the Pigeon River. Over 11 decades of degraded water inflicted on downstream communities is ENOUGH!

Dropping the color variance is unacceptable! This last week the color, odor, and general slime that is difficult to remove from gear and bodies has been especially rancid. This is toxic. Visitors and locals have been commenting on the smell also, a chemical smell that leaves a taste in the mouth. The Pigeon river is considered degraded by the state of Tennessee, perhaps because they are more aware of the state of the water than North Carolina? These factors of smell, color and foam impact the esthetic of enjoyment along the river and hurts our tourist economy!

Fecal coliform is an issue, and since the Mill treats the town's sewage it must also be considered in this permit.

Dioxin should continue to be tested in fish. This dangerous carcinogen has impacted the communities downstream for far too long. Recently the medical community is realizing the generational effects of dioxin in our environment and in humans. CWEET believes dioxin testing stopped in 2014, before the permit SHOULD have been reviewed, five years ago. Dioxin tests should not have been discontinued and SHOULD be stringently required in this permit and reported to downstream communities, in plain language so citizens may easily comprehend the results. An independent lab should do the testing and reporting.

Temperature of heated releases should be minimal. The trout stream quality of water above the mill should be of the same quality as below the mill, currently NOT the case.

Toxic pollutants called polyfluoroalkyl substances (PFAS) are used in industries like pulp and paper packaging to enhance water-resistant properties of paper products, do not biodegrade, often persist in organisms, and pose significant health concerns. The more scientists learn about PSAS the clearer it becomes that chemicals that produce PFAS should be tracked and when possible not discharged into waterways.

The amount of effluent dumped into the Pigeon river should be lowered substantially. Decades ago, Coker county citizens requested no more than 22,000lb. limit as opposed to the 36,000lb limit currently allowed. This amount should have been reduced in 2015. The Clean Water Act calls for No Backsliding on permits. NC is already 5 years overdue in making any reduction, it is time to do the right thing!

Daily dumping limits should be set and enforced. Averaging the amounts weekly or monthly allows for conditions that are outrageous for downstream communities to have to deal with. Large piles of foam have once again become more common. The color and smell ARE impacting our ability to use the river for recreation and that does impact our economy. Tourists ask guides and locals about what they see and smell, how the water feels. The potential for our historically distressed economy to build and recover from over 100 years of pollution by the NC mill is impacted by the continued degradation of our precious natural resource, the Pigeon River!

No one has looked at the effect these changes are having through the ecosystem as some of the larger birds and mammals have come to river for sustenance. We know the raft guides who are continuously exposed to the degraded water of the Pigeon suffer from health issues. The pollution effects downstream communities in very real ways. Do the right thing, you were forced in the past to finally take a stand and clean up the river, this time take the initiative to get the job done. Downstream communities are proud of the recovery the mill was forced to take in the 1990's. Do not be idle, become good stewards and good neighbors, CLEAN UP THE PIGEON RIVER. Create a more stringent permit that addresses our issues, NO BACKSLIDING!

Deborah Bahr

[cweet.org](http://cweet.org)

865-453-8535

966 Yellow Breeches Rd

Cosby, TN 37722

**From:** [Katie Hicks](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Attn: Blue Ridge Paper Products (Permit NC0000272) - Comments  
**Date:** Friday, April 30, 2021 8:45:34 AM  
**Attachments:** [BRPP Permit Comments - KH - 4-30-2021.pdf](#)

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Good morning,

Please find attached my comments on the permit mentioned above.

Respectfully,

Katie Hicks  
263 Fairview Rd.  
Asheville, NC 28803  
[kathryn.c.hicks@gmail.com](mailto:kathryn.c.hicks@gmail.com)

Katie Hicks  
263 Fairview Road  
Asheville, NC 28803

NC Division of Water Resources  
NPDES Wastewater Permitting  
North Carolina Department of Environmental Quality  
217 West Jones Street  
Raleigh, NC 27603

April 30, 2021

Attn: Blue Ridge Paper Products  
Draft Permit NC0000272

Dear Mr. Chernikov and NC DWR Team:

Growing up in Western North Carolina, I have observed the water and air pollution coming from the Blue Ridge Paper Products mill in Canton, NC for my entire life. The Pigeon River is a small mountain river and should have special protections compared to a larger water body with a mill of similar size, yet permits allow the mill to discharge massive amounts of polluted wastewater into the small river.

As a former staff member of Clean Water for NC (CWFNC), I began learning about the details of the mill's wastewater discharges into the Pigeon River and the impacts on downstream communities beginning with the 2010 permitting cycle. At that time, 11 years ago, organizations such as CWFNC, Clean Water Expected in East Tennessee (CWEET), and others were already having to pressure the Division to hold the mill accountable to make improvements identified in the Settlement Agreement in the 1990s and the several technical studies that followed. These studies proved that the mill could absolutely make changes to create real progress in improving water quality in the Pigeon River, and yet, decades after the studies took place, this permit continues to set low expectations, harming the livelihoods of downstream users.

According to CWEET, whose members are largely raft guides and individuals who kayak, boat, swim and fish in the Pigeon River downstream, "the color of the river is brown, dark and sweet tea colored on many days. The river smells like the acrid papermill, all the way to Newport, Tennessee. One can observe foam and often professional river guides deal with rashes and reactions to the many chemicals that comprise the color pollution." ([Source](#)). Cocke County, TN's economy and health has been adversely affected by the mill for over 100 years while

Haywood County, NC enjoys over 1000 high paying jobs and the tax revenue coming from the mill's presence. In order to address the injustices caused by the mill's discharge, I offer the following specific comments on the 2021 permit:

- Do not remove the color variance. Impacted residents and advocacy organizations have had to fight against the removal of the color variance in numerous permitting cycles, and the reasons for keeping it remain the same. The variance acknowledges that the color in the river is not meeting the NC narrative standard, and to remove it would indicate that the color in the river is acceptable, which is simply not the case.
- The instream color standard must be strengthened. The proposed standard is weaker than the proposed EPI standard from back in the 1980s, which is unacceptable.
- Do not increase the limit for chloroform. This permit allows additional chloroform to be released into the river compared to the previous permit, based on the total production of the mill. Toxic releases should be decreasing, not increasing, over time, as set forth in the creation of the Clean Water Act and NPDES permitting.
- Tighten the temperature variance and increase monitoring frequency for several key parameters. This includes instream color, which should be sampled daily at the closest downstream point (Fibreville). Enforcement should be based on these daily measurements rather than monthly averages, which do not account for large spikes in production. The summer temperature limit should be enforced daily, as well, and this limit should be reduced to at least 30 degrees C.

The photo below was taken in 2010 on a flyover above the mill by my friend and Haywood County resident Valerie Blanchette, who was a boater and firm advocate for cleaning up the Pigeon River who had been involved in previous permitting cycles. She unfortunately passed away in 2019. It is in memory of Valerie, and in hopes that her dream of a truly clean Pigeon River and a paper mill that is truly held accountable by NC regulators, will become a reality.



Respectfully submitted,

Katie Hicks

**From:** [Melanie Ruhlman](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Cc:** [Adam Mobley](#)  
**Subject:** [External] Blue Ridge Paper Products Permit  
**Date:** Friday, April 30, 2021 12:58:30 PM  
**Attachments:** [Blue Ridge Paper Products Permit Comments - FPC .pdf](#)

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To Whom It May Concern,

Please find attached comments submitted on behalf of Foothills Paddling Club (FPC) for the National Pollutant Discharge Elimination System (NPDES) discharge permit NC0000272 for Blue Ridge Paper Products, Inc.

Sincerely,  
Melanie Ruhlman  
Member, Foothills Paddling Club

April 30, 2021

Comments submitted electronically to: [publiccomments@ncdenr.gov](mailto:publiccomments@ncdenr.gov)

Re: Blue Ridge Paper Products Permit

To Whom It May Concern,

I am submitting the following comments on behalf of Foothills Paddling Club (FPC) to oppose renewal of National Pollutant Discharge Elimination System (NPDES) discharge permit NC0000272 for Blue Ridge Paper Products Inc. for wastewater discharge to the Pigeon River.

FPC is based in Greenville, South Carolina and has a membership that extends throughout the region, including Western North Carolina, Northeast Georgia, East Tennessee, and throughout South Carolina. FPC promotes the safe enjoyment of both whitewater and flat water and supports the local paddling community through events, trips, classes, clinics, and online resources. Many FPC members paddle the Pigeon River. FPC supports protecting the health of our southeast rivers to ensure that existing uses and the water quality needed to protect those uses is maintained.

The water quality of the Pigeon River has improved significantly in recent decades thanks to pressure from federal, state, and local governments, the public, and operational changes at the Canton Mill. Recreational use of the river has also increased, helping to boost the local economy. However, there is still much that needs to be done to reduce pollution in the river coming from the Mill's wastewater discharge. The proposed permit includes no new requirements for water quality improvements to address water quality impairments downstream of the discharge, and therefore is inconsistent with antidegradation policy and anti-backsliding provisions of the Clean Water Act. The goal of the Clean Water Act is to prevent, reduce, and eliminate pollution in the Nation's waters in order to restore and maintain their chemical, physical, and biological integrity. Anti-backsliding provisions prohibit the renewal, reissuance, or modification of an existing NPDES permit that contains effluent limitations, permit conditions, or standards less stringent than those established in the previous permit.

The renewal of the NPDES discharge permit is long overdue, as are needed water quality improvements. The new permit should therefore include requirements that would improve and protect water quality and stream health/aquatic life, not allow more pollution. The following comments are offered to detail our opposition to the proposed permit.

- The requested change of water usage from 29 to 34 MGD (17% increase) to accommodate changes to industrial process, increased landfill leachate, and growth from the Town of Canton effectively increases pollutant loading to an already impaired section of the Pigeon River. More stringent permit limits/conditions/standards are therefore needed to mitigate additional impacts to water quality from the increased discharge and increased pollutant load. NC DEQ should require the mill to submit updated information stating what pollutant levels they will be discharging under the increased flow.

- More than 6 miles of the Pigeon River below the Canton Mill discharge are currently listed as impaired by NC DEQ for not adequately supporting aquatic life and an additional 7.8 miles downstream are proposed to be listed as impaired (in a reach that was previously listed), also because they do not fully support aquatic life. The fish community below the Mill is more characteristic of a warm water system compared to upstream of the Mill. The 2014 *Canton Mill Balanced and Indigenous Species Study for the Pigeon River* found that the most common fish species collected downstream of the Mill discharge was redbreast sunfish, which is nonindigenous to cold mountain waters and is thermally tolerant. Similarly, carp is also common in the thermally affected reach below the Mill. No salamanders were found in samples collected in the Pigeon River below the mill discharge, although they were found upstream and in tributaries. A 2009-2010 baseline survey of crayfish in the Pigeon watershed with 1,320 crayfish specimens represented found crayfish in nine tributaries, in the mainstem of the Pigeon River upstream of the Mill, in the bypass reach downstream of Walters Dam, and in reaches in Tennessee. No crayfish were found at three stations in the river downstream of the Mill above Waterville Lake. The 2014 species study found no native crayfish species and only one non-native crayfish species in the river downstream of the Mill. Federally endangered freshwater mussels and mussel species of concern in North Carolina have been found in the Pigeon River upstream of the Canton Mill discharge, while it has been reported that the only bivalve found in the lower portion of the river below the Mill dam is the exotic invasive *Corbicula*. (Note: Fish experts from the N.C. Museum of Natural Sciences, N.C. Wildlife Resources Commission, University of Tennessee and other groups estimated that 40 species of native mussels and 95 species of native fishes once inhabited the river.) North Carolina Biotic Index scores for macroinvertebrates declined from a Good rating upstream of the discharge to a Fair rating downstream of the discharge. Blue-green algae were reported as dominating the periphyton community below the discharge. The aquatic plant indicator species *Podostemum ceratophyllum* was present in reference and upstream sites and further downstream, but was not present at all in the thermally affected reach below the Mill. ***While it is recognized that there has been an overall positive trend towards improvement of conditions more conducive to healthy indigenous aquatic life, thermally affected reaches remain impaired and therefore measures are needed to improve the water quality of the Canton Mill discharge sufficient to adequately support aquatic life.***
- NC DEQ should eliminate the thermal variance for the mill discharge. The aquatic community below the discharge is not balanced or indigenous, which is a requirement for a thermal variance under Section 316(a) of the Clean Water Act. Therefore, NC DEQ should not grant furtherance of the thermal variance. Permit requirements and conditions are needed to continue to reduce thermal impacts to the river from the wastewater discharge at the Canton Mill. The heated waste discharge alters the Pigeon River aquatic community and impairs downstream water quality and in-stream habitat conditions. Measures are needed to decrease the temperature difference and to minimize extreme changes in temperature as measured on a daily time scale. Therefore, daily temperature limits are needed for the new permit. The 2007 fish kill during low flow conditions and high temperatures underscores this need. Replacing weekly average temperature standards with monthly average standards is backsliding and will likely have the effect of allowing increased temperatures below the mill. Therefore, tighter standards (daily limits)

for temperature are needed for the new permit, along with elimination of the thermal variance.

- Although there have been significant improvements, the color of the Pigeon River remains unacceptable. The water color is inconsistent with that of other rivers in the area, particularly during low flow periods, and looks like that of a slow-moving coastal black water river high in tannins. The unnatural color of the mill discharge adversely affects the aesthetic quality of the river and negatively affects the quality of recreational experiences in reaches downstream of the discharge. The darker color of the Pigeon River below the mill discharge along with elevated specific conductance levels indicates a high level of dissolved constituents in the water column that are likely contributing to the impairment of aquatic life. Furthermore, the Pigeon River across the state line in Tennessee is currently not meeting all its designated uses and remains on the Tennessee 303(d) list for impaired rivers due to color pollution, foam, taste, and smell from the Canton Mill discharge. Therefore, the color variance must not be removed until the river below the discharge is meeting its designated uses and is no longer significantly and unnaturally discolored.
- Dioxin testing in fish should continue until none is detected. Relaxing dioxin testing requirements is not warranted for the new permit.
- There have been multiple violations of water quality standards for fecal coliform, which directly impacts recreational use. The new permit should include required measures to prevent fecal coliform violations in the future.
- Paper mills using polyfluoroalkyl substances (PFAS) may be a significant source of contamination to water. NC DEQ should require a complete disclosure of all PFAS used now or historically at the Canton Mill and ensure the best available technologies are used to remove these pollutants before water is returned to the river. Additional sampling should be required to detect the presence and concentration of PFAS in the wastewater discharge.

In summary, the draft NPDES discharge permit NC0000272 for Blue Ridge Paper Products Inc. for wastewater discharge to the Pigeon River permit fails to adequately protect aquatic health and recreational use, allows for increased pollutant loading, and is inconsistent with the goals of the Clean Water Act for the continued reduction and elimination of pollution. The draft permit is a step backwards for the continued recovery of the Pigeon River from ongoing significant and impactful wastewater discharges from the Mill and therefore should not be approved.

Sincerely,

A handwritten signature in black ink that reads "Adam Mobley". The signature is written in a cursive style with a long, sweeping underline.

Adam Mobley, Vice President  
Foothills Padding Club

**From:** [Spencer Scheidt](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Cc:** [Chernikov, Sergei](#); [Petter, Lauren](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Friday, April 30, 2021 1:43:25 PM  
**Attachments:** [2021-04-30 SELC Canton NPDES Comment Letter.pdf](#)  
[Attachment A.pdf](#)  
[Attachment B.pdf](#)

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Hello,

The Southern Environmental Law Center wishes to submit the attached comments regarding North Carolina's Draft NPDES Permit No. NC0000272 for Blue Ridge Paper Products. Because our "Attachment C" is too large to send via email, we will also be submitting a hard copy containing a USB drive with our letter and all attachments. If desired, we can also provide paper copies of all attachments.

Thank you for your consideration.

**Spencer Scheidt** (he/him/his)

*Associate Attorney*

**Southern Environmental Law Center**

48 Patton Ave., Suite 304

Asheville, NC 28801

Ph: 828-258-2023

Fax: 828-258-2024

[www.southernenvironment.org](http://www.southernenvironment.org)

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# SOUTHERN ENVIRONMENTAL LAW CENTER

Telephone 828-258-2023

48 PATTON AVENUE, SUITE 304  
ASHEVILLE, NC 28801-3321

Facsimile 828-258-2024

April 30, 2021

***Via Electronic Mail and First-Class U.S. Mail***

Sergei Chernikov, Ph.D.  
Environmental Engineer III  
North Carolina Department of Environmental Quality  
Division of Water Resources  
Industrial NPDES Permitting Unit  
1617 Mail Service Center  
Raleigh, NC 27699-1617  
Email: sergei.chernikov@ncdenr.gov

**Re: Draft NPDES Permit NC0000272 Renewal**

Dear Dr. Chernikov,

Please accept these comments from the Southern Environmental Law Center on behalf of MountainTrue, the French Broad Riverkeeper, the Tennessee Chapter of the Sierra Club, and the Center for Biological Diversity regarding the draft National Pollutant Discharge Elimination System (“NPDES”) permit renewal for Blue Ridge Paper Products, LLC d.b.a. Evergreen Packaging (“Blue Ridge Paper”) proposed on November 10, 2020 (“the Draft Permit”). Our organizations are concerned that the Draft Permit provides insufficient protections for the Pigeon River, in contravention of the Clean Water Act, the Code of Federal Regulations, and North Carolina state law. The Draft Permit must be withdrawn, revised, and reissued for public comment.

Specifically, the North Carolina Department of Environmental Quality (“DEQ”) must make the following changes, in addition to others identified below:

- Require daily maximum temperature thresholds.
- Acknowledge that Blue Ridge Paper’s own 2014 study shows it cannot assure the protection of a balanced, indigenous population below the discharge and require Blue Ridge Paper to implement technology controls to comply with North Carolina’s water quality standards for temperature.
- Reinstate the requirement to conduct fish-tissue dioxin testing at least three times per five-year permit period.
- Interpret North Carolina’s narrative standard for “colored and other wastes” in a manner that protects all aspects of “aesthetic quality,” not just shifts in true color.
- Evaluate currently available technologies to reduce color discharge.

- Develop technology-based limits for discharged pollutants not covered by EPA’s outdated industry effluent limitation guidelines.
- Require complete disclosure of the mill’s prior, current, and future use of forever chemicals in its processes, and the potential for ongoing discharge into the Pigeon River.
- Account for leachate leaking from the mill’s old landfills into the Pigeon River while setting permit pollution limits.
- Require Blue Ridge Paper to submit a current and complete application that discloses all pollutants currently discharged, not those discharged and subject to disclosure seven years ago under a lower permitted flow.

## I. Factual Background

The Pigeon River flows over 100 miles from its headwaters in the Middle Prong Wilderness to its confluence with the French Broad River. Historically, this entire stretch of water was a free-flowing, clear, cold-water river<sup>1</sup> home to over ninety-five native fish species.<sup>2</sup> That changed in 1908 when the Canton paper mill began dumping toxic effluent—including dioxins, furans, and chloroform—directly into the river. In the mill’s early years of operation, as much as 95% of the Pigeon’s flow was diverted for industrial processes and expelled as effluent.<sup>3</sup> By 1964, the Pigeon was so polluted that a thirty-two-kilometer segment of the river below the mill had no fish at all.<sup>4</sup> However, over the past few decades a combination of factors have improved water quality on the Pigeon River, including progressively more stringent permit limits imposed under the Clean Water Act’s NPDES program, regulatory enforcement actions, and the mill’s modernization efforts.

Below the mill, the Pigeon River is classified as a Class C waterbody, which means its waters must be “suitable” for “aquatic life propagation, survival, and maintenance of biological integrity (including fishing and fish); wildlife; secondary contact recreation . . . [and] agriculture.” 15A N.C. Admin. Code 2B .0211(1)–(2). Secondary recreation includes fishing and paddling. Class C waters must also meet specific numeric criteria, like temperature limits specific to mountain streams, and narrative limits, including preventing colored and other wastes from degrading the river’s aesthetic qualities. For several decades, the reach below the mill has failed to meet the Class C criteria for benthic aquatic life, triggering its listing as impaired under Section 303(d) of the Clean Water Act.<sup>5</sup> This impaired area has recently expanded, according to the latest draft § 303(d) list issued by DEQ.<sup>6</sup> Above the mill, the Pigeon River is designated as

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<sup>1</sup> Richard A. Bartlett, *Troubled Waters: Champion International and the Pigeon River Controversy* (1995).

<sup>2</sup> D.A. Etnier & W.C. Starnes, *The Fishes of Tennessee*, University of Tennessee (1993).

<sup>3</sup> J. Larry Wilson, Charles C. Coutant, & John Tyner, *Canton Mill Balanced and Indigenous Species Study for the Pigeon River (Clean Water Act Section 316(a) Demonstration)* at 32 (2014) [hereinafter “BIP”].

<sup>4</sup> J.B. Messer, *Survey and Classification of the Pigeon River and Tributaries, North Carolina*, North Carolina Wildlife Resources Commission (1964).

<sup>5</sup> See, e.g., N.C. Dep’t of Env’tl. Quality, Div. of Water Res., *2018 NC Category 5 Assessments “303(d) List” Final*, <https://files.nc.gov/ncdeq/Water%20Quality/Planning/TMDL/303d/2018/2018-NC-303-d--List-Final.pdf>.

<sup>6</sup> See N.C. Dep’t of Env’tl. Quality, Div. of Water Res., *Integrated Report Files*, <https://deq.nc.gov/about/divisions/water-resources/planning/modeling-assessment/water-quality-data-assessment/integrated-report-files>.

WS-III and Trout Waters. These more protective designations ensure that the waters above the mill safeguard water-supply resources and sustain conditions for trout propagation and survival on a year-round basis. Both designations end at the Canton water supply intake just before Blue Ridge Paper's mill. No § 303(d) impairments exist above the mill.

Although the mill has discharged pollution into the Pigeon for more than a century, the mill received its first permit authorizing polluted discharges under the Clean Water Act in 1973. In 1985, North Carolina began administering the permitting program under authority delegated from EPA, and issued its first NPDES permit for the mill. This permit included a Clean Water Act § 316(a) thermal variance allowing the mill to exceed North Carolina's thermal standards<sup>7</sup> so long as the mill maintained: (1) a monthly average in-stream temperature maximum of 32 °C in the summer and 29 °C in the winter, and (2) a monthly average maximum temperature rise above the ambient temperature of upstream waters of 13.9 °C. For perspective, 32 °C is about 90 °F, around the maximum temperature of the Persian Gulf in mid-summer;<sup>8</sup> and 29 °C is approximately 85 °F, around the temperature of the ocean off of Miami Beach in August.<sup>9</sup>

These temperature limits remained unchanged until 2010, when North Carolina reduced the maximum monthly average temperature difference between upstream and downstream waters from 13.9 °C to 8.5 °C. That same year, a coalition of conservation groups and the government of Cocke County, Tennessee, challenged North Carolina's reissuance of the mill's NPDES permit, arguing the permit violated thermal-pollution limitations and improperly relied on an illegal color variance. On April 24, 2012, the Division of Water Quality ("DWQ") and the N.C. Environmental Management Commission ("EMC") entered into a partial settlement agreement with the petitioners,<sup>10</sup> who agreed to dismiss their temperature-related claims provided that, among other things:

- DWQ modified the permit—subject to EPA approval—to add a *weekly* average in-stream temperature maximum of 32 °C from July to September and 29 °C from October through June.
- Blue Ridge Paper prepared an updated Balanced Indigenous Population study ("BIP" or "BIP study") that (1) complied with Section 316(a) of the Clean Water Act; (2) surveyed mussels and shellfish in the mainstem of the Pigeon; (3) included "detailed studies of macro-invertebrates and shellfish"; (4) conducted thermal sampling "at 20 locations in

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<sup>7</sup> North Carolina's water quality standards specify a maximum temperature of 29 °C for mountain and upper piedmont waters and 32 °C for lower piedmont and coastal plain waters, and forbid heated discharges from increasing the ambient temperature of the receiving waters above 2.8 °C. 15A N.C. Admin. Code 02B .0211(18).

<sup>8</sup> *Persian Gulf*, Encyclopedia Britannica (2021), <https://www.britannica.com/place/Persian-Gulf>.

<sup>9</sup> Liz Osborn, *Average Ocean Water Temperatures at Miami Beach*, Current Results, <https://www.currentresults.com/Oceans/Temperature/miami-beach-average-water-temperature.php> (last visited Apr. 19, 2021).

<sup>10</sup> Partial Settlement Agreement and Joint Stipulation to Stay, N.C. O.A.H No. 10 E.H.R. 4341 (Apr. 24, 2012) [hereinafter "Partial Settlement Agreement"] (Attachment A).

the Pigeon River and 2 locations in a reference river”; and (5) “intensively” surveyed for fish, macroinvertebrates, shellfish, and periphyton using certain sampling protocols.

On June 1, 2012, DWQ issued a permit modification incorporating the weekly average standard.<sup>11</sup> Several months later, consultants hired by Blue Ridge Paper began sampling for the updated BIP study. Above the mill, the BIP study found a cold-water fish community; pollution-intolerant macroinvertebrates; habitat-forming hornleaf riverweed; and native salamanders, crayfish, and rare mussels. Below the mill, the study found a “warm-water fish community”; pollution-tolerant macroinvertebrates; invasive Asiatic clams; and a total lack of salamanders, native crayfish, and hornleaf riverweed. Despite these severe impairments, the BIP study concluded that the community below the mill was “‘balanced’ and similar to what would have been there without the thermal discharge.”<sup>12</sup>

In 2014—the last year of the 2010 permit’s coverage—petitioners also settled their color-related claims with DWQ and EMC.<sup>13</sup> Pursuant to the final agreement, Blue Ridge Paper agreed to file a timely permit-renewal application, where the challenged discharge limits would be reconsidered. DWQ and EMC further agreed to “take all reasonable steps to issue an NPDES Permit within 24 months of receipt of a complete permit renewal application.”<sup>14</sup> A few months later, Blue Ridge Paper applied for renewal of the permit.<sup>15</sup> Yet instead of timely processing the permit renewal, DWQ administratively extended the 2010 permit for another five years.

When DEQ<sup>16</sup> finally revisited the permit in 2020, it inexplicably weakened discharge limits. Like its predecessors, the current Draft Permit would authorize discharge of the mill’s polluted wastewater, including industrial, stormwater, municipal, and landfill leachate, into the Pigeon River. Material changes to the 2010 permit terms include: (1) increasing the flow limit from 29.9 million gallons per day (“MGD”) to 34 MGD; (2) removing the color variance while requiring no further reductions in colored-waste discharges; (3) reducing the frequency of fish-tissue sampling for dioxin; (4) allowing a mixing zone; and (5) recalculating chloroform limits. The Draft Permit also recommends reverting to the temperature variance limits set for the original 2010 permit: seasonal monthly average maximums of 32 and 29 °C and a monthly average maximum temperature differential of 8.5 °C. No weekly average or daily maximums are proposed.

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<sup>11</sup> Letter from Charles Wakild, Engineer, N.C. Dep’t of Env’t and Nat. Res., to Paul Dickens, Manager, EHS, Blue Ridge Paper Products Inc. (June 1, 2012) (Attachment C).

<sup>12</sup> BIP at 10.

<sup>13</sup> Settlement Agreement, N.C. O.A.H No. 10 E.H.R. 4982 (Sept. 5, 2014).

<sup>14</sup> *Id.*

<sup>15</sup> Blue Ridge Paper Products Inc. dba Evergreen Packaging, Application for Permit Renewal NPDES Permit NC 0000272 (Dec. 30, 2014) [hereinafter “Permit Application”].

<sup>16</sup> In 2015, the North Carolina Department of Environment and Natural Resources was renamed the North Carolina Department of Environmental Quality, and the Division of Water Quality was renamed the Division of Water Resources.

In making the recommendation to revert to the pre-settlement temperature variance terms, Division of Water Resources (“DWR”) staff evaluated Blue Ridge Paper’s 2014 BIP study and erroneously concluded that temperature was not prohibiting a balanced and indigenous population. In addition, DWR reviewed existing temperature data and concluded that Blue Ridge Paper still cannot meet North Carolina’s water-temperature standards. Therefore, DWR is recommending continuation of the variance that allows Blue Ridge Paper to discharge heated water and exceed water quality standards for temperature in the Pigeon River below the mill.<sup>17</sup>

## **II. The Permit Must Include Stronger Limits on Discharges into the Pigeon River.**

The Clean Water Act requires various pollution-control measures “to restore” the “chemical, physical, and biological integrity” of the Pigeon River. 33 U.S.C. § 1251(a). These measures—including North Carolina’s NPDES permits—have been enormously important to the progressive recovery of the Pigeon downstream of the mill. However, that recovery and restoration is incomplete. DEQ’s Draft Permit fails to make the meaningful progress required, and even allows backsliding on critical permit terms. DEQ must revise its Draft Permit to honor its obligations under state and federal law to fully restore and protect the Pigeon.

### **A. The Draft Permit fails to set daily temperature thresholds as required by law.**

Under North Carolina and federal law, all permit limits for continuous discharges shall, “unless impracticable,” be stated as both *daily* maximum and average monthly discharge limitations. 40 C.F.R. § 122.45(d) (excepting publicly owned treatment works); 15A N.C. Admin. Code § 2H .0143(26) (incorporating this federal regulation by reference).<sup>18</sup> The maximum daily discharge limit for pollutants like temperature is the “average” measurement over the course of one day. 40 C.F.R. § 122.2; 15A N.C. Admin. Code 2H .0143(1) (incorporating this definition).

Blue Ridge Paper is a continuous discharger. But the Draft Permit only includes “*monthly* average instream temperature” discharge limitations.<sup>19</sup> Neither the Draft Permit nor the Draft Fact Sheet mention any consideration of daily limits, much less explain why setting daily limits would be “impracticable.” Therefore, the Draft Permit is arbitrary, capricious, and contrary to federal and state law. *Cf.* In re *City of Ames*, 6 E.A.D. 374, 389 (1996) (holding that the EPA could disregard the mandates of 40 C.F.R. § 122.45(d) “only if [the specified] average limits are impracticable”); In re *City & County of San Francisco*, 4 E.A.D. 559, 579 (1993) (“Unless it is impracticable to establish average [daily] or monthly [discharge] limitations . . . the regulations require average [daily] and monthly [discharge] limitations.”).

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<sup>17</sup> Draft Fact Sheet at 10.

<sup>18</sup> North Carolina’s delegated NPDES program must “at all times be conducted in accordance with the requirements” of the Clean Water Act and EPA’s implementing regulations. 40 C.F.R. § 123.1(f); 15A N.C. Admin. Code 2H .0118 (“Any state NPDES permit will contain effluent limitations and standards required by . . . the Clean Water Act which is hereby incorporated by reference including any subsequent amendments and editions.”).

<sup>19</sup> See Draft Permit at 4 n.11 (emphasis added).

Worse still, DEQ is also silent on its decision to retreat from the weekly average limits for temperature added to the permit in 2012, in accordance with the partial settlement agreement. Certainly, DEQ is obligated to impose a *daily* average temperature limit—for both maximum seasonal temperatures and the maximum temperature differential<sup>20</sup>—as discussed above. But even if that were not the case, DEQ cannot backslide on the terms of its temperature variance by reverting from a weekly to a less stringent monthly standard. 33 U.S.C. 1342(o); 40 C.F.R. § 122.44(l); 15A N.C. Admin. Code 02B .0408(25) (incorporating 122.44 by reference).

To comply with the law, the Draft Permit must be revised and reissued with daily and monthly maximum temperature limitations. In addition, the fact sheet must acknowledge that the starting point for DEQ’s variance analysis is the weekly average limits set in accordance with the settlement agreement in 2012.

B. Blue Ridge Paper’s BIP study is flawed and cannot support a continued thermal variance.

Under the Clean Water Act, heated industrial wastewater, also called “thermal effluent,” is a pollutant that cannot be discharged to jurisdictional waters without an NPDES permit. 33 U.S.C. § 1342; *see also* 40 C.F.R. § 122.2 (listing “heat” as a “pollutant”). Ordinarily, such permits must impose effluent limits on heated wastewater sufficient to satisfy state water quality standards for temperature. 33 U.S.C. § 1311(b)(1)(C) (requiring the establishment of “any more stringent limitation” necessary to meet “water quality standards,” including state standards for temperature). Clean Water Act § 316(a), however, provides narrow authority for a variance from water quality standards for temperature when such effluent limits are “more stringent than necessary to assure the protection and propagation of a balanced, indigenous population of shellfish, fish, and wildlife.” *Id.* § 1326(a).

Under this provision, an industrial discharger seeking a § 316(a) temperature variance bears the burden of demonstrating both: (1) that effluent limits otherwise required by the Clean Water Act are “more stringent than necessary” to protect the balanced, indigenous population; and (2) that the thermal discharge allowed by such a variance will protect the balanced, indigenous population in the future. *See* 33 U.S.C. § 1326; 40 C.F.R. § 125.73(a) (requiring the applicant to demonstrate that water quality standards are more stringent than necessary). If the applicant fails to make either of these showings they must comply with the thermal water quality standards. In this case, the BIP showed neither.

Protection of the balanced, indigenous population may be shown using one of three approaches: a predictive study showing that future thermal discharges allowed by the variance will not appreciably harm<sup>21</sup> the balanced, indigenous population; a retrospective study showing

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<sup>20</sup> The 2012 settlement agreement only required a weekly average limitation for the maximum seasonal temperature limits. *See* Partial Settlement Agreement, *supra* note 10 (Attachment A). But federal regulations require daily average limits for all temperature limits, including the maximum temperature differential between upstream and downstream of the mill.

<sup>21</sup> EPA’s regulations do not define appreciable harm, but Environmental Appeals Board decisions have emphasized factors such as a shift in species composition and the “magnitude of the changes in the community as a whole and in

that past thermal discharges have not caused appreciable harm; or, alternatively, a study showing that, despite the fact that thermal discharges have appreciably harmed the balanced, indigenous population in the past, no future harm will occur. 40 C.F.R. §§ 125.70, 125.73(c). Here, Blue Ridge Paper attempted to show an absence of both prior appreciable harm and potential future harm to a balanced, indigenous population in the Pigeon River.<sup>22</sup>

Regardless of the demonstration method selected, thermal impacts cannot be considered in isolation. 40 C.F.R. § 125.73(a). Instead, the applicant must show that “the *cumulative* impact of its thermal discharge *together* with all other significant impacts on the species affected, will assure the protection and propagation of a balanced indigenous [population].” *Id.* (emphasis added).

EPA regulations define a balanced, indigenous population as “a biotic community typically characterized by diversity, the capacity to sustain itself through cyclic seasonal changes, presence of necessary food chain species and by a lack of domination by pollution tolerant species.” 40 C.F.R. § 125.71(c). Blue Ridge Paper acknowledges that the “balanced, indigenous population” of fish, shellfish, and wildlife contemplated by the Clean Water Act is the population that would have existed absent the impacts of the applicant’s “thermal discharge and other sources of pollution.”<sup>23</sup>

Blue Ridge Paper began sampling for the BIP study used to support the 2020 thermal variance in 2012, following partial settlement of the prior contested case. Researchers assessed physical and biological metrics at multiple sampling stations, including several upstream of the mill, several below, a few on the mainstem of the Pigeon in Tennessee, and at two locations on the lower Swannanoa River.<sup>24</sup> Biological sampling targeted fish, mussels and shellfish, macroinvertebrates, periphyton, macrophytes, and other wildlife. All of these biotic categories showed night-and-day differences in health and composition between upstream and downstream populations:

- The BIP study acknowledged that the “fish community in the North Carolina reach downstream of the Mill has more characteristics of a warm-water fish community than does the river upstream of the Mill.”<sup>25</sup>

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individual species.” In re *Pub. Serv. Co. of Ind.*, 1 E.A.D. 590, \*22 (1979). According to the BIP study, appreciable harm is shown if “adverse impacts” are “present.” BIP at 48.

<sup>22</sup> BIP at 16, 69.

<sup>23</sup> *Id.* at 20. See also 40 C.F.R. § 125.71(c) (stating that a balanced indigenous population excludes “species whose presence or abundance is attributable to the introduction of pollutants that will be eliminated by compliance” with water quality standards); In re *Dominion Energy Brayton Point*, 12 E.A.D. 490, 557 (2006) (“[T]he population under consideration is not necessarily just the population currently inhabiting the water body but a population that may have been present but for the appreciable harm.”).

<sup>24</sup> BIP at 42, 45. BIP researchers decided to include reference sites from outside the Pigeon River watershed in order to comply with EPA guidance suggesting “sampling more reference locations.” *Id.* at 34. The researchers found the lower Swannanoa River is an appropriate comparison because it “has comparable basin morphology and is part of the larger French Broad River basin.” *Id.* at 41; see *infra* Part II.B.4 (describing why the Swannanoa is not an appropriate comparison).

<sup>25</sup> BIP at 57.

- No mussels were found at any sampling sites,<sup>26</sup> though two rare species—the wavy-rayed lampmussel and the endangered Appalachian elktoe—have been found upstream of the mill.<sup>27</sup> Invasive and thermally tolerant Asiatic clams were found at every biological sampling site downstream of the mill, whereas only one was found upstream.<sup>28</sup>
- Macroinvertebrate sampling scores<sup>29</sup>—a measure of the benthic community’s pollution *intolerance*—were “Good” immediately above the mill, “Fair” in the five sites immediately below the mill, “Good-Fair” in the next three downstream sites, and then “Good” once more at the North Carolina station farthest downstream from the mill.<sup>30</sup>
- Periphyton were generally present in ecologically insignificant amounts throughout the river,<sup>31</sup> though the study notes the “periphyton community in a small area of the zone of initial mixing [below the mill] is dominated by blue-green algae with associated thermally tolerant chironomid larvae.”<sup>32</sup>
- No macrophytes (hornleaf riverweed) were found in the thermally affected reach, though riverweed was found at three of the four upstream sites and two of the three Tennessee sampling sites downstream.<sup>33</sup>
- The BIP also referenced two studies that found no salamanders<sup>34</sup> or crayfish<sup>35</sup> in the thermally affected portion of the mainstem, though both taxa were found upstream and in several tributaries of the Pigeon.<sup>36</sup> BIP researchers did find one crayfish species in the thermally affected reach: the non-native White River crayfish, a species more typically found in sloughs, swamps, and sluggish lowland streams.<sup>37</sup>

In spite of these clear imbalances, the BIP study concluded that the community below the mill is “‘balanced’ and similar to what would have been there without the thermal discharge” and other sources of pollution.<sup>38</sup> DEQ largely agreed, though it found that “the data do suggest some

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<sup>26</sup> *Id.* at 8.

<sup>27</sup> *Id.* at 37.

<sup>28</sup> *Id.* at 87.

<sup>29</sup> Specifically, North Carolina Biotic Index scores. See N.C. Dep’t of Env’tl. Quality, *Standard Operating Procedures for the Collection and Analysis of Benthic Macroinvertebrates* 19 (2016) [hereinafter “2016 Benthic SOP”].

<sup>30</sup> BIP App’x B at 7, 38–39.

<sup>31</sup> BIP at 9.

<sup>32</sup> *Id.* at 58.

<sup>33</sup> *Id.* at 9 (noting temperature is a limiting factor in the reach nearest the mill because “temperatures in summer can exceed the [riverweed’s] reported upper limit of 30 °C reported in the literature”).

<sup>34</sup> Nikki J. Maxwell, *Baseline Survey and Habitat Analysis of Aquatic Salamanders in the Pigeon River, North Carolina* (2009) (unpublished master’s thesis, University of Tennessee) (Attachment C).

<sup>35</sup> David B. Dunn, *A Survey of Crayfish in the Pigeon River and its Tributaries in Tennessee and North Carolina* (2010) (unpublished master’s thesis, University of Tennessee) (Attachment C).

<sup>36</sup> BIP at 8–9.

<sup>37</sup> *Id.* at 89.

<sup>38</sup> *Id.* at 10, 20.

impact on the benthos community as a result of the thermal discharge.”<sup>39</sup> However, it discounted these impacts as “not *significant* enough to exceed the broad definition of a Balanced and Indigenous Population.”<sup>40</sup> But impacts do not need to be “significant” to disqualify a discharger from receiving a § 316(a) thermal variance—they only need to be “appreciable” which the BIP study itself defines as the presence of adverse impacts.<sup>41</sup> More importantly, DEQ failed to recognize that the BIP study’s rosy conclusions are unsupported by the very evidence contained within it. DEQ’s reliance upon Blue Ridge Paper’s insufficient demonstration is therefore arbitrary and capricious.

1. The BIP study overlooked impacts on several crucial biotic groups.

Two important aspects of a balanced, indigenous population are that it (1) is “characterized by diversity” and (2) supports “necessary food chain species.” 40 C.F.R. § 125.71(c). EPA guidance<sup>42</sup> clarifies that a community<sup>43</sup> “characterized by diversity” means “diversity at all trophic levels.”<sup>44</sup> In other words, “all of the major trophic levels present in the unaffected portion of the water body should be present in the heat affected portions.”<sup>45</sup> In a similar vein, the presence of “necessary food chain species” means that “the necessary food webs remain intact so that communities will be sustaining.”<sup>46</sup> If any trophic levels or links in the food chain will not be protected, the § 316(a) demonstration necessarily fails.<sup>47</sup>

EPA has identified six trophic levels—or “biotic categories”—that should be analyzed in a Section 316(a) demonstration: phytoplankton, zooplankton, “habitat formers,”<sup>48</sup>

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<sup>39</sup> Letter from Cyndi Karoly, Chief of the Water Sciences Section, on DEQ’s Review of Evergreen Packaging’s Balanced and Indigenous Population Assessment, to Wallace McDonald, Manager of Evergreen Packaging (Jan. 11, 2019).

<sup>40</sup> *Id.* (emphasis added).

<sup>41</sup> *See supra* notes 21–22.

<sup>42</sup> In making the Section 316(a) demonstration, “the discharger *shall* consider any information or guidance published by EPA to assist in making such demonstrations.” 40 C.F.R. § 125.72(e) (emphasis added).

<sup>43</sup> The term balanced, indigenous *community* “is synonymous” with the term balanced, indigenous *population*. 40 C.F.R. § 125.71(c).

<sup>44</sup> Letter from James D. Giattina, Director, EPA Water Protection Division, to Colleen H. Sullins, Director, N.C. DWQ (Feb. 22, 2010) [hereinafter “EPA Objection Letter”] (Attachment B).

<sup>45</sup> *Id.*

<sup>46</sup> *Id.*

<sup>47</sup> *See* U.S. Env’tl. Protection Agency, *Interagency 316(a) Technical Guidance Manual and Guide for Thermal Effects Sections of Nuclear Facilities Environmental Impact Statements* at 16 (May 1, 1977) [hereinafter “EPA Guidance Manual”], <https://www3.epa.gov/npdes/pubs/owm0001.pdf> (noting that a failure to show the protection and propagation of any of the biotic categories results in a denial of the thermal variance); BIP at 46 (noting the Section 316(a) demonstration must “ensure that *all* trophic levels present in the unaffected portion of the river were present in the heat-affected portions” (emphasis added)).

<sup>48</sup> According to EPA, “habitat formers” are “any assemblage of plants and/or animals characterized by a relatively sessile life stage with aggregated distribution and functioning” as a “living and/or formerly living substrate”; a “direct or indirect food source” for shellfish, fish, and wildlife; a biological mechanism for the stabilization and modification of sediments”; a “nutrient cycling path or trap”; “specific sites for spawning”; or “nursery, feeding, and cover areas for fish and shellfish.” EPA Guidance Manual, *supra* note 47, at 76–77.

shellfish/macroinvertebrates, fish, and other vertebrate animals.<sup>49</sup> The BIP study largely followed these categories but added a seventh: periphyton.<sup>50</sup> After examining these seven categories, the BIP study concluded that “[a]ll trophic levels of the aquatic community (biotic categories) were present,”<sup>51</sup> and “[s]implification of the aquatic community through loss of . . . trophic levels has not occurred.”<sup>52</sup> Yet the BIP study’s own statements, data, and references belie this conclusion for three key biotic categories: shellfish, other vertebrates, and habitat formers.

a. *Mussels*

Mussels are “important components of the overall aquatic communit[y]” in the Pigeon.<sup>53</sup> Yet “[n]o mussels had been found in [the thermally affected] reach in recent years.”<sup>54</sup> The BIP discounted the importance of this significant biotic gap by observing that: (1) “no mussels [were] observed at *any* of the sampling sites during 2012,” (2) DEQ surveys “have not documented any naturally-occurring [sic] mussels in the Pigeon” in recent years, and (3) a recent study “documented proof that mussels could survive and grow in the river below the mill.”<sup>55</sup>

Elsewhere, however, the BIP recognized that rare mussels have been found upstream of the mill, including the federally endangered Appalachian elktoe. Specifically, the BIP noted that a small population of Appalachian elktoe mussels occurs “in the mainstem upstream of Canton,”<sup>56</sup> and rare wavy-rayed lampmussels have been found “in the upper [Pigeon] river above Canton” and were “believed to have occurred historically through the lower Pigeon River” below the mill.<sup>57</sup> Both the elktoe<sup>58</sup> and lampmussel<sup>59</sup> are sensitive to high water temperatures. The

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<sup>49</sup> *Id.* at 18–33.

<sup>50</sup> BIP at 45.

<sup>51</sup> *Id.* at 94.

<sup>52</sup> *Id.* at 53.

<sup>53</sup> *Id.* at 50.

<sup>54</sup> *Id.* at 68.

<sup>55</sup> BIP App’x B at 77 (emphasis added).

<sup>56</sup> BIP at 83.

<sup>57</sup> *Id.* at 85.

<sup>58</sup> Appalachian Elktoe Determined to be an Endangered Species, 59 Fed. Reg. 60,324, 60,328 (Nov. 23, 1994) (“Appalachian elktoe is found in cool, (it has not been recorded from extremely cold or warm waters) moderate to fast-flowing water.”); Gary S. Pandolfi, Jr., *Effects of Climate, Land Use and In-Stream Habitat on Appalachian Elktoe (Alasmidonta raveneliana) in the Nolichucky River Drainage* 11 (2016) (unpublished master’s thesis, Appalachian State University) (Attachment C) (finding that Appalachian elktoe “could be undergoing recruitment failure due to thermally mediated shifts in host fish abundance” and that warmer “[w]ater temperature may also influence mussel metabolic rates, reduce survivorship of glochidia, and alter other life history parameters”).

<sup>59</sup> Jennifer M. Archambault et. al, *Burrowing, Byssus, and Biomarkers: Behavioral and Physiological Indicators of Sublethal Thermal Stress in Freshwater Mussels (Unionidae)*, 46 Marine and Freshwater Behavior and Physiology 229 (2013) (Attachment C) (finding the lampmussel experienced 50% mortality rates between 33.7 and 34.7 °C but noting that “thermal stress can occur at relatively moderate temperatures” around 27 °C and concluding that “above-average stream temperatures and changes in the seasonal phenology of stream temperature profiles and flows may have detrimental behavioral and physiological effects to this already imperiled faunal group”); Heidi L. Dunn & J.R. Petro, *Freshwater Mussel Monitoring and Alternate Thermal Standards*, Third Thermal Ecology and Regulation

elktoe, in particular, is likely range limited in part due to discharges from the mill.<sup>60</sup> According to the North Carolina Wildlife Resources Commission, agency “staff and others have consistently found” both rare mussels “within a mile upstream of the mill,” with the Appalachian elktoe “most recently found in 2020.”<sup>61</sup> Neither mussel has been found downstream of the mill at any location upstream of Crabtree Creek—a stretch of nearly 14 miles.<sup>62</sup>

The only bivalve species that the BIP study did identify occurring in the reach below Canton is the “introduced and rapidly spreading *Corbicula fluminea*”: the invasive—and thermally tolerant—Asiatic clam.<sup>63</sup> This species has a “low tolerance for cold temperatures,” and often favors river stretches “with thermal discharges where warm effluents can provide a thermal refuge for cold winters.”<sup>64</sup> *Corbicula* were found at every Pigeon River basin station up to Pigeon River Mile (“PRM”) 64.5 (the station immediately above the mill), where only one was found.<sup>65</sup> No clams were found at any sites farther upstream.<sup>66</sup>

The BIP study attempted to explain away this upstream–downstream pattern in two different ways. First, it suggested that *Corbicula* “appeared to have been stopped in its regional upstream invasions by the low-head dams at Canton.”<sup>67</sup> This is incorrect; as the study noted in the previous sentence, the clam has already made it above the dams.<sup>68</sup> Therefore, something else must be responsible for this lopsided distribution. Second, the study opined that the presence of this thermally tolerant species downstream of the mill “does not result from the thermal additions by the Mill” because the “two sites of highest abundance do not correlate well with river temperatures.”<sup>69</sup> But correlation is not causation; just because the BIP study’s very limited sample size (only 1 to 23 clams were collected at each site below PRM 64.5) does not show a clear linear pattern tied to temperature does not mean temperature has no effect on the clam’s distribution. Asiatic clams are thermally *tolerant*—not necessarily *thermophilic*—so it is unclear why the BIP assumed that as temperatures rise closer to the mill, so should clam abundance. The BIP’s conclusion that the abundance of a thermally tolerant clam below the mill is not due to the mill’s thermal effluent is further undermined by the researchers’ failure to conduct winter

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Workshop Report 1025382 (2012) (Attachment C) (noting that newly metamorphosed juveniles of the wavy-rayed lampmussel experienced high rates of mortality during laboratory holding at 26–27 °C (citing pers. comm.)).

<sup>60</sup> S.J. Fraley & J.W. Simmons, *An Assessment of Selected Rare Mussel Populations in Western North Carolina Following Extraordinary Floods of September 2004*, N.C. Wildlife Res. Comm’n (2006) (Attachment C) (“[T]he downstream distribution of Appalachian elktoe in the Pigeon River ends abruptly at Canton where habitat becomes unsuitable due to a small impoundment and physico-chemical impacts from point and non-point sources.”).

<sup>61</sup> Letter from Cameron Ingram, Executive Director of N.C. Wildlife Res. Comm’n, on NPDES Permit NC0000272 Renewal, to Sergei Chernikov, N.C. Div. of Water Res. (Mar. 19, 2021).

<sup>62</sup> *Id.*

<sup>63</sup> BIP at 86.

<sup>64</sup> *Id.* at 87.

<sup>65</sup> *Id.*

<sup>66</sup> *Id.*

<sup>67</sup> *Id.*

<sup>68</sup> *Id.*

<sup>69</sup> *Id.*

sampling, even though the BIP recognized that winter is a time of year when “thermal effluent could provide a warm thermal refuge for *Corbicula*.”<sup>70</sup>

In short, Blue Ridge Paper’s own BIP study demonstrated that: (1) indigenous and rare mussel species are extirpated below the mill but still persist in the cooler waters above the mill; and (2) thermally tolerant, non-native Asiatic clams have expanded into the trophic level vacated by these native species below the mill, but have stopped their upstream expansion past the mill into colder waters where native mussels are present. Unless DEQ is prepared to recognize an invasive, thermally tolerant clam as part of a “balanced, indigenous community” in a cold mountain river, Blue Ridge Paper cannot meet its burden to show that the “cumulative impact of its thermal discharge together with all other significant impacts on the species affected, *will assure* the protection and propagation of a balanced indigenous community of shellfish.” 40 C.F.R. § 125.73(a) (emphasis added).

#### *b. Crayfish*

Crayfish are “keystone species” in riverine food webs because they serve as important decomposers of organic material and are a critical food resource for numerous predators.<sup>71</sup> The BIP study agreed that crayfish are “important components of the overall aquatic communit[y]” in the Pigeon.<sup>72</sup> Yet BIP sampling only turned up small numbers of four crayfish species; and in North Carolina, the only species found in the Pigeon River downstream of the mill was the non-native White River crayfish—a species more typically found in sloughs, swamps, and sluggish lowland streams.<sup>73</sup>

The BIP study supplemented these findings by incorporating data from a 2010 baseline crayfish survey of the Pigeon River and its tributaries conducted by scientist David Dunn.<sup>74</sup> Over the course of eight months, Dunn found 1,320 crayfish specimens representing seven species across numerous sampling sites, including nine Pigeon River tributaries, the mainstem of the Pigeon upstream of the mill, the bypass reach downstream of Walters Dam, and the Tennessee portion of the river.<sup>75</sup> But no crayfish were found in the thermally affected reach below the mill.<sup>76</sup> Dunn speculated that one possible reason for this could be that the 2007 drought “caused paper mill effluents to concentrate in the river,” which “could have created uninhabitable water quality conditions for crayfish to thrive directly downstream of the mill.”<sup>77</sup>

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<sup>70</sup> *Id.*

<sup>71</sup> Dunn, *supra* note 35, at 2; *id.* at 6 (“[C]rayfish are vital to aquatic ecosystem stability.”).

<sup>72</sup> BIP at 50.

<sup>73</sup> *Id.* at 89.

<sup>74</sup> *Id.* at 88.

<sup>75</sup> Dunn, *supra* note 35, at v.

<sup>76</sup> *Id.* at 29–30.

<sup>77</sup> *Id.* at 30.

Although the BIP study acknowledged these results, it opined that “thermal *mortality* is unlikely to be the cause of lack of crayfish in the mainstem Pigeon River” for two reasons.<sup>78</sup> First, limited data on upper lethal temperatures for adult crayfish suggest temperatures on the mainstem of the Pigeon would be unlikely to kill crayfish outright.<sup>79</sup> Second, Dunn suggested crayfish were more likely escaping increased salinity and conductivity in the mainstem during the drought than heightened temperatures.<sup>80</sup>

These explanations are insufficient for several reasons. To start, the BIP itself admitted that several species of adult crayfish show significant mortality between 24 °C and 33 °C—temperatures regularly reached below the mill.<sup>81</sup> The BIP also acknowledged that juveniles and molting crayfish “may be [even] less tolerant of elevated temperature.”<sup>82</sup> But even if these temperatures did not cause direct mortality, the BIP agreed that “temperatures above [those] *preferred*” by native crayfish may explain their absence below the mill.<sup>83</sup> It is irrelevant whether these crayfish were killed or moved to escape uncomfortably high temperatures, because the effect on the ecosystem—the loss of important keystone species—is the same. EPA agrees, stating in guidance documents that “a basis for denial [of a § 316(a) demonstration] exists if important fish, shellfish, or wildlife are thermally excluded from the *use* of the habitat.”<sup>84</sup> Finally, Dunn’s speculations about what element of the mill’s concentrated effluent forced crayfish to flee are just that—speculations. The BIP cited no additional surveys that have attempted to test Dunn’s hypothesis. Pointing to untested speculations does not satisfy Blue Ridge Paper’s burden to show its thermal variance will protect crayfish.

Ultimately, the BIP study opined that “[t]oo few crayfish were collected [by BIP researchers] to speculate about protection and sustainability” of crayfish below the mill.<sup>85</sup> But then the BIP turned around and did just that, finding that the “cumulative impact of its thermal discharge together with all other significant impacts on the species affected, will assure the protection and propagation of a balanced indigenous community of shellfish”—including crayfish.<sup>86</sup> If the BIP supposedly lacked the data to draw any conclusions about crayfish, it could not affirmatively find crayfish will be protected.

In fact, plenty of data exists to demonstrate the opposite conclusion: that native, cooler-water crayfish have been extirpated and replaced by a thermally tolerant, non-native, swamp-dwelling crayfish. Though BIP researchers did not find many crayfish, they did incorporate the findings of Dunn, who found over 1,300 specimens. Yet Dunn found no crayfish below the mill,

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<sup>78</sup> BIP at 90 (emphasis added).

<sup>79</sup> *Id.* at 89–90.

<sup>80</sup> *Id.* at 8.

<sup>81</sup> *Id.* at 89–90.

<sup>82</sup> *Id.* at 90.

<sup>83</sup> *Id.* (emphasis added).

<sup>84</sup> EPA Guidance Manual, *supra* note 47, at 26 (emphasis added).

<sup>85</sup> BIP at 90.

<sup>86</sup> *Id.* at 94.

which he blamed in part on the mill’s discharge. Therefore, the BIP cannot conclude that the crayfish community is “similar to what would have been there without the thermal discharge.” This conclusion is arbitrary, capricious, and unsupported by the record.

*c. Salamanders*

In many headwater watersheds, salamanders, not fish, dominate the vertebrate community.<sup>87</sup> For example, in some streams rare eastern hellbenders—which can weigh up to 2.2 kg—“may act as apex predators” that “exhibit top-down control of aquatic community structure.”<sup>88</sup> Though ecologically critical, salamanders are very sensitive to changes in water quality, including temperature shifts.<sup>89</sup> Stream temperature has been found to limit salamander occupancy in the Southeast.<sup>90</sup>

The BIP study did not sample for salamanders, but did incorporate findings from a 2009 baseline survey of stream salamander species in the Pigeon River basin conducted by scientist Nikki Maxwell.<sup>91</sup> Maxwell surveyed twenty sites in the basin, including four mainstem sites above the mill and four below.<sup>92</sup> No salamanders were found at any of the four mainstem sites below the mill.<sup>93</sup> Five different species of stream salamanders were captured elsewhere, with mean abundance peaking in the Pigeon River above the mill and in Big Creek.<sup>94</sup>

Maxwell’s analyses revealed that poor water quality more likely explained the absence of salamanders below the mill than habitat availability.<sup>95</sup> For example, Maxwell determined that adequate habitat for the rare eastern hellbender existed below the mill, but water quality issues—including high water temperatures, increased salinity, and conductivity—“potentially limited [its] use” for hellbenders and other native salamanders.<sup>96</sup>

The BIP study recognized that salamanders “appear to be missing from the Pigeon River downstream of the Mill” but suggested “it seems unlikely” that this is due to thermal stress.<sup>97</sup> As support, the BIP cited literature on temperature tolerance for several salamander species

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<sup>87</sup> Robert D. Davic and Hartwell H. Welsh, Jr., *On the Ecological Roles of Salamanders*, 35 *Ann. Rev. Ecol. Evol. Syst.* 405 (2004) (Attachment C).

<sup>88</sup> Ashley E. Yaun, *Trophic Ecology of an Imperiled Giant Salamander* (*Cryptobranchus a. alleganiensis*) in *Southern Appalachian Streams* (2019) (unpublished master’s thesis, Appalachian State University) (Attachment C).

<sup>89</sup> Dunn, *supra* note 35, at 39.

<sup>90</sup> Evan H. Campbell Grant, Amber N. M. Wiewel, & Karen C. Rice, *Stream-Water Temperature Limits Occupancy of Salamanders in Mid-Atlantic Protected Areas*, 48 *J. of Herpetology* 45, (2014) (Attachment C).

<sup>91</sup> BIP at 90.

<sup>92</sup> Maxwell, *supra* note 34, at 17, 27.

<sup>93</sup> *Id.*

<sup>94</sup> *Id.* at 27.

<sup>95</sup> *Id.* at 36.

<sup>96</sup> *Id.* at v, 39–43.

<sup>97</sup> BIP at 90–91.

suggesting that individuals can acclimate to a range of warmer temperatures between 31 °C and 41 °C.<sup>98</sup>

This conclusion is incorrect for four primary reasons. First, data on the temperatures that cause direct mortality does not address the sublethal effects of high temperatures, such as whether salamanders may be forced to move to cooler-water refugia. Second, only one of the eight supposedly temperature-tolerant species cited by the BIP (*Desmognathus quadramaculatus*) was found in the Pigeon River basin by Maxwell.<sup>99</sup> The thermal tolerances of the other salamanders actually found in the Pigeon may be much different than the focal species of the cited literature. For example, optimum temperatures for the cold-water-loving hellbender range between 9.8 and 22.5 °C.<sup>100</sup> Third, all of the studies the BIP cited are acclimation studies, meaning the salamanders were allowed to adjust to warmer temperatures over time. Nothing in the BIP suggested this is the case for salamanders—if any are present—in the Pigeon below the mill. Finally, the BIP study acknowledged that “Critical Thermal Maximums” for salamanders are lower in winter but did not address how this may further impact species in the Pigeon.<sup>101</sup>

As with the other biotic categories discussed above, the BIP conclusion regarding salamanders contradicted its own research. The BIP acknowledged salamanders exist upstream of the mill but are completely extirpated or absent below it, perhaps in part due to high temperatures. The BIP nonetheless concluded that the biotic community below the mill is “similar to what would have been there without the thermal discharge.”<sup>102</sup> This conclusion is arbitrary, capricious, and unsupported by the record.

#### d. Riverweed

The rooted aquatic plant *Podostemum ceratophyllum* (hornleaf riverweed) “serve[s] as important structure for other members of the aquatic community” in the Pigeon River basin.<sup>103</sup> This “habitat former” produces a thick mat and long stems that have been “repeatedly demonstrated to be an important substrate for promoting benthic invertebrate biomass, abundance, and species richness . . . and to positively influence the abundance of several fish species, including the banded darter.”<sup>104</sup> *Podostemum* is sensitive to high temperatures, however, with a “reported upper limit of 30 °C reported in the literature.”<sup>105</sup>

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<sup>98</sup> *Id.*

<sup>99</sup> Compare *id.* at 90 (noting this species had a critical thermal maximum of 31.4 °C—a temperature below the monthly average maximum allowed on the mainstem in the summer), with Maxwell, *supra* note 34, at 27.

<sup>100</sup> M.A. Nickerson & C.E. Mays, *The Hellbenders: North American “Giant Salamanders”* (1973) (Attachment C); S. Conor Keitzer, Thomas K. Pauley, & Chris L. Burcher, *Stream Characteristics Associated with Site Occupancy by the Eastern Hellbender, *Cryptobranchus alleganiensis alleganiensis*, in Southern West Virginia*, 20 Ne. Naturalist 666 (2013) (Attachment C).

<sup>101</sup> BIP at 90.

<sup>102</sup> *Id.* at 94.

<sup>103</sup> *Id.* at 51.

<sup>104</sup> *Id.* at 91.

<sup>105</sup> *Id.* at 92.

The BIP study noted the presence or absence of *Podostemum* while sampling for fish and macroinvertebrates. The plant was found at three of four reference stations upstream of the mill and two of three stations in the Pigeon River in Tennessee.<sup>106</sup> However, no *Podostemum* was found “at all in the thermally affected reach between the Mill and Waterville Reservoir.”<sup>107</sup>

The BIP discounted these results by suggesting temperature “does not appear to be a limiting factor except in the reach nearest the Mill, where temperatures in summer can exceed the reported upper limit of 30 °C.”<sup>108</sup> Instead, the BIP concluded the aquatic plant’s “low dispersal ability . . . combined with the Pigeon River’s stresses of flooding in 2004 and drought in 2007-2008, may be limiting its ability to recolonize the thermally affected reach after a history of pollution.”<sup>109</sup>

These conclusions are flawed. Flooding and drought conditions affected the entire region, not just the thermally affected sites below the mill. In spite of these conditions, *Podostemum* managed to persist above the mill and below Waterville Lake, which suggests something more than flooding and drought are responsible for the lack of riverweed below the mill. In addition, the fact that temperature *is* a limiting factor in the “reach nearest the Mill” is still a problem. Between 2005 and 2009, temperatures at PRM 62.9—below the “mixing zone”—exceeded 30 °C on sixty-three different days.<sup>110</sup> Blue Ridge Paper cannot simply drop this stretch of the river from the BIP analysis and ignore the probable effects of temperature on a thermally sensitive aquatic plant that serves as an important habitat former for other aquatic biota.

Yet again, the BIP recognized that a crucial species is completely extirpated or absent below the mill, at least in part due to high temperatures, but nonetheless concluded that the biotic community below the mill is “similar to what would have been there without the thermal discharge.”<sup>111</sup> This conclusion is arbitrary, capricious, and unsupported by the record.

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Blue Ridge Paper acknowledges it must demonstrate that “*all* trophic levels present in the unaffected portion of the river were present in the heat-affected portions.”<sup>112</sup> Yet the BIP study showed that crucial biotic groups—including mussels, crayfish, salamanders, and the habitat-forming *Podostemum*—are all missing from the thermally affected reach. Though Blue Ridge Paper advanced various speculative explanations, none satisfy *its* burden to show that “the *cumulative* impact of its thermal discharge *together* with all other significant impacts on the species affected, will assure the protection and propagation of a balanced indigenous

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<sup>106</sup> *Id.* Riverweed was also found at both stations in the Swannanoa River, a reference for the study. *Id.*

<sup>107</sup> *Id.*

<sup>108</sup> *Id.*

<sup>109</sup> *Id.*

<sup>110</sup> Blue Ridge Paper Products, Pigeon River Temperatures Jan. 2005 – Dec. 2009 (Attachment C).

<sup>111</sup> BIP at 94.

<sup>112</sup> *Id.* at 46 (emphasis added).

community” of shellfish and other wildlife. 40 C.F.R. § 125.73(a) (emphasis added). DEQ’s reliance on this erroneous assessment is therefore arbitrary and capricious.

2. The BIP study ignored substantial differences between upstream and downstream populations of fish and macroinvertebrates.

Under the Clean Water Act, a Section 316(a) demonstration must assure the protection of both a “balanced” and “indigenous” population. Such a community “*may include* historically non-native species introduced in connection with a program of wildlife management and species whose presence or abundance results from substantial, irreversible environmental modifications.” 40 C.F.R. § 125.71(c) (emphasis added). However, this does not mean that species attributable to a thermal variance imposed through § 316(a) may be considered part of a balanced, indigenous population. *Id.* In other words, “prior habitation by a pollution-tolerant community” does not make that community “indigenous.”<sup>113</sup> As Blue Ridge Paper recognizes, the “balanced, indigenous population” of fish, shellfish, and wildlife contemplated by the Clean Water Act is the population that exists absent the impacts of the applicant’s “thermal discharge and other sources of pollution.”<sup>114</sup>

The BIP study ultimately concluded that the biotic community at sites below the mill is “reasonably close to what would be expected at these sites without the influence of the thermal discharge.”<sup>115</sup> However, the BIP study’s own data demonstrate that fish and macroinvertebrates are detrimentally impacted by the mill’s thermal effluent, acting in concert with other significant impacts.

*a. Fish*

In the absence of the mill’s thermal effluent, the Pigeon River below the mill would be a cold-water river.<sup>116</sup> Yet the BIP study showed that fish communities downstream of the mill are composed of species that tolerate higher temperatures than those upstream.

To start, the study noted that the distribution of most fish species sampled in the Pigeon River “followed one of five well-defined spatial patterns.”<sup>117</sup> This distribution pattern included one group that was “restricted to or noticeably more abundant upstream of the Canton Mill” and another that was “most abundant” between the mill and Waterville Lake.<sup>118</sup> Species that were “much more abundant” upstream of the mill included warmouth, mirror shiner, saffron shiner, and mottled sculpin.<sup>119</sup> As the study recognized, these “four species more common upstream of

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<sup>113</sup> *Id.* at 19.

<sup>114</sup> *Id.* at 20.

<sup>115</sup> *Id.* at 57.

<sup>116</sup> *See* Bartlett, *supra* note 1.

<sup>117</sup> BIP App’x B at 56.

<sup>118</sup> *Id.* at 56.

<sup>119</sup> *Id.* at 57. The BIP study also claims a pollution-tolerant species—green sunfish—was “much more abundant” upstream of the mill. *Id.* at 57. This categorization is likely a mistake. Only six green sunfish were found during the entire study period. *Id.* at 51. *One* was found above the mill, and five were found at a single station in Tennessee. *Id.* Given that green sunfish were five times more abundant below Waterville Lake than anywhere else, this species

the mill . . . are predominantly cool water forms.”<sup>120</sup> Species that were “restricted to or much more abundant” in the reach downstream of the mill included common carp, white sucker, brown bullhead, bluegill, largemouth bass, yellow perch, flathead catfish, and smallmouth redhorse.<sup>121</sup> As the study acknowledged, these species respond well to greater food availability and generally “prefer warm water” and therefore “their higher abundance in the middle reaches is probably the result of more food being available and warmer temperatures.”<sup>122</sup>

Some species, like the thermally tolerant redbreast sunfish and pollution-intolerant rock bass, were found both above and below the mill. However, redbreast sunfish outnumbered rock bass by a 5.7 to 1 ratio below the mill, while rock bass outnumbered redbreast sunfish by a 2 to 1 ratio above the mill.<sup>123</sup> In terms of percentage of total catch, redbreast sunfish comprised 33.5% of all fish caught in the thermally affected region and only around 5% of the total catch in the four reference sites above the mill.<sup>124</sup>

The BIP study acknowledged that together these results show that “the fish community in the North Carolina reach downstream of the Mill has more characteristics of a warm-water fish community than does the river upstream of the Mill.”<sup>125</sup> But the BIP study blamed much of this disparity on the “physical nature of the river between the Mill and Waterville Reservoir.”<sup>126</sup> Alternately, the BIP suggested that some of these differences are the result of upstream and downstream barriers to movement—namely the small impoundment upstream of the mill.<sup>127</sup> Because of this barrier, some of the cold-water species observed upstream may be “slow to recolonize” the area below the mill.<sup>128</sup> These assertions amount to unsupported speculation and ignore the more obvious cause of distinctly different fish communities above and below Canton—the mill’s heated discharge.

First, the BIP study did not support the notion that the entire thermally affected reach below the mill (PRM 63.3 to ~42) is physically different from that above it. Specifically:

- From the confluence of the East and West Forks (PRM 69.5), the Pigeon River enters a “clearly distinct” “Broad Basins” subregion, which “persists for approximately 20 miles until about the confluence with Fines Creek (PRM 42.7).”<sup>129</sup> Therefore, every thermally

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should likely have been categorized as “restricted to or noticeably more abundant downstream of Waterville Lake.” *Id.* at 56.

<sup>120</sup> *Id.* at 58.

<sup>121</sup> *Id.* at 57. A few pollution-intolerant darters and shiners were also “restricted to or much more abundant” below the mill. *Id.* This is unsurprising, given these species were reintroduced in this stretch only. *Id.*

<sup>122</sup> *Id.* at 58.

<sup>123</sup> BIP at 65.

<sup>124</sup> See BIP App’x B at 51.

<sup>125</sup> BIP at 57.

<sup>126</sup> *Id.*

<sup>127</sup> *Id.* at 66.

<sup>128</sup> *Id.*

<sup>129</sup> *Id.* at 31.

affected biological sampling site falls within the same geographic subregion as two of the four upstream sites.

- The “substrate in much of the river is dominated by cobble, gravel, and sand with interspersed larger boulders and bedrock,” with silt only becoming “more prevalent in the low-gradient reach near Clyde” (PRM 59–55.5).<sup>130</sup> In other words, the four to nine miles of river *below* the mill have substrate comparable—if not functionally identical—to sites *above* the mill.
- The Pigeon’s average change in elevation along a stretch extending several miles below the mill (4.0 feet per mile) is also similar to the gradient just upstream of the mill (5.0 feet per mile).<sup>131</sup>

Second, the study’s speculations regarding the effect of the impoundment miss the point. The governing regulation is concerned with “the *cumulative* impact of its thermal discharge *together* with all other significant impacts on the species affected,” including the impoundment. 40 C.F.R. § 125.73(a) (emphasis added). Noting that the impoundment may contribute to an imbalanced community did not satisfy Blue Ridge Paper’s burden to demonstrate that its thermal discharge, in combination with all other significant factors, assures a balanced indigenous community. In fact, the BIP’s observation that cold-water species still need to “recolonize” the area below the mill showed that the downstream fish community is *not* “similar to what would have been there without the thermal discharge.”<sup>132</sup> Therefore, Blue Ridge Paper’s Section 316(a) demonstration necessarily fails.

#### *b. Macroinvertebrates*

In addition to reshaping the downstream fish community, the mill’s thermal discharge has also altered the composition of aquatic macroinvertebrates in the Pigeon. These aquatic insects are reliable indicators of stream health, as pollution tolerance varies among different macroinvertebrate taxa. The BIP study found that macroinvertebrates “were present and diverse in all study sites, both thermally affected and reference,” and that “[t]otal taxa *numbers* in the six Pigeon River basin reference sites were similar to the nine thermally affected sites.”<sup>133</sup> What the BIP neglected to mention is that there was a significant difference in *which* taxa were found above the mill and which were found below it.

To assess how similar macroinvertebrate communities were to each other, the study used the North Carolina Biotic Index (“NCBI”) and the Ephemeroptera + Plecoptera + Trichoptera taxa richness index (“EPT Index”).<sup>134</sup> The former calculates the “relative tolerance of the benthic community to the presence of general stressors, with lower values indicating more pristine conditions and higher values indicating stress.”<sup>135</sup> The latter calculates the relative tolerance for

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<sup>130</sup> *Id.* at 30.

<sup>131</sup> *Id.*

<sup>132</sup> *Id.* at 94.

<sup>133</sup> *Id.* at 64 (emphasis added).

<sup>134</sup> BIP App’x B at 22.

<sup>135</sup> 2016 Benthic SOP, *supra* note 29, at 19.

just the portion of the community represented by the insect orders Ephemeroptera, Plecoptera, and Trichoptera.<sup>136</sup> These indices were combined to create final bioclassifications for each sampling site (Excellent, Good, Good-Fair, Fair, or Poor).<sup>137</sup>

Results showed significant community differences between upstream and downstream. As shown in the table below, NCBI bioclassifications were “Good” immediately above the mill, “Fair” in the five sites immediately below the mill, “Good-Fair” in the next three downstream sites, and then “Good” once more at the N.C. station farthest downstream from the mill.<sup>138</sup> Final bioclassifications were “Fair” to “Excellent” above the mill, “Fair” in the five stations directly below the mill, and “Fair” to “Good-Fair” in the last four North Carolina sites.<sup>139</sup> On average, biotic index scores for the four upstream stations were 4.37 (“Good”) while the nine thermally affected sites averaged 5.79 (“Fair”). The worst score on the river was directly below the mill.<sup>140</sup>

	Pigeon River Upstream of Mill				Pigeon River Below Mill to Waterville Reservoir									
<i>PRM</i>	EF	WF	69.5	64.5	63.0	61.0	59.0	57.7	55.5	54.5	52.3	48.2	45.3	
<i>NCBI</i>	3.88	5.05	4.39	4.16	6.70	6.44	5.97	6.04	6.12	5.42	5.35	5.42	4.69	
<i>NCBI Classification</i>	Excellent	Good-Fair	Good	Good	Fair	Fair	Fair	Fair	Fair	Good-Fair	Good-Fair	Good-Fair	Good	
<i>Overall Classification</i>	Excellent	Fair	Good	Good-Fair	Fair	Fair	Fair	Fair	Fair	Good-Fair	Good-Fair	Fair	Good-Fair	

This pattern of more pollution-tolerant macroinvertebrate taxa below the mill’s thermal discharge matches other recent assessments in the Pigeon River. Recent benthos surveys conducted by DEQ in 2017 classified a stretch downstream of the mill near Clyde as “Fair” on the EPT index, explaining that “high water temperatures and a high specific conductance in-stream” are “chronic problem[s] at this site and a result of upstream effluent” from the mill.<sup>141</sup> As a result, the river below the mill is currently listed as “impaired” for benthic macroinvertebrates on North Carolina’s § 303(d) list from the discharge to a point six miles downstream.<sup>142</sup> In 2020, DEQ proposed expanding this impaired area even farther downstream.<sup>143</sup>

<sup>136</sup> *Id.*

<sup>137</sup> BIP App’x B at 22.

<sup>138</sup> *Id.* at 37.

<sup>139</sup> *Id.*

<sup>140</sup> *Id.* at 38.

<sup>141</sup> N.C. Dep’t of Env’tl. Quality, Div. of Water Res., *Benthos Site Details EB 257 (Pigeon River)* [hereinafter “EB 257 Survey”] (Attachment C).

<sup>142</sup> N.C. Dep’t of Env’tl. Quality, *2018 NC Category 5 Assessments ‘303(d) List’ Final*, <https://files.nc.gov/ncdeq/Water%20Quality/Planning/TMDL/303d/2018/2018-NC-303-d--List-Final.pdf>.

<sup>143</sup> *See supra* note 6.

The BIP study acknowledged that the “mill effluent [is] influencing downstream benthic communities,”<sup>144</sup> but downplayed the significance of the poor biotic scores below the mill. First it dismissed the biotic index scores for the upstream reference areas as only “somewhat better on average” than those in the thermally affected reach below the mill.<sup>145</sup> Second, the study noted that the biotic index analysis used thresholds “for mountain streams and it should be recognized that many of the thermally affected stations are slowly moving, silty habitats unlike mountain streams.”<sup>146</sup>

These explanations are flawed for at least three reasons. First, the index scores for the upstream sites were rated *two* categories higher, on average, than the downstream sites—a statistically significant result that explains why sites below the mill are listed as impaired and those above the mill are not. Second, Blue Ridge Paper does not dispute that the thermally affected sites should be analyzed using DWR’s mountain stream index thresholds.<sup>147</sup> It cannot disclaim DWR’s index scoring system merely because it does not like the outcome. Third, as explained above, the physical characteristics of the Pigeon at many of the thermally affected samplings stations are not different than those above the mill.<sup>148</sup> Thus, Blue Ridge Paper’s attempt to characterize the reach below the mill as “unlike [a] mountain stream[.]” is belied by its own data.<sup>149</sup>

In sum, the BIP study showed that pollution-tolerant macroinvertebrates are common below the discharge, while pollution-intolerant species are found above it. These findings directly contradict the claim that the downstream sites are reasonably “similar to what would have been there without the thermal discharge” and other sources of pollution.<sup>150</sup> DEQ’s reliance on this unfounded conclusion is arbitrary, capricious, and unsupported by the record.

3. The BIP study cannot avoid assessing the cumulative impacts of thermal effluent together with “all other significant impacts” in the Pigeon River.

Blue Ridge Paper’s thermal impacts cannot be considered in isolation. Instead, Blue Ridge Paper must show that “the cumulative impact of its thermal discharge *together with all other significant impacts* on the species affected, will assure the protection and propagation of a balanced indigenous [population].” 40 C.F.R. § 17 (emphasis added). Though the BIP study

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<sup>144</sup> BIP App’x B at 39.

<sup>145</sup> BIP at 64.

<sup>146</sup> *Id.*

<sup>147</sup> *See* BIP App’x B at 16.

<sup>148</sup> *See supra* Part II.B.2.a.

<sup>149</sup> Blue Ridge Paper provided no data to support its contention that waters are “slowly moving” below the mill. *See generally* BIP. It also is not clear why mountain streams—especially polluted ones like the Pigeon River—cannot be “silty.” To the extent Blue Ridge Paper is suggesting that sediment pollution makes the Pigeon River unsuitable for assessment using DEQ’s mountain ecoregion thresholds, it is mistaken.

<sup>150</sup> *Id.* at 94.

recognized this obligation,<sup>151</sup> its analysis reflected a fundamental misunderstanding of what the law requires.

Instead of assessing the “cumulative impact” of the thermal discharge with “*all* other significant impacts,” the BIP assessed how “other *pollutants* . . . might interact with warmer temperatures to enhance detrimental effects.”<sup>152</sup> What this means is that the BIP only analyzed whether higher temperatures make other pollutants more potent. For example, the BIP study noted that “[t]emperature elevation should not affect the color” of the river nor the potency of “individual toxicants” at the “exposure durations seen in the Pigeon River.”<sup>153</sup> But the object of the BIP is not only to assess how temperature may enhance the toxicity of discrete pollutants considered separately. Rather, the BIP must determine whether the elevated temperature, together with “all other significant impacts,” allows for a balanced, indigenous population.

The BIP study compounded this error by repeatedly assuming, without scientific support, that pollutants discharged in quantities that do not exceed permit limits have no “interaction” with temperature. For instance, the BIP noted that “chloroform is *assumed* to not interact detrimentally with slightly elevated temperatures in the river” because chloroform limits are based on EPA effluent guidelines.<sup>154</sup> Similarly, the study “*assumed* that there would be little interaction between slightly elevated temperature and chlorinated organic materials” because the mill is already meeting federally mandated requirements for chlorinated organic compounds.<sup>155</sup> Likewise, “it is *assumed* that [chlorinated phenolics] will not interact with slightly elevated temperatures in the river” because the daily maximum limits in the permit are already lower than federal requirements.<sup>156</sup> These unsupported assumptions reveal no useful scientific findings about the interactions between temperature and other pollutants..

The BIP study also erred by refusing to consider impacts from anything besides discharged pollutants. For example, the BIP failed to analyze the cumulative impacts of the thermal discharge together with “naturally severe conditions” like the 2007–2008 drought.<sup>157</sup> During the summer of 2007, almost 8,500 fish were killed by high water temperatures below the mill. Though the BIP recounted this event, it declined to consider how the mill’s thermal effluent contributed to the fish kill. Instead, it suggested that a “significant regional drought in 2007-2008 reduced stream flows in the Pigeon River to record lows and raised ambient river temperatures, which resulted in a one-day kill of fish in the river immediately downstream of the discharge.”<sup>158</sup> Because the mill’s heated “discharge remained essentially constant” in temperature and volume,

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<sup>151</sup> *Id.* at 61.

<sup>152</sup> *Id.* (emphasis added).

<sup>153</sup> *Id.* at 62.

<sup>154</sup> *Id.* at 63 (emphasis added).

<sup>155</sup> *Id.* (emphasis added).

<sup>156</sup> *Id.* (emphasis added).

<sup>157</sup> *Id.* at 29.

<sup>158</sup> *Id.* at 28.

and no permit limits effective at the time were violated, the BIP found the thermal discharge was not to blame for the kill.<sup>159</sup>

This finding is contrary to law and common sense. Elsewhere, the BIP did not dispute that the *cumulative* effect of the thermal effluent, together with the drought, low-flow conditions, and hot weather combined to kill thousands of fish below the mill.<sup>160</sup> The BIP's own analysis of the kill noted that river temperatures upstream of the mill were 20.6 °C to 22.4 °C—well below the thermal tolerances of the fish that were killed downstream.<sup>161</sup> Below the mill, however, there was “little (or possibly no) flow in the river other than the thermal discharge,” which ranged from 33.8 °C to 36.9 °C.<sup>162</sup> These temperatures “were within the range that would be lethal to many riverine fishes.”<sup>163</sup> Thus, while low flows and higher temperatures may have “contributed to the fish kill,”<sup>164</sup> the mill's heated effluent was unquestionably a but-for cause.

As this example illustrates, the BIP study did not assess how the mill's thermal effluent contributed to past cumulative adverse impacts to species below the mill. Nor did the study prospectively assess how the thermal discharge would interact with future droughts or natural stressors to cumulatively impact aquatic communities below the mill. Because the BIP study failed to adequately analyze cumulative impacts to species as required by federal regulations, it cannot support the grant of a thermal variance.

4. The BIP study cannot rely on summer-only biological data or comparisons to the dissimilar Swannanoa River, which both skewed the study's findings.

In addition to the defects described above, the BIP study suffered from two significant design flaws that further undermine its conclusions. First, BIP researchers failed to sample throughout the year to capture seasonal changes. Second, the study relied in part on an apples-to-oranges comparison between the Pigeon and Swannanoa Rivers.

*a. Summer-only sampling*

EPA regulations require a balanced, indigenous population to have “the capacity to sustain itself through cyclic seasonal changes.” 40 C.F.R. § 125.71(c). EPA interprets this provision to mean that “any additional thermal stress will not cause significant community instability during times of natural extremes in environmental conditions.”<sup>165</sup> In practical terms, this means that “[c]ommunity data should be collected during normal seasonal extremes *as well* as during optimal seasonal conditions.”<sup>166</sup> “At a minimum,” EPA recommends taking shellfish

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<sup>159</sup> See *id.* (“[D]eclining flows . . . caused the abnormally high temperatures.”).

<sup>160</sup> See *id.* at 92.

<sup>161</sup> BIP App'x D at 2–5.

<sup>162</sup> *Id.* at 2–3.

<sup>163</sup> *Id.* at 4.

<sup>164</sup> *Id.* at 3.

<sup>165</sup> EPA Objection Letter, *supra* note 44 (Attachment B).

<sup>166</sup> *Id.* (emphasis added).

and macroinvertebrates samples “quarterly for one year,”<sup>167</sup> while fish community samples “shall be taken at monthly intervals to provide data representing seasonal and life stage habits except during and immediately following periods of spawning when a more intensive sampling effort should be provided.”<sup>168</sup>

Even when intensive sampling efforts like these are not feasible, the BIP study and EPA both emphasize the importance of winter biota sampling for a Section 316(a) demonstration. For example, EPA notes that the “distribution of the various life stages of fish is dependent upon many factors including season,”<sup>169</sup> which necessarily means that sampling in *one* season will miss impacts to temporary community assemblages that vary from season to season. The BIP study also recognized that some species are more vulnerable to temperature spikes in the winter,<sup>170</sup> while thermally tolerant invasive species like *Corbicula* often shelter in thermal plumes during the cold season.<sup>171</sup> In addition, because water flows are higher during winter, the thermal plume mixes less readily with the river, meaning the plume’s impacts can stretch even further downstream.<sup>172</sup>

Several conservation groups alerted Blue Ridge Paper to these problems before BIP research began.<sup>173</sup> Specifically, they urged Blue Ridge Paper to sample biota at least twice to present a more complete picture and to capture any seasonal dynamics. Blue Ridge Paper rejected these recommendations and proceeded with a single late-summer sampling effort from July to September 2012.<sup>174</sup> According to the BIP, late-summer sampling sufficed because it

occurs at the end of the extreme warmest period when community instability might be identified, and it allows identification of year-around survival and reproduction by collecting juveniles of most species. Sampling through the year would be redundant and constitute an unacceptable loss of aquatic life. Additionally, because of higher river flows during winter and spring, field data collection in these periods is more difficult and can risk field personnel safety.<sup>175</sup>

This explanation is insufficient. The BIP cannot claim that the biotic community below the mill has “the capacity to sustain itself *through cyclic seasonal changes*” if it failed to study those seasonal changes. 40 C.F.R. § 125.71(c) (emphasis added). A proper BIP must show that

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<sup>167</sup> EPA Guidance Manual, *supra* note 47, at 25.

<sup>168</sup> *Id.* at 30.

<sup>169</sup> *Id.*

<sup>170</sup> BIP at 90 (noting salamanders have lower “Critical Thermal Maximums” in winter).

<sup>171</sup> *Id.* at 87 (noting “warm effluents can provide a thermal refuge for cold winters”).

<sup>172</sup> *Id.* at 43.

<sup>173</sup> Letter from Austin D.J. Gerken, counsel for Western North Carolina Alliance (now MountainTrue) and Clean Water for North Carolina to Chuck Cranford, DWQ Surface Water Protection Supervisor (Apr. 13, 2012) (Attachment C).

<sup>174</sup> *See* BIP at 4 (noting that “stream temperatures are typically the warmest” during the summer and therefore summer sampling is likely to capture “the most severe” biological impacts).

<sup>175</sup> *Id.* at 47.

“any additional thermal stress will not cause significant community instability during times of natural *extremes*”—plural.<sup>176</sup> Sampling during *one* natural extreme, such as the “extreme warmest period,” fails to capture dynamics during other extremes such as winter. When ambient river temperatures are lower in winter, the mill’s heated effluent has a more disruptive effect on overall river temperatures. More importantly, heated effluent may allow the warm-water, pollution-tolerant community identified by the BIP below the mill to persist and gain dominance during the winter, inhibiting recolonization by cold-water indigenous species.

The BIP’s concerns about redundancy and loss of aquatic life are also unfounded. The BIP has no evidence to suggest that winter sampling is redundant, having failed to do it. And the BIP’s own study methods guard against unacceptable losses of aquatic life. Fish samples were collected via electrofishing, which is generally non-lethal if conducted properly. All captured fish “were held in water-filled tubs until sampling was completed, at which time [they were] released.”<sup>177</sup> Collection practices for other biotic categories were also generally non-lethal: crayfish were collected using “modified minnow traps, electroshocking, snorkeling and turning rocks”;<sup>178</sup> mussels and riverweed were assessed by noting presence or absence only;<sup>179</sup> periphyton were measured but not collected;<sup>180</sup> and wildlife were simply “observed.”<sup>181</sup> Collection is lethal to macroinvertebrates, but the BIP did not explain why adding one winter sampling event would constitute an “unacceptable” loss of benthic macroinvertebrates. Nor did the BIP weigh these one-time sampling losses at discrete locations against the threat posed by the mill’s continued discharges to the entire *population* of aquatic insects below Canton.

While scheduling sampling efforts to avoid risky field conditions is important, the BIP did not attempt to demonstrate that higher river flows are present throughout the entirety of fall, winter, and spring, such that they pose an unabating safety risk to personnel. Without such a showing, Blue Ridge Paper cannot justify its failure to protect a balanced, indigenous community year-round as required by law. The failure to capture these seasonal dynamics means the BIP’s conclusions are fundamentally flawed. DEQ cannot rely on this truncated study to justify its thermal variance.

#### b. *Swannanoa River*

As the BIP study acknowledged, the purpose of the Section 316(a) demonstration is to assess whether the current community “approximate[s] the biotic community that would have been there without the thermal discharge and other sources of pollution.”<sup>182</sup> To that end, EPA

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<sup>176</sup> EPA Objection Letter, *supra* note 44(Attachment B) (emphasis added).

<sup>177</sup> BIP App’x B at 20.

<sup>178</sup> BIP at 36.

<sup>179</sup> BIP App’x B at 77; BIP at 59.

<sup>180</sup> BIP App’x B at 81.

<sup>181</sup> *Id.* at 80.

<sup>182</sup> BIP at 20.

has suggested that “it may be appropriate to use a nearby water body unaffected by the existing thermal discharge as a reference area.”<sup>183</sup>

The BIP study used two primary reference areas: four upstream sites on the Pigeon River and two sites on the Swannanoa River. To justify selecting the latter, the BIP noted that the Swannanoa has “comparable basin morphology and is part of the larger French Broad River basin.”<sup>184</sup> In addition, the Swannanoa “has similar headwater elevation and gradient characteristics as the Pigeon River, and has a similar pattern of land use and development.”<sup>185</sup>

A closer look shows that the Swannanoa is not an appropriate reference river. To start, the drainage basin of the Swannanoa River is 1/4 the size of that for the Pigeon River, and the Swannanoa is much smaller than the Pigeon.<sup>186</sup> Some sections of the Swannanoa, including a section near Warren Wilson College where BIP sampling occurred, are listed as impaired for benthos on the North Carolina Section 303(d) list.<sup>187</sup> In addition, the Swannanoa sampling locations are at a lower altitude than the Pigeon River sampling locations, which may explain in part why sampling revealed that the Swannanoa is significantly warmer than the upper Pigeon.<sup>188</sup>

The BIP’s reliance on the Swannanoa as a reference river undermined the conclusions of the BIP study. The Upper French Broad River downstream of Rosman, or a suitable altitude reach of the Nolichucky may be more appropriate for comparing aquatic life. However, even using the Swannanoa as a reference site, the BIP still found that the thermal discharge negatively affects the aquatic community below the mill.

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The BIP study dismissed and discounted clear indicators that the thermal pollution from the mill has altered, and will continue to dramatically alter, the aquatic communities in the Pigeon River. Based on the record before the agency, a balanced and indigenous population is not present. Greenlighting a continued thermal variance will only perpetuate its absence.

Furthermore, neither the BIP study nor any other permit materials make the other required showing that North Carolina’s standard temperature limits are “more stringent than necessary” to protect a balanced, indigenous population. *See* 33 U.S.C. § 1326; 40 C.F.R. § 125.73(a) (requiring the applicant to demonstrate that water quality standards are more stringent than necessary). The thermal variance cannot be granted on the current record.

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<sup>183</sup> EPA Objection Letter, *supra* note 44 (Attachment B).

<sup>184</sup> BIP at 41.

<sup>185</sup> *Id.*

<sup>186</sup> N.C. Dep’t of Env’t & Nat. Res., Div. of Water Quality, *French Broad River Basinwide Water Quality Plan* (2011).

<sup>187</sup> *See supra* note 5.

<sup>188</sup> *See* BIP App’x B at 84 (noting that while the four upstream sites on the Pigeon averaged around 20.9 °C, the two Swannanoa sites averaged 23.1 °C—a difference of more than two full degrees).

C. DEQ's Draft Permit does not protect the biological integrity of the Pigeon River.

The Pigeon River below the mill is designated as Class C waters, meaning that it must be “suitable” for “aquatic life propagation, survival, and maintenance of biological integrity (including fishing and fish); [and] wildlife.” 15A N.C. Admin. Code 2B .0211(1)–(2). “Biological integrity” is defined as “the ability of an aquatic ecosystem to support and maintain a balanced and indigenous community of organisms having species composition, diversity, population densities, and functional organization similar to that of reference conditions.” *Id.* § 2B .0202(12). For the reasons described above in Part II.B, there is no balanced and indigenous community below the mill at least in part due to the mill’s discharge. DEQ is well aware of this imbalance, having listed the reach below the mill as impaired for benthos for decades. DEQ is also aware that the mill’s effluent is causing this impairment.<sup>189</sup> However, DEQ has opted to maintain the status quo and keep the same inadequate permit limits that allowed this imbalanced, non-native community to proliferate. Because DEQ’s Draft Permit “cannot reasonably ensure compliance with applicable water quality standards,” DEQ may not issue the permit as written. *Id.* § 2H .0112(c)

D. The Draft Permit’s relaxed testing schedule for fish-tissue dioxin fails to protect of public health.

Dioxins are a class of chlorinated compounds that are recognized as carcinogens.<sup>190</sup> Because dioxins are not biodegradable, they bio-accumulate in the food chain, meaning that they continue to “pile up in the fat tissue of animals and humans” long after they have been released into the environment.<sup>191</sup> Dioxins are also lipophilic: they are not soluble in water, but do bind strongly to sediment and organic matter.<sup>192</sup> For these reasons, dioxins are notoriously persistent in the environment, even after discharges have ended.

Historically, the Canton paper mill discharged dioxins and furans as byproducts of its chlorine bleaching process, contaminating the Pigeon River, Waterville Lake, and beyond. In the late 1980s, elevated levels of dioxin were found in fish tissue throughout the lower Pigeon River, triggering North Carolina and Tennessee to issue fish consumption advisories for all fish in the river below the mill. In 1989, the mill made changes to its treatment of polluted effluent to remove dioxin congeners. Since then, levels of dioxin and furan in the river have declined but

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<sup>189</sup> See EB 257 Survey, *supra* note **Error! Bookmark not defined.** (explaining that the poor water quality below the mill is due in part to “high water temperatures and a high specific conductance in-stream” which are “chronic problem[s] at this site and a result of upstream effluent” from the mill); *see also supra* note 39.

<sup>190</sup> Agency for Toxic Substances & Disease Registry, *Chlorinated Dibenzo-p-dioxins (CDDs)* (1999), <https://www.atsdr.cdc.gov/toxfaqs/tf.asp?id=363&tid=63>.

<sup>191</sup> European Commission, *Fact Sheet on Dioxin in Feed and Food* (July 20, 2001), [https://ec.europa.eu/commission/presscorner/detail/en/MEMO\\_01\\_270](https://ec.europa.eu/commission/presscorner/detail/en/MEMO_01_270); U.S. EPA, *Exposure Assessment Tools by Media – Aquatic Biota* (Oct. 23, 2020) [hereinafter “EPA Exposure Assessment”], <https://www.epa.gov/expobox/exposure-assessment-tools-media-aquatic-biota>.

<sup>192</sup> Ohio River Valley Water Sanitation Commission, *Dioxin in the Ohio River Basin* (1997), <http://www.orsanco.org/wp-content/uploads/2016/09/finaldioxinreport.pdf>; EPA Exposure Assessment, *supra* note 191 (noting dioxins have “low solubility in water and exist mostly sorbed to particles”).

have not been eliminated. Dioxin binds strongly to river sediments, so stopping use at the mill did not eliminate dioxin in the Pigeon River.

Because of the persistent nature of dioxins, Blue Ridge Paper has been required to conduct fish-tissue sampling as a condition of its NPDES permit for decades. Under the 2010 permit, for example, Blue Ridge Paper was required to conduct fish-tissue dioxin sampling during the 1st, 3rd, and 5th calendar year of the permit. During the most recent sampling effort in 2014, common carp fillets at one of the two sampling stations had dioxin levels of 9.619 parts per trillion (“ppt”)—more than double North Carolina’s 4 ppt toxic equivalency (“TEQ”) action level to trigger a fish consumption advisory,<sup>193</sup> and more than *sixty-four* times greater than EPA’s own risk-based consumption limit of 0.15 ppt for fish-tissue dioxin.<sup>194</sup>

When DEQ administratively extended the 2010 permit for another five years, fish-tissue sampling was not continued, perhaps because of the way the original permit condition was structured (instead of requiring testing every other year, it required testing on the 1st, 3rd, and 5th years). DEQ made no effort to restructure the fish-sampling condition through a modification to avoid a five-year gap in sampling during the extension period. Despite this seven-year testing gap—and despite finding a TEQ exceedance the last time testing occurred—DEQ now proposes *reducing* the frequency of fish-tissue sampling to only once per five-year permit period.<sup>195</sup>

DEQ attempts to justify this reduction in two ways. First, it speculates that the TEQ-exceeding specimens found during the last round of testing in 2014 could either be “anomalies, or could indicate that some fish are present in the population with relatively higher TEQ values.”<sup>196</sup> Second, DEQ points to a high-volume dioxin sampling study conducted by EPA in 2014 concluding that “the most potent of congeners in the series, 2,3,7,8 – TCDD, was not detected in *dissolved* samples at the reporting limit of 0.0012 parts per quadrillion at any station.”<sup>197</sup> Neither rationale withstands scrutiny.

The speculation that the 2014 results are anomalous is baseless. To start, the procedures followed by Blue Ridge Paper’s hired consultants are designed to guard against “anomalous” results. Multiple specimens of two different target species were collected using study methods approved by DEQ.<sup>198</sup> Fillets from each specimen were then combined into a “composite” sample using EPA-approved procedures.<sup>199</sup> Testing composite samples instead of individual specimens reduces the chance that results will be skewed by individual fish with higher relative toxin loads.

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<sup>193</sup> Draft Fact Sheet at 4.

<sup>194</sup> U.S. Env’tl. Protection Agency, Guidance for Assessing Chemical Contaminant Data for Use in Fish Advisories at 5-105 (2000), <https://www.epa.gov/sites/production/files/2018-11/documents/guidance-assess-chemical-contaminant-vol2-third-edition.pdf>.

<sup>195</sup> Draft Permit at 18 (requiring a fish-tissue analysis during the 2nd calendar year of the permit).

<sup>196</sup> Draft Fact Sheet at 4.

<sup>197</sup> *Id.* (emphasis added) (quoting U.S. EPA, *Pigeon River Dioxin High Volume Sampling Report* (2014) [hereinafter “EPA Dioxin Report”] (Attachment C)).

<sup>198</sup> Blue Ridge Paper Products Inc dba Evergreen Packaging, *2014 Dioxin in Fish Tissue Report NPDES NC 0000272* at 1 (Feb. 2, 2015) (Attachment C).

<sup>199</sup> *Id.* at 15.

If these composite samples showed TEQ exceedances more than two times the state limit in 2014, then DEQ should not discount them.

DEQ's related hypothesis—that the 2014 tests “could indicate that some fish are present in the population with relatively higher TEQ values”—would seem to be precisely the result the testing is designed to detect. To the extent DEQ is suggesting that other, untested fish may have had “relatively” lower TEQ values, it is engaging in speculation not supported by the 2014 test itself. At any rate, the presence of dioxin at higher levels even in *some* fish is a reason to continue testing fish tissue, especially in a river with known recreational uses.

DEQ's citation to EPA's 2014 high-volume dioxin sampling is also misleading. That study conducted testing for numerous dioxin and furan congeners—not just the cited 2,3,7,8-TCDD—in both dissolved *and* particulate form at four different sites: one above the mill, one several miles below, and two in Waterville Lake.<sup>200</sup> Notably, sampling site PR02—the site directly below the mill—had the highest particulate dioxin concentrations for every congener tested in the study.<sup>201</sup> Every congener identified at PR02 also exceeded EPA's reporting limit; for example, particulate 2,3,7,8-TCDD was detected at a concentration of 4 ppt—nearly four times the reporting limit of 1.2 ppt.<sup>202</sup> The same pattern held true for furans; sampling site PR02 had the highest recorded particulate concentrations for nine out of ten furan congeners, exceeding the reporting limit in each case.<sup>203</sup> Total particulate values for tetra, penta, hexa, and hepta dioxins and furans were also highest at PR02.<sup>204</sup>

In its discussion, EPA concluded that “the majority of the contaminants of interest appear to be bound in solids greater than one micron, as particulate concentrations of dioxins and furans were higher than dissolved concentrations, except for” one furan congener at the station upstream of the mill (“PR01”) and at the lower end of Waterville Lake (“PR04”).<sup>205</sup> EPA also noted that “[p]articulate concentrations for all analytes peaked at PR02, decreasing downstream with concentrations at PR04 returning to levels comparable to those at PR01 as particulates most likely settled out of the water column.”<sup>206</sup>

As these results make clear, the fact that *dissolved* levels of 2,3,7,8-TCDD were not detected above the reporting limit at any station is only a fraction of the story. Particulate dioxins and furans were much more prevalent in general, and found in much higher concentrations below the mill. In fact, particulate concentrations below the mill exceeded reporting requirements in

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<sup>200</sup> EPA Dioxin Report, *supra* note 197, at 5–12.

<sup>201</sup> *Id.* at 13–14.

<sup>202</sup> *Id.* at 14 (results from the study were converted from pg/L, or parts per quadrillion, to parts per trillion).

<sup>203</sup> *Id.* at 18.

<sup>204</sup> *Id.* at 24.

<sup>205</sup> *Id.* at 36.

<sup>206</sup> *Id.*

almost every instance. And it is these particulate-bound dioxins that are largely responsible for fish dioxin in the first place.<sup>207</sup>

Because dioxins and furans—especially particulate-bound congeners—are still very much present in the Pigeon River watershed, DEQ would be remiss in reducing the frequency of fish-tissue sampling to only once a permit term. If this schedule is adopted and implemented, by the end of the permit term in 2026 Blue Ridge Paper will have conducted fish-tissue dioxin sampling only *once* in twelve years, in an area where dioxin is known to be present. This level of testing is insufficient to ensure the protection of public health and must be revised to require *at least* the same amount of testing—every other year, for a total of three times per five-year permit period—as the 2010 permit before it was administratively extended.

E. DEQ must develop and impose technology-based effluent limitations for numerous pollutants.

DEQ may only issue an NPDES permit if it assures compliance with all technology-based *and* water-quality-based effluent limits. 33 U.S.C. § 1342(a)(1)(A); 40 C.F.R. § 122.43(a). Technology-based limits set the minimum level of control required in every NPDES permit. 40 C.F.R. § 125.3(a). A permittee must implement technology-based standards, even if doing so goes beyond the level necessary to meet water quality standards.<sup>208</sup> However, if technology-based standards are insufficient to meet water quality standards, then dischargers must do whatever more is necessary to satisfy the water quality standards, including imposing water-quality-based effluent limitations.<sup>209</sup>

As a starting point, the required technology-based limits are derived from one of two sources: (1) national effluent limitation guidelines (“ELGs”) issued by EPA for various industries, 33 U.S.C. § 1314(b); or (2) case-by-case determinations using the “best professional judgment” (“BPJ”) of permit writers when EPA has not issued an ELG specific to industry discharges, *see* 33 U.S.C. § 1342(a)(1)(B); 40 C.F.R. § 125.3(c)(2). When EPA has promulgated ELGs but they only apply to certain pollutants or activities, other pollutants or activities “are subject to regulation on a case-by-case basis” using BPJ as well. 40 C.F.R. § 125.3(c)(3). North Carolina rules also require technology-based limits, and in the absence of a promulgated ELG, direct agency staff to calculate a limit using EPA development documents and other available information. *See* 15A N.C. Admin. Code 02B .0406(b)(3).

Here, EPA has developed ELGs for the Pulp, Paper, and Paperboard Point Source Category. 40 C.F.R. § 430. This category describes ELGs for select pollutants, including adsorbable organic halides, chloroform, dioxin, chlorinated phenolics, trichlorophenol, pentachlorophenol, and total suspended solids. *Id.* §§ 430.22–24. However, the Pulp and Paper category, originally promulgated in 1974, does not address numerous other pollutants discharged

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<sup>207</sup> *Environmental Contaminants in Biota: Interpreting Tissue Concentrations* at 109 (W. Nelson Beyer & James P. Meador, eds., 2d ed. 2011) (Attachment C).

<sup>208</sup> U.S. Env'tl. Protection Agency, *NPDES Permit Writers' Manual* at § 5.1 (2010) [hereinafter “Permit Writers' Manual”], [https://www.epa.gov/sites/production/files/2015-09/documents/pwm\\_2010.pdf](https://www.epa.gov/sites/production/files/2015-09/documents/pwm_2010.pdf).

<sup>209</sup> *Id.*

by the Canton mill in 2021. In addition to pulp- and paper-related operations, for example, the mill continues to rely on coal-burning for some of its power generation and is responsible for processing Canton’s domestic wastewater. The mill also likely has used forever chemicals in its processes, based on the presence of those chemicals in seeps from the mill’s old waste dumps.

In the Draft Permit, DEQ mistakenly limits its analysis of technology-based limits to only those pollutants subject to the outdated ELG. For those pollutants not specified in the ELG, DEQ skips straight to assessing the need for water-quality-based effluent limits. But both state and federal law require DEQ to develop technology-based limits using its BPJ *before* evaluating the need for water-quality-based effluent limits. *See, e.g.*, 33 U.S.C. 1311(b) (requiring the application of “any more stringent limitation” including water-quality-based limits if technology-based limits are insufficient to protect water quality standards).

For example, DEQ lists many pollutants not covered by the ELG, including arsenic, cadmium, chromium, copper, cyanide, fluoride, lead, mercury, molybdenum, nickel, selenium, silver, and zinc. Instead of evaluating best available technology controls for these pollutants, DEQ only asks whether these pollutants have the reasonable potential to violate water quality standards.<sup>210</sup> Ultimately, DEQ declines to impose numeric limits on most of these pollutants after finding that they are unlikely “to cause a violation of the North Carolina stream standard.”<sup>211</sup> But even if this is true, it does not give DEQ permission to forgo the development of technology-based limits. Technology-based effluent limits set “the *minimum* level of control that must be imposed” in an NPDES permit, even if they result in pollution levels that are stricter than those required by state water quality standards. 40 C.F.R. § 125.3(a) (emphasis added). Conducting a reasonable potential analysis before imposing technology-based limits flips the Clean Water Act’s permitting regime on its head.

DEQ must, at a minimum, go through the proper steps to develop technology-based effluent limits for the mill’s polluted discharges, including those pollutants DEQ subjected to a reasonable potential analysis for compliance with water quality standards. As discussed below under Part II.H, DEQ should extend this analysis to any forever chemicals present in the mill’s discharges or treatment systems.

F. The Draft Permit lacks sufficiently strict conditions to protect the Pigeon River from colored and other wastes.

As Class C waters, the Pigeon River below the mill must be “suitable” for “aquatic life propagation, survival, and maintenance of biological integrity (including fishing and fish); wildlife; secondary contact recreation . . . [and] agriculture.” 15A N.C. Admin. Code 2B .0211(1)–(2). To protect those uses, the EMC has set water quality criteria for multiple pollutants, including “colored or other wastes.” *Id.* § 2B .0211(12). This narrative water quality standard allows such wastes in “only such amounts as shall not render the waters injurious to public health, secondary recreation, or to aquatic life and wildlife, or adversely affect the

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<sup>210</sup> Draft Fact Sheet at 6.

<sup>211</sup> *Id.*

palatability of fish, *aesthetic quality*, or impair the waters for any designated uses.” *Id.* (emphasis added).

The Clean Water Act requires NPDES permits to include “any more stringent limitation” necessary to meet “water quality standards.” 33 U.S.C. § 1311(b)(1)(C). If application of minimum technology-based effluent limits leaves a “reasonable potential” that water quality standards will be violated, then an NPDES permit must impose additional water-quality-based effluent limits to ensure water quality standards are not violated. 40 CFR § 122.44(d)(1)(i); *see also* 15A N.C. Admin. Code 2H .0112(c) (requiring NPDES permits to “ensure compliance with applicable water quality standards”).

DEQ’s Draft Permit proposes the following limits on Blue Ridge Paper’s discharge of colored waste: an annual average color limit of 36,000 lbs/day, a monthly average color limit of 52,000 lbs/day, and a daily maximum color limit of 105,250 lbs/day.<sup>212</sup> These are the same limits implemented by the 2010 permit.<sup>213</sup> The primary difference is that in 2010, DEQ found those limits would not ensure compliance with North Carolina’s narrative water quality standards, and therefore found those discharge levels required a variance. In 2020, DEQ reaches the opposite conclusion and suggests removing the variance requirement and making no further progress on color reductions. DEQ’s approach is problematic because it omits consideration of current color-reduction technologies and focuses too narrowly on only one component of the narrative water quality standard.

1. The agency fails to evaluate available technologies for further reductions on colored discharges.

As described above, technology-based effluent limitations set the minimum level of control required in every NPDES permit. 40 C.F.R. § 125.3(a). For non-conventional pollutants like “colored or other wastes,” these limits must be based on “application of the best available technology economically achievable.” 33 U.S.C. § 1311(b)(2)(F).

Here, DEQ does not attempt to determine what color-reduction technologies are currently available. Instead, it copies and pastes its work from more than a decade ago, noting that its proposed color limits “were established in accordance with the Technology Review Workgroup[’s (“TRW’s”) 2008] recommendations for the 2010 permit renewal.”<sup>214</sup> However, these recommendations were intended to apply to the 2010 permit, not a subsequent permit

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<sup>212</sup> Draft Permit at 4–5.

<sup>213</sup> *Compare* N.C. Dep’t of Env’t & Nat. Res., NPDES Permit No. NC0000272 Blue Ridge Paper Produces Inc. at 6 (May 25, 2010) [hereinafter “2010 Permit”], *with* Draft Permit at 4–5. The 2010 permit set an initial annual average limit of 38,020 lbs/day, but further required that four years after the permit became effective “the average annual discharge of true color for each calendar year shall not exceed 32,000-36,000 pounds per day.” 2010 Permit at 6.

<sup>214</sup> Draft Fact Sheet at 6 (emphasis added). The TRW was originally created in 1997. Following a settlement agreement, representatives of EPA, Tennessee, and North Carolina convened to form the TRW to analyze available color-reduction technologies that could be used at the Canton mill. The group reconvened in 2007 to assess available technologies for the forthcoming 2010 permit.

twelve years in the future.<sup>215</sup> Moreover, the color limits proposed by the TRW in 2008 were based on technology and costs in 2008—not 2020. Because these recommendations are twelve years past their expiration date, DEQ may not rely on them to craft its current permit limits without adequate explanation as to how they reflect current technology.<sup>216</sup>

Although DEQ’s reasons for freezing the permit limits are flawed, so is the outcome. The Clean Water Act and North Carolina state law require increasingly stringent permit limits over time. *See, e.g.*, 33 U.S.C. § 1251 (stating a motivating purpose of the Clean Water Act is the “eliminat[ion]” of discharges of pollutants to jurisdictional waters). But the Draft Permit stalls out progress on reductions in daily, monthly average, and annual average color permit limits across the board. DEQ must assess the potential to achieve stricter color limits, as the TRW—and the Clean Water Act—intended.

2. DEQ advances a flawed, overly narrow interpretation of North Carolina’s narrative aesthetic water quality standard.

EPA and DEQ have previously interpreted North Carolina’s narrative standard for “colored and other wastes” and its reference to “aesthetic quality” to include meeting an in-stream limit of 50 platinum-cobalt units (“PCUs”) of true color per liter of water, although that interpretation has not been advanced in any formal rulemaking.<sup>217</sup> In the Draft Permit, DEQ now proposes (1) removing Blue Ridge Paper’s color variance based on the 50 PCU in-stream limit; and (2) altering its interpretation of the color standard to prohibit monthly average true-color levels in Blue Ridge Paper’s discharge from exceeding the background (upstream) true-color level by more than 50 PCU when the Pigeon River flow at Canton is greater than or equal to the monthly 30Q2<sup>218</sup> of 129 cubic feet per second.<sup>219</sup>

This new interpretation of North Carolina’s narrative water quality standard is fundamentally flawed in two ways. First, DEQ’s narrow focus on a numeric true-color standard fails to protect all aspects of “aesthetic quality,” as required by state law. Though DEQ repeatedly describes 15A N.C. Admin. Code 2B .0211(12) as just a “color standard,” the text of the regulation applies much more broadly to “colored or other wastes” that may not injure the “aesthetic quality” of the receiving waterbody.<sup>220</sup> Although “aesthetic quality” certainly

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<sup>215</sup> *See* Memorandum from U.S. EPA Technology Review Workgroup to N.C. Div. of Water Quality at 6 (Feb. 25, 2008) (recommending that by the end of the 2010 permit term, “the permit should require an effluent target range of 32,000 – 37,000 lbs/day as an annual average”).

<sup>216</sup> If necessary, DEQ could reconvene the TRW to assess whether technologies available in 2021 are superior to those assessed in 2008 for purposes of developing current technology-based limits.

<sup>217</sup> Draft Fact Sheet at 10–11.

<sup>218</sup> Defined as the “minimum average flow for a period of 30 consecutive days that has an average recurrence of once in two years.” 15A N.C. Admin. Code 2B .0206(a)(5).

<sup>219</sup> Draft Fact Sheet at 10–12; Draft Permit at 5.

<sup>220</sup> DEQ’s position seems to be that so long as Blue Ridge Paper’s colored waste—and colored waste only—is not injuring aesthetic quality, the narrative standards are being satisfied. This misses the point of the narrative standard, which is to broadly protect “aesthetic quality” from “colored *and* other wastes,” not just color. An example helps to illustrate this distinction. Assume Blue Ridge Paper’s effluent lacked any color at all, but gave off a rank odor, created objectionable foam, and produced undesirable or nuisance aquatic life, such as swarms of stinging midges.

encompasses color, it also covers much more, including, but not limited to: presence of undesirable or nuisance aquatic life, odor, foam, and other floating debris affecting an individual's perception of the river or the palatability of fish.<sup>221</sup> DEQ's attempt to boil "aesthetic quality" down to a numeric shift in platinum-cobalt units necessarily fails to address these other aesthetic properties.

Second, DEQ also fails to articulate why a *monthly* average  $\Delta 50$  PCU standard is a justifiable interpretation of North Carolina's narrative standard. A monthly average standard could allow the mill to exceed the current 50 PCU in-stream standard for days at a time. Therefore, the new interpretation substantially *weakens* North Carolina's narrative water quality standards. Nor does it make sense. The color standard is meant to protect the aesthetic qualities of the river but people do not experience aesthetic qualities as a "monthly average"—they experience them in real time on a day-to-day basis.

DEQ provides scant support for this significant change. Instead of relying on the text of the administrative code or its permitting experience to support this new interpretation, DEQ largely relies on color studies and standards from other states. Specifically, DEQ points to findings from a color study that established a  $\Delta 50$  PCU limit on the Hiwassee River in Tennessee and a color standard of  $\Delta 40$  PCU in Maine. These comparisons are inappropriate.

The Tennessee PCU standard that DEQ cites was based on a 31-year-old study of a specific watershed in which the study authors warned that "[i]t must be *strongly* emphasized that the results of this study are *extremely* site-specific and *should not* be used to evaluate color limits for other river systems."<sup>222</sup> What's more, the current color limit on the Hiwassee is now a *daily* limit of  $\Delta 40$  PCU, as opposed to the *monthly* average limit of  $\Delta 50$  PCU proposed by DEQ here.<sup>223</sup> This distinction is hugely important, as a monthly average standard permits Blue Ridge Paper to far exceed the acceptable color differential noted in the Tennessee study—or currently acceptable on the Hiwassee—for multiple days per month, so long as the monthly average color differential does not exceed 50 PCU.

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DEQ could not argue that this "other" waste product, colored or not, did not injure the aesthetic quality of the Pigeon River in contravention of the State's narrative standards for Class C waters.

<sup>221</sup> See U.S. Env'tl. Protection Agency, *Quality Criteria for Water* at 17 (1986) (current recommended standard for aesthetic quality), <https://www.epa.gov/sites/production/files/2018-10/documents/quality-criteria-water-1986.pdf>. The Draft Permit does state that "[t]here shall be no discharge of floating solids or visible foam in other than trace amounts." Draft Permit at 5. This ambiguous requirement does not address all aspects of aesthetic quality and does not create an enforceable permit standard for those aesthetic properties it does name.

<sup>222</sup> A.M. Prestrude & E.L. Laws, *Hiwassee River Study* at 3 (Apr. 12, 1989) (emphasis added) (Attachment C). The Tennessee study also relied on contemporaneous assessments of *apparent* color differential between sites to suggest a range of acceptable color addition, rather than monthly average measurements of true color like DEQ. Apparent color measurements assess water color without turbidity removal, while true color is defined as the color measured in the absence of turbidity.

<sup>223</sup> Tenn. Dep't of Env't & Conservation, Div. of Water Res., NPDES Permit No. TN0002356 for Resolute FP US Inc. at 5 (June 27, 2018) (Attachment C) (noting the true color downstream of the discharge "must not be increased no more than a daily maximum of 40 standard platinum-cobalt color units, as compared to an upstream control point.").

The Maine color standard cited by DEQ is also inapposite for two reasons. First, it requires individual waste dischargers not to increase the color of any water body by more than 20 PCU, not 40 PCU as implied by the Draft Fact Sheet.<sup>224</sup> The  $\Delta$ 40 PCU standard applies to color pollution “caused by *all* waste discharges to the water body,” not just discharges from one polluter like Blue Ridge Paper. Me. Stat. tit. 38 § 414-C(3) (emphasis added). Second, Maine’s  $\Delta$ 40 PCU standard is not a monthly average limit. *See id.* (“The total increase in color pollution units caused by all waste discharges to the water body must be less than 40 color pollution units.”). Thus, like the Hiwassee, increases in color that might violate Maine’s PCU standard may be acceptable in the Pigeon for multiple days per month, so long as the monthly average color differential does not exceed 50 PCU.

In sum, DEQ must evaluate compliance with the narrative aesthetic-quality standard by assessing aesthetics beyond true-color shifts, consistent with the language and intent of the standard. In addition, DEQ cannot rely on inapposite out-of-state standards to support its monthly average limit. If DEQ insists on citing these out-of-state references, then it too must craft a daily or instantaneous color-differential limit—not a monthly average limit.

G. DEQ must justify the use of a mixing zone, specify to which pollutants it applies, and develop spatial limits.

A mixing zone is a “limited area or volume of water where initial dilution of a discharge takes place and within which the water quality standards allow certain water quality criteria to be exceeded.”<sup>225</sup> Mixing zones must be carefully limited in at least three different ways. First, according to EPA, mixing zones generally must be tailored to specific “pollutant[s] of concern.”<sup>226</sup> Second, mixing zones must be “appropriately limited in size.”<sup>227</sup> This requirement helps guard against “disproportionately large” zones that “could potentially adversely impact the productivity of the waterbody, and have unanticipated ecological consequences.”<sup>228</sup> Third, mixing zones should be “located appropriately within the waterbody to provide a continuous zone of passage that protects migrating, free-swimming, and drifting organisms.”<sup>229</sup>

Because mixing zones must provide a continuous zone of passage *around* the mixing area, they are not appropriate when an effluent—such as temperature—is “known to attract biota.”<sup>230</sup> “Although most toxic pollutants elicit a neutral or avoidance response . . . temperature

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<sup>224</sup> Compare Me. Stat. tit. 38 § 414-C(3), with Draft Fact Sheet at 12 (suggesting the permit’s  $\Delta$ 50 PCU standard is supported by Maine’s “color limit of 40 PCU above the background”).

<sup>225</sup> Permit Writers’ Manual, *supra* note 208, at § 6.2.5.2.

<sup>226</sup> *See id.* at § 6.2.5.2 (requiring permit writes to “determine the maximum mixing zone size for the waterbody type, pollutant of concern, and specific criterion being considered”).

<sup>227</sup> U.S. Env’tl. Protection Agency, *Technical Support Document for Water Quality-based Toxics Control* at 2.2.2 (1991) [hereinafter “EPA Technical Support Document”], <https://www3.epa.gov/npdes/pubs/owm0264.pdf>.

<sup>228</sup> *Id.* at § 2.2.2.

<sup>229</sup> U.S. Env’tl. Protection Agency, *Water Quality Standards Handbook* ch. 5 at 7 (2014), <https://www.epa.gov/sites/production/files/2014-09/documents/handbook-chapter5.pdf>.

<sup>230</sup> EPA Technical Support Document, *supra* note 227, at 10.

can be an attractive force and may counter an avoidance response to a particular pollutant.”<sup>231</sup> As a result, “organisms would tend to stay in the mixing zone rather than passing through or around it,” meaning that even if a continuous zone of passage is designated, it “will not protect aquatic life.”<sup>232</sup>

The Draft Permit does not address these limitations and concerns for its new mixing zone. It simply defines the mixing zone as the *entire* 0.4-mile stretch of river “between the diffuser and the Fiberville Bridge.”<sup>233</sup> It does not specify which pollutants it applies to, nor does it craft an appropriately sized mixing zone that leaves a designated zone of passage for aquatic organisms.<sup>234</sup> It also does not address the problems EPA identified with mixing zones containing thermal effluent. The Draft Permit must be revised to correct these deficiencies.

The Draft Permit also must justify why a mixing zone is needed in the first place. Presumably, DEQ crafted the mixing zone for the mill’s thermal effluent. But Blue Ridge Paper already applied for and is slated to receive a thermal variance which allows it to exceed North Carolina’s water temperature standards. Mixing zones are designed to allow permittees to exceed the same standards in spatially delineated and localized ways that avoid acute impacts—*not* to allow permittees to exceed the already relaxed standards found in a Section 316(a) variance. In essence, DEQ’s Draft Permit would allow Blue Ridge Paper to exceed water quality standards (with the variance) and then exceed that exceedance (with a mixing zone designation). DEQ must explain why this stacked authority to doubly exceed North Carolina’s temperature standard is justified.

#### H. DEQ must consider and evaluate any discharges of PFAS by the paper mill.

Per- and polyfluoroalkyl substances, or PFAS, are a group of man-made chemicals that have been used in a range of manufacturing industries since the 1940s,<sup>235</sup> particularly for their ability to repel water and oil.<sup>236</sup> The same properties that make them useful in manufacturing applications render them persistent and mobile in the environment and the human body, and their long-lasting effects have earned PFAS a reputation as “forever chemicals.” Once discharged, PFAS persist in rivers, streams, and sediment, migrate into groundwater and can enter drinking water supplies. PFAS are now understood to present a danger to human and aquatic health.

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<sup>231</sup> *Id.*

<sup>232</sup> *Id.*

<sup>233</sup> Draft Permit at 21.

<sup>234</sup> Although the BIP study opined that “zone of initial mixing for the Mill’s thermal discharge provides a zone of passage along the eastern side of the river for movement of fish and invertebrates,” BIP at 60, this biological opinion is not the same as an enforceable, spatially delineated permit condition.

<sup>235</sup> U.S. Env’tl. Protection Agency, *Basic Information on PFAS* [hereinafter “Basic PFAS Info”] (Attachment C).

<sup>236</sup> Interstate Tech. Regulatory Council, *Per- and Polyfluoroalkyl Substances (PFAS), Technical/Regulatory Guidance* at Sec. 2.5 (Sept. 2020) [hereinafter “ITRC Guidance”], [https://pfas-1.itrcweb.org/wp-content/uploads/2020/10/itrc\\_pfas\\_techreg\\_sept\\_2020\\_508-1.pdf](https://pfas-1.itrcweb.org/wp-content/uploads/2020/10/itrc_pfas_techreg_sept_2020_508-1.pdf) (“[U]nique physical and chemical properties of PFAS impart oil, water, stain, and soil repellency . . . to a range of products.”).

In recent years, DEQ has gained experience dealing with the prevalence and persistence of PFAS, including through an enforcement action against the Chemours chemical plant on the Bladen-Cumberland county line for discharging GenX<sup>237</sup> chemicals into the Cape Fear River system.<sup>238</sup> There, DEQ recognized the need to regulate the discharge of PFAS, which it confirmed meet the definition of toxic substances under state law.<sup>239</sup>

The paper and packaging industry is a known consumer of PFAS, which are used to improve the water-resistant properties of paper products. Neither the paper mill's 2010 permit nor the Draft Permit renewal reflect any consideration of whether the paper mill uses and discharges PFAS into the Pigeon. Blue Ridge Paper's application for a permit renewal, which is itself more than seven years old, is silent on the potential discharge of PFAS.<sup>240</sup> DEQ must require the disclosure of any PFAS compounds historically or presently used and potentially discharged by the mill and develop appropriate limits to control the discharges. The best strategy for chemicals that are both toxic and persistent is to require technologies that ensure they not discharged into waterways like the Pigeon in the first place.

#### 1. Pulp and paper mills are a type of industry that uses and discharges PFAS.

The pulp and paper industry is a known consumer of PFAS.<sup>241</sup> PFAS are incorporated into paper production in multiple ways. They can be added to the pulp to improve the internal water-resistant properties of paper products,<sup>242</sup> or added externally as a surface coating for packaging products.<sup>243</sup> In addition to incorporation into manufactured products, fluoropolymers are used on equipment and production processes for their non-corrosive properties, from pulp mills and recovery operations to the paper machines themselves.<sup>244</sup> EPA recognized in its PFAS

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<sup>237</sup> GenX refers to a technology used to make high-performance fluoropolymers without the use of perfluorooctanoic acid ("PFOA"). *E.g.*, Basic PFAS Info, *supra* note 235.

<sup>238</sup> N.C. Dep't of Env'tl. Quality, *GenX Investigation*, <https://deq.nc.gov/news/key-issues/genx-investigation> (last visited Apr. 12, 2021).

<sup>239</sup> Amended Complaint, *N.C. Dep't of Env'tl. Quality v. Chemours*, 17 CVS 580, 6–7 (N.C. Super. Ct. 2018) [hereinafter "N.C. DEQ Amended Complaint"].

<sup>240</sup> *See* Permit Application, *supra* note 15.

<sup>241</sup> *See* Basic PFAS Info, *supra* note 235 (listing paper and packaging as known applications); ITRC Guidance, *supra* note 236, at Table 2-4 (listing documented uses in paper and packaging sectors); Nate Seltenrich, *PFAS in Food Packaging: A Hot, Greasy Exposure*, 128 *Env'tl. Health Perspectives* 054002-1 (2020) (Attachment C); *see also* Org. for Econ. Cooperation and Dev., *Synthesis Paper on Per- and Polyfluorinated Chemicals (PFCS)* (2013) (Attachment C) (listing paper and packaging among major uses of PFAS).

<sup>242</sup> *See* Xenia Trier et al., *PFAS in Paper and Board for Food Contact: Options for Risk Management of Poly- and Perfluorinated Substances*, (Nordic Council of Ministers 2018) (Attachment C); Gregory Glenn et al., *Per- and Polyfluoroalkyl Substances and their Alternatives in Paper Food Packaging*, *Comprehensive Reviews in Food Sci. and Food Safety* (2021) (Attachment C) ("PFAS chemicals tend to coat the surfaces of fibers, including fibers located internally when internal sizing containing PFAS is used such as with molded pulp paper packaging.").

<sup>243</sup> *See supra* note 242; Andrew B. Lindstrom, Mark J. Strynar, and E. Laurence Libelo, *Polyfluorinated Compounds: Past, Present, and Future*, 45 *Env'tl. Sci. & Tech.* 7954 (2011) (Attachment C).

<sup>244</sup> *See* Leon Magdzinski, *Fluoropolymer Use in the Pulp and Paper Industry*, *CORROSION* 99 (1999) (noting "fluoropolymer have become ubiquitous in the pulp and paper industry"); Rainer Lohmann et al., *Are Fluoropolymers Really of Low Concern for Human and Environmental Health and Separate from Other PFAS?*, 54 *Env'tl. Sci. & Tech.* 12,820 (2020) (Attachment C).

Action Plan that “pulp and paper” was among the point-source dischargers “likely to be discharging PFAS in their wastewater” and prioritized the industry for detailed study.<sup>245</sup> Because of the multiple applications of PFAS in the pulp and paper industry, DEQ should screen any paper manufacturers with effluent discharges for potential discharges of PFAS.<sup>246</sup> Canton’s pulp and paper mill is no exception.

Multiple PFAS-contamination events across the country are under investigation for their links to paper mills. In Michigan, efforts are ongoing in addressing PFAS contamination near a paper mill in the town of Parchment along the Kalamazoo River. Sampling by the state found high levels of PFAS in the town’s water supply and in nearby residential wells. The paper mill site, idled since 2000, included a wastewater treatment system and industrial landfills where the mill disposed of sludge from its treatment plant.<sup>247</sup>

In Maine, state regulators are investigating PFAS contamination that has spread into residential wells around Fairfield.<sup>248</sup> A recently filed lawsuit implicates sludge disposal from the Somerset paper mill in Skowhegan as the source of PFAS.<sup>249</sup> The state’s investigation began in 2016, when a local dairy farmer learned his cows were producing PFAS-tainted milk after they were pastured on lands where sludge from a paper mill and a municipality were spread as fertilizer.<sup>250</sup>

In Norway, scientific researchers determined a factory that manufactured PFAS-coated disposable paper products was responsible for contaminating an entire sediment bed throughout Lake Tyrifjorden. Using source tracking methods, particularly fingerprinting contamination from the factory’s old landfill sites, the study identified the paper production facility “as a major PFAS

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<sup>245</sup> U.S. Env’tl. Protection Agency, *EPA’s Per- and Polyfluoroalkyl Substances (PFAS) Action Plan* (2019), [https://www.epa.gov/sites/production/files/2019-02/documents/pfas\\_action\\_plan\\_021319\\_508compliant\\_1.pdf](https://www.epa.gov/sites/production/files/2019-02/documents/pfas_action_plan_021319_508compliant_1.pdf).

<sup>246</sup> See, e.g., Mich. Dep’t of Env’tl. Quality, *Recommended PFAS Screening & Evaluation Procedure for Industrial Pretreatment Programs (IPPs)* (2018) (Attachment C) (identifying paper and packaging manufacturers as possible sources); National Chemicals Working Group of the Heads of EPAs Australia and New Zealand, *PFAS National Environmental Management Plan Version 2.0* (2020) (Attachment C) (noting pulp and paper mills use PFAS as internal and external sizing agents and are associated with point sources of contamination).

<sup>247</sup> Mich. Dep’t of Env’t, Great Lakes, and Energy, *Michigan PFAS Action Response Team: Kalamazoo County, Parchment, Crown Vantage Property*, [https://www.michigan.gov/pfasresponse/0,9038,7-365-86511\\_82704-479889-,00.html](https://www.michigan.gov/pfasresponse/0,9038,7-365-86511_82704-479889-,00.html) (last updated Apr. 20, 2020).

<sup>248</sup> Me. Dep’t of Env’tl. Protection, *Fairfield PFAS Investigation*, <https://www.maine.gov/dep/spills/topics/pfas/fairfield/index.html> (last visited Apr. 12, 2021).

<sup>249</sup> Christopher Burns, *Maine Paper Mill Hit with Class-Action Lawsuit over ‘Forever Chemical’ Contamination*, Bangor Daily News (Mar. 8, 2021), <https://bangordailynews.com/2021/03/08/news/central-maine/maine-paper-mill-hit-with-class-action-lawsuit-over-forever-chemical-contamination/>; John Gardella, *PFAS Paper Mill Lawsuit In Maine Exposes Corporate Susceptibility*, National Law Review (March 25, 2021), <https://www.natlawreview.com/article/pfas-paper-mill-lawsuit-maine-exposes-corporate-susceptibility>.

<sup>250</sup> Richard Valdmanis & Joshua Schneyer, *The Curious Case of Tainted Milk from a Maine Dairy Farm*, Reuters (Mar. 19, 2019), <https://www.reuters.com/article/us-usa-dairy-chemicals-idUSKCN1R01AJ>.

hot spot source.”<sup>251</sup> The contamination persisted in sediment and biota, including fish species like perch, even though surface water samples were near or below detection limits.<sup>252</sup>

As for the Pigeon, in a forthcoming study, researchers surveying for PFAS across Western North Carolina tested the river below the mill’s outfall for several different types of PFAS. They also took surface water samples near some of the mill’s old landfills, where wastewater treatment sludge was disposed of historically. That sampling effort detected PFAS in samples near the sludge landfills and just downstream of the mill’s wastewater treatment outfall. Given the known use of PFAS by the paper and packaging industry and early indications from these results, DEQ must require a full investigation of the historical and present use of PFAS at the Canton paper mill—including an evaluation of potential discharges to surface water—in this NPDES permit renewal.

## 2. PFAS are harmful to human health and the environment.

PFAS are a threat to human health and the environment. Taking two of the commonly studied PFAS as an example, perfluorooctanoic acid (“PFOA”) and perfluorooctane sulfonate (“PFOS”) have been found to alter the development of fetuses and infants and cause kidney and testicular cancer, liver malfunction, hypothyroidism, high cholesterol, ulcerative colitis, lower birth weight and size, obesity, decreased immune response to vaccines, reduced hormone levels and delayed puberty.<sup>253</sup>

In response to these health concerns, EPA has established a lifetime health advisory of 70 parts per trillion (“ppt”) for the combined concentrations of PFOA and PFOS in drinking water.<sup>254</sup> In June 2018, the Agency for Toxic Substances and Disease Registry released an updated Draft Toxicological Profile for PFOA, PFOS, and other PFAS. The report suggested that many of the chemicals are more harmful than previously thought. For instance, the minimum risk levels, or the amount of a chemical a person can eat, drink, or breathe each day without a detectable risk to health, was determined to be only 11 ppt for PFOA, and 7 ppt for PFOS.<sup>255</sup> Epidemiological studies show that many of these same health outcomes result from

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<sup>251</sup> Håkon A. Langberg et al., *Paper Product Production Identified as the Main Source of Per- and Polyfluoroalkyl Substances (PFAS) in a Norwegian Lake: Source and Historic Emission Tracking*, 273 *Envtl. Pollution* 116259 (2021) (Attachment C).

<sup>252</sup> *See id.*

<sup>253</sup> Arlene Blum et al., *The Madrid Statement on Poly- and Perfluoroalkyl Substances (PFASs)*, 123 *Envtl. Health Perspectives* A107 (2015) (Attachment C); U.S. Envtl. Protection Agency, *Fact Sheet: PFOA & PFOS Drinking Water Health Advisories* at 2 (2016), [https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories\\_pfoa\\_pfos\\_updated\\_5.31.16.pdf](https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfos_updated_5.31.16.pdf).

<sup>254</sup> U.S. Envtl. Protection Agency, *Drinking Water Health Advisories for PFOA and PFOS*, <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos> (last updated Feb. 18, 2021).

<sup>255</sup> Cape Fear Public Utility Authority (CFPUA), *CFPUA Statement on Recently Released DHHS Report* (June 21, 2018), <https://www.cfpua.org/CivicAlerts.aspx?AID=893&ARC=2004>; *see also* ATSDR, *Toxicological Profile for Perfluoroalkyls, Draft for Public Comment* (June 2018) [hereinafter “Draft 2018 Toxicological Profile for Perfluoroalkyls”] (Attachment C).

exposure to other PFAS.<sup>256</sup> Given these harms, several states have acknowledged the dangers of these compounds and have approved drinking water standards for various PFAS at 20 ppt and lower.<sup>257</sup>

PFAS are also harmful to the environment. They resist breaking down in the environment, can travel long distances, and bio-accumulate in organisms.<sup>258</sup> PFAS have been shown to harm fish,<sup>259</sup> amphibians,<sup>260</sup> mollusks,<sup>261</sup> and other aquatic invertebrates<sup>262</sup>—

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<sup>256</sup> Draft 2018 Toxicological Profile for Perfluoroalkyls, *supra* note 255, at 5–6, 25–26.

<sup>257</sup> Press Release, Mich. Dep't of Env't, Great Lakes, and Energy, *Michigan Adopts Strict PFAS in Drinking Water Standards* (July 22, 2020), [https://www.michigan.gov/som/0,4669,7-192-47796-534660--,00.html#:~:text=The%20Michigan%20Department%20of%20Environment,PFAS%20contamination%20in%20drinking%20water](https://www.michigan.gov/som/0,4669,7-192-47796-534660--,00.html#:~:text=The%20Michigan%20Department%20of%20Environment,PFAS%20contamination%20in%20drinking%20water;); N.Y. Dep't of Health, *NYS Drinking Water Standards for PFOA, PFOS and 1,4-Dioxane* (Sept. 2020), [https://www.health.ny.gov/environmental/water/drinking/docs/water\\_supplier\\_fact\\_sheet\\_new\\_mcls.pdf](https://www.health.ny.gov/environmental/water/drinking/docs/water_supplier_fact_sheet_new_mcls.pdf); Annie Ropeik, *N.H. Approves Unprecedented Limits for PFAS Chemicals in Drinking Water*, NHPR (July 18, 2019), <https://www.nhpr.org/post/nh-approves-unprecedented-limits-pfas-chemicals-drinking-water#stream/0>; Vt. Dep't of Envtl. Conservation, *PFAS & Drinking Water Information Page*, <https://dec.vermont.gov/water/drinking-water/pfas> (last visited Apr. 14, 2021); Press Release, Vt. Agency of Nat. Res., *Agency of Natural Resources Initiates Rulemaking Process to Adopt Maximum Contaminant Level for PFAS Compounds*, <https://anr.vermont.gov/content/agency-natural-resources-initiates-rulemaking-process-adopt-maximum-contaminant-level-pfas> (last visited Feb. 24, 2020); N.J. Dep't of Envtl. Protection, *Affirming National Leadership Role, New Jersey Publishes Formal Stringent Drinking Water Standards for PFOA and PFOS* (June 1, 2020), [https://www.nj.gov/dep/newsrel/2020/20\\_0025.htm](https://www.nj.gov/dep/newsrel/2020/20_0025.htm); Interstate Tech. Regulatory Council, *PFAS Fact Sheets* (2020), [https://pfas-1.itrcweb.org/wp-content/uploads/2020/10/regs\\_508\\_Aug-2020-Final.pdf](https://pfas-1.itrcweb.org/wp-content/uploads/2020/10/regs_508_Aug-2020-Final.pdf).

<sup>258</sup> Draft 2018 Toxicological Profile for Perfluoroalkyls at 2, 534; *see also* U.S. Envtl. Protection Agency, *Technical Fact Sheet - Perfluorooctane Sulfonate (PFOS) and Perfluorooctanoic Acid (PFOA)* at 1, 3 (2017) (Attachment C).

<sup>259</sup> Lianguo Chen et al., *Multigenerational Disruption of the Thyroid Endocrine System in Marine Medaka after a Life-Cycle Exposure to Perfluorobutanesulfonate*, 52 *Envtl. Sci. & Tech.* 4432 (2018) (Attachment C); Lianguo Chen et al., *Perfluorobutanesulfonate Exposure Causes Durable and Transgenerational Dysbiosis of Gut Microbiota in Marine Medaka*, 5 *Envtl. Sci. & Tech. Letters* 731 (2018) (Attachment C); Lianguo Chen et al., *Accumulation of Perfluorobutane Sulfonate (PFBS) and Impairment of Visual Function in the Eyes of Marine Medaka After a Life-cycle Exposure*, 201 *Aquatic Toxicology* 1 (2018) (Attachment C); John Charles Rotondo et al., *Environmental Doses of Perfluorooctanoic Acid Change the Expression of Genes in Target Tissues of Common carp*, 37 *Envtl. Toxicology & Chem.* 942 (2018) (Attachment C); Carrie E. Jantzen et al., *PFOS, PFNA, and PFOA Sub-lethal Exposure to Embryonic Zebrafish have Different Toxicity Profiles in Terms of Morphometrics, Behavior and Gene Expression*, 175 *Aquatic Toxicology* 160 (2016) (Attachment C); A. Hagenaaers et al., *Structure–Activity Relationship Assessment of Four Perfluorinated Chemicals Using a Prolonged Zebrafish Early Life Stage Test*, 82 *Chemosphere* 764 (2011) (Attachment C); Yang Liu et al., *The Thyroid-disrupting Effects of Long-term Perfluorononanoate Exposure on Zebrafish (Danio rerio)*, 20 *Ecotoxicology* 47 (2011) (Attachment C); Haihua Huang et al., *Toxicity, Uptake Kinetics and Behavior Assessment in Zebrafish Embryos Following Exposure to Perfluorooctanesulphonic Acid (PFOS)*, 98 *Aquatic Toxicology* 139 (2010) (Attachment C); Yongbing Du et al., *Chronic Effects of Water-Borne PFOS Exposure on Growth, Survival and Hepatotoxicity in Zebrafish: A Partial Life-cycle Test*, 74 *Chemosphere* 723 (2009) (Attachment C).

<sup>260</sup> Lianguo Chen et al., *Multigenerational Disruption*, *supra* note 259; Lianguo Chen et al., *Perfluorobutanesulfonate Exposure*, *supra* note 259; Lianguo Chen et al., *Accumulation of Perfluorobutane Sulfonate*, *supra* note 259.

<sup>261</sup> Changhui Liu & Karina Yew-Hoong Gin, *Immunotoxicity in Green Mussels Under Perfluoroalkyl Substance (PFAS) Exposure: Reversible Response and Response Model Development*, 37 *Envtl. Toxicology & Chem.* 1138 (2018); Changhui Liu et al., *Oxidative Toxicity of Perfluorinated Chemicals in Green Mussel and Bioaccumulation Factor Dependent Quantitative Structure-Activity Relationship*, 33 *Envtl. Toxicology & Chem.* 2323 (2014).

<sup>262</sup> Ruoyo Liang et al., *Effects of Perfluorooctane Sulfonate on Immobilization, Heartbeat, Reproductive and Biochemical Performance of Daphnia magna*, 168 *Chemosphere* 1613 (2017) (Attachment C); Magali Houde et al.,

resulting in developmental and reproductive impacts, behavioral changes, adverse effects to livers, disruption to endocrine systems, and weakened immune systems.<sup>263</sup> Despite the growing scientific understanding of the dangers of PFAS to human and environmental health, DEQ does not consider whether the Canton mill is discharging PFAS to the Pigeon River.

3. DEQ must require the mill to disclose any PFAS being discharged to the Pigeon.

The Clean Water Act prohibits the discharge of pollutants from a point source, like the mill's wastewater treatment system, to waters of the United States—including the Pigeon River—except in compliance with a NPDES permit issued under Section 402 of the Clean Water Act, among other conditions. *See* 33 U.S.C. §§ 1311(a), 1342. In order to receive coverage under a NPDES permit, however, a discharger must disclose the pollutants being discharged to permitting authorities.<sup>264</sup> Federal regulations governing NPDES permits require applications to include significant detail regarding the nature and characteristics of expected discharges. *See* 40 C.F.R. § 122.21(g). A general disclosure of wastes, operations, and processes is not sufficient to gain access to any permit shield.<sup>265</sup> Nothing excepts PFAS from this requirement, and these requirements apply to state-issued permits under approved delegated programs. *See* 40 C.F.R. § 122.21 (a)(2)(iv). Indeed, DEQ has acknowledged that disclosure of toxic pollutants, including PFAS, is required by the Clean Water Act and state water quality laws.<sup>266</sup>

In December 2014, the mill submitted with its application a characterization of pollutants likely to be discharged on Form 2C. Nowhere does this disclosure alert DEQ to a potential discharge of any chemicals classified as PFAS. Consequently, DEQ has not assessed the need for technology-based limits to control the discharge, much less whether more controls are needed to protect water quality. Moreover, the public has no information about the discharge of PFAS by the mill. To the extent the mill has excluded PFAS compounds from its effluent data, the mill has not complied with NPDES permitting application requirements. Any discharge of PFAS is and would continue to be a violation of the Clean Water Act.

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*Endocrine-disruption Potential of Perfluoroethylcyclohexane Sulfonate (PFECBS) in Chronically Exposed Daphnia magna*, 218 *Envtl. Pollution* 950 (2016) (Attachment C); Kyunghye Ji et al., *Toxicity of Perfluorooctane Sulfonic Acid and Perfluorooctanoic Acid on Freshwater Macroinvertebrates (Daphnia Magna and Moina Macrocopa) and Fish (Oryzias Latipes)*, 27 *Envtl. Toxicology & Chem.* 2159 (2008); Michelle M. MacDonald et al., *Toxicity of Perfluorooctane Sulfonic Acid and Perfluorooctanoic Acid to Chironomus tentans*, 23 *Envtl. Toxicology & Chem.* 2116 (2004).

<sup>263</sup> *See supra* notes 259–262.

<sup>264</sup> *S. Appalachian Mountain Stewards v. A & G Coal Corp.*, 758 F.3d 560 (4th Cir. 2014) (holding a mining company's failure to meet its disclosure obligations rendered it ineligible for permit shield under the Clean Water Act); *Piney Run Preservation Ass'n v. Cty. Comm'rs of Carroll Cty.*, 268 F.3d 255, 268 (4th Cir. 2001).

<sup>265</sup> *S. Appalachian Mountain Stewards*, 758 F.3d at 563.

<sup>266</sup> N.C. DEQ Amended Complaint at 6–7 (citing 33 U.S.C. § 1342(k), *Piney Run Preservation Ass'n*, 268 F.3d at 265).

4. DEQ must develop appropriate effluent limits for PFAS discharges.

Once DEQ requires the disclosure of PFAS compounds, DEQ must then develop limits that apply best available technology to control and eliminate any PFAS in the discharge. As discussed previously, the Clean Water Act requires permitting agencies to, at the very least, incorporate technology-based effluent limitations for discharged pollutants, even if those limits are stricter than necessary to meet water quality standards. If technology-based standards are insufficient to meet water quality standards, then water-quality-based effluent limits must also be developed to ensure those standards are met. *See* 33 U.S.C. § 1342(a)(1)(A); 40 C.F.R. § 122.43(a).

Where, as here, the outdated ELG for the pulp and paper category does not address the discharge of a category of pollutants like PFAS, technology-based limits must be developed on a case-by-case basis using BPJ. 40 C.F.R. § 125.3(c)(3). North Carolina rules, in the absence of a promulgated ELG, direct staff to calculate a limit using EPA development documents and other available information. *See* 15A N.C. Admin. Code 02B .0406(b)(3).

In this case, DEQ must consider the feasibility of the Canton paper mill using existing treatment technologies, such as granular activated carbon, to eliminate discharges of PFAS. DEQ is well aware of the effectiveness of granular activated carbon treatment at removing PFAS based on pilot studies conducted by Chemours. The results show that granular activated carbon can remove more than 99% of all PFAS tested.<sup>267</sup> Almost all of those PFAS were reduced to levels so low that they were not detectable in the discharge.<sup>268</sup>

DEQ's analysis does not necessarily stop at technology-based effluent limits, however. DEQ also must ensure that water quality standards will not be violated. PFAS are known to harm human and aquatic health, and their discharge threatens to violate multiple water quality standards. For instance, the state toxic substances standard requires that: "the concentration of toxic substances, either alone or in combination with other wastes, in surface waters shall not render waters injurious to aquatic life or wildlife, recreational activities, public health, or impair the waters for any designated uses."<sup>269</sup> DEQ in its lawsuit against Chemours recognized that PFAS "meet the definition of 'toxic substance[s]'" under state law.<sup>270</sup>

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<sup>267</sup> Parsons, *Engineering Report: Old Outfall 002 GAC Pilot Study Results Addendum, Chemours Fayetteville Plant* (2020), [https://www.chemours.com/en/-/media/files/corporate/old-outfall-2-gac-pilot-addendum\\_final.pdf](https://www.chemours.com/en/-/media/files/corporate/old-outfall-2-gac-pilot-addendum_final.pdf).

<sup>268</sup> *Id.* at App'x B. Similarly, the Cape Fear Public Utility Authority is installing granular activated carbon at its Sweeney Water Treatment Plant and implementing a process that captures PFAS on the carbon filters and replaces those filters as needed. *See* Cape Fear Public Utility Authority, *Sweeney Treatment Enhancements Project*, <https://www.cfpua.org/775/Sweeney-Treatment-Enhancements-Project> (last visited Apr. 14, 2021); *see also* Jim Ware, *CFPUA Moving Forward with \$46M GenX Filtration System*, StarNews (Jun. 11, 2019), <https://www.starnewsonline.com/news/20190611/cfpua-moving-forward-with-46m-genx-filtration-system>.

<sup>269</sup> 15A N.C. Admin. Code 2B .0208(a).

<sup>270</sup> N.C. DEQ Amended Complaint at 32 (stating that "the process wastewater from [Chemours'] Fluoromonomers/Nafion® Membrane Manufacturing Area contains and has contained substances or combinations of substances which meet the definition of 'toxic substance' set forth in 15A N.C.A.C. 2B .0202," referring to GenX and other PFAS).

In addition to ensuring compliance with this rule on the Pigeon, DEQ must also ensure that PFAS discharges do not violate the state’s aesthetic standard, which prohibits wastes that “render the waters injurious to public health, secondary recreation, or to aquatic life and wildlife, or adversely affect the palatability of fish, aesthetic quality, or impair the waters for any designated uses.” 15A N.C. Admin. Code 02B .0211(12) (Class C waters).

To ensure compliance with these standards, DEQ must require Blue Ridge Paper to characterize any PFAS being discharged in the Canton mill’s effluent, so that DEQ can evaluate the need for permit conditions imposing technology-based and water-quality-based effluent limits, along with frequent monitoring. Without this disclosure and analysis, DEQ cannot ensure compliance with water quality standards or lawfully issue an NPDES permit. *See* 33 U.S.C. § 1311(b)(1)(C); 15A N.C. Admin. Code 2H.0112 (c) (final action on NPDES permit applications).

I. The Draft Permit overlooks multiple additional discharges of pollution seeping from sludge disposal sites into the Pigeon River.

The Draft Permit overlooks multiple additional sources of polluted discharges from the mill’s previous sludge disposal that are currently reaching the Pigeon River. This omission undermines the reasonable potential analysis that forms the basis of the water-quality-based effluent limitations in the permit and contravenes existing conditions in the permit.

Blue Ridge Paper’s permitted outfall is not the only location where pollution from the mill’s operations are discharged into the Pigeon. For decades, the mill has disposed of sludge from its wastewater treatment systems into several landfills along the river. That sludge contains toxic pollutants from the facility’s historical operations, ranging from coal ash to potential forever chemicals likely used by the mill as described above. The Draft Permit references only the mill’s newest landfill. That landfill is lined and contains a system to collect contaminated leachate, which is sent back to the wastewater treatment system rather than discharged directly into the river. Crucially, that is not the only industrial landfill that the mill has used to store its waste, nor is it the only landfill leaking pollutants.

Multiple additional unlined landfills are strung along the banks of the Pigeon River. Several of these landfills are visible on DEQ’s inactive hazardous waste mapping tool as Champion Landfill Nos. 1, 2 and 3.<sup>271</sup> Their closure permits do not authorize polluted seeps to the Pigeon River. Nonetheless, multiple landfills have seeps actively flowing to the Pigeon, into the same stretch of the river that receives the mill’s effluent discharges from its wastewater treatment system.

Recent surface water sampling by the French Broad Riverkeeper confirms that seeps from the landfill sites are polluting the Pigeon with a range of contaminants. In June 2019, the

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<sup>271</sup> N.C. Dep’t of Env’tl. Quality, *Inactive Hazardous Sites Map*, <https://deq.nc.gov/about/divisions/waste-management/waste-management-rules-data/waste-management-gis-maps/ihs-map-viewer> (last visited Apr. 14, 2021)

French Broad Riverkeeper found that landfill seeps are discharging pollutants typical of contamination from coal ash, which is among the waste landfilled at the unlined sites.



### **Examples of Seeps from Canton Paper Landfill No. 1.<sup>272</sup>**

The samples from seeps at Landfill No. 1 contained elevated levels of boron, cobalt, iron, molybdenum, strontium, and zinc.<sup>273</sup> Sampling from a creek draining from the edge of Landfill No. 2 included elevated levels of cadmium and strontium. Levels of boron, cadmium, and cobalt exceeded North Carolina in-stream target values for surface waters; iron and manganese exceeded EPA's recommended water quality criteria. Several of these pollutants are indicators of coal ash migrating through seeps toward the river.<sup>274</sup>

These seeps probably harbor more than just pollutants associated with coal-ash waste. Indeed, a forthcoming study also found PFAS compounds in samples from landfill seepage. Although not disclosed by the mill, PFAS were evidently used in the mill's processes

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<sup>272</sup> These seep locations are at approximately 35.5437617, -82.86398329999999 and 35.54336450000002, -82.863597 (flow from toe drain).

<sup>273</sup> North Carolina's surface water standards are available at <https://deq.nc.gov/documents/nc-stdstable-06102019>. Zinc and cadmium are subject to hardness dependent numeric standards.

<sup>274</sup> See, e.g., Federal Coal Combustion Residuals Rule, 40 C.F.R. Appendices III and IV to Part 257 (listing boron among detection constituents and cadmium, cobalt and molybdenum as monitoring constituents); Jennifer S. Harkness, Barry Sulkin, & Avner Vengosh, *Evidence for Coal Ash Ponds Leaking in the Southeastern United States*, 50 *Envl. Sci. & Tech.* 6583 (2016) (Attachment C) (discussing boron and strontium).

historically, disposed of along with other sludge waste, and are now discharged into the Pigeon River.

DEQ has apparently made no attempt to locate, characterize, or eliminate these seep discharges. Unauthorized discharges of pollutants through point sources to the Pigeon River are standalone violations of the Clean Water Act. The scope of the problem, however, is not limited to surface water. Buried waste also contaminates groundwater, which migrates offsite and hydrologically connects to the river. Thus, even more pollution is likely reaching the river through groundwater migrating through the buried waste in unlined landfills. DEQ must require the mill to determine the nature and extent of groundwater contamination emanating from these unlined industrial landfills, particularly as several residences are located near the old landfill sites.

Although separate regulatory enforcement is necessary, the discharge of pollution from prior wastewater sludge disposal and its effects on the water quality of the Pigeon River are also relevant to permit conditions in this NPDES permit.

#### 1. Duty to Mitigate and Removed Substances Conditions.

In addition to complying with individual permit conditions, Blue Ridge Paper must ensure its wastewater treatment systems and sludge disposal practices comply with the NPDES Permit standard conditions. The Duty to Mitigate provision requires Blue Ridge Paper to minimize or prevent any “sludge use or disposal in violation of this permit with a reasonable likelihood of adversely affecting human health or the environment.”<sup>275</sup> To the extent Blue Ridge Paper discharges undisclosed PFAS from its wastewater into the Pigeon, in violation of its permit, or allows pollution from contaminated sludge to migrate to the Pigeon, the mill fails to “take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of [its NPDES permits] with a reasonable likelihood of adversely affecting human health or the environment,” as required by the Duty to Mitigate.

The Removed Substances provision also prohibits pollution from entering the Pigeon from sludge disposal practices: “Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be utilized/disposed of . . . in a manner such as to prevent any pollutant from such materials from entering waters of the State.”<sup>276</sup> The Removed Substances provision ensures that “measures shall be taken to assure that pollutants [and] materials removed from the process water and waste streams will be retained in storage areas and not discharged or released.”<sup>277</sup> This provision aims to “ensure the integrity” of such systems so that pollution does not escape into the environment.<sup>278</sup> Allowing coal-ash pollutants,

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<sup>275</sup> See N.C. Dep’t of Env’tl. Quality, *NPDES Permit Standard Conditions* at § B(2) (2011), <https://files.nc.gov/ncdeq/Surface%20Water%20Protection/NPDES/GUIDANCE/Boilerplate-11-09-2011-2.pdf>.

<sup>276</sup> See *id.* at § C(6).

<sup>277</sup> In re: *539 Alaska Placer Miners*, 1085-06-14-402C, 1990 WL 324284, at \*8 (EPA Mar. 26, 1990); see also 40 C.F.R. § 440.148(c).

<sup>278</sup> *Yadkin Riverkeeper, Inc. v. Duke Energy Carolinas, LLC*, 141 F. Supp. 3d 428, 446–47 (M.D.N.C. 2015) (interpreting the Removed Substances provision in context of coal-ash disposal at the Buck Steam Station).

PFAS, or other pollutants to escape areas where sludge from the mill's wastewater treatment system has been disposed of and enter the Pigeon River violates the Removed Substances provision.

2. Factoring downstream pollution concentrations into water-quality-based effluent limitations.

The Draft Permit must consider these additional sources of pollution to the Pigeon—which are connected to the mill's waste disposal practices—in developing appropriate permit limits on pollution from the mill's wastewater outfall. The minimal information provided by the Draft Fact Sheet about the reasonable potential analysis conducted to determine the need for water-quality-based effluent limitations does not indicate what conditions were assumed to be present in the Pigeon River. As shown above, leaking landfills immediately downstream of the mill's outfall are adding pollution to the same stretch of the Pigeon. In addition to seeps, it is likely that far more pollution is entering the Pigeon through hydrologically connected groundwater, which migrates through these waste sites. Although little information about DEQ's reasonable potential analysis is available in the Draft Fact Sheet, nowhere does DEQ indicate that it has considered these additional polluted discharges in its evaluation of the potential for Blue Ridge Paper's discharge to violate water quality standards. To be clear, the outfall is not the only source of Blue Ridge Paper's polluted discharges to the Pigeon River, and any analysis that assumes so is in error.

EPA requires consideration of downstream conditions when issuing an NPDES permit. Specifically, before calculating a water-quality-based effluent limitation, the permit writer first determines the waste load allocation (“WLA”) for the point-source discharge.<sup>279</sup> “The WLA is the loading or concentration of pollutant that the specific point source may discharge while still allowing the water quality criterion to be attained *downstream of that discharge*.”<sup>280</sup> The WLA calculation accounts for “contributions from other point and nonpoint sources.”<sup>281</sup> The Draft Fact Sheet reflects no attempt to develop a WLA based on pollutant contributions of leaking landfill sites immediately downstream of the mill. This omission undercuts the entire reasonable potential analysis. In reevaluating the need for water-quality-based effluent limitations, DEQ should apply the NPDES guidance. DEQ must document this process in a revised fact sheet that provides “the public a transparent, reproducible, and defensible description of how the permit writer properly derived [water-quality-based effluent limitations] for the NPDES permit.”<sup>282</sup>

J. The Draft Permit relies on outdated data to support its findings.

If approved, DEQ's Draft Permit will allow Blue Ridge Paper to discharge pollutants into the Pigeon River until 2026. If DEQ continues its practice of administratively extending this

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<sup>279</sup> Permit Writers' Manual, *supra* note 208, at § 6.4.1.5.

<sup>280</sup> *Id.* (emphasis added).

<sup>281</sup> *Id.* (describing use of a model where a WLA “is needed to address the nearfield effects of a discharge on water quality criteria”).

<sup>282</sup> *Id.*

permit—as it has for the past two permit cycles—it could govern for even longer. Yet much of the data that DEQ relies on to support its findings and conditions in the Draft Permit is already outdated by a full permit term or more. For example:

- **2014 BIP study:** The study DEQ relies on to support Blue Ridge Paper’s continued thermal variance is already seven years old. The data within the study is even older—for instance, biotic sampling for the BIP ended in September of 2012, over 100 months ago.
- **2008–2013 dioxin sampling:** As described in more detail above, there has been no fish-tissue dioxin sampling conducted in the Pigeon River since 2014. Even though the 2014 sampling found elevated levels of dioxin in common carp fillets, the Draft Permit relies on even older sampling efforts from 2008–2013 to justify reducing the frequency of fish-tissue sampling to once per permit period.<sup>283</sup>
- **2008–2013 notices of violation:** The Draft Fact Sheet discloses that DEQ issued eighteen notices of violation (“NOVs”) to Blue Ridge Paper from September 2008 to August 2013.<sup>284</sup> DEQ does not disclose that it has issued NOVs for numerous fecal coliform violations and other monitoring violations during the seven following years as well.
- **2008 Technology Review Workgroup:** As noted above, the Draft Fact Sheet suggests that the Draft Permit limits on color are appropriate because they “were established in accordance with the Technology Review Workgroup (TRW) recommendations for the 2010 permit renewal.”<sup>285</sup> However, these recommendations were based on color-reduction technologies available in 2008—nearly thirteen years ago. DEQ does not consider or address whether these technologies or their costs have changed in the interim.
- **2014–2018 dissolved oxygen review:** In its discussion of dissolved oxygen levels in the Pigeon, the Draft Fact Sheet notes that daily average dissolved oxygen concentrations below the mill did not drop below North Carolina’s water quality standard (5.0 mg/L) between 2014 and 2018. DEQ does not disclose whether this standard has been met over the past three years, nor does it relate whether the instantaneous dissolved oxygen standard (4.0 mg/L) has been met.
- **2014 Permit Application:** Blue Ridge Paper applied for a permit renewal in 2014. Instead of developing a new permit, DEQ administratively extended the 2010 permit for five years. Now DEQ intends to grant the 2014 renewal application—in 2021. Because the application is now almost seven years old, DEQ must elicit current data on the mill’s discharge via an updated Form 2C. This is especially pertinent now that the nature of the mill’s discharge is changing. Specifically, DEQ’s Draft Permit recommends approving Blue Ridge Paper’s request to increase its flow limit from

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<sup>283</sup> Draft Fact Sheet at 3–4.

<sup>284</sup> *Id.* at 6.

<sup>285</sup> *Id.*

29.9 MGD to 34.0 MGD<sup>286</sup>—an increase of nearly 14%. Part of this increase will be used to process scrubber waste or treat additional landfill leachate,<sup>287</sup> and the vast majority (70.7%) will be used in the mill’s paper processing.<sup>288</sup> Because the Draft Permit allows the discharge of 4.1 million more gallons of effluent per day, DEQ must require Blue Ridge Paper to provide an updated Form 2C disclosing the impacts this increased flow usage will have on effluent levels. *See* 40 C.F.R. § 122.44 (requiring NPDES permit conditions be based on “existing controls on point and nonpoint sources of pollution” (emphasis added)); 15A N.C. Admin. Code 2H .0143(25) (incorporating 40 C.F.R. § 122.44 by reference).

Because DEQ is relying on information that is up to thirteen years old, it cannot guarantee that its Draft Permit “maintain[s] or enhance[s] the chemical, physical, biological and radiological integrity” of the Pigeon River. N.C. Gen. Stat. § 143-215(b). DEQ must require submission of an updated Form 2C, disclose all NOVs, cease reliance on outdated—and superseded—dioxin test results, ask to reconvene the Technology Review Workgroup, disclose both recent and instantaneous dissolved oxygen data, and require the preparation of an updated BIP study.

K. DEQ must impose stricter controls to mitigate the mill’s repeated fecal coliform violations.

Blue Ridge not only treats the mill’s industrial waste, but also the Town of Canton’s sewage waste. With that comes the responsibility to ensure bacteria like fecal coliform meet water quality standards and pose no health risk. *See* 15A N.C. Admin. Code 02B .0211(7) (Class C waters). Fecal coliform is an indicator used to detect waterborne pathogens in streams and rivers.<sup>289</sup> Finding high levels of fecal coliform in waterbodies suggests that harmful bacteria and viruses might also be present, including those causing typhoid fever, gastroenteritis, cholera, and hepatitis A.<sup>290</sup> DEQ issued fourteen violations to the mill for exceeding the permit’s fecal coliform limit between 2008 and 2013,<sup>291</sup> and around a dozen more violations have been issued in the years since.<sup>292</sup> These repeated violations exceed permit limits and present a health risk to recreational users of the Pigeon River.

While the Draft Fact Sheet acknowledges the repeated violations, neither it nor the Draft Permit indicates what additional measures will be taken to curb these violations. Because DEQ

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<sup>286</sup> *Id.* at 7–8.

<sup>287</sup> *Id.* at 7–8.

<sup>288</sup> *See id.*

<sup>289</sup> N.C. Dep’t of Env’t & Nat. Res., *Supplemental Guide to North Carolina’s Basinwide Planning* at 149 (2008), <https://files.nc.gov/ncdeq/Water%20Quality/Planning/BPU/BPU/Supplemental%20Guide/Supplemental%20Guide%202008.pdf>.

<sup>290</sup> *Id.* at 152.

<sup>291</sup> Draft Fact Sheet at 6.

<sup>292</sup> *See* N.C. Dep’t of Env’tl’ Quality, Div. of Water Res. Laserfiche folder for NC0000272, <https://edocs.deq.nc.gov/WaterResources/Browse.aspx?id=537199&dbid=0&repo=WaterResources&cr=1>.

lacks a strategy to assure compliance with the fecal coliform standard, it risks perpetuating the same permit violations going forward.

This outcome is foreclosed by federal and state law. Under the Clean Water Act, North Carolina cannot issue an NPDES permit that will contribute to violations of water quality standards. *See* 33 U.S.C. § 1311(b)(1)(C). State regulations impose a similar requirement: “No permit may be issued when the imposition of conditions cannot reasonably ensure compliance with applicable water quality standards and regulations of all affected states.” 15A N.C. Admin. Code 2H .0112(c) (final action on NPDES permit applications).

Blue Ridge Paper’s recent history of non-compliance requires DEQ to reevaluate whether the existing permit terms are sufficiently stringent and to develop additional measures that will assure compliance with fecal coliform standards.

L. DEQ must not relax its chloroform limits for internal outfalls 002 and 003.

DEQ proposes increasing the mill’s chloroform limits for internal outfalls 002 and 003.<sup>293</sup> The reason for this “recalculat[ion],” according to the Draft Fact Sheet, is to bring these internal limits in line with EPA’s promulgated effluent guidelines for the Pulp, Paper, and Paperboard Point Source Category.<sup>294</sup> However, backsliding on effluent limitations like these is specifically foreclosed by the Clean Water Act and its implementing regulations. 33 U.S.C. 1342(o); 40 C.F.R. § 122.44(l); 15A N.C. Admin. Code 02B .0408(25) (incorporating § 122.44 by reference). Relaxing these limits also makes no sense when Blue Ridge Paper has been successfully meeting these limits for years, if not decades.<sup>295</sup>

In general, whenever an NPDES permit is reissued, the effluent limitations of the new permit “must be at least as stringent as the final effluent limitations” of the previous permit. 40 C.F.R. § 122.44(l)(1). Even if EPA promulgates or revises its effluent guidelines subsequent to issuing the previous permit, the new permit still may not “contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit” unless certain limited exceptions apply. *Id.* § 122.44(l)(2). The Draft Fact Sheet does not identify any exceptions that might apply, or otherwise explain why increasing chloroform limits does not constitute illegal backsliding. Nor does DEQ explain whether these changes will increase the amount of chloroform reaching the Pigeon via outfall 001. DEQ must either fully explain why increasing chloroform limits does not violate the Clean Water Act or require the mill to maintain the limits it has already been meeting for years.

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<sup>293</sup> Limits for internal outfall 002 are proposed to increase from a daily maximum of 8.6 lbs/day and a monthly average maximum of 5.1 lbs/day to a daily limit of 10.5 lbs/day and a monthly average limit of 6.27 lbs/day. *Compare* 2010 Permit, *supra* note 213, at 6, *with* Draft Permit at 6. Likewise, limits for internal outfall 003 are proposed to increase from a daily maximum of 10.9 lbs/day and a monthly average maximum of 6.5 lbs/day to a daily limit of 12.5 lbs/day and a monthly average limit of 7.49 lbs/day. *Compare* 2010 Permit, *supra* note 213, at 7, *with* Draft Permit at 8.

<sup>294</sup> Draft Fact Sheet at 9.

<sup>295</sup> For example, the effluent limits for internal outfall 002 have remained unchanged since at least 2001. *See* N.C. Dep’t of Env’t & Nat. Res., NPDES Permit No. NC0000272 Blue Ridge Paper Produces Inc. at 4 (Nov. 15, 2001).

M. The Draft Permit must include a reference to an oxygen-injection facility 0.9 miles downstream of the mill.

In North Carolina, Class C waters like the Pigeon River below the mill must maintain an instantaneous in-stream dissolved oxygen of at least 4 mg/L, and a daily average of 5.0 mg/L. 15A N.C. Admin. Code 02B .0211(6). For many years, DEQ has allowed Blue Ridge Paper to meet this standard by employing sidestream oxygen-injection facilities.<sup>296</sup> The Draft Fact Sheet states that these “oxygen injection facilities will continue to be maintained at the effluent, 0.9, and 2.1 miles downstream.”<sup>297</sup> However, the Draft Permit only requires Blue Ridge Paper to operate “oxygen injection facilities at the outfall structure, [and] at 2.1 miles downstream of the discharge.”<sup>298</sup> Given the language in the Draft Fact Sheet, the Draft Permit’s failure to list an injection station at 0.9 miles downstream is likely an oversight. DEQ should add a reference to this site back into the permit to ensure that Blue Ridge Paper will maintain the water quality standard for dissolved oxygen in the Pigeon downstream of the discharge.

**III. Conclusion**

DEQ’s Draft Permit violates federal and state law, and does not do enough to protect and restore the Pigeon River. DEQ must withdraw and revise the Draft Permit to correct the deficiencies detailed above before resubmitting the revised draft permit for public comment. Thank you for your consideration.

Please contact Patrick Hunter, or Spencer Scheidt, at (828) 258-2023 or [phunter@selcnc.org](mailto:phunter@selcnc.org) and [sscheidt@selcnc.org](mailto:sscheidt@selcnc.org) if you have any questions regarding these comments.

Sincerely,



Spencer Scheidt  
Associate Attorney



Patrick Hunter  
Senior Attorney

---

<sup>296</sup> Draft Fact Sheet at 5–6.

<sup>297</sup> *Id.* at 6.

<sup>298</sup> Draft Permit at 18.



Susannah Knox  
Senior Attorney

cc – via email:

Lauren Petter, EPA, [Petter.Lauren@epa.gov](mailto:Petter.Lauren@epa.gov)

## Attachment A

Partial Settlement Agreement and  
Joint Stipulation to Stay, NC OAH  
10 EHR 4341, April 24, 2012



*State of North Carolina*  
*Department of Justice*

ROY COOPER  
Attorney General

42 North French Broad Avenue  
Asheville, NC 28801

Western Office  
Phone: (828) 251-6083  
Fax: (828) 251-6338

24 April 2012

Ms. Kim Hausen  
Chief Hearings Clerk  
Office of Administrative Hearings  
6714 Mail Service Center  
Raleigh, North Carolina 27699-6714

By electronic transmission and first-class mail  
[oah.clerks@ncmail.net](mailto:oah.clerks@ncmail.net)

RE: Coker County TN v. DENR, DWQ, and Blue Ridge Paper Products, Inc.  
OAH File No. **10 EHR 4341**  
Coker County TN v. EMC, NPDES Committee and Blue Ridge Paper Products, Inc.  
OAH File No. **10 EHR 4982**  
(Consolidated for hearing)

Dear Ms. Hausen:

I have enclosed the original and two copies of a document for filing in the above-referenced contested case. Please return a file-stamped copy to me in the enclosed self-addressed envelope.

Thank you for your help in this matter.

Sincerely,

A handwritten signature in cursive script that reads "Sueanna P. Sumpter".

Sueanna P. Sumpter  
Assistant Attorney General

/SPS  
Enclosures

xc: The Honorable J. Randall May (via e-mail: [betty.owens@oah.nc.gov](mailto:betty.owens@oah.nc.gov))  
Following via e-mail and first-class mail:  
Julia F. Youngman, Esq.  
Amelia Y. Burnette, Esq.  
Austin D. Gerken, Jr., Esq.  
Becky Jaffe, Esq.  
William Clarke, Esq.  
Dick Krieg, Esq.

STATE OF NORTH CAROLINA  
COUNTY OF HAYWOOD

IN THE OFFICE OF  
ADMINISTRATIVE HEARINGS

Cocke County, Tennessee, et al., )  
    Petitioners, )  
v. )  
 )  
North Carolina Department of Environment )  
and Natural Resources – Division of Water )  
Quality, )  
    Respondent, )  
 )  
and )  
 )  
Blue Ridge Paper Products Inc. )  
    Respondent-Intervenor. )  
 )  
\_\_\_\_\_ )

**10 EHR 4341**

STATE OF NORTH CAROLINA  
COUNTY OF WAKE

IN THE OFFICE OF  
ADMINISTRATIVE HEARINGS

Cocke County, Tennessee, et al., )  
    Petitioners, )  
v. )  
 )  
Environmental Management Commission )  
acting by and through its NPDES Committee, )  
and the NPDES Committee, )  
    Respondents, )  
 )  
and )  
 )  
Blue Ridge Paper Products Inc., )  
    Respondent-Intervenor. )  
 )  
\_\_\_\_\_ )

**10 EHR 4982**

**Partial Settlement Agreement and Joint Stipulation to Stay**

Respondents North Carolina Division of Water Quality (the “Division”), North Carolina Environmental Management Commission acting by and through its NPDES Committee, and the NPDES Committee (the “NPDES Committee”), and Petitioners Cocke County, Tennessee, Clean Water Expected for East Tennessee, Clean Water for North Carolina, the Tennessee Chapter of the Sierra Club, Tennessee Scenic Rivers Association, and the Western North Carolina Alliance (collectively, the “Petitioners”), and Respondent-Intervenor Blue Ridge Paper Products, Inc., hereby enter into this Partial Settlement Agreement pursuant to N.C. Gen. Stat. § 150B-31(b).

This matter arose out of the Petitioners' filing of a Petition for Contested Case Hearing (10 EHR 4341) on July 23, 2010, challenging the Division's issuance of NPDES Permit No. NC0000272 (the "Permit") to Respondent-Intervenor. The issues raised by Petitioners in their contested case against the Division relate to the Permit limits on Blue Ridge Paper's discharge into the Pigeon River. Petitioners filed a second Petition for Contested Case Hearing (10 EHR 4982) against the NPDES Committee on August 13, 2010, challenging its decision to grant a variance to Respondent-Intervenor from North Carolina's water quality standard for color.

Without any contested case hearing, and without any admissions of liability, the Division, the NPDES Committee, Petitioners, and Respondent-Intervenor have reached the following Partial Settlement Agreement:

A. Temperature:

1. Subject to Environmental Protection Agency ("EPA") approval, DWQ will modify the Permit so that the first sentence of Condition A. (1.) footnote 11 of the Permit reads as follows:

"11. The weekly average instream temperature measured at a point 0.4 miles downstream of the discharge location shall not exceed 32°C during the months of July, August, and September and shall not exceed 29°C during the months October through June."

2. Respondent-Intervenor will prepare an updated Balanced Indigenous Population study ("BIP study") of the Pigeon River in accordance with the requirements of Section 316(a) of the Clean Water Act. The BIP Study will, among other study requirements: (1) survey mussels/shellfish as targeted species in the mainstem of the Pigeon River; (2) include detailed studies of macro-invertebrates and shellfish; (3) conduct thermal sampling at 20 locations in the Pigeon River and 2 locations in a reference river; and (4) intensively survey for fish, macroinvertebrates/shellfish, and periphyton in accordance with standardized sampling protocols, and in some cases, sampling protocols developed in coordination with EPA and DWQ. Surveying will be done at 20 Pigeon River locations and 2 locations in a reference river.
3. Respondent-Intervenor will use its best efforts to submit a final BIP study report to the Division and to the EPA for review before January 1, 2014, unless river conditions in 2012 do not allow safe access for field sampling. Respondent-Intervenor will serve the completed study report on counsel for Petitioners at the same time it submits the final study to the Division and EPA for review. Respondent-

Intervenor will notify counsel for Petitioners if delays in data collection planned for 2012 and early 2013 render submission of the study by January 1, 2014 not feasible.

4. Respondent-Intervenor has submitted a proposed 316(a) study plan to the Division and to EPA and provided a copy to counsel for Petitioners.
5. In reliance on these commitments, Petitioners agree to voluntarily dismiss (in accordance with section D, below) their claims relating to the current temperature limits in the Permit.

B. Color

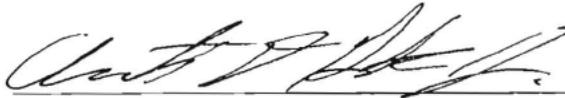
1. Respondent-Intervenor will, in accordance with the requirements of the 2010 Color Variance, fund a site-specific study of color in the Pigeon River in North Carolina. The study protocol shall be approved by DWQ and will generally be as outlined in EPA's letter of February 22, 2010 to DWQ. Respondent-Intervenor has submitted a draft protocol for such a study to the Respondents and to the EPA for comment. Respondent-Intervenor will exercise best efforts to complete the study and submit a report to Respondents before January 1, 2013. Respondent-Intervenor will serve a copy of the final study protocol and -completed report on counsel for Petitioners at the same time it submits the report to Respondents.
2. Because the color perception study currently being developed by Respondent-Intervenor may have bearing on the positions of the parties in these consolidated contested cases, the parties jointly agree and stipulate to a stay of the hearing in these consolidated contested cases until January 30, 2013. The parties jointly agree and stipulate to submit a joint status report to OAH on or before January 30, 2013, reporting on the status of the color perception study, whether a continued stay of this matter is required to allow Respondents and the EPA to review the study, and the appropriate scheduling of a hearing to resolve these contested cases, if necessary.

- C. Within three days of execution of this Partial Settlement Agreement, Respondents shall submit a draft revised NPDES permit reflecting the terms of this agreement to the EPA for approval of its terms. The parties understand and stipulate that approval of the draft revised permit does not bind EPA or any party to approval of any of the future studies, or plans or protocols for future studies contemplated by this agreement. Furthermore, the parties understand and stipulate that, by entering into this Agreement, no party is bound

to approve any of the future studies, or plans or protocols for future studies contemplated by this agreement.

- D. Within ten days of being notified that EPA has approved a draft revised NPDES permit reflecting the terms of Partial Settlement Agreement, Petitioners shall file a Notice of Settlement and Partial Dismissal with the Office of Administrative Hearings (“OAH”) for dismissal of only their temperature claims against the Permit in their Contested Case, Cocks County, Tennessee et al. v. NC DENR, Division of Water Quality, 10 EHR 4341, with prejudice, with each party to bear its own costs and attorney’s fees.
- E. If the draft revised NPDES permit is disapproved by EPA such that any provision of this agreement cannot be implemented, the agreement shall be rendered void and the parties agree to negotiate in good faith to revise this agreement.
- F. The Parties agree to cooperate fully in executing any and all supplementary documents and in taking all additional actions that may be necessary to give full force and effect to the terms of this Partial Settlement Agreement.
- G. It is understood and agreed that this Partial Settlement Agreement is not to be construed as an admission by any party to this agreement and that this agreement is a compromise of disputed claims.
- H. This Partial Settlement Agreement may not be modified, altered or changed except in a written document that is signed by all Parties and that makes specific reference to this Partial Settlement Agreement.
- I. The Parties represent that any necessary corporate and governmental formalities have been complied with for purposes of signing and entering into this Partial Settlement Agreement. The persons executing this agreement represent and warrant that they have full authority to sign this agreement on behalf of the Parties for which they are acting.
- J. This Partial Settlement Agreement shall be binding upon the Parties, their successors and assigns.

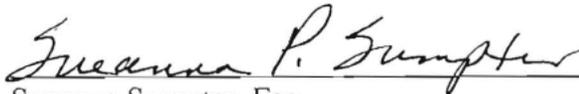
This the 24<sup>th</sup> day of April, 2012.



Austin D. Gerken Jr., N.C. State Bar No. 32689  
Amelia Y. Burnette, N.C. State Bar No. 33845  
Rebecca Jaffe, N.C. State Bar No. 40726  
Southern Environmental Law Center  
22 S. Pack Square, Suite 700  
Asheville, NC 28801  
828-258-2023

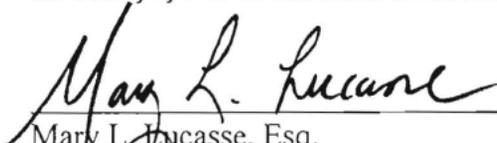
Julia F. Youngman, N.C. State Bar No. 21320  
Southern Environmental Law Center  
601 W. Rosemary Street, Suite 220  
Chapel Hill, NC 27516  
919-967-1450

*On behalf of Cocke County, Tennessee, Clean Water  
Expected for East Tennessee, Clean Water for North  
Carolina, the Tennessee Chapter of the Sierra Club,  
Tennessee Scenic Rivers Association, and the Western  
North Carolina Alliance*



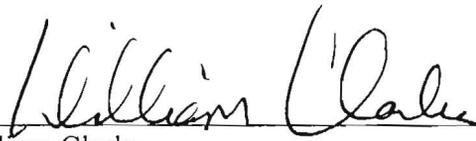
Sueanna Sumpter, Esq.  
Assistant Attorney General  
N.C. Department of Justice  
42 N. French Broad Ave.  
Asheville, NC 28801  
828-251-6083

*On behalf of North Carolina Division of Water Quality*



Mary L. Lucasse, Esq.  
Special Deputy Attorney General  
North Carolina Department of Justice  
P.O. Box 629  
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919-716-6962

*On behalf of North Carolina Environmental Management  
Commission acting by and through its NPDES Committee*



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Richard W. Krieg, Esq.  
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Knoxville, Tennessee 37902  
865-546-4646  
*On behalf of Blue Ridge Paper Products, Inc.*

## Attachment B

EPA Objection Letter from James  
D. Giattina (Director, EPA Water  
Protection Division) to Colleen H.  
Sullins (Director, NC DWQ),  
February 22, 2010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

FEB 22 2010

Ms. Colleen H. Sullins  
Director, Division of Water Quality  
North Carolina Department of Environment and  
Natural Resources  
1617 Mail Service Center  
Raleigh, North Carolina 27699-1617

Dear Ms. Sullins:

On November 23, 2009, we received your submittal for our review of a draft National Pollutant Discharge Elimination System (NPDES) permit for Blue Ridge Paper Products, Permit No. NC0000272. We appreciate your efforts to continue the improvements in the quality of the Mill's discharges to the Pigeon River through the NPDES permit process and recognize the tremendous progress made by the Mill over the last 20 years. Your efforts have led to significant improvements in water quality in both the North Carolina and Tennessee portions of the river. We also want to commend you for your decision to increase public participation in this process by holding a public meeting on the draft permit in Tennessee.

We have had many discussions with your staff during our review of the draft permit and resolved a number of issues. To provide more time for these collaborative discussions, we notified you on December 10, 2009, that we would be taking the full 90-day period to complete our review pursuant to Section IV.B.3 of the NPDES Memorandum of Agreement (MOA) with the North Carolina Division of Water Quality (DWQ).

At this time, we have completed our review and have remaining concerns with some provisions of the draft permit. Based on our review and consideration of issues raised at the recent public meeting and hearing, we are providing specific objections to the draft permit, which are explained in detail below, pursuant to Section IV.B.3 of the MOA and regulations at Title 40 Code of Federal Regulations (CFR) §123.44.

Specific Objection 1: Technology-Based Color Limits and Compliance Schedule

The draft permit includes an initial annual average color permit limit of 39,000 #/day and requires a 37,000 #/day limit within four years. Although the 2001 current permit required that DWQ conduct an analysis of mill performance and possible revision of annual average color loading to a value in the 32,000-39,000 #/day range by March 2006, that revision did not occur. To assess current performance, the Environmental Protection Agency (EPA) developed 95% confidence limits for annual average color loadings using monthly average data for the period 2006-2009. EPA typically uses this type of statistical analysis to determine effluent performance and the use of such confidence limits is consistent with effluent guidelines development. That analysis indicates that the draft permit's annual average color limits do not fully capture current

performance or provide a sufficient incentive for the Mill to continue to improve its performance. These permit provisions are thus not consistent with the case-by-case Best Professional Judgment requirements of 40 CFR §§ 125.3(c)(2) and (d)(3). The draft permit is therefore subject to specific objection pursuant to 40 CFR §§ 123.44(c)(4), (6), and (7).

To resolve this specific objection, based on the confidence limits cited above, the permit must require an initial annual average color permit limit of no greater than 37,900 #/day. Also, it must require an annual average color limit no greater than the range of 32,000-36,000 #/day at the end of the four-year compliance schedule. This is consistent with the color range recommended by the Technology Review Workgroup (TRW) in February 2008.

Also, for the color compliance schedule cited above, the draft permit requires that the Mill develop an implementation plan for various color reduction efforts and submit annual reports of progress. However, the permit does not specify a date certain for submittal of that plan, nor interim requirements and the dates for their achievement. Since the compliance schedule exceeds one year, pursuant to 40 CFR § 122.47(a)(3), the compliance schedule must include interim requirements and dates for their achievement. The lack of interim requirements and dates for their achievement is subject to objection pursuant to 40 CFR §123.44(c)(7).

To address this specific objection, the permit must require the facility to submit an implementation plan within the first year of permit issuance. The permit must also contain a reopener clause to include interim requirements and dates for their achievement as enforceable parts of the permit based on the submitted implementation plan. Once the implementation plan is submitted and reviewed, the permit should be modified accordingly.

#### Specific Objection 2: Effluent Limit for Color; Protection of Water Quality and Status of Variance to Narrative Color Criterion

The conditions and limits for color in the draft permit are based on the removal of the variance to the narrative color standard for the Pigeon River, which was adopted by the State on October 10, 2001. Thus, the color effluent limits, in the State's view, are consistent with the State's water quality standard for color. However, the fact sheet or record supporting the draft permit does not adequately support this determination. As background, in the absence of a numeric translation of the narrative standard by either North Carolina or Tennessee, EPA has historically translated the narrative standard to a numeric standard of 50 platinum cobalt units (PCU or "color units"); North Carolina has adopted a variance from this standard that was reflected in previous permits for the Blue Ridge facility. EPA's 50 color unit interpretation was based on studies conducted by the National Council for Air and Stream Improvement and this level has been met at the North Carolina/Tennessee state line in almost all measurements taken since 2002. North Carolina adopted a variance from this standard in 2001; the terms of that variance included the following:

"This variance shall extend for an indefinite period of time, subject to consideration during the water quality standards triennial reviews. Any modification or termination based thereon shall be subjected to the public hearing process required by N.C.G.S. 143-215.3(e)."

Therefore, until the administrative process for removal of the variance is completed, the 2001 variance remains in effect. Nevertheless, the fact sheet indicates that the variance has been removed and does not provide an explanation as to how the procedural requirements for its removal have been met.

Also, as mentioned above, the actions required in Section B.8 of the 2001 variance and the 2001 permit do not appear to have been completed. That section of the variance required an evaluation of mill performance related to color and a recommendation by DWQ of the lowest achievable annual average and monthly average color loading effluent limitations for the mill. This section also required that, if the analysis supported a revision to average annual color limits in the range of 32,000 to 39,000 #/day, the revised limit was to become effective on March 1, 2006. However, the current effective annual average limitation for color is 42,000 #/day.

In addition to not completing the procedures for variance removal, DWQ also did not include in the fact sheet a defensible scientific rationale for its determination that the draft permit will ensure compliance with North Carolina's narrative water quality standard for color. The fact sheet for the draft permit states that the monthly and annual average color limits are "in accordance with the TRW recommendations." The fact sheet also states:

Based on actual instream color measured between 2002-2008, DWQ believes that compliance with the effluent color limits established in the 2001 permit were protective of NC's narrative water quality color standard. Only under extreme drought conditions (below 30Q2/7Q10 flows) were instream color values reported to exceed the Prestrude aesthetic threshold of 100 platinum cobalt units (PCU or "color units"), and NC regulations do not consider aesthetic color standards violated by the permittee when stream flows fall below 30Q2 design flow.

The reference to the Prestrude aesthetic threshold of 100 PCU relates to a study entitled, *Color: Misperceptions About the Aesthetics of River Color* (Dr. A. M. Prestrude, July 1996) (the "Prestrude Report"). The Prestrude Report suggests that color levels become an aesthetic problem at 100 PCU. However, none of the studies relied upon in the Report are based on waters that are similar to the segment of the Pigeon River near Canton. The study of ambient color levels in the Prestrude Document included consideration of photographs of the Pigeon River downstream of the facility discharge which were taken in or about 1988. However, the color discharge from the facility during that time frame was approximately ten times the amount that is currently discharged.

Further, the document also states, "From a perception standpoint, therefore, it is readily accepted that the general population can differentiate between colors differing by approximately 50 color units. While this difference is capable of scientific quantification, more refined studies are required to focus on what level of perceived color is objectionable in natural environments." Thus, the Prestrude Report does not purport to establish a one-size fits all color standard that can

be applied to different environments. EPA agrees with the Report's suggestion that more refined, site-specific studies would be useful to determine how the narrative standard should be interpreted or applied to specific natural environments such as the Pigeon River near Canton.<sup>1</sup>

The terms of the 2001 variance allowed a monthly average limit of 55,000 #/day, which was selected based on actual performance of color treatment and removal technologies that were identified in an earlier review by the TRW. In other words, this value was selected based on the ability of the facility to meet the limit by installing and operating color treatment and/or removal technologies, rather than factors related to instream water quality.

The monthly average color limit proposed in the draft permit is 52,000 #/day; however, the fact sheet does not clearly indicate whether this limit is based on what can be achieved through application of available technologies or on protection of water quality. Due to the absence of a numeric interpretation of the narrative color standard by the State, it is not clear whether the State has determined that the monthly limit of 55,000 #/day, i.e., "the effluent color limits established in the 2001 permit," or the monthly average of 52,000 #/day, as proposed in the current draft permit, is needed to meet the narrative color standard. Using the 30Q2 flow of the Pigeon River of 89.9 cubic feet per second at Canton, and assuming that the background color level of the Pigeon River is 13 PCU, the current draft permit allows for a color level downstream of the discharge of 114 PCU, and the previous 2001 monthly average permit limit of 55,000 #/day allowed an instream color level of 120 PCU. The absence of a specific numeric interpretation of the State's narrative color standard and the ambiguity of the statements made in the fact sheet make it difficult to determine at what PCU level the State believes ambient conditions would be consistent with the narrative color standard. Thus, the effluent limits in the draft permit would result in instream color levels that exceed both the "Prestrude aesthetic threshold of 100 platinum cobalt units" and EPA's historical use of 50 PCU as a numeric translation of the State's narrative standard. However, the fact sheet also does not adequately explain how 114 PCU will comply with the State's narrative color standard.

The fact sheet states:

NC has generally viewed color as primarily an aesthetic issue, and the interpretation of color as an aesthetic impact is subjective. Similar to odor issues, the number of complaints received serves as one means to gage public perception of color impact. The NC DWQ regional office in Asheville has received only one color complaint in recent years.

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<sup>1</sup> The Tennessee Department of Environment and Conservation reviewed the studies summarized in the Prestrude Report and concluded that the appropriate interpretation of its narrative color standard requires that the increase of ambient color levels in the Hiwassee River should be limited to an increment of 50 color units over levels measured above the Bowater paper facility outfall.

This appears to be the State's justification for the determination that the draft permit will ensure compliance with its narrative color standard and a variance is no longer necessary. However, while the presence or absence of complaints may be relevant, EPA does not find the counting of complaints to be a sufficiently structured process for establishing a state water quality standard.<sup>2</sup> EPA is not aware that the State has notified the public that the frequency of complaints is a factor that is used in the State's interpretation or application of the narrative color standard.

As noted above, EPA has historically interpreted North Carolina's narrative color standard for the Pigeon River to be 50 PCU. The rationale provided in the fact sheet does not establish a scientifically defensible basis for the State's interpretation of the narrative standard or its conclusion that the limits in the draft permit implement the State's water quality requirements for color, as established in 15A North Carolina Administrative Code (NCAC) 2B.0211(3)(f) and 15A NCAC 2B.0206(a)(4).

In summary, EPA is concerned that the State has insufficient record support for the conclusion that the effluent limits and conditions for color proposed in the draft permit are protective of the State's narrative water quality color standard. The fact sheet's discussion of the basis of the color conditions and limitations does not establish that the draft permit will comply with the narrative color standard at all flows equal to or greater than the applicable instream flow, i.e., 30Q2 flow, as established in its water quality standards. Therefore, the draft permit does not comply with requirements at 40 CFR §122.44(d)(1)(vii)(A) and is subject to objection under 40 CFR §123.44(c)(8).

To address this specific objection, the State must revise the terms of the variance from the North Carolina water quality standard for color for the Pigeon River to reflect the proposed permit conditions and limits for color as referenced in Specific Objection 1 above. The information necessary to support a variance determination appears to have already been developed by the facility in conjunction with the TRW. Accordingly, EPA commits to timely review and act on a request to revise and extend the variance upon the formal submittal of a proposed variance revision by DWQ.

#### Recommendation For Site-Specific Study

In order to create a better record for any future effort to reinterpret the narrative color standard, and ensure that authorized discharges are protective of the narrative standard, EPA recommends the addition of a condition in the draft permit requiring the permittee to provide funding for an independent study of color levels in the North Carolina segment of the Pigeon River, or a segment of a watershed that is reasonably similar to the physical characteristics of the Pigeon River downstream of the mill. The study should focus on the aspects of the State's narrative color standard that are relevant to conditions and limits in the permit, and should address assessment of color levels in ambient waters of the Pigeon River (or other watershed(s), as specified above) when those levels are in the range of 50 to 120 PCU. The permit could also include a reopener clause to implement the conclusions of the study if warranted.

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<sup>2</sup> EPA notes that, based on comments during the public meeting and hearing, there are citizens who believe there is a basis to complain about ambient color in the Pigeon River.

EPA believes that an independent, unbiased site-specific study would be useful to determine how the State's narrative color standard should be interpreted or applied to the Pigeon River near Canton. Such a study would be valuable in addressing uncertainties relating to the narrative standard for color because many site-specific factors influence the overall perception of an individual stream setting and the level of protection needed for a stream or watershed. Evaluation of the Pigeon River downstream of the Blue Ridge mill is even more critical for setting regulatory targets, given the color levels in the river, and the public interest in the present permitting process for the Blue Ridge facility.

The study should be conducted with unbiased observers. For example, college students were used in some of the studies performed by Prestrude. The results of the study could be used by the State to address other issues related to the application of the North Carolina narrative color standard, such as whether it would be more appropriate to establish a regulatory requirement for the river solely based on a specific color concentration, or as an increment over "background" color levels. We also suggest that EPA be involved in the review and approval of the framework of the plan for conducting the study prior to initiation.

### Specific Objection 3: Temperature Variance

Regarding temperature, the permit implements a Clean Water Act (CWA) § 316(a) variance by requiring: 1) an instream monthly average of 32° C during July-September; 2) an instream monthly average of 29° C during the rest of the year; and 3) downstream values not to exceed upstream values by more than a monthly average of 13.9° C. ("Delta T") Compliance with these three conditions is assessed 0.4 miles downstream from the discharge at Fiberville Bridge.

To obtain such a variance, an applicant is required by Section 316(a) and applicable regulations at 40 CFR Part 125, Subpart H, to demonstrate that the proposed variance assures the protection and propagation of a balanced, indigenous population ("BIP") of shellfish, fish, and wildlife in and on the body of water into which the discharge is made. The information submitted with the draft permit is not sufficient to make the required demonstration. This concern is heightened by a North Carolina Wildlife Resources Commission report indicating that a September 2007 fish kill in the Pigeon River was, in part, due to elevated temperature. As a result of the absence of a sufficient demonstration that the variance assures protection of a BIP, the draft permit is subject to objection under 40 CFR §123.44(c)(7).

To resolve this objection, the permit must require completion of an updated study that includes thermal modeling and demonstrates the protectiveness of the proposed variance; the updated study should meet the parameters outlined in the enclosure to this letter. Further, in the interim period before an adequate study is completed, a reduction in the Delta T limit should be included in the permit to provide additional assurance that the BIP is protected. The current Delta T limit was based on mill operating conditions prior to the modernization project completed in the early 1990s, which included the installation of a mechanical draft cooling tower. Based on daily temperature data taken at the Fiberville Bridge (River Mile 62.9) and just above the Canton Mill (River Mile 63.8) during January 2005 to December 2009, EPA determined average Delta T values for warm months (April through October) and cool months

(November through March). The 95th percentile values for average Delta T for the warm and cool periods were 7.4° C. (13.28° F.) and 8.2° C. (14.69° F.), respectively. EPA believes the average Delta T value of 8.2° C. will be appropriate for all times of the year and could be adjusted pending the results of the thermal modeling to be completed as part of the Section 316(a) updated study. Lastly, the permit must require the Mill to monitor and report the daily maximum and monthly average effluent temperatures.

#### Specific Objection 4: Absence of Daily Maximum Dioxin Limit and Fish Tissue Monitoring

The draft permit contains a monthly average dioxin limit; however, it does not include a daily maximum limit, as required by 40 CFR Part 122.45(d)(1). The draft permit is therefore subject to objection pursuant to 40 CFR §123.44(c)(7). To address this specific objection, the permit must contain a daily maximum dioxin limit. That limit may be set at a level equal to the monthly average limit.

Also, the draft permit contains a new provision that fish tissue monitoring for dioxin will cease after 2009, unless DWQ determines that a public health hazard exists. EPA routinely uses ambient fish tissue dioxin monitoring to determine whether water column impairment is occurring and whether reasonable potential to exceed a state's numeric dioxin criterion exists. The fish tissue levels indicating water column impairment are typically well below the levels at which fish advisories are typically adopted. Based on North Carolina's dioxin numeric criterion of 0.005 parts per quadrillion (ppq), the associated fish tissue value indicating impairment would be approximately 0.025 parts per trillion (ppt). Out of the last five years of fish tissue data collected by the facility, levels of dioxin detected in common carp at Station 4A in upper Waterville Lake have been 1.1-1.3 ppt, with two years having estimated concentrations reported.

Assuming a linear relationship between water column concentrations and fish tissue levels, these fish tissue concentrations would indicate a water column concentration in the range of 0.22-0.26 ppq, thus exceeding the State's numeric criterion. In this case, direct measurement of dioxin in fish tissue shows evidence of accumulation; reliance on effluent sampling alone using method detection limits that cannot measure dioxin at the level of the State numeric criterion does not provide the necessary information to make this determination.

As a result, the removal of the dioxin fish tissue monitoring requirement as proposed in the draft permit does not ensure that sufficient data is generated to adequately represent the monitored activity, as required by 40 CFR §§ 122.41(j)(1) and 122.48(a)-(c). Requiring monitoring in the event of a public health hazard is not adequate to determine if water quality standards are being met. The lack of such data also does not allow for a complete evaluation of the reasonable potential to exceed state water quality criteria, as required by 40 CFR § 122.44(d)(1). Accordingly, the draft permit is subject to objection pursuant to 40 CFR §§ 123.44(c)(5) and (7). To address this specific objection, the permit must require that the facility conduct monitoring of fish tissue for dioxin (as was done in 2009) in the first, third, and fifth years of the term of this permit. Annual monitoring does not appear to be warranted since fish tissue levels have shown minor changes in recent years.

#### Specific Objection 5: Absence of Turbidity Monitoring

EPA has previously requested that the State specifically document in the permit fact sheet the manner in which reasonable potential to exceed North Carolina's Class C criterion for turbidity was evaluated ("the receiving water shall not exceed 50 Nephelometric Turbidity Units in streams not designated as trout waters"). To the extent that sufficient data to make that evaluation were not available, we further requested that specific monitoring to obtain the information be required by the permit. The draft permit and fact sheet did not address these concerns.

Therefore, the draft permit does not ensure that the discharges authorized under the permit are protective of North Carolina's numeric criterion for turbidity. The lack of such data does not allow for a complete evaluation of the reasonable potential to exceed the state water quality numeric criterion cited above, as required by 40 CFR § 122.44(d)(1), and as a result, the draft permit does not include effluent limits that may be necessary to protect water quality. The draft permit is therefore subject to objection under 40 CFR §§ 123.44(c)(5), (7), and (8).

To address this specific objection, the permit must require that the facility conduct downstream turbidity monitoring at Fiberville Bridge at a minimum frequency of twice per month during the April-October timeframe for a minimum of one year. Such monitoring must not occur within 72 hours of a rain event. The permit must also contain a specific reopener to enable DWQ to add an appropriate turbidity limit if reasonable potential to exceed the State's numeric criterion is found to exist. Based on North Carolina's numeric criterion, upstream data are not needed and should not be used to assess reasonable potential.

#### Specific Objection 6: Absence of Effluent Hardness Monitoring To Evaluate Zinc Toxicity

The draft permit requires quarterly zinc monitoring because DWQ determined that reasonable potential exists to exceed North Carolina's action level of 50 ug/l based on an assumed hardness of 50 mg/l. We are aware of a low upstream hardness value of 7.6 mg/l. Because zinc toxicity increases at lower hardness values, any future evaluation of effluent zinc data without concurrent effluent hardness monitoring cannot adequately assess reasonable potential to exceed the action level.

Without concurrent effluent hardness measurements, the draft permit does not ensure that sufficient data is generated to adequately represent the monitored activity, as required by 40 CFR §§ 122.41(j)(1) and 122.48(a)-(c). Further, without such data, the draft permit does not allow for a complete evaluation of the reasonable potential to exceed the hardness-based state water quality numeric criterion for zinc, as required by 40 CFR § 122.44(d)(1), and as a result, the draft permit does not include effluent limits that may be necessary to protect water quality. The draft permit is therefore subject to objection under 40 CFR §§ 123.44(c)(5), (7), and (8). To address this objection, the permit must be revised to include a requirement for quarterly effluent hardness monitoring concurrent with the quarterly zinc monitoring.

EPA also offers the following recommendations for your consideration:

Recommendation 1 Regarding AOX Limits

EPA also has the following comment regarding the draft permit limits for adsorbable organic halides (AOX), which reflect a 39% increase in loadings from the 2001 permit. The DWQ presentation at the recent public hearing and meeting indicated that the facility is #2 in the world in terms of AOX removal. Our analysis of recent AOX effluent data confirms the facility's performance – the typical discharge is less than 300 #/day as a monthly average. Based on that performance, we recommend that the AOX limits in the 2001 permit be retained.

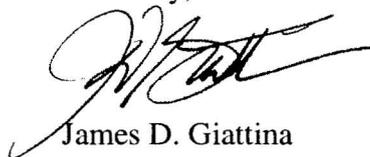
Recommendation 2 Regarding TRW

The TRW has historically performed a valuable function in assessing color reduction efforts at the Mill and providing recommendations to DWQ. We recommend that the permit include a provision ensuring that the TRW will assess color reduction technologies and provide recommendations to DWQ at the end of this next permit term.

To address the specific objections above, I ask that you redraft the permit and submit a proposed permit and a revised fact sheet to EPA for review under the provisions of Section III.B.6 of the MOA. I also ask that you submit a summary of all public comments that have been received and DWQ's response to them. In accordance with Section IV.B.7 of the MOA and 40 CFR §123.44, within ninety (90) days of your receipt of this letter, DWQ or another interested person may request that a public hearing be held, pursuant to 40 CFR §123.44(e). If no public hearing is held, and DWQ does not resubmit a proposed permit that has been revised to meet our specific objections within ninety (90) calendar days of receipt of this letter, exclusive authority to issue the permit passes to EPA for one permit term. Any requests for a hearing on the objections and the procedure for resolving any objection shall be governed by 40 CFR §123.44, as provided in Section IV.B.7 of the MOA.

If you have any questions, please have your staff contact Mr. Marshall Hyatt at 404-562-9304.

Sincerely,



James D. Giattina  
Director  
Water Protection Division

Enclosure

cc: Dane A. Griswold, Blue Ridge Paper Products Inc.  
John S. Curry, Esq., North Carolina Environmental Management Commission  
Jeffrey V. Morse, North Carolina Environmental Management Commission  
Paul E. Davis, Tennessee Department of Environment and Conservation  
David McKinney, Tennessee Wildlife Resources Agency

**From:** [Janice Barnes](#)  
**To:** [SVC\\_DENR\\_publiccomments](#)  
**Cc:** [Janice Barnes](#)  
**Subject:** [External] Blue Ridge Paper Permit - Request to Deny  
**Date:** Friday, April 30, 2021 10:41:48 AM  
**Attachments:** [8738E1FDD9C24095BBB159B1AEA3072FF31304231.png](#)

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Dear NCDENR/DEQ Permit Review Committee,

**I'm writing as a Cocke County native and as a child of Appalachia to request that Blue Ridge Paper Permit not be allowed.**

Growing up in Hartford, Tennessee, I witnessed firsthand the impact of the toxins on our community and its residents. My great-grandfather owned land along the river before the Federal Highway System built Interstate 40. My grandfather and my father and his siblings farmed that land until the freeway was built. Over the generations, which ran in parallel to Champion's growth and the river's increasing toxicity, the stories abounded about the impact of those toxins, the many families with cancer, the settlements to those families, and the continued dire warnings against fish consumption. More than a century later, it's still a problem, albeit in slightly altered ways. However, the problem has not gone away.

As I listened to the public hearing, I was struck by three things: (1) the message, (2) the engagement process, and (3) the context. I'd like to register my concern about the permit on each of these as well as Evergreen's performance to date.

**Toxins, temperature and testing, not just color**

Regarding the message on color, it was strangely unsettling to have the scientist speak to the general public in such technical terms, surely not targeted for layperson understanding. Also when the NCDENR representative spoke, she focused on color, not on the increases in chloroform, the temperature, the color sampling location, or the other issues raised by the Southern Environmental Law Center representation. The latter clearly sought to make the issues within the permit more tangible to the laypersons attending. The permit acknowledges that several toxicant discharge rates were recalculated upwards based on increased production capacity at the facility but that they were to be maintained at current levels to protect the receiving stream. However, the permit increases the amount of CHLOROFORM, a dangerous, toxic, and cancer-causing chemical used by paper companies in the bleaching process but offers no explanation for why this dangerous discharge is acceptable. We feel that it is not acceptable. The permit also requests a 17% increase of water to be removed from Pigeon River for processing at a time when water reserves across the globe are in jeopardy. There are problems with how testing of color is being done downstream. Testing is not at point of discharge from plant which allows clean water from mountain streams to mix in with toxic water, thereby likely diluting the toxicity levels. This testing should be done at initial point of discharge into the River NOT miles downstream. There is no reason that this company should be allowed to increase toxins or temperatures in discharge and no reason to monitor so far from source. None at all. **Please don't allow this to happen.**

**Meaningful outreach**

Regarding the engagement process, it didn't appear that NCDENR made it easy for community members to know about the hearing and to engage in it. Surely for something so significant, a more significant engagement process is warranted. I can't find postings on common media platforms such as Facebook. While I'm sure that there was a required listing in a paper, beyond the website for NCDENR, if the organization truly seeks community feedback, **please consider meeting people where they are and please consider the downstream families as much as the local ones.**

**Context please**

Regarding the counterpoints to concerned residents' comments, as presented by Evergreen advocates, it

appeared that participants received a message implying that if Evergreen has to meet Clean Water Act requirements, somehow its jobs, its donations and its community role will disappear. For a poor region, this is a scare tactic. Good jobs are hard to find and most everyone wants to help those who have them to keep them. Was this not an opportunity to correct this misinformation or is Evergreen in fact threatening to leave the area if they have to comply with the Clean Water Act? With the current administration in place, short of leaving America, it seems that compliance will be required anywhere. And as one participant asked, what's so wrong with meeting the standard? He asked why is it so hard and why can't Evergreen do it? No one answered.

Moreover, there was no mention of the increased risks to regional economy, local livelihood, recreation, and wellbeing. The river goes through Cocke and Sevier counties, before Douglas Lake. So it is not only Cocke Countians at risk, but the many individuals who use these waters for recreational activities along its entirety. The professional commercial rafting guides from companies located in Hartford spoke about their rashes and reactions to the chemicals that are discharged upstream. Contrary to the rationale presented in the Permit proposal, color is NOT an aesthetic concern. There was also no mention of increased risks to ecology. The proposed extension of the Temperature Variance notes that the facility is not able to meet the current State of North Carolina temperature requirement. Though the variance has been in place for multiple permitting cycles, the facility should be required to continue to lower the temperature impact on the river, not maintain an arbitrary status quo put in place many years ago. The temperature variance (Delta T) requirement should be made more stringent with every permitting cycle. **Please help to set context for the real risks and clarify the misinformation in the scare tactics.**

#### **Performance thus far**

The permit change request notes that there have been EIGHTEEN Notices of Violations issued to Evergreen in the last reporting period ranging from fecal coliform limits to toxicant discharge violations. This indicated that more stringent requirements and more strict monitoring is required, not less. **Please do not allow more lenient measures.**

In summary, these actions are not in the best interests of the community. The community should have a better overall information provided for the toxins, temperature and testing issues, should have meaningful, contextualized outreach and easily understandable messaging, and should be engaged along the impact area of the discharge. Moreover Evergreen should be required to meet the Clean Water Act. Please do not all the permit request for leniency. Instead, ramp up protections.

-  
Regards,  
Dr. Janice Barnes



**janice** barnes  
founder

**climate adaptation partners**  
[janice@climateadaptationpartners.com](mailto:janice@climateadaptationpartners.com)  
(m) 312.636.9809

**From:** [Bill Hearn](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Friday, April 30, 2021 4:08:02 PM

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I am writing to express my opposition to Blue Ridge Paper Products request for variances to current water "color" & temperature requirements and to request that the summer discharge temperature limit of 32 degrees C must be reduced by at least 2 degrees C and enforced DAILY, rather than as monthly average.

Dioxin monitoring must be maintained at the level in the previous permit, and fish studies carried out. In addition a full study of sediments in Waterville Lake for dioxins and furans must be carried out to ensure protection of downstream water supplies and edible fish populations.

I have been recreating on the Pigeon River upstream and downstream of the paper mill for decades in both North Carolina & Tennessee and the negative impact to water quality and river ecology is appalling downstream of the paper mill.

The Pigeon River is a vital American resource that provides recreation, drinking water and jobs upstream and downstream of the paper mill.

The pollution discharged by tBlue Ridge Paper Products Mill in Canton, NC has a negative impact to the Pigeon River and regulation must be implemented ASAP to mitigate this pollution.

--

Best Regards,

Bill Hearn,

E: [billhearn1@gmail.com](mailto:billhearn1@gmail.com)

C: (978) 340 - 7181

**From:** [Keely Douglas](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Friday, April 30, 2021 4:19:40 PM

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Hello,

I am writing to express my opposition to Blue Ridge Paper Products request for variances to current water "color" & temperature requirements and to request that the summer discharge temperature limit of 32 degrees C must be reduced by at least 2 degrees C and enforced DAILY, rather than as monthly average.

Dioxin monitoring must be maintained at the level in the previous permit, and fish studies carried out. In addition a full study of sediments in Waterville Lake for dioxins and furans must be carried out to ensure protection of downstream water supplies and edible fish populations.

I have been recreating on the Pigeon River upstream and downstream of the paper mill for decades in both North Carolina & Tennessee and the negative impact to water quality and river ecology is appalling downstream of the paper mill.

The Pigeon River is a vital American resource that provides recreation, drinking water and jobs upstream and downstream of the paper mill.

The pollution discharged by Blue Ridge Paper Products Mill in Canton, NC has a negative impact to the Pigeon River and regulation must be implemented ASAP to mitigate this pollution.

--

Best Regards,  
Keely Douglas

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Sent from Gmail Mobile

**From:** [Christoph Berenotto](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Friday, April 30, 2021 4:56:43 PM

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I am writing to oppose the Blue Ridge Paper Products request for variances for their water discharge permit. I hope that current water temperature requirements are lowered by two degrees and enforced based on daily temperatures, not monthly averages. I also hope that testing for dioxins is still carried out on both fish and sediments.

I myself have paddled the Pigeon River numerous times over the past decade. It is alarming to paddle a tributary like Big Creek, then reach the confluence with the Pigeon and immediately smell the difference is water quality.

While I appreciate that many local livelihoods depend on the mill, it is critical that water quality improve, not be degraded. Our beautiful rivers are a huge part of what makes this region so wonderful and they can bring our community together and bring in outside tourism revenues as well.

I ask that Blue Ridge Paper Products does its part to improve our ecosystem rather than increasing the environmental burdens it imposes on others.

Sincerely,

Christoph Berenotto

**From:** [Briana Harricharan Singh](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Friday, April 30, 2021 9:55:09 PM

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Please do NOT remove the requirement to monitor color variance in the Pigeon River. "Improved stream conditions noted during a reevaluation, including significant improvements to instream concentrations of color in the Pigeon River" is not enough to signal a complete stop of monitoring known pollutants. Improvements does not mean resolution. We need to continue monitoring for color variants and other pollutants in the Pigeon River to better regulate our environmental (and human) impact. There is still a lot of work to be done to continue cleaning and protecting our local and Appalachian waterways, whether you're in NC, TN, or beyond.

(Quoted content above from "Rescheduled: Notice of Intent to Issue NPDES Wastewater Discharge Permit #nc0000272 with Proposed Removal of Color Variance" from [deq.nc.gov](#))

Please DO maintain (or even add) any and all types of monitoring that will help continue to clean up the Pigeon River, including monitoring for historically known pollutants or byproducts of Blue Ridge Paper Products' company, its subsidiaries, or other industrial/commercial manufacturing processes.

We need to advance the water quality of the Pigeon River. We must do all that we can to protect it and support a healthier water system so that every city downstream of Blue Ridge Paper Products can have access to clean water, a thriving economy, uncontaminated fish, and everything else so vitally connected to the Pigeon River.

Thank you for your time,

Briana and Kabir Harricharan Singh  
Newport, TN

**From:** [William Banks](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Friday, April 30, 2021 10:30:48 PM

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I am writing to discuss Blue Ridge Paper Products request to have the specific regulations on the water quality of the discharge from their mill into the pigeon river changed.

It is my understanding that the mill is requesting to loosen the regulation of the "color" and temperature of the discharged water. As a kayaker who paddles in the pigeon river downstream of the mill, and often unintentionally ingest river water, I am concerned about any loosening of regulation on contaminants in the water.

I hope my comment will be helpful.

[Sent from Yahoo Mail on Android](#)

**From:** [Colin Brenton](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Friday, April 30, 2021 11:30:15 PM

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Hi,

I am writing to express my opposition to Blue Ridge Paper Products request for variances to current water "color" & temperature requirements and to request that the summer discharge temperature limit of 32 degrees C must be reduced by at least 2 degrees C and enforced DAILY, rather than as monthly average.

Dioxin monitoring must be maintained at the level in the previous permit, and fish studies carried out. In addition a full study of sediments in Waterville Lake for dioxins and furans must be carried out to ensure protection of downstream water supplies and edible fish populations.

I have been recreating on the Pigeon River upstream and downstream of the paper mill for decades in both North Carolina & Tennessee and the negative impact to water quality and river ecology is appalling downstream of the paper mill.

The Pigeon River is a vital American resource that provides recreation, drinking water and jobs upstream and downstream of the paper mill.

The pollution discharged by the Blue Ridge Paper Products Mill in Canton, NC has a negative impact to the Pigeon River and regulation must be implemented ASAP to mitigate this pollution.

--

Best Regards,

Colin Brenton

**From:** [Tom Zimmerman](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products, NC #0000272  
**Date:** Friday, April 30, 2021 3:48:14 PM

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Dear Sir or Madam,

I am writing today to give public comments on the subject wastewater permit change.

As a resident of Tennessee, I routinely recreate in the Pigeon River near the North Carolina and Tennessee state lines. I have spent time as a raft guide on this stretch of river, and I have been able to share the joy with my own kids on the "the Dirty Bird" the last several years. Unfortunately, I feel the need to always take shower as soon as possible after swimming or boating in the Pigeon River largely due to the pollution allowed upstream near Canton from the subject facility.

In addition to river user, I am also a licensed Professional Engineer in the state of Tennessee, and I spent the early part of my career as a consultant doing water quality work in permits and permit compliance. My Master of Science Engineering degree from the University of Tennessee focused on studying acid rain pollution in the streams of the Great Smoky Mountains National Park. Therefore I have an intimate knowledge of the typically outstanding water quality that drains into the Pigeon River, and there is not much of a sadder sight than seeing the clear waters of Big Creek mixing with the unnaturally colored water of the Pigeon just downstream of the powerhouse. The smell of the river can be hard to stomach as well.

All this to say, that I believe the draft permit does not go far enough into demonstrating increasing water quality standards. It is good that the paper plant has improved the technology to the point of convincing the NCDEQ that removing the variance for color would be equivalent, but then why does the proposed draft not reduce the color PCU limit? It appears to keep the traditional 50 PCU limit but only moves the sampling point upstream and allow a monthly average of delta PCUs. How does this demonstrate better water quality technologies?

Additionally, I have concerns that a monthly average will allow the paper plant to cherry pick discharge days, and I can tell you now that high flow days already have a noticeable difference in water quality downstream. If you are using a delta of color measurement to demonstrate the limited increase of color in the Pigeon River of no more than 50 PCU, then why not mandate color sampling from a point upstream of the paper plant to get a true delta?

Finally, why is the temperature variance being allowed to continue as usual? I feel the plant should be required to show a commitment to increased water quality by having future targets that are less harmful to water quality and the thriving downstream recreation industry. That was the intent of the Clean Water Acts and Amendments, to improve water quality over time and not allow polluters to continue polluting at the same levels. Why drop the color variance and allow the plant more latitude with self monitoring and not ask for concessions with temperature variance as well?

I implore you to continue to hold Blue Ridge Paper Products to gradually increasing water quality standards, so that my children will not be taking their children swimming in "the Dirty Bird."

Sincerely,  
Guy Thomas Zimmerman

**From:** [Amelia Taylor](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper Products  
**Date:** Friday, April 30, 2021 1:53:47 PM

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Wastewater Permitting, Attn: Blue Ridge Paper Products Permit  
1617 Mail Service Center  
Raleigh, NC 27699

Dear NC Regulators,

I am pleading to you from the position as a river guide, whitewater kayaker, and resident of Cocke County, TN to please not allow the NC Color Variance to be dropped until water quality on the Pigeon River is no longer dark, brown, smelly, and toxic. Unsurprisingly Evergreen Packaging, NC DEQ, and the permit writer Sergei Chernikov have a vested interest in continuing to allow toxic levels of pollution to continue in one of our nation's greatest resources, clean water.

The water above the papermill is crystal clear and pristine. At the TN/NC State Line, especially on days when the Duke Power Station at the Waterville powerhouse are releasing the water quality has a dark sweet tea colored look, a distinctive chemical sweet papermill smell, foam, and a black algal scum that is extremely slippery and covers all the rocks under water. Unlike the color of the water which fluctuates with the season, rainfall, and releases from the dam, the algal black scum on the rocks never goes away.

Over the last decade I have worked as a commercial whitewater river guide across the nation from the Kern and American Rivers in California, the New and Cheat Rivers in West Virginia, the Rio Grande in Texas, and the Youghiogeny River in Pennsylvania, and the Pigeon River in Tennessee. I have recreated as a private boater on more rivers than you want to read about here and by far the Pigeon is the most degraded and disgusting water quality of any river I have ever paddled.

I have also explored the headwaters of the Pigeon above the papermill in Haywood County, NC and found pristine conditions above the mill that are comparative to other high quality water sources in headwaters across the nation.

I am very concerned with the increase of chloroform that is proposed in the new draft permit. As determined by the EPA, exposure to chloroform in humans has a variety of potentially hazardous effects on human health including depression of the central nervous system, reproductive failure, kidney failure, low birth weight and cleft palate in expectant mothers, skin irritation, and more. Guides including myself have experienced mysterious rashes from the chemical soup on the Pigeon River. My own primary care doctor diagnosed a rash I got from swimming in a foamy eddy as a 'chemical burn'. It is unacceptable to increase chloroform in the upcoming permit.

The point of the NPDES permitting system is to eliminate pollution with every permitting cycle. This permit does not call for any reduction in color to the river and in fact seems to justify no further improvements needed with Mr Chernikov and DEQ's "rationale" for removing the color variance. Downstream communities are trying to 'rationalize' with you all

in NC DEQ that the problem is far from resolved down here in Tennessee. We demand that the color variance not be removed until we get to an average of 20,000 lb/color per day with daily limits no higher than 50,000 lb/per day. The allowances of over 100,000 lb/color per day average in the current draft permit are simply unacceptable. Instream color must be sampled DAILY at the closest downstream sampling point (Fibreville), and enforcement must be based on daily, not monthly average color measurements

Removal of the color variance until a 20,000 lb/per day average is simply unacceptable. The current justifications that current levels of color being 'loaded' code word for 'dumped' into the river is noticeable to the human eye. I can see the brown color of the Pigeon on many days when the dam is releasing water from the lake. Also we know that there are many more toxic chemicals that comprise the color from Blue Ridge Paper than just chloroform. Color is not an inert substance just made of up lignins. Quit trying to justify polluting the river so that NC and the papermill can profit off of this pollution.

Evergreen will have to be forced to find another solution. One solution is to create and market paper products that are unbleached. We all know that it is the bleaching of paper that is toxic. Evergreen needs to quit "greenwashing" their products and pretending how environmentally sustainable they are because they use a renewable raw product, the trees. I'm ok with the papermill being an economic boon for NC but how about they do it the moral way and find technology and market products that don't use bleached paper? This is the future we are talking about here. Your children and grandchildren will suffer at the expense of these weak permits. The future of clean water is at stake. We cannot backslide with this draft permit. Rescind this dirty permit till we have tighter regulations on temperature releases. This draft permit is too lackadaisical when it comes to hot temp releases into the Pigeon. These hot releases have caused documented fish kills below the mill. The Temperature Variance should be further tightened, based on evidence the Mill is still impacting the biological health of the River immediately downstream. EPA's Objection to the temperature variance in the draft 2010 permit resulted in a reduced temperature limit and more rigorous studies of the biological impacts of the Mills Discharge in the Pigeon River. While the studies carried out show improvement in most sections downstream of the Mill, and survival of introduced native fish species, the stretch just downstream of the Mill still shows evidence of biological impairment, likely due to the elevated temperature. The summer temperature limit of 32 degrees C must be reduced by at least 2 degrees C and enforced DAILY, rather than as monthly average.

I am also disturbed the proposed increase of a 17 % usage of water in the draft permit. I do not believe the mill should be allowed to take MORE water from the river. It's apparent that the proposed increase in water usage and of chloroform as proposed by this dirty draft permit is a ticket for Evergreen Packaging to increase pollution and increase production. No increases in production until Evergreen actually goes green and markets and sells brown unbleached paper! It is unacceptable to take more water from the river until the toxins are eliminated from the papermaking process.

The 1997/98 Settlement Agreement between EPA, then Champion Papermill and downstream communities called for continual improvements to water quality through each permitting cycle and even pointed out chlorine free bleaching options that were available over 20 years ago. This permit not only stalls progress promised by this Agreement but actually backslides allowing more pollution. NC DEQ needs to create a stricter permit that calls for reductions in water usage, reductions in chloroform usage, reductions in color dumping and follow along with the Agreement. We are sick and tired of being polluted on downstream while upstream communities get the benefits of a large and successful industry at the expense of the Pigeon River. ND DEQ must do what is right and not allow this permit to be passed. If the current

draft permit is passed we will turn to the EPA to investigate this decision.

The future of clean water depends on us! Money and profit can never justify polluting pristine resources to make unnecessary products. Brown paper can make milk and juice cartons too. If science and technology can send men and women to the moon then science and technology can find ways to create paper products that don't create toxic effluent to our nation's waters. Please do what is right and do not approve this permit until our valid points have been addressed within the permits regulation. There is only one planet Earth for us and future generations to survive on! Do good, create good karma, praise your creator's creation, and call for cleaner water!  
Please help us.

In Love and Kindness,

Amelia Taylor  
River Guide, Rapid Expeditions  
3605 Hartford RD  
Hartford, TN

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Amelia Taylor  
**Little Miss Sunshine Pilot Cars**  
423 237 5187

**From:** [kelly gladen](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Friday, April 30, 2021 12:10:53 PM

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This permit in fact proposes an increase in the amount of chloroform, a dangerous toxic and cancer causing chemical, used in the bleaching process. The daily maximum load of 10.5/lb per day is enough chloroform to kill 321 people per day, in its concentrated form. No wonder river guides suffer painful rashes and allergic reactions to being exposed to the Pigeon's toxic waters.

This permit calls for a 17% increase in water taken from the Pigeon River at a time when water resources across the globe are in jeopardy.

As an organization comprised of members who have regular direct contact with the Pigeon River, members who are professional commercial river guides, members who are private boaters and kayakers, swimmers, and fishermen, our representatives can tell you that the color of the river is brown, dark and sweet tea colored on many days. The river smells like the acrid papermill, all the way to Newport, Tennessee. One can observe foam and often professional river guides deal with rashes and reactions to the many chemicals that comprise the color pollution.

This permit calls for no changes to color pollution with no reductions being called for whatsoever, a violation of the Clean Water Act and the 1997 Settlement Agreement between downstream communities and the paper mill.

The proposed removal of this color variance is basically an admittance by the NC DEQ that water quality standards are being met and no further reductions to color pollution are required.

The color variance must not be dropped until color pollution is down to an annual average of 20,000 pounds per day with daily maximum limits of 50,000 lbs/day not 105,250 as currently stated, which downstream communities have called for over 20 years. This permit calls for a status quo of 36,000 pounds of color per day annual average, the same as the previous permit cycle, which is not an improvement.

There are problems with attempts to assess the true color units downstream in Tennessee. Members of CWEET has observed that testing for color at mile 24.7 Browns Bridge is conducted 1.3 miles downstream of the actual TN/ NC State line. This provides significant dilution to the Pigeon River from Big Creek and Tobes Creek. It has been observed that testing occurs when the dam is operating below 600 cfs, not at the minimum recreational flow for whitewater rafting which is 1200 cfs. When water is measured below 600 cfs we can observe that the majority of the water in the river is from Big Creek and Tobes Creek, not actual flow from the main Pigeon River as the majority of polluted water is being held back in Waterville Lake while the majority of water in the riverbed at flows of less than 600 cfs is primarily from tributaries downstream of the Waterville dam. Downstream testing should occur when the flows are operating an average recreational release ranging frois between 1200-2000 cfs which is the flow at which water color appears and smells worst. Measuring water flow at Brown Bridge when the dam is not fully releasing the polluted water is simply not an accurate measurement for color in TN. One can observe that the water is clean and clear when the dam is releasing at small flows of 600 cfs or less and brown dirty and smelly at releases of 1200 cfs or more.

Also, it has never been observed that the company contracted to measure color on the Pigeon actually measures the water at the Pigeon River prior to mixing with Big Creek at mile 26, as called for by the 1997 Settlement Agreement. It would require a boat to access that flow of Pigeon River and Big Creek prior to mixing. We have never observed this type of testing at this location taking place. It should be measured from a boat at the mouth of the dam release for an accurate measurement, prior to mixing with Big Creek as dictated by the 1997 Settlement Agreement.

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Blue Ridge Paper Products has requested an increase in water usage from 29.0 million gallons per day to 34 million gallons per day. This is a 17% increase in water usage.

This increase should not be approved until an environmental assessment is conducted to determine what the impacts would be on water quality.

Additionally the draft permit calls for an increase in chloroform usage from the current limits of 5.1/lb day monthly average to a proposed limit of 6.27 pounds per day monthly average, which is a 22% increase in chloroform averaged monthly. As for daily maximums allowed an increase from 8.6 lb/day 10.5/lbs per day daily maximum is also unacceptable.

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The chloroform cannot be increased. If so, CWEET and the public will call upon the EPA to again rescind this dirty permit.

It is time for the Pigeon River to be clean. It's time for our beautiful resource to be finally protected after 115 years of pollution. The water that flows above the mill is crystal clear and of high quality. We want the same crystal clear properties for the downstream communities of Hartford and Newport that are enjoyed by users of the river upstream of Blue Ridge Paper. Our whitewater rafting industry, our swimmers, our fisherman, our wildlife and microbiology , and all future generations depend on clean water. Water is life. When will the bureaucrats at NC DEQ remember that you cannot eat money?

Lets leave a legacy of tight regulations that actually protect our nation's waters and decrease pollution until is eliminated! If not us, then who will?

--

**Kelly Gladen**  
**Raft guide on the Pigeon River**

**From:** [mitchell buhr](#)  
**To:** [SVC\\_DENR\\_publiccomments](#)  
**Subject:** [External] Blue ridge paper  
**Date:** Friday, April 30, 2021 12:09:29 PM

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Clean Up the Pigeon River!

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Sent from my iPhone

**From:** [Will Johnson](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Friday, April 30, 2021 1:11:28 PM

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I'm writing to express my concern about the draft permit for Blue Ridge Paper's use of and discharge into the Pigeon River in Haywood County.

I've lived in North Carolina my entire life. I love my state, and I'm proud to be here. I'm also a Camp Director, and professional Whitewater Canoeing and Kayaking instructor. I have been paddling various sections of the Pigeon River since 2005. My first trip down the pigeon, I was warned about the "dirty bird" and heard all sorts of horror stories about the water. Though the water is as foamy, brown, and disgusting as it was then, it's obvious to anyone who gets near to the water that something still isn't quite right.

During trips down the Pigeon downstream of Canton, my mucous membranes burn when they come in contact with the water. The smell is unmistakable. The color of the water - dark and tea-like - is nothing like the water found flowing out of the East Fork and West Fork. Looking at the river behind Pisgah High School, then downstream of the paper plant, is like looking at 2 different planets - not the same river.

When I teach on the river, the campers immediately notice the color and smell. The contrast between the pigeon and other rivers they enjoy, like the Chattooga or the Nantahala, is unmistakable. They know about the paper plant, and they can draw a straight enough line to know why the river is polluted. They feel the same burning on their skin that I feel when I get off the river. When we get back to camp, or when I send them away, we all wash ourselves and our equipment to limit our exposure. And we talk about how this is progress - that 30 years ago the conditions in the Pigeon looked so much worse.

That's why I'm so confused and disappointed by the new draft permit. Loosening restrictions on Blue Ridge Paper makes no sense since there is still so far to go to make the Pigeon the healthy and vibrant waterway it should be. I want to see a Pigeon River that is cleaner, and is a resource flows to our brothers and sisters in Tennessee in the same condition in which we in NC enjoy it in the upstream reaches, above the paper mill. I don't want anyone to have to wash their equipment after getting out of the river. I don't want children asking me why their sinuses burn after they roll over in the whitewater. I would love it if people could actually consume the fish that came from the river without being afraid for their health.

While the mill has provided jobs to the people of Haywood County, the pollution of the river limits its economic utility downstream, both for the citizens of North Carolina and Tennessee. Outdoor Tourism and Recreation contribute hundreds of millions of dollars to communities in Western NC. That number seems only likely to grow as more people come to our wonderful mountains to enjoy our natural resources. The economy in WNC is not the healthiest in the state, and I think it's irresponsible for the state and its citizens to fail to protect and improve the natural resources responsible for maintaining and growing this crucial sector of our regional economy.

I am not here to demand that the mill close, but rather to demand that the state of North Carolina makes Blue Ridge Paper do what we are all supposed to do - CLEAN UP AFTER OURSELVES. This draft permit and the loosened restrictions are an example of a singular business entity being prioritized over the wealth and well-being of ordinary people. I want to see the Pigeon cleaned up for the People of North Carolina, not made dirtier for the owners of the Blue Ridge Paper Company.

Thank you,

Will Johnson  
Brevard, North Carolina

**From:** [Kelly.g](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue ridge paper  
**Date:** Friday, April 30, 2021 12:11:54 PM

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**From:** [Joan Saffold](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Friday, April 30, 2021 1:34:42 PM

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Do not pass this permit. Chloroform is not needed nor wanted, we are already getting sick as it is. People toss mangey dogs into the pidgeon to cure them. AND IT WORKS. The river reeks, the color looks like crap, and the foam piles collecting all over it are disgusting. Yall had the nerve to say the aesthetics were good. Let me take yall rafting so you can see it. Bring your kids. It is so much fun. Please don't ruin what has been worked so hard on. No one will lose their jobs if this permit doesn't pass. But so many will lose their therapy, food, excercise, relaxation, and JOBS if you do pass it.

Sincerely,  
Joan Saffold

A pissed off resident and river guide of cocke county Tennessee.

**From:** [Keep Cocke County Beautiful](#)  
**To:** [SVC\\_DENR\\_publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Friday, April 30, 2021 1:41:25 PM

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To Whom It May Concern:

Keep Cocke County Beautiful is not in favor of any variance that allows Blue Ridge Paper to pollute our shared Pigeon River.

1. Our citizens use the Pigeon River for fishing, rafting and playing. The river's color, odor, toxicity negatively impacts our enjoyment of the river.
2. Color: Part of the new permit removes the color variance, essentially finding that the color of the river is normal and acceptable. It is not. The mill operations significantly changes the color of the water, and improvements should continue to be a goal.
3. Fecal Coliform: The mill treats the town's sewage along with the mill's waste, and there have been a number of instances in which there have been bacteria levels released that violate state standards. The new permit should strive to prevent these releases given the large number of people enjoying the river downstream.
4. Dioxin: A dangerous carcinogen that is still present in fish tissues in the Pigeon River should be regularly tested for, however the new permit proposes to reduce testing.
5. Heated Releases: We know that warm waters are not as healthy, and the new permit should reduce the significant temperature fluctuations allowed by mill discharges.
6. Forever Chemicals: Toxic pollutants called polyfluoroalkyl substances (PFAS) are used in industries like pulp and paper packaging to enhance water-resistant properties of paper products, do not biodegrade, often persist in organisms, and pose significant health concerns. The more scientists learn about PSAS the more clear it becomes that chemicals that produce PFAS should be tracked and when possible not discharged into waterways.

Dozens of speakers raised concerns on the April 14th virtual public hearing but we want to make sure folks concerned about the long-blighted Pigeon River, often called the "Dirty Bird"

by us Coker Countians who live downstream are being heard. In fact, this draft permit is as weak as the one approved TWENTY YEARS AGO. This draft permit calls for no further improvements. NC DEQ even proposes to loosen the limit on chloroform and DROP the long standing “color variance,” which has been the only acknowledgement that the Canton Mill isn’t meeting NC water quality standard for color!

This is an Environmental Justice issue—Haywood County, NC, which hosts Blue Ridge Paper’s massive mill, has had the benefit of over 1,000 high paying jobs and a median household income of over \$51,000/yr. But downstream Coker County, TN, has faced pollution of what should be its most valuable resource for tourism economic development—the Pigeon River--and has a household income of only \$36,000/yr. While DEQ dismisses color as “only aesthetic”, it IS associated with the level of chemical contaminants in the river, contributing to bad taste, odor and even stinging eyes and rashes.

The tiny Pigeon River has been blighted for 113 years by the effluent of one of the Southeast’s largest pulp and paper mills. DEQ’s proposed instream color standard is even weaker than the one EPA proposed for North Carolina over 30 years ago, after regulators had allowed the River to flow black and foamy for 80 years.

We simply want the Pigeon River to be clean and safe for people and aquatic life!

Sincerely,  
Gretta Carr  
Assistant Director  
KCCB

**From:** [Amber Shouse](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Friday, April 30, 2021 4:11:26 PM

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Dear Department of Environmental Quality,

I am writing you in regards to  
**Blue Ridge Paper's (DBA Evergreen Packaging Inc. in Canton, NC) 2021 Draft Permit 000000272 for Pigeon River Pollution. You must dent this permit until and unless the company agrees to stop polluting local waterways.**

The Blue Ridge Paper Mill has been dumping toxic chemicals such as dioxin and chloroform into the waterways of NC (near the TN border) that flow down into the creeks and rivers of TN. The river that is most impacted is the Pigeon River in Tennessee, and the community that is most impacted is Hartford, TN.

Hartford is a small town centered around whitewater rafting on the Pigeon River. the Pigeon River is the most rafted river in the United States and one of the most polluted in the United States. the pollution of this river by the paper mill has been known for decades. the fish are not safe to eat. Cancer rates in the local area are much higher than they should be. The pollution builds up at Waterville Dam on the TN border and is released with the Dam water for rafting and energy production. The color of the river is brown, dark, and sweet tea-colored on many days. The river smells like the acrid papermill, all the way to Newport, Tennessee. One can observe foam and often professional river guides deal with rashes and reactions to the many chemicals that comprise the color pollution.

In the early 1990s, the town of Hartford was dubbed "Widowsville" by local residents, because of the high rate of cancer in the area. Many of the residents blamed the high cancer rate on the release of dioxin into the Pigeon River by the bleaching process used at the paper mill.

A quick google search will reveal more info about this problem. You can also learn more about pollution on the Pigeon River and local efforts to clean it up at :

<https://www.cweet.org/> (CWEET - Clean Water Expected for East Tennessee)

Testing is done by NC authorities and the Paper Mill themselves occurs approximately 1.7 miles down from the Waterville dam on the Pigeon River, and testing is only done on days when water is not being released. Thus, when the tests are done, they are testing water that is primarily coming from Big Creek and Tobes Creek into the Pigeon river, so that the tests do not capture the true toxicity level.

The paper mill has applied to renew its permit in NC. This permit calls for no changes to color pollution. The paper Mills dumping of toxic chemicals into local waterways is a violation of the Clean Water Act and the 1997 Settlement Agreement between downstream communities and the paper mill.

I am a student and a long-time river guide on the Pigeon River. Please crack down on this paper mill's violations and help us clean up the mess they made. please do it for the hundreds of people who come into contact with this river daily. For the sake of our local economy and health. And for the sake of the protected national forests and forest reserves that the river is surrounded by.

Please do the right thing and prevent Blue Ridge Paper (DBA Evergreen. Packaging Inc.) from being re-permitted until they can run their business without polluting waterways. Please help us. I appreciate your consideration.

Thank you,  
Amber Shouse

**From:** [Connie Toops](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Blue Ridge Paper  
**Date:** Friday, April 30, 2021 8:44:52 AM

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As a resident of Madison County in western North Carolina, I am concerned about the long-blighted Pigeon River downstream of Blue Ridge Paper Products. A pending draft permit calls for no further improvements! Actually NC DEQ proposes to loosen the limit on chloroform and DROP the long standing “color variance,” which has been the only acknowledgement that the Canton Mill isn’t meeting NC water quality standard for color! This is not right and is actually an Environmental Justice issue.

Haywood County, NC, which hosts Blue Ridge Paper’s massive mill, has had the benefit of over 1,000 high paying jobs and a median household income of over \$51,000/yr. But downstream Cocke County, TN, has faced pollution of what should be its most valuable resource for tourism economic development—the Pigeon River--and has a household income of only \$36,000/yr. While DEQ dismisses color as “only aesthetic”, it IS associated with the level of chemical contaminants in the river, contributing to bad taste, odor and even stinging eyes and rashes.

The tiny Pigeon River has been blighted for 113 years by the effluent of one of the Southeast’s largest pulp and paper mills. DEQ’s proposed instream color standard is even weaker than the one EPA proposed for North Carolina over 30 years ago, after regulators had allowed the River to flow black and foamy for 80 years! And DEQ wants to only monitor color twice a week, allowing the Mill to select the timing between heavier releases. To only enforce on the basis of a monthly average, instead of DAILY, as called for by River advocates, is completely irresponsible, allowing major spikes of color to be averaged out.

If the draft permit is approved, the limit for releasing toxic chloroform would be weakened (signaling the mill’s increased production, which shouldn’t even be legal!).

I urge you to reconsider the parameters necessary to protect the Pigeon River and include them in this draft, and ultimately, the final regulations.

Sincerely,  
Connie Toops  
Marshall, NC

**From:** [Chip Collins](#)  
**To:** [SVC\\_DENR.publiccomments](#)  
**Subject:** [External] Pigeon River Water Quality  
**Date:** Friday, April 30, 2021 2:08:24 PM

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Hello

My name is Chip Collins. I have been canoeing and kayaking the Pigeon river since 1976. The water quality has vastly improved since then. As permitting is coming up for discharges upstream I want to see present standards maintained, not reduced.

If anything, tighter standards for turbidity and color would be welcome.

I have a farm on Hyder Mountain, in Haywood County, NC. I wish I could enjoyably swim and fish in the Pigeon but the color and odor presently make that an unpleasant option.

I have commercially crafted the Pigeon since 1989. The foam piles in Tennessee often drew comments from rafting customers. We encouraged them to write letters to North Carolina.

It's almost a case of NIMBY, not in my back yard, as the paper plant generates employment for Haywood County, but pollutes the water of Tennessee as far as recreation and a source of potable water downstream.

Please do not relax or remove any present standards. If anything, exam enforcing more strictly present standards ,- with NO variances.

Thank you,

William H. Collins "Chip"

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[Sent from Yahoo Mail on Android](#)