

February 28, 2024

VIA E-MAIL AND CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Mark Cline
Chief Executive Officer
Charleston Water System
P.O. Box B
Charleston, SC 29402

Mark Cline
Chief Executive Officer
Charleston Water System
103 St. Philip Street
Charleston, SC 29403

clinemf@charlestoncpw.com

Re: *Notice of Intent to File Citizen Suit Under the Clean Water Act Against
Charleston Water System*

Dear Mr. Cline:

On behalf of Charleston Waterkeeper, and in accordance with the citizen suit provision of the Clean Water Act (the “Act”), § 505, 33 U.S.C. § 1365, and 40 C.F.R. Part 135, Subpart A, we write to notify you of our intent to bring suit against Charleston Water System for unpermitted discharges of pollutants into waters of the United States and violations of its National Pollutant Discharge Elimination System (“NPDES”) permit. Charleston Water has repeatedly violated, and continues to violate, the Act by allowing sanitary sewer overflows (“SSOs”) to reach surface waters. Charleston Water has also repeatedly violated, and continues to violate, its NPDES permit by failing to maintain its sanitary sewer system and by failing to report SSOs.

For decades, Charleston Water has failed to address the significant SSO problem threatening Charleston’s waterways. Cracked and broken sewers, leaking manholes, the accumulation of grease and other materials resulting in pipe blockages, pump station failures, inadequate maintenance, and other issues cause SSOs that discharge raw sewage into nearby rivers, marshes, streets, and residents’ homes and backyards. Structural pipe and manhole defects also allow infiltration of groundwater and inflow of rainwater, commonly referred to as Infiltration and Inflow (“I&I”), to enter and overwhelm the sewer infrastructure, causing significant capacity deficiencies during wet-weather events. Since 2015, Charleston Water has had at least 176 illegal SSOs, many of which have discharged raw sewage into multiple waterbodies across Charleston, including the Ashley and Cooper Rivers. A majority of the SSOs occurred during wet-weather

events, and more concerningly, a majority of the wet-weather SSOs occurred during relatively routine rain events. This fact cannot be overstated as it demonstrates that Charleston Water is unable to accommodate rain events, tidal surge, and floodwater in a city plagued by frequent and intense storms and flooding. This issue will only grow worse as the impacts of climate change fuel worse storms and as the sewer system continues to structurally deteriorate, resulting in increasing levels of I&I over time and placing an even greater strain on Charleston Water's already inadequate sewage infrastructure.

As discussed further below, Charleston Water violates the Act's ban on the unpermitted discharge of pollutants into a surface water with each of these SSOs. Additionally, Charleston Water violates multiple conditions of its NPDES permit by failing to maintain its infrastructure and failing to report all SSO events. SSOs cause significant harm to both human health and the environment and must be addressed. If Charleston Water does not take steps to remedy these legal violations within sixty days, Charleston Waterkeeper will pursue these claims through legal action in the United States District Court for the District of South Carolina.

I. BACKGROUND

A. Sanitary Sewer Overflows

According to the U.S. Environmental Protection Agency, an SSO is an untreated or partially treated sewage release from a sanitary sewer system.¹ SSOs have numerous causes, including: blockages; pipe failures; structural defects that allow I&I to hydraulically overload the sanitary sewer system; inadequate operation and maintenance; inadequate sewer design and construction; and pump station equipment and power failures.²

SSOs negatively impact both the environment and human health. Principal pollutants present in SSOs typically include microbial pathogens (*e.g.*, bacteria), oxygen depleting substances, total suspended solids, total dissolved solids, toxics, nutrients, and floatables.³ By introducing these pollutants into surface waters, SSOs can lead to violations of water quality standards.⁴ The impacts on human health can be severe,⁵ especially when people make contact with or ingest contaminated water.⁶ EPA estimates that 1.8 million to 3.5 million people fall ill each year from swimming in waters contaminated by SSOs.⁷ Certain demographic groups face greater risk of exposure, including people who recreate in SSO-impacted waters, subsistence fishers, shell-fish harvesters, and wastewater workers.⁸ Pregnant women, children, individuals

¹ EPA, *Report to Congress: Impact and Control of CSOs and SSOs* at ES-2 (Aug. 2004) ES-2 – ES-3, available at https://www.epa.gov/sites/default/files/2015-10/documents/csosortc2004_full.pdf (last visited Feb. 4, 2024) [hereinafter referred to as "EPA Report"].

² *Id.*

³ *Id.*

⁴ *Id.* at 5-9.

⁵ *Id.* at 6-13, 6-17.

⁶ *Id.*

⁷ Nat. Res. Def. Council, *Swimming in Sewage* at 2 (Feb. 2004), available at <https://www.nrdc.org/sites/default/files/sewage.pdf> (last visited July 12, 2023).

⁸ EPA Report at 6-15.

with compromised immune systems, and the elderly may be at greater risk than the general population for serious or fatal outcomes resulting from exposure to pollutants found in SSOs.⁹

The frequency and intensity of SSOs will increase as population growth results in increased sanitary sewage production, as persistent and inevitable structural deterioration puts more strain on outdated sewer systems, as increasing amounts of impervious surfaces lead to more stormwater runoff, and as climate change increases the frequency and severity of storms.¹⁰ Each of these factors is plaguing Charleston as the area continues to experience rampant development and is on the frontline of the impacts of climate change. It is therefore critical that Charleston Water address its already problematic infrastructure issues leading to SSOs now. Without a fix for current violations, future SSOs by Charleston Water will be even more frequent, extensive, and harmful.

B. Inflow and Infiltration

I&I refers to the entry of extraneous water into a sanitary sewer system. Inflow is the entry of rainwater into the sanitary sewer system through specific stormwater connections.¹¹ Examples of inflow include misdirected stormwater entering the system through roof leaders, yard and area drains, manhole covers, and other drainage systems.¹² Infiltration refers to the ingress of groundwater into the sewer system through cracks, leaks, or defects in sewer infrastructure.¹³ Together, I&I is responsible for the majority of SSO volume in the United States, particularly during wet weather events.¹⁴

Excess water in a sanitary sewer system can rapidly escalate into a significant environmental problem. I&I hydraulically overloads a sewer system, leading to SSOs in which untreated sewage releases into streams and communities. I&I also reduces wastewater treatment efficiency and incurs additional costs for conveying and treating excess water.¹⁵

I&I is a major factor contributing to Charleston Water's SSOs. From 2015 through 2023, the system experienced at least 107 SSOs directly attributed to wet-weather events, representing 61 percent of Charleston Water's reported SSOs over that period. Of these wet-weather SSOs, 67 were caused directly by capacity deficiencies resulting from I&I, which represents nearly 40 percent of all SSOs.¹⁶

C. Climate Change Induced Stressors on Sewer Systems

In addition to the "typical" I&I issues facing sanitary sewer systems, climate change is compounding these significant problems by amplifying vulnerabilities and stressors on existing

⁹ *Id.* at 6-15–6-18.

¹⁰ *Infra* Part I.C.

¹¹ EPA Report at GL-3.

¹² *Id.*

¹³ *Id.*

¹⁴ *Id.* at ES-5.

¹⁵ *Id.*

¹⁶ *Infra* Part I.C.

infrastructure.¹⁷ Rainfall, for example, is expected to intensify as temperature increases, particularly in the Southeast.¹⁸ The region has already seen a 53 percent increase in the number of storms that drop at least an inch of water during the last twenty years.¹⁹ Current rainfall patterns exert pressure on the hydraulic capacity of sanitary sewer systems by increasing extraneous water ingress through I&I.²⁰ These hydraulic capacity challenges will only increase as climate change increases the amount of rainfall experienced in the region and the frequency of extreme precipitation events.²¹ Moreover, across the country, infrastructure decisions are being made using outdated storm and rainfall data, which means sewer facilities will continue to face an elevated risk of failure even when they are designed and adapted for future conditions.²²

Sea level rise will also impact sanitary sewer systems by increasing the frequency of flooding, elevations of tidal storm surges, raising the coastal groundwater table, and corroding infrastructure.²³ Much like precipitation events, elevated sea levels increase the amount of extraneous water introduced to the sewer system through I&I, particularly because rising seas raise the coastal groundwater table.²⁴ Higher coastal groundwater tables cause more groundwater to enter the system through infiltration, thus consuming the system's hydraulic capacity. As the system's hydraulic capacity is consumed by I&I, SSOs become more likely to occur.²⁵ Moreover, sea level rise poses significant risks to the integrity of sewage infrastructure because rising seas cause saltwater intrusion, which can corrode metallic pipes, pump station equipment and instrumentation, and other infrastructure systems.²⁶ In the last 100 years, the Charleston Harbor has experienced more than one foot of sea level rise. By 2050, sea levels are projected to increase another 10-14 inches.²⁷

¹⁷ Michael Comadeco, *Flood-Ready Pump Stations*, WE&T MAG (Nov. 2023) (discussing the likely impacts of climate change on wastewater systems).

¹⁸ *Chapter 2: Climate Trends, Fifth National Climate Assessment*, U.S. GLOB. CHANGE RSCH. PROGRAM (2023), <https://www.globalchange.gov/nca5>.

¹⁹ Mohommad S. Rahman et al., *Spatial and Temporal Variability of Extreme Precipitation Events in the Southeastern United States*, 14 ATMOSPHERE 14 at 2 (Aug. 2023).

²⁰ Michael Comadeco, *Flood-Ready Pump Stations*, WE&T MAG (Nov. 2023).

²¹ *Id.*

²² For example, when Houston and Harris County, Texas got funding to update their rainfall statistics following Hurricane Harvey, the “100-year” storm, or storm with a 1% annual chance of occurring, became the “25-year” storm, meaning that size storm was four times more likely using updated rainfall data. Matt Dulin, *NOAA Rainfall Data Redefined 100-year Storm Totals for Houston*, COMMUNITY IMPACT (September 27, 2018), <https://communityimpact.com/city-county/2018/09/27/noaa-rainfall-data-houston/>.

²³ Melissa R. Chalek, *Maintenance of Water and Sewer Infrastructure in Response to Sea Level Rise in Massachusetts*, MARINE AFFAIRS INST. (2020), https://docs.rwu.edu/cgi/viewcontent.cgi?article=1004&context=law_ma_sp; Yousef Sangsefidi et al., *Data-driven analysis and integrated modeling of climate change impacts on coastal groundwater and sanitary sewer infrastructure*, 99 SUSTAINABLE CITIES AND INFRASTRUCTURE, at 1 (2023).

²⁴ Sangsefidi et al, *supra* note 23.

²⁵ *Id.*; Comadeco, *supra* note 17, at 2.

²⁶ Sangsefidi, *supra* note 23.

Sangsefidi, *supra* note 23.

vel Rise and Flooding: An Introduction, 2023 FLOODING AND SEA LEVEL RISE STRATEGY UPDATE (2023), <https://storymaps.arcgis.com/collections/5f03a3cd61d244908eed5be10489d9a4?item=4>.

These impacts are, and will continue to be, particularly pronounced in coastal areas like Charleston.²⁸ Without proactive measures and adequate interventions to address these issues, the repercussions of climate-induced stress on sewer systems will result in increases in the frequency and severity of Charleston Water’s SSOs.²⁹

II. CHARLESTON WATER’S VIOLATIONS OF THE CLEAN WATER ACT

Congress enacted the Act “to restore and maintain the chemical, physical, and biological integrity of the Nation’s waters.”³⁰ To that end, section 301(a) of the Act prohibits the discharge of pollutants 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.³¹ NPDES permits prohibit certain discharges, regulate others, and set forth mandatory conditions that the permittee must follow. Each violation of a NPDES permit condition and each unauthorized discharge is a separate violation of the Act.³² Charleston Water operates under NPDES Permit Number SC0021229, which was issued by the South Carolina Department of Health and Environmental Control (“DHEC”) on July 15, 2019, and expires on July 31, 2024.

Under the Act, the phrase “discharge of a pollutant” means “any addition of any pollutant to navigable waters from any point source.”³³ The term “pollutant” includes “solid waste, . . . sewage, garbage, sewage sludge, . . . chemical wastes, biological materials . . . and industrial, municipal, and agricultural waste.”³⁴ The term “point source” includes any “discernible, confined and discrete conveyance” from which pollutants may be discharged, including pipes, ditches, channels, tunnels, conduits, wells, discrete fissures, and containers.³⁵ The point source need not be the original source of the pollution to be regulated under the Act; all that is required is that it conveys the pollution to a water of the United States.³⁶

A. SSOs Violate the Act’s Ban on Unpermitted Discharges into Surface Waters

Sections 301 and 402 of the Act, 33 U.S.C. §§ 1311 and 1342, expressly prohibit unpermitted discharges of pollutants into waters of the United States. Charleston Water’s NPDES permit only authorizes discharges from one point source from Charleston Water’s wastewater collection, conveyance, and treatment system: the Plum Island Wastewater Treatment Plant.³⁷ However, Charleston Water has reported multiple SSO events from multiple unpermitted sources

²⁸ *Id.*

²⁹ Camedeco, *supra* note 17, at 1.

³⁰ 33 U.S.C. § 1251(a).

³¹ *Id.* §§ 1311(a), 1342.

³² *See id.* § 1319(d) (“penalty . . . per day for each violation”).

³³ *Id.* § 1362(12)(A).

³⁴ *Id.* § 1362(6).

³⁵ *Id.* § 1362(14).

³⁶ *See S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95, 105 (2004).

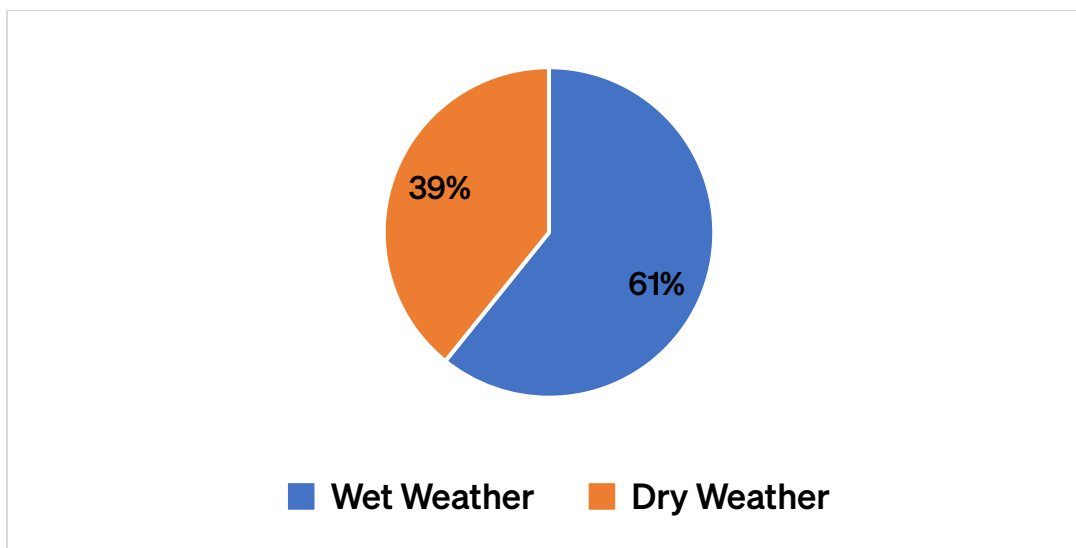
³⁷ NPDES Permit No. SC0021229 at 1 (authorizing discharges solely from the Charleston Water System Plum Island WWTP into Charleston Harbor); *id.* at Part III.A to .B (authorizing Charleston Water to discharge from a single outfall called “outfall serial number 001”).

that have reached surface waters. Each of these SSO events constitutes an unpermitted discharge under the Act.³⁸

Since 2015, Charleston Water has reported at least 176 SSO events. Since 2020, when it began reporting receiving waters of SSOs, at least 56 SSOs have reached a surface water. Because Charleston Water has not resolved the underlying causes of its SSOs, they are continuing to this day and so too are Charleston Water's violations of the Act.

A majority of SSOs in Charleston occur during wet-weather events, demonstrating the system's susceptibility to I&I, infrastructure vulnerabilities, and lack of hydraulic capacity to convey sewage flows during rainfall events without SSOs. Since 2015, more than 60 percent of reported SSOs were caused by wet-weather-related issues, including capacity deficiencies resulting from I&I and infrastructure equipment or electrical failures (*e.g.*, pump station failures) (Fig. 1). Many of the wet-weather SSOs resulting from capacity deficiencies occurred during common rainfall events with high statistical probabilities of occurring, not only during storm events with relatively high rainfall depths and lower statistical probabilities of occurring. For example, 56 percent of wet-weather SSOs resulting from capacity deficiencies occurred during a two-year, 24-hour recurrence interval rain event or less. A 2-year recurrence interval storm has a 50 percent statistical probability of occurring in a given year. Forty-one percent of wet-weather SSOs resulting from capacity deficiencies occurred during a one-year, 24-hour recurrence interval rain event or less. A one-year recurrence interval has a 100 percent statistical probability of occurring in a given year. Given the magnitude and intensity of the storm events that impact Charleston, such as tropical storms with associated tidal surges, it is troubling that Charleston Water lacks the capacity to safely convey sewage flows without SSOs during relatively routine rain events.

Figure 1: Weather Conditions of Charleston Water's SSOs (2015-2023)



³⁸ See, *e.g.*, *San Francisco Baykeeper v. W. Bay Sanitary Dist.*, 791 F. Supp. 2d 719, 754 (N.D. Cal. 2011).

These wet-weather SSOs can cause thousands of gallons of raw sewage to spill during a given event. For example, during a rain event on December 17, 2023, three separate SSOs caused raw sewage spills totaling approximately 40,000 gallons. Each of these SSOs reached a surface water and constitute a violation of the Act, not to mention a significant threat to public health.

As climate change increases the amount of rainfall the Charleston area experiences, the number of wet-weather SSOs will only increase. As discussed above, *supra* Part I.C, sea level rise and increased precipitation threaten the operational capacity of Charleston Water's sanitary sewer system. Charleston Water must act to address its ongoing violations of the Act caused by frequent wet-weather SSOs.

B. Failure to Maintain Sewage Collection Infrastructure

Proper operation and maintenance of Charleston Water's sanitary sewer system is a touchstone requirement under its NPDES permit. The NPDES permit provides:

The permittee shall at all times properly operate and maintain in good working order and operate as efficiently as possible all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance based on design facility removals, adequate funding, adequate operator staffing and training and also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.³⁹

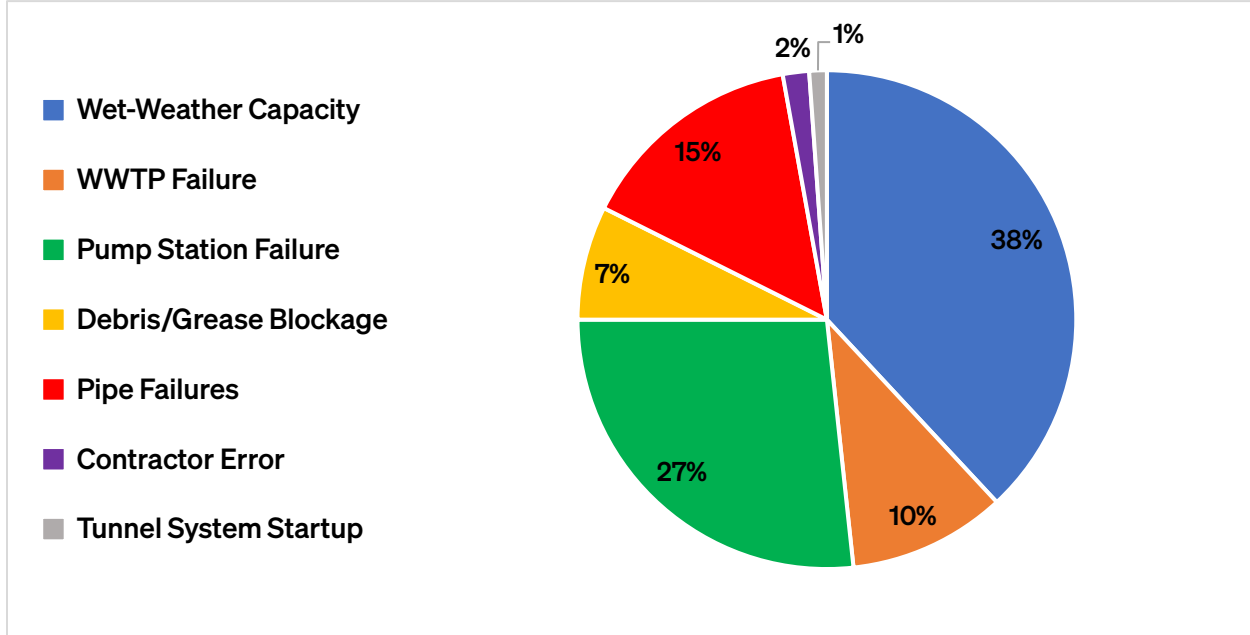
Charleston Water's NPDES permit also specifies that Charleston Water must "[p]rovide adequate capacity to convey base flows and peak flows for all parts of the sewer system or, if capital improvements are necessary to meet this standard, develop a schedule of short and long[-]term improvements."⁴⁰

It is evident that Charleston Water has violated each of these NPDES permit obligations. First, 104 of the 176 SSOs that Charleston Water has reported since 2015, or nearly 60 percent, were attributed to equipment or operations and maintenance problems of some kind (Fig. 2). Specifically, there were 47 pump station failures, including mechanical, electrical, and instrumentation (*i.e.*, SCADA) failures; 18 wastewater treatment plant equipment failures or power outages; 13 debris or grease blockages; and 26 pipe failures. These SSO causes, as self-reported by Charleston Water, are evidence of an operations and maintenance problem within the sewer system.

³⁹ NPDES Permit No. SC0021229 at Part II.E.1.

⁴⁰ *Id.* at Part II.E.6.

Figure 2: Causes of Charleston Water’s SSOs (2015-2023)



Second, most of Charleston Water’s SSOs occur in wet weather, especially during relatively routine—and increasingly common—rainfall events (Fig. 1). Again, between 2015 and 2023, approximately 56 percent of wet-weather SSOs resulting from capacity deficiencies occurred during a two-year, 24-hour recurrence interval rain event or less; 41 percent of wet-weather SSOs resulting from capacity deficiencies occurred during a one-year, 24-hour recurrence interval rain event or less.⁴¹ A one-year recurrence interval has a *100 percent* statistical probability of occurring in a given year. As explained above, *supra* Part I.C, with the advance of climate change, precipitation events are expected to become more frequent and intense in the Charleston region. The data demonstrates that Charleston Water lacks adequate hydraulic capacity in the sewer system—now and under future conditions—to convey peak flows caused by I&I during wet weather without SSOs. Further, to Charleston Waterkeeper’s knowledge, Charleston Water has not developed a schedule of short- and long-term capital improvements to address this hydraulic capacity deficiency in the sewer system. Charleston Water is therefore in violation of Part II.E of its NPDES permit.

C. Failure to Report Violations of NPDES Permit

Under its NPDES permit, Charleston Water must report certain violations of the NPDES Permit to DHEC no later than 24 hours after Charleston Water becomes aware of the violation.⁴² Charleston Water must also submit a written report to DHEC within five days unless DHEC waives that requirement on a case-by-case basis.⁴³ Reportable violations include (1) any non-compliance

⁴¹ *Supra* Part II.A.

⁴² NPDES Permit No. SC0021229 Part II.L.5.

⁴³ *Id.*

which may endanger human health or the environment; (2) any spill or release that reaches the surface waters of the State; (3) and any spill or release that exceeds an estimated 500 gallons.⁴⁴

Upon reasonable investigation and analysis, Charleston Waterkeeper believes that Charleston Water is violating these reporting obligations. For example, one individual reported an SSO at Arcadian Way and Oakdale Place to Charleston Waterkeeper on December 17, 2024. This individual included a video showing the SSO, which occurred adjacent to the Ashley River. Yet, Charleston Water did not report an SSO at this location to DHEC on December 17, 2024. Charleston Water only reported SSOs at Lyttleton Avenue, Donahue Drive, and Plum Island. *See* Exhibit A. Moreover, as noted in Figure 2, from 2015 to 2023, only about 7 percent of Charleston Water’s self-reported SSOs resulted from fats, oils, and grease (“FOG”) or other debris blockages. The Charleston sewer system, however, is old—particularly on the Peninsula where there is a high concentration of restaurants, which are the most common source of FOG discharges to sewer systems. Relative to more modern sewer pipes, older sewer pipes installed when the Charleston sewer system was initially constructed were made of more brittle materials, were installed in shorter pipe lengths, and were installed using outdated and less effective construction methods, such as lack of proper bedding material placement. As a result, older sewer pipes commonly have cracks, holes, and offset joints that allow soil, roots, and other debris to enter and accumulate in them. Older sewer pipes often contain sags that slow flow velocity and cause deposits of debris and sanitary sewage materials (*e.g.*, sewage matter and “flushable” wipes) to form. Further, areas with a high concentration of restaurants tend to experience high levels of FOG discharges and accumulation in sewer pipes. FOG, root, soil, and debris accumulation in older sewer pipes reduces hydraulic flow capacity and results in blockages, which in turn corresponds with more SSOs occurring.

In addition to the Peninsula, the West Ashley area of the sewer system is likely suffering from similar structural deficiencies and debris ingress and accumulation problems. The pipes in West Ashley are old as well and are prone to I&I, as demonstrated by the high number of wet-weather SSOs from the sewer system in West Ashley (Exhibit A). Because infiltration enters pipes through the same kinds of defects as roots and other debris, there should also be blockage SSOs related to debris, root, and perhaps FOG accumulation occurring in West Ashley during dry weather.

In light of these factors, it is unlikely that Charleston Water is accurately reporting the number of dry-weather SSOs caused by FOG, root, and other debris blockages in its sewer system. In fact, Charleston Water has reported fewer blockage SSOs in recent years than it did at the beginning of the 21st century. Charleston Water identified six FOG SSOs in 2002, two in 2003, and four in 2004. It identified two debris SSOs in 2002, four in 2003, and zero in 2004. For the next four years, FOG SSOs ceased altogether, and there was never more than one in a given year until 12 years later, when Charleston Water reported just two in 2016. More recently, since 2015, Charleston Water has reported four years without a single FOG SSO, including three consecutive years between 2017 and 2019, and six consecutive years without a single debris SSO between

⁴⁴ *Id.*

2015 and 2020. Unless Charleston Water has instituted a robust FOG source control program and a highly effective cleaning program—which has not happened to Charleston Waterkeeper’s knowledge—the number of blockage SSOs are almost certainly higher than Charleston Water is reporting to DHEC. This is a violation of Part II.L of Charleston Water’s NPDES permit.

III. CONCLUSION

As described above, Charleston Water is responsible for recurrent violations of the Clean Water Act by (1) discharging pollutants into surface waters without a NPDES permit authorizing such discharges; (2) violating its NPDES permit by failing to properly operate and maintain its sewage collection system; and (3) violating its NPDES permit by failing to report certain SSOs to DHEC. If Charleston Water does not take steps to remedy the underlying causes of SSOs, Charleston Waterkeeper will pursue these claims in federal court at the conclusion of the 60-day notice period.

Pursuant to 40 C.F.R. § 135.3(a), notice is hereby provided that the name, address, and telephone numbers of the persons giving notice of intent to sue are as follows:

Charleston Waterkeeper
Post Office Box 29
Charleston, SC 29402
(843) 607-3390

Southern Environmental Law Center
525 East Bay Street, Suite 200
Charleston, SC 29403
(843) 720-5270
Legal Counsel for Charleston Waterkeeper

During the pendency of the notice period, if you have any questions or would like to discuss this matter further, please contact the undersigned at 843-720-5270 or Southern Environmental Law Center, 525 East Bay Street, Suite 200, Charleston, SC 29403.

Sincerely,



Catherine Wannamaker
Emily Wyche
Mathieu Erramuzpe
Susie Carlson
Southern Environmental Law Center

cc (by certified mail only):

Michael S. Regan, Administrator
U.S. Environmental Protection Agency
Office of the Administrator, Mail Code 1101A
1200 Pennsylvania Avenue, N.W.
Washington, D.C. 20460

Jeaneanne Gettle, Acting Regional Administrator
U.S. Environmental Protection Agency Region 4
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Edward Simmer, Agency Director
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, SC 29201

EXHIBIT A

SSO TABLE

Date	Location	Area	Receiving Water	Weather Conditions	Cause	Gallons
2/16/2020	101 N Romney St, Charleston, SC 29403	Downtown	Storm drain inlet that drains to the marsh and then Ashley River	Dry	Debris blockage	2400
4/24/2020	1127 Donahue Dr, Charleston, SC 29407	West Ashley	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity	3850
5/20/2020	790 Woodward Rd, Charleston, SC 29407	West Ashley	Marsh leading to Ashley River	Wet	Wet weather capacity	2400
8/25/2020	1127 Donahue Dr, Charleston, SC 29407, USA	West Ashley	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity	3340
9/18/2020	5 Fort Royal Ct, Charleston, SC 29407	West Ashley	Storm drain to marsh to Ashley River	Wet	Wet weather capacity; pump station power outage	1200
9/18/2020	1127 Donahue Dr, Charleston, SC 29407	West Ashley	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity; pump station power outage	600
9/19/2020	37 Flood St, Charleston, SC 29403	Downtown	Storm drain to Ashley River	Dry	Main blockage compounded with high tides	4800
9/29/2020	1127 Donahue Dr, Charleston, SC 29407	West Ashley	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity; electrical failure	12000
11/5/2020	3025 Ashley Town Center Dr, Charleston, SC 29414	West Ashley/Johns Island	West Ashley tidal creek to Stono River	Dry	Hole in equipment	25800
1/14/2021	2554 Birkenhead Dr, Charleston, SC 29414	West Ashley	Possibly ditch to Long Branch Creek	Dry	Gravity main blockage	150
2/1/2021	4 Lyttleton Ave, Charleston, SC 29407	West Ashley	Marsh leading to Wappoo Cut to the Ashley River	Dry	Pump station mechanical failure caused by blockage	2100
2/1/2021	80 Folly Rd Blvd, Charleston, SC 29407	West Ashley	Marsh leading to Wappoo Cut to the Ashley River	Dry	Pump station mechanical failure caused by blockage	2100

5/11/2021	625 White Oak Dr, Charleston, SC 29407	West Ashley	Storm pipe possibly leading to marsh	Dry	Sewer main blockage	1500
5/19/2021	160 Main Rd, Johns Island, SC 29455	Johns Island	Drain adjacent to marsh	Dry	Sewer main blockage	100
5/29/2021	5 Gadsdenboro St, Charleston, SC 29401	Downtown	Maybe to the Cooper River	Dry	Sewer main blockage	660
6/12/2021	2259 S Dallerton Cir, Charleston, SC 29414	West Ashley	Ditch leading to the Wappoo Cut and then Ashley River	Wet	Wet weather capacity and blockage	150
6/12/2021	2 Broughton Rd, Charleston, SC 29407	West Ashley	Marsh leading to Wappoo Cut to the Ashley River	Wet	Wet weather capacity and power outage	900
6/12/2021	5 Lyttleton Ave, Charleston, SC 29407	West Ashley	Marsh leading to Wappoo Cut to the Ashley River	Wet	Wet weather capacity and power outage	18000
6/12/2021	539 Harbor View Circle, Charleston, SC 29412	Plum Island WWTP	Marsh leading to Wappoo Cut to the Ashley River	Wet	Wet weather capacity and power outage	27000
6/13/2021	46 S Battery, Charleston, SC 29401	Downtown	Stormwater collection system leading to Charleston Harbor	Wet	Wet weather capacity and blockage	37530
7/8/2021	2 Oakdale Pl, Charleston, SC 29407	West Ashley	Marsh leading to Ashley River	Wet	Wet weather capacity	15600
7/8/2021	790 Woodward Rd, Charleston, SC 29407	West Ashley	Marsh leading to Ashley River	Wet	Wet weather capacity and power outage	75
7/8/2021	1127 Donahue Dr, Charleston, SC 29407	West Ashley	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity	22800
7/8/2021	5 Fort Royal Ct, Charleston, SC 29407	West Ashley	Storm drain to marsh to Ashley River	Wet	Wet weather capacity	600
7/8/2021	1578 Dowden Ct, Charleston, SC 29407, USA	West Ashley	Storm ditch to creek to marsh to Ashley River	Wet	Wet weather capacity and pump mechanical issue	7500

7/22/2021	5 Fort Royal Ct, Charleston, SC 29407	West Ashley	Storm drain to marsh to Ashley River	Wet	Wet weather capacity and equipment failure	500
7/31/2021	2587 Ashley River Rd, Charleston, SC 29414	West Ashley	Storm ditch to creek to Ashley River	Dry	Force main pipe cracked due to external corrosion	7140
8/4/2021	3050 Ashley Town Center Dr, Charleston, SC 29414	West Ashley	Marsh leading to West Ashley tidal creek to Stono Creek	Dry	Air release valve crack due to external corrosion	4500
8/18/2021	1734 Raoul Wallenberg Blvd, Charleston, SC 29407	West Ashley	Storm system to a ditch to Ashley River	Wet	Wet weather capacity	6900
8/18/2021	1127 Donahue Dr, Charleston, SC 29407	West Ashley	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity	11400
10/5/2021	1144 Anita Dr, Charleston, SC 29407	West Ashley	Ditch to marsh to Ashley River	Wet	Wet weather capacity	4400
1/31/2022	2905 Winners Cir, Charleston, SC 29414	West Ashley	Church Creek	Dry	Mainline blockage	4500
7/10/2022	539 Harbor View Circle, Charleston, SC 29412	Plum Island WWTP	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity	3000
7/23/2022	71 Fort Royal Ave, Charleston, SC 29407	West Ashley	Ditch to marsh to Ashley River	Wet	Wet weather capacity; electrical failure	30000
7/23/2022	1127 Donahue Dr, Charleston, SC 29407	West Ashley	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity; electrical failure	36000
8/29/2022	1127 Donahue Dr, Charleston, SC 29407	West Ashley	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity	9000
9/1/2022	1127 Donahue Dr, Charleston, SC 29407	West Ashley	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity	32250
9/2/2022	5 Lyttleton Ave, Charleston, SC 29407	West Ashley	Marsh leading to Wappoo Cut to the Ashley River	Wet	Wet weather capacity; broken pipe	200

9/2/2022	1734 Raoul Wallenberg Blvd, Charleston, SC 29407	West Ashley	Storm system to a ditch to Ashley River	Wet	Wet weather capacity	1400
9/9/2022	1735 Ashley Hall Rd, Charleston, SC 29407	West Ashley	Storm system to a marsh, possibly to Ashley River	Wet	Wet weather capacity	16500
9/9/2022	539 Harbor View Circle, Charleston, SC 29412	Plum Island WWTP	Dill Creek	Wet	Wet weather capacity	100000
9/30/2022	539 Harbor View Circle, Charleston, SC 29412	Plum Island WWTP	Dill Creek	Wet	Wet weather capacity	150000
9/30/2022	1127 Donahue Dr, Charleston, SC 29407	West Ashley	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity	4200
9/30/2022	1578 Dowden Ct, Charleston, SC 29407	West Ashley	Storm ditch to creek to Ashley River	Wet	Wet weather capacity	1350
10/1/2022	2 Oakdale Pl, Charleston, SC 29407	West Ashley	Marsh to Ashley River	Wet	Wet weather capacity	2320
10/1/2022	1433 Burningtrees Rd, Charleston, SC 29412	West Ashley	Stormwater collection system to Ashley River	Wet	Wet weather capacity	1200
10/15/2022	3050 Ashley Town Center Dr, Charleston, SC 29414	West Ashley	Marsh leading to West Ashley tidal creek to Stono Creek	Dry	Air release valve malfunction	460
2/15/2023	950 Brownswood Road, Johns Island, SC 29455	Johns Island	James Island Creek to Ashley River	Dry	Force main failure	5000
2/25/2023	878 Riverland Drive, Charleston, SC 29412	James Island	James Island Creek	Dry	Force main failure	3825
3/8/2023	878 Riverland Drive, Charleston, SC 29412	James Island	James Island Creek	Dry	Force main failure	9600
5/9/2023	878 Riverland Drive, Charleston, SC 29412	James Island	James Island Creek	Wet	Force main failure	4250

5/9/2023	878 Riverland Drive, Charleston, SC 29412	James Island	James Island Creek	Wet	Force main failure	4250
5/11/2023	878 Riverland Drive, Charleston, SC 29412	James Island	James Island Creek	Dry	Force main failure	4250
10/27/2023	3025 Ashley Town Center Dr, Charleston, SC 29414	West Ashley	Stormwater inlet to creek to Wappoo Creek to Ashley River	Dry	Mainline blockage of 8- inch gravity sewer main.	450
12/17/2023	1127 Donahue Dr, Charleston, SC 29407	West Ashley	Stormwater pond to marsh to Ashley River	Wet	Wet weather capacity	7200
12/17/2023	5 Lyttleton Ave, Charleston, SC 29407	West Ashley	Drainage ditch in marsh to Wappoo Cut to Ashley River	Wet	Wet weather capacity	10800
12/17/2023	539 Harbor View Circle, Charleston, SC 29412	Plum Island WWTP	Dill Creek	Wet	Wet weather capacity	20,000