

IN THE UNITED STATES DISTRICT COURT  
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA

NO. 14-753

YADKIN RIVERKEEPER, INC., AND )  
WATERKEEPER ALLIANCE, INC., )  
 )  
Plaintiffs, )  
 )  
v. )  
 )  
DUKE ENERGY CAROLINAS, LLC )  
 )  
Defendant. )  
\_\_\_\_\_ )

**COMPLAINT**  
(JURY TRIAL DEMANDED)

Plaintiffs Yadkin Riverkeeper, Inc., and Waterkeeper Alliance, Inc. (collectively, “Conservation Groups”), make the following allegations upon knowledge, information, and belief:

**NATURE OF THE CASE**

1. This citizen enforcement action challenges ongoing, unlawful discharges of toxic metals and other pollutants by Defendant Duke Energy Carolinas, LLC (“Duke” or “Defendant”) at its Buck Steam Station coal-fired electricity generating plant (“Buck”), in violation of the Clean Water Act (“CWA” or “Act”), 33 U.S.C. §§ 1251–1376.

2. During the 87 years Duke operated coal-fired units at the Buck plant, it disposed of the plant’s coal combustion waste and other wastes on site. Presently, the Buck site includes three unlined coal ash lagoons that contain 1.5 billion gallons of coal

combustion and other wastes and cover approximately 170 acres adjacent to the Yadkin River and the community of Dukeville. The wastes dumped into these lagoons contain numerous toxic substances, including chromium, arsenic, lead, aluminum, boron, iron, sulfate, and manganese, which are harmful to human health and the environment.

3. The treatment and discharge of pollutants from the Buck plant into groundwater and surface waters are governed by Buck National Pollutant Discharge Elimination System (“NPDES”) Permit No. NC0004774 (“Permit”).

4. For many years, the coal ash lagoons at the Buck plant have been unlawfully releasing toxic contaminants into the groundwater beneath and around the plant, and discharging these pollutants through unpermitted seeps and pipes at Buck, in violation of the Permit and the Clean Water Act’s prohibition against unpermitted discharges. Duke also has allowed the very pollutants that the coal ash lagoons were supposed to treat and remove to enter the groundwater and nearby surface waters, including the Yadkin River, directly and through hydrologic connections in the groundwater, all in violation of the Permit and the Clean Water Act. Finally, there are numerous dam safety violations at Buck, which pose grave threats to people and the environment in the area and are also violations of the facility’s Permit and the Clean Water Act.

5. As long as the coal ash and other wastes remain in these leaking, unlined lagoons, they will continue to discharge pollutants into the groundwater and surface waters in violation of the Clean Water Act. These discharges will continue to place the

people who live, work, and recreate in close proximity to Buck at risk from groundwater contamination, surface water contamination, and potential catastrophic failure of the coal ash impoundments, such as occurred earlier this year at Duke's Dan River facility.

## **JURISDICTION, VENUE, NOTICE, AND OTHER ACTIONS**

### **Federal Question Jurisdiction**

6. The Conservation Groups bring this enforcement action under the citizens' suit provision of the Clean Water Act, 33 U.S.C. § 1365. This Court has federal question jurisdiction over this action pursuant to 28 U.S.C. § 1331, and has jurisdiction over the parties.

### **Venue**

7. Venue is proper in this Court pursuant to 28 U.S.C. § 1391(b) and 33 U.S.C. § 1365(c)(1). The challenged discharges from the Buck coal ash lagoons and the violations of the Permit are located and have occurred in the Middle District of North Carolina.

### **Notice and Lack of Government Enforcement of the Claims in this Complaint**

8. In compliance with 33 U.S.C. § 1365(b)(1)(A), and 40 C.F.R. § 135.2, on July 1, 2014, the Conservation Groups gave Duke, the Administrator of the U.S. Environmental Protection Agency ("EPA"), and the North Carolina Department of Environment and Natural Resources ("DENR") notice of the violations specified in this complaint and of their intent to file suit after sixty days should those violations continue.

A copy of the notice letter with documentation of its mailing and receipt is attached as Exhibit 1.

9. More than sixty days have passed since the notice was given pursuant to law and regulation, and the violations identified in the notice letter are continuing at this time and are reasonably likely to continue in the future. EPA and DENR have not commenced and are not diligently prosecuting a civil or criminal action to redress the violations asserted in this citizen enforcement action.

10. On or about August 16, 2013, DENR filed an action against Duke in the Superior Court for Mecklenburg County for certain violations of North Carolina law and certain violations of the Permit. *State of North Carolina v. Duke Energy Carolinas, LLC*, C.A. No. 13-cvs-9352 (“DENR’s Complaint”).

11. In this action, the Conservation Groups seek to enforce Permit requirements and Clean Water Act violations that DENR’s Complaint does not seek to enforce. 33 U.S.C. § 1365(b)(1)(B).

12. In its Complaint, DENR seeks to enforce certain state groundwater statutes and regulations and seeks to enforce the prohibition against unpermitted discharges in the form of the engineered seeps flowing from the Buck lagoons. In contrast, each of the claims included in the Conservation Groups’ enforcement action are based on separate and distinct violations of the Permit and the Clean Water Act.

13. DENR’s Complaint includes a claim for violation of groundwater standards beyond the plant’s compliance boundary. However, the Permit’s prohibition against the

entering of removed substances into the waters of North Carolina and navigable waters of the United States is a separate and different requirement.

14. The North Carolina groundwater statutes and regulations alleged in DENR's Complaint govern generally the contamination of groundwater in North Carolina. The Removed Substances provision of the Permit, on the other hand, is a standard, limitation, condition, and requirement of operating a wastewater treatment facility, such as the Buck lagoons which Duke is allowed to operate only in strict compliance with the terms of the Buck Permit. The Permit's Removed Substances provision requires that the operator of a wastewater treatment facility must ensure that the substances it removes during the treatment process (in this instance, settling) do not enter the waters of North Carolina or the navigable waters of the United States. Otherwise, the wastewater *treatment* facility is not a wastewater treatment facility at all, but instead is a wastewater *transmission* facility and a wastewater *pollution* facility, because it would simply move the removed substances from the wastewater into the waters of North Carolina or navigable waters of the United States and would thereby pollute those waters. That is exactly what Duke has done and is doing at its Buck wastewater coal ash lagoons.

15. Further, in its Complaint, DENR alleged that Duke has committed violations of law and its permit through its unpermitted discharges in the form of engineered seeps flowing from the lagoons. However, DENR does not allege that the transmission of pollutants from the Buck lagoons to the Yadkin River by way of the hydrologically connected groundwater is an unpermitted discharge in violation of Duke's

Permit. That is an additional standard and limitation with which the Conservation Groups seek to require compliance in this action.

16. Nor does DENR's Complaint include a claim for illegal discharges of pollutants into waters of the United States from non-engineered seeps and unpermitted outfalls, which are included in the Conservation Groups' citizen enforcement action.

17. Finally, DENR did not bring any claims related to the dam safety violations at Buck, which are also included in this citizen enforcement action.

## **THE PARTIES AND STANDING**

### **The Conservation Groups and Their Members**

18. The Conservation Groups are § 501(c)(3) non-profit public interest organizations with operations and members in North Carolina, including the Yadkin River watershed near the Buck plant.

19. The Yadkin Riverkeeper's mission is to respect, protect, and improve the Yadkin-Pee Dee River Basin through education, advocacy, and action. To carry out this mission, Yadkin Riverkeeper provides programs and activities for its over 500 members, including river clean-ups and initiatives to reduce stormwater runoff from construction sites. Yadkin Riverkeeper brings legal action, when necessary, to enforce state and federal environmental laws on issues that affect the Yadkin River Basin.

20. Waterkeeper Alliance, whose membership includes Yadkin Riverkeeper, is a global movement of on-the-water advocates who patrol and protect over 100,000 miles of rivers, streams, and coastlines in the United States and throughout the world, including

the Yadkin River. Waterkeeper Alliance brings legal action, when necessary, to assist and support its member organizations' efforts to enforce state and federal environmental laws to protect rivers, streams, and coastlines.

21. The Conservation Groups and their members have been harmed by Duke's unpermitted discharges and unlawful activities. Members of each of the Conservation Groups live, work, and recreate near the Buck plant in areas that are adversely affected by the unlawful release of contaminants from the Buck coal ash lagoons. They recreate and fish on the Yadkin River, High Rock Lake, and its tributaries in the vicinity of and downstream from the Buck coal ash lagoons. Members of the Conservation Groups living near the Buck coal ash lagoons draw water for drinking, bathing, and other household uses from wells located on their property. They fear contamination of their well water, fish, wildlife, and river water by discharges from Duke's coal ash lagoons that contain numerous toxic pollutants. Duke's discharges of contaminants from the Buck ash lagoons are reducing the use and enjoyment of the area by the Conservation Groups and their members. Copies of standing affidavits by members, staff, and board members of the Conservation Groups are attached as Exhibits 2–6.

22. These injuries will not be redressed except by an order from this Court assessing civil penalties against Duke and requiring Duke to take immediate and substantial action to stop the flow of pollutants into the groundwater and surface waters, to empty the impoundments of all coal combustion byproducts, to move its storage of coal ash from unlined impoundments and away from banks of Yadkin River, to remediate

the groundwater contamination at Buck, and to comply with the other relief sought in this action.

### **Defendant**

23. Defendant Duke Energy Carolinas, LLC (“Duke”) is a North Carolina limited liability company engaged in the generation, transmission, distribution, and sale of electricity. Its headquarters are located at 526 South Church Street, Charlotte, North Carolina 28202. Duke owns and operates the Buck plant, where the violations that gave rise to this action occurred.

24. Defendant is a “person” within the meaning of section 502(5) of the Act, 33 U.S.C. § 1362(5).

### **LEGAL BACKGROUND**

25. The Clean Water Act seeks to “restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.” 33 U.S.C. § 1251(a). To accomplish that objective, Congress set the national goal that “the discharge of pollutants into the navigable waters be eliminated.” *Id.* Accordingly, the Act, 33 U.S.C. § 1311(a), prohibits the discharge of pollutants from a point source to waters of the United States except in compliance with, among other conditions, an NPDES permit issued pursuant to 33 U.S.C. § 1342.

26. Each violation of an NPDES permit—and each discharge of a pollutant that is not authorized by the permit—is a violation of the Clean Water Act. 33 U.S.C. §§ 1311(a); 1342(a); 1365(f).

27. The Clean Water Act defines a “point source” as “*any* discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, [or] container . . . from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14) (emphasis added). Under this broad definition, the discharge of pollutants from mining pits, slurry ponds, sediment basins, and mining leachate collection systems have been held to be point sources. “The term ‘point source’ has been taken beyond pipes and ditches and now includes less discrete conveyances, such as cesspools and ponds.” *N. Cal. River Watch v. City of Healdsburg*, 2004 U.S. Dist. LEXIS 1008 (N.D. Cal. Jan. 23, 2004) (citing *Cnty. Ass’n for Restoration v. Bosma Dairy*, 305 F.3d 943, 955 (9th Cir. 2002); *Wash. Wilderness Coal. v. Hecla Mining Co.*, 870 F. Supp. 983, 988 (E.D. Wash. 1994)), *aff’d*, 496 F.3d 993 (9th Cir. 2007). *Accord U.S. v. Earth Sciences, Inc.*, 599 F.2d 368, 374 (10th Cir. 1979) (“[W]hether from a fissure in the dirt berm or overflow of a wall, the escape of liquid from the confined system is from a point source.”); *Consolidation Coal Co. v. Costle*, 604 F.2d 239, 249-50 (4th Cir. 1979) (finding that “discharges from coal preparation plant associated areas,” which included slurry ponds, drainage ponds, and coal refuse piles, were within Clean Water Act definition of point source), *rev’d on other grounds*, 449 U.S. 64 (1980).

28. In addition, a “point source need not be the original source of the pollutant; it need only convey the pollutant to ‘navigable waters.’” *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95, 105 (2004); accord *W. Va. Highlands Conservancy, Inc. v. Huffman*, 625 F.3d 159, 168 (4th Cir. 2010) (permits are required for discharges from point sources that “merely convey pollutants to navigable waters”). Thus, ditches and channels that convey pollutants but are themselves not the original source constitute point sources. This includes unintentional conveyance of pollutants, for example, through natural-formed ditches, gullies, or fissures. See *Sierra Club v. Abston Constr. Co.*, 620 F.2d 41, 45 (5th Cir. 1980) (discharge from mining pits and spoil piles through naturally formed ditches caused by gravity flow at a coal mining site are point sources); *Earth Sciences*, 599 F.2d 368 (unintentional discharges of pollutants from a mine system designed to catch runoff from gold leaching are point sources); *N.C. Shellfish Growers Ass’n v. Holly Ridge Assocs., LLC*, 278 F. Supp. 2d 654, 679 (E.D.N.C. 2003) (“Notwithstanding that it may result from such natural phenomena as rainfall and gravity, the surface run-off of contaminated waters, once channeled or collected, constitutes discharge by a point source.”).

## **FACTUAL BACKGROUND**

### **The Buck Plant**

29. Duke owns and operates the Buck plant, which is located on the banks of the Yadkin River in Rowan County, North Carolina.

30. Duke operated coal-fired electric generating units at the Buck site for 87 years. Duke began commercial operation of coal-fired electric generating units at the Buck plant in 1926. It was Duke Energy's first large capacity coal generating plant built in the Carolinas. Between 1926 and 2013, Duke operated four separate coal-fired units at the Buck site. Duke closed the last coal unit at Buck in 2013, but continues to operate a natural gas-fired electric plant at the site.

31. Over the years, burning coal to generate electricity at the Buck plant produced enormous amounts of coal combustion wastes and other wastes that Duke disposed of onsite in unlined coal ash lagoons.

32. The Buck site includes three coal ash lagoons, known as the Primary Cell, the Old Primary Cell, and the Secondary Cell. Collectively, these lagoons cover approximately 170 acres and contain 1.5 billion gallons of coal ash and contaminated wastewater. The lagoons are unlined, and the ash is stored in a wet condition. There is at least one natural blue-line stream that runs directly through the Primary Cell, the largest of the coal ash lagoons at Buck. The dams impounding these lagoons tower 50 to 80 feet above the Yadkin River.

33. EPA has assigned a hazard-potential rating of "Significant" to each of the three dams that form the Buck coal ash lagoons because structural failure of one or more of the dams would likely cause significant economic loss, environmental damage, and damage to infrastructure. DENR has assigned a hazard-potential rating of "High" to each dam at Buck because significant environmental damage could occur if the dams fail.

Duke and DENR have identified multiple structural failings in the dams surrounding the Buck coal ash basins, including pipes and other structures that are broken, cracked, leaking, or “approaching the end of [their] safe performance life.” DENR has designated these problems as “serious.”

### **Duke’s Wastewater Permit**

34. Duke is authorized to discharge wastewater from Buck solely according to the terms of National Pollutant Discharge Elimination System (“NPDES”) Permit No. NC0004774 (“Permit”), effective January 1, 2012, and does not have a permit authorizing any stormwater discharges.

35. The Buck Permit authorizes the following discharges only: once-through non-contact cooling water through Outfall 001, treated wastewater from the ash basin through Outfall 002, and yard sump overflows through Outfall 002A.

36. However, there are additional, unpermitted discharges to North Carolina state waters and waters of the United States beyond these permitted outfalls, flowing from the coal ash lagoons into the groundwater, the Yadkin River, and High Rock Lake.

### **Illegal Discharges**

37. For years, Duke has been polluting the waters of the United States and North Carolina by unlawfully discharging large quantities of aluminum, arsenic, boron, chromium, iron, lead, manganese, sulfate, and other pollutants from the coal ash lagoons at Buck.

38. These pollutants cause numerous health problems, which are exacerbated by the combined and synergistic effects that occur when individuals are exposed to multiple different pollutants. Hexavalent chromium causes cancers of the stomach and mouth, and skin contact may cause dermatitis and ulcerations. Lead is a potent neurotoxicant that is highly damaging to the nervous system, as well as a probable human carcinogen. People exposed to high aluminum levels may develop Alzheimer's disease. Manganese is known to be toxic to the nervous system, and very high levels may impair brain development in children. Boron leads to testicular degeneration, reduced sperm count, reduced birth weight, and birth defects. Iron can render water unusable by imparting a rusty color and a metallic taste and by causing sedimentation and staining.

39. Many people, including families with young children, live in homes that are located adjacent to the coal ash lagoons, some less than 300 feet from a leaking coal ash lagoon. All households in the area surrounding the Buck coal ash lagoons obtain drinking water from wells that withdraw water from the groundwater beneath them. Samples taken from these residential wells have revealed the presence of several contaminants common to coal ash, including lead and hexavalent chromium.

40. The coal ash lagoons also discharge into a reservoir of the Yadkin River known as High Rock Lake. High Rock Lake serves as a popular recreational area for fishing, boating, and swimming. Downstream of Duke's toxic wastewater discharges, the towns of Denton and Albemarle withdraw drinking water from the Yadkin River.

41. The coal ash lagoons pose additional threats to fish, wildlife, and to the people who fish and hunt wildlife that is exposed to pollutants in the coal ash lagoons. Video inspections by DENR show fish swimming in the pipes that connect the coal ash lagoons to each other and to the Yadkin River. The coal ash lagoons are partially bordered by Alcoa game lands, and DENR has identified at least one animal trail extending from the ash lagoons. Duke also invites other wildlife to live and feed in and around its coal ash lagoons, including osprey, which nest atop platforms that extend out of the coal ash lagoons themselves.

42. The ash lagoons are discharging unpermitted streams of contaminated water into surface waters of North Carolina and the United States, in violation of the Clean Water Act. Duke has constructed a series of riprap-lined ditches, referred to as French drains, which channel these streams of contaminated water—also known as “seeps”—and convey them to tributaries of the Yadkin River and High Rock Lake. In addition to these engineered seeps, the ash lagoons are discharging through unpermitted, non-engineered seeps that emerge from the base of the southeastern berm of the Secondary lagoon into an unnamed tributary of the Yadkin River, and from the west side of the Primary lagoon into an inlet that then flows into the Yadkin River. The lagoons are also discharging directly into the Yadkin River through an unpermitted pipe located north of the Old Primary and Secondary lagoons.

43. All of these flows are unpermitted point source discharges that contain pollutants from the coal ash lagoons and flow unpermitted into the Yadkin River or its

tributaries. None of these continuing discharges is authorized by the Buck Permit or by any other permit.

44. Testing conducted by a certified, independent laboratory reveals that Duke's unauthorized discharges from these unpermitted point sources contain pollutants such as aluminum, barium, boron, chromium, iron, lead, manganese, and zinc, in violation of the Clean Water Act. Moreover, although an exceedance of a water quality standard is not necessary to show a violation of CWA § 301(a), 33 U.S.C. § 1311(a), the testing also revealed these pollutants were detected at levels high enough to exceed federal and state standards. As shown in Table 1, boron was detected at 150% of the standard; chromium at 970%; iron at 108,666%; lead at 626%; and manganese at 56,200%.

<b>Table 1: Pollutants Found in Unpermitted Seeps</b>			
<b>Pollutant</b>	<b>Standard</b>	<b>Violations at Unpermitted Seeps and Pipe</b>	<b>Highest Documented Exceedance (Percent of Standard)</b>
Boron	700 µg/L	1,050 µg/L	150%
Chromium	10 µg/L	97 µg/L	970%
Iron	300 µg/L	543 to 326,000 µg/L	108,666%
Lead	15 µg/L	94 µg/L	626%
Manganese	50 µg/L	28,100 µg/L	56,200%

45. In addition, pollutants from the unlined Buck lagoons have entered and are entering the groundwater at the Buck site, including the groundwater used by local residents for their drinking water supply and other household uses.

46. For many years, pollutants from coal ash have been found in groundwater under, at, and around the Buck plant. Data from drinking water wells to the south and southeast of the coal ash lagoons and from monitoring wells at Buck show elevated levels of pollution in the groundwater surrounding the unlined lagoons, including levels that are frequently in excess of North Carolina groundwater standards. As shown in Table 2, aluminum was detected at 1800% of the standard; boron at 187%; chromium at 240%; iron at 15,033%; lead at 387%; manganese at 2260%; sulfate at 140%, and total dissolved solids at 126%. Although exceedances of groundwater standards are not necessary to show a violation of the removed substances provision in the Buck Permit, these elevated levels indicate that pollutants from Duke's wastewater treatment system are entering the groundwater, in violation of the Buck Permit and, in turn, the Clean Water Act.

<b>Table 2: Pollutants Found In Prohibited Discharges</b>			
<b>Pollutant</b>	<b>Standard</b>	<b>Violations at Wells Surrounding Buck</b>	<b>Highest Documented Exceedance (Percent of Standard)</b>
Aluminum	50-200 µg/L	75 to 900 µg/L	1800%
Boron	700 µg/L	1,130 to 1,309 µg/L	187%
Chromium	10 µg/L	24 µg/L	240%
Iron	300 µg/L	318 to 45,100 µg/L	15,033%
Lead	15 µg/L	19 to 58 µg/L	387%
Manganese	50 µg/L	56 to 1,130 µg/L	2260%
Sulfate	250 mg/L	320 to 350 mg/L	140%
Total Dissolved Solids	500 mg/L	561 to 630 mg/L	126%

47. The entering of these substances into the groundwater constitutes a separate violation of the Clean Water Act that is not addressed in DENR's enforcement action because it violates a provision of the Buck Permit prohibiting removed substances and pollutants from entering waters of the State, which is defined to include groundwater.

48. Moreover, the contaminated groundwater at the site flows directly into the Yadkin River. These hydrologically connected discharges from the ash lagoons and old ash storage area to surface waters of North Carolina and the United States constitute additional unpermitted point source discharges that violate the Clean Water Act, and which are not included in DENR's enforcement action. Also, they further violate the Removed Substances provision of the Permit, which prohibits contaminants from the ash lagoons entering into the navigable waters of the United States.

49. There are also numerous failings at the dams surrounding the Buck coal ash lagoons, in violation of the dam safety requirements included in the Buck Permit and, in turn, the Clean Water Act.

50. Although Duke retired the last Buck coal-fired units in 2013, it has not submitted a closure plan for the ash lagoons to DENR. This is another violation of the Buck Permit, which requires the ash pond closure plan to be submitted one year prior to plant closure.

51. Duke has known of the seeps and groundwater discharges from coal ash lagoons at Buck for years. Despite its knowledge that these unauthorized discharges were continuing, Duke continued to deposit coal ash into the leaking, unlined

impoundments, making the problem worse and pumping additional contaminants into the groundwater, the Yadkin River, and High Rock Lake.

52. The unlined ash lagoons continue to leach pollutants into the groundwater and discharge them into the Yadkin River and High Rock Lake to this day, even though new ash is no longer being added to the lagoons, and will continue to do so until the coal ash is removed from the lagoons.

### **CLAIMS FOR RELIEF**

53. The allegations of the preceding paragraphs are incorporated by reference in each of the following claims for relief as if repeated and set forth in full.

#### **I. Duke Is Discharging from Unauthorized Point Sources to Waters of the United States.**

54. As explained above, any point source discharge that is not authorized by a NPDES permit is a violation of the Clean Water Act. 33 U.S.C. § 1311(a).

55. All of the unpermitted point source discharges described above, including the engineered seeps, the non-engineered seeps, and the unpermitted pipe discharges, are continuous and ongoing violations of the Clean Water Act.

56. Because DENR's Complaint does not include claims for the non-engineered seeps or the unpermitted pipe discharges, the Conservation Groups are enforcing these violations of the Clean Water Act in this complaint.

**II. Duke Is Causing Removed Substances to Enter State Waters and Navigable Waters of the United States, in Violation of a Direct Prohibition in Its Permit.**

57. The Buck Permit, Part II.B.1, states that “[t]he Permittee must comply with all conditions of this permit. *Any permit noncompliance constitutes a violation of the CWA . . . and is grounds for enforcement action . . .*” Permit No. NC0004774 (emphasis added). 33 U.S.C. §§ 1365 (f)(6),1342(a); 40 C.F.R. § 122.41(a) (“Any permit noncompliance constitutes a violation of the Clean Water Act and is grounds for enforcement action.”).

58. Part II.C.6 of the Buck Permit requires that “[s]olids, 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.*” Permit No. NC0004774 (emphasis added).

59. The ash lagoons receive and treat various waste streams, including coal ash transport water, coal pile runoff, chemical metal cleaning wastes, and stormwater. These waste streams are treated by sedimentation in the ash lagoons. The ash settling lagoons are “an integral part of the station’s wastewater treatment system,” according to a Groundwater Assessment Work Plan prepared for Duke. Pollutants that have been removed in the course of treatment are stored in the Buck ash ponds.

60. The Removed Substances Provision in Part II.C.6 of the Buck Permit prohibits Duke from allowing coal ash contaminants removed in the course of treatment (*i.e.*, settling) as well as coal pile runoff, stormwater, and other wastewaters (all of which discharge to the ash lagoons at Buck) to enter the waters of North Carolina or navigable waters of the United States. Groundwater is included in the North Carolina pollution control statute's definition of waters of the state. N.C. Gen. Stat. § 143-212(6). So are the Yadkin River and High Rock Lake. The Yadkin River and High Rock Lake are also navigable waters of the United States.

61. Pollutants, solids, materials, substances, and sludges from the Buck coal ash lagoons have for years been entering North Carolina state waters and navigable waters of the United States. For years, pollutants from coal ash—including aluminum, boron, chromium, iron, lead, manganese, sulfate, and total dissolved solids—have been found in ground water under, at, and around Buck.

62. These pollutants, solids, materials, substances, and sludges have for years also been entering State waters and navigable waters of the United States from seeps and streams flowing from the Buck coal ash lagoons.

63. The settling lagoons are a wastewater treatment system; their purpose is to treat and remove solids, sludges, substances, materials, and pollutants. They are prohibited from allowing such solids, sludges, substances, materials, and pollutants to enter waters of the State and navigable waters of the United States.

64. Instead, in violation of an express provision of its Permit, Duke has been and is allowing the unpermitted and uncontrolled entrance of solids, sludges, and pollutants into the waters of the State and navigable waters of the United States. Duke's actions thus violate this provision of the Permit.

65. Accordingly, Duke has violated its Permit, and thus the Clean Water Act, by allowing and causing the entering of removed substances, including solids, sludges, substances, materials, and pollutants to State waters and navigable waters of the United States, including the groundwater of North Carolina, the Yadkin River, High Rock Lake, and their tributaries.

66. This prohibition against the entering of removed substances and pollutants to State waters, including groundwaters of the State, is enforceable through a citizen suit under the Clean Water Act. *See* 33 U.S.C. § 1370 (allowing states to adopt and enforce more stringent limitations in CWA permits than the federal government); 33 U.S.C. § 1311(b)(1)(B) (stating that more stringent state limitations in furtherance of the objective of the CWA include “those necessary to meet water quality standards”); *Nw. Envtl. Advocates v. City of Portland*, 56 F.3d 979, 986 (9th Cir. 1995) (“The plain language of CWA § 505 authorizes citizens to enforce all permit conditions”); *Culbertson v. Coats Am.*, 913 F. Supp. 1572, 1581 (N.D. Ga. 1995) (holding that “[t]he CWA authorizes citizen suits for the enforcement of all conditions of NPDES permits”).

### **III. Duke Is Releasing Unauthorized Discharges Through Close Hydrologic Flow into the Yadkin River and High Rock Lake.**

67. In addition to contaminating residential drinking water wells, groundwater laden with pollutants from the Buck coal ash lagoons also enters the Yadkin River, High Rock Lake, and their tributaries. Groundwater monitoring wells located alongside the river show elevated levels of boron, sulfate, iron, manganese, and total dissolved solids from the Buck ash lagoons. In addition, groundwater from the Secondary lagoon emanates as a seep on residential property at the southeast corner of the lagoons, and flows into an unnamed tributary of the Yadkin River. These unpermitted discharges of pollutants via hydrologically connected groundwater to navigable surface waters constitute additional violations of the Clean Water Act.

68. Unpermitted discharges of pollutants via hydrologically connected groundwater to surface waters of the United States violate the Clean Water Act. EPA has explained repeatedly that the Clean Water Act applies to such discharges. 66 Fed. Reg. 2960, 3015 (Jan. 12, 2001) (“EPA is restating that the Agency interprets the Clean Water Act to apply to discharges of pollutants from a point source via ground water that has a direct hydrologic connection to surface water.”); 56 Fed. Reg. 64,876, 64,892 (Dec. 12, 1991) (“the Act requires NPDES permits for discharges to groundwater where there is a direct hydrological connection between groundwaters and surface waters.”); 55 Fed. Reg. 47,990, 47,997 (Nov. 16, 1990) (announcing stormwater runoff rules and explaining that

discharges to groundwater are covered by the rule where there is a hydrologic connection between the groundwater and a nearby surface water body).

69. The Clean Water Act prohibits “any addition of any pollutant to navigable waters from any point source.” 33 U.S.C. § 1362(12)(A). “[T]he touchstone for finding a point source is the ability to identify a discrete facility from which pollutants have escaped.” *Wash. Wilderness Coal. v. Hecla Mining Co.*, 870 F. Supp. 983, 987 (E.D. Wash. 1994).

70. Because there is a direct hydrologic connection between the ash lagoons and the Yadkin River, Duke’s discharges from the lagoons via the groundwater to the river are point sources that violate the Clean Water Act.

#### **IV. Duke Is Violating the Dam Safety Requirements in the Buck Permit.**

71. As explained above, failure to comply with any NPDES permit condition is a violation of the Clean Water Act. 40 C.F.R. § 122.41(a); 33 U.S.C. §§ 1365(f)(6), 1342(a).

72. The Buck Permit requires that “[t]he facility shall meet the dam design and dam safety requirements per 15A NCAC 2K.” Buck Permit Part I.A.19. Yet the dams at Buck fail to meet the following dam safety requirements under 15A N.C. Admin. Code 02K, in violation of the Permit and CWA.

73. Under the dam safety requirements, Duke must provide protection “to prohibit unsafe seepage along conduits through the dam, abutments, and foundation.” 15A N.C. Admin. Code 2K .0206(c). As set out above, there is unsafe seepage at

numerous locations throughout the dam structures at Buck, in violation of this provision and, in turn, the Clean Water Act.

74. In addition, “[p]ipe conduits shall be designed to support the total external loads in addition to the total internal hydraulic pressure without leakage,” 15A N.C. Admin. Code 02K .0206(f)(1), and “[a]ll conduits are to be designed and constructed to remain watertight under maximum anticipated hydraulic pressure and maximum probable joint opening, including the effects of joint rotation and extensibility.” 15A N.C. Admin. Code 02K .0206(f)(2)(A). In violation of this prohibition against leaking pipe conduits, DENR’s inspections of the spillways for the dams at Buck have revealed cracks, infiltration stains, and a broken pipe section at the Basin 1 (the Primary lagoon) to Basin 2 (the Old Primary lagoon) Dam, as well as numerous leaks, infiltration drippers, and weeping locations at the Main Dam.

75. Furthermore, “[a]ll dams shall be designed and constructed to prevent the development of instability due to excessive seepage forces, uplift forces, or loss of materials in the embankment, abutments, spillway areas, or foundation.” 15A N.C. Admin. Code 02K .0207(a). As explained above, the dams at Buck are seeping at multiple locations, which cause instability in the Buck dams, in violation of this provision. In addition, the portion of the dike extending from the northeast corner of the Secondary lagoon has been neglected and is significantly overgrown with trees, the root systems which also destabilize the integrity of the dike. Other areas have poor vegetation cover, causing excessive erosion.

76. Under section 02K .0212, “[a]ll elements of the dam and reservoir shall conform to good engineering practice.” The defects and problems at the Buck dams, which violate each of the provisions set out above, do not conform to good engineering practice.

77. All the violations of the Clean Water Act alleged above are continuing violations.

### **PRAYER FOR RELIEF**

WHEREFORE, the Conservation Groups respectfully request that this Court:

A. Issue a Declaratory judgment stating that Duke is violating the Clean Water Act with its ongoing unpermitted discharges of arsenic, boron, chromium, lead, manganese and other contaminants, and by allowing and causing the entering of such removed substances into the Yadkin River, High Rock Lake, and the groundwater at Buck in violation of Duke’s Permit and the Clean Water Act;

B. Enter appropriate preliminary and permanent injunctive relief to ensure that Duke:

- i. Prevents the coal ash impoundments from allowing or causing the entering of removed substances, including solids, sludges, materials, substances, and pollutants, into groundwater, the Yadkin River, and High Rock Lake;
- ii. Prevents the flow of contaminated groundwater into the Yadkin River;

- iii. Removes all existing coal combustion byproducts from all of the Buck coal ash lagoons within a reasonable amount of time and stores them in an appropriately lined industrial solid waste landfill facility away from the Yadkin River, with appropriate monitoring;
- iv. Remediates the groundwater beneath the Buck site resulting from its unpermitted discharges;
- v. Removes from the Yadkin River and High Rock Lake the pollutants it has illegally allowed to enter and discharged into these water bodies;
- vi. Provides residents with a safe, uncontaminated drinking water supply until such time as remediation of the groundwater is completed.

C. Assess civil penalties against Duke of up to \$37,500 per violation per day pursuant to 33 U.S.C. §§ 1319(d), 1365(a), and 74 Fed. Reg. 626, 627 (Jan. 7, 2009);

D. Award the Conservation Groups the costs of this action, including reasonable attorney and expert fees, as authorized by 33 U.S.C. § 1365(d); and

E. Grant the Conservation Groups such further and additional relief as the Court deems just and proper.

THE CONSERVATION GROUPS HEREBY DEMAND A TRIAL BY JURY.

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This the 3rd day of September, 2014.

/s/ John Suttles

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