

STATE OF MAINE  
KENNEBEC ss.

SUPERIOR COURT  
CIVIL ACTION  
DOCKET NO. AP-2020-

UPSTREAM WATCH,

Petitioner,

v.

BOARD OF ENVIRONMENTAL  
PROTECTION,

Respondent,

NORDIC AQUAFARMS INC.,  
THE FISH ARE OKAY, MAINE  
LOBSTERING UNION, WAYNE  
CANNING and DAVID BLACK,  
JEFFREY R. MABEE and JUDITH B.  
GRACE, ELEANOR DANIELS and  
DONNA BRODERICK, NORTHPORT  
VILLAGE CORPORATION, LAWRENCE  
REICHARD, GULF OF MAINE  
RESEARCH INSTITUTE, and  
UNIVERSITY OF NEW ENGLAND,

Parties-In-Interest.

PETITION FOR REVIEW OF FINAL  
AGENCY ACTION PURSUANT TO 5  
M.R.S. § 11001 et. seq. and M.R.C.P. 80C  
PERMITS: MEPDES AIR EMISSIONS  
SLODA/NRPA

Petitioner Upstream Watch (“Upstream” and “Petitioner”), by and through its counsel, David B. Losee, Esq., seeks review of the final agency action of the State of Maine Board of Environmental Protection (“BEP” and “Respondent”) to grant of licenses to Nordic Aquafarms Inc. under the Maine adaptation of the National Pollution Discharge Elimination System (MPDES), the Maine adaptation of the Federal Clean Air Act, the Site Location of Development Act (SLODA) and the Natural Resources Protection Act (NRPA), all of which became Final Agency Action on November 19, 2020 (collectively, “Final Agency Action”).

Petitioner challenges Respondent's Final Agency Action pursuant to 5 M.R.S. §§ 11001-11008, et seq., and Rule 80C of the Maine Rules of Civil Procedure ("Rule 80C") and for its Petition required by 5 M.R.S. § 11002(2) states as follows:

### **PARTIES**

1. Petitioner is a Maine not-for-profit corporation with a principal place of business at 67 Perkins Road, Belfast, County of Waldo, State of Maine. Petitioner intervened as a party in the administrative process identified below.

2. Upon information and belief, Nordic Aquafarms Inc. ("Nordic") is a Delaware corporation registered to do business in the State of Maine with an office in the City of Belfast, County of Waldo, State of Maine.

3. Upon information and belief, party-in-interest The Fish Are Okay is a not-for-profit corporation with a place of business in the City of Belfast, County of Waldo, State of Maine.

4. Upon information and belief, party-in-interest the Northport Village Corporation is a municipal corporation situated in the Town of Northport, County of Waldo, State of Maine.

5. Upon information and belief, parties-in-interest Wayne Canning, David Black, Jeffrey R. Mabee, Judith B. Grace and Lawrence Reichard are natural persons, residents and/or doing business in the City of Belfast, County of Waldo, State of Maine.

6. Upon information and belief, parties-in-interest Eleanor Daniels and Donna Broderick are residents of Searsmont, County of Waldo, State of Maine.

7. Upon information and belief, party-in-interest Maine Lobstering Union is a cooperative corporation, organized and doing business in the State of Maine.

8. Upon information and belief, party-in-interest the Gulf of Maine Research Institute is a non-profit corporation, organized under the laws of the State of Maine with its principal place of business at 350 Commercial Street, Portland, County of Cumberland, State of Maine.

9. Upon information and belief, party-in-interest the University of New England is a private higher education university organized under the laws of the State of Maine with its principal place of business at 11 Hills Beach Road, Biddeford, County of York, State of Maine.

### **JURISDICTION AND VENUE**

10. The location of the project for which Nordic sought permits is situated in Waldo County, State of Maine.

11. Final Agency Action by the Respondent Maine Board of Environmental Protection is subject to review under 5 M.R.S. § 11001(1).

12. Under 06-096 C.M.R. Chapter 3, Section 2(J) of the Maine Department of Environmental Protection Rules, Upstream is a successful intervenor in the license application process of Nordic and has standing to seek review by this Court.

13. As the Maine Board of Environmental Protection has its principal office in Kennebec County, venue is proper in Kennebec County. 5 M.R.S. § 11002(1).

### **PROCEDURAL HISTORY AND BACKGROUND**

14. In the spring of 2018, Nordic publicly announced its desire to construct a five-hundred million-dollar land-based salmon farm and processing factory in Belfast, County of Waldo, Maine, primarily on land owned by the Belfast Water District on the west side of U.S. Route 1, in the south part of the City of Belfast almost on the Northport Town Line. Adjacent land would be leased and/or acquired by Nordic from neighboring property owners.

15. The proposed development will be constructed in two phases. Phase 1 would consist of the following:

1. Module 1 Building –112,223SF
2. Module 2 Building –112,223SF
3. Module 3 Building –112,223SF
4. Smolt 1 Building –53,947SF
5. Water/Wastewater Treatment Plant –20,056 SF
6. Processing Building –24,096 SF
7. Central Utility Plant –18,998 SF
8. Office/Maintenance Building –8,936 SF
9. Gate House –298 SF

16. Phase 2 would consist of the following:

1. Module 4 Building –112,223SF
2. Module 5 Building –112,223SF
3. Module 6 Building –112,223SF
4. Smolt 2 Building –53,947SF
5. Visitor Center –2,188 square

17. Because the on-site soils are unsuitable and clay-like, Nordic determined and planned to remove the entire forest and the underlying native soil over a 37-acre area with a total depth of anywhere from 20 feet to 50 feet, and to replace that soil with different soil brought to the site from another location, as yet undisclosed.

18. The proposed salmon farm and fish slaughterhouse would require access to the ocean, in particular to Penobscot Bay, on the east side of U.S. Route 1, in order to install into Penobscot Bay two 30” saltwater intake pipes and one 36” wastewater discharge pipe.

19. Upon information and belief, the upland east of U.S. Route 1 selected by Nordic for installation of the pipes is owned by Janet Eckrote and Richard Eckrote (the “Eckrote land”).

20. Ownership of the intertidal land abutting the Eckrote land is the subject of a lawsuit pending in the Waldo County Superior Court styled; *Jeffrey R. Mabee and Judith R. Grace v. Nordic Aquafarms Inc. et al*, Maine Superior Court, Waldo County, Docket No. RE-2019-18.

21. On or about October 19, 2018, Nordic filed with the Maine Department of Environmental Protection (DEP) applications for:

a. A wastewater discharge permit under the Federal Clean Water Act, permitting authority for which has been delegated to the State of Maine DEP by the United States Environment Protection Act (“USEPA”)(the “MPDES permit”) and a Waste Discharge License. The proposed discharge would allow Nordic to discharge into Penobscot Bay at a depth of 34 feet, 7,700,000 gallons of waste water from its fish rearing tanks and slaughterhouse.

b. An air emissions license to permit air pollution emissions from the operation of eight diesel generators under the Clean Air Act (and under SLODA).

c. Approval to construct, operate and maintain a land-based aquaculture facility under 38 M.R.S.A §§ 480(A)-480(Z), 06-096 C.M.R. c. 310-342, 38 M.R.S.A §§ 481-490 et. seq. and 06-096 C.M.R. c. 342-500:

- i. Site Location of Development Act,
- ii. Natural Resources Protection Act,

- iii. Freshwater Wetland Alteration
- iv. Stream Alteration
- v. Significant Wildlife Habitat, and
- vi. Water Quality Certification.

22. On Motion by Upstream Watch and others, or about June 20, 2019 the BEP voted:

- a. To assume licensing authority over the applications;
- b. To conduct a Hearing on “the proposed project;”
- c. To grant requests to be designated Intervenors of:
  - i. Maine Lobstering Union, Wayne Canning and David Black;
  - ii. Upstream Watch;
  - iii. Jeffrey R. Mabee and Judith R. Grace;
  - iv. Eleanor Daniels and Donna Broderick;
  - v. Northport Village Corporation;
  - vi. The Fish Are Okay;
  - vii. Lawrence Reichard;
  - viii. Gulf of Maine Research Institute; and
  - ix. University of New England.

23. Over the next several months and right up to November 19, 2020, DEP staff asked questions and sought additional information from Nordic, following which, often but not always, Nordic supplemented its application materials and the materials so supplemented were often but not always responsive.

24. On or about December 13, 2019, Upstream Watch filed pre-filed testimony, pursuant to DEP's hearing rules, of John A. Krueger and Gary V. Gulezian. The testimony included the following conclusions:

a. A lack of significant four season monitoring in the bay and a contradiction in background nitrogen levels included in the Application demonstrates the need for a better understanding of the receiving waters.

b. Newer technologies exist for wastewater treatment and are being tested around the planet. Aquamaof, Superior Fresh and Sustainable Blue are examples.

c. Some use vertical hydroponics/aquaponics that run hydraulically (a water driven system rather than a pumped vertical effluent, with low energy use). There are others which use electric driven pumps to pump water up and believe that numerous small tanks are the way to go. Another option are [sic] airlift fixed media recirculating systems to provide a minimal liquid discharge to zero liquid discharge, with the use of micro-algae as the primary denitrification reactor.

d. Prior to the issuance of any permit, the applicant should be required to carefully evaluate these zero discharge technologies and to demonstrate why they are not preferable to the older technology proposed by applicant.

25. The BEP conducted a series of "pre-hearing" meetings from August 15, 2019 through January 9, 2020, during which time the DEP staff's requests for information continued.

26. From February 11, 2020 through February 14, 2020, BEP conducted a public hearing under 06-096 C.M.R. c. 2 of the DEP rules, which hearing was followed by briefs of Nordic and the intervenors.

27. Upon information and belief, prior to May 20, 2020, DEP staff reviewed the materials in the record regarding each permit application and prepared memoranda containing draft orders and draft permits. Those memoranda were distributed to Nordic and to the intervenors, including Upstream, on Friday, May 15, 2020.

28. Between May 15, 2020 and May 20, 2020, at the request of Nordic, DEP staff materially altered the record to bring Nordic's application into compliance, as fully explained below.

29. The Intervenors were invited to "comment" on the memoranda on or before June 12, 2020.

30. The BEP conducted deliberation sessions with DEP staff on October 29 and November 12, 2020, and on November 19, 2020, the BEP voted unanimously and without substantive discussion on the record to approve the Orders and Permits as presented by the DEP staff.

### **Issues Raised in this Review of Agency Action**

**I. BEP committed an error of law, abused its discretion and/or made findings unsupported by record evidence when it improperly failed to consider zero discharge technology presented by the Intervenors in pre-filed testimony, which should be the basis for zero discharge effluent limitations, and in so doing violated the express requirement of the Maine Clean Water Act to consider existing technology.**

31. DEP and the BEP issued the permit to Nordic Aquafarms pursuant to the Maine Clean Water Act (the "Act"), 38 M.R.S. § 414, and DEP regulations, 38 M.R.S. § 414-A(3).

32. DEP failed to consider the treatment technology identified in the pre-filed testimony of Upstream Watch's experts, which produces little to no discharge of pollutants.

33. The Act, 38 M.R.S. § 414-A(1)(D), requires DEP to "consider existing state of technology," in setting limits for the discharge of pollutants. DEP did not do so. DEP thus



violated the Act, and the decisions of DEP and the BEP in issuing the permit were not in accordance with law. The decisions were also unsupported by substantial evidence and were an abuse of discretion.

34. 38 M.R.S. § 414-A(1)(D) states in relevant part:

If no applicable standards exist for a specific activity or discharge, the department must establish limits on a case-by-case basis using best professional judgment, after consultation with the applicant and other interested parties of record. In determining best practicable treatment for each category or class, the department shall consider the existing state of technology, the effectiveness of the available alternatives for control of the type of discharge and the economic feasibility of such alternatives.

35. The draft and final Fact Sheets issued by DEP staff with the Nordic Permit and attached to the BEP's Order, recite compliance with DEP and EPA requirements for technology-based effluent limits, but they make no mention of any consideration of the zero discharge technology presented by the Intervenors.

36. There is no evidence that the BEP considered the existing state of technology, or its effectiveness and economic feasibility.

37. BEP's unexplained failure to recognize and consider the significance of zero discharge technology in active and profitable use, and the BEP's decision to uphold the Permit, are decisions that are an abuse of discretion, not in accordance with law, and unsupported by substantial evidence.

38. Among other relief, Upstream Watch respectfully requests the Court remand the Permit to BEP, direct the BEP to order DEP staff consider the technology identified in the pre-filed testimony, and any other available alternatives for control of the type of discharge proposed by Nordic, and if the technology is effective and economically feasible, to base the permit's

effluent limits on such technology. The Court should require that, if achieved by existing technology, the permits' limits should be zero.

**II. BEP committed an error of law, abused its discretion and/or made findings unsupported by record evidence when after the record had closed it allowed an alteration to the record.**

39. Petitioner repeats and realleges the material allegations in paragraphs 1 through 38 of this Petition as if fully set forth herein.

40. The record before the BEP closed on February 18, 2020.

41. The waters of Penobscot Bay where the discharge is proposed to occur is classified as "SB" water quality, the second highest water quality ranking.

42. On May 15, 2020, a MPDES Staff memo revealed DEP's calculation that Nordic's proposed nitrogen discharge was too high to maintain the "SB" water quality standard in Penobscot Bay and therefore staff recommended denial of the MPDES permit. A true copy of the May 15, 2020 memo is attached as Exhibit 1.

43. Upon information and belief, sometime between May 15, 2020 and May 20, 2020, a representative of Nordic called Gregg Wood, a DEP staff person, and requested that a number be changed so that the calculations would make it seem like Nordic's nitrogen discharge would not degrade the water quality in Penobscot Bay. Mr. Wood did so. DEP staff presented their memoranda to the members of the BEP for review on May 20, 2020.

44. The change was made without notice to parties, without explanation, without the proponent being placed under oath, without benefit of cross examination and without an opportunity for rebuttal testimony, as was the case for each and every scintilla of evidence offered in this case prior to May, 2020 and as was required by the rules established by the

Presiding Officer at the first pre-hearing conference and by the Department Rules, 06-096 C.M.R. c. 3, § 16.

45. Immediately, Upstream emailed DEP staff to request a copy of Mr. Wood's calculations. Upstream was told there were none available but would be in a few days. To the date hereof, Upstream has not seen the calculations.

46. On or about May 21, 2020, Upstream asked DEP staff the following, in writing:

a. On or about May 18, 2020, who from Nordic called DEP?

i. Who received the call?

ii. Who else from DEP was involved with the call?

iii. Who else from DEP was consulted or told about the call?

iv. Who at DEP approved the change in the memo?

v. What "recalculations" were performed by anyone at DEP?

vi. Did anyone at DEP review those calculations before the memo was changed?

vii. Was the Nordic speaker under oath?

viii. Did Nordic submit its new numbers, calculations, request or anything else under oath?

b. DEP responded in September, 4 months later, by providing a few emails, none of which were responsive.

c. On or about May 26, 2020, Upstream moved the BEP to strike the evidence entered by Gregg Wood as aforesaid, but on June 2, 2020 BEP denied Upstream's motion.

47. As required by [06-096 CMR c. 3, §§ 5(D), 16(A)], DEP must include in its administrative record any documents relating to Nordic's communications with DEP staff, including any communications requesting or explaining the requested change in the calculations.

48. The record will show that the DEP staff's change in its calculations was not supported by substantial evidence. DEP has nothing to include in the record that would demonstrate a legitimate, rational basis for changing its calculations. On the contrary, pre-filed testimony in the record from Upstream's expert witnesses John Krueger and Gary Gulezian establish the potentially catastrophic effect of the proposed discharge on Upper Penobscot Bay, and the almost complete lack of data from actual monitoring of the Bay, which led the witnesses to conclude the existing evidence cannot support issuance of a discharge permit.

49. Petitioner's experts are expected to testify to the unacceptable impacts shown by existing calculations, and to recommend further monitoring of conditions in the Bay. Petitioner's witnesses will testify that existing data is insufficient to support with reasonable scientific confidence Nordic's calculations of the transport and impacts of pollution from its proposed discharge.

50. DEP's actions constituted:

- a. A violation of due process;
- b. A violation of 06-096 C.M.R. c. 3, § 16;
- c. A violation of the procedural rule established by the Presiding Officer at the First Pre-Hearing Conference as memorialized in the Presiding Officer's First Procedural Order;

d. A violation of equal protection of the laws, because during the pendency of the applications there were eight instances in which various parties other than Nordic offered evidence that was denied by the Presiding Officer because the record was closed; and

e. constituted an error of law, abuse of discretion and findings unsupported by evidence in the record.

**III. BEP committed an error of law, abused its discretion and/or made findings unsupported by record evidence when it found Nordic's applications to be complete.**

51. Petitioner repeats and realleges the material allegations in paragraphs 1 through 50 of this Petition as if fully set forth herein.

52. The applications are incomplete. Nordic failed or refused to submit the information mandated by the application requirements as to Nordic's MPDES discharge permit.

**As To Nordic's MPDES Discharge Permit**

53. Nordic failed to provide the contents and concentration levels of its proposed discharge into Penobscot Bay.

54. Nordic failed to perform competent studies to determine the flows, currents, winds, tides, and thermal impacts of the Penobscot Bay receiving water at different strata within the Bay near the point of discharge, without which no competent analysis of the impact of the proposed discharge is possible.

**SLODA Requirements: Freshwater Requests  
As To Groundwater**

55. Nordic has not quantified its freshwater needs essential to maintain operations and support a financially-competitive rate of fish growth. Without knowing this number, it is impossible to determine whether freshwater sources are sufficient.

56. Estimated yields from proposed freshwater sources are not verified:

- a. Maximum anticipated yield from freshwater sources are:
  - i. 3 onsite production wells, 455 gallons per minute (gpm),
  - ii. Surface water from lower reservoir, 70 gpm (not quantified in permit) and/or inflows from Little River, 250 gpm,
  - iii. Belfast Water District (BWD), 500 gpm, for total maximum sustainable estimated yields of 1,275 gpm.

#### On-site Production Wells

- iv. Nordic projects that the 3 on-site production wells will pump water from an aquifer below the Nordic site.
- v. Nordic claims that it can obtain 455 gallons per minute from a series of new on-site groundwater wells that it installed.
- vi. Nordic's claim is based on a model that is, in turn, based on the results of a 72-hour pump test conducted on the new on-site wells.
- vii. The 72-hour pump tests were conducted on the land unaltered by the proposed stormwater drainage system.
- viii. The aquifer from which the wells pump is recharged by rainwater.
- ix. Nordic's stormwater drainage system will remove 70% of the rainwater falling on the site.
- x. Nordic's stormwater drainage system will divert water running on to the site from off-site into perimeter drains and thence to the Little River down gradient from the site where it will be unavailable to the well pumps.
- xi. The water so removed cannot recharge the aquifer from which the wells draw.

xii. This stormwater withdrawal and diversion was not considered when Nordic modelled its on-site well yields.

xiii. Therefore, the correct amount of water that will be available once the stormwater drains are installed must be less than 455 gallons per minute.

xiv. No one knows what that number will be, but it cannot be 455 gallons per minute.

57. Nordic has experienced saltwater intrusion into one of its test wells.

58. Nordic did not address the potential effects of ground water use compromised by saltwater intrusion, other than to assert that since Nordic could use salt contaminated water in its process, contaminating the aquifer with saltwater was somehow acceptable.

59. Withdrawal of the specified quantities of water from onsite wells will result in substantial drawdown in the aquifer.

60. Nordic models are insufficient to predict long-term consequences of this extraction on water level and water quality because Nordic modeled only for supply, not for impact on neighboring homeowners' wells. Nordic admits that existing water supply wells of neighboring homeowners would likely suffer a 10-12-foot drop.

#### As To Surface Water

61. Surface water availability from the reservoir and the Little River could be affected by groundwater withdrawals that will occur, but these have not been measured and are not factored into Nordic's calculations.

62. Nordic failed to provide proper information needed to design a monitoring program regarding water levels and resultant impacts on water quality in private wells.

### As To Water From The Belfast Water District

63. Nordic has not studied the Goose river aquifer, Belfast's only source of water, to demonstrate that the supply of water from that source is adequate, nor has Nordic supplied to the BEP or to the DEP staff, both of which requested it, existing water availability data regarding the Goose River aquifer.

64. Petitioner requests the Court allow Petitioner to supplement the administrative record by allowing testimony and the addition of records heretofore not included by Nordic that will show:

a. With its application, Nordic submitted a Capacity Evaluation by A. E. Hodsdson Engineers, dated February 27, 2018, that provided maps and a study of the well array that serves the City of Belfast.

b. Nordic asked the DEP, the BEP, and the public, including petitioners to rely on that report.

c. That report neglected to reveal that in the middle of the cluster of wells serving the City of Belfast is an old, closed landfill and an active solid waste transfer station.

d. The report neglected to reveal that as of 1994, landfill leachate had traveled from the landfill site 460 feet toward the Goose River aquifer in which the wells are drilled.

e. The report neglected to reveal that since 1994, no testing has been done to see if, in the intervening quarter century, the landfill leachate plume has reached that part of the aquifer from which well withdrawal has occurred.

f. The report neglected to reveal that no water quality testing has been done to ascertain if the Belfast wells are contaminated buy landfill leachate.



g. The report neglected to reveal that there has been no study to test the intake reach or “Cone of Depression” formed or, in the case of the well nearest to the landfill, the cone of depression that will be formed when the well is turned on to accommodate Nordic’s needs. A “Cone of Depression” is a conical shaped area in the subsurface from which a well can extract water. This Cone will vary depending on depth, subsurface material, size of the well casing, size of the pump and the pumping regimen employed by the operator. Knowing the reach of the Cone of Depression is necessary to predict what will be drawn into the well water when the pump is engaged. In the case of the Belfast wells and the nearby landfill, whether the leachate from the bottom of the landfill will be induced into the wells by pumping made necessary to the needs of Nordic.

h. This information is important to the citizens of Belfast, with or without Nordic.

i. With the permission of the Court, petitioner will present evidence regarding the above.

65. Nordic has not considered the impact of exercise of the authority of the Belfast Water District to curtail water sales to non-essential customers in time of drought or emergency.

66. Nordic’s contract with the Belfast Water District is in place for only the first six years and the facility, Nordic claims, will last for at least 30 years.

67. Nordic has not provided estimates of freshwater use for construction, including dust control and a proposed onsite concrete plant.

68. The BEP does not have sufficient evidence to make a positive finding given Nordic’s failure to quantify its freshwater needs or supply:

### As to Financial Capability

69. The information provided by Nordic is not adequate to determine whether estimates are “accurate and complete,” or realistic as required by the rule.

70. Nordic failed or refused to provide evidence of adequate financial capacity to complete the project, as 96-096 C.M.R. Chapter 373 of the site rules require.

71. The BEP does not have sufficient evidence to make a positive finding given Nordic’s failure to quantify its freshwater needs or supply:

a. Cost estimates: Nordic did not provide “accurate and complete cost estimates of the development, including all proposed phases.”

b. Nordic did not provide a time schedule for construction of all phases proposed.

c. Nordic did not provide documentation or evidence of funds: the applicant must provide a Letter of Commitment or a Letter of Intent to Fund.

72. Nordic has not and did not in the BEP proceedings provide:

a. cash equity commitment;

b. a formal financial plan in the normally accepted form; or

c. a Commitment Letter or Letter of Intent to Fund all as required by 06-096 C.M.R. c. 373, § 2(B)(3);

d. a time schedule for construction of either of the proposed phases;

e. estimates for sewers, water supply, utilities, pollution abatement, or landscaping;

f. the final corporate structure or linkage to the applicant of any financing institution, including the parent organization that is proposed to raise funds for the project.

Nordic has indicated that its project will operate as a Maine limited liability company. Nordic has not provided evidence of the creation of the limited liability company.

g. Nordic's project is not a typical "phased" development since Nordic has stated that completing only Phase 1 of the project is not financially feasible, and the viability of "Phase 1" is dependent on the completion of "Phase 2." The Permit Conditions assigned by BEP do not require Nordic to submit adequate evidence for meaningful review of phase 2.

73. Nordic's "cost estimates" supplied in its application and to date did not and do not meet what is required by the rule.

74. Where provided at all, significant costs are combined to become meaningless, such as the cost of 10 large buildings combined with "process equipment," and roads combined with "site finishes." The rule mandates a proper level of detail, without which no analysis is possible.

As To Thermal Impact  
(Meeting The Temperative Limits Provided Under Tidal Water Thermal Discharges)  
(06-096 C.M.R. c. 582)

75. Nordic provided insufficient data to verify that the state Tidal Water Thermal Discharge Standard of Chapter 582 can be met.

76. Nordic measured water temperature at the surface of Penobscot Bay in June, the warmest possible time of year water temperature, whereas the discharge and thus the water impacted by the discharge is at 34 feet below the surface where obviously the water is colder. This is misleading and fails to comply with the statute.

77. There is insufficient data to verify that the state Tidal Water Thermal Discharge Standard can be met. NAF is using unverified models. The NAF discharge temperature must be

verified with additional data collected over several seasons and take into account anomalies in the currents and wind, and sub-circulations within the Bay.

**IV. BEP committed an error of law, abused its discretion and/or made findings unsupported by record evidence when it converted application requirements that Nordic had the burden of proof to show were met into after-the-fact permit conditions.**

78. Petitioner repeats and realleges the material allegations in paragraphs 1 through 72 of this Petition as if fully set forth herein.

79. By allowing the application process to proceed in the face of information required by the rules to be submitted as part of the application, but missing from the application, the BEP violated DEP rules requiring a complete application.

80. BEP and DEP processed applications that could not be supported by substantial evidence because that evidence was not supplied in Nordic's application.

81. The BEP allowed material application requirements to be addressed after the permits were awarded, by making those application requirements into after-the-fact and sometimes post-completion of the project, permit conditions. Examples include but are not limited to:

a. A dye test to determine the rate and direction of flow of water in Penobscot Bay in order to determine the ability of the Bay to dissipate or absorb the Nordic pollutants.

b. Aquifer drawdown reducing the supply of available water for local property owners.

c. Possible, but still undefined recourse for owners of local domestic and agricultural wells when Nordic permanently draws down their wells.

d. Remediation and/or abatement of saltwater intrusion into the aquifer in which local homeowners try to maintain wells, domestic and agricultural.

e. Setting a 21 mg/L nitrogen standard as an MPDES permit condition with no evidence Nordic can possibly achieve it.

f. Thermal impact evaluation in violation of 06-096 C.M.R. c. 582.

g. A revised Water Resources Management Plan submitted for review and approval after award of the permit but prior to the start of construction.

h. After the fact, somehow, by test wells, demonstrate that withdrawal of ground water will not substantially lower the found water table and cause saltwater intrusion. Nordic is required to address this as a permit condition, including testing to provide more sophisticated modeling that could provide a more confident prediction of effects on nearby groundwater resources.

82. By converting application requirements into after-the-fact permit conditions, BEP acknowledges that Nordic's application is incomplete in each of the above respects. Any BEP grant of a permit with an application that is materially incomplete creates a permit that, by that fact, is not supported by substantial evidence and thus is awarded contrary to law.

**V. BEP committed an error of law, abused its discretion and/or made findings unsupported by record evidence when it misapplied the standards applicable to the issuance of an air permit (A-1146-71-A-N)).**

83. Petitioner repeats and realleges the material allegations in paragraphs 1 through 82 of this Petition as if fully set forth herein

84. Nordic sought a "Major Source".

85. Nordic attempted to qualify as a minor source by using a "synthetic minor", to wit, a voluntary constraint on its fuel use. In doing so, it failed or refused to:

a. Disclose the other emissions sources on site including but not limited to:

- i. The fish processing plant
- ii. The wastewater treatment plant
- iii. The huge fish “grow-out” tank buildings
- iv. The office building
- v. Emissions from multi-year construction activities, including

approximately 45,000 truck loads

- vi. The on-site cement plant
- vii. Disclosure of any obligations it may have or may be negotiating with

Central Maine Power (CMP) regarding producing power on demand when needed by CMP without regard to self-imposed constraints.

b. Without knowing the other emission sources and analyzing Nordic’s output it is not possible to know if the generator emissions applied for will cause an exceedance of any air pollution standard, and therefore whether Nordic should have been required to apply for a permit as a Major Source of Air Pollution.

c. Nordic originally represented to the BEP that its power plant was for “Peak Shaving”, and then it was for “Emergency Generation”, but in fact, it will be available for “On-call Power” for CMP, meaning that Nordic does not have control over the use of its power plant and cannot limit its fuel consumption to its promised amount because CMP can demand power beyond the limitations voluntarily suggested by Nordic.

d. Without assurances that CMP could not call for Nordic to generate power according to CMP’s needs, Nordic cannot assure DEP that it can voluntarily restrict its fuel use which restriction is what may qualify Nordic’s emission as a “Minor Source” of air pollution,

and therefore a “minor source” permit is invalid and Nordic must apply for a permit as a Major Source.

MPDES PERMIT (ME0002771)  
W009200-6F-A-N

86. Nordic sought to discharge 7.7 million gallons of wastewater from its fish rearing/fish processing plant and slaughterhouse into Penobscot Bay every day.

87. Although the waste will be treated, there will remain constituents of concern at various concentrations in the discharge.

88. One constituent of concern is nitrogen. The nitrogen concentration in the discharge must not lower the water quality classification from “SB”:

a. Penobscot Bay has a water quality classification of “SB”, the second highest classification as defined in 38 M.R.S. § 465-B. In order to preserve the SB classification, discharges may not consume more than 20% of the assimilative capacity of the Bay for the constituent in question.

b. Early in the application process, Nordic calculated that its nitrogen concentration would be 23 mg/L and that that concentration was fixed. Nordic asserted that its nitrogen concentration was appropriate because, although the dilution ratio to which the discharge was exposed would change over time and distance, the “steady state” dilution ratio, the ratio we have to “live with”, and thus the appropriate dilution ratio to anticipate, would be 300:1.

c. Nordic witnesses testified under oath and submitted calculations, under oath, that 300:1 was the correct steady state ratio and should be used to calculate the impact of the discharge.

d. DEP staff performed the usual and proper calculations using Nordic’s figure, the 300:1 dilution ratio, and concluded that the proposed discharge would clearly fail to

meet the antidegradation requirements necessary to retain the SB water quality in Penobscot Bay and the permit, as applied for, must be denied.

e. On or about March 18, 2020, Nordic personnel called Mr. Gregg Wood of the DEP staff to ask him to change the dilution ratio from 300:1 to 530:1, a number that makes Nordic's discharge almost compliant.

f. On May 20, 2020, Mr. Gregg Wood presented to the BEP in contravention of his memo, announced the change in the dilution ratio made at the request of Nordic, and recommended approval. No engineering change had been accomplished. The proposed discharge was exactly the same before and after the call from Nordic to Mr. Wood. The number 530:1 was apparently selected from Nordic's dilution graph at a point that was temporary and was not steady state.

89. As a result, BEP has permitted a nitrogen discharge that fails to protect the SB water quality classification of Penobscot Bay in violation of 38 M.R.S. § 464, et. seq.

#### DISPERSION CALCULATION

90. Nordic proposes to discharge 7.7 million gallons of wastewater per day into Penobscot Bay.

91. Nordic presented a model to demonstrate the fate and transport of the 7.7 million gallons per day of discharged material to assure the BEP that the waste would not harm the beaches, cause algal blooms, destroy eelgrass, or degrade the water quality in Penobscot Bay.

92. The model was not supported by reasonable or competent data collected over sufficient time to prove the model was reliable.

93. In order to try to show dispersion of the pollution Nordic proposed to discharge, BEP allowed Nordic to demonstrate by modelling, the tides in Penobscot Bay. Nordic did not



offer or attempt to field verify their model for necessary credibility nor did BEP require the applicant to model, field verify and assess Penobscot Bay's currents, flow and thermal effects without which any analysis is not complete. This unverified modelling demonstrates again, a lack of substantial evidence to support the permit findings.

94. Instead, the BEP imposed a permit condition that Nordic conduct dye tests to determine flow and dispersion characteristics in Penobscot Bay, at different depths, to show the fate of the pollution, within two (2) years after completion of the proposed half billion-dollar project. If the dye test shows a problem with the 7.7 million gallon per day discharge, nothing can be done. The project will have been built. The BEP directed that dye testing must be accomplished. Therefore, dye testing must be necessary to determine if the Bay is able to absorb the pollution insult imposed by Nordic. If dye testing is necessary and dye testing is not performed prior to the issuance of the permit, the permit obviously was granted without substantial evidence of the Bay's ability to absorb Nordic's pollution.

95. Although Nordic had over a year to perform the dye tests, instead, it chose to request a permit condition allowing it to perform the dye tests after construction of the project when it would be too late to correct illegal levels of pollution.

96. Nordic still shows no inclination to perform thermal testing without which any dispersion study is incomplete and flawed.

#### OTHER MPDES OMISSIONS FISH FOOD

97. Another "constituent of concern" is the food to be fed to the fish.

98. In spite of repeated requests from DEP staff, BEP, the Belfast Planning Board and the public, Nordic refuses to reveal what food it will use.

99. Residue from the food will be in the wastewater either from food that is uneaten or from food waste excreted by the fish.

100. Without knowing what food will be used by Nordic it is not possible to know what waste water treatment will be needed, to estimate the effectiveness of that treatment or to be alert to the residual chemicals or viruses that will be discharged untreated.

101. The proposed treatment system cannot therefore be based on “substantial evidence” but must be based on conjecture which is a capricious act.

### VIRUSES

102. A further “constituent of concern” is viruses. Nordic will employ a .04 milligram screen which will slow down the wastewater outflow considerably and probably arrest bacteria, but not viruses. Nordic suggests it will use ultraviolet light to kill the viruses, but the effectiveness of ultraviolet light is uncertain, at best. Nordic failed to verify the effectiveness of UV light to eradicate viruses. Thus, any finding that the discharge is benign lacks substantial evidence in support thereof.

### **VI. BEP committed an error of law, abused its discretion and/or made findings unsupported by record evidence when it failed to require a MPDES Permit for Nordic’s Sludge Dewatering Project.**

103. Petitioner repeats and realleges the material allegations in paragraphs 1 through 102 of this petition as if fully set forth herein.

104. On or about March 2, 2020, at a public hearing conducted by the Maine Department of Marine Resources, Nordic revealed that it intended to dredge a portion of Penobscot Bay in order to lay its pipes into the ocean floor. The dredge spoils were to be loaded onto a barge that would do two things: it would transport the spoils 5.5 miles to Searsport, and it would dewater the soils, discharging the spoils water into Penobscot Bay.

105. Upstream asserted that in order to discharge water from its dredge spoils into Penobscot Bay, a “water of the United States” it needed an MPDES permit for which Nordic has not even applied.

106. BEP denied Upstream’s claim and declined to require the additional MPDES permit, without which any discharge to the “Waters of the United States” is unlawful.

**VII. BEP committed an error of law, abused its discretion and/or made findings unsupported by record evidence when it improperly found Nordic had sufficient Title Right or Interest to seek permits.**

107. Pursuant to department rules, 06-096 C.M.R. c. 2, § 11(D), prior to acceptance of an application, an applicant must demonstrate to the department’s satisfaction sufficient title, right or interest (TRI) in all of the property that is proposed for development or use. An applicant must maintain sufficient TRI throughout the entire application processing. Evidence of TRI may include deeds, easements, option agreements, and any other such evidence the department deems acceptable to demonstrate sufficient TRI.

108. In a pending action before the Waldo Superior Court titled *Jeffrey R. Mabee and Judith B. Grace v. Nordic Aquafarms Inc., et al.*, Docket No. RE-2019-18, Upstream believes that the Superior Court will find that Janet Eckrote and Richard Eckrote do not own the intertidal land seaward of their upland property, and that the Eckrote never did. Upstream will ask this Court to vacate all of the permits awarded to Nordic on November 19, 2020 as improvidently granted.

WHEREFORE, pursuant to 5 M.R.S. § 11007(4) Petitioner respectfully requests that the Court find that each of the referenced decisions of the Board of Environmental Protection, including findings, inferences, conclusions contained therein are:

- (1) In violation of constitutional or statutory provisions;

- (2) In excess of the statutory authority of the agency;
- (3) Made upon unlawful procedure;
- (4) Affected by bias or error of law;
- (5) Unsupported by substantial evidence on the whole record; and/or
- (6) Arbitrary or capricious or characterized by abuse of discretion

and revoke the approvals granted to Nordic, and declare each of them null and void, grant such other relief as is just and proper, and award Petitioner its costs.

Dated: December 16, 2020

/s/ David B. Losee  
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