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VIA EMAIL AND U.S. MAIL

Mr. S. Jay Zimmerman, Director
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Re: 2017 Draft NPDES Wastewater Permit – Mayo Steam Station, #NC0038377

Dear Mr. Zimmerman:

On behalf of the Roanoke River Basin Association (the "Association"), we submit the following comments on the 2017 draft National Pollutant Discharge Elimination System ("NPDES") permit noticed for public comment by the North Carolina Department of Environmental Quality ("DEQ"), Division of Water Resources ("DWR"), which purports for the first time to allow Duke Energy Progress LLC ("Duke Energy") to discharge increased and unlimited pollution into Mayo Lake, Crutchfield Branch, and waters of North Carolina and the United States. We previously submitted comments on the 2016 draft NPDES permit for this site, and those comments remain applicable, except as set out below.

This proposed permit tries to allow Duke Energy to dump the water out of its Mayo coal ash lagoon into Mayo Lake without protective limits for toxic substances and heavy metals; to legalize Duke Energy's longstanding violations of the Clean Water Act and North Carolina law; and to allow Duke Energy leave its coal ash in an unlined pit which will pollute Person County for decades to come.

Over 160 commenters submitted written comments on the draft NPDES permits for Duke Energy's Mayo site along with the nearby Roxboro coal ash site, over 98% of which called for stricter standards and more cleanup at these sites; these were in addition to the scores of citizens who commented at the public hearing. DEQ should heed the clear message of these commenters and the specific points raised in RRBA's comments on the 2016 and 2017 draft permits, to require Duke Energy to remove its coal ash from the unlined, leaking pits at these sites and impose stricter, technology-based limits on coal ash pollutants until all the ash can be removed.

I. Introduction

Duke Energy stores approximately 6.6 million tons of coal ash in an unlined pit on the banks of Mayo Lake in Person County. This coal ash pollutes and sits 80 feet deep in groundwater The coal ash lagoon is over 30 years old, and its waters are held back only by a dike made of earth that leaks. The coal ash lagoon is authorized to discharge wastewater from the lagoon only through a canal into Mayo Lake.

Mayo Lake is an important water, recreational, fishing, and economic resource for North Carolina, the region, and Person County. Families live along the lake. Local residents, people who live in surrounding communities, and visitors from other areas fish, swim, and boat in and on the Lake. Over the years, Mayo Lake has been seriously harmed by the pollution from Duke Energy's coal ash lagoon.

Crutchfield Branch is part of the Roanoke River Basin and is a water of the United States and of North Carolina. It originates south of Duke Energy's Mayo coal ash lagoon, flows into the lagoon, and flows out of the lagoon to the north, through North Carolina and into Virginia. Its water becomes part of the Dan River and flows back into North Carolina. From the first NPDES permit issued for Duke Energy's Mayo coal ash lagoon over 30 years ago to the present day, Duke Energy has been forbidden to discharge from its Mayo coal ash lagoon into Crutchfield Branch.

On August 16, 2013, DEQ filed a verified complaint with the Wake County Superior Court which set out that Duke Energy had intentionally constructed engineered discharges from the Mayo coal ash lagoon directly into Crutchfield Branch. These engineered discharges are not authorized under the Mayo NPDES permit and, in fact, are expressly forbidden. Thus, Duke Energy was and is openly and intentionally violating a clear provision of its Mayo NPDES permit by polluting Crutchfield Branch with coal ash polluted water.

DEQ stated – under oath – that Duke Energy's unpermitted engineered discharges to Crutchfield Branch violate state law and that "without . . . taking corrective action," these seeps "pose[] a serious danger to the health, safety and welfare of the people of the State of North Carolina and serious harm to the water resources of the State." Verified Complaint & Motion for Injunctive Relief, *State of North Carolina* ex rel. *N.C. DENR, DWQ v. Duke Energy Progress, LLC*, No. 13 CVS 11032 (Wake Co., August 16, 2013) (Attachment 1), at ¶ 204. As a result, DEQ asked the court to enter a permanent injunction requiring Duke "to abate the violations of N.C. Gen. Stat. § 143-215.1, [and] NPDES Permits" at Mayo. *Id.* Prayer for Relief ¶ 2. Since filing this complaint, however, DEQ has done nothing to require Duke Energy to stop violating the law and its permit at Mayo.

Further, it has been discovered that Duke Energy's Mayo coal ash lagoon has other leaks that are also illegally flowing into Crutchfield Branch, and otherwise.

Rather than following through on its sworn statements and publicly-announced intention to obtain injunctive relief and corrective action, DEQ is now proposing to grant Duke amnesty for the numerous leaks emerging from its coal ash wastewater treatment lagoon.

Duke Energy has faced extensive public pressure and litigation by the Association and other community organizations in North Carolina to force Duke Energy to address its primitive unlined and leaking coal ash storage in North Carolina. In May of 2015, Duke Energy operating companies, including the owner of the Mayo coal ash lagoon, pleaded guilty 18 times to 9 coal ash crimes across North Carolina. These crimes included unpermitted coal ash lagoon discharges very much like those flowing from the Mayo coal ash lagoon. Duke Energy operating companies paid a $102 million fine, and they are under nationwide criminal probation. Under court orders, the criminal plea agreement, statutes, regulatory requirements, and settlement agreements with conservation groups, Duke Energy is now required to excavate all the coal ash from unlined coal ash pits at 8 of its 14 coal ash storage sites in North Carolina, and all its sites in South Carolina. In addition, in response to this intense public and legal pressure and stronger regulatory requirements, Duke Energy has announced that it will empty the water from all its coal ash lagoons in North Carolina.

Today, Duke Energy is required to excavate the coal ash from every North Carolina and South Carolina site with 7 million tons or less of coal ash – except Mayo.

However, at Mayo and five other coal ash storage sites in North Carolina, Duke Energy has refused to commit itself to remove the ash from its unlined, leaking, polluting, and dangerous primitive coal ash pits. Instead, Duke Energy hopes to be able to pump the coal ash polluted water out of its leaking lagoons into nearby lakes and rivers and then leave its polluting coal ash in the groundwater in unlined pits near waterbodies where the coal ash will continue to pollute the state's waters forever.

Duke Energy cannot leave its polluting coal ash in place at Mayo under the terms of its existing NPDES permit. The Mayo coal ash pit leaks, and it pollutes Crutchfield Branch – all in open violation of the Clean Water Act and the NPDES permit.

DEQ has allowed this illegal pollution to continue without taking any effective action to stop it. Instead, DEQ now proposes to change Duke Energy's NPDES permit to legalize coal ash pollution that has been illegal for 30 years. At the same time, DEQ fails to protect Mayo Lake adequately when Duke Energy pumps its coal ash polluted water into Mayo Lake. The draft permit provides that limits on many toxic pollutants will apply only after November 1, 2018, **AFTER** Duke Energy has polluted Mayo Lake with millions of gallons of coal ash polluted water, and then only when FGD basin is routed to Mayo Lake. For other coal ash pollutants, there are no limits at all.

This proposed permit fails to protect the public and public waters and violates the Clean Water Act. DEQ should put in place meaningful limits on coal ash pollutants to ensure that Duke Energy adopts and properly operates the best available technology to treat the coal ash polluted water before it is dumped into Mayo Lake, as DEQ has required at other coal ash sites in Wilmington and Charlotte; should leave in place the important permit provisions that have

been in place at Mayo for 30 years; should require Duke Energy to stop the leaks and discharges of polluted wastewater; and should require Duke Energy remove the coal ash and wastewater from the lagoon, with adequate protections of Mayo Lake and Crutchfield Branch.

II. Permit Comments

A. The Proposed Permit Violates the Clean Water Act Because It Does Not Protect Mayo Lake and Is Inconsistent with Other Permits Issued by DEQ

The proposed Mayo permit is written to allow Duke Energy to pump all its coal ash polluted water from the Mayo coal ash lagoon into Mayo Lake. Part I, Sections A. (3.) & (4.). The 2017 draft permit contains a significant improvement over the 2016 draft permit, in that it requires Duke Energy to "treat the wastewater discharged from the ash pond/ponds by the physical-chemical treatment facilities."

However, the 2017 draft permit does not define what this treatment system must be, and for many coal ash pollutants, there are no enforceable limits to protect Mayo Lake and ensure the treatment system is functioning properly.

Millions of gallons of coal ash polluted water will be pumped into Mayo Lake during the so-called "decanting" phase, over a period of weeks or months. Part I., Section A. (3.). However, the permit provides no limits at all for the pumping of this water to control pollution from Chromium, Copper, Zinc, Barium, Antimony, or Boron. In addition, there is not even a mention of lead, and consequently also no protections of Mayo Lake for lead.

To make matters worse, the permit does appear to include limits for arsenic, mercury, selenium, and nitrate/nitrite, toxic pollutants from Duke Energy coal ash that have harmed Mayo Lake and other North Carolina water bodies in the past. But each of these apparent limits is qualified by a footnote, footnote 8. Footnote 8 provides that these limits do not apply until November 1, 2018 – two years away. Even then, the limits apply only when overflow from the FGD basin is routed into Mayo Lake through Outfall 002.

Duke Energy may well have completed its pumping of coal ash polluted water into Mayo Lake by November 1, 2018, and there is no reason to think that FGD overflow will be routed through Outfall 002 during this pumping. Thus, while the permit appears to include limits for these substances during the "decanting" phase of pumping water out of the coal ash lagoon into Mayo Lake, in fact there are no limits for arsenic, mercury, selenium, or nitrate/nitrite when Duke Energy will be dumping millions of gallons of coal ash polluted water into Mayo Lake.

As a result, this proposed permit abandons Mayo Lake to unlimited quantities of a number of coal ash pollutants by Duke Energy and its coal ash polluted water.

Moreover, it is nonsensical to impose limits on coal ash pollutants "only when the overflow from the FGD basin is routed to Outfall 002." The purpose of the permit is to protect North Carolina waters -- here Mayo Lake -- not to accommodate the way Duke Energy chooses to route particular pollution streams. It does not matter to the quality and health of Mayo Lake whether

pollution from arsenic, mercury, selenium, and other coal ash contaminants occurs when Duke Energy is routing its FGD overflow to Outfall 002 or not. These limits should apply, regardless of what Duke Energy may be doing at the Mayo plant.

Since Duke Energy is required to treat the coal ash polluted water by "physical/chemical treatment facilities," presumably Duke Energy and DEQ believe that Mayo Lake does need protection from the coal ash lagoon water, and that this treatment will remove coal ash pollution to acceptable levels.

If so, then why does the draft permit not include express limits? The apparent reason is to deny the citizens of North Carolina, and perhaps DEQ itself, the ability to enforce this permit against Duke Energy if its undefined "physical/chemical treatment facilities" malfunction or do not remove coal ash pollutants to acceptable levels. **DEQ should not adopt a permit that is transparently drafted to deny the rights of North Carolina citizens and to deny even DEQ itself the ability to hold Duke Energy accountable for its pollution of Mayo Lake**.

In addition, the mercury limits are ridiculously high, whenever they go into effect. They are 1000% to 1500% higher than comparable mercury limits for the NPDES permits recently issued by DEQ for Duke Energy's Sutton plant in Wilmington and its Riverbend plant in Charlotte. (Attachments 2 and 3). DEQ is simply not providing the same protections to Person County that it is providing to the metropolitan communities of Charlotte and Wilmington. This permit for this rural community should contain the same mercury limits as those permits for major cities.

Similar fatal defects are present in the section of the permit governing the "dewatering – removing the interstitial water." Part I, Section A. (4.). This water is the nastiest and most polluted – the water right above and mixed in with the coal ash at the bottom of the lagoon. Yet, the most protective arsenic limits, the selenium limits, the nitrate/nitrite limits and the mercury limits are qualified by a footnote (this time footnote 9), which postpones those limits until November 1, 2018 – **AFTER** this highly polluted water is pumped into Mayo Lake.

As before, even those delayed limits apply only when Duke Energy chooses to route the overflow from its FGD basin to Outfall 002.

In other words, this permit would allow Duke Energy to pump the nastiest, most toxic, and most polluted coal ash brew into Mayo Lake without meaningful limits on many toxic pollutants.

This section of the permit does contain arsenic limits for this coal ash bottom water, but the permit contains a nonsensically high daily limit for arsenic of 340 ppb. This limit is 3400% higher than the 10 ppb standard for arsenic. It also is mathematically incomprehensible, because at the same time the permit provides for a monthly average of 10 ppb and for weekly testing of arsenic. If one week's sample was 340 ppb and even if all other weeks were zero, a weekly average (340 divided by 4) would exceed 80 ppb.

Also, it makes no sense for the water quality of Mayo Lake for the draft permit to make a distinction between arsenic limits when the FGD blowdown flows through this outfall and when

it does not. When the FGD blowdown is flowing through Outfall 002, the arsenic limits for this outfall are 8 ug/L monthly average, and 11 ug/L daily maximum. When the FGD blowdown is not flowing through the outfall, the arsenic monthly average limit goes from 8 to 10 ug/L, a 25% increase. The daily maximum inexplicably increases by 30 times or 3000%, from 11 to 340 ug/L. There is no reason why Mayo Lake should suffer greater pollution and receive less protection, only because Duke Energy is managing its pollution flows in different ways.

And, like the mercury limits for the "decanting" of the Mayo coal ash lagoon, the mercury limits – even in November 2018 and thereafter and even when Duke Energy is sending is FGD blowdown through this outfall – are astronomically high, 1000% to 1500% higher than those for the Duke Energy facilities in Charlotte and Wilmington.

In short, this permit is written to make it appear at first glance that there are limits on toxic pollutants when Duke Energy pumps its Mayo coal ash polluted water into Mayo Lake. In fact, the permit is full of footnotes, loopholes, and exceptions -- with the result that there are no meaningful limits to protect Mayo Lake from Duke Energy's toxic coal ash pollution.

As with the "decanting" phase, the "dewatering – "removing the interstitial water" phase requires Duke Energy to "treat the wastewater discharged from the ash pond/ponds by the physical-chemical treatment facilities." Since Duke Energy is required also to treat this coal ash polluted water by "physical/chemical treatment facilities," again Duke Energy and DEQ believe that Mayo Lake does need protection from the heavily-polluted bottom coal ash lagoon water, and, again, that this treatment will remove coal ash pollution to acceptable levels.

Once more, then why does the draft permit not include express limits? Again, the apparent reason is to deny the citizens of North Carolina, and perhaps DEQ itself, the ability to enforce this permit against Duke Energy if its undefined "physical/chemical treatment facilities" malfunction or do not remove coal ash pollutants to acceptable levels. **DEQ should not adopt a permit that is transparently drafted to deny the rights of North Carolina citizens and to deny even DEQ itself the ability to hold Duke Energy accountable for its pollution of Mayo Lake**.

These multiple failures not only betray the public's interests in Mayo Lake, they also blatantly violate the Clean Water Act. Under the Clean Water Act, polluters must control their discharges of pollutants using the best available technology economically achievable ("BAT"): "such effluent limitations shall require the *elimination of discharges of all pollutants* if the Administrator finds . . . that such elimination is technologically and economically achievable." 33 U.S.C. § 1311(b)(2)(A). The EPA requires that "[t]echnology-based effluent limitations shall be established under this subpart for solids, sludges, filter backwash, and other pollutants removed in the course of treatment or control of wastewaters in the same manner as for other pollutants." 40 C.F.R. § 125.3(g).

In the absence of promulgated effluent limitation guidelines, the NPDES permit writer must use best professional judgment ("BPJ") to determine the BAT standard applicable to the coal ash discharges at Mayo. 33 U.S.C. § 1342(a)(1)(B); 40 C.F.R. § 125.3; 15A N.C. Admin. Code 2H .0118. When applying BPJ, "[i]ndividual judgments []take the place of uniform

national guidelines, but the technology-based standard remains the same." *Texas Oil & Gas Ass'n v. U.S. E.P.A.*, 161 F.3d 923 (5th Cir. 1998). In other words, DEQ must operate within strict limits when identifying BAT based on BPJ.

The first step in identifying BAT is identifying available technologies. At a minimum, technological availability is "based on the performance of the single best-performing plant in an industrial field." *Chem. Mfrs. Ass'n v. U.S. E.P.A.*, 870 F.2d 177, 226 (5th Cir.) *decision clarified on reh'g*, 885 F.2d 253 (5th Cir. 1989); *see Am. Paper Inst. v. Train*, 543 F.2d 328, 346 (D.C. Cir. 1976) (BAT should "at a minimum, be established with reference to the best performer in any industrial category"). In other words, if the technology is being applied by any plant in the industry, it is achievable. *See Kennecott v. U.S. E.P.A.*, 780 F.2d 445, 448 (4th Cir. 1985) ("In setting BAT, EPA uses not the average plant, but the optimally operating plant, the pilot plant which acts as a beacon to show what is possible").

But determination of technological availability is not limited to a single industrial field. "Congress contemplated that EPA might use technology from other industries to establish the [BAT]." 780 F.2d at 453. International facilities can also be used to define BAT. *Am. Frozen Food Inst. v. Train*, 539 F.2d 107, 132 (D.C. Cir. 1976). EPA's NPDES Permit Writers' Manual states that "BAT limitations may be based on effluent reductions attainable through changes in a facility's processes and operations. . . . even when those technologies are not common industry practice."[1] Even pilot studies and laboratory studies can be used to establish BAT; the technology need not be in commercial use to be considered available. *See American Paper Inst. v. Train*, 543 F.2d 328, 353 (D.C. Cir. 1976).

In sum, BAT requires "***a commitment of the maximum resources economically possible to the ultimate goal of eliminating all polluting discharges***." *EPA v. National Crushed Stone Ass'n*, 449 U.S. 64, 74 (1980) (emphasis added).

There can be no doubt that there are technologies available so that Duke Energy can remove large amounts of pollutants from its coal ash polluted water before it is discharged into Mayo Lake. In fact, DEQ has already imposed such limits for Duke Energy's "decanting" and "dewatering" of its Sutton (Wilmington) facility and its Riverbend (Charlotte) facility. Duke Energy is using wastewater treatment technologies to achieve those limits at those locations. These same limits and those same technologies can and should be used for Mayo.

As well, Dominion Energy in Virginia has in place wastewater treatment facilities at its Bremo facility on the James River and its Possum Point facility on the Potomac, where it is pumping out water from coal ash lagoons. These facilities are treating coal ash polluted water and meeting tightened standards for coal ash pollutants. Duke Energy can use the same technology here, and it may be planning to do so. But without enforceable limits, neither the citizens of the state nor DEQ can be assured that Duke Energy will protect our waters from coal ash pollution.

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[1] EPA, NPDES Permit Writers' Manual (Sept. 2010) at p. 5-16, *available at:* http://water.epa.gov/polwaste/npdes/basics/upload/pwm_2010.pdf.

At Mayo, the same limits that protect the waters of Charlotte and Wilmington should be in this permit to protect the waters of Person County.

B. The Proposed Permit Abandons Crutchfield Branch to Duke Energy's Coal Ash Pollution, in Violation of the Clean Water Act.

The current NPDES permit for Duke Energy's Mayo facility – like every preceding permit for the last 30 years since the Mayo coal ash lagoon came into existence – forbids Duke Energy from polluting Crutchfield Branch by discharging from the lagoon into the Branch or by contaminating the Branch otherwise:

Section A. (8) of the Mayo NPDES permit, entitled "**Crutchfield Branch**," provides:

> There shall be ***no direct discharge*** of wastewater from the ash pond to Crutchfield Branch. There shall be no violation of water quality standards in Crutchfield Branch due to ***any indirect discharge*** from the ash pond (emphases added).

Just like the 2016 draft permit, the 2017 draft permit erases these protections of Crutchfield Branch entirely from the permit, and instead expressly provides that Duke Energy can discharge from the coal ash lagoon into Crutchfield Branch. The draft permit legalizes Duke Energy's intentional illegal pollution of Crutchfield Branch: The draft permit provides that Duke Energy's two engineered "toe drains" from the coal ash pond may discharge directly into Crutchfield Branch. Draft Permit at 2. The draft permit acknowledges that these toe drains are "potentially contaminated" – an obvious conclusion since they leak coal ash polluted water from the coal ash lagoon. The draft permit goes further to legalize the flow of five additional "potentially contaminated" flows of water from the lagoons (seeps) into Crutchfield Branch. Draft Permit at 3. And the draft permit contemplates that an unlimited number of other seeps will be allowed to flow into Crutchfield Branch. Draft Permit at Section A. 31. Other than lead, there are no limits for any toxic pollutants in these flows of water dumping into Crutchfield Branch. Draft Permit Section A. (8) to (14).

This is as clear an example as possible of a proposed permit that illegally eliminates or reduces the protections of the nation's waters from pollution. The Clean Water Act's NPDES permitting program is structured around progressive improvements in pollution control over time. The Clean Water Act permit is a National Pollutant Discharge ***Elimination*** System permit that is required to make progress towards Congress's "national goal" of eliminating discharges of pollutants to waters of the United States. 33 U.S.C. §§ 1251(a)(1).

For this reason, the CWA includes anti-backsliding requirements to ensure that the limits and conditions imposed new or modified NPDES permits for a facility are at least as stringent as those in previous permits. 33 U.S.C. § 1342(o); 40 C.F.R. § 122.44(l)(1) ("[W]hen a permit is renewed or reissued, interim effluent limitations, standards or conditions must be ***at least as stringent*** as the final effluent limitations, standards, or conditions in the previous permit . . . .").

The CWA's anti-backsliding requirements apply to *all* NPDES permit provisions, not just effluent limits based on BPJ. 40 C.F.R. § 122.44(l)(1); *In the Matter of Star-Kist Caribe, Inc.,*

Petitioner, 2 E.A.D. 758 at *3 (E.P.A. Mar. 8, 1989). EPA, NPDES Permit Writers' Manual Chapter 7, § 7.2.2, p. 7-4 (Sept. 2010), *available at* http://water.epa.gov/polwaste/npdes/basics/upload/pwm_chapt_07.pdf.

The draft permit wrongly abandons Crutchfield Branch to Duke Energy's coal ash pollution. The draft permit thus violates the anti-backsliding provisions of the Clean Water Act by eliminating the longstanding protections of Crutchfield Branch.

This backsliding is even more egregious because Crutchfield Branch is part of the Dan River and Roanoke River Basins. These waterways have suffered the most from Duke Energy's coal ash pollution. The Dan River catastrophe dumped over 20 million gallons and 39,000 tons of coal ash into these waterways. Bromide from Duke Energy's coal ash caused carcinogens to enter drinking water systems in these watersheds. The Roanoke River Basin has more leaking Duke Energy coal ash sites than any other part of North Carolina – Belew's Creek, Roxboro, Mayo, and Dan River. It is inexcusable for DEQ to remove protections from the Dan River and the Roanoke River Basin – protections that have been in place for 30 years.

Further, it is transparently obvious why DEQ and Duke Energy have gone so far as to blatantly violate the Clean Water Act in drafting this permit. Duke Energy is currently violating this provision of its Clean Water Act permit openly, and DEQ has done nothing to stop Duke Energy from violating the law. Crutchfield Branch flows directly through the Mayo coal ash lagoon. Duke Energy wants to leave its coal ash in this unlined pit next to Mayo Lake and in and on top of Crutchfield Branch, burying the Branch forever. Further, Duke Energy's consultants have determined that the Mayo coal ash will remain forever deep in Person County's groundwater. It is predictable that Duke Energy's coal ash pit will continue to discharge into Crutchfield Branch and also continue to indirectly harm the water quality of the Branch.

Duke Energy has a chance of leaving its coal ash in an unlined pit in Person County, polluting Person County's waters, on if it finds a way to wipe out the provisions that have protected Crutchfield Branch for three decades.

However, this scheme violates the Clean Water Act. The new Mayo permit must contain the protections for Crutchfield Branch that have been contained in all earlier permits. These provisions protect the Branch, the Dan River, and the Roanoke River Basin from Duke Energy's Mayo coal ash pollution.

C. The Draft Permit Would Give Duke Energy Amnesty for Its Unlawful Activity and Illegally Authorize the Mayo Waste Water Treatment Plant to Leak.

The Mayo coal ash lagoon is permitted as a wastewater treatment facility. It is required to contain and treat wastewater and to discharge the treated water (presumably with pollutants removed) from a defined and designed outfall. A wastewater treatment facility that leaks of course malfunctions and discharges untreated polluted wastewater from undesigned holes in the wastewater treatment plant.

These leaks violate the basic purpose and basic provisions of the existing and all prior permits, even provisions that remain in the draft permit. This draft permit authorizes the operation of an "ash pond treatment system" that must be "properly operated and maintained." Draft Permit at pp. 1-2; Section A. (22). Of course, a properly operated and maintained wastewater treatment plant discharges only as designed and does not spring leaks from its sides and bottom.

In other words, a wastewater *treatment* facility cannot operate properly or legally if it receives wastewater and then spews it into the environment, and into the waters of the state and the United States, outside the designed treatment system. By malfunctioning in that way, a wastewater treatment facility would be a wastewater *transmission* facility, leaking and disposing of dirty wastewater into the surrounding environment.

But that is what this draft permit tries to allow. It tries to legalize defects in the wastewater treatment facility – flows of untreated wastewater containing coal ash pollutants – that have been illegal since the first NPDES permit was issued for this facility. Draft Permit Sections A. (89.) to (14.). And it even proposes to legalize future failures in the wastewater treatment facility, if it cracks or springs a leak in the future. Section A. (31.).

There is no justification for these changes. No aspect of Duke Energy's wastewater treatment system requires new outfalls into Crutchfield Branch; on the contrary, its system is leaking in the same way it has illegally for years. DEQ is simply attempting to legalize Duke Energy's ongoing, illegal discharges.

As set out above, this attempt violates the anti-backsliding requirements of the Clean Water Act.

As set out below, this attempt violates the Clean Water Act requirement that Duke Energy use the best available technology to eliminate its pollution of United States and North Carolina waters, because it does not require excavation of the coal ash. In addition, this approach violates the BAT requirement, in that the draft permit would allow Duke Energy to *avoid* using key components of even its existing, minimal treatment technology of settling out pollutants in the lagoons and skimming discharge water from the top via risers connected to the permitted outfalls. This is an impermissible step backwards from using available treatment technology, and accordingly it violates the CWA's BAT requirements.

Further, this attempt violates the basic requirements of the Clean Water Act and North Carolina law, because it purports to issue a permit for a malfunctioning wastewater treatment facility that leaks in undesigned ways and pollutes the surrounding environment with untreated wastewater, rather than treating wastewater before discharge into the environment.

D. Permitting Waters of the United States as "Effluent Channels" Violates the Clean Water Act and North Carolina Law

Even this draft permit cannot find a way to allow the Mayo facility to leak and pretend to comply with the Clean Water Act and North Carolina law. Instead, the only way that DEQ can

allow Duke Energy to keep polluting Crutchfield Branch is to abandon streams that are waters of North Carolina and the United States and illegally convert them into unprotected wastewater ditches of Duke Energy.

At Mayo, DEQ has identified five flows of jurisdictional waters – streams, which the Draft Permit calls "seeps" – which it proposes to permit as "effluent channels." 2017 Draft Permit Section A. (31.). The 2016 draft permit acknowledged that these seeps are to be considered jurisdictional waters. 2016 Draft Permit Section A. (32.). Without explanation, justification, or acknowledgement, the 2017 draft permit drops this acknowledgement, but it cannot erase what DEQ has already conceded.

As jurisdictional waters, these streams cannot be permitted as effluent channels. Without any explanation or description of how this has been accomplished since the 2016 draft permit, the 2017 draft permit summarily recites that these jurisdictional waters "discharge[] through an effluent channel meeting the requirements in 15A NCAC 2B.0228." Apparently, Duke Energy is attempting to have the channel or channels of these jurisdictional water to be designated "an effluent channel."

DEQ has no legal authority to convert a stream – a water of the United States and of North Carolina – or any part of it, into a Duke Energy wastewater ditch with no clean water protections.

The Clean Water Act provides no mechanism to convert jurisdictional waters *into* point source discharges. The Clean Water Act "requires permits for the discharge of 'pollutants' *from* any 'point source' *into* 'waters of the United States.'" 40 C.F.R. § 122.1(b)(1)(emphasis added). By definition, a "point source" cannot be a "water of the United States"; a point source conveys pollutants *to* a water of the United States. Coal ash and coal ash wastewater are pollutants regulated under the Clean Water Act. In theory, an "effluent channel" could be a type of point source but only if that effluent channel is not a "water of the United States." *See* 33 U.S.C. § 1362(14)(defining point source as "any discernible, confined and discrete conveyance, including but not limited to . . . [a] channel"). In sum, jurisdictional waters cannot be point sources. Instead, water quality standards must be met in the jurisdictional waterbody – here, the streams flowing into Crutchfield Branch.

North Carolina law incorporates the same foundational assumption that a point source cannot be a stream, that is, a water of the United States or of North Carolina. "Effluent channel means a discernable confined and discrete conveyance which is used for transporting treated wastewater *to* a receiving stream or other body of water." 15A N.C. Admin. Code 2B.0202 (emphasis added). Restated, an effluent channel conveys wastewater to a receiving stream or body of water; the effluent channel cannot itself be the receiving stream.

North Carolina law makes this point doubly clear by prohibiting designation of an effluent channel if that channel "contain[s] natural waters except when such waters occur in direct response to rainfall events by overland runoff." 15A N.C. Admin. Code 2B.0228(2). "Natural waters" include ground and surface waters, as does the Clean Water Act. North Carolina law prohibits designation of an effluent channel if that channel contains natural,

jurisdictional surface waters. North Carolina law also prohibits designation of an effluent channel if that channel contains groundwater. In other words, an effluent channel can only be designated if that channel would be dry except during rainfall events and as a result of transporting waste water. The streams or seeps identified by Duke Energy and DEQ are both jurisdictional surface water tributaries and are influenced by natural ground water, preventing their designation as "effluent channels." This approach cannot be implemented consistent with federal and state law.

There is no doubt that this attempt of the draft permit is clearly illegal under North Carolina and United States law.

E. The Coal Ash Must Be Removed from the Mayo Unlined Pit to Prevent Illegal Pollution.

DEQ is engaging in these illegal contortions in the draft permit in an attempt to dodge its basic responsibility to require Duke Energy to stop its coal ash pollution of waters of North Carolina and the United States. Instead of stopping that pollution, DEQ is engaging in awkward and illegal permit drafting to avoid the obvious solution: to stop the ongoing illegal water pollution from the Mayo unlined pit, Duke Energy must remove its coal ash to its very nearby lined, modern landfill.

That is the solution that is being implemented at ***every*** utility-owned waterfront coal ash storage site in South Carolina. That is the solution being implemented at eight other Duke Energy coal ash storage sites in North Carolina. Indeed, the Mayo site is the ***only*** coal ash storage site with 7 million tons of coal ash or less in both Carolinas that is not being excavated. For over two years, Duke Energy has been required to excavate the coal ash at Sutton, which contains more coal ash than at the Mayo site. At Sutton, Duke Energy is constructing a new landfill to hold the Sutton ash and is transporting the ash by train to a second new landfill. At Mayo, Duke Energy has an existing landfill whose planned capacity would hold the coal ash without any separate landfill construction and with minimal transportation.

Any NPDES permit issued by DEQ for the Mayo facility must incorporate the Clean Water Act's requirement of best available technology to eliminate discharges if the facility is capable of achieving such elimination. In this case, all the other utilities in the Carolinas, including Duke Energy itself, are already implementing a guaranteed approach to eliminating their discharges: removal of their unlined coal ash to dry, lined landfill storage or recycling.

a. SCE&G

In South Carolina, SCE&G had unpermitted seeps and groundwater contamination at its Wateree Station facility on the portion of the Catawba River called the Wateree River. Today, SCE&G is in the midst of removing all its coal ash from unlined lagoons at Wateree Station to safe, dry, lined storage in a landfill away from the Wateree River. SCE&G has already removed over 1 million tons of coal ash from its Wateree facility. In filings with the South Carolina Public Service Commission, SCE&G has publicly stated its commitment to clean up the coal ash at its other facilities in South Carolina as well. Attachment 4, at 26. SCE&G has also stated

publicly that its cleanup has had no effect on customer rates. Eric Connor, "Coal ash cleanup: Someone will pay; will it be customers?" *Greenville News* (Apr. 28, 2014). At the same time, groundwater contamination has dropped by 60 to 90%.

b. Santee Cooper

South Carolina's Public Service Authority utility, known as Santee Cooper, has also committed to excavate its coal ash from unlined lagoons and store it in dry, lined landfills or recycle it for concrete. Santee Cooper's Executive Vice President of Corporate Services described the removal and recycling of the unlined coal ash from the lagoons as "cost-effective" and a "triple win" for the utility's customers, the environment, and the local economy. Attachment 5. At last report, Santee Cooper has already removed over 700,000 tons from its Grainger Generating Station in Conway, SC, where unlined coal ash had contaminated the groundwater and adjacent wetlands with arsenic and other pollutants. Attachment 6. Santee Cooper is also moving ahead with excavation from its Jefferies Generating Station in Moncks Corner, SC. David Wren, "Coal ash removal at Santee Cooper's power plants years ahead of schedule," *Post & Courier* (Jan. 26, 2015). A concrete recycling facility has been built at its Winyah facility to remove and reprocess ash, and a new modern lined landfill is being built to hold ash that is not recycled. *Id.* Santee Cooper also states that its actions to eliminate the unlined storage of coal ash will have no effect on its rates. Jim Pierobon, "Smart Utilities Know There Are Responsible Solutions for Their Coal Ash Waste," *The Energy Fix* (Jan. 12, 2015).

c. Duke Energy – South Carolina

In April 2015, conservation groups signed an agreement with Duke Energy for Duke to remove all the coal ash from its W.S. Lee facility on the Saluda River in Anderson County, South Carolina. Attachment 7. Duke will remove all the coal ash to dry, lined storage away from the river, including the ash from two leaking lagoons and in an ash storage area near the lagoons. In September 2014, the South Carolina Department of Health and Environmental Control entered into a consent enforcement agreement with Duke Energy in which Duke was required to remove coal ash from two other storage areas on the Saluda River's banks at the Lee facility. Attachment 8. Since then, Duke Energy has begun removing ash from the site and has permitted a new, lined landfill for removed ash.

Duke Energy's other coal ash site in South Carolina is the H.B. Robinson facility on Lake Robinson and Black Creek in Darlington County, SC. On April 30, 2015, after months of public pressure from conservation groups calling for a cleanup, Duke publicly committed to excavating all the coal ash at Robinson and storing it in a dry, lined landfill on site. Sammy Fretwell, "Duke to clean up toxin-riddled waste pond in Hartsville," *The State* (Apr. 30, 2015). Duke Energy has moved forward with permitting and constructing a lined landfill to hold the excavated ash.

d. Duke Energy – North Carolina

Duke Energy is now required by court order to remove the ash from seven sites across the state, including Sutton, which contains more ash than Mayo. Recently, after insisting that it had to leave the coal ash in unlined pits at its Buck facility, Duke Energy entered into a settlement

agreement with conservation groups requiring it to excavate all the coal ash from the Buck site, either to a lined landfill or to be recycled into concrete. Mayo is the only site in North and South Carolina with less than 7 million tons of ash from which the utility is not required to remove the ash.

Duke Energy's excavation of every site as large as Mayo in two states – and at least one site larger than Mayo – is proof positive that dewatering and ash removal are achievable as BAT to stop the ongoing discharges of coal ash pollutants from the Mayo lagoon. Indeed, ash removal at Mayo is even easier than removal at other sites, because there is only one lagoon and Duke Energy has a modern, lined landfill on site that can hold the ash. Accordingly, ash removal should be required in the NPDES permit for Mayo in order to ensure the discharges are stopped.

In sum, excavation and dry, lined storage of coal ash formerly stored in unlined, leaking lagoons is already standard practice among all the other major utilities in the Carolinas, and Duke Energy is now required to excavate the ash from 10 of its coal ash sites in the Carolinas – including every other one containing 7 million tons or less. Removal of the ash to dry, lined storage is not only economically achievable but cost effective, according to the utilities putting it into practice. And it eliminates the continuing seepage into groundwater and surface waters, as well as the risk of a catastrophic dam failure or spill, such as Duke Energy's Dan River spill in February 2014.

Accordingly, DEQ must incorporate into the NPDES permit provisions requiring the dewatering and excavation of the unlined coal ash from the leaking unlined pit at Mayo, in combination with a reasonable schedule of compliance to achieve the Clean Water Act's goal of eliminating the discharge of pollutants to public waters.

F. DEQ Has Acknowledged That Zero Discharge Is Attainable For Seeps But Fails to Require that Solution or to Impose Corresponding TBELS or Any Schedule of Completion.

DEQ's fact sheet for another Duke Energy coal ash site, Riverbend, concedes a zero discharge technological solution available to Duke Energy to address coal ash seeps, but DEQ has failed to impose TBELs based on that technology.

The Riverbend Fact Sheet acknowledges, with respect to seeps, that "[r]eleases of this nature would typically be addressed through an enforcement action requiring their elimination . . . ." Attachment 9. The draft permit originally proposed by DEQ for Riverbend further recognized the availability of a zero discharge solution – collection and "rerouting the discharge" and "discontinuing the discharge" are available solutions for meeting technology-based effluent limits. Attachment 10, at Condition A(5) n.4. Nonetheless, DEQ requires no action from Duke Energy at Mayo to address the seeps, but instead proposes in the draft permit simply to allow them to continue. This complete disregard of an acknowledged solution to these uncontrolled discharges does not satisfy the requirements of the federal Clean Water Act.

Indeed, DEQ *must* require compliance with the discharge limits achievable by the implementation of the best available technology *now*, just as it has in the Sutton NPDES permit. EPA defines a compliance schedule as "a schedule of remedial measures, . . . including an

enforceable sequence of interim requirements (for example, actions, operations, or milestone events) . . . ." 40 C.F.R. § 122.2. Under EPA regulations, DWQ may use compliance schedules to achieve "compliance with CWA [Clean Water Act] and regulations . . . as soon as possible, *but not later than the applicable statutory deadline under the CWA*." 40 C.F.R. § 122.47(a)(1)(emphasis added). The Clean Water Act requires dischargers of color pollution to comply with BAT-based effluent limits by March 31, 1989. 33 U.S.C. §1311(b)(2)(A), (F). Thus, "a permit writer may not establish a compliance schedule in a permit for TBELs [technology-based effluent limits] because the statutory deadlines for meeting technology standards . . . have passed." EPA Permit Writers Manual, Section p. 9-8 (2010); *see also* EPA Permit Writers Manual, Section 9.1.3 p. 148 (1996).

G. DEQ Cannot Permit the Existing Seeps or Permit In Advance Unidentified and Thus Unpermitted Discharges.

As set out above, not only does the draft permit attempt to authorize the existing seeps and leaks from the coal ash lagoon, it also attempts to put in place in advance a procedure for seeps that have not yet occurred and whose nature is unknown, what the draft permit calls "new identified seeps." Draft Permit Section A. (31.). The draft permit states that the permit must be modified to include the new seep, but it does not specify what public notice and comment procedures, if any, will be used for such "modification." In other words, the draft permit tries to give Duke Energy amnesty in advance for these malfunctions of its unlined Mayo coal ash lagoon.

1. The Draft Permit Violates the CWA's Prohibition on Unpermitted Point Source Discharges

Any non-jurisdictional stream of contaminated water leaking from the Mayo coal ash lagoon to surface waters of the United States is a point source discharge. The proposed permit purports to authorize unspecified point source discharges, in violation of the CWA, 33 U.S.C. § 1311(a).

Under the CWA, "*Every identifiable point* that emits pollution is a point source which must be authorized by a NPDES permit . . . ." *U.S. v. Tom-Kat Dev., Inc.*, 614 F. Supp. 613, 614 (D. Alaska 1985) (citing 40 C.F.R. § 122.1(b) (1). *Accord U.S. v. Earth Sciences, Inc.*, 599 F.2d 368, 373 (10th Cir. 1979); *Legal Envtl Assistance Found., Inc. v. Hodel*, 586 F. Supp. 1163, 1168 (E.D. Tenn. 1984); *U.S. v. Saint Bernard Parish*, 589 F. Supp. 617 (E.D. La. 1984)). The "NPDES program requires permits for the discharge of 'pollutants' from *any* 'point source' into 'waters of the United States.'" 40 C.F.R. § 122.1(b)(1) (emphasis added).

Rather than complying with this straightforward requirement of the CWA, the proposed permit instead tries to legalize the existing illegal seeps and to legalize in advance now nonexistent but future occurring unpermitted discharges.

Further, there are no limits on any toxic pollutants in these seeps, except for lead. Draft Permit Sections A. (8.) to (14.). And, as set out above, Duke Energy and DEQ are illegally

attempting to convert all these jurisdictional waters to so-called "effluent channels" with no clean water protections at all.

The draft permit's authorization of the seeps violates the most basic principles of the Clean Water Act. DEQ itself acknowledges in the Riverbend Fact Sheet that "[t]he CWA NPDES permitting program does not normally envision permitting of *uncontrolled releases* from treatment systems" and "[r]eleases of this nature would typically be addressed through an *enforcement action requiring their elimination* rather than permitting" Attachment 9 (emphasis added).

Indeed, DEQ has pending an enforcement action against the two engineered toe drains at Mayo – an enforcement action that DEQ has not diligently prosecuted. Yet, in this draft permit, DEQ attempts to legalize what it has already stated, under oath, is illegal and a serious threat to North Carolina's people and their water quality.

2. The Proposed Permit Attempts to Shield Duke from Further Legal Violations

The seeps are prohibited under Duke Energy's current NPDES permit. These "uncontrolled releases" of leaking wastewater should be the subject of an enforcement action requiring their elimination. Indeed, DEQ has filed such an action in state Superior Court for the two engineered toe drains. Duke Energy's operating companies have pleaded guilty to criminal violations of the Clean Water Act for exactly such unpermitted discharges.

DEQ's proposed permit purports to legalize these previously illegal discharges with the stroke of a pen, rather than requiring Duke Energy to take any action to remedy the violations. Even more shockingly, DEQ is proposing to grant Duke amnesty for unknown numbers of *future* violations of the Clean Water Act as well. This is nothing more than an attempt to shield Duke Energy from having to comply with the laws it has been violating for years.

3. The Draft Permit's Authorization of Future Seeps Violates the CWA's Public Participation Requirements

The draft permit would allow Duke to evade public notice and comment and the opportunity for a public hearing and for judicial review, along with all the other requirements of the state NPDES permitting program, 33 U.S.C. § 1342(b). While the draft permit vaguely states that a new seep would require the permit to be "modified," there is no indication that public notice and comment would be required. Further, the draft permit purports to set out that any new seep would be handled in the same way as the existing seeps – without knowledge as to the nature or circumstances of the new seep.

It is beyond the authority of DEQ to authorize new point source discharges without the full procedures of a modification of the NPDES permit with public comment and EPA oversight. EPA's regulations authorize limited administrative changes to an active permit through minor modifications, 40 U.S.C. § 122.63, none of which condone the administrative addition of a new point source discharge, which must be permitted as an NPDES outfall. Nor can DEQ prejudge

the way a new point source discharge would be addressed, by simply adding the seep to a list to be addressed in the same way as it proposes to address the existing seeps. This scheme is inconsistent with the requirements of the Clean Water Act.

The existing permit and all prior ones are the result of the full agency process, public review, public comment, and the procedures required by the Clean Water Act and North Carolina law. These illegal flows of polluted water into Crutchfield Branch, expressly forbidden by the existing permit, cannot be made legitimate by totally changing the permit to allow contaminated water to pop out of this purported wastewater treatment facility and flow into the Branch. It is inconceivable that a permitted wastewater treatment facility would be allowed to repeatedly open up leaks and discharge polluted water from the supposed wastewater treatment lagoons into a public waterway. This proposed option is not law enforcement or pollution elimination at all, but instead an option for the law enforcement agency to try to find a way to make unlawful and polluting activities "permitted" and avoid dealing with the risks to the public. This stratagem should not be adopted by a state agency that has the responsibility of enforcing the law and protecting the State's natural resources and the public interest.

Instead, this permit should require the implementation of the proven method of eliminating seeps from these defective wastewater treatment systems – movement of the ash to safe, dry lined storage and appropriate dewatering of the lagoons.

H. The Draft Permit is Inconsistent with the Removed Substances Provision.

For the same reasons, the proposed permit's attempt to authorize the seeps violates the Clean Water Act's anti-backsliding provisions because it is inconsistent with the Removed Substances provision of the current Mayo NPDES permit, which provides an important limitation in the permit to prevent the entrance of pollutants removed in the course of settling treatment from entering State and navigable waters.

The State of North Carolina has included an important standard condition in its NPDES permits for waste treatment systems like the Mayo lagoon, known as the Removed Substances provision. The Removed Substances provision of the Mayo permit, Part II.C.6, provides:

> "Solids, sludges . . . 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 or navigable waters of the United States.*" (emphasis added)

This is a common-sense provision to prevent pollutants removed by waste treatment facilities from escaping out into the environment. Accordingly, it has been included in the Mayo permit since the first permit in 1982. The Removed Substances provision is an important component of the Clean Water Act's protections, and prevents waters of the United States from being polluted by waste treatment facilities such as the Mayo coal ash settling lagoon. *In the Matter of: 539 Alaska Placer Miners*, Nos. 1085-06-14-402C & 1087-08-03-402C, 1990 WL 324284 at *8 (EPA 1990) (inclusion of Removed Substance provision "is based on the simple proposition that there is no way one can protect the water quality of the waters of the U.S if the

[polluter] is allowed to redeposit the pollutants collected in his settling ponds"); 40 C.F.R. § 440.148(c) (Removed Substances provisions ensure that "measures shall be taken to assure that pollutants materials removed from the process water and waste streams will be *retained in storage areas"*) (emphasis added).

In the context of the Mayo permit, the removed substances provision is also the implementation of a required permit component under the implementing regulations of the Clean Water Act. The implementing regulations for the Clean Water Act require that "[t]echnology-based effluent limitations shall be established under this subpart for solids, sludges, filter backwash, and other pollutants removed in the course of treatment or control of wastewaters in the same manner as for other pollutants." 40 C.F.R. § 125.3(g). Under the existing permit issued to Duke Energy for the Mayo plant, DEQ did not set individual TBELs for seeps from the ash basin but rather took the only responsible step, of treating zero liquid discharge as the BAT for contaminated seeps from a coal ash impoundment. That is, consistent with the requirement to set TBELs for pollutants removed by the wastewater treatment ash ponds, the existing permit prohibits *any* discharge of removed substances to waters of the United States or of North Carolina.

DEQ itself has cited Duke Energy for violating the Removed Substances provision by allowing pollutants to enter waters of the State and navigable waters due to uncontrolled releases from Duke Energy's coal ash lagoons at its Dan River facility. In a February 28, 2014 Notice of Violation, DEQ cites the discharge "of coal combustion residuals from the ash pond to the Dan River, class C waters of the State" as violating the Removed Substances provision: "Failure to utilize or dispose solids removed from the treatment process in such a manner as to prevent pollutants from entering waters of the State (Part II, Section C. 6. of NPDES permit)." Part II.C.6 of the Dan River NPDES Permit contains the Removed Substances permit provision.

At Mayo, the draft permit purports to allow pollutants removed in the course of treatment to enter waters of the State and United States via uncontrolled releases that have sprung and that may spring out of the lagoon and start discharging to public waters at any time. As such, the proposed permit violates the Clean Water Act's anti-backsliding requirements in this additional way by attempting to authorize illegal discharges prohibited by the existing permit's Removed Substances Provision.

Indeed, there is no indication that DEQ is eliminating the Removed Substances provision from the draft permit; the Removed Substances provision is part of the standard conditions for all NPDES permits in North Carolina. Consequently, this aspect of the draft permit is contrary to this fundamental condition, applicable to all NPDES permits and all wastewater treatment facilities in North Carolina.

I. The Draft Permit Threatens the Safety of the Mayo Dam.

By allowing seeps to continue, DEQ is threatening the safety of the Mayo coal ash dam. DEQ itself has previously acknowledged the danger of seeps for earthen dams at Mayo.

In 2010, DEQ issued a dam safety Notice of Inspection another earthen dam at Mayo and warned:

> "Two of the more common types of earth dam failures are caused or influenced by excessive seepage. Excessive seepage can produce progressive internal erosion of soil from the downstream slope of the dam or foundation toward the upstream side to form an open conduit or 'pipe.' ***Seepage pressures decrease the strength characteristics of the embankment soil.*** *The resulting reduction in embankment stability* ***can produce a slide failure of the downstream slope.***" (emphasis added).

Attachment 11, at 2. The Mayo coal ash dam is a high hazard dam. DEQ is ignoring its own warnings by trying to allow the Mayo seeps to continue and by purporting to allow future, unknown seeps, without any knowledge of their future effects on the Mayo coal ash dam.

J. The Department Cannot Issue a Permit to a Facility that is Violating Surface Water Standards

DEQ cannot issue a permit that removes the ban on direct discharges to Crutchfield Branch and the pollution caused by indirect discharges to Crutchfield Branch, because discharges from the Mayo coal ash lagoon are contributing to violations of surface water quality standards.

NPDES permits control pollution by setting (1) limits based on the technology available to treat pollutants ("technology based effluent limits") and (2) any additional limits necessary to protect water quality ("water quality-based effluent limits") on the wastewater dischargers. 33 U.S.C. §§ 1311(b), 1314(b); 40 C.F.R. § 122.44(a)(1), (d). An NPDES permit must assure compliance with all statutory and regulatory requirements, including state water quality standards. 33 U.S.C. § 1342(a)(1)(A); 40 C.F.R. § 122.43(a); 15A N.C. Admin. Code 2H .0118.

Similarly, North Carolina law provides that "[n]o permit may be issued when the imposition of conditions cannot reasonably ensure compliance with applicable water quality standards." 15A N.C. Admin. Code 2H.0112(c); *see also* N.C. Gen. Stat. §§ 143-215.6a-c (authorizing civil and criminal penalties and injunctive relief for violations of surface water standards).

At Mayo, Duke Energy is violating surface water criteria in Crutchfield Branch. Corrective Action Plan Part 1, at 4-14 ("the stream is primarily impacted by flow from the ash basin"), Table 2-14; Comprehensive Site Assessment Supplement 1, Table 3-1. DEQ can remedy an ongoing violation of surface water quality standards and "ensure compliance with applicable water quality standards" in Crutchfield Branch only by requiring that the source of the pollution, the coal ash, be removed from Crutchfield Branch; that the seeps of coal ash polluted

water into Crutchfield Branch be stopped; and that the coal ash be removed from the unlined pit, where it contaminates groundwater and the seeps/streams that flow into Crutchfield Branch, directly or indirectly. DEQ certainly cannot meet the standards of the Clear Water Act and North Carolina law by eliminating the existing permit protections of Crutchfield Branch; permitting the seeps; creating "effluent channels"; and allowing the coal ash to remain in place.

These discharges cannot be permitted as long as surface water quality standards are violated in Crutchfield Branch.

K. The Draft Permit Fails to Account for Discharges of Wastewater Through Hydrologically Connected Groundwater

The Clean Water Act is a strict liability statute prohibiting the discharge of any pollutant to a water of the United States without a permit. 33 U.S.C. § 1311(a). The Mayo coal ash pond discharges significant quantities of contaminated wastewater to Mayo Lake and Crutchfield Branch through groundwater via a direct hydrologic connection to the Lake and the Branch. That discharge is not included in the current permit and attempting to add it now would violate the anti-backsliding provision of the Clean Water Act. 33 U.S.C. § 1342(o); 40 C.F.R. § 122.44(l)(1) ("[W]hen a permit is renewed or reissued, interim effluent limitations, standards or conditions must be at least as stringent as the final effluent limitations, standards, or conditions in the previous permit . . . .").

The United States Department of Justice ("DOJ") recently emphasized "EPA's longstanding position [] that a discharge from a point source to jurisdictional surface waters that moves through groundwater with a direct hydrological connection" comes under the purview of the CWA. *See* Amicus Brief, *Hawaii Wildlife Fund v. County of Maui* (No. 15-17447, 9th Cir.), 5 (Attachment 12). As expressed by DOJ, "it would hardly make sense for the CWA to encompass a polluter who discharges pollutants via a pipe running from the factory directly to the riverbank, but not a polluter who dumps the same pollutants into a man-made settling basin some distance short of the river and then allows the pollutants to seep into the river via the groundwater." *Id.* at 16 (quoting *N. Cal. River Watch v. Mercer Fraser Co.*, No. 04-4620, 2005 WL 2122052, at *2 (N.D. Cal. Sept. 1, 2005)). The same reasoning applies here. As discharges to Mayo Lake and Crutchfield Branch via hydrologically connected groundwater were not authorized and therefore prohibited under the current permit (indeed these discharges to Crutchfield Branch are expressly prohibited), they cannot be authorized in the draft permit, and they are not in the draft permit.

Consequently, DEQ must require Duke Energy to stop the discharge of contaminated wastewater to Mayo Lake and Crutchfield Branch via hydrologically connected groundwater by removing the source of contamination – Duke Energy's coal ash in the unlined Mayo pit.

L. The Draft Permit Has Inadequate Monitoring.

During decanting and dewatering, Duke Energy should be required to take daily samples. These activities are not part of the normal operation of the plant because they are not part of its wastewater treatment function. Special care needs to be taken to ensure the limits in the permit are enforced. Some of the limits in the draft permit have only monthly sampling, and many have only weekly sampling. During the dumping of millions of gallons of coal ash polluted water in Mayo Lake – an important regional water resource – daily sampling is essential for limits to have real meaning.

M. The Proposed Permit Violates North Carolina's Groundwater Rules.

Because of the groundwater contamination at and beyond the compliance boundary at Mayo, the state groundwater rules prohibit DEQ from issuing the proposed NPDES permit for the Mayo coal ash lagoon.

North Carolina's groundwater rules state that "the [Environmental Management] Commission will not approve any disposal system subject to the provisions of G.S. 143-215.1 which would result in a violation of a groundwater quality standard beyond a designated compliance boundary." 15A N.C.A.C. 2L .0103(b)(2). The draft permit states on its face that it is issued under the authority of "North Carolina General State 143-215.1." The Mayo coal ash lagoon is a disposal system for purposes of the 2L groundwater rules, with compliance boundaries set by the rules. 15A N.C.A.C. 2L .0107. Because DEQ issues this permit under authority delegated by the Environmental Management Commission, this prohibition applies to DEQ as well.

There is no question that the disposal system authorized by this permit will result in a violation of a groundwater quality standard at a designated compliance boundary. It already has. There is an extensive history of documented groundwater contamination at Mayo. Indeed, DENR has ordered Duke Energy to undertake assessment activities and filed an enforcement case in Superior Court seeking injunctive relief to abate groundwater contamination at the site. Duke Energy's own studies confirm that it has contaminated the groundwater with elevated levels of pollutants including pH, antimony, arsenic, barium, boron, chromium, cobalt, iron, manganese, thallium, total dissolved solids, and vanadium, at levels above both state groundwater standards and Duke Energy's own proposed background concentrations. *See, e.g.*, Corrective Action Plan Part 1, at ES-6.

The groundwater violations at and beyond the compliance boundary will only continue, in violation of the state groundwater rules, if the ash is allowed to remain in the unlined lagoon where it will continue leaching pollutants into the groundwater. Because this disposal system has already resulted in violations of groundwater quality standards and will continue to do so, DEQ cannot issue the proposed NPDES permit without imposing conditions sufficient to ensure these violations will cease. A requirement for final closure of the Mayo coal ash impoundments and removal of the ash to dry, lined storage is the only assured solution to stop ongoing

violations of quality standards at the compliance boundary. Accordingly, the permit should require removal of the ash to safe, dry lined storage.

N. DEQ Fails to Exercise Its Best Professional Judgment to Establish BTA under 316(b).

DEQ is permitted to allow Mayo until the next permitting cycle to provide sufficient information to establish final impingement mortality and entrainment BTA. 40 C.F.R. § 125.98(b)(6) However, DEQ must still "establish *interim* BTA requirements in the permit on a site-specific basis based on the Director's best professional judgment." *Id.* (emphasis added). There is no indication that DEQ has engaged in such analysis in this proceeding. Rather, the Fact Sheet simply states: "The permittee shall comply with the Cooling Water Intake Structure Rule per 40 C.F.R. § 125.95. The Division approved the facility request for an alternative schedule in accordance with 40 C.F.R. § 125.95(a)(2). The permittee shall submit all the materials required by the Rule with the next renewal application." Fact Sheet at 3. DEQ has had more than sufficient time to assess at least interim BTA for Mayo. As such, any final permit must include, at minimum, interim BTA standards based on DEQ's best professional judgment and consideration of the factors and technologies specified at 40 C.F.R. §§ 125.94 and 125.98.

O. Duke Energy's New Treatment System Will Pollute Mayo Lake.

The draft permit sets up a new treatment system to address pollution from the Mayo facility after the coal ash lagoon ceases to operate. A new retention basin will be constructed, discharging into Mayo Lake through new Outfall 002A. Section (A.) (5.)

This new retention basin will receive streams of highly polluted water, including leachate from the Mayo coal ash landfill, coal pile runoff, and other industrial wastes. Yet, the draft permit contains no meaningful limits for the coal ash pollutants that this retention basin will dump into Mayo Lake.

As with the decanting and dewatering of the coal ash basin, the draft permit contains limits for some coal ash pollutants (arsenic, mercury, selenium, and nitrate/nitrite). But, as before, these limits apply only when Duke Energy routes overflow from the FGD basin through this outfall.

As explained above, there is no reason to protect Mayo Lake from coal ash pollutants only when Duke Energy decides to route certain flows of pollutants into this retention basin. Since Mayo Lake needs these protections when Duke Energy is sending FGD overflow through this basin, Mayo Lake needs the same protections from coal ash pollution when Duke Energy is operating its pollution treatment system otherwise.

Also, these limits include the extraordinarily high mercury limits critiqued above.

This permit is an opportunity for Duke Energy and DEQ to set a new path for protecting Mayo Lake from the continuing pollution of Mayo Lake from Duke Energy's coal ash and its operation of the Mayo facility. But instead of putting in place protections for the public and

Mayo Lake, once more DEQ and Duke Energy propose to make Mayo Lake a dumping ground for Duke Energy's coal ash and other pollution, without protective limits for the Lake's waters.

For all the reasons given above, this disturbing approach violates the Clean Water Act and North Carolina law.

P. Coal Ash Landfill Leachate.

The 2017 Draft Permit adds an internal outfall, 011, for leachate from Duke Energy's coal ash landfill. This landfill is receiving and will receive all of Duke Energy's fly and bottom ash going forward. It should be expected that the leachate from this landfill will be highly polluted with toxins and heavy metals from coal ash.

The 2017 draft permit would allow this highly polluted leachate to go directly to Mayo Lake through Outfall 002 as long as the coal ash lagoon is operating, and thereafter directly into Mayo Lake after passing through only the newly-constructed and much smaller retention basin.

There is no requirement for any real treatment of this leachate. It will simply be dumped into the retention basin, with a host of other industrial and coal ash wastes, and then discharged into Mayo Lake. There is no requirement for any kind of physical or chemical treatment facility. As set out above, there are no limits for coal ash pollutants discharged from the retention basin into Mayo Lake.

This is a recipe for yet another coal ash scandal at Mayo. After all the failure of DEQ and Duke Energy in their management of coal ash and coal ash pollution, the public has a right to expect that going forward both DEQ and Duke Energy will make every effort to protect North Carolina's waters from coal ash pollution. Instead, the 2017 draft permit would abdicate DEQ's responsibility to put in place protective and meaningful pollution limits, and would also give the public every reason not to trust Duke Energy's handling of this pollution.

This approach is also a missed opportunity to easily implement technology based limits on Duke Energy's coal ash pollution, because the technology will be in place already to treat this discharge, yet DEQ is failing to require treatment. The permit claims Duke Energy will be installing and operating physical-chemical treatment for its dewatering activities, and the same technology should be left in place and operated to treat the landfill leachate as well, with corresponding limits reflecting the best available technology for treating this coal ash polluted wastewater.

There must be meaningful and enforceable limits for the coal ash pollutants in Duke Energy's coal ash landfill leachate, when it enters the retention basin and when it leaves the basin and flows into Mayo Lake.

Q. Stormwater Discharges Via Ash Basin.

The permit's Supplement to Permit Cover Sheet notes that stormwater is routed through the Mayo ash basin, and apparently will also be routed through the landfill leachate retention

basin. These stormwater routing configurations should not be authorized by the permit. First, routing stormwater through these basins inevitably will cause more and greater discharges of coal ash pollution. Second, doing so allows Duke Energy to benefit from the dilution of these coal ash pollutants by the stormwater, prior to monitoring. That is not an appropriate approach to monitoring and limiting the discharge of pollutants under the Clean Water Act. The active NPDES permit for Mayo states that ash basin discharge samples "shall be taken ***prior to mixing with other waste streams***." 2009 Mayo NPDES Permit at A(3)-(4) (emphasis added). The 2009 permit did note that stormwater was routed through the ash basin, seemingly contradicting this sampling instruction, but that is no reason to allow such a situation to continue. Going forward, stormwater should be kept separate from the coal ash wastewater basins.

R. New Stormwater Discharges.

The draft permit creates a number of new outfalls, permitting what are described as former stormwater outfalls, all of which discharge directly to Mayo Lake. Section (A.) 15 to 20. Presumably, these are unpermitted discharges that have been discovered at Mayo Lake, and the draft permit is designed to legalize them.

However, the 2017 draft permit indicates that DEQ does not have enough information to include these outfalls in the permit. In each instance, Duke Energy is given 6 months to submit EPA Form 2C, the essential form that lays out the pollutants in these outfalls. Thus, it appears that DEQ does not understand these flows, which directly enter into Mayo Lake.

This information must be provided and evaluated by DEQ prior to these discharges being included in any permit. It is particularly inappropriate to give advance approval to discharges directly into Mayo Lake without the information that Duke Energy is required to provide in order to obtain a permit.

There can be no doubt that Duke Energy has had plenty of time to collect this information. The enforcement action as to Mayo has been pending three and a half years; the Dan River spill occurred three years ago; and the 2016 draft permit has been outstanding for six months (the additional time period allowed in this draft permit for Duke Energy to submit this data).

S. Additional Points.

Under the Clean Water Act, DEQ and Duke Energy cannot render a portion of a permit unenforceable by citizens by inserting the phrase "State Enforceable Only," as has been done on Attachment 2 of the draft permit. That phrase should be deleted.

Section A. (34.) is titled to address requirements for Internal Outfall 011, but the text refers to Internal Outfall 009. We believe the intent is to set out requirements for Internal Outfall 011.

Thank you for your consideration of these comments.

Sincerely,

Frank S. Holleman III
Senior Attorney

Nicholas S. Torrey
Staff Attorney