UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF MASSACHUSETTS

CONSERVATION LAW FOUNDATION, INC., *Plaintiff,* v. TOWN OF BARNSTABLE, MASSACHUSETTS, *Defendant.*	Case No. _____ **COMPLAINT FOR DECLARATORY AND INJUNCTIVE RELIEF AND CIVIL PENALTIES** July 22, 2024 (Federal Water Pollution Control Act, 33 U.S.C. §§ 1251 to 1388)

INTRODUCTION

1. Conservation Law Foundation ("CLF") brings this citizen suit to hold the Town of Barnstable ("Defendant") accountable for violating the Clean Water Act by continuously discharging pollutants, including sewage, from the Hyannis Water Pollution Control Facility ("Facility") and its sand beds to waters of the United States without a federal National Pollutant Discharge Elimination System ("NPDES") Permit.

2. Cape Cod's sparkling waters play a role in many treasured traditions—from the Wampanoag Tribes' sacred cultural traditions, to the United States's earliest legal traditions, to family traditions enjoyed by the nearly four million tourists who visit the Cape Cod National Seashore annually. But the once-clear waters are murky and draining of life as ever-higher levels of sewage seep through the Cape's sandy soils and into its waters. Nitrogen pollution from this sewage causes algae blooms that choke out critical flora, suffocate aquatic animals, and threaten human health.

3. For at least 20 years, Defendant has known that the waters of the Lewis Bay Watershed System are being polluted by excessive nitrogen. *See* Massachusetts Estuaries Project

Linked Watershed-Embayment Model ("MEP Report") at 11, excerpts of which are attached as Exhibit A, at 11.

4. Despite this knowledge, Defendant discharges pollutants from the Facility and its sand beds. These pollutants move swiftly and over a short distance to the surface waters of the Lewis Bay Watershed System in a manner functionally equivalent to a direct discharge.

5. The Facility receives raw sewage from thousands of properties in and around Barnstable, provides some treatment, and then discharges sewage laden with nitrogen and other pollutants into sand beds and then to waters of the United States.

6. These discharged pollutants travel distances ranging from approximately 230 feet to 1.77 miles from the Facility and its sand beds through ground and surface water into the many interconnected waterbodies of the Lewis Bay Watershed System. These waterbodies include, but are not limited to, the following waters of the United States: Duck Pond; Dunns Pond; Unnamed Pond A; Fawcetts Pond; Aunty Bettys Pond; Unnamed Pond B; Simmons Pond; Schoolhouse Pond; Halls Creek; Stewart's Creek; Snow's Creek; Hyannis Inner Harbor; and Lewis Bay, among other waterbodies. *See infra* ¶ 66 (map).

7. The Facility is the largest individual source of nitrogen polluting the waters of the Lewis Bay Watershed System: Defendant's Facility discharges 12,947 kilograms of nitrogen into these waters annually. Ex. A, MEP Report at 34.

8. Numerous studies have assessed the causes and extent of damage to the Cape's waters, and the answer is unequivocal: improper treatment of sewage has allowed enormous amounts of nitrogen to invade and degrade the waters. Comprehensive Wastewater Management Plan Needs Assessment Report at ES-5, excerpts of which are attached as Exhibit B.

9. According to Massachusetts Department of Environmental Protection ("MassDEP"), failure to reduce and control nitrogen pollution to these waters could result in complete replacement of eelgrass by macro-algae, a higher frequency of extreme decreases in dissolved oxygen concentrations and fish kills, widespread occurrence of unpleasant odors and visible scum, and a complete loss of benthic macroinvertebrates throughout most of the system. Lewis Bay System Total Maximum Daily Loads for Total Nitrogen ("TMDL") at ii, attached as Exhibit C.

10. As discussed below, CLF's members are deeply impacted by Defendant's discharges and the resulting conditions. They do not enjoy the waters as they used to and are witnessing the death of the once thriving ecosystem of the Lewis Bay Watershed System.

11. Under the Clean Water Act, no person may discharge pollutants from a point source to the waters of the United States unless so authorized by the Environmental Protection Agency ("EPA") under a NPDES Permit.

12. Defendant does not have, and has never had, a NPDES Permit to discharge pollutants from the Facility and its sand beds to the waters of the Lewis Bay Watershed System.

13. To address this unlawful and ongoing damage to this Nation's waters, CLF respectfully requests declaratory, injunctive, and other relief the Court deems just and appropriate to remedy Defendant's violations of the Clean Water Act.

JURISDICTION AND VENUE

14. CLF brings this civil suit under the citizen suit provision of the Federal Water Pollution Control Act ("Clean Water Act" or "the Act"). 33 U.S.C. § 1365.

15. The Court has subject matter jurisdiction because CLF's action arises under the laws of the United States, namely the Clean Water Act. 33 U.S.C. § 1365(a)(1); 28 U.S.C. § 1331 (federal question).

16. The Court has jurisdiction to declare the rights and other legal relations of the Parties with the force and effect of a final judgment or decree, to enjoin Defendant to abate its unlawful acts and remediate past violations of federal law, and award further necessary or proper relief. 28 U.S.C. §§ 2201–02 (declaratory judgment); 33 U.S.C. § 1365(a) (injunctive relief and civil penalties) and § 1365(d) (litigation costs).

17. CLF has satisfied the Clean Water Act's notice requirement.

18. On February 16, 2023, CLF notified Defendant of its intention to file suit for violations of the Clean Water Act. 33 U.S.C. § 1365(a)(1); 40 C.F.R. § 135.2. A true and accurate copy of Plaintiff's Notice Letter (the "Notice Letter") is attached as Exhibit D.

19. More than 60 days have elapsed since CLF's notice to Defendant, the Administrator, and the Commonwealth. Certified mail receipts and delivery confirmations are attached as Exhibit E.

20. Since the date of the Notice Letter, neither the EPA nor the Commonwealth of Massachusetts commenced an action to redress the violations alleged in this Complaint. 33 U.S.C. § 1365(b)(1)(B).

21. As the source of the violations is located within this judicial district, venue is proper. 33 U.S.C. § 1365(c)(1).

22. As such, CLF files this action in this Court to hold Defendant accountable for its violations of the Clean Water Act.

THE PARTIES

23. Plaintiff CLF is a nonprofit, member-supported, regional organization dedicated to protecting New England's environment.

24. CLF is incorporated under the laws of Massachusetts with a principal place of business at 62 Summer Street, Boston, Massachusetts 02110.

25. CLF is a person as defined in the Clean Water Act. *See* 33 U.S.C. §1362(5).

26. For over 50 years, CLF has worked to protect the health of New England's waterways, including addressing the significant water quality impacts of sewage pollution.

27. CLF actively seeks federal and state agency implementation of the Clean Water Act and, where necessary, directly initiates actions on behalf of itself and its members to enforce the Act.

28. CLF has a long history of working to protect the waters of Cape Cod.

29. CLF has over 6,000 members, including more than 3,200 members in Massachusetts and 180 on Cape Cod.

30. CLF members use and enjoy New England's waterways for recreational and aesthetic purposes, including boating, swimming, fishing, hunting, and sightseeing.

31. The waters used and enjoyed by CLF's members include, but are not limited to, the waters of the United States adversely affected by Defendant's unpermitted discharges of pollutants.

32. CLF's members live on and visit Cape Cod and they are harmed by Defendant's pollution that is damaging the water quality where they live and recreate.

33. Defendant Town of Barnstable is located in Barnstable County.[1]

[1] Hyannis, where the Facility is located, is a village in the Town of Barnstable.

34. Defendant is a municipality and therefore a person under the Clean Water Act. *See* 33 U.S.C. §1362(5).

35. Defendant owns and/or operates the Facility, i.e., the Hyannis Water Pollution Control Facility at 18 Bearses Way, Hyannis, Massachusetts.

36. On average as of 2020, 1.67 million gallons of wastewater flow through the Facility daily. Comprehensive Wastewater Management Plan ("CWMP") at 1-4, excerpts of which are attached as Exhibit F.

37. Public records from 2018 show that concentrations of total nitrogen in sewage that Defendant discharges from the Facility has monthly averages reaching as high as 12.79 milligrams per liter ("mg/L"). Barnstable Wastewater Treatment Plant Monthly Maximum Data Report at 4, attached as Exhibit G.

LEGAL BACKGROUND

I. The Clean Water Act's National Pollutant Discharge Elimination System Permit Requirement

38. In 1972, Congress passed the Clean Water Act "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a).

39. To that end, the Clean Water Act forbids the "discharge of a pollutant" from a "point source" to "navigable waters" without the appropriate permit. 33 U.S.C. §§ 1311(a), 1362(12)(A).

40. The "discharge of a pollutant" means "any addition of any pollutant or combination of pollutants to navigable waters from any point source" and "any additional of any pollutant to the waters of the contiguous zone or the ocean from any point source other than a vessel or other floating craft." U.S.C. § 1362(12); 40 C.F.R. § 122.2.

41. The term "pollutant" includes "sewage," "sewage sludge," "biological materials," "chemical wastes," and "industrial, municipal, and agricultural waste discharged into water." 33 U.S.C. § 1362(6).

42. The Act defines "point source" broadly to include "any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged." 33 U.S.C. § 1362(14).

43. "Navigable waters" include "the waters of the United States, including the territorial seas." 33 U.S.C. § 1362(7).

44. "Waters of the United States" is defined by EPA and Army Corps of Engineers ("ACOE") Rules, which were updated in 2023 following the case *Sackett v. EPA*, 598 U.S. 651 (2023). 88 F.R. 61964 ("Revised Definition of 'Waters of the United States'); Conforming"); 33 C.F.R. 328 (EPA Rule); 40 C.F.R. 120 (ACOE Rule). Under the current rule, waters of the United States include, but are not limited to:

i. waters that are "currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce," territorial seas, or interstate waters, 40 C.F.R. § 120.2(a)(1)(i)–(iii);

ii. tributaries of waters used in commerce, territorial seas, or interstate waters "that are relatively permanent, standing or continuously flowing bodies of water," 40 C.F.R. § 120.2(a)(3); *see also U.S. v. Moses*, 496 F.3d 985, 989 (9th Cir. 2007);

iii. and intrastate lakes and ponds "that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection

to" waters used in commerce, territorial seas, interstate waters, or tributaries of such waters," 40 C.F.R. § 120.2(a)(5).

45. Waters that are navigable-in-fact can be considered "navigable waters."

46. The Clean Water Act requires the owner and/or operator of a "point source" to obtain NPDES permit "when there is a direct discharge from a point source into navigable waters or when there is the functional equivalent of a direct discharge." *Cty. of Maui, Hawaii v. Hawaii Wildlife Fund*, 140 S. Ct. 1462, 1476 (2020).

47. To determine whether a discharge of a pollutant is the functional equivalent of a direct discharge from a point source into navigable waters, the Court considers relevant factors including:

(i) transit time;

(ii) distance traveled;

(iii) "nature of the material through which the pollutant travels";

(iv) "the extent to which the pollutant is diluted or chemically changed as it travels";

(v) "the amount of pollutant entering the navigable waters relative to the amount of the pollutant that leaves the point source";

(vi) "the manner by or area in which the pollutant enters the navigable waters";

(vii) and "the degree to which the pollution (at that point) has maintained its specific identity."

Id. at 1476–77.

48. The Court also considers the "underlying statutory objectives" of the Clean Water Act: a determination of whether a discharge is functionally equivalent to a direct discharge

should not "create loopholes that undermine the statute's basic federal regulatory objectives." *Id.* at 1477.

II. Citizen Enforcement of the Clean Water Act

49. EPA explains that the Clean Water Act is "the primary Federal statute regulating the protection of the nation's water," and "aims to prevent, reduce, and eliminate pollution in the nation's water in order to 'restore and maintain the chemical, physical, and biological integrity of the Nation's waters.'"[2]

50. "A stated goal of the [Clean Water Act] is to eliminate discharge of pollutants into navigable waters . . . ."[3]

51. Congress declared that among the goals of the Clean Water Act is "[p]ublic participation in the development, revision, and enforcement of any regulation, standard, effluent limitation, plan, or program established . . . under this chapter," and that public participation is "*encouraged*." 33 U.S.C. § 1251(e) (emphasis added).

52. The Clean Water Act authorizes any citizen to bring an action in a federal district court against any "person alleged to be in violation of an effluent standard or limitation . . . ." 33 U.S.C. § 1365(a)(1); *see also* 33 U.S.C. §§ 1342, 1365(f).

53. Federal district courts have jurisdiction "to enforce such an effluent standard or limitation, or such an order, . . . and to apply any appropriate civil penalties." 33 U.S.C. § 1365(a)(2).

54. The term "person" includes a municipality, 33 U.S.C. §§ 1362(4), which is "a city, town, borough, county, parish, district, association, or other public body created by or

[2] EPA, *Clean Water Act (CWA) and Federal Facilities*, https://www.epa.gov/enforcement/clean-water-act-cwa-and-federal-facilities (accessed July 22, 2024).
[3] *Id.*

pursuant to State law and having jurisdiction over disposal of sewage, industrial wastes, or other wastes," 33 U.S.C. § 1362(5).

55. Each separate violation of the Clean Water Act subjects the polluter to a penalty: up to $64,618 per day per violation of the Clean Water Act. 33 U.S.C. § 1319(d); 40 C.F.R. §§ 19.1–19.4.

FACTUAL BACKGROUND

I. Cape Cod's Waters

56. Arriving on Cape Cod is "a transformative experience, even for those who do it all the time."[4] The waters are meaningful to many people. For "millennia," the waters of Cape Cod have been the "lifeblood" of the Wampanoag Tribe.[5] Each year approximately four million people visit the Cape Cod National Seashore.[6]

57. The ocean is not the only significant waterbody drawing residents and tourists to Cape Cod: there are also approximately 890 ponds and lakes.[7] 2021 Cape Cod Pond and Lake Atlas ("Pond and Lake Atlas") at 15, excerpts of which are attached as Exhibit H. The ponds are "strewn like shimmering jewels" across Cape Cod and "make[] for a perfect, bucolic escape from the crowded shoreline."[8] Barnstable alone has 163 ponds covering 1,911 acres. Ex. H, Pond and Lake Atlas at 19.

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[4] Todd Plummer, *13 Best Cape Cod Hotels, from Falmouth to Provincetown*, CONDÉ NAST TRAVELER, April 13, 2023, https://www.cntraveler.com/story/best-cape-cod-hotels (accessed June 18, 2024).
[5] Mashpee Wampanoag, *Natural Resources Department*, https://mashpeewampanoagtribe-nsn.gov/natural-resources (accessed June 18, 2024).
[6] Cape Cod Chamber of Commerce, *Regional Data Center*, https://www.capecodchamber.org/your-chamber/economic-development/regional-data-center (accessed July 11, 2023) (3,998,220 visitors in 2022; 4,037,007 visitors in 2021).
[7] There is no established distinction between a pond and a lake. In Massachusetts, "common practice . . . [is] to use 'lake' and 'pond' interchangeably." Cape Cod Commission, *Cape Cod Ponds and Lakes Atlas, 2003*, May 2003 at 15, https://www.capecodgroundwater.org/wp-content/uploads/2012/04/PondAtlasExecutiveSummary.pdf (accessed July 18, 2024).
[8] Beth Greenfield, *Wellfleet Ponds Are Secret Cape Cod Treasures*, FORBES, Aug. 15, 2012, https://www.forbes.com/sites/bethgreenfield/2012/08/15/wellfleet-ponds-are-secret-cape-cod-treasures/?sh=33025b9d2ad4) (accessed June 18, 2024).

58. Some of these ponds, including Fawcetts Pond, Aunt Bettys Pond, Unnamed Pond B, and Simmons Pond, are relatively permanent waterbodies with continuous surface connections to waters used in interstate commerce, territorial seas, or interstate waters.

59. Other ponds, including Duck Pond, Dunns Pond, Unnamed Pond A, and Schoolhouse Pond, are used in, or may be susceptible to use in, interstate or foreign commerce.

60. As the Cape Cod Commission states, the Cape's ponds "attract tourists and make Cape Cod a desirable place to live for year-round and seasonal residents. Residents and visitors use ponds and lakes for recreational activities such as swimming, boating, and fishing. Ponds and lakes provide ecological, economic, and aesthetic benefits." *Id.* at 11.

61. The waters of Cape Cod attract tourists and homebuyers from Massachusetts and beyond who recreate, make their homes, and conduct businesses on and near the many waterbodies. Home rentals like Airbnb, Vrbo, and boutique rental companies advertise pond views and access as features of houses available to rent. *See, e.g.*, Vrbo and Airbnb listings advertising pond access, attached as Exhibit I.

62. Out-of-state residents own second homes on Cape Cod.[9] In a 2021 survey, only 51% of new homeowners on Cape Cod reported that Massachusetts was the state of their primary residence.[10] Thirteen percent of new homeowners on the Cape have their primary residence in Florida, 10% in New York, 8% in Connecticut, 3% in Rhode Island, 3% in New Jersey, 3% in

[9] *See, e.g.*, Cape Cod Commission, *Second Homeowner Survey*, https://www.capecodcommission.org/our-work/second-homeowner-survey/ (accessed July 15, 2024) (referring to owners of second homes whose primary residence is outside of Massachusetts).

[10] Cape Cod Commission, *Cape Cod New Homeowners Survey – 2021*, Feb. 2022 at 40, https://www.capecodcommission.org/resource-library/file?url=%2Fdept%2Fcommission%2Fteam%2FWebsite_Resources%2Feconomicdevelopment%2F2021-UMDI-New-Homeowners-Survey-Report.pdf (accessed June 18, 2024).

Illinois, 3% in Texas, 2% in Pennsylvania.[11] On Cape Cod, some lots extend into portions of the ponds, so not only is access and proximity to ponds for sale, but portions of the ponds themselves. *See infra* Section V.

63. According to MassDEP, as a result of nitrogen pollution, many commercial and recreational uses of the Cape's Lewis Bay Watershed System will be greatly reduced and could cease altogether. Ex. C, TMDL at ii.

A. The Lewis Bay Watershed System

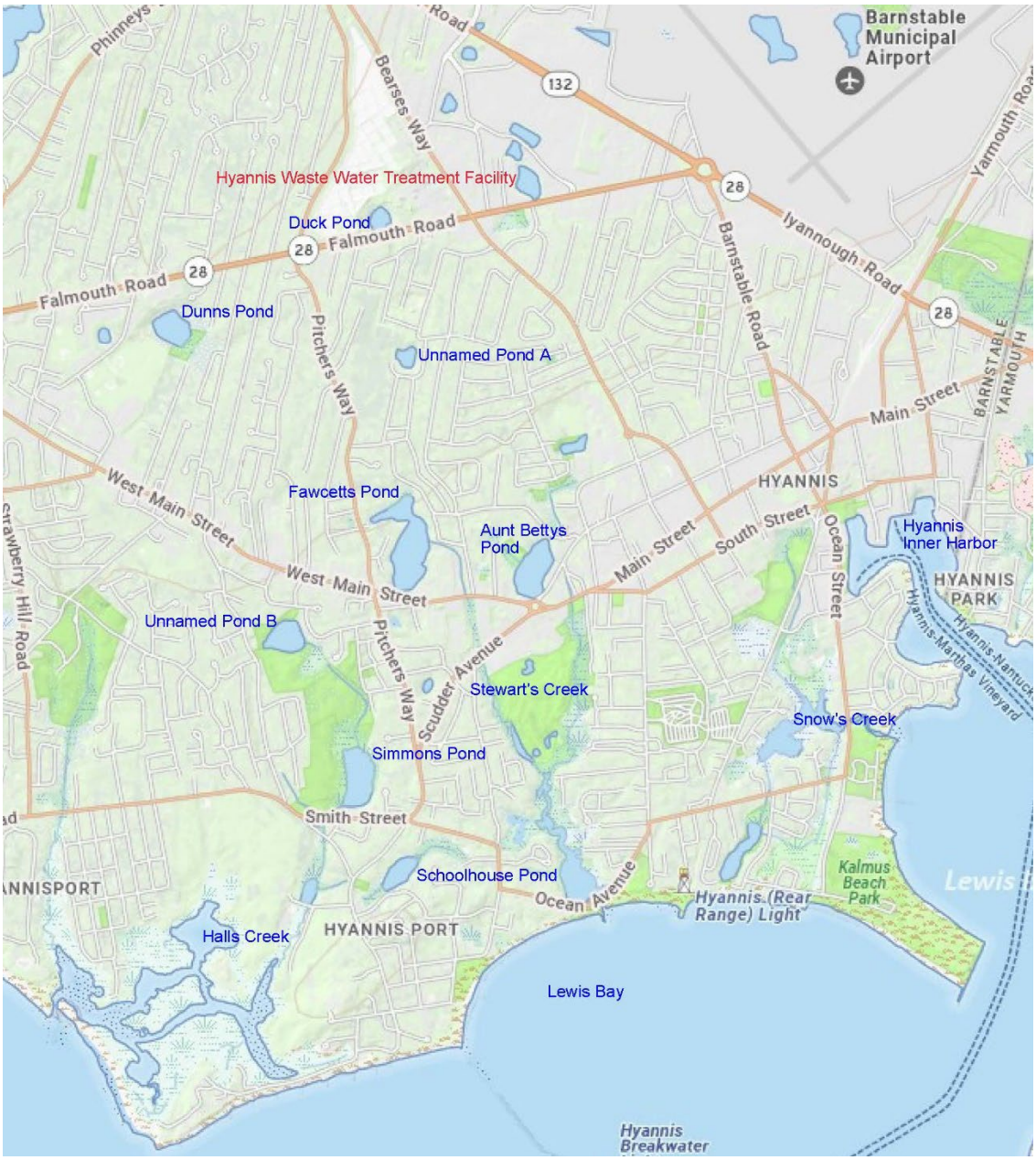
64. The Facility is located within the drainage of the Lewis Bay Watershed System in Barnstable on Cape Cod.[12]

65. The Lewis Bay Watershed System is a complex estuary located within the towns of Barnstable and Yarmouth on Cape Cod, Massachusetts. Its southern shore is bordered by Nantucket Sound. Brian Howes et. al., "Massachusetts Estuaries Project: Linked Watershed-Embayment Model to Determine Critical Nitrogen Loading Thresholds for the Lewis Bay Embayment System, Barnstable/Yarmouth, MA," Ex. A, MEP Report at 1, 20–22.

[11] *Id.*; *see also* Kinlin Grover Compass, *The Best of Both Worlds*, https://www.kinlingrover.com/cape-cod/second-homes/ (accessed June 18, 2024) ("Among the wealthiest second-home owners . . . 10 percent come from Connecticut and Rhode Island. About 5 percent of second-home owners have their primary residence in New Jersey, while nearly 6 percent live in New York.").

[12] *See* Barnstable Water Resources, *Lewis Bay Watershed*, https://barnstablewaterresources.com/project/lewis-bay-watershed/ (accessed June 18, 2024).

66. MassDEP publishes a map of Massachusetts water features, including its ponds, creeks, and wetlands:[13]



[13] Map is a screenshot of MassDEP's GIS Maps tool. GIS Maps, https://massgis.maps.arcgis.com/apps/mapviewer/index.html?layers=84ecbf026489446c8562df038c352772 (accessed July 18, 2024) (waterbody and Facility labels added).

67. A United States Geographical Survey ("USGS") map shows flow of water within the Lewis Bay Watershed System. Ex. A, MEP Report at 21–22.

68. There are 71 identified surface waters in the Lewis Bay Watershed System, "including 8 named freshwater ponds and 6 significant freshwater stream outlets (Halls Creek, Stewart's Creek, Snow's Creek, Hospital Bog, Mill Pond and Chase Brook)."[14] Among them are Duck Pond, Dunns Pond, Unnamed Pond A, Fawcetts Pond, Aunt Bettys Pond, Unnamed Pond B, Simmons Pond, Schoolhouse Pond, Halls Creek, Snow's Creek, Stewart's Creek, Hyannis Inner Harbor, and Lewis Bay.

69. All over the Cape, the groundwater and surface waters are interconnected: "The groundwater that fills [Cape Cod's] ponds is the same water we use for our drinking water and irrigation. . . . Water is not static. Groundwater moves—it flows. It passes through our ponds on its way to the ocean."[15]

70. The ponds on Cape Cod are "surface-water expressions of the water table" because they are hydrologically connected to the underlying aquifer. John P. Masterson & John W. Portnoy, "Potential Changes in Ground-Water Flow and their Effects on the Ecology and Water Resources of Cape Code National Seashore, Massachusetts," USGS (June 2005) at 4, attached as Exhibit J. Put another way, Cape Cod's ponds are "windows on [its] aquifer."[16]

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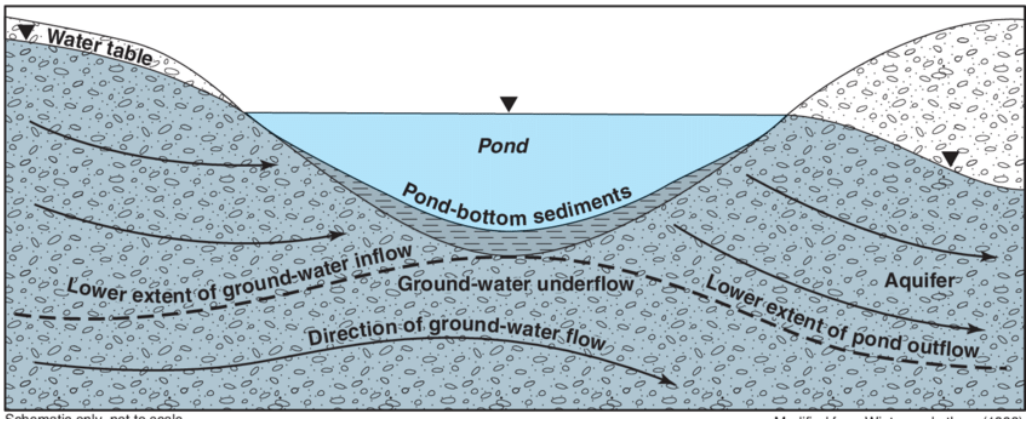
[14] Barnstable Water Resources, *Lewis Bay Watershed*, https://barnstablewaterresources.com/project/lewis-bay-watershed/ (accessed June 18, 2024).

[15] Association to Preserve Cape Cod, *Freshwater Ponds*, https://apcc.org/our-work/education/freshwater-ponds/ (accessed June 18, 2024) ("APCC Freshwater Ponds"); *see also* John P. Masterson and John W. Portnoy, *Potential Changes in Ground-Water Flow and their Effects on the Ecology and Water Resources of the Cape Cod National Seashore, Massachusetts*, U.S. GEOLOGICAL SURVEY ("USGS") at 7, https://pubs.usgs.gov/gip/2005/13/pdf/GIP_13.pdf (accessed June 18, 2024) ("Masterson").

[16] APCC Freshwater Ponds; *see also* Cape Cod Commission, *Updating the Ponds and Lakes Atlas*, May 28, 2012, https://www.capecodcommission.org/about-us/newsroom/updating-the-ponds-and-lakes-atlas/ (accessed July 11, 2024).

71. The ponds on Cape Cod are "flow-through ponds" because flowing groundwater enters and exits the pond as it travels along its trajectory. *Id.*

72. Researchers illustrated how ponds on Cape Cod are points at which the water table surfaces:



Timothy Mccobb et al., "Phosphorus in a ground-water contaminant plume discharging to Ashumet Pond, Cape Cod, Massachusetts, 1999 Water-Resources Investigations Report 2002–4306," USGS (Jan. 2003) at 8, excerpts attached as Exhibit K.

73. Groundwater enters ponds in the Lewis Bay Watershed System along their upgradient shore, flows through the pond, and then re-enters the groundwater system along the downgradient shore, *id.* at 2, 5, or continues above ground in brooks, creeks, and streams, finally discharging into the ocean.

74. Freshwater streams connect the ponds and coastal salt water and provide pathways for migratory aquatic animals to move between ponds and coastal waters. Ex. J, Masterson at 7. The Catadromous American Eel spawns in the ocean, travels up interconnecting streams in the Lewis Bay Watershed System, and then matures in the upper estuary and ponds. *Id*. Migratory fish like anadromous blueback herring and alewife spawn in ponds on Cape Cod.

Id. Blueback herring are "an important forage base" in fresh- and estuarine systems.[17] Marine mammals and birds, including bald eagles, feed on blueback herring.[18] Fish caught for sport on the Cape, like stiped bass and bluefish, feed on blueback herring.[19]

75. As is discussed in more detail below, excessive nitrogen in the Lewis Bay Watershed System has led to loss of critical habitat for fish, increases in algae, including algae blooms, and "extreme decreases" in oxygen content, all of which harm and have led to reductions in aquatic life. Ex. C, TMDL at ii; *see also infra* Section III.

76. In 2015, MassDEP warned that in the Lewis Bay Watershed System, "[f]ailure to reduce and control [nitrogen] could result in complete replacement of eelgrass by macro-algae, a higher frequency of . . . fish kills, widespread occurrence of unpleasant odors and visible scum, and a complete loss of benthic macroinvertebrates throughout most of the system." Ex. C, TMDL at ii.

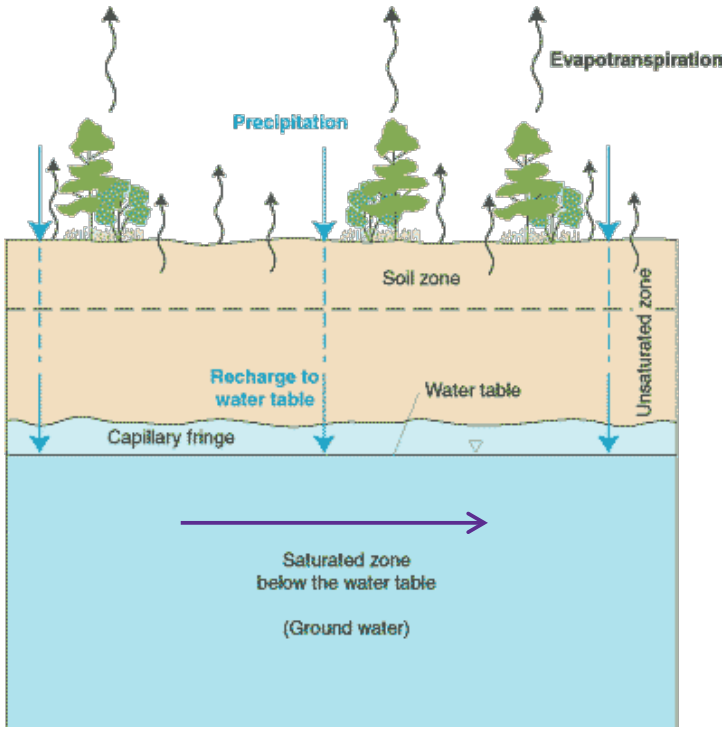
II. Cape Cod's Soil and Groundwater

A. Groundwater Moves Rapidly through Cape Cod's Sandy Soil

77. Water moves rapidly through the porous, sandy soil on Cape Cod, which allows the sewage and other discharges from the Facility to enter the waters of the Lewis Bay Watershed System much more quickly than it would in other, less porous (i.e., hydraulically conductive) soil types.

[17] U.S. Fish and Wildlife Service, *Blueback Herring*, https://www.fws.gov/species/blueback-herring-alosa-aestivalis (accessed July 22, 2024).
[18] *Id.*
[19] *See id.*; Guidsely, *Ways to Catch Eels for Bait*, Mar. 23, 2022, https://guidesly.com/fishing/blog/ways-to-catch-eels-for-bait (accessed June 20, 2024).

78. Water that lands on permeable ground travels down, vertically, through soil until it reaches the water table, at which point it moves horizontally with the water table. The USGS illustrates how water moves vertically through the ground, and enters the water table:[20]



79. The USGS has documented the characteristics of Cape Cod's groundwater system, including the soils of Barnstable County. *See* Allen F. Moench et al., "Estimation of Hydraulic Parameters from an Unconfined Aquifer Test Conducted in a Glacial Outwash Deposit, Cape Cod, Massachusetts," USGS (2000) at 1, 2 (pdf pagination), excerpts of which are attached as Exhibit L. The Town of Barnstable is situated on a sandy glacial outwash aquifer, a land formation of permeable soil components including sand and gravel. *Id.*; *see also* Ex. J, Masterson at 4; Ex. A, MEP Report at 10, 19.

[20] USGS, *General Facts and Concepts About Ground Water*, https://pubs.usgs.gov/circ/circ1186/html/gen_facts.html (accessed June 20, 2024) ("USGS Groundwater Facts") (purple arrow added to illustrate water table flow).

80. In analyzing the Lewis Bay Watershed System, MassDEP explains that "[m]ost groundwater flow in the aquifer occurs in shallower portions of the aquifer dominated by coarser-grained sand and gravel deposits." Ex. A, MEP Report at 19. Water moves rapidly through this type of soil. Ex. J, Masterson at 4; USGS Groundwater Facts.

81. Once it enters the ground, the speed of water passing through different types of soil "varies by orders of magnitude." USGS Groundwater Facts. The USGS considers any water moving through soil or sand at a velocity of one foot per day or greater as moving at a high speed. *Id.* ("[A] velocity of 1 foot per day or greater is a high rate of movement for ground water"). In "loamy sand," water moves at a "Rapid" rate, which is between five inches per hour, or ten feet per day, and ten inches per hour, or twenty feet per day. Anthony Toby O'Geen, "Soil Water Dynamics," 4 NATURE EDUCATION KNOWLEDGE 5, 9 (2013), excerpts of which are attached as Exhibit M. In "coarse sand," water moves at a "Very Rapid" rate, which is anything more than ten inches per hour, or twenty feet per day. *Id.*

82. When estimating that groundwater in Lewis Bay Watershed System takes less than ten years to reach the coast in all but one area MassDEP stated that "more refined modeling would be required to better ascertain flow times within this complicated system. . . ." MEP Report at 24–26. On Cape Cod, some ground water travel time is *estimated* at one to two feet per day, *see e.g.*, Ex. J, Masterson at 4, but water can move through sandy soil like Cape Cod's more quickly than one to two feet per day, *see* Ex. M, O'Geen; Ex. K, McCobb at 7. Indeed, a study testing the actual velocity of water travelling through Cape Cod soil showed a rate of 0.23 feet per minute, or about 331 feet per day.[21] Ex. L, Moench at 2.

[21] The study showed that ground water traveled at a rate of 0.23 feet per minute horizontally, and 0.14 feet per minute vertically.

83. Dr. Robert Roseen reviewed available data and literature and estimates that groundwater between the Facility and the waterbodies moves toward Lewis Bay at a rate of 2.5 feet per day. Robert Roseen, "Technical Memorandum," at 5, attached as Exhibit N.

84. Surface water moves more quickly than groundwater. USGS Groundwater Facts. It moves so much faster than groundwater that its velocity is measured in feet per second, rather than feet per day. Surface water moving at one foot per second travels about sixteen miles per day. USGS Groundwater Facts at 2; *see also* Ex. N, Roseen at 1.

85. In the Lewis Bay Watershed System, ground water intersects surface water in multiple places, increasing the average velocity of the water on its path, i.e., decreasing the water's travel time. *See* Ex. N, Roseen at 1; Ex. A, MEP Report at 1, 25.

86. The fast percolation rate of water through sandy soil and its movement through surface water allows effluent sprayed or injected into the ground to descend rapidly into groundwater, through the Lewis Bay Watershed System, and into its surface waters.

B. Groundwater Transports Nitrogen and Other Pollutants into the Lewis Bay Watershed System

87. Nitrogen is readily transported through groundwater on Cape Cod. Ex. A, MEP Report at 10. Nitrogen "is not held by soil particles," and "is readily leached as water flows through the soil."[22] Any "attenuation" of nitrogen occurs when it passes through surface waterbodies, not while it is in the soil. *See* Ex. A, MEP Report at 1, 25, 26. In the Lewis Bay Watershed System, effluent from wastewater treatment facilities released into the ground on its

[22] R.P. Wolkowski et al., *Nitrogen management on sandy soils*, UNIVERSITY OF WISCONSIN-EXTENSION at 1, http://corn.agronomy.wisc.edu/Management/pdfs/a3634.pdf (accessed June 20, 2024).

sandy soil enters the groundwater system and is transferred to surface water bodies. *See* Ex. C, TMDL at 5.

88. On Cape Cod, surface and groundwater flows are pathways for the transfer of land-sourced nutrients like nitrogen to coastal waters. Ex. A, MEP Report at 10. As MassDEP explains:

> Nutrient related water quality decline represents one of the most serious threats to the ecological health of the nearshore coastal waters. . . . By nature, these systems are highly productive environments, but nutrient over-enrichment of these systems worldwide is resulting in the loss of their aesthetic, economic, and commercially valuable attributes.

Id.

89. The Department of Agriculture came to a similar conclusion about the threat nutrient pollution from human waste posed to Cape Cod's waters following a 1993 soil survey in Barnstable County. *See* U.S. Dept. of Agric., *Soil Survey of Barnstable County, Massachusetts* 86, 171 tbl. 11 (Mar. 1993) ("Soil Survey"), attached as Exhibit O. Soil types in Barnstable County are "so unfavorable or so difficult to overcome" for the use of septic tank absorption fields "that special design, significant increases in construction costs, and possibly increased maintenance [we]re required." *Id.* at 85. The study concluded that, due to the unsuitability of its sandy soils, use of septic systems in Barnstable County could result in polluted effluent passing through the soil without filtration, resulting in the pollution of groundwater. *Id.* at 20.

90. Like septic waste, sewage and other discharges from the Facility are not naturally filtered by the soil in Barnstable and so the pollutants reach the surface waters of the Lewis Bay Watershed System essentially unchanged from their initial discharge.

91. Cape Cod's sandy soil is also a "poor filter" for Per- and Polyfluoroalkyl ("PFAS"), "forever chemicals" that are "virtually indestructible under natural conditions."[23]

III. Nitrogen Crisis in the Lewis Bay Watershed System

92. The Massachusetts Estuaries Project ("Project") is a collaborative effort between local and federal governmental entities, and non-profit and academic institutions, including MassDEP, the University of Massachusetts, the USGS, and the Cape Cod Commission, with support from, among others, Defendant. The Project was formed to conduct studies of waterbodies in the Commonwealth to "help determine current nitrogen loads to southeastern Massachusetts estuaries and evaluate reductions that would be necessary to support healthy ecosystems."[24] In 2008, the Project completed a technical report evaluating nitrogen pollution within the Lewis Bay Watershed System. *See generally* Ex. A, MEP Report.

93. After examining the nitrogen load in the Lewis Bay Watershed System, MassDEP's "investigations revealed that loadings of nutrients, especially [nitrogen], are much larger than they would be under natural conditions, and as a result the water quality has deteriorated." Ex. C, TMDL at 6.

94. The Facility's discharges—and its pollutants, including nitrogen—pour down into sand beds, through the sandy soil below to reach groundwater, through the water table above and below ground, into the interconnected waters of the Lewis Bay Watershed System. *See, e.g.*, Ex. A, MEP Report at 26; Ex. C, TMDL at 19.

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[23] Barnstable County, *PFAS on Cape Cod: What's the Big Deal?*, June 20, 2024, https://www.capecod.gov/2023/01/18/pfas-on-cape-cod-whats-the-big-deal/ (accessed Mar. 4, 2024); *see also* Jeanette Hinkle, *PFAS contamination: Of 21 Barnstable ponds tested, 21 had contaminants, town report finds*, CAPE COD TIMES, Oct. 6, 2021, https://www.capecodtimes.com/story/news/2021/10/04/pfas-pollution-cape-cod-banstable-ponds-tested-all-contaminated/5903184001/ (accessed Mar. 4 2024) ("Hinkle, PFAS contamination") ("PFAS … are a group of thousands of manmade chemicals linked to health problems ranging from immune system issues to cancer.")

[24] MassDEP, *The Massachusetts Estuaries Projects and Reports*, https://www.mass.gov/guides/the-massachusetts-estuaries-project-and-reports (accessed June 18, 2024).

95. Nearly all of the nitrogen in the Facility's sewage reaches these surface waters without any chemical changes. [25]

96. Nitrogen from the Facility contributes to elevated nitrogen concentrations and the nitrogen crisis in the Lewis Bay Watershed System.

A. Eutrophication

97. Throughout the Lewis Bay Watershed System, algae has thrived on increased nitrogen levels and has crowded out the natural, biodiverse flora that supported robust and varied aquatic wildlife.

98. In coastal waters, nitrogen is a limiting nutrient for algae growth. This means that algal populations increase in direct proportion to increases in available supplies of nitrogen. *See* Ex. J, Masterson at 10. This is also true in freshwater.[26]

99. In a process known as "eutrophication," when levels of nitrogen increase, algae and aquatic plant concentrations can reach densities that overwhelm the natural ecosystem. *Id.*

100. In waters experiencing eutrophication, plants and algae can generate "blooms," meaning they experience explosive population growth. *See id.* Algae blooms can have severe crowding-out effects on the native aquatic ecosystem, depleting dissolved oxygen and killing fish. *Id.*

[25] *See* Wolkowski at 1.
[26] *See, e.g.*, Ex. J, Masterson at 10 figure 9; Barnstable FY22 CWMP Annual Report at 16; *Nitrogen Fact Sheet* Mass. Water Watch Partnership, U. Mass. Amherst, available at https://www.umass.edu/mwwp/resources/factsheets.html (accessed June 20, 2024) ("Nitrogen Fact Sheet"); Maribeth Kniffin et al., *Nutrient Limitation of Periphyton and Phytoplankton in Cape Cod Coastal Plain Ponds*, Northeastern Naturalist 16(3), 395–408, (1 September 2009), https://doi.org/10.1656/045.016.n307 (accessed June 20, 2024).

101. High nitrogen levels can also cause red tides, phenomena that occur when toxin-producing algae grow at out-of-control rates.[27] Algae blooms and red tides are harmful to both animal and human water-users and lead to fish kills and beach closures.[28]

102. Eutrophication destroys eelgrass beds, a critical habitat for aquatic animals. *See* Ex. J, Masterson at 10. In Lewis Bay, "[h]istorical eelgrass beds have been lost in these areas and eelgrass is virtually non-existent within this system." Ex. C, TMDL at 5.

103. Eutrophic waterbodies, with algal blooms and red tides, are aesthetically unappealing. *Id.* Water clarity is reduced in such waterbodies. Algae appear on the surface of the water as a green, green-blue, brown or red film. Algae growth and decay also lead to unpleasant odors. *See id.*

104. Algae causes harm even when it dies—it forms anoxic mats that sink and suffocate the fish and animals sheltered on the water's bottom. Algae blooms leave large quantities of rotting organic matter in the waterbody. The resulting decay exhausts available supplies of dissolved oxygen in the water and render the water so turbid that sunlight cannot reach the seafloor.[29] This causes habitat quality decline for animals living in the sediments. This in turn causes a significant degradation of the waterbody and loss of productivity to local shell fishermen, sport fishery, and offshore fin fishery—all of which depend on a highly productive estuarine system. Ex. A, MEP Report at 14; *see also* Ex. J, Masterson at 10.

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[27] Danielle Hall, *What Exactly Is a Red Tide?* NOAA (August 2018), https://ocean.si.edu/ocean-life/plants-algae/what-exactly-red-tide (accessed June 20, 2024).
[28] *Id.*
[29] NOAA, *Nutrients: Pollution Tutorial*, https://oceanservice.noaa.gov/education/tutorial_pollution/010nutrients.html (accessed June 20, 2024).

B. Total Maximum Daily Load: Nitrogen

105. Under Section 303(d) of the Clean Water Act, the Commonwealth of Massachusetts is required to identify waters for which standard limits are not stringent enough to attain water quality standards and to establish total maximum daily load ("TMDL") allocations for pollutants posing risks to such waters.

106. The Commonwealth's TMDLs establish maximum loadings of pollutants, from all contributing sources, that a waterbody may receive and still meet and maintain its water quality standards and designated uses.

107. In setting a TMDL for a waterbody, the Commonwealth must determine present water quality conditions in the waterbody and determine whether the waterbody is presently meeting its water quality standards and designated uses, and, if not, the sources of the pollutants of causing failure to meet standards and uses, or pollutants of concern.

108. Where a TMDL is necessary, the Commonwealth must submit a proposed TMDL to EPA for approval.

109. In March 2015, MassDEP submitted a final TMDL regarding the Lewis Bay Watershed System to EPA. *See* Ex. C, TMDL.

110. The Lewis Bay TMDL was primarily based upon the data from the 2008 Massachusetts Estuaries Project. *Id.* at iii–iv, 1–2.

111. The pollutant of concern for MassDEP's Lewis Bay TMDL is nitrogen. *See generally*, *id.*

112. In the Lewis Bay TMDL, MassDEP determined that the Lewis Bay Watershed System is eutrophic and at risk of further eutrophication from nitrogen loads. *Id.* at 2.

113. MassDEP determined that ecological damage occurs in these waterbodies at a nitrogen concentration above 0.38 mg/L. *Id.* at 6.

114. MassDEP found that nitrogen concentrations in the surface waters of the Lewis Bay system range from 0.42 mg/L to 1.92 mg/L. *Id.*

115. Nitrogen concentrations are particularly high in Stewart's Creek, 1.25 mg/L, and Snow's Creek, 1.57 mg/L. *Id.* at 12.

116. According to MassDEP, nitrogen pollution leads to "degraded water quality, adverse impacts to ecosystems, and limits on the use of water resources" in the Lewis Bay Watershed System. *Id.* at 3.

117. MassDEP identified algal blooms, depleted oxygen, elimination of eelgrass meadows, and reductions in biodiversity as problems tied to nitrogen pollution in the Lewis Bay Watershed System. *See id.* at ii.

118. The highest nitrogen load from controllable sources to the Lewis Bay Watershed System is from human wastewater. *See id.* at ii, 4, 12.

119. The Facility's nitrogen pollution has contributed to eutrophication and algal blooms which cause dissolved oxygen concentrations in Lewis Bay Watershed System to plummet, which suffocates aquatic animals. *See id.* at ii, 4.

120. The Facility's nitrogen pollution has contributed to the reduction of the benthic community in the Lewis Bay Watershed System. *See id.*

121. The Facility's nitrogen pollution has contributed to unpleasant odors and scums from blooms in the Lewis Bay Watershed System. *See id.*

IV. The Barnstable Water Pollution Control Facility

A. Operations

122. Defendant owns and operates the Facility.

123. A network of 55 miles of pipes, dating back to 1937, and 27 pumping stations gather wastewater from residential and commercial properties and convey it to the Facility. Ex. F, CWMP at 1-4–1-5.

124. On average as of 2020, 1.67 million gallons of wastewater flow through the Facility daily. *Id.* at 1-4.

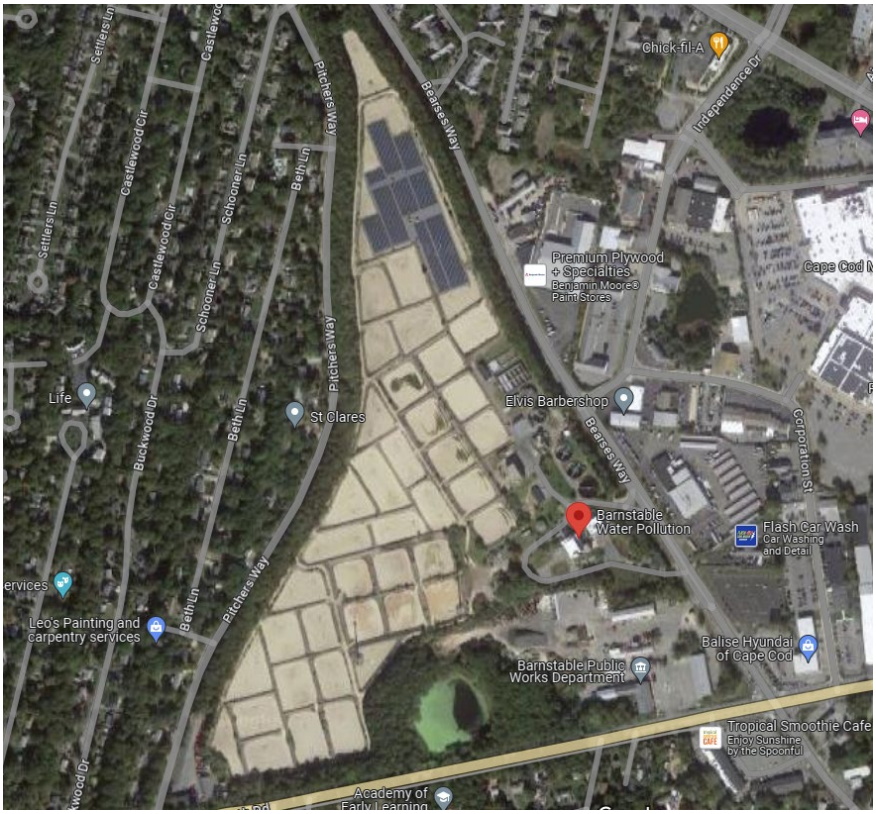
125. Planned sewer expansion is expected to increase the volume of wastewater flowing through the Facility to approximately 4.4 million gallons per day. *Id.* at 5-4.

126. Once wastewater enters the Facility, it passes through partial treatment stages, including septage handling, pretreatment, primary treatment, secondary treatment, and disinfection facilities. *Id.* at 2-11.

127. The Facility's partially treated wastewater, i.e., effluent, has higher concentrations of dissolved pollutants, including nitrogen, than fresh water. *See id.*at 5-11.

128. The Facility discharges pollutants, including its partially treated wastewater or effluent, into sand beds on the Facility's premises.

129. The sand beds cover the majority of the Facility's property:[30]



130. The Facility's partially treated wastewater, or effluent, runs straight down from the sand beds through the sandy soils below where it intersects with the water table and travels through the Lewis Bay Watershed System.

131. At the Facility, Defendant discharges pollutants in its effluent, including but not limited to nitrogen (which may be present in the form of ammonia, nitrate, nitrite, and/or Total Kjeldahl Nitrogen, suspended solids, oil and grease, fecal coliform, phosphorus, orthophosphate, residual chlorine, and volatile organic compounds ("VOCs") to the waters of the Lewis Bay Watershed System. *See* Ex. A, MEP Report at 128 (pdf pagination).

[30] Google Maps, https://www.google.com/maps (search "Barnstable Wastewater Treatment Plant").

132. PFAS, also called "forever chemicals", are present in the water the Facility receives for treatment.[31] The Facility attempts to remove PFAS from the water it treats and discharges as effluent, but there are over 9,000 chemicals that fall into the PFAS "family," and "not all PFAS are equally well removed by all types of treatment."[32] According to Barnstable County, "Once [PFAS] find their way into the air, soil, groundwater, and surface water, they remain indefinitely."[33] PFAS was found in twenty-one out of twenty-one ponds on Cape Cod tested for PFAS. [34]

133. Defendant operates the Facility under a MassDEP-issued state Groundwater Discharge Permit.

134. Defendant does not have a NPDES Permit for discharges from the Facility.

135. The state Groundwater Discharge Permit is issued under state law. It is not—and does not substitute for—a NPDES permit issued pursuant to the Clean Water Act.

136. For this reason, compliance with the state Groundwater Discharge Permit does not equate to compliance with federal law, including the Clean Water Act.

137. The state Groundwater Discharge Permit's nitrogen limit is not intended to and does not protect the integrity of surface waterbodies.

138. The state Groundwater Discharge Permit sets a nitrogen concentration limit of 10 mg/L, Ex. F, CWMP at 2-17–2-18, the maximum concentration that state authorities and EPA set

[31] "'...It is generally understood that any source [of drinking water] developed in Barnstable has a risk of detection of PFAS.'" Jeanette Hinkle, *As Barnstable hunts for new sources of public drinking water, PFAS contamination rears its ugly head*, CAPE COD TIMES, Sep. 3, 2021, https://www.capecodtimes.com/story/news/2021/09/03/barnstable-ma-hunts-new-drinking-water-sources-pfas-forever-chemicals-contamination-affects-search/5662996001/ (accessed June 20, 2024).
[32] *Id.*
[33] Barnstable County, *PFAS on Cape Cod: What's the Big Deal?*, Jan. 18, 2023, https://www.capecod.gov/2023/01/18/pfas-on-cape-cod-whats-the-big-deal/ (accessed June 20, 2024).
[34] Hinkle, PFAS Contamination.

to protect infants from methemoglobinemia, i.e., "blue baby syndrome," a potentially fatal blood disorder that can result from high levels of nitrate.[35]

139. Discharges with a nitrogen concentration of 10 mg/L limit are concentrated enough to cause eutrophication,[36] algae blooms, and fish kills in coastal waters. A nitrate-nitrogen value of just 0.5–1.5 mg/L is enough to be considered eutrophic in lakes.[37]

140. The Facility does not use the Best Available Control Technology to reduce the nitrogen content when it partially treats the raw sewage it receives. *See* Ex. F, CWMP at 5-7, 5-11; *see also* Shadi Rahimi et al., "Technologies for biological removal and recovery of nitrogen from wastewater," 43 Biotechnology Advances at Table 1 (Nov. 1, 2020) (the "simultaneous partial nitrification, anammox, and denitrification (SNAD)" process can remove 99% of nitrogen from wastewater and "denitrification by bioelectrochemical systems" can achieve 100% nitrate removal).

141. According to the Massachusetts Estuaries Project's 2008 report, the median nitrogen concentration of sewage Defendant discharges from the Facility ranges between approximately 4 and 8 mg/L, with an average total nitrogen concentration of 5.51 mg/L. Ex. A, MEP Report at 34, 36.

142. Public records show that concentrations of total nitrogen in sewage that Defendant discharges from the Facility has monthly averages reaching as high as 12.79 mg/L, far exceeding even the state permit limit of 10 mg/L. Ex. G, Monthly Max Report.

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[35] *See* Nitrogen Fact Sheet; 40 C.F.R. 141.23.
[36] "Eutrophic" waterbodies are over-enriched with nutrients. *See* Nitrogen Fact Sheet. "Eutrophic lakes are high in nutrients and . . . are usually either weedy or subject to frequent algae blooms, or both. Eutrophic lakes often support large fish populations, but are also susceptible to oxygen depletion. Small, shallow, eutrophic lakes are especially vulnerable to winterkill which can reduce the number and variety of fish. Rough fish are commonly found in eutrophic lakes. Devoid of oxygen in late summer, the hypolimnions (lower lake layer) of deeper eutrophic lakes limit cold water fish and cause phosphorus cycling from sediments." *Id.*
[37] Nitrogen Fact Sheet.

143. As of 2008, the Facility was discharging approximately 12,947 kilograms ("kg.") of nitrogen per year into the Lewis Bay Watershed System. Ex. A, MEP Report at 34.

144. Drawing upon groundwater modeling conducted by the USGS, the Massachusetts Estuaries Project determined which surface waters received groundwater flow from sewage discharged at the Facility and the magnitude of the nitrogen load. *Id.*

145. As of 2008, the Facility's sewage was responsible for the following nitrogen contributions to particular waterbodies within the Lewis Bay Watershed System:

(a) 627 kilograms of nitrogen per year to Hyannis Inner Harbor;

(b) 988 kilograms of nitrogen per year to Halls Creek;

(c) 4,219 kilograms of nitrogen per year to Snow's Creek;

(d) and 7,112 kilograms of nitrogen per year to Stewart's Creek.

Id.

B. Future of the Facility

146. In the Lewis Bay TMDL, MassDEP found that:

> Coastal communities, including Barnstable . . . rely on clean, productive, and aesthetically pleasing marine and estuarine waters for tourism, recreational swimming, fishing, and boating, as well as for commercial fin fishing and shellfishing. Failure to reduce and control [nitrogen] loadings could result in complete replacement of eelgrass by macro-algae, a higher frequency of extreme decreases in dissolved oxygen concentrations and fish kills, widespread occurrence of unpleasant odors and visible scum, and a complete loss of benthic macroinvertebrates throughout most of the system. **As a result of these environmental impacts, commercial and recreational uses of Lewis Bay waters will be greatly reduced, and could cease altogether**. (emphasis added).

Ex. C, TMDL at ii.

147. More than seven years have elapsed since MassDEP made this finding. However, Defendant continues to discharge sewage laden with pollutants, including nitrogen, from the

Facility to the surface waters of the Lewis Bay Watershed System on each day for at least the five years preceding the date of this Complaint.

148. Going forward, Defendant intends to *increase* the volume of wastewater, and with it the volume of nitrogen, it puts through the Facility and into the Lewis Bay Watershed System. Ex. F, CWMP at 5-4.

149. Defendant adopted an "Interim Regulation for the Protection of Saltwater Estuaries" (the "Interim Regulation"). Barnstable, Mass. Board of Health Regulations ch. 360 § 45 (2009).

150. The Interim Regulation incorporates the Lewis Bay TMDL's findings as Defendant's own determination. *See id.*

151. In the Interim Regulation, Defendant states that "[t]he findings of a state-wide estuary investigation indicate that a substantial portion of the Town's saltwater estuaries are in jeopardy from the long-term buildup of nitrate-nitrogen, primarily from the subsurface discharge of sewage effluent." Barnstable, Mass. Board of Health Regulations ch. 360 § 45(A)(1) (2009).

152. In the Interim Regulation, Defendant states that "most of the nitrate-nitrogen in these watersheds is from subsurface discharge of sewerage effluent into the groundwater that flows to these embayments," and recognizes "the adverse impact to these estuaries from such discharges." *Id.*

153. Defendant submitted its Comprehensive Wastewater Management Plan ("CWMP" or "Plan") and associated environmental impact report to MassDEP for review.

154. In its Plan, Defendant relies upon and incorporates the findings of the Massachusetts Estuaries Project's 2008 report and the Lewis Bay TMDL. *See e.g.*, Ex. F, CWMP at 5-7, 5-25.

155. "The Plan is primarily focused on [a] sewer expansion program which will be completed in three (3), 10-year phases, for a total of a 30 years." *Id.* at 5-4.

156. The planned sewer expansion—if realized—would more than double the current flow of raw sewage to the Facility. *Id.* at 1-4, 5-4.

157. Defendant also expects population growth over the coming decade. *Id.* at 2-22.

158. Over approximately the past decade, Cape Cod's population grew by over 10,000 residents.[38]

159. This population growth significantly exceeded past projections.[39]

160. Defendant's "realistic" expectation is that buildout in the Lewis Bay Watershed System will generate an additional flow 123,670 gallons of wastewater per day from residences, and an additional 433,500 gallons per day from commercial properties. Ex. F, CWMP at 2-29 – 2-30.

161. The Facility's current sewage disposal capacity is insufficient to accommodate the volume of sewage anticipated to pass through the Facility under its Plan. *See id.* at 5-123–5-125.

162. To reach nitrogen reduction requirements in the Lewis Bay Watershed System, Defendant states that the Facility must be upgraded to reduce average sewage nitrogen concentrations to 3 mg/L. *Id.* at 5-11, 5-122, 5-128.

163. Specifically, Defendant states that "[e]xpansion of the aeration system to accommodate the new flows will be required within the first 3–5 years of the plan." *Id.* at 5-122.

164. Defendant also expects to complete "evaluation, design and construction" of new nutrient removal technologies for the Facility "in years 1–5 of the plan." *Id.* at 5-123.

[38] Cape Cod Commission, *Initial 2020 Census Results Released*, Jan. 20, 2022, https://www.capecodcommission.org/about-us/newsroom/initial-2020-census-results-released/ (accessed June 20, 2024).
[39] *Id.*

165. According to its own Plan, Defendant must identify and develop additional sewage disposal sites. *Id.* at 5-1.

166. Defendant has reason to doubt that the Facility's capacity for sewage disposal matches the volume of sewage that can pass through the Facility, and for this reason, "[t]o better understand these issues the Town in 2019 hired CDM Smith to study effluent disposal." *Id. at* 5-124.

167. The referenced CDM Smith study "w[as] still underway" when Defendant finalized its Plan. *Id.*

168. Defendant's effort to understand the Facility's potential sewage disposal limitations "is still on-going." *Id.*

169. On information and belief, Defendant has not secured any regulatory approval for a sewage disposal site or sites.

170. On information and belief, Defendant has not secured any legally cognizable interest in a sewage disposal site or sites that would be sufficient to satisfy the disposal aspect of its Plan.

171. On information and belief, Defendant has not obtained regulatory approvals or financing for construction of any aspect of its Plan.

172. Without upgrading the Facility's nutrient removal technologies and/or securing and building out infrastructure for an alternative sewage disposal site, Defendant cannot implement its Plan or achieve the TMDL within the Lewis Bay Watershed System.

173. The Plan does not commit Defendant to any date for regulatory applications, regulatory approvals, or securing financing for construction.

174. The Plan is not legally binding on Defendant and creates no legal consequences that would bear on Defendant if it were to fail fully to implement the Plan.

175. MassDEP, working with the Defendant and other towns, recently took steps to reduce the volume of nitrogen reaching Cape Cod's waters by promulgating new regulations which will require upgrades to septic systems and increase sewer users. 310 C.M.R. 15.000; 314 C.M.R. 21.00.

176. As more properties connect to sewer rather than septic in keeping with the Commonwealth and Defendant's plans, the volume of nitrogen-heavy human waste circulated through the Facility will increase.

177. Defendant plans to—and indeed may be forced to—more than double the volume of wastewater the Facility treats, which will increase the flow of sewage through its sand beds, and consequently the volume of nitrogen it discharges into the rivers, creeks, ponds, bays, and estuaries of the Lewis Bay Watershed System. *See* Ex. F, CWMP at 1-4, 5-4.

178. Nitrogen pollution from the Facility is already harming the Lewis Bay Watershed System's ecological integrity and continued use of these waters by individuals, including CLF members.

179. Increased use of the Facility without improvements to its treatment will only accelerate the ongoing degradation of the Lewis Bay Watershed System.

V. Relevant Waterbodies

180. Cape Cod's waters are hydrologically connected, through its groundwater and its ponds, creeks, and wetlands.

181. A subset of Cape Cod's waterbodies receive sewage from the Facility.

Duck Pond

182. Duck Pond is approximately 230 feet from the Facility.[40]

183. Duck Pond is part of the Stewart's Creek watershed in the Lewis Bay Watershed System. Ex. A, MEP Report at 21–22.

184. Duck Pond is located entirely on Parcel 293001, located at 382 Falmouth Road. Parcel 283001 is owned by Defendant and was last sold on May 15, 1935. It has an assessed value of $23,104,800. The total acreage of Parcel 293001 is 82.38. Barnstable GIS Property Maps ("Parcel Maps"), screenshots of relevant ponds are attached as Exhibit P, at 1.[41]

185. Duck Pond receives effluent from the Facility.

Dunns Pond

186. Dunns Pond is approximately 1.08 miles from the Facility.

187. Dunns Pond is part of the Halls Creek Watershed in the Lewis Bay Watershed System. Ex. A, MEP Report at 21–22.

188. Three parcels of land include portions of Dunns Pond:

i. Parcel 270007, 11 Dunns Pond Rd, Hyannis MA, is owned by Defendant's Conservation Commission and was last sold on Dec. 15, 1983. This parcel includes most of Dunns Pond and is 4.85 acres. It has an assessed value of $296,500. Ex. P, Parcel Maps at 1.

ii. Parcel 271097, 825 Falmouth Rd Hyannis, MA, is owned by Defendant and was last sold on Nov. 15, 1971. This parcel includes a portion of the upper

[40] This estimate comes from the measurement tool on Google Maps. Google Maps, https://www.google.com/maps (right click on starting point, select "measure distance," click on destination).
[41] Screenshots of parcel maps come from Barnstable GIS Map tool. Town of Barnstable Property Maps, https://gis.townofbarnstable.us/Html5Viewer/Index.html?viewer=propertymaps. (follow "Find a property by parcel number" hyperlink; then search for parcel number).

section of Dunns Pond and is 8.87 acres. It has an assessed value of $3,332,700. *Id.* at 2.

iii. Parcel 249094, 744 West Main St Hyannis, MA, is owned by Defendant and was last sold on Aug. 17, 1964. This parcel includes a portion of the left section of Dunns Pond and is 68.7 acres. It has an assessed value of $99,425,500. *Id.*

189. Dunns Pond receives effluent from the Facility.

Unnamed Pond A

190. Unnamed Pond A is approximately 1,980 feet from the Facility.[42]

191. Unnamed Pond A is part of the Stewart's Creek watershed in the Lewis Bay Watershed System. Ex. A, MEP Report at 21–22.

192. Nine parcels of land include portions of Unnamed Pond A:

i. Parcel 291033, 84 St. Francis Circle, Hyannis MA, contains a portion of Unnamed Pond A and is 0.54 acres. It was last sold on Sept. 25, 2003. It has an assessed total value of $573,100. Ex. P, Parcel Maps at 3.

ii. Parcel 291229, 114 St. Francis Circle, Hyannis, MA, contains a portion of Unnamed Pond A and is 0.33 acres. It was last sold on Sept. 25, 2006. It has an assessed total value of $442,000. *Id.*

iii. Parcel 291228, 128 St. Francis Circle, Hyannis, MA, contains a portion of Unnamed Pond A and is 0.34 acres. It was last sold on Apr. 6, 2016. It has an assessed total value of $406,000. *Id.* at 4.

[42] This estimate comes from the measurement tool on Google Maps.

iv. Parcel 291227, 146 St. Francis Circle, Hyannis, MA, contains a portion of Unnamed Pond and is 0.51 acres. It was last sold on Oct. 14, 2020. It has an assessed value of $495,900. *Id.*

v. Parcel 291226, 166 St. Francis Circle, Hyannis, MA, contains a portion of Unnamed Pond A and is 0.43 acres. The land is owned by Defendant. It was last sold on Jul. 19, 2001. It has an assessed value of $200,800. *Id.* at 5.

vi. Parcel 291225, 4 St. Francis Circle, Hyannis, MA, contains a portion of Unnamed Pond A and is 0.3 acres. It was last sold on Jul. 17, 2008. It has an assessed total value of $438,800. *Id.*

vii. Parcel 291224, 24 St. Francis Circle, Hyannis, MA, contains a portion of Unnamed Pond A. The full acreage of the parcel is 0.32. It was last sold on Jan. 31, 2000. It has an assessed total value of $542,900. *Id.* at 6.

viii. Parcel 291032, 38 St. Francis Circle, Hyannis, MA, is predominantly comprised of a portion of Unnamed Pond A and is 0.33 acres. It was last sold on Jul. 31, 2018. It has an assessed total value of $800. *Id.*

ix. Pond 291034, 54 St. Francis Circle, Hyannis, MA, contains a portion of Unnamed Pond A and is 0.38 acres. It was last sold on Apr. 15, 1968. It has an assessed total value of $76,600. *Id.* at 7.

193. Houses that are or could be used as commercial rental properties abut Unnamed Pond A.

194. Unnamed Pond A receives effluent from the Facility.

Fawcetts Pond

195. Fawcetts Pond is approximately 4,000 feet from the Facility.[43]

196. Fawcetts Pond is part of the Lewis Bay Watershed in the Lewis Bay Watershed System. Ex. A, MEP Report at 21–22.

197. Fawcetts Pond has a continuous surface water connection to Lewis Bay via Stewart's Creek.

198. Fawcetts Pond receives effluent from the Facility.

Aunty Bettys Pond

199. Aunt Bettys Pond is approximately 5,000 feet from the Facility.[44]

200. Aunt Bettys Pond is part of the Stewart's Creek Sub-embayment in the Lewis Bay Watershed System. Ex. A, MEP Report at 21–22.

201. Aunt Bettys Pond has a continuous surface water connection with Lewis Bay via Stewart's Creek.

202. Aunt Bettys Pond receives effluent from the Facility.

Unnamed Pond B

203. Unnamed Pond B (informally known as "Ben's Pond") is approximately 1.11 miles from the Facility. [45]

204. Unnamed Pond B is part of the Halls Creek Watershed in the Lewis Bay Watershed System. Ex. A, MEP Report at 21–22.

205. Unnamed Pond B has a continuous surface water connection with Lewis Bay via Halls Creek.

[43] This estimate comes from the measurement tool on Google Maps.
[44] This estimate comes from the measurement tool on Google Maps.
[45] This estimate comes from the measurement tool on Google Maps.

206. Unnamed Pond B receives effluent from the Facility.

Simmons Pond

207. Simmons Pond is approximately 1.44 miles from the Facility.[46]

208. Simmons Pond is part of the Halls Creek Watershed in the Lewis Bay Watershed System. Ex. A, MEP Report at 21–22.

209. Simmons Pond has a continuous surface water connection with Lewis Bay via Halls Creek.

210. Simmons Pond receives effluent from the Facility.

Schoolhouse Pond

211. Schoolhouse Pond is 1.77 mi from the Facility.[47]

212. Schoolhouse Pond is part of the Lewis Bay Watershed System. Ex. A, MEP Report at 21–22.

213. Parcel 287019001, 545 Scudder Ave, Hyannis MA, contains a portion of Schoolhouse Pond and is two acres. It was last sold on Feb. 24, 2012. It has an assessed total value of $951,800. Ex. P, Parcel Maps at 7.

214. Houses that are or could be used as commercial rental properties abut Schoolhouse Pond.

215. Schoolhouse Pond receives effluent from the Facility.

Halls Creek

216. Halls Creek is approximately 1.11 miles from the Facility.[48]

[46] This estimate comes from the measurement tool on Google Maps.
[47] This estimate comes from the measurement tool on Google Maps.
[48] Halls Creek begins at Unnamed Pond B, i.e., Ben's Pond.

217. Halls Creek is a freshwater stream outlet of the Lewis Bay Watershed System. *See* Ex. A, MEP Report at 21–22.

218. Halls Creek discharges into Hyannis Inner Harbor in Lewis Bay.

219. Halls Creek has a continuous surface water connection to Lewis Bay.

220. Halls Creek receives effluent from the Facility.

Stewart's Creek

221. Stewart's Creek is approximately 4,000 feet from the Facility.[49]

222. Stewart's Creek is a freshwater stream outlet of the Lewis Bay Watershed System. *See* Ex. A, MEP Report at 21–22.

223. Stewart's Creek discharges to Hyannis Inner Harbor in Lewis Bay. *See id.* at 21–22.

224. Stewart's Creek has a continuous surface water connection to Lewis Bay.

225. Stewart's Creek receives effluent from the Facility.

Snow's Creek

226. Snow's Creek is approximately 1.4 miles from the Facility. [50]

227. Snow's Creek is a freshwater stream outlet of the Lewis Bay Watershed System. *See* Ex. A, MEP Report at 21–22. Snow's Creek is a sub-embayment of the Lewis Bay Watershed System. *See id.*

228. Snow's Creek receives effluent from the Facility.

Hyannis Inner Harbor

229. Hyannis Inner Harbor is approximately 1.45 miles from the Facility.

[49] Stewart's Creek begins at Fawcetts Pond and Aunt Bettys Pond.
[50] This estimate comes from the measurement tool on Google Maps.

230. Hyannis Inner Harbor is connected to Lewis Bay, which is connected to Nantucket Sound and the Atlantic Ocean. *See id.* at 21–22. Hyannis Inner Harbor is a sub-embayment of the Lewis Bay Watershed System. *See id.*

231. Hyannis Inner Harbor has two ferry services, the Steamship Authority that operates a ferry to and from Nantucket, and Hy-Line Cruises that takes customers to and from Nantucket and Martha's Vineyard.[51] Hyannis Inner Harbor contains Hyannis Marina, where local and visiting boats dock.[52]

232. Hyannis Inner Harbor receives effluent from the Facility.

Lewis Bay

233. Lewis Bay is approximately 1.6 miles from the Facility. [53]

234. Lewis Bay has a continuous surface water connection to Nantucket Sound and the Atlantic Ocean.

235. Lewis Bay is a highway for commerce, traversed by intra- and interstate boats.

236. Lewis Bay receives effluent from the Facility.

VI. Defendant's Pollutant Discharges Harm CLF Members

237. The ponds, creeks, and coastal waters of the Lewis Bay Watershed System and the natural systems they support are treasured by the life-long residents of and visitors to Cape Cod, including CLF members.

238. Some of CLF's members are also members of the Mashpee Wampanoag Tribe, which has deep historical and cultural ties to Cape Cod's waters, including Lewis Bay.

[51] Cape Cod Chamber of Commerce, *Cape Cod Ferries & Schedules*, https://www.capecodchamber.org/getting-here/ferry/cape-and-islands-ferry-schedules/ (accessed July 22, 2024).
[52] Hyannis Marina, https://www.hyannismarina.com/ (accessed July 22, 2024).
[53] This estimate comes from the measurement tool on Google Maps.

239. Many CLF members enjoy the shorebirds, marine wildlife, and scenery of Cape Cod's coastal waters, including those of the Lewis Bay Watershed System.

240. CLF members and their families use the surface waters of the Lewis Bay Watershed System to swim, sail, canoe, kayak, waterski, fish, and harvest shellfish; others also enjoy observing animals from the beaches or looking out at the water and exploring the extensive walking trails around these waters.

241. Historically, the ponds, creeks, bays, and estuaries of the Lewis Bay Watershed System teemed with diverse aquatic life. As CLF's members recall, many of these waterbodies were carpeted with meadows of eelgrass—one of nature's most valuable and productive marine habitats. Algae has thrived on increased nitrogen levels and crowded out the natural, biodiverse flora that supported robust and varied aquatic wildlife. What were once green, lush stretches of eelgrass have become sludgy mats of algae.

242. Defendant's pollutant discharges, including the pollutants that cause excessive nitrogen in the surface waters of the Lewis Bay Watershed System, have a devastating effect on the natural ecosystem in a way that harms CLF members.

243. Pollution in Lewis Bay harms Mashpee Wampanoag Tribal members by disrupting fishing and cultural practices.

244. Excess nitrogen levels and eutrophication in the surface waters of the Lewis Bay Watershed System caused by Defendant's pollutant discharges has negatively impacted, and continues to negatively impact, CLF members' ability to use these waters and beaches.

245. The harmful algal blooms and red tides that can accompany eutrophication threaten the ability of CLF members to swim and boat in the surface waters of the Lewis Bay Watershed System.

246. CLF members and their families who used to enjoy freely swimming and boating in the surface waters of the Lewis Bay Watershed System are now forced to choose between using algae- and plant-choked waters full of pollutants or avoiding it entirely. They worry whether it is safe to swim in waters polluted by the Facility's discharges because of the pollutants' potential direct effects on human health.

247. CLF members care about the natural environment of the surface waters of the Lewis Bay Watershed System and are concerned that high nitrogen levels have damaged and will continue to damage their ecosystem and irreparably harm local fish and other aquatic populations.

248. CLF members who enjoy looking out at the surface waters of the Lewis Bay Watershed System do not derive as much aesthetic pleasure now that these waters have become eutrophic, scum- and algae-clogged, clouded by organic matter, unpleasantly odorous, and deprived of their native ecology.

249. CLF's members are concerned that Defendant's continued unauthorized discharge of sewage effluent and the resulting high levels of nitrogen in surface waters of the Lewis Bay Watershed System will further damage these waters that are already impaired.

250. Defendant's continued unauthorized discharge of sewage effluent and nitrogen harms CLF's members' use and enjoyment of surface waters of the Lewis Bay Watershed System.

251. The interests of CLF's members have been, are being, and will continue to be adversely affected by Defendant's failure to comply with the Clean Water Act and NPDES requirements.

252. CLF's members would feel safer using these waters if they knew that the Defendant was complying with the strictest federal standards for pollutant discharges and was in compliance with the scientifically supported TMDL requirements.

253. CLF's members would enjoy the waters more if the fish populations were no longer threatened by nitrogen and the resulting algae blooms and they could enjoy robust sport fishing populations.

254. CLF's members would enjoy their time watching wildlife more if there were more wildlife to watch because their habitat was not being eradiated by algae feeding on nitrogen and their food supply was not killed off by depleted oxygen levels.

255. The relief sought in this action will redress these harms.

256. The unlawful acts and omissions described herein have and will continue to irreparably harm Plaintiff's members, for which harm they have no plain, immediate, or adequate remedy at law.

CLAIMS FOR RELIEF

Unauthorized Discharges of Pollutants into Waters of the United States

257. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

258. The Clean Water Act prohibits the discharge by any person of any pollutant from any "point source" to waters of the United States, except for discharges in compliance with a NPDES permit issued pursuant to Section 402 of the Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

259. Defendant is a person that owns and/or operates the Facility.

260. The Facility and its sand beds are point sources.

261. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from these point sources to waters of the United States each day for the past five years.

262. Defendant releases pollutants from the Facility and its sand beds that enter groundwater, which transports these pollutants swiftly and over a short distance to the surface waters of the Lewis Bay Watershed System—including but not limited to Duck Pond, Dunns Pond, Unnamed Pond A, Fawcetts Pond, Aunt Bettys Pond, Unnamed Pond B, Simmons Pond, Schoolhouse Pond, Halls Creek, Snow's Creek, Stewart's Creek, Hyannis Inner Harbor, and Lewis Bay itself—in a manner functionally equivalent to a direct discharge.

263. Defendant's pollutant discharges into waters of the United States are not authorized by any NPDES permit.

264. In the surface waters of the Lewis Bay Watershed System, Defendant's discharges of pollutants—including a nitrogen load in excess of 12,000 kilograms per year—causes eutrophication, destruction of native fauna and flora, and ecological crisis, and harms CLF members' enjoyment of these waters. *See* Ex. A, MEP Report at 34.

265. Past, ongoing and continuing, and future commission of the acts and omissions alleged herein irreparably harm water quality, CLF, and its members, for which harm Plaintiff has no plain, speedy, or adequate remedy at law.

Count I. Unlawful Discharge of Pollutants into Duck Pond

266. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

267. Duck Pond is within the Lewis Bay Watershed System, and used in, or may be susceptible to use in, interstate or foreign commerce and is therefore a water of the United States. 40 C.F.R. § 120.2 (a)(1)(i).

268. Duck Pond is hydrogeologically connected to Lewis Bay, and effluent flowing in Duck Pond ultimately reaches Lewis Bay.

269. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Duck Pond in a manner functionally equivalent to a direct discharge each day for the past five years.

270. Absent relief from this Court, Defendant will continue to do so every day into the future.

271. Defendant's pollutant discharges into Duck Pond are not authorized by any NPDES permit.

272. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Duck Pond without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

273. These illegal discharges harm CLF's members. *See supra* Section VI.

Count II. Unauthorized Discharge of Pollutants into Dunns Pond

274. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

275. Dunns Pond is a pond in the Lewis Bay Watershed System and is used in, or may be susceptible to use in, interstate or foreign commerce and is therefore a water of the United States. 40 C.F.R. § 120.2 (a)(1)(i).

276. Dunns Pond is hydrogeologically connected to Lewis Bay, and effluent flowing in Dunns Pond ultimately reaches Lewis Bay.

277. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Dunns Pond in a manner functionally equivalent to a direct discharge each day for the past five years.

278. Absent relief from this Court, Defendant will continue to do so every day into the future.

279. Defendant's pollutant discharges into Dunns Pond are not authorized by any NPDES permit.

280. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Dunns Pond without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

281. These illegal discharges harm CLF's members. *See supra* Section VI.

Count III. Unauthorized Discharge of Pollutants into Unnamed Pond A

282. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

283. Unnamed Pond A is within the Lewis Bay Watershed System and is used in, or may be susceptible to use in, interstate or foreign commerce and is therefore a water of the United States. 40 C.F.R. § 120.2 (a)(1)(i).

284. Unnamed Pond A is hydrogeologically connected to Lewis Bay, and effluent flowing in Unnamed Pond A ultimately reaches Lewis Bay.

285. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Unnamed Pond A in a manner functionally equivalent to a direct discharge each day for the past five years.

286. Absent relief from this Court, Defendant will continue to do so every day into the future.

287. Defendant's pollutant discharges into Unnamed Pond A are not authorized by any NPDES permit.

288. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Unnamed Pond A without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

289. These illegal discharges harm CLF's members. *See supra* Section VI.

Count IV. Unauthorized Discharge of Pollutants into Fawcetts Pond

290. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

291. Fawcetts Pond is a pond in the Lewis Bay Watershed System that is relatively permanent, standing or continuously flowing water with a continuous surface connection to waters used in interstate commerce, territorial seas, and/or interstate waters. 40 C.F.R. § 120.2 (a)(5). Therefore, Fawcetts Pond is a water of the United States. *See id.*

292. Fawcetts Pond is hydrogeologically connected to Lewis Bay, and effluent flowing in Fawcetts Pond ultimately reaches Lewis Bay.

293. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Fawcetts Pond in a manner functionally equivalent to a direct discharge each day for the past five years.

294. Absent relief from this Court, Defendant will continue to do so every day into the future.

295. Defendant's pollutant discharges into Fawcetts Pond are not authorized by any NPDES permit.

296. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Fawcetts Pond without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

297. These illegal discharges harm CLF's members. *See supra* Section VI.

Count V. Unauthorized Discharge of Pollutants into Aunt Bettys Pond

298. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

299. Aunt Bettys Pond is a pond in the Lewis Bay Watershed system that is relatively permanent, standing or continuously flowing water with a continuous surface connection to waters used in interstate commerce, territorial seas, and/or interstate waters. 40 C.F.R. § 120.2 (a)(5). Therefore, Aunt Bettys Pond is a water of the United States. *See id.*

300. Aunt Bettys Pond is hydrogeologically connected to Lewis Bay, and effluent flowing in Aunt Bettys Pond ultimately reaches Lewis Bay.

301. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Aunt

Bettys Pond in a manner functionally equivalent to a direct discharge each day for the past five years.

302. Absent relief from this Court, Defendant will continue to do so every day into the future.

303. Defendant's pollutant discharges into Aunt Bettys Pond are not authorized by any NPDES permit.

304. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Aunt Bettys Pond without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

305. These illegal discharges harm CLF's members. *See supra* Section VI.

Count VI. Unauthorized Discharge of Pollutants into Unnamed Pond B

306. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

307. Unnamed Pond B is a pond in the Lewis Bay Watershed System that is relatively permanent, standing or continuously flowing water with a continuous surface connection to waters used in interstate commerce, territorial seas, and/or interstate waters. 40 C.F.R. § 120.2 (a)(5). Therefore, Unnamed Pond B is a water of the United States. *See id.*

308. Unnamed Pond B is hydrogeologically connected to Lewis Bay, and effluent flowing in Unnamed Pond B ultimately reaches Lewis Bay.

309. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Unnamed Pond B in a manner functionally equivalent to a direct discharge each day for the past five years.

310. Absent relief from this Court, Defendant will continue to do so every day into the future.

311. Defendant's pollutant discharges into Unnamed Pond B are not authorized by any NPDES permit.

312. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Unnamed Pond B without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

313. These illegal discharges harm CLF's members. *See supra* Section VI.

Count VII. Unauthorized Discharge of Pollutants into Simmons Pond

314. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

315. Simmons Pond is a pond in the Lewis Bay Watershed System that is a relatively permanent, standing or continuously flowing water with a continuous surface connection to waters used in interstate commerce, territorial seas, and/or interstate waters. 40 C.F.R. § 120.2 (a)(5). Therefore, Simmons Pond is a water of the United States. *See id.*

316. Simmons Pond is hydrogeologically connected to Lewis Bay, and effluent flowing in Simmons Pond ultimately reaches Lewis Bay.

317. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Simmons Pond in a manner functionally equivalent to a direct discharge each day for the past five years.

318. Absent relief from this Court, Defendant will continue to do so every day into the future.

319. Defendant's pollutant discharges into Simmons Pond are not authorized by any NPDES permit.

320. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Simmons Pond without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

321. These illegal discharges harm CLF's members. *See supra* Section VI.

Count VIII. Unauthorized Discharge of Pollutants into Schoolhouse Pond

322. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

323. Schoolhouse Pond is within the Lewis Bay Watershed System and is used in, or may be susceptible to use in, interstate or foreign commerce and is therefore a water of the United States. 40 C.F.R. § 120.2(a)(1)(i).

324. Schoolhouse Pond is hydrogeologically connected to Lewis Bay, and effluent flowing in Schoolhouse Pond ultimately reaches Lewis Bay.

325. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Schoolhouse Pond in a manner functionally equivalent to a direct discharge each day for the past five years.

326. Absent relief from this Court, Defendant will continue to do so every day into the future.

327. Defendant's pollutant discharges into Schoolhouse Pond are not authorized by any NPDES permit.

328. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Schoolhouse Pond without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

329. These illegal discharges harm CLF's members. *See supra* Section VI.

Count IX. Unauthorized Discharge of Pollutants into Halls Creek

330. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

331. Halls Creek is within the Lewis Bay Watershed System and is a tributary of a water of the United States. 40 C.F.R. § 120(a)(3). Therefore, Halls Creek is a water of the United States. *See id.*

332. Halls Creek is hydrogeologically connected to Lewis Bay, and effluent flowing in Halls Creek ultimately reaches Lewis Bay.

333. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Halls Creek in a manner functionally equivalent to a direct discharge each day for the past five years.

334. Absent relief from this Court, Defendant will continue to do so every day into the future.

335. Defendant's pollutant discharges into Halls Creek are not authorized by any NPDES permit.

336. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Halls Creek without authorization under a valid

NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

337. These illegal discharges harm CLF's members. *See supra* Section VI.

Count X. Unauthorized Discharge of Pollutants into Stewart's Creek

338. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

339. Stewart's Creek is within the Lewis Bay Watershed System and is a tributary of a water of the United States. 40 C.F.R. § 120(a)(3). Therefore, Stewart's Creek is a water of the United States. *See id.*

340. Stewart's Creek is hydrogeologically connected to Lewis Bay, and effluent flowing in Stewart's Creek ultimately reaches Lewis Bay.

341. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Stewart's Creek in a manner functionally equivalent to a direct discharge each day for the past five years.

342. Absent relief from this Court, Defendant will continue to do so every day into the future.

343. Defendant's pollutant discharges into Stewart's Creek are not authorized by any NPDES permit.

344. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Stewart's Creek without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

345. These illegal discharges harm CLF's members. *See supra* Section VI.

Count XI. Unauthorized Discharge of Pollutants into Snow's Creek

346. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

347. Snow's Creek is within the Lewis Bay Watershed System and is a tributary of a water of the United States. 40 C.F.R. § 120(a)(3). Therefore, Snow's Creek is a water of the United States. *See id.*

348. Snow's Creek is hydrogeologically connected to Lewis Bay, and effluent flowing in Snow's Creek ultimately reaches Lewis Bay.

349. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Snow's Creek in a manner functionally equivalent to a direct discharge each day for the past five years.

350. Absent relief from this Court, Defendant will continue to do so every day into the future.

351. Defendant's pollutant discharges into Snow's Creek are not authorized by any NPDES permit.

352. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Snow's Creek without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

353. These illegal discharges harm CLF's members. *See supra* Section VI.

Count XII. Unauthorized Discharge of Pollutants into Hyannis Inner Harbor

354. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

355. Hyannis Inner Harbor is navigable in fact.

356. Hyannis Inner Harbor is a harbor in the Lewis Bay Watershed system that is used, or may be susceptible to use, in interstate or foreign commerce and is therefore a water of the United States. 40 C.F.R. § 120.2(a)(1)(i).

357. Hyannis Inner Harbor is a territorial sea and is therefore a water of the United States. 40 C.F.R. § 120.2(a)(1)(ii); 33 U.S.C. § 1362(8) (Clean Water Act defines "territorial seas").

358. Hyannis Inner Harbor is hydrogeologically connected to Lewis Bay, and effluent flowing in Hyannis Inner Harbor ultimately reaches Lewis Bay.

359. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Hyannis Inner Harbor in a manner functionally equivalent to a direct discharge each day for the past five years.

360. Absent relief from this Court, Defendant will continue to do so every day into the future.

361. Defendant's pollutant discharges into Hyannis Inner Harbor are not authorized by any NPDES permit.

362. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Hyannis Inner Harbor without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

363. These illegal discharges harm CLF's members. *See supra* Section VI.

Count XIII. Unauthorized Discharge of Pollutants into Lewis Bay

364. Plaintiff incorporates the allegations contained in the above paragraphs as though fully set forth herein.

365. Lewis Bay is navigable in fact and is part of the Lewis Bay Watershed System.

366. Lewis Bay is used, or may be susceptible to use, in interstate or foreign commerce and is therefore a water of the United States. 33 C.F.R. § 328.3(a)(1)(i).

367. Lewis Bay is a territorial sea and is therefore a water of the United States. 40 C.F.R. § 120.2(a)(1)(ii); 33 U.S.C. § 1362(8) (Clean Water Act defines "territorial seas").

368. Defendant has discharged pollutants and is currently discharging pollutants, including sewage effluent, nitrogen, and polluted groundwater, from point sources into Snow's Creek in a manner functionally equivalent to a direct discharge each day for the past five years.

369. Absent relief from this Court, Defendant will continue to do so every day into the future.

370. Defendant's pollutant discharges into Lewis Bay are not authorized by any NPDES permit.

371. Each day on which Defendant has discharged and continues to discharge pollutants from the Facility and its sand beds to Lewis Bay without authorization under a valid NPDES permit constitutes a separate and distinct violation of the Clean Water Act. 33 U.S.C. § 1311(a); 33 U.S.C. § 1342.

372. These illegal discharges harm CLF's members. *See supra* Section VI.

RELIEF REQUESTED

WHEREFORE, Plaintiff respectfully requests that this Court grant the following relief:

a) Declare Defendant to have violated and to be in violation of Section 301(a) of the Clean Water Act, 33 U.S.C. § 1311(a), for Defendant's unlawful and

unauthorized discharges of pollutants from the Facility and its sand beds to waters of the United States;

b) Further declare Defendant to have violated and to be in violation of Section 301(a) of the Clean Water Act, 33 U.S.C. § 1311(a), for Defendant's unlawful and unauthorized discharges of pollutants from the Facility and its sand beds to each of the following waters of the United States:

i. Duck Pond;

ii. Dunns Pond;

iii. Unnamed Pond A;

iv. Fawcetts Pond;

v. Aunty Bettys Pond;

vi. Unnamed Pond B;

vii. Simmons Pond;

viii. Schoolhouse Pond;

ix. Halls Creek;

x. Stewart's Creek;

xi. Snow's Creek;

xii. Hyannis Inner Harbor;

xiii. and Lewis Bay;

c) Enjoin Defendant, through a preliminary and/or permanent injunction, from continuing to discharge sewage containing pollutants from the Facility and its sand beds to waters of the United States unless and until it obtains a NPDES Permit;

d) In the alternative, enjoin Defendant from continuing to discharge sewage containing pollutants from the Facility and its sand beds to waters of the United States unless Defendant agrees to submit, within 45 days of the Court's order, a proposal for the Court's approval that would:

i. reduce its discharge of nitrogen to a level commensurate with use of modern denitrification technologies, which can reduce concentrations to the 2–3 mg/L range or below, in order to comply with the technology-based standards of the Clean Water Act; and

ii. otherwise abate the discharge of pollutants from the Facility and its sand beds into waters of the United States except as authorized by and in compliance with a NPDES Permit; and

iii. take appropriate actions to remediate past harms caused by Defendant's past noncompliance with the Clean Water Act;

e) Impose civil penalties upon Defendant of up to $64,618 per day per violation for all violations of the Clean Water Act that occurred or occur during the relevant period, which Plaintiffs believe to be the period beginning five years prior to the date of filing this complaint through the end of the violations, pursuant to § 309(d) of the Clean Water Act, 33 U.S.C. § 1319(d), and the regulations governing the Adjustment of Civil Monetary Penalties for Inflation, 40 C.F.R. §§ 19.1–19.4;

f) Award Plaintiff's costs (including reasonable investigative, attorney, witness, and consultant fees) as permitted by Section 505(d) of the Clean Water Act, 33 U.S.C. § 1365(d);

g) Award all other relief as the Court may deem appropriate.

JURY DEMAND

Plaintiff demands a trial by jury as provided by Fed. R. Civ. Pro. 38(b).

Respectfully submitted this July 22, 2024,

CONSERVATION LAW FOUNDATION, INC.,

By its attorney,

/s/ Margaret Nivison
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