SOUTHERN ENVIRONMENTAL LAW CENTER

Ten 10th Street NW, Suite 1050
Atlanta, GA 30309

Telephone 404-521-9900
Facsimile 404-521-9909

September 15, 2023

Via Certified Mail; Return Receipt Requested

Hon. James F. Palmer
Mayor
PO Box 248
Calhoun, GA 30703

Kyle Ellis
Water & Sewer Director
City of Calhoun
700 West Line Street
Calhoun, GA 30703

Mr. Michael S. Regan, Administrator
Environmental Protection Agency
Office of the Administrator
Mail Code 1101A
1200 Pennsylvania Avenue, NW
Washington, DC 20460

Ms. Jeaneanne Gettle
Acting Regional Administrator
US EPA, Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-3104

Ms. Anna Truszcynski, Chief
Watershed Protection Branch
Georgia Department of Natural Resources
Environmental Protection Division
2 Martin Luther King Jr. Drive
Suite 1470-A East
Atlanta, GA 30334

Mr. Chuck Mueller, Chief
Land Protection Branch
Georgia Department of Natural Resources
Environmental Protection Division
2 Martin Luther King Jr. Drive, SE
Suite 1054, East Floyd Tower
Atlanta, GA 30334-9000

Re: Notice of intent to sue the City of Calhoun over PFAS discharges and contamination in violation of the Clean Water Act and the Resource Conservation and Recovery Act

Ladies and Gentlemen:

On behalf of Coosa River Basin Initiative ("CRBI"), this letter serves as notice of its intent to commence a legal action in United States District Court against the City of Calhoun, Georgia ("Calhoun"), owner and operator of the Calhoun Water Pollution Control Plant ("WPCP"), located in Calhoun, Georgia, for ongoing violations of the Clean Water Act and the Resource Conservation and Recovery Act.

Unless these violations are fully redressed, CRBI will file a lawsuit under the citizen suit provisions of the Clean Water Act, 33 U.S.C. § 1365 and 40 C.F.R. §§ 135.1 to 135.5, and the Resource Conservation and Recovery Act (or "RCRA"), 42 U.S.C. § 6972(b)(2)(A) and 40 C.F.R. § 254, after the applicable notice periods have expired. CRBI will seek injunctive relief, appropriate monetary penalties, fees and costs of litigation, and such other relief as the court deems appropriate to cease and correct the ongoing violations described below.

I. Summary of Violations

Calhoun has a problem with per- and polyfluroalkyl substances ("PFAS") contamination that must be remedied. PFOA[1] and PFOS [2] have been detected in Calhoun's public drinking water supply, in surface waters, groundwater supply wells, and at Big Spring, a freshwater spring located in Calhoun. 2022 and 2023 data confirm that these pollutants, along with many other PFAS, are discharging to the Coosawattee River in massive concentrations. As detailed further below, contaminated sludge/biosolids from Calhoun's WPCP is causing this PFAS contamination.

Situated where the Conasauga River Basin, Coosawattee River Basin and the Oostanaula River Basin meet as part of the Upper Coosa River Basin, Calhoun lies within one of North America's most biologically diverse river systems, home to the greatest number of endemic fish species on earth for a temperate climate. In addition to serving as an important aquatic habitat, the rivers adjacent to Calhoun, which include the Coosawattee and Oostanaula Rivers, are the drinking water source for numerous Georgia and Alabama communities, stretching from Calhoun itself to neighboring Rome, Georgia, and continuing to Centre, Alabama and Gadsden, Alabama.

Much of Calhoun's soil and water is contaminated with PFAS because the Calhoun WPCP receives wastewater from numerous Industrial Users that use and discharge PFAS in industrial process wastewater. The WPCP is incapable of destroying or removing PFAS, and Calhoun has done nothing to stop these Industrial Users from polluting Calhoun's public sewer system with these dangerous pollutants. Rather than require its Industrial Users to remove these pollutants prior to discharging them to the Calhoun WPCP, PFAS accumulates in sludge generated by the WPCP and Calhoun land applies that sludge next to the Coosawattee River and on properties throughout the region, contaminating the surrounding watershed, soil, and groundwater with PFAS.

A. Calhoun's Violations of the Clean Water Act

The City of Calhoun is in violation of the Clean Water Act, 33 U.S.C. § 1311(a), because it is discharging high concentrations of PFAS from at least three discrete channels, ditches or conveyances of surface water to the Coosawattee River from Calhoun's land application of biosolids on certain real property, collectedly described in further detail below as Sludge Field 11 without a NPDES permit. Calhoun also discharges PFAS from Sludge Field 11 via groundwater to the Coosawattee River without a NPDES permit. These illegal and unpermitted violations are ongoing.

Calhoun is likewise in continuing violation of requirements imposed by its NPDES permit and federal law, including Part I.A.5, Part II.A.10, Part II.A.11, Part III.A, Part III.A.2.b, Part III.A.2.c.1, and Part III.A.2.c.3; 33 U.S.C. §§ 1317(b), (d); 40 C.F.R. §§ 403.5(a)(1), (c)(1)-(c)(2), and 40 C.F.R. § 403.8(f)(1). Calhoun's violations will continue until it complies with the

[1] Perfluorooctanoic acid

[2] Perfluorooctane sulfonate

requirements imposed by the national pretreatment program and Georgia's pretreatment standards incorporated into its NPDES Permit, as well as the requirements set forth in the Permit. As detailed further below, these requirements prohibit Calhoun from turning a blind eye to massive concentrations of toxic industrial chemicals entering the public sewer system, accumulating in sludge, and thereby causing Calhoun to violate its NPDES permit in several respects, including fundamentally interfering with its sludge generation, treatment, handling, transport, and disposal operations. But rather than comply with these requirements, thereby enabling Calhoun to safely dispose of sludge in the region as a fertilizer as intended by the Permit and its Sludge Management Plan incorporated therein, Calhoun's longstanding and continuing failures to properly enforce the pretreatment program obligations imposed on it have caused massive PFAS sludge contamination, which is the direct cause of soil, groundwater and surface water contamination by PFAS.

Calhoun's violations of the pretreatment program requirements and those imposed by its NPDES Permit are continuing, and Calhoun's mishandling of its sludge operations and failures to police ongoing abuses of the pretreatment program by its Industrial Users must cease immediately.

B. Calhoun's RCRA Violations

Calhoun is in violation of 42 U.S.C. § 6972(a)(1)(B) of the Resource Conservation and Recovery Act ("RCRA"), because it is causing and contributing to sludge waste handling, storage, treatment, transportation and land disposal from the Calhoun WPCP to Sludge Field 11 and on sludge fields further identified below in a manner that may present an imminent and substantial endangerment to health or the environment arising from PFAS.

C. Civil enforcement demand

Calhoun must immediately take steps to cease its violations, including, but not limited to:

- Ceasing and preventing the unpermitted discharge of PFAS from the Sludge Field 11, from which Calhoun is discharging PFAS to the Coosawattee River, by:
    i. Ceasing and preventing the discharge of PFAS from Conveyance 1, 2, and 3 to the Coosawattee River; [3]
    ii. Ceasing and preventing the discharge of PFAS from Sludge Field 11 to the Coosawattee River through groundwater;
    iii. Installing treatment technology at the WPCP that effectively removes and/or destroys PFAS before it contaminates sludge generated by the WPCP; and
    iv. Monitoring its biosolids and wastewater discharges to verify and report that PFAS are no longer discharging to surface waters and contaminating sludge generated by the WPCP.

[3] Conveyance 1, 2, and 3 are defined below, pp. 15-16, which entail direct unpermitted surface water discharges of PFAS from Sludge Field 11 to the Coosawattee River.

- Properly administering and enforcing its pretreatment program to require its Industrial Users to disclose all PFAS such users are discharging to the WPCP, prevent and enforce prohibited discharges, revising local limits to ensure that the local limits prevent sludge contamination with PFAS, and imposing appropriate pretreatment controls on its Industrial Users to eliminate PFAS from entering the WPCP.
- Ceasing the handling, storage, treatment, transportation or disposal of PFAS-contaminated sludge on biosolids land application sites, including but not limited to Sludge Field 11, in the Coosawattee and Oostanaula River Basins in a manner which may present an imminent and substantial endangerment to health or the environment.
- Ceasing PFAS contamination of the Mauldin Road Water Treatment Plant, whose main surface water intake is on the Coosawattee River downstream of Calhoun's PFAS contamination and remediating the source of that contamination, Sludge Field 11.
- Ceasing PFAS contamination of Big Spring and groundwater wells serving the Brittany Drive water treatment plant from Calhoun's past and present solid waste handling, treatment, storage, and disposal operations.
- Fully investigating, ceasing and remediating any PFAS contamination of residential wells in Gordon County Georgia from Calhoun's past and present solid waste handling, treatment, storage, and disposal operations.

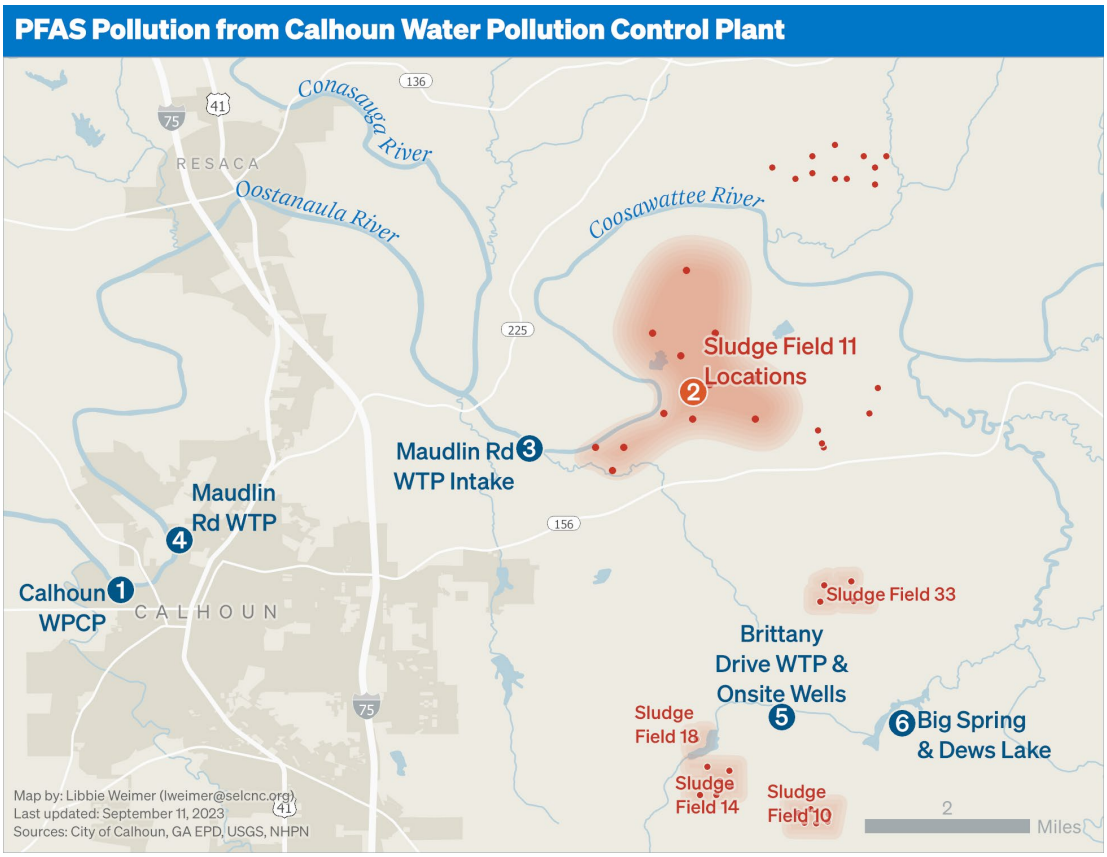
II. Background

A. Calhoun, the Coosawattee River and Oostanaula River watersheds

The Calhoun WPCP is situated next to the Oostanaula River, where it discharges up to sixteen million gallons per day of treated wastewater to the Oostanaula via Outfall 001. (Figure 1, Location 1):

[next page]

Figure 1



Calhoun, Georgia is the second largest center for carpet production in the United States after Dalton Georgia.[4] In addition to treating domestic sewage, Calhoun's WPCP receives wastewater from at least nine Significant Industrial Users[5] whose industrial processes involve carpets and rug production, coating, and/or finishing. PFAS are widely used in the carpet, rug, and textile manufacturing industry to repel water, oil, and stains.[6] Additionally, many of the

[4] Atlantic Coast Consultants, Inc., January 2007 "Solid Waste Management Plan Update, Gordon County and Cities of Calhoun, Fairmount, Resaca, Plainville, and Ranger" at p. 2 (hereinafter, the "2007 Gordon County Solid Waste Plan").

[5] 40 CFR § 403.3(v) defines a Significant Industrial User, and all of the industrial users that discharge wastewater to the Calhoun WPCP identified or described herein meet this definition.

[6] Interstate Tech. Reg. Council ("ITRC"), Biosolids and Per- and Polyfluoroalkyl Substances (PFAS), at 1, https://pfas-1.itrcweb.org/wp content/uploads/2022/10/Biosolids_PFAS_Fact_Sheet_102022_508.pdf; *see also* Cal. Dep't of Toxic Substances Control, Product-Chemical Profile for Carpets and Rugs Containing Perfluoroalkyl or Polyfluoroalkyl Substances (2019), at 7, 27, 52, https://dtsc.ca.gov/wp-content/uploads/sites/31/2020/02/Final_Product-Chemical_Profile_Carpets_Rugs_PFASs_a.pdf. Calhoun has historically received and treated wastewater from many more Industrial Users in these same industries, which likewise are recognized users, handlers and dischargers of PFAS.

industrial processes performed by Calhoun's Significant Industrial Users incorporate dyes or dye products in their operations, which also commonly contain PFAS. PFAS are also used in industrial operations involving surfactants, resins, flame retardant materials and plastics. These operations are also employed in the carpet production and finishing industries.

i. City of Calhoun and Gordon County PFAS Contamination

Calhoun has two Water Treatment Facilities that provide drinking water to the region.[7] The Mauldin Road Water Treatment Plant (WTP) has a capacity of 18 million gallons per day (MGD) and serves the western half of Gordon County. The Mauldin Road WTP withdraws water from the Coosawattee River. [8] (Figure 1 *above*, Locations 4 and 3) (Mauldin Road WTP and primary Surface Intake on the Coosawattee River).

The Brittany Drive WTP has a capacity of 12.8 MGD and withdraws source water from two wells located at the Brittany Drive WTP, as well as Big Spring, the latter of which is a natural freshwater spring at Dews Lake in Calhoun. (Figure 1, Locations 5 and 6). Big Spring is a historic landmark, supplying fresh water to both Union and Confederate soldiers during the Civil War, and to the Cherokee Nation. Drawing on Big Spring and on onsite wells, the Brittany Drive WTP supplies drinking water throughout the Eastern one half of Gordon County. Brittany Drive also supplies water to Wholesale Customers, including neighboring Pickens County (0.93 MGD), Chatsworth (0.61 MGD), and Talking Rock (0.08 MGD). At least one commercial bottling company also draws water from Big Spring. Like the Brittany Drive WTP and the community it serves, any bottling company drawing source water from Big Spring relies on a high degree of water quality, as it is intended for human consumption. Up to 1,600 homes within the Brittany Drive service area are not connected to the municipal water supply and instead appear to rely on self-supplied water, likely drawn from residential groundwater wells.

As early as February of 2015, sampling of finished water from the Mauldin Road WTP reported PFAS contamination, including PFOA at 30 ppt and PFBS at 370 ppt. Sampling in November of 2015 again showed high levels of PFAS in the finished drinking water, including 40 ppt of PFOA and 360 ppt of PFBS. In April of 2021, EPD sampled the Mauldin Road WTP's

[7] City of Calhoun, Georgia, Water Department, https://www.cityofcalhoun-ga.com/utilities/water-department/.

[8] The Mauldin Road WTP has an emergency surface water intake on the Oostanaula River but does not regularly draw water from this intake. Nevertheless, since the Oostanaula River is likewise contaminated in part by PFAS from the Coosawattee River, Calhoun's PFAS contamination of the Coosawattee likewise harms and poses an imminent and substantial endangerment to users of the Mauldin Road WTP arising from water drawn from the secondary, emergency Oostanaula River intake.

finished water, and found it was contaminated with 23 ppt of PFOA and 5.3 ppt of PFOS, for a combined (PFOA + PFOS) total of 28.3 ppt. [9]

Calhoun conducted follow-up sampling in early May of 2021 which confirmed the Mauldin Road WTP's finished water was contaminated with PFAS, including PFOA at 14 ppt and PFOS at 7.7 ppt (21.7 ppt combined) (Figure 2 below). Again, sampling of surface water at Mauldin Road's Coosawattee intake on May 1, 2022, showed almost identical levels to the finished water – PFOA at 14 ppt, PFOS at 7.9 (21.9 ppt total). *Id.*

Similar sampling on May 2, 2021, confirmed that the finished drinking water provided by Calhoun's Brittany Drive WTP is also contaminated with PFAS, reporting PFOA at 25 ppt, and PFOS at 30 ppt (55 ppt total), "running on Well #4." *Id.* Calhoun's sampling of Brittany Drive's source water reported similarly alarming results, with Well #4 reporting PFOA at 25 ppt, PFOS at 32 ppt (57 ppt total), and sampling at the Big Spring intake to the Brittany Drive WTP at 21 ppt for PFOA and 26 ppt for PFOS (47 ppt total).

Figure 2

[excerpt from public records and partially redacted]

Source	Sampling Date	PFOA	PFOS	Total (PFOA+PFOS)
Mauldin Road Plant				
Coosawattee Intake	5/1/2021	14	7.9	21.9
Finished Water	5/2/2021	14	7.7	21.7
Hwy 153 Shannon (To Floyd County)	5/2/2021	15	10	25
156 Battle (To Floyd County)	5/2/2021	14	8.7	22.7
Brittany Drive Plant				
Well # 4	5/2/2021	25	32	57
Big Springs Intake	5/2/2021	21	26	47
Finished Water (running on Well # 4)	5/2/2021	25	30	55
Murray County(To Chattsworth)	5/2/2021	25	30	55
Bottling Plant (Not owned by City)				
[redacted] (in Bottle)	5/2/2021	20	22	42

Calhoun's Water Pollution Control Plant and sludge disposal in Gordon County

Calhoun's and Gordon County's drinking water supply is contaminated by PFAS, and Calhoun's WPCP is responsible for this PFAS contamination, which is not limited to PFOA and PFOS. Rather, Calhoun is contaminating soil, groundwater, and surface water with massive

[9] EPD's sampling at the Mauldin Road WTP's Coosawattee intake on April 21 found very similar levels to what was detected in the finished drinking water – 24 ppt of PFOA and 5.1 ppt of PFOS, for a combined total of 29.1 ppt.

concentrations of numerous PFAS, including precursors (that are themselves PFAS) that can be transformed from certain precursor compounds into others, such as PFOA and PFOS.

- ***Sludge Field 11***

Moss Land Company is the owner of three large parcels of real property in Calhoun that contain twelve (12) of these sludge disposal sites designated as Field IDs 11-01 through 11-12, (collectively "Sludge Field 11").[10] (*See* Figure 1 *above*, Location 2). Sludge Field 11 is located adjacent to the Coosawattee River and just upstream of the Mauldin Road WTP's main drinking water intake. (Figure 1, Location 3). As part of Calhoun's broader sludge treatment, handling, transport, and disposal program, Calhoun and Moss Land Company have, for over twenty (20) years, utilized Sludge Field 11 for the disposal of PFAS-contaminated sludge from the Calhoun WPCP, and continue to do so today. Between 2002 and 2022, Calhoun and Moss Land Company disposed of nearly 28,000 dry tons of sludge – approximately 70% of the sludge diverted from the Calhoun WPCP during this period – on Sludge Field 11.

- ***Calhoun's land application of sludge throughout Gordon County***

Calhoun has land applied sludge generated by the WPCP on agricultural fields throughout the region since the mid-1990's and continues to do so. [11] In addition to Sludge Field 11, Calhoun's Sludge Application Sites include more than fifty-four land parcels throughout Gordon County. [12] Calhoun land applies and has land applied sludge generated by the Calhoun WPCP on more than 6,000 acres of farmland throughout Calhoun and Gordon County, with more than 17,680 tons disposed of annually beginning in the 1990's and continuing to this day. Many of these sludge fields, including but not limited to those bearing Site ID Nos. 26, 10, 32, 17, 18, 19, 20, 15, 13, 14, 16, 5, 54, 37, 36, 38, 39, 40, 26, 6, 55, 53, 2, 27, 4, and 47 are situated

[10] Gordon County Parcel No. 064 001, which has approximately 883 acres, contains Field IDs 11-1, 11-2, and 11-11; Parcel No. 064 033, which has 212.41 acres, contains Field IDs 11-8, 11-9, and 11-10; and Parcel No. 063 028, which has 1,117 acres, contains Field IDs 11-3, 11-4, 11-5, 11-6, 11-7, and 11-12.

[11] *See, e.g.,* 2007 Gordon County Solid Waste Plan at p. 16; City of Calhoun, July 11, 2014 NPDES Permit Application for the Calhoun WPCP, Permit No. 0030333, Sludge Addendum, Part C.2, "Identification of Land Application Sites, Page 5 of 8, and table summary of Sludge Application Sites, City of Calhoun, Georgia, June 26, 2014, identifying Site ID 1 through 55, as well as corresponding latitude and longitude coordinates, Field Numbers, and Street Address, and map depicting these fields throughout Calhoun (PDF pp. 44 – 49).

[12] *E.g.,* City of Calhoun, July 11, 2014 NPDES Permit Application for the Calhoun WPCP, Permit No. 0030333, Sludge Addendum, Part C.2, "Identification of Land Application Sites, Page 5 of 8, and table summary of Sludge Application Sites, City of Calhoun, Georgia, June 26, 2014, identifying Site ID 1 through 55, as well as corresponding latitude and longitude coordinates, Field Numbers, County, and Street Address, and map depicting these fields throughout Gordon County.

near Calhoun's Brittany Drive Treatment Plant and wells. [13] Other of these sludge fields, including but not limited to those bearing Site ID Nos. 10, 14, 18, and 33, are located near Big Spring on Dews Lake. (*See* Figure 1, *above*). Big Spring is situated a short distance from the Brittany Drive WTP. *See id.*

Calhoun's failure to stop PFAS from entering the WPCP in wastewater discharged to the WPCP from its Industrial Users in the carpet production and finishing industry, coupled with Calhoun's widespread land application this PFAS-contaminated sludge, is responsible for the PFAS reported in the finished drinking water at both the Mauldin Road and Brittany Drive Treatment Plants, as well as PFAS reported at the Mauldin Road surface water intake on the Coosawattee River.

Calhoun's contamination of WPCP sludge with PFAS

PFAS, including but not limited to PFOA, PFOS, and PFBS accumulate in the sludge generated by the WPCP, because the Publicly Owned Treatment Works [14] receives wastewater from Significant Industrial Users operating in the carpet production and finishing industry, industrial sectors known to use PFAS. Because the treatment process used by the WPCP is incapable of removing or destroying PFAS, and because Calhoun does not require its Industrial Users to pretreat wastewater to remove or destroy PFAS before discharging wastewater to Calhoun's public sewer system, PFAS enter the WPCP and accumulate in the biosolids, which are then land applied on various real properties in the region, including Sludge Field 11, contaminating the soil, groundwater, and surface waters with PFAS as detailed herein.

B. The City of Calhoun and the Coosa River Basin

The headwaters of the Coosa River Basin begin in Tennessee and the North Georgia Mountains as the Conasauga, Coosawattee, and Etowah Rivers. The confluence of the Conasauga and the Coosawattee form the Oostanaula River just north of the City of Calhoun, which passes through Calhoun on its way to Rome, Georgia, where Rome's public drinking water surface water intake is located. At Rome, the Oostanaula joins with the Etowah River to form the Coosa River. From there, the Coosa flows in a southwesterly direction across the

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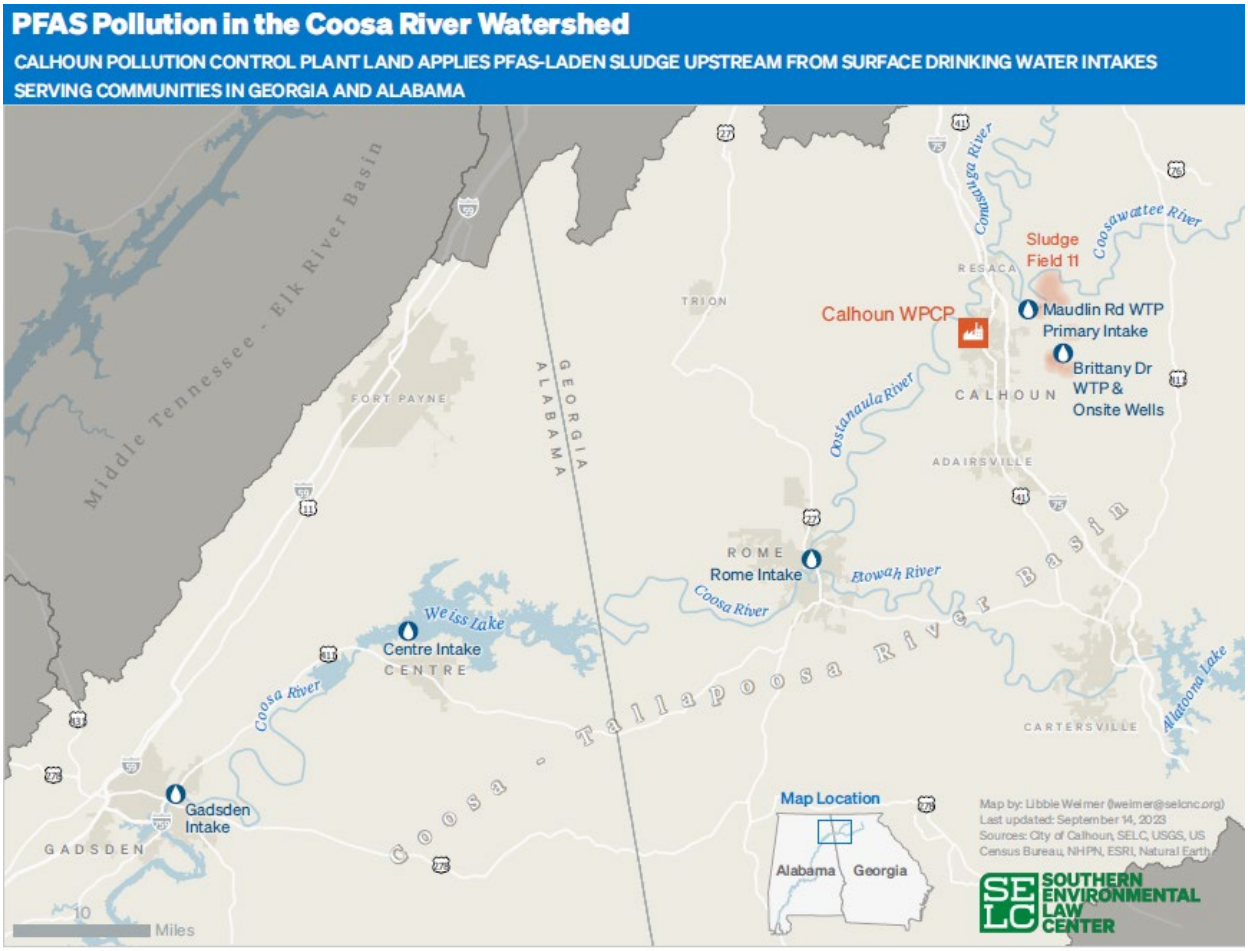
[13] *See id.* (identifying Calhoun's Sludge Application Sites (June 26, 2014) by Site ID, latitude and longitude coordinates, acreage, Field Number, County, and Street Address; Water Department, City of Calhoun, Georgia Water Department | City of Calhoun, GA (cityofcalhoun-ga.com); https://www.cityofcalhoun-ga.com/utilities/water-department/#:~:text=The%20Brittany%20Drive%20Treatment%20Plant%20is%20located%20off,distributed%20throughout%20the%20Eastern%20one-half%20of%20Gordon%20County; EPA, April 8, 2009 "Sampling Investigation Trip Report, North Georgia Public Water Suppliers Perfluorinated Compounds Study, North Georgia Including Dalton, Calhoun, Rome and Floyd County, SESD Project ID No. 09-0322" at pp. 5-6 of 6 (Identifying groundwater well locations serving Calhoun Utilities Brittany Drive Water Treatment Plant by latitude and longitude coordinates, Sample Locations C2F, C2R, and C2).

[14] Publicly Owned Treatment Works (POTW) is defined by 40 CFR 403(r). The Calhoun WPCP meets the definition of a POTW.

Alabama-Georgia state line to Weiss Lake, Alabama. The Coosa River is Weiss Lake's largest tributary by volume. *See* Figure 3:

Figure 3



Weiss Lake occupies about 30,200 acres and is fed by the Chattooga River and Coosa River from Georgia. Boasting nearly 450 miles of shoreline, shallow flats, large coves, underwater drop-offs and scenic beauty, the Lake is a priceless natural resource and economic driver for the surrounding community. Weiss Lake contains numerous fish species, including crappie, largemouth bass, and striped bass, some of which can be fished year-round. The Lake is known as the "Crappie Capitol of the World," [15] with anglers consuming their catch regularly. Numerous privately-owned hotels, marinas, campgrounds, and bait and tackle stores are situated near the shores of Weiss Lake, with approximately half a million annual visitors, generating

[15] *See, e.g.,* Frank Sargeant, "Prime Time for Weiss Lake crappie," The Huntsville Times (Dec. 2, 2012), https://www.al.com/sports/2012/12/prime_time_for_weiss_lake_crap.html.

more than $36 million in wages and over 4,000 jobs in the surrounding region. [16] It is estimated that the annual economic impact from tourism, fishing, and boating average approximately a quarter of a billion dollars for the region, while the value to those who reside or recreate near Weiss Lake is incalculable. [17]

The city of Centre, Alabama is situated on Weiss Lake, where its public drinking water intake is located. (Figure 3, *above*). The city of Gadsden, Alabama draws its drinking water from the Coosa River southwest of Weiss Lake. *Id.*

C. Calhoun's Water Pollution Control Plant

Calhoun's WPCP is designed to treat domestic waste. The WPCP treats domestic sewer influent, as well as industrial process wastewater influent received from various Industrial Users via screening, grit removal, basin aeration, secondary clarification, chlorination, dichlorination and post aeration. [18] Up to 16 million gallons per day of treated effluent is discharged from the Calhoun WPCP to the Oostanaula River via a wastewater Outfall 001. The WPCP's treatment process generates Waste Activated Sludge in aeration basins #1 and #2, which are pumped to an aerobic digester that then feeds a gravity thickener. (*See, e.g.,* Calhoun WPCP April 18, 2022 NPDES Permit Application, Sludge Addendum, Form LAS-01 06/2017, pp. 1-5). Sludge is dewatered and land applied on various real properties in the region including on Sludge Field 11 or is transported to the Redbone Ridges Municipal Solid Waste Landfill. *See id.*

Because Calhoun's WPCP lacks the technology to remove PFAS from this waste and Calhoun does not require its Industrial Users to remove these industrial chemicals before discharging wastewater to the Calhoun WPCP, the Calhoun Plant discharges these toxic chemicals directly from its outfall into the Oostanaula River. PFAS likewise accumulates in the biosolids generated by the conventional treatment method employed by the WPCP. This PFAS-contaminated sludge from the Plant is and has been land applied on Sludge Field 11, causing PFAS-laden surface water discharges and discharges of PFAS via groundwater to contaminate the Coosawattee River, Oostanaula River, and surrounding watershed.

Calhoun's PFAS Contamination of the Coosawattee River downstream of Sludge Field 11

Sampling conducted in December of 2022 downstream of Sludge Field 11 at a point just before the Coosawattee River joins the Conasauga River showed high levels of PFAS, including PFOA at 23.4 ppt, PFOS at 18.2 ppt, PFBS at 286 ppt, and total PFAS compounds at 415 ppt across fifteen PFAS analytes. In sharp contrast, sampling of the Coosawattee River conducted upstream of Sludge Field 11 on the same day found significantly lower levels of these same chemicals, with PFOS below 1 ppt, and PFOA below 2 ppt, both of which reported at

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[16] *See* Welcome to Weiss Lake Improvement Association!, https://weisslakeimprovementassociation.org/.

[17] *See id.*

[18] *E.g.* Calhoun WPCP NPDES Permit No. GA0030333 Fact Sheet September 2022 Section 1.7, p. 2 of 30.

concentrations below the laboratory reporting limit. Total PFAS compounds detected upstream of Sludge Field 11 totaled only 14 ppt across all fifteen PFAS analytes, or thirty times less than the sample collected downstream of Sludge Field 11.

Similarly, sampling conducted in March of 2023 at the same location in the Coosawattee River downstream of Sludge Field 11 a short distance before the Coosawattee joins with the Conasauga River showed high levels of PFAS, including PFOA at 22.9 ppt, PFOS at 14 ppt, PFBS at 188 ppt, and total PFAS compounds at 297 ppt, while sampling at the same location upstream of Sludge Field 11 again showed significantly lower levels of these and other PFAS chemicals – many below detection levels – and only 12 ppt of total detected PFAS across these same fifteen PFAS analytes.

Samples of Coosawattee River sediment further demonstrates the adverse impact that Sludge Field 11 is having, and will continue to have, on the Coosawattee River, its aquatic ecosystem, connected waters, and the people who rely on these natural resources. A sediment sample collected in March of 2023 upstream of Sludge Field 11 from the Coosawattee River showed PFOS at a concentration below the applicable method detection limit, while a sediment sample collected downstream of Sludge Field 11 on the same day detected PFOS at 1,220 nanograms per kilogram (ng/Kg). Thus, PFAS, and PFOS in particular, are accumulating in the Coosawattee riverbed where these chemicals have and will continue to adversely impact water quality, aquatic health, and drinking water for many years.

D. Pollutants of Concern: PFAS are toxic and bioaccumulative, and persist in the environment and in our bodies

PFAS refer to a class of thousands of manmade chemicals that are used in various forms of manufacturing, including carpet and textile production and finishing operations. The Calhoun WPCP accepts PFAS in industrial process wastewater from numerous Significant Industrial Users as chemical wastes and industrial wastes. PFAS contaminate the sewage sludge generated by the WPCP, and such solid waste is and has been discarded by land application on properties throughout the region, contaminating soil and groundwater, which are then discharged to surface water. PFAS are discharged from Sludge Field 11 to the Coosawattee River through groundwater and via Conveyance 1, 2 and 3 as set forth below. As such, PFAS, including the compounds identified below are a "pollutant" under the Clean Water Act. 33. U.S.C. 1362(6).

PFAS are highly persistent, meaning they do not break down once released into the environment[19] or once they enter the human body.[20] PFAS pose a significant threat to human health and the environment, even at extremely low concentrations measured in parts per *trillion* ("ppt"). PFAS, including PFOA and PFOS, cause a number of adverse human health impacts, including developmental effects in fetuses and infants, kidney and testicular cancer, liver malfunction, hypothyroidism, high cholesterol, ulcerative colitis, obesity, decreased immune

[19] Ian T. Cousins et al., *The High Persistence of PFAS is Sufficient for Their Management as a Chemical Class*, 12 ENV'T SCI.: PROCESSES & IMPACTS 2307 (2020).

[20] Carol F. Kwiatkowski et al., *Scientific Basis for Managing PFAS as a Chemical Class*, 7 ENV'T. SCI. TECH. LETTERS 534 (2020).

response to vaccines, reduced hormone levels, delayed puberty, decreased fertility, and lower birth weight and size.[21] Given these harms, in June 2022, EPA established interim updated lifetime health advisories for PFOA and PFOS in drinking water of 0.004 parts per trillion and 0.02 ppt, respectively, and a Final Health Advisory for PFBS of 2,000 ppt.[22] These health advisories demonstrate that no level of exposure to PFOA or PFOS in drinking water is safe, and that exposure to additional PFAS carries with it significant risk to human health.

Recognizing the threat PFAS pose to human health through drinking water, in March 2023, EPA proposed national drinking water standards for six PFAS compounds. [23] EPA proposes to limit concentrations of PFOA and PFOS in drinking water systems to below 4 ppt[24] yet a fraction of these concentrations remain a health threat under EPA's HALs for these compounds. EPA also proposes to limit **PFBS**, perfluorononanoic acid (**PFNA**), perfluorohexane sulfonic acid (**FHxS**), and hexafluoropropylene oxide (HFPO) dimer acid and its ammonium salt (referred to as **GenX**) in drinking water as a mixture, based on their combined health risks calculated using a formula referred to as a Hazard Index.[25]

In developing this Hazard Index, EPA explains it "is following recent peer-reviewed science that indicates mixtures of PFAS can pose a health risk greater than each chemical on its own." [26] This conclusion demonstrates the magnitude of the endangerment posed by Calhoun's PFAS contamination, given the total PFAS concentrations discharging from Sludge Field 11 to the Coosawattee River are as high as 243,402 ppt from Conveyance 2 alone.

EPA's April 2021 updated PFAS Toxicity Assessment [27]for **PFBS**, a replacement chemical for PFOS, shows that oral exposure such as through ingestion of contaminated drinking

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[21] *E.g.,* EPA, Technical Fact Sheet: Drinking Water Health Advisories for Four PFAS (PFOA, PFOS, GenX chemicals, and PFBS) (June 2022), [hereinafter "EPA, PFAS Health Advisories Fact Sheet"]; Arlene Blum et al., *The Madrid Statement on Poly- and Perfluoroalkyl Substances (PFASs)*, 123 ENV'T. HEALTH PERSP. 5, A 107 (May 2015); Nathan J. Cohen, *Exposure to Perfluoroalkyl Substances and Women's Fertility Outcomes in a Singaporean Population-Based Preconception Cohort*, 873 SCI. TOTAL ENV'T 162267 (May 15, 2023).

[22] EPA, Lifetime Drinking Water Health Advisories for Four Perfluoroalkyl Substances, 87 Fed. Reg. at 36848–49; EPA, 2022 Drinking Water Health Advisories for PFAS, Fact Sheet for Communities (June 2022), https://www.epa.gov/system/files/documents/2022-06/drinking-water-ha-pfas-factsheet-communities.pdf.

[23] PFAS National Primary Drinking Water Regulation, 88 Fed. Reg. 18638 (proposed Mar. 29, 2023).

[24] *Id.* at 18639.

[25] *Id.* at 18639–40.

[26] EPA, FAQ: Proposed PFAS National Primary Drinking Water Regulation, FAQs for Drinking Water Primary Agencies (March 2023) at 2, https://www.epa.gov/system/files/documents/2023-03/FAQs_PFAS_States_NPDWR_Final_3.14.23_0.pdf.

[27] A Toxicity Assessment is a written summary of the potential health effects associated with a chemical and identifies the dose levels at which those health effects may occur in order to

water can cause health effects on the thyroid, reproductive organs and tissues, developing fetus, and the kidney. [28]

As EPA recognizes in its updated Toxicity Assessment for this compound, **PFBA** "can migrate in the environment and impact the quality of surface water and groundwater which may be used as sources of drinking water." [29] Exposure to a threshold concentration of **PFBA** is capable of "induc[ing] increased thyroid and liver weight and cellular changes in both organs, changes in thyroid hormones, decreased cholesterol, and delayed development and decreased red blood cells and hemoglobin." [30] By way of example only, **PFBA** is reported in Calhoun's Conveyance 2 discharge at 99,300 parts per trillion on March 21, 2023 to 151,000 parts per trillion on December 14, 2022 a short distance upstream of the Mauldin Road surface water intake, as detailed in Section III.A below.

Another PFAS compound reported in Calhoun's Sludge Field 11 discharges to the Coosawattee River, perfluorohexanoic acid (**PFHxA**), has been found to be "as persistent as" PFOA and PFOS in the environment, "while being mobile in soil and groundwater" [31] – capable of contaminating the environment far beyond the original source of the discharge. The Calhoun WPCP discharges **PFHxA** from Sludge Field 11 at concentrations from 1,520 ppt to 10,300 ppt, as detailed below, Section III.A.

Once "adverse effects are identified, it will take decades, centuries, or even longer to reverse [PFAS] contamination and reduce the harm to our health and the environment." [32] The troubling properties of these pollutants underscore the need for Calhoun to cease and remediate its violations, as set forth herein.

III. Calhoun's Violations of the Clean Water Act

A. Calhoun's unpermitted PFAS discharges

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calculate toxicity values. EPA, EPA Releases Updated PFBS Toxicity Assessment After Rigorous Scientific Review (April 8, 2021), https://www.epa.gov/newsreleases/epa-releases-updated-pfbs-toxicity-assessment-after-rigorous-scientific-review-0

[28] EPA Fact Sheet: Toxicity Assessment for PFBS (*accessed* September 1, 2023), https://www.epa.gov/chemical-research/learn-about-human-health-toxicity-assessment-pfbs.

[29] *Id.* at 3.

[30] Fan Li et al., *Short-chain per- and polyfluoroalkyl substances in aquatic systems: Occurrence, impacts and treatment*, 380 CHEMICAL ENGINEERING J., at 3 (Aug. 2019), https://www.sciencedirect.com/science/article/abs/pii/S1385894719319096.

[31] *See id.* at 5.

[32] Carol F. Kwiatkowski, et al., *Scientific Basis for Managing PFAS as a Chemical Class,* Environ. Sci. & Tech. Letters 2020, 7(8), 532-543 (June 30, 2020) (hereinafter "Kwiatkowski, 2020"), https://perma.cc/2CG2-WJC3.

Section 301(a) of the Clean Water Act, 33 U.S.C. § 1311(a), prohibits the discharge of any pollutant from a point source to Waters of the United States except in compliance with, among other conditions, a NPDES permit issued under Section 402 of the Act, 33 U.S.C. § 1342. Each discharge of a pollutant that is not authorized by a NPDES permit constitutes a separate violation of the Clean Water Act. 33 U.S.C. § 1319(d). Persons in violation of these prohibitions are subject to a civil penalty not to exceed $59,973 per day for each violation. *Id.*; 40 CFR § 122. The City of Calhoun does not have a permit for its past and ongoing illegal discharges of PFAS from Sludge Field 11 to the Coosawattee River, and therefore each and every discharge of PFAS from Sludge Field 11 is a violation of the Clean Water Act. 33 U.S.C. § 1311(a).

Since at least September of 2018, Calhoun has disposed of thousands of tons of PFAS-contaminated sludge on Sludge Field 11, which are contaminating soil, groundwater and surface water with PFAS, which contamination is continuing. On at least the following occasions, Calhoun has violated the Clean Water Act, 33 U.S.C. § 1311(a), by discharging extremely high levels of PFAS from no fewer than three (3) discrete channels, ditches or conveyances located on Sludge Field 11, and Sludge Field ID 11-11 specifically, into the Coosawattee River, which constitutes waters of the State of Georgia and the United States, without an NPDES Permit authorizing the discharges. These conveyances collect surface water flow from other areas of Sludge Field 11 and discharge directly to the Coosawattee River, and each are point sources under the Clean Water Act, as is Sludge Field 11 including Sludge Field ID 11-11.

- December 14, 2022: Discharge of PFAS from three (3) discrete channels, ditches, or conveyances on Field ID 11-11 at the following approximate locations into the Coosawattee River. Sampling of the discharges on this date demonstrated the discharges contained extremely high levels of at least the following PFAS compounds:

    - **Conveyance 1 [34°32'35"N, 84°52'06"W]**: PFOA (4,540 ppt); PFOS (11,500 ppt); PFBS (23,500 ppt); PFHxA (2,130 ppt); PFPeA (3,830 ppt); NEtFOSAA (47 ppt); PFBA (1,760 ppt); FBSA (2,320 ppt); PFDA (885 ppt); PFHpS (157 ppt); PFHpA (1,000 ppt); PFHxS (509 ppt); PFNA (707 ppt); PFPeS (818 ppt); PFUnDA (33.5 ppt); Total PFAS (53,099 ppt) [33]

[33] References to the following PFAS compounds in their short form are also referred to as the following: 1H, 1H, 2H, 2H-Perfluorooctane sulfonic acid (6:2 FTS); 2H,2H,3H,3H-Perfluorooctanoic acid (5:3 FTCA) (FPePA); N-Ethylperfluorooctane sulfonamido acetic acid (NEtFOSAA); N-Methylperfluorooctane sulfonamido acetic acid (NMeFOSAA); Perfluorobutane sulfonic acid (PFBS); Perfluorobutanoic acid (PFBA); Perfluorobutylsulfonamide (FBSA); Perfluorodecanoic acid (PFDA); Perfluoroheptane sulfonic acid (PFHpS); Perfluoroheptanoic acid (PFHpA); Perfluorohexane sulfonic acid (PFHxS); Perfluorohexanoic acid (PFHxA); Perfluorononanoic acid (PFNA); Perfluorooctane sulfonamide (PFOSAm); Perfluorooctane sulfonic acid (PFOS); Perfluorooctanoic acid (PFOA); Perfluoropentane sulfonic acid (PFPeS); Perfluoropentanoic acid (PFPeA); Perfluoroundecanoic acid (PFUnDA).

- **Conveyance 2 [34°32'28"N, 84°52'07"W]**: PFOA (15,200 ppt); PFOS (18,100 ppt); PFBS (151,000 ppt); PFHxA (10,300 ppt); PFPeA (19,500 ppt); NEtFOSAA (165 ppt); PFBA (7,900 ppt); FBSA (11,700 ppt); PFDA (775 ppt); PFHpS (352 ppt); PFHpA (4,610 ppt); PFHxS (1,750 ppt); PFNA (1,540 ppt); PFPeS (675 ppt); PFUnDA (82.5 ppt); Total PFAS (243,402 ppt)
- **Conveyance 3 [34°32'22"N, 84°52'14"W]**: PFOA (8,840 ppt); PFOS (6,950 ppt); PFBS (98,500 ppt); PFHxA (8,280 ppt); PFPeA (12,100 ppt); NEtFOSAA (165 ppt); PFBA (5,970 ppt); FBSA (7,220 ppt); PFDA (132 ppt); PFHpS (197 ppt); PFHpA (3,550 ppt); PFHxS (1,320 ppt); PFNA (530 ppt); PFPeS (467 ppt); PFUnDA (82.5 ppt); Total PFAS (154,056 ppt)

- March 21, 2023: Discharge of PFAS from three (3) discrete channels, ditches, or conveyances on Field ID 11-11 at the following approximate locations into the Coosawattee River. Sampling of the discharges on this date demonstrated the discharges contained extremely high levels of at least the following PFAS compounds:
  - **Conveyance 1 [34°32'35"N, 84°52'06"W]**: PFOA (2,400 ppt); PFOS (1,730 ppt); PFBS (20,300 ppt); PFHxA (1,520 ppt); PFPeA (2,240 ppt); NEtFOSAA (16.5 ppt); 6:2 FTS (16.5 ppt); PFePA (16.5 ppt); NMeFOSAA (16.5 ppt); PFBA (1,220 ppt); FBSA (1,650 ppt); PFDA (125 ppt); PFHpS (55.5 ppt); PFHpA (698 ppt); PFHxS (293 ppt); PFNA (152 ppt); PFOSAm (8.25 ppt); PFPeS (112 ppt); PFUnDA (8.25 ppt); Total PFAS (32,495 ppt)
  - **Conveyance 2 [34°32'28"N, 84°52'07"W]**: PFOA (14,200 ppt); PFOS (11,500 ppt); PFBS (99,300 ppt); PFHxA (8,520 ppt); PFPeA (14,300 ppt); NEtFOSAA (16.5 ppt); 6:2 FTS (132 ppt); PFePA (132 ppt); NMeFOSAA (132 ppt); PFBA (6,190 ppt); FBSA (9,940 ppt); PFDA (454 ppt); PFHpS (299 ppt); PFHpA (4,260 ppt); PFHxS (1,920 ppt); PFNA (1,170 ppt); PFOSAm (66 ppt); PFPeS (568 ppt); PFUnDA (66 ppt); Total PFAS (172,621 ppt)
  - **Conveyance 3 [34°32'22"N, 84°52'14"W]**: PFOA (6,840 ppt); PFOS (3,150 ppt); PFBS (72,200 ppt); PFHxA (5,560 ppt); PFPeA (8,530 ppt) ; NEtFOSAA (66 ppt); 6:2 FTS (66 ppt); PFePA (66 ppt); NMeFOSAA (66 ppt); PFBA (3,840 ppt); FBSA (5,030 ppt); PFDA (94.7 ppt); PFHpS (125 ppt); PFHpA (2,530 ppt); PFHxS (1,020 ppt); PFNA (326 ppt); PFOSAm (33 ppt); PFPeS (421 ppt); PFUnDA (33 ppt); Total PFAS (109,666 ppt)

Additionally, on at least the following dates, analytical results from sampling of the Coosawattee River at the Mauldin Road WTP surface water intake downstream of Sludge Field 11 demonstrate that these three (3) discrete channels, ditches, or conveyances were discharging PFAS into the Coosawattee River:

- April 21, 2021: PFOA (24 ppt); PFOS (5.1 ppt)
- May 1, 2021: PFOA (14 ppt); PFOS (7.9 ppt)

Each of these three (3) discrete channels, ditches, or conveyances (Conveyance 1, Conveyance 2, and Conveyance 3), as well as Sludge Field 11 (including Sludge Field ID 11-11)

constitute point sources under the Clean Water Act. As demonstrated by the longstanding and ongoing PFAS contamination of the Coosawattee River and the Mauldin Road WTP's finished drinking water, these direct discharges, which are illegal and unpermitted, continue and are ongoing. Calhoun does not have a NPDES Permit for these discharges, and therefore it has violated, and will continue to violate, the Clean Water Act's prohibition on unpermitted discharges each and every day it discharges PFAS to the Coosawattee River, as the above data establishes on the dates set forth above.

B. Calhoun's functionally equivalent discharges of PFAS to the Coosawattee River via groundwater

As evidenced by the PFAS sampling results detailed herein, Calhoun has also, every day since at least September of 2018, been in continuous violation of 33 U.S.C. § 1311 by discharging PFAS from Sludge Field 11, sludge-spreading vehicles, trucks, and/or other sludge disposal instruments and machinery into the groundwater at Sludge Field 11, which is hydrologically connected to the Coosawattee River, and then to the Coosawattee River. Calhoun's unpermitted PFAS discharges to the Coosawattee River from Sludge Field 11, sludge-spreading vehicles, trucks, and/or other sludge disposal instruments and machinery to the Coosawattee River via groundwater are discharges from a point source. Due to the geology, hydrogeology and hydrology at Sludge Field 11 and the nature, persistence, mobility, and other properties of PFAS, these discharges of PFAS to the Coosawattee River through groundwater along Sludge Field 11's border with the river constitute the functional equivalent of a direct discharge to the Coosawattee River, as, among other factors, the transit time and distance traveled are short, and any chemical alteration prior to discharge is generally only alteration to another PFAS.

As demonstrated by the longstanding and ongoing PFAS contamination of the Coosawattee River and the Mauldin Road WTP's finished drinking water, both these direct and indirect discharges, which are illegal and unpermitted, continue and are ongoing. Calhoun does not have a NPDES Permit for these discharges, and therefore it has violated, and will continue to violate, the Clean Water Act's prohibition on unpermitted discharges each and every day it discharges PFAS to the Coosawattee River via groundwater.

C. Calhoun's violations of NPDES Permit No. GA0030333

Calhoun's illegal unpermitted discharges of PFAS from Sludge Field 11 into the Coosawattee River also violate requirements of Calhoun's NPDES Permit and Clean Water Act pretreatment rules. The Calhoun WPCP is governed by NPDES Permit No. GA0030333, which became effective on or about March 1, 2016. As detailed below, Calhoun is violating its NPDES Permit, and each violation constitutes a separate, continuing violation of the Clean Water Act. 33 U.S.C. § 1319(d); Calhoun NPDES Permit Part II.B.1 (COMPLIANCE) (at p. 16 of 23) ("The permittee must comply with this permit. Any permit noncompliance is a violation of the Federal [Clean Water] Act, State Act, and the State Rules…").

1. Violations of the Endangering Waters Notice and Injury Prevention requirements imposed by NPDES Permit Part II.A.11

Calhoun's NPDES Permit Part II.A.11 provides, in pertinent part:

> 11. NOTICE CONCERNING ENDANGERING WATERS OF THE STATE
>
> Whenever … any toxic … substance, or any other substance which would endanger downstream users of the waters of the State or would damage property, is discharged to such waters, or is so placed that it might flow, be washed, or fall into them, it shall be the duty of the person in charge of such substances at the time to forthwith notify EPD in person or by telephone of the location and nature of such danger, and it shall be the person's further duty to immediately take all reasonable and necessary steps to prevent injury to property and downstream users of said water.

(Calhoun NPDES Permit, at p. 14 of 23).

As detailed above, Calhoun has disposed of and is disposing of thousands of tons of sludge generated by the Calhoun WPCP on Sludge Field 11, which is contaminated with high concentrations of PFAS. PFAS, including but not limited to PFOA, PFOS, and PFBS are toxic substances, and contaminate the soil, groundwater and surface water at Sludge Field 11 and continually enter the environment arising out of Calhoun's failure to remediate this contamination. Accordingly, Calhoun has placed sludge on Sludge Field 11 so that it might flow, be washed or fall into the Coosawattee River and downstream waters, endangering downstream users, including those who use and consume water supplied by the Mauldin Road WTP, those who consume fish and game exposed to Calhoun's Sludge Field 11 PFAS contamination, and those who use and consume waters contaminated by Calhoun's PFAS contamination downstream of Calhoun, including those in Rome, Georgia, Centre, Alabama, Weiss Lake, Alabama, and Gadsden, Alabama.

The public endangerment inflicted by Calhoun's Sludge Field 11 contamination from PFBS alone exceeds EPA's *Final* Drinking Water Health Advisory of 2,000 ppt by more than 11 times from Conveyance 1 (reporting PFBS discharge of 23,500 ppt), more than 75 times from Conveyance 2 (151,000 ppt PFBS), and more than 53 and 49 times from Conveyance 3 (106,000 and 98,500 ppt PFBS) on December 14, 2022, with similar discharge levels for this same toxic chemical pollutant reported as of at least March 21, 2023 at these same discharge locations – all a short distance upstream of Calhoun's own surface water intake serving a majority of the community in Calhoun and Gordon County that rely on the Mauldin Road drinking water treatment plant for their drinking water. [34] The extent of the public endangerment from Calhoun's PFBS contamination, including contamination of Coosawattee River sediment is further detailed below. Calhoun's failure to take "all" reasonable and necessary steps to prevent injury to property and downstream users of the Coosawattee River and downstream waters by halting these PFAS discharges is a continuing violation of Calhoun's NPDES Permit Part II.A.11, and in turn, the Clean Water Act.

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[34] EPA, Lifetime Drinking Water Health Advisories for Four Perfluoroalkyl Substances, 87 Fed. Reg. at 36848–49; EPA' s Final Health Advisory for PFBS of 2,000 ppt.

In addition, Calhoun's continual disposal of PFAS arising from its sludge land application on Sludge Field 11 is damaging and injuring property, including Coosawattee riverbed sediment downstream of Calhoun's Sludge Field 11. As detailed above, PFOS can contaminate fish tissue, which have prompted numerous fish consumption advisories, including a consumption advisory in neighboring Alabama.

Each day of Calhoun's unpermitted PFAS discharges constitutes a separate date of violation.

2. Calhoun's failure to take all reasonable steps to prevent adverse impact from discharges or sludge disposal imposed by NPDES Permit Part II.A.10

Calhoun's NPDES Permit Part II.A.10 provides, in pertinent part:

10. ADVERSE IMPACT

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge disposal which might adversely affect human health or the environment.

(Calhoun NPDES Permit, at p. 13 of 23).

Calhoun's failure to comply with the straightforward obligations imposed by its NPDES Permit Part II.A.10 are well documented above and discussed further below (Calhoun's RCRA violations). Calhoun's NPDES Permit requires that Calhoun take "all" reasonable steps to minimize or prevent "any" discharge or sludge disposal, which the data presented above clearly document is occurring – extensive PFAS discharges and sludge disposal practices that may adversely affect human health. Calhoun has disposed of thousands of tons of PFAS-contaminated sludge on Sludge Field 11, resulting in the discharge of high concentrations of PFAS to the Coosawattee River, which is responsible for the contamination of the Mauldin Road Water Treatment Plant's source water and finished water with PFAS in excess of applicable EPA HALs. Furthermore, Calhoun's illegal PFAS discharges and sludge disposal practices at and from Sludge Field 11 are causing contamination of Coosawattee River sediment with PFAS including PFOS, as confirmed by the river sediment sampling upstream and downstream of Sludge Field 11 on March 21, 2023. CRBI hereby adopts and incorporates the additional discussion detailing Calhoun's PFAS and sludge disposal practices that might adversely affect human health or the environment set forth in Section III.C.2 above herein.

For these reasons, Calhoun is in violation of its NPDES Permit Part II.A.10, and these violations are continuing.

3. Calhoun's Failure to Properly Administer and Enforce Approved Industrial Pretreatment Program Standards required by NPDES Permit Part III.A and 33 U.S.C. §§ 1317(b), (d)

Calhoun's WPCP is governed by the Clean Water Act's national pretreatment standards, which govern the discharge of industrial wastewater to wastewater treatment plants. 33 U.S.C. §§ 1317(b), (d); 40 CFR 403 *et seq*. These wastewater discharges to treatment plants such as the

Calhoun WPCP are from so-called "Industrial Users," and they require permits, known as pretreatment permits. [35] The Clean Water Act pretreatment program "assures the public that [industrial] dischargers cannot contravene the [Clean Water Act's] objectives of eliminating or at least minimizing discharges of toxic and other pollutants simply by discharging indirectly through [wastewater treatment plants] rather than directly to receiving waters." [36] As is appropriate, the pretreatment program, and the laws and permit restrictions that impose compliance with them, are intended to place the burden of treating polluted discharges on those that create the pollution, rather than on taxpayers that support municipally owned wastewater treatment plants and ratepayers who support drinking water treatment plants that are charged with delivering clean, safe water to customers (or on the general public, users of downstream drinking water systems, those who recreate on and enjoy and value waters free from persistent toxic industrial chemical pollution, and on wildlife and the environment).

The general pretreatment program requirements imposed on Calhoun by its NPDES Permit, Part III.A, as well as the Clean Water Act and the implementing general pretreatment regulations, 40 CFR 403 *et. seq,* are intended to safeguard against abuses by Industrial Users who discharge wastewater to Publicly Owned Treatment Works. These laws impose crucial responsibilities upon public sewer systems, including "[t]o prevent the introduction of pollutants which will interfere with the operation of the POTW, including interference with its use or disposal of municipal sludge." 40 CFR § 403.2(a).

But rather than comply with these pretreatment requirements that are intended to prevent the very type of contamination detailed exhaustively in this letter, Calhoun has done the opposite – allowing untreated PFAS in wastewater to enter the Calhoun WPCP, where it has and continues to contaminate sludge that is then land applied, contaminating the environment with PFAS. PFAS are incompatible with the entire purpose of the WPCP's treatment works, which are intended to reduce and eliminate pollution, and improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges. Accordingly, Calhoun is in violation of Part III.A. of its NPDES Permit and the pretreatment regulations.

Calhoun is in violation of NPDES Permit Part III.A.2 and 40 CFR § 403.

Part III.A of Calhoun's NPDES Permit provides that "the permittee's approved pretreatment program shall be enforceable through this permit," and Part III.A.2. states that Calhoun "shall administer the approved pretreatment program" by, among other things:

> b. Enforcing and obtaining appropriate remedies for noncompliance by any industrial user with any applicable pretreatment standard or requirements defined

[35] GA. COMP. RULES AND REGS. r. 391-3-6-.08(1) (Purpose, "to provide for the degree of wastewater pretreatment required and the uniform procedures and practices to be followed relating to the application for and the issuance or revocation of pretreatment permits for the discharge of any pollutant into a publicly owned treatment works and then into waters of the State."); GA COMP. RULES & REGS. r. 391-3-6-.08(2)(q) (definition of pretreatment permit).

[36] General Pretreatment Regulations for Existing and New Sources, 52 Fed. Reg 1586, 1590 (Jan. 14, 1987) (codified at 40 C.F.R. § 403).

> by Section 307(b) and (c) of the Federal Act, 40 CFR Part 403.5 and 403.6 or any State or local requirement, whichever is more stringent. [and]
>
> c. Revising the adopted local limits based on technical analysis to ensure that the local limits continue to prevent, among other things:
>
> 1. Interference with the operation of the POTW; …
>
> [and]
>
> 3. Municipal sludge contamination; …
>
> Within 180 days of the effective date of this permit issuance or reissuance (excluding permit modifications), the permittee shall review the local limits of the program and submit to EPD a written technical evaluation of the need to revise the local limits.

(Calhoun NPDES Permit, Part III.A.2.b., c., at p. 19 of 23). These mandates are mirrored in the federal and state regulations. 40 C.F.R. § 403.8(f)(1)(vi)(B); GA. COMP. RULES AND REGS. r. 391-3-6-.09(9)(a)6 ("The POTW shall have the authority… to immediately and effectively halt or prevent any discharge of pollutants to the POTW which reasonably appears to present an imminent endangerment to the health or welfare of persons").

Part III.A.2.e of the NPDES Permit also requires that Calhoun administer the pretreatment program by:

> e. Inspection, surveying, and monitoring to determine if the industrial user is in compliance with the applicable pretreatment standards.

(Calhoun NPDES Permit, Part III.A.2.e, at p. 19 of 23).

As set out below, Calhoun has violated, and continues to violate, Part III.A.2b. and 2c. of its NPDES Permit, as well as federal and state pretreatment requirements, by failing to prevent and/or enforce prohibited discharges of PFAS into the POTW which interfere with Calhoun's sludge processes and disposal, failing to revise local limits to prevent interference resulting in the contamination and disposal of municipal sludge with PFAS, and through its failure to prevent discharges of PFAS into the POTW which present an imminent and substantial endangerment to the health or welfare of persons.

Failure to Prevent/Enforce Prohibited Discharges

The general pretreatment regulations define "Interference" as follows:

The term Interference means a Discharge which, alone or in conjunction with a discharge or discharges from other sources, both:

(1) Inhibits or disrupts the POTW, its treatment processes or operations, or its sludge processes, use or disposal; and

(2) Therefore is a cause of a violation of any requirement of the POTW's NPDES Permit … or the prevention of sewage sludge use or dispose in compliance with the following statutory provisions and regulations or permits issued thereunder (or more stringent State or local regulations): … the Solid Waste Disposal Act (SWDA) (including title II, more commonly referred to as the Resource Conservation and Recovery Act (RCRA) …."

40 C.F.R. § 403.3(k). 40 C.F.R. § 403.5(a)(1) provides that Industrial Users "may not introduce into a [Publicly Owned Treatment Works such as the Calhoun WPCP] any pollutant(s) which cause … Interference." To implement this prohibition against Interference, the Calhoun WPCP is required to impose specific limits in administering its pretreatment program to *prevent* such Interference. 40 C.F.R. §§ 403.5(c)(1), (c)(2).

As evidenced by, among other things, Calhoun's disposal of PFAS-contaminated sludge and the longstanding and ongoing unpermitted discharges of PFAS from Sludge Field 11, Calhoun has and continues to violate Part III.A.2.b. of the WPCP's NPDES Permit and 40 C.F.R. § 403.5(c) by failing to prevent, enforce or obtain any type of remedies whatsoever for its Industrial Users' violations of pretreatment requirements, and in particular the industrial discharges of PFAS into the WPCP that contaminate the WPCP sludge with PFAS and thereby cause violations of Calhoun's NPDES Permit as set out in Section III.C of this letter.

Failure to Revise Local Limits

As set out above, Part III.A.2.c. of Calhoun's NPDES Permit requires it to revise its local limits to ensure that these limits continue to prevent, among other things, Interference with the operation of the POTW and prevent municipal sludge contamination. *See also* 40 C.F.R. §§ 403.5(c)(1), (c)(2). As detailed exhaustively herein, Calhoun has failed to ensure that its local limits prevent such sludge contamination in the first instance, much less "continue" to do so. Rather, Calhoun has stood by aimlessly, allowing its Industrial Users to discharge dangerous levels of PFAS in process wastewaters to the Calhoun WPCP unrestricted, which have contaminated sludge with PFAS, and which Calhoun is land applying and has land applied on the above-identified sludge fields throughout Gordon County, including but not limited to [37] Sludge Field 11. Calhoun's continued failure to revise its local limits illustrates the ramifications of such a violation of its NPDES Permit – extensive PFAS contamination of soil, groundwater, and discharges of PFAS to surface waters as a direct result of these violations, which are continuing.

Failure to Prevent Discharges of PFAS into Calhoun's POTW

Municipalities such as the City of Calhoun are required to "*fully and effectively exercis[e] and implement[]*" their authority to: (1) "[d]eny or condition new or increased contributions of pollutants, or changes in the nature of pollutants, to the [publicly owned treatment works] by Industrial Users where such contributions do not meet appliable

[37] Other land parcels include but are not limited to those identified *supra*, Note 12.

Pretreatment Standards and Requirements or where such contributions would cause the [publicly owned treatment works] to violate its NPDES permit…" [38]

Furthermore, municipalities are required to "fully and effectively exercise[] and implement[]" their authority to "[i]dentify the character and volume of pollutants contributed to the [publicly owned treatment works]" by Industrial Users, [39] and to "immediately and effectively halt or prevent any discharge of pollutants to the [publicly owned treatment works] which reasonably appears to present an imminent endangerment to the health and welfare of persons." [40] These requirements are intended to ensure that pretreatment programs that are administered by municipalities do not violate the Clean Water Act or state water quality laws and standards, as is being done here at the Calhoun WPCP.

Calhoun's NPDES Permit, as well as the entire statutory and regulatory scheme, impose on Calhoun the obligation to *prevent* Industrial Users from introducing pollutants into the public sewer system that "interfere with its use or disposal of municipal sludge," 40 CFR 403.2(a), prevent introduction of pollutants that are "incompatible" with the WPCP's treatment works, *id.* 403.2(b), and "improve opportunities to recycle and reclaim municipal and industrial wastewaters and sludges," id. 403.2(c). As set forth above, Calhoun has done the exact opposite, allowing unrestricted PFAS contamination from Industrial User discharges to contaminate and accumulate in sludge, and Calhoun has actively land applied that sludge, including on Sludge Field 11, where PFAS have heavily contaminated soil, groundwater, the Coosawattee River, and Calhoun's own drinking water supply. Calhoun's failures are a plain violation of the letter and purpose of its NPDES Permit requirements imposed by Part III.A.2.c as well as the Clean Water Act's pretreatment program requirements, and must cease.

Calhoun is in violation of its NPDES Permit, Part III.A.2.b., and the national pretreatment standards by failing to exercise its powers and responsibilities to halt and prevent PFAS discharges to the Calhoun WPCP from its Industrial Users. *See also* 40 C.F.R. § 403.8(f)(1)(vi)(B). Calhoun's NPDES Permit imposes a duty on Calhoun to enforce or obtain appropriate remedies for noncompliance by an Industrial User with any applicable pretreatment standard or regulation, or "any State or local requirement, *whichever is more stringent*" (emphasis added), such as those imposed under Ga. Comp. Rules and Regs. r. 391-3-6-.09(9)(a)6. But rather than police compliance of Industrial User PFAS discharges under the most "stringent" applicable requirement, Calhoun's continuing failure to enforce the applicable pretreatment standard and requirements defined by Section 307(d) and (c) of the Clean Water Act and the general pretreatment regulations is *the* cause of PFAS accumulating in sludge generated by the WPCP, which, as detailed above, is causing continuing contamination of surface water and the environment which reasonably appears to present an imminent endangerment to the health or welfare of persons, both in Calhoun (contamination of the Mauldin Road WTP intake and finished drinking water, wells supplying the Brittany Drive WTP

[38] 40 C.F.R. § 403.8(f)(1)(i) (emphasis added).

[39] *Id. at* § 403.8(f)(2)(ii).

[40] *Id. at* § 403.8(f)(1)(vi)(B).

and Big Spring, as detailed further below), and in waters downstream from Calhoun's PFAS discharges from Sludge Field 11 and the Conveyances.

Similarly, Calhoun is in violation of the national pretreatment standards by failing to obtain appropriate remedies against each of its Industrial Users that discharge PFAS to the Calhoun WPCP for their violations of 40 C.F.R. § 403.5(a)(1), which in turn prohibits Industrial Users from introducing into a publicly owned treatment works (the Calhoun WPCP) any pollutants which cause Interference with Calhoun's public treatment works. By the same token, Calhoun has failed to develop and impose specific limits in its pretreatment program to prevent Interference with the WPCP sewage treatment and sludge operations under 40 C.F.R. §§ 403.5(c)(1), (c)(2) halting and preventing PFAS contamination of WPCP sludge and discharges of PFAS from Sludge Field 11 to the Coosawattee River through groundwater and Conveyances 1, 2, and 3, and has failed to revise or adopt local limits to prevent municipal sludge contamination that is the cause of such discharges, which are continuing.

As detailed above, Calhoun has for years, and continues, to allow its Industrial Users to discharge PFAS into the Calhoun WPCP which has fundamentally inhibited and disrupted the intended function of the treatment works – which function is intended to remove and reduce pollution in compliance with the Clean Water Act and RCRA. Instead, Calhoun has allowed the discharge of PFAS from its Industrial Users in wastewater to the Calhoun WPCP, thereby extending the "duration" of the violation and increasing its "magnitude" – 40 C.F.R. § 403.3(k) – *expanding* and *worsening* the harmful polluting effects of the Calhoun WPCP's wastewater treatment works, by: (i) inhibiting and disrupting Calhoun's sludge processes, use and disposal, namely by contaminating sludge generated by the Calhoun WPCP that is disposed of on Sludge Field 11, which is intended as an agricultural nutrient for crop land, but is instead the cause of widespread and longstanding toxic industrial chemical contamination from PFAS that is endangering Calhoun's drinking water supply at Mauldin Road, as well as contaminating downstream waters that serve as the drinking water supply for Rome, Georgia, Centre and Gadsden Alabama, and the aquatic ecosystem in the Upper Coosa River Basin; and (ii) violating and causing Calhoun to violate RCRA due to industrial discharges containing PFAS to the Calhoun WPCP and from it, via land disposal of PFAS-contaminated sludge in a manner that presents an imminent and substantial endangerment to health and the environment, as further detailed below (Calhoun's RCRA violations). Calhoun's failure to properly administer the pretreatment program requirements imposed on it by its NPDES Permit Part III.A.2. are therefore an illegal Interference with the WPCP treatment works.

Calhoun's failure to prohibit these illegal discharges of PFAS into the WPCP, failure to impose specific limits to prevent Interference with its Public Treatment Works, failure to enforce or remedy these continuing acts, and failure to revise and adopt local limits to prevent them from occurring are in violation of Calhoun's NPDES Permit and federal law. NPDES Permit Part III.A.2.b; NPDES Permit Part III.A.2.; 40 C.F.R. §§ 403.5(a)(1); 403.5(c)(1), (c)(2). Calhoun's failure is demonstrated by 2018 wastewater sampling from one of the WPCP's Industrial Users, which reported high concentrations of PFAS entering Calhoun's public sewer system, and such discharges are continuing, as shown in the December 2022 and March 2023 sampling events detailed above, reporting high concentrations of PFAS discharging from Sludge Field 11 to the Coosawattee River. Calhoun is failing to "fully and effectively exercise[] and implement[]" its

authority and its responsibility to "immediately and effectively … halt or prevent any discharge of pollutants to the [Calhoun WPCP] which reasonably appears to present an imminent endangerment to health or welfare of persons," as required by the Clean Water Act and Federal law. 40 C.F.R. § 403.8(f)(1).

Finally, Calhoun is in violation of its NPDES Permit Part III.A.2.c.3, which requires it to revise its adopted local limits "based on technical analysis to ensure that the local limits continue to prevent … 3. Municipal sludge contamination." Calhoun is instead allowing PFAS to enter the WPCP and contaminate municipal sludge with massive concentrations of PFAS, as confirmed by the high concentrations of PFAS discharging from Sludge Field 11 at Conveyance 1, 2, and 3 since at least September of 2018, on May 1, 2021 (EPD surface sampling at the Mauldin Road WTP surface intake), December 14, 2022 and March 21, 2023 (Conveyance 1, 2, and 3 sampling), which failures and violations are continuing.

IV. Calhoun's Violations of the Resource Conservation and Recovery Act

Calhoun is violating RCRA by causing harmful, environmentally persistent, and toxic PFAS pollution to contaminate soil and groundwater and causing PFAS to enter surface waters from its disposal of sludge at Sludge Field 11, and those bearing Site ID Nos. 26, 10, 32, 17, 18, 19, 20, 15, 13, 14, 16, 5, 54, 37, 36, 38, 39, 40, 26, 6, 55, 53, 2, 27, 4, and 47 further detailed above, in a manner that may present an imminent and substantial endangerment to health and the environment. Each location where Calhoun has land applied sludge identified in this letter is the location of Calhoun's violation of RCRA, which are further identified above by location landowner, coordinates, and physical address in Section II.A above.

As set forth above in Section III.A, recent sampling data of Calhoun's Sludge Field 11 PFAS discharges to the Coosawattee River confirms that heavily contaminated sludge continues to be generated by the WPCP, which Calhoun has land applied and continues to land apply to Sludge Field 11, causing and contributing to extensive environmental contamination of Calhoun's own drinking water supply as confirmed by March 2021 PFOA and PFOS sample results at the Mauldin Road Treatment Plant surface water intake on the Coosawattee River detailed above at p. 16, and the December 14, 2022 and March 21, 2023 PFAS sample results detailed above at pp. 15-16, establishing Calhoun's PFAS contamination of its own drinking water supply on the Coosawattee River a short distance upstream from its surface water intake, as well as upstream of the drinking water source for Rome, Centre and Gadsden. Calhoun's extensive PFAS contamination of soil, groundwater, and surface water as detailed herein is long lasting and broadly distributed, which extends to and poses an imminent and substantial endangerment to the aquatic ecosystem in the Coosawattee watershed and the Coosa River Basin, including the aquatic ecosystem downstream at Weiss Lake, Alabama.

The sampling data set forth above establishes that heavily contaminated sludge generated by the Calhoun WPCP deposited in the Coosawattee River watershed at Sludge Field 11 may present an imminent and substantial endangerment to health and the environment, as these wastewater handling and treatment methods have been unchanged for years and are not limited to the agricultural fields immediately next to the Coosawattee. Calhoun has been land applying biosolids from the WPCP in the region since the mid-1990's, and Calhoun has allowed its

Industrial Users to discharge wastewater laced with high PFAS concentrations to the WPCP for just as long. As a result, the Calhoun WPCP continues to generate this heavily contaminated sludge as a part of its conventional wastewater treatment operations, which will in turn contaminate any receiving landfills with PFAS as leachate that is not land applied to Sludge Field 11 or other properties in the region. Furthermore, PFAS continue to contaminate soil, groundwater, surface water, and pose a threat to surface water wells and springs that serve as the source of drinking water for the community from Calhoun's past and present land application of sludge on properties throughout the region, as detailed above.

A. Calhoun's imminent and substantial endangerment to health and the environment

Section 7002(a)(1)(B) of RCRA, 42 U.S.C. § 6972(a)(1)(B), allows affected citizens to bring suit against:

> any person, … including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage or disposal facility, who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment.

The term "solid waste" means "any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, … and other discarded material, including solid, liquid, semisolid, … from industrial, commercial, mining, and agricultural operations, and from community activities…". [41] RCRA defines disposal as "the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water." 42 U.S.C. § 6903(3). By land-applying sludge (sometimes referred to as biosolids) from the WPCP to Sludge Field 11 and sludge fields throughout Gordon County identified above, Section II.A, since the mid-1990's to the present day, Calhoun has and is engaging in the handling, storage, treatment, transportation, and disposal of PFAS entering the environment via soil, groundwater, and surface water in violation of RCRA 42 U.S.C § 6972(a)(1)(B).[42]

Calhoun's imminent and substantial endangerment to health and the environment impacting the Coosawattee River and the Mauldin Road WTP

As noted above, on June 15, 2022, EPA released revised drinking water lifetime health advisory levels (HALs) for four PFAS. These include revised and substantially more stringent

[41] 42 U.S.C. § 6903(27).

[42] To the extent PFOA, PFOS or any other PFAS compound is subsequently designated as a "hazardous waste" under RCRA or CERCLA, CRBI adopts and incorporates that definition herein, alleging Calhoun's disposal of such hazardous waste as a violation of RCRA as fully set forth herein.

Interim Updated HALs for PFOA and PFOS[43], and a Final HAL for PFBS. [44] EPA's 2022 HAL for PFOA is equal to 0.004 parts per trillion, while the 2022 HAL for PFOS is equal to 0.02 ppt. EPA's Final HAL for human exposure via drinking water for PFBS is 2,000 ppt.

Calhoun's Sludge Field 11 contamination of its own drinking water supply massively exceeds these drinking water Health Advisory Levels. Because PFAS do not break down in the environment, Calhoun's ongoing and past land disposal of sludge generated by the WPCP, continues to accumulate high PFAS concentrations from wastewater received from Calhoun's Industrial Users, and will continue to contaminate the Coosawattee River watershed with PFAS, including PFOA, PFOS, PFBS and numerous other PFAS compounds. Consequently, Calhoun is engaged in the ongoing disposal of PFAS entering the environment via soil, groundwater, and surface water, which entails continuing violations of RCRA.

The sampling data detailed above, including in in Section II.A and Section III.A confirms PFAS in finished public drinking water and in sources of drinking water that may present an imminent and substantial endangerment to health and the environment. This is demonstrated by concentrations of PFOA and PFOS at the Mauldin Road's surface water intake exceeding EPA's HALs for these chemicals, as well as PFOA and PFOS in Mauldin Road's finished drinking water exceeding these HALs. For example, EPD's April 2021 sampling of the Mauldin Road Treatment Plant's main surface water intake on the Coosawattee River a short distance downstream of Moss Land Company's Sludge Field 11 contamination reported concentrations of PFOA of 24 ppt and PFOS at 5.1 ppt, for a combined total of 29.1 ppt. These concentrations are essentially the same as reported in the finished drinking water produced by the Mauldin Road Treatment Plant, as confirmed by EPD's April 2021 sampling with 23 ppt of PFOA and 5.3 ppt of PFOS, for a combined (PFOA + PFOS) total of 28.3 ppt.

PFBS is repeatedly reported in massive concentrations from Calhoun's discharges to the Coosawattee River a short distance upstream from the Mauldin Road WTP's main surface water intake on the Coosawattee at least as of December 14, 2022 at 23,500 ppt (Conveyance 1), 151,000 ppt (Conveyance 2), 98,000 ppt (Conveyance 3), and 106,000 ppt (Conveyance 3 duplicate sample), and at least as of March 21, 2023 at 20,300 ppt (Conveyance 1), 99,300 ppt (Conveyance 2), 72,200 ppt (Conveyance 3), and 77,200 ppt (Conveyance 3 duplicate sample). These concentrations are up to 75.5 times higher than EPA's Final HAL for human consumption via drinking water, yet Calhoun continues to discharge this chemical to its *own* source drinking water supply on the Coosawattee River.

Furthermore, there are several additional communities downstream of Calhoun's PFAS contamination of the Coosawattee River, whose drinking water supply is being contaminated

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[43] EPA, Drinking Water Health Advisories for PFOA and PFOS, 2022 Interim Updated PFOA and PFOS Health Advisories (June 15, 2022), https://www.epa.gov/sdwa/drinking-water-health-advisories-pfoa-and-pfos.

[44] EPA, Drinking Water Health Advisories for GenX Chemicals and PFBS, 2022 Final Health Advisories for GenX Chemicals and PFBS (June 15, 2022), https://www.epa.gov/sdwa/drinking-water-health-advisories-genx-chemicals-and-pfbs.

with PFAS, including PFOA, PFOS, and PFBS. These include the cities of Rome, Georgia, whose surface water intake is on the Oostanaula River (the other being on the Etowah River), Centre Alabama, whose intake is on Weiss Lake, and Gadsden, Alabama, whose intake is on the Coosa River downstream of Weiss Lake. All of these communities are situated downstream of Moss Land Company's Sludge Field 11 PFAS discharges and contamination of soil, groundwater, and river sediment with PFAS. PFAS are reported in massive concentrations entering the environment (the Coosawattee River, specifically) from Sludge Field 11 from Conveyance 1, Conveyance 2, and Conveyance 3 a short distance upstream of the Mauldin Road WTP's main surface water intake, further demonstrating the imminent and substantial endangerment to health and the environment from Calhoun's past and present handling, storage, treatment, transportation disposal of PFAS-contaminated sludge from the WPCP.

As noted above, these PFAS also accumulate in fish and other aquatic life. Calhoun's continuing PFAS contamination exposes these organisms to harm, which also creates another pathway for human exposure. Indeed, communities that rely heavily on subsistence fishing have been found to have elevated PFAS levels in their blood.[45] Comparison of Coosawattee River sediment collected upstream of Calhoun's Sludge Field 11 PFAS contamination in March 2023 versus downstream of Calhoun's Sludge Field 11 PFAS contamination demonstrates that Calhoun and Moss Land Company are polluting the aquatic ecosystem with PFAS, potentially exposing benthic life and the food chain with these PFAS, and specifically PFOS, which displays a particular affinity to fish tissue that humans often consume. River sediment collected March 21, 2023, upstream of Sludge Field 11 on the Coosawattee River reports PFAS at concentrations below the applicable method detection limit. Samples of Coosawattee River sediment collected downstream of Sludge Field 11 on March 21, 2023, report PFOS at 1,220 nanograms per kilogram (ng/Kg) and 1,330 ng/Kg in two duplicate samples. These downstream samples establish that PFOS discharged from Calhoun's Sludge Field 11 Conveyance 1, Conveyance 2, Conveyance 3 discharges, as well its groundwater PFAS discharges are accumulating in the Coosawattee riverbed, posing an imminent and substantial endangerment to the environment, organisms that reside there, fish, and humans who may consume those fish. Researchers conclude that "[w]idespread PFAS contamination of freshwater fish in surface waters in the U.S. is likely a significant source of exposure to PFOS and potentially other perfluorinated compounds for all persons who consume freshwater fish, but especially for high frequency freshwater fish consumers."[46] As a result, multiple states, including neighboring Alabama, have issued fish consumption advisories cautioning communities to limit which fish they eat from

[45] Patricia A. Fair et al., *Perfluoralkyl Substances (PFASs) in Edible Fish Species from Charleston Harbor and Tributaries, South Carolina, United States: Exposure and Risk Assessment*, 171 ENV'T. RES. 266, 273–75 (April 2019); Chloe Johnson, *Industrial chemicals in Charleston Harbor taint fish – and those who eat them*, POST & COURIER (June 4, 2022), https://perma.cc/Z5TM-MB83.

[46] Nadia Barbo et al., *Locally Caught Freshwater Fish Across the United States Are Likely A Significant Source of Exposure to PFOS and Other Perfluorinated Compounds*, 220 Env't Res. 115165 at 9 (2023).

certain waterways.[47] PFAS have also been detected in game, which can also have a disproportionate impact on communities that rely on subsistence hunting.[48]

As detailed above, PFAS have been reported in the source water and finished drinking water supply for Calhoun's and the region's population at both the Mauldin Road and the Brittany Drive Water Treatment Plants, posing an imminent and substantial endangerment to health and the environment arising from Calhoun's longstanding mishandling of its sludge operations as detailed in this letter. Since the mid-1990's Calhoun has land applied sludge generated by the WPCP on dozens of Sludge Application Sites throughout Gordon County in addition to Sludge Field 11. These include several Sludge Application Sites near the Brittany Drive WTP and Big Spring at Dews Lake, including those bearing ID Nos. 26, 10, 32, 17, 18, 19, 20, 15, 13, 14, 16, 5, 54, 37, 36, 38, 39, 40, 26, 6, 55, 53, 2, 27, 4, and 47.

Calhoun's May 2, 2021, sampling of finished water from the Brittany Drive WTP "running on Well #4" reported PFOA at 25 ppt and PFOS at 30 ppt (45 ppt total). Calhoun's Sampling of the Brittany Drive WTP source water that same day reported PFOA at 25 ppt and PFOS at 32 ppt (57 ppt total) at Well #4. As for Brittany Drive's source water at the Big Spring intake, Calhoun's May 2, 2021 sampling reported PFOA at 21 ppt and PFOS at 26 ppt (47 ppt total). Calhoun's PFAS sampling collected May 2, 2021, reports PFOA and PFOS in samples collected at the Big Spring intake to the Brittany Drive WTP, and "in Bottle" water corresponding to a "Bottling Plant (Not owned by the City)" according to public records. These records indicate PFOA concentrations of 20 ppt and PFOS concentrations of 22 ppt "in Bottle."

Calhoun's past or present WPCP sludge generation, treatment, storage, handling, transport and disposal operations are being and have been performed in a manner which may

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[47] *See, e.g.*, AL Dep't of Public Health, *et al, Alabama Fish Consumption Advisories 2023* (July 2023), al-fish-advisory-2023.pdf (alabamapublichealth.gov); N.C. Dep't of Health & Human Servs., *NCDHHS Recommends Limiting Fish Consumption from the Middle and Lower Cape Fear River Due to Contamination With "Forever Chemicals"* (July 13, 2023), https://www.ncdhhs.gov/news/press-releases/2023/07/13/ncdhhs-recommends-limiting-fish-consumption-middle-and-lower-cape-fear-river-due-contamination; Wis. Dep't Nat. Res., *New Fish Consumption Advisory for Green Bay and Associated Tributaries* (May 4, 2023), https://dnr.wisconsin.gov/topic/PFAS/Advisories.html; Mich. PFAS Action Response Team, *Consumption Guidelines For Fish With Elevated PFOS Levels*, https://www.michigan.gov/pfasresponse/fishandwildlife/fish; Mass. Dep't of Pub. Health, *Department of Public Health Issues New Fish Consumption Advisories Based on PFAS in Fish at 13 State Parks* (Mar. 6, 2023), https://www.mass.gov/news/department-of-public-health-issues-new-fish-consumption-advisories-based-on-pfas-in-fish-at-13-state-parks; Me. Dep't of Health & Human Servs., *Maine CDC Issues Additional Advisories on Eating Freshwater Fish Due to PFAS Contamination* (Apr. 27, 2023), https://www.maine.gov/dhhs/news/maine-cdc-issues-additional-advisories-eating-freshwater-fish-due-pfas-contamination-thu-04272023-1200.

[48] *See, e.g.*, Mich. Dep't of Health and Human Servs., PFAS Levels in Michigan Deer From the Oscoda Area, Losco County (Apr. 22, 2021); Me. Dep't of Inland Fisheries and Wildlife, Maine – Fall 2021 Targeted Sampling and Advisory Summary Report (Feb. 8, 2022).

present an imminent and substantial endangerment to health and the environment, as established by Calhoun's sludge operations detailed above, which are responsible for PFAS reported in the Brittany Drive WTP finished drinking water, its source water wells, Big Spring at Dews Lake, and in other environmental and water sampling detailed above. The dates of these violations are as of the mid-1990's when Calhoun began land application of sludge generated by the WPCP, and December 2, 2021, which is the date on which Calhoun and/or EPD collected the PFAS sampling data set forth above reporting PFOA and PFOS at Mauldin Road's Coosawattee Intake and finished water, Brittany Drive Plant finished water, Well #4, Big Springs Intake, and "in Bottle" Botting Plant water. The locations of Calhoun's violations of RCRA correspond to each land parcel of Sludge Field 11, as well as each sludge field application site identified above, in Section II.A of this letter.

On September 6, 2022, EPA proposed to designate PFOA and PFOS as Hazardous Substances under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"). 87 Fed. Reg. 54415 (Sept. 6, 2022). In making these proposed designations, EPA explained that it was taking such action "based on significant evidence that PFOA and PFOS may present a substantial danger to human health and welfare and the environment." [49]

The drinking water data presented herein, reporting PFOA and PFOS in concentrations that far exceed EPA's drinking water Health Advisory Level for these pollutants, which EPA proposes to designate as CERCLA Hazardous Substances based on "significant evidence" that they "may present a substantial danger to human health and welfare" further illustrates the continuing endangerment to health and the environment. Because PFAS do not break down in the environment, Calhoun's ongoing and past land disposal of WPCP sludge will continue to contaminate Gordon County, the Coosawattee River Watershed, and downstream waters with PFAS, including PFOA, PFOS, PFBS and numerous other PFAS compounds. Consequently, Calhoun is engaged in the ongoing disposal of PFAS entering the environment via soil, groundwater, and surface water, which entail continuing violations of RCRA.

V. Persons Responsible for Violations

The City of Calhoun owns and operates the Calhoun WPCP, administers the pretreatment program pertaining to its Industrial Users, and land applies PFAS-contaminated sludge generated by the WPCP in the Coosa River Basin, including on properties adjacent to the Coosawattee River and throughout Gordon County, Georgia. Pursuant to 40 C.F.R. § 135.3 and 40 C.F.R. § 254.3, the City of Calhoun is identified as the person responsible [50] for all violations described in this letter.

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[49] *Proposed Designation of Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic Acid (PFOS) as CERCLA Hazardous Substances*, U.S. EPA (Sept. 8, 2022), https://www.epa.gov/superfund/proposed-designation-perfluorooctanoic-acid-pfoa-and-perfluorooctanesulfonic-acid-pfos.

[50] Under both the Clean Water Act, and the Resource Conservation and Recovery Act, the term "person" includes municipalities. 33 U.S.C. § 1362(5); 42 U.S.C. § 6903(14).

VI. Persons Giving Notice

In accordance with 40 C.F.R. § 135.3 and 40 C.F.R. § 254.3, Coosa River Basin Initiative provides the names, addresses and telephone numbers of the persons giving notice of intent to sue.

Coosa River Basin Initiative
5 Broad Street
Rome, GA 30161
(706) 232-2724

Coosa River Basin Initiative is a non-profit corporation organized under the State of Georgia that seeks to protect, preserve, and restore one of North America's most biologically diverse river systems, the Upper Coosa River Basin, including the Coosawattee River, Oostanaula River, Coosa River, Weiss Lake, and connected waters as part of the hydrologic cycle, including groundwaters and springs that feed these waters. Coosa River Basin Initiative achieves these purposes and objectives through education, advocacy, monitoring, public engagement, social events, sampling, pollution prevention measures, and seeking redress in the courts where reasonably necessary. Coosa River Basin Initiative is a member organization with more than 500 members, including individuals, families, and businesses – many of whom live and work, consume drinking water, swim, fish, boat, recreate, and engage in social events in, near, and on the Coosawattee River, Oostanaula River, Coosa River and connected waters, including springs, lakes, and Weiss Lake downstream from Calhoun's pollution. These members are harmed by Calhoun's Clean Water Act and Resource Conservation and Recovery Act violations and the ongoing harms that will occur unless and until Calhoun takes action to cease these harms.

The Southern Environmental Law Center is legal counsel for Coosa River Basin Initiative in this matter. Any response or correspondence related to this letter should be directed to the Southern Environmental Law Center at the address and/or telephone number below.

VII. Legal Counsel

Pursuant to 40 C.F.R. § 135.3 and 40 C.F.R. § 254.3, the following legal counsel, who will be representing Coosa River Basin Initiative, are identified:

Christopher J. Bowers
Hutton Brown
Southern Environmental Law Center
Ten 10th Street NW
Suite 1050
Atlanta, GA 30309
cbowers@selcga.org
hbrown@selcga.org

James S. Whitlock
Southern Environmental Law Center
48 Patton Ave., Suite 304
Asheville, NC 28801
jwhitlock@selcnc.org

VIII. Notice of intent to sue

As set forth in this letter, Calhoun has been, and continues to be, in violation of the Clean Water Act by discharging PFAS into surface waters via surface water conveyances and groundwater from Sludge Field 11, and by violating its NPDES permit, and its duty to enforce and properly administer its Clean Water Act pretreatment program. Furthermore, Calhoun's actions described above may present an imminent and substantial endangerment to health or the environment, in violation of the Resource Conservation and Recovery Act. A civil action under section 505 of the Clean Water Act and section 6972 of RCRA will be initiated against the Town of Calhoun once applicable notice periods have expired or soon thereafter unless the violations described above are fully redressed.

If litigation is necessary, Coosa River Basin Initiative will seek redress for the violations described in this letter, including injunctive relief, litigation costs, and expert fees and attorneys' fees and expenses under U.S.C.§§ 1365(a) and (d), 42 U.S.C. §§ 6972(a)(1)(B), 6972(e). Coosa River Basin Initiative will also seek civil penalties to the maximum extent allowable by law under 40 C.F.R. § 19.4 not to exceed $59,973 per day per violation of the Clean Water Act under 33 U.S.C. § 1319(d) and 40 CFR § 122, and civil penalties not to exceed $81,540 per day per violation of the Resource Conservation and Recovery Act under 42 U.S.C. 6928(g).

Coosa River Basin Initiative reserves the right to add additional claims to the specific Clean Water Act and RCRA violations set forth above based on the same or similar patterns of conduct. Coosa River Basin Initiative also reserves the right to seek additional remedies under state and federal law and does not intend, by giving this notice, to waive any other rights or remedies.

During the relevant notice period, Coosa River Basin Initiative is willing to discuss effective remedies for the violations detailed in this letter. If you wish to pursue negotiations in the absence of litigation, you should initiate such negotiations within the applicable notice period soon enough so that they can be completed, and the violations ceased, prior to the date that the notice periods elapse.

Thank you for your attention to this matter.

Sincerely,

Christopher J. Bowers

Christopher J. Bowers

Hutton Brown

James S. Whitlock

cc: Merrick Garland
U.S. Attorney General
U.S. Department of Justice
950 Pennsylvania Ave., NW
Washington, DC 20530-0001

Mr. Jeff Cown, Director
Georgia Department of Natural Resources
Environmental Protection Division
2 Martin Luther King Jr. Drive, SE
14th Floor East Tower, Suite 1456
Atlanta, GA 30334-9000