



Conservation
Law Foundation

For a thriving New England

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VIA CERTIFIED MAIL, RETURN RECEIPT REQUESTED

RE: Notice of Violations and Intent to File Suit under the Clean Water Act

To Whom It May Concern:

Conservation Law Foundation (“CLF”) hereby gives notice of its intent to file suit pursuant to Section 505 of the Federal Water Pollution Control Act (“Clean Water Act,” “CWA,” or “Act”), 33 U.S.C. § 1365(a), against Cooke Aquaculture, Inc. (“Cooke”) for violations of the Clean Water Act at Cooke’s Maine-based net pen aquaculture facilities. CLF intends to initiate such action in the United States District Court for the District of Maine seeking appropriate equitable relief, civil penalties, and other relief no earlier than 60 days from the postmark date of this letter (the “Notice Letter”), which serves as notice pursuant to 40 CFR Part 135.

The subject of this action is Cooke’s past and ongoing violations of the Maine Pollutant Discharge Elimination System (“MEPDES”) General Permit for Net Pen Aquaculture (the “Permit”), the Clean Water Act¹, and applicable regulations.² Cooke has discharged and continues to discharge pollutants including fish fecal matter, uneaten food pellets, fish (live escaped fish, dead fish, and pieces of dead fish), sea lice, viruses, trash (including discarded ropes, plastic feed bags, plastic tubes, plastic platforms, and pieces of the net pen structure), blood, nutrients (including nitrogen), and chemicals into Maine’s coastal waters.

Cooke’s violations include: (1) violating the Permit’s numeric sulfide limitation and benthic infauna monitoring requirements; (2) violating the Permit’s narrative effluent limitations; (3) violating state water quality standards; (4) discharging pollutants and from point sources not authorized by the Permit; (5) violating the Permit’s Best Practicable Treatment requirements

¹ See CWA §§ 301(a), 318; 33 U.S.C. §§ 1311(a), 1328.

² See 40 CFR §§ 122.24, 122.44(d)(1); 40 CFR Part 451.

related to net pen maintenance, waste collection and disposal, discharge from fish harvesting (including blood), and carcass removal; and (6) violating the Permit's monitoring and reporting requirements.

CLF's lawsuit seeks to prevent further degradation of Maine's coastal waters and to bring Cooke into compliance with the Clean Water Act. To achieve compliance, Cooke will need to hire additional employees and experts to conduct more frequent monitoring and inspections, maintain and clean its equipment to a higher standard, and mitigate the impact of its operations on the environment.

PERSONS RESPONSIBLE FOR ALLEGED VIOLATIONS

Cooke, and its agents and subsidiaries, are the persons, as defined by 33 U.S.C. § 1362(5), responsible for the violations alleged in this Notice Letter. Cooke has owned and operated all the Cage Sites at issue in this Notice Letter since at least 2019.

LOCATION OF THE ALLEGED VIOLATIONS

The violations alleged in this Notice Letter have occurred and continue to occur at the following 13 sites where Cooke grows salmon in cages (collectively, the "Cage Sites" or "Sites"):

Swans Island

At the Black Island, Black Island South, and Harbor Scrag Sites, Cooke discharges into the waters around Swans Island. The Black Island and Black Island South Sites are sandwiched between Placentia and Black Islands, just off the southern tip of Mount Desert Island. The Harbor Scrag Site sits between tiny Harbor and Scrag Islands just south of Swans Island and west of Frenchboro and Long Island. The three Swans Island sites are:

- 1) The "Black Island Site" is located in Eastern Blue Hill Bay, Frenchboro, ME 04635 (Lease Site ID: SWAN BI);
- 2) The "Black Island South Site" is located in Eastern Blue Hill Bay, Frenchboro, ME 04635 (Lease Site ID: SWAN BIS); and
- 3) The "Harbor Scrag Site" is located in Harbor Island Gut, Swans Island, ME 04685 (Lease Site ID: SWAN HS).

Eastern Bay

At the Calf Island, Sand Cove, and Spectacle Island Sites, Cooke discharges into Eastern Bay near Jonesport and between Beals Island and Head Harbor Island. The sites are located northeast of the Nature Conservancy's Great Wass Island Preserve. The three Eastern Bay sites are:

- 1) The "Calf Island Site" is located near Jonesport, ME 04649, east of Calf Island (Lease Site ID: EASTW CALF);

- 2) The “Sand Cove Site” is located in Eastern Bay, Beals, ME 04611 (Lease Site ID: EASTW SCN); and
- 3) The “Spectacle Island Site” is located in Eastern Bay, Beals, ME 04611, west of Spectacle Island (Least Site ID: EASTW SI).

Machias Bay

At the Starboard Island, Cross Island, Cross Island North, and Cutler West Cage Sites, Cooke discharges into Machias Bay near Machiasport. The Starboard Island Site is near the town of Starboard and Jasper Beach. The Cross Island and Cross Island North Sites are located northwest of the Cross Island National Wildlife Refuge. The Cutler West Cage Site is west of the town of Cutler. The four Machias Bay sites are:

- 1) The “Starboard Island Site” is located near Starboard Island, Machiasport, ME 04655 (Lease Site ID: MACH II);
- 2) The “Cross Island Site” is located in Machias Bay, Cutler, ME 04626 (Least Site ID: MACH CI);
- 3) The “Cross Island North Site” is located in Machias Bay, Cutler, ME 04626 (Lease Site ID: MACH CIN); and
- 4) The “Cutler West Site” is located in Machias Bay, Cutler, ME 04626 (Least Site ID: MACH CW).

Cobscook Bay

At the South Bay, Deep Cove, and Broad Cove Sites, Cooke discharges into Cobscook Bay. The South Bay Site is located west of North Lubec, and the Deep Cove and Broad Cove Sites are located west of Eastport next to Shackford Head State Park.

- 1) The “South Bay Site” is located in Cobscook Bay, Lubec, ME 04652 (Lease Site ID: COB SB).
- 2) The “Deep Cove Site” is located in Cobscook Bay, Eastport, ME 04631 (Lease Site ID: COB DC); and
- 3) The “Broad Cove Site” is located in Cobscook Bay, Eastport, ME 04631 (Lease Site ID: COB BC).

BACKGROUND

Cooke is one of the largest privately owned seafood companies in the world and is based in New Brunswick, Canada. Cooke grows tens of millions of pounds of farmed salmon at its 13 active Cage Sites along the coast of Maine.

Each Cage Site is comprised of between six and 30 cages, and each cage confines tens of thousands of fish. The cages float on the surface of the water and are anchored to the ocean floor. Cooke’s nearly 150 cages in Maine that are the subject of this Notice Letter contain millions of

fish. Cooke holds leases for a total of 24 Cage Sites in Maine and is permitted to feed its fish over 20.5 million pounds of food per month.

Cooke's salmon cages dump several types of pollution into the surrounding waters, including: solid organic waste (in the form of fish feces, dead, and uneaten food), disease and sea lice, escaped fish, and trash. The organic waste fosters the production and accumulation of toxic sulfides on the sea floor, forming conditions that kill seafloor invertebrates—an important food source for lobsters and bottom-feeding fish, such as cod. Diseases and sea lice from the cages can spread to wild fish, threatening their survival. Escaped cage-raised fish further imperil wild endangered Atlantic salmon through interbreeding. Finally, Cooke discards trash that washes up on nearby beaches, impedes navigation, and threatens marine life.

Cooke's discharges impact lobstermen, fishermen, recreational boaters, and beachgoers whose livelihoods and enjoyment depend on clean water and healthy ocean ecosystems.

Cooke's operations are regulated under the Clean Water Act and a Net Pen Aquaculture General Permit ("Permit").³ The Permit expired April 10, 2019, and has been administratively continued ever since.

STANDARDS AND LIMITATIONS ALLEGED TO HAVE BEEN VIOLATED

Cooke's Cage Sites are concentrated aquatic animal production facilities within the meaning of 40 CFR § 122.24 and 40 CFR Part 451. As such, Cooke is required to comply with the Net Pen Aquaculture General Permit in order to discharge lawfully under the Clean Water Act. Cooke has violated the following Permit standards and Maine Water Quality Standards.

Numeric Sulfide Limitations and Benthic Infauna Monitoring

The Permit requires Cooke to conduct benthic infauna monitoring whenever the "site-average sulfide test result is greater than 3,000 μM ."⁴ When discharging into Class SB waters, Cooke is prohibited from creating the following sediment and benthic conditions: 1) sulfide levels greater than or equal to 3,000 μM based on the mean of all samples across site; 2) Shannon-Wiener Relative Diversity Index where J is less than or equal to 0.5 based on the mean of all samples across site, and 3) greater than or equal to 25% total abundance composed of *Capitella capitata* based on the mean of all samples across site.⁵

³ Maine Dep't of Env't Prot., MEPDES Permit No. MEG130000 – Net Pen Aquaculture General Permit (2014).

⁴ Permit at 12 (Section I).

⁵ *Id.*

Narrative Water Quality Standards

Pursuant to its Permit, outside the designated Mixing Zones,⁶ Cooke is prohibited from discharging pollutants that:

- 1) “[C]ause a visible oil sheen, foam, or floating solids at any time that would impair the uses designated by the classification of the receiving waters;”⁷
- 2) “[C]ontain materials in concentrations or combinations that are hazardous or toxic to aquatic life, or that would impair the existing or designated uses of the receiving waters;”⁸
- 3) “[C]ause or contribute to conditions that are hazardous or toxic to aquatic life, or that would impair the uses designated by the classification of the receiving waters;”⁹
- 4) “[C]ause visible discoloration or turbidity in the receiving waters that causes those waters to be unsuitable for the designated uses and characteristics ascribed to their class;”¹⁰ or
- 5) “[L]owers the quality of any classified body of water below such classification, or lowers the existing quality of any body of water if the existing quality is higher than the classification.”¹¹

Within the designated mixing zone, Cooke’s discharge must not cause or contribute to conditions that are lethal to passing organisms indigenous to the receiving water.¹²

Maine’s Water Quality Standards

The Permit requires that outside the designated mixing zones, discharges from the Cage Sites must not cause or contribute to a violation of Maine’s water quality standards.¹³ The Cage Sites all discharge into Class SB waters, which have the designated uses of “recreation in and on the water, fishing, aquaculture, propagation and harvesting of shellfish, industrial process and cooling water supply, hydroelectric power generation, navigation and as habitat for fish and other estuarine and marine life.”¹⁴

The following Maine water quality standards, *inter alia*, apply to Cooke:

⁶ The General Permit designates two Mixing Zones: (1) a Water Column Mixing Zone — the area within and extending 30 meters beyond the perimeter of a net pen in all direction on the surface and down to the sea floor/water column interface and (2) a Sediment Mixing Zone – the sea floor directly below a net pen and extending on the sea floor 30 meters beyond the perimeter of each net pen in all directions. *Id.* at 11 (Section H).

⁷ *Id.* at 13 (Section J.1).

⁸ *Id.* (Section J.2).

⁹ *Id.* at 11 (Section H).

¹⁰ *Id.* at 13 (Section J.3).

¹¹ *Id.* (Section J.4).

¹² *Id.* at 11 (Section H).

¹³ *Id.* at 13 (Section J).

¹⁴ 38 MRS § 465-B(2)(A)

- 1) All surface waters of the State shall be free of settled substances which alter the physical or chemical nature of bottom material and of floating substances, except as naturally occur, which impair the characteristics and designated uses ascribed to their class;¹⁵ and
- 2) Discharges to Class SB waters may not cause adverse impact to estuarine and marine life in that the receiving waters must be of sufficient quality to support all estuarine and marine species indigenous to the receiving water without detrimental changes in the residential biological community.¹⁶

Discharge of Pollutants and from Point Sources Not Authorized by the Permit

Any discharge of a pollutant into waters of the United States not in compliance with a federal NPDES permit is a violation of the Clean Water Act. Cooke is authorized to discharge only those pollutants disclosed on its Notice of Intent and listed in Section E of the Permit: “pollutants incidental to the normal and proper operation of the facility, including, but not limited to, fish excrement, fish scales, fish carcasses unable to be retrieved, and the leaching of treatment compounds used on nets to limit marine growth, provided such discharges do not cause or contribute to a violation of an applicable water quality standard or condition of the [Permit].”¹⁷

The Permit does not authorize the discharge of escaped fish, sea lice, disease, or trash (including rope, pieces of net pens, or plastic waste). The Permit only authorizes “discharges resulting from net pen aquaculture facilities,” and defines “net pen aquaculture facilities” as the cage system itself.¹⁸ Discharges of pollutants from any other point source (including docks, barges, or boats) are not authorized under the Permit, and must be reported in accordance with Standard Condition B(5).¹⁹

Best Practicable Treatment Conditions

Pursuant to its Permit, Cooke is required to comply with the following Best Practicable Treatment conditions:

- 1) Feed management. Cooke “must employ efficient feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth. These strategies must minimize the accumulation of uneaten food beneath the pens through the use of real-time feed monitoring, including devices such as video cameras, digital scanning sonar, and upweller systems; monitoring of sediment quality beneath the pens; monitoring of benthic community quality beneath

¹⁵ 38 MRS § 464.

¹⁶ 38 MRS § 465-B.

¹⁷ Permit at 10 (Section E).

¹⁸ *Id.* at 5, 6 (Special Conditions A, B).

¹⁹ *Id.* at 10 (Special Condition E).

the pens; capture of waste feed and feces; or other good husbandry practices approved by the Department;”²⁰

- 2) Waste collection and disposal. Cooke must “collect, return to shore, and properly dispose of all feed bags, packaging materials, waste rope, netting, and other solid waste;”²¹
- 3) Transport or harvest discharge. Cooke must “minimize any discharge associated with the transport or harvesting of aquatic animals including blood, viscera, aquatic animal carcasses, or transport water containing blood;”²²
- 4) Carcass removal. Cooke “must remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the State;”²³ and
- 5) Maintenance. Cooke must inspect the Cage Sites “on a routine basis in order to identify and promptly repair any damage and conduct regular maintenance of the net pen facility in order to ensure that it is properly functioning.”²⁴

Monitoring and Reporting Requirements

Cooke is required to meet the following monitoring and reporting requirements:

- 1) “Permittee must maintain and report monthly, using a method and on a form approved by the Department, the following information: a) the number of pens in use, including type, size (diameter and depth) and volume; b) the number of months each net pen has been stocked; c) the average weight of and total number of fish and each net pen; d) the total amount of feed added to each net pen;”²⁵
- 2) “The permittee must report, using a method and on a form approved by the Department, the discharge of any drug or other disease control chemicals ***on a monthly basis*** concurrent with the monthly feed and fish monitoring report required by this General Permit. The report must include the following information: a) the number of days of application; b) the drug or disease control chemical used; c) the concentration of drug or disease control chemical administered and total quantity used; d) the approximate number of fish as well as number of pens treated; e) method of application; f) condition treated;”²⁶
- 3) “Monitoring for sulfide at 35 meters must be conducted at a minimum frequency of once per growing cycle during the period of July 1 – November 15 during the year of maximum biomass for the facility;”

²⁰ *Id.* at 13 (Section K.1).

²¹ *Id.* (Section K.2).

²² *Id.* (Section K.3).

²³ *Id.* (Section K.4).

²⁴ *Id.* at 14 (Section K.6).

²⁵ *Id.* at 14 (Section K.7).

²⁶ *Id.* at 17 (Section N.5).

- 4) “Monitoring for sulfide at 5 meters must be conducted at a minimum frequency of once per growing cycle during the period of July 1 – November 15 during the year of maximum biomass of the facility;”²⁷
- 5) Cooke’s sulfide and benthic monitoring must be conducted in accordance with the conditions in Appendix A at each of the sampling locations identified in Appendices B or C.²⁸ The permittee must collect a minimum of three field replicates from each sampling locations: from A, B, C, and D (35 meters from the edge of net pen system in line with prevailing current) and from AA, BB, CC, and DD (5 meters from edge of net pens in line with prevailing current) as marked on Appendices B and C.²⁹
- 6) “Cooke Aquaculture marine aquaculture pen site sample locations have been pre-selected and are identified in the Notice of Intent . . . for each facility. Orientation of and location of sample must be consistent with Appendix B and C of the General Permit.”³⁰
- 7) “The permittee may not stock fish at the facility until the permittee demonstrates to the Department’s satisfaction that the sulfide levels within the mixing zone are equal to or less than 4,000 µM based on the mean of all samples at 5 meters. . . . Sample results obtained after completion of a grow cycle may be used to provide results are submitted not less than 14 days prior to proposed restocking;”³¹ and
- 8) “Sediment sample collection, handling, preservation, storage, and analysis must be conducted in accordance with USEPA approved methods, where available, or as otherwise approved in writing by the Department.”³²

Cooke is authorized to use SM 4500-S²-F (2000) (the “Iodometric Method”) in the 21st edition of Standard Methods along with the modifications in *Maine Department of Environmental Protection Marine Sediment Sampling Protocols, Cooke Aquaculture* for the sampling and analysis for sulfides.³³ The Iodometric Method requires a 200 milliliter sample.³⁴ “When choosing a sampling method, Cooke must review the amount of sample required for adequate lab analysis and select a sampling method that will satisfy that requirement.”³⁵

ACTIVITIES ALLEGED TO BE VIOLATIONS

Cooke’s Permit violations, as described below, are also violations of Sections 301(a) and 318 of the Clean Water Act (“CWA”), 33 U.S.C. §§1311(a) and 1328, and 40 CFR §§ 122.24 and

²⁷ *Id.* at 12 (Section I.3), 23 (Appendix A).

²⁸ *Id.*, *Id.* at 23 (Appendix A).

²⁹ *Id.* at 25-26 (Appendices B, C).

³⁰ Maine Dep’t of Env’t Prot., Marine Sediment Sampling Protocols, Cooke Aquaculture (2021) at 1.

³¹ Permit at 10 (Section F.2), Permit at 30 (Appendix F).

³² *Id.* at 23 (Appendix A).

³³ Maine Dep’t of Env’t Prot., Net Pen Aquaculture Modification (Sept. 24, 2021); *see also* Maine Dep’t of Env’t Prot., Marine Sediment Sampling Protocols, Cooke Aquaculture (2021).

³⁴ Amer. Public Health Assoc. et al., Standard Methods for the Examination of Water and Wastewater 4-176 (21st ed. 2005).

³⁵ Maine Dep’t of Env’t Prot., Marine Sediment Sampling Protocols, Cooke Aquaculture (2021) at 2.

122.44(d)(1). Certain Permit violations also are violations of effluent guidelines and standards established for concentrated aquatic animal production facilities, 40 CFR Part 451.

CLF hereby provides notice to Cooke of all violations of the CWA and of its Permit.

Cooke Has Discharged, Is Discharging, and Will Continue to Discharge Effluent in Violation of the Permit's Numeric Sulfide Limitation and Benthic Monitoring Requirements.

On its 2023 Sand Cove Cage Site sulfide report, Cooke reported a sulfide level of 3,252 μM based on the mean of all samples taken at the Site. Cooke is required to conduct monitoring for benthic infauna to enable reporting of Shannon-Wiener Relative Diversity Index and percent *Capitella capitata* whenever the site-average sulfide test result is greater than 3,000 μM .

No benthic infauna monitoring was conducted as required for the Sand Cove Cage Site following the 2023 sulfide report.

Upon information and belief, had Cooke complied with the sulfide monitoring requirements, including those requirements related to sample size and sampling location, Cooke's actual sulfide values would exceed the 3000 μM sulfide limit at the Black Island North, Calf Island, Cross Island, Sand Cove, and Spectacle Island Cage Sites. Any benthic infauna monitoring conducted at the Black Island North, Calf Island, Cross Island, Sand Cove, and Spectacle Island Cage Sites would have exceeded the benthic infauna conditions.

Cooke Has Discharged, Is Discharging, and Will Continue to Discharge Effluent in Violation of the Permit's Narrative Effluent Limitations.

Outside the mixing zone. Cooke's discharges from all of the Cage Sites violate the Permit's narrative effluent limits pertaining to conditions outside the designated mixing zone, listed above on page 5.

Cooke discharges pollutants (as stated above) which cause or contribute to conditions that are hazardous or toxic to aquatic life, contain materials in concentrations or combinations hazardous or toxic to aquatic life, are composed of floating solids, cause discoloration or turbidity, and/or impair the existing or designated uses of the receiving waters.

The fish fecal matter, uneaten fish food, and dead fish discharged by Cooke pile up on the seafloor under the Black Island North, Calf Island, Cross Island, Sand Cove, and Spectacle Island Cage Sites, extending outside the 30-meter mixing zone. This discharged solid organic waste contains levels of toxic sulfide that kill many species of worms, shellfish, lobsters, and other sediment-dwelling invertebrates and make the ocean unsuitable as habitat for marine life. As a result, the bottom-feeding fish, including flounder, cod, and haddock, that feed on these invertebrate species around the cages are without a food source.

Salmon confined to cages can suffer from disease and parasites such as sea lice at an unnaturally high rate. Sea lice feed on fish mucus, blood, and skin, and can kill and injure salmon. Sea lice and viruses discharged by Cooke from all of the Cage Sites can be hazardous to wild, endangered Atlantic salmon. Elevated levels of sea lice have been found on wild salmon up to 18 miles away from sea cages.³⁶

Cooke's discharge of escaped fish from all the Cage Sites impairs the existing or designated uses of the receiving waters as habitat for fish and other estuarine and marine life.

Cooke's cages periodically develop holes from exposure to weather and predators like seals, which allow caged salmon to escape. Caged fish, which have been confined for generations, are not adapted to thrive in the wild and have different genetic traits than wild fish.³⁷ When cage-raised salmon breed with wild salmon, the genetic fitness of the wild salmon population is diminished.³⁸ Escaped salmon also carry disease and sea lice, which are spread to their wild counterparts.

Upon information and belief, Cooke is discharging chemicals (likely hydrogen peroxide or pesticides), including during its delousing process. Upon information and belief, these chemicals contain materials in concentrations or combinations that are hazardous or toxic to aquatic life, or that would impair the existing or designated uses of the receiving waters.

Cooke's discharge of floating solids and trash from all the Cage Sites pose a hazard to navigation, impairs recreation, and harms aquatic life. Floating ropes and large pieces of debris can interfere with motorboat propellers, requiring boaters to navigate around them. Many boaters, including CLF members, stop to remove Cooke's trash and debris from the ocean to protect fellow boaters from the hazards. Debris from Cooke Cage Sites can become entangled with lobster traps. Plastic debris also kills fish, seabirds, and marine mammals through ingestion, starvation, suffocation, infection, drowning, and entanglement.³⁹

Inside the mixing zone. Cooke's discharges from the Black Island, Calf Island, Sand Cove, and Spectacle Island Sites violate the Permit's narrative effluent limits pertaining to conditions within the designated mixing zone, listed above on page 5.

³⁶ E.B. Thorstad et al., *Effects of salmon lice *Lepeophtheirus salmonis* on wild sea trout *Salmo trutta* — a literature review*, 7 *Aquaculture Environment Interactions* 91 (2015).

³⁷ NOAA Fisheries, Potential Risk of Aquaculture Escapes, (2022) <https://www.fisheries.noaa.gov/s3//2022-03/Fact-Sheet-Potential-Risks-of-Aquaculture-Escapes.pdf>; Geir H. Bolstad, et al., *Introgression From Farmed Escapees Affects the Full Life Cycle of Wild Atlantic Salmon*, 7 *Science Advances* 1 (2021).

³⁸ Canadian Department Fisheries and Oceans, *Assessment of the Risk Posed to Wild Atlantic Salmon Population Abundance and Genetic Character by Direct Genetic Interaction with Escapes From East Coast Atlantic Salmon Aquaculture*, CTR. FOR SCI. ADVICE, (2023).

³⁹ *The Problem of Marine Plastic Pollution*, Clean Water Action (last visited Nov. 13, 2024), <https://cleanwater.org/problem-marine-plastic-pollution>.

Cooke's Cage Sites experience low dissolved oxygen levels and toxic algae outbreaks that cause mass die-offs among the caged fish and are lethal to any indigenous passing organisms. Low dissolved oxygen levels in the salmon cages are caused by excess feed, and toxic algae outbreaks are triggered by excess nitrogen pollution, including from Cooke's Cage Sites. In 2021, over 100,000 fish died due to low levels of dissolved oxygen at its Black Island Site.⁴⁰ In July 2024, Cooke experienced another large die-off at its Cage Sites in Eastern Bay due to a toxic algae bloom.⁴¹

Cooke Has Discharged, Is Discharging, and Will Continue to Discharge Effluent in Violation of the Permit's Prohibition Against Violating State Water Quality Standards.

Cooke's discharge of solids, sea lice, disease, and escaped fish from all of the Cage Sites to Class SB waters impairs the characteristics and designated uses for the class, including impairing characteristics and designated uses related to marine life, fishing, and causing detrimental changes in the resident biological community.⁴² Cooke discharges settled solids from the Black Island North, Calf Island, Cross Island, Sand Cove, and Spectacle Island Cage Sites outside the 30-meter mixing zone that alter the physical and chemical nature of the bottom material. The sheer volume of foreign solids added to the seafloor changes the physical makeup of the bottom and smothers plants, including eelgrass, and bottom-dwelling organisms. Cooke's discharge of solids and the resulting oxygen-starved and toxic sulfur-laden environment additionally cause detrimental changes to the resident biological community by creating an environment inhospitable to resident marine life.

Sulfur-laden sediment has an unpleasant sludgy texture, a distinctive black oozy appearance, and a strong rotten-eggs smell. Lobstermen who set traps around Cooke's Cage Sites sometimes pull up their traps to find them covered in the foul-smelling sludge.

Cooke's discharge of floating solids and trash from all the Cage Sites violates Maine water quality standards prohibiting the discharge of floating substances that impair the characteristics and designated uses ascribed to their class. Trash discharged by Cooke poses a hazard or inconvenience, as stated above.

⁴⁰ Bill Trotter, *State Investigating Deaths of 100,000 Salmon at Fish Farm off MDI*, BANGOR DAILY NEWS (2021), https://www.bangordailynews.com/2021/09/23/hancock/state-investigating-deaths-of-100000-salmon-at-fish-farm-off-mdi/?_ga=2.86401297.842090113.1720375136-842836924.1698080011.

⁴¹ Charles Eichacker, *Algae Bloom Kills Salmon at Maine Aquaculture Site*, BANGOR DAILY NEWS, (2024), <https://www.bangordailynews.com/2024/07/11/down-east/downeast-environment/algae-bloom-kills-salmon-cooke-aquaculture/>.

⁴² See *supra* notes 14-16.

Cooke Has Discharged, Is Discharging, and Will Continue to Discharge Unauthorized Pollutants and from Unauthorized Point Sources in Violation of the Permit.

Cooke has discharged and will continue to discharge from all the Cage Sites pollutants not authorized by the Permit and not incidental to normal and proper operation of the Cage Sites, including escaped salmon, sea lice, fish viruses, and trash.

Cooke discharged 50,000 salmon from its Cross Island and Cross Island North Sites into Machias Bay in May 2023, following an alleged seal attack.⁴³ Four escaped caged fish from Cooke's Black Island South Site were caught in the Brookfield Power Dam weir in 2021. Cooke also discharges escaped salmon through holes in its cages and when the cage is lowered to allow for the escape of seals.

Cooke's discharge of trash includes the discharge of plastic feed bags and rope from one or more of the Eastern Bay Cage Sites to Eastern Bay and the discharge of a 200-foot-long PVC feeding pipe and a plastic platform from the Black Island or Black Island North Site. In Machias Bay, lobstermen have found various types of Cooke trash floating in the water.

Upon information and belief, Cooke is discharging blood, undisclosed chemicals, and warm water from point sources other than the salmon cages. Cooke is discharging pollutants including chemicals, sea lice, blood, and warm water from docks, barges, and delousing boats without reporting such discharges in accordance with Standard Condition B(5).

Cooke Has Discharged, Is Discharging, and Will Continue to Discharge Effluent from its Cage Sites in Violation of the Permit's Best Practicable Treatment.

Cooke has discharged and will continue to discharge from all the Cage Sites while failing to comply with the Permit's Best Practicable Treatment conditions, listed above on page 7.⁴⁴

Upon information and belief, Cooke is failing to employ efficient feeding strategies that minimize the accumulation of uneaten food beneath the cages.

Cooke has failed to collect, return to shore, and properly dispose of all feed bags, packaging materials, waste rope, netting, and other solid waste.

Cooke has failed to minimize discharges associated with the transport or harvesting of aquatic animals including blood, viscera, aquatic animal carcasses, or transport water containing blood. Following the June 2024 die-off event at one or more of the Eastern Bay Cage Sites, Cooke discharged pieces of dead fish.

⁴³ *Cooke Aquaculture Blames Seals for Farmed Salmon Escapes in Maine*, THEFISHSITE (August 14, 2023), <https://thefishsite.com/articles/cooke-aquaculture-blames-seals-for-farmed-salmon-escapes-in-maine>.

⁴⁴ Permit at 13-14.

Upon information and belief, Cooke has failed to remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the State.

Upon information and belief, Cooke has failed to inspect the Cage Sites on a routine basis to identify and promptly repair any damage to the cages and has failed to conduct regular maintenance of the cages to ensure that they are properly functioning.

Cooke Has Discharged, Is Discharging, and Will Continue to Discharge Effluent from its Cage Sites While Violating the Permit's Monitoring and Reporting Requirements.

Cooke has failed to comply with the monitoring and reporting requirements in the Permit. Cooke has failed to timely submit required reports including drug use reports, feed and fish recordkeeping reports, and standing inventory reports, for various Cage Sites. Upon information and belief, Cooke has additionally failed to submit required drug use reports and sediment and benthic monitoring reports for the Cage Sites.

Cooke has repeatedly failed to properly log information on required reports. Cooke incorrectly reported its use of the anesthetic MS-222 or Tricaine Methanesulfonate at the Cobscook Bay, Eastern Bay, and Swans Island Cage Sites for five years.

Cooke has failed to conduct sulfide and benthic monitoring in accordance with Appendices A, B, and C of the Permit. Cooke's sediment sampling violations include failure to properly report sample locations, failure to record samples within the required temperature range, failure to include required temperature blanks, failure to collect the required number of samples, failure to collect samples from the required locations, and failure to use sufficient sample size for the sampling method.

DATES OF VIOLATION

Each day since November 2019 on which Cooke operated its Cage Sites, discharged pollutants, and/or failed to remediate pollution impacts in violation of the Permit is a separate and distinct violation of Sections 301(a) and 318 of the Clean Water Act ("CWA"), 33 U.S.C. §§1311(a) and 1328, and applicable regulations. Cooke's violations of the Permit include:

- 1) Violations of the Permit's narrative effluent limitations, including activities which have resulted in the adverse conditions prohibited by Sections H and J.1-4 of the Permit;
- 2) Violations of water quality standard violations, including but not limited to 38 M.R.S. § 464(4)(B), and 38 M.R.S § 465-B(2)(A)-(C), thereby also violating Section 301(a) of the CWA, 33 U.S.C. § 1311(a);
- 3) Violations of the Permit's prohibition against unauthorized discharges, thereby also violating Section 301(a) of the CWA, 33 U.S.C. § 1311(a);

- 4) Violations of the Permit's Best Practicable Treatment Standards and 40 C.F.R. § 451.21(a)-(d), (f); and
- 5) Violations of the Permit's reporting and monitoring requirements, at Sections F.2, I.3, K.7, N.5, and Appendices A, B, C, and F.

These violations are ongoing and continuous, and barring changes in the operations, discharge, and treatment of effluent at the Cage Sites resulting in full compliance with the permitting requirements of the Clean Water Act, these violations will continue indefinitely.

This Notice encompasses any and all violations of the Permit by Cooke at the Cage Sites, including violations which occur after the date of this Notice Letter and those violations that CLF may learn about at a later date.

RELIEF REQUESTED

Cooke is liable for the above-described violations occurring prior to the date of this letter, and for every day that these violations continue. Each separate violation of the Clean Water Act subjects the violator to a penalty of up to the maximum amount allowed pursuant to sections 309(d) and 505(a) of the Clean Water Act, 33 U.S.C. §§ 1319(d), 1365(a), and 40 C.F.R. §§ 19.1–19.4. CLF will seek the full penalties allowed by law.

In addition to civil penalties, CLF will seek declaratory relief and injunctive relief to prevent further violations of the Clean Water Act pursuant to CWA Section 505(a) and (d), 33 U.S.C. § 1365(a) and (d), and such other relief as permitted by law. CLF will seek an order from the Court requiring that Cooke prevent further violations and fully comply with the Clean Water Act and applicable regulations, as well as the State Certification.

Lastly, pursuant to Section 505(d) of the Act, 33 U.S.C. § 1365(d), CLF will seek recovery of costs and fees associated with this matter.

CONCLUSION

Additional information, including information in Cooke's possession, may reveal further details about the violations described above, as well as details about additional violations. This letter covers all such violations.

Finally, CLF would be pleased to discuss effective remedies for the violations noted in this letter that may avoid the necessity of litigation. If you believe any of the above information is incorrect, if you believe you are currently in compliance with the Clean Water Act, or if you have any questions about this notice, please have your attorney contact Heather Govern at (617) 850-1765 within the next 14 days so that negotiations may be completed before the end of the



60-day notice period. We do not intend to delay the filing of a complaint in federal court if discussions continue at the conclusion of the 60 days.

Sincerely,

A handwritten signature in black ink, appearing to read "H. Govern", is written over a horizontal line.

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