STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

JANET T. MILLS
GOVERNOR

GERALD D REID
COMMISSIONER

July 3, 2019

VIA EMAIL ONLY

Ms. Elizabeth Ransom
Ransom Consulting, Inc.
400 Commercial Street, Suite 404
Portland, Maine 04101

RE: SITE LOCATION OF DEVELOPMENT ACT APPLICATION AND NATURAL RESOURCES PROTECTION ACT APPLICATION (DEP #L-28319-26-A-N/L-28319-TG-B-N/L-28319-4E-CN/L-28319-L6-D-N/L-28319-TW-E-N), WASTE DISCHARGE LICENSE(WDL)/ MAINE POLLUTANT DISCHARGE ELIMINATION SYSTEM (MEPDES) PERMIT APPLICATION (DEP #W009200-6F-A-N / MEPDES PERMIT # ME0002771), CHAPTER 115 MINOR AIR EMISSIONS APPLICATION (DEP #A-1146-71-AN), BELFAST/NORTHPORT, MAINE

Dear Ms. Ransom:

The Department accepted the above-noted applications as complete for processing on June 13, 2019, and the Board of Environmental Protection (Board) has assumed jurisdiction over the Nordic Aquafarms, Inc. (Nordic) applications. The Department staff have begun substantive review of the application in light of the applicable environmental standards. By this letter the Department requests further information on the following items that have been identified to date.

Natural Resources Protection Act (NRPA) application:

1. Nordic states that the proposed project would result in 144,000 square feet of permanent alteration to the coastal wetland and 108,000 square feet of temporary alteration of the coastal wetland (Attachment 9, page 21). Further breakdown these impact numbers to explain how much of the alteration would occur to intertidal area and subtidal area and by using the Cowardin classification system for wetlands and deepwater habitats.
2. For the proposed work associated with coffer dam system installation and placement of the pipe anchors, please provide the square footage of proposed permanent and temporary impact to the coastal wetland and the Tidal Waterfowl and Wading Bird Habitat.
3. Nordic states that the proposed project would result in 144,000 square feet of permanent alteration to the coastal wetland (Attachment 9, page 21). The compensation plan (Attachment 13, page 13) proposes to compensate for 2,611 square feet of the permanent alteration to the coastal wetland. Please revise the compensation plan to compensate for the remaining 141,389 square feet of permanent alteration, or, if no additional compensation is proposed, please explain why.

4. There are conflicting values of coastal impacts across a few sections of the NRPA application that should be reconciled. Specifically, see the proposed coastal impacts stated on Appendix B (Attachment 0, page 55), compared with the coastal wetland impacts stated in Attachment 1, in Attachment 9 on page 21, and in Attachment 13 on page 13.
5. Please provide additional description of on-site techniques that were and will be considered to avoid and minimize natural resource impacts, including, but not limited to, different building locations or configurations, minimum widths of driveways, and numbers of parking spaces.
6. Please provide additional information that demonstrates why and how the proposed compensation plan would offset the lost functions and values of the impacted streams. For instance, the narrative should evaluate and compare the functions and values that would be lost by the proposed alteration of on-site streams (labeled as S3, S5, and S6) versus the functions and values that would be gained by the proposed restoration and preservation of stream S9 and the proposed culvert replacement at stream S8.
7. The Department visited the site of the proposed project on May 17, 2019. (See the attached site visit summary.) Based on the Department's observations, Drainages D3, D5, and D6 appear to be channels between defined banks that exhibit two or more characteristics of a stream as defined in 38 M.R.S. §480-B(9). For this reason, the Department requests that additional site surveys of these areas be conducted, with the total amount of proposed stream alteration re-assessed and quantified in linear feet and in square feet.
8. Based on the Department's observations at its May 17, 2019, site visit and given that the functions and values for the streams as outlined in the application are wetland-oriented, the Department requests that the applicant submit a qualitative assessment that includes an evaluation of all physical and biological parameters of each stream. The Department further requests that components and scoring techniques of a Qualitative Habitat Evaluation Index or similar evaluation method be incorporated into the qualitative assessment.
9. Please submit wetland determination data forms for all on-site wetlands. Only data forms for wetlands W1, W5, W10, and W11 have been included in the NRPA application to date (Attachment 12, Appendix A). In addition, the topography and vegetation observed in Wetland W15 by the Department at its May 17, 2019, site visit indicates that Wetland W15 may be greater in size than originally delineated by the applicant. Please provide any additional information you may have supporting this delineation. Further, observations from the Department's site visit suggest that Wetland W1 is a wet meadow freshwater wetland and a forested freshwater wetland, as compared to the applicant's wetland determination data form for Wetland W1, which states that this wetland is a forested freshwater wetland. Please confirm whether the Wetland W1 data form accurately states the appropriate wetland classification for Wetland W1, and that the location of the Army Corps Data Plot points are correctly depicted on the plan titled "Belfast Aquaculture Project Wetland and Stream Survey," which is found in the natural resources report, titled "Natural Resources Report," prepared by Normandeau Associates and dated May 8, 2019.

10. Please submit a schedule for implementation of the proposed culvert replacement at Stream S8 in accordance with the Department's Wetlands and Waterbodies Rules, Chapter 310 § 6(H).
11. Please provide a separate, more detailed planting plan for the entire length of proposed restoration area at stream S9. The information provided appears to be more of a landscaping plan than a restoration plan.
12. Please provide a copy of the missing planting plan for Area A1 to insert among the other area planting plans in Attachment 13 of the NRPA application.
13. Please submit cross sectional plans that depict all grading changes that are necessary to implement the proposed restoration at stream S9.
14. Please provide draft deed restriction language that would protect the proposed restoration and preservation areas at stream S9 in perpetuity.
15. Please confirm whether the total amount of proposed freshwater wetland alteration includes the 2,000 square feet of alteration associated with NRPA Permit-by-Rule #67077.
16. On Drawing CS101, there are two areas that are labeled as "shoreline stabilization." Similarly, there is one area labeled as "shoreline stabilization" on Drawing CS103. Please indicate whether these shoreline stabilization areas are existing or proposed, and, if proposed, submit the necessary NRPA application materials.

Site Location of Development Act (Site Law) application:

1. Please confirm Nordic is seeking NRPA and Site Law approval for all phases and the full buildout of this parcel, and not just portions of the phasing. (Section 1.3, Construction Plan.)
2. Please identify and submit representative application materials for any off-site anchor prefabrication/pipe assembly locations. Specifically, if off-site staging areas would be created with new disturbed areas and impervious areas, additional details are needed. Any other applicable Site Law criteria such as noise control, hours of construction, use of concrete batch plants, etc., at these off-site locations should also be submitted. (Section 1.3.1, Construction, page 9.)
3. Chapter 373 of the Site Law Rules requires an applicant to demonstrate financial capacity to design, construct, operate, and maintain a proposed development. The financial capacity information contained in the application focuses on design and construction of the development. Please provide financial capacity information for operation and maintenance of the facility. (Section 3.)
4. In Table 2 of the Noise Impact Assessment, calculated numeric values should be submitted from the CadnaA computer sound model results for each of the protected locations, instead of a statement that the sound levels will be less than applicable noise standards. (Section 5 Noise.)
5. Please clarify that any construction activities occurring between 7:00 pm and 7:00 am would meet the noise control provisions of Site Law Rule Chapter 375(10)(C)(2). Additionally, please clarify whether any nighttime construction activities would occur on the water. If construction activities for pipe installation that would occur on the water

would take place during nighttime hours, please provide noise assessment data for those activities. (Section 5 Noise.)

6. Please clarify whether the Visual Impact Assessment addresses just the NRPA Chapter 315 scenic standards, or both Chapter 315 and the applicable Site Law statutory and regulatory standards. (Section 6 Visual Quality and Scenic Character.)
7. Special measures for summer construction are provided in the sediment control section of the application. Similar measures for winter, spring and fall construction should be included, as well, specifying measures to be taken during conditions that would be anticipated to occur. (Section 14.7 Soil Erosion and Sediment Control Best Management Practices.)
8. Please describe how turbid runoff would be treated during construction. Silty loam soils on site could create turbid water conditions in the temporary sedimentation basins. Even with the 80,000-sf limit of disturbed soils, heavy rain or snow events could produce significant amounts of turbid runoff, with little additional treatment room available between the developed area, the 250-foot area retained by the City, and the Little River. Please provide additional information about: designing the temporary sedimentation basins for greater than a 10-year storm; describing how turbid flow discharging out of the temporary sedimentation basins via the risers/outlet pipes would be treated before discharge; and modeling the temporary sedimentation basins so they do not drain completely between rain events. Proposed measures to treat turbidity should be submitted, including during winter construction activities. (Section 14 Basic Standards.)
9. With regard to Drawing CP105, please describe the purpose of the proposed gravel access driveway in the upper left portion of the drawing, near the west end of Building 1. Could it be removed or relocated outside of the wetland to reduce impacts?
10. Please review and respond accordingly to the attached stormwater management technical review memorandum dated June 25, 2019.
11. Please submit the electronic files of the HydroCAD model for the following areas:
    a. The temporary sediment basin sizing model in Appendix 14-A.
    b. The pre-development conditions model in Appendix 12-D.
    c. The post-development conditions model in Appendix 12-E.

These are the items that the Department has identified to date in reviewing the application materials associated with NRPA and Site Law. It should be anticipated that additional requests for information will be made as the review process continues. In order to facilitate review and tracking of the Department's requests, we ask that Nordic submit three hard copies and one electronic copy of its response(s) and that, in its response(s), Nordic copy the information requests from this letter and follow the requests with a response for that item.

Thank you in advance for your timely review and responses to these questions.

Sincerely,

Kevin Martin

Compliance & Procedures Specialist
Maine Department of Environmental Protection

cc:

Beth Callahan, Bureau of Land Resources
Gregg Wood, Bureau of Water Quality
Jane Gilbert, Bureau of Air Quality
Peggy Bensinger, AAG
Cynthia Bertocci, BEP
Peter Tischbein, US Army Corps of Engineers

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TO: Beth Callahan, Project Manager, Bureau of Land Resources
FROM: Dustin Dorr, Biologist I, Bureau of Land Resources
DATE: June 24, 2019
RE: DEP #L-28319-26-A-N/L-28319-TG-B-N/L-28319-4E-C-N/L-28319-L6-D-N/L-28319-TW-E-N, Department of Environmental Protection (DEP) Site Visit, Nordic Aquafarms, Belfast

SITE VISIT SUMMARY

Date/Time: May 17, 2019, 10:00 am – 2:00 pm
Attendees: Beth Callahan, Project Manager, Bureau of Land Resources
Jon Cullen, Field Services & Enforcement, Bureau of Land Resources
Dustin Dorr, Biologist I, Bureau of Land Resources
Tom Danielson, Biologist II, Bureau of Water Quality
Elizabeth Ransom, Agent, Ransom Consulting (10:00 am – 11:00 am)

The purpose of the Department's visit to the proposed project site was to conduct a basic assessment of on-site natural resources. Details of the site visit are as follows:

10:00 am – 11:00 am:
Elizabeth Ransom provided DEP staff with a wetlands and streams survey from the applicant's natural resources report, titled "Natural Resources Report", prepared by Normandeau Associates and dated May 8, 2019; verbally provided DEP staff with a summarized project description; showed DEP staff the locations of the coastal wetland, streams, and freshwater wetlands at the proposed project site; and showed DEP staff the locations of proposed on-site compensation. DEP observed the resources and proposed compensation areas.

11:00 am – 2:00 pm:
DEP staff traversed the length of certain on-site drainages and streams identified by Nordic Aquafarms, Inc. (applicant), and observed the features in and surrounding these drainages and streams. The observed features include, but were not limited to, vegetative cover, biotic composition, hydrologic conditions, and aquatic connectivity. At certain locations within these drainages and streams, DEP took samples of the substrate, assessed biotic composition, documented the samples through pictures and field notes, and surveyed sample locations using Trimble Global Positioning System (GPS) units. DEP staff also observed and assessed certain on-site freshwater wetlands. Additional detailed observations of the site visit are further described as follows:

Callahan/Danielson:
DEP staff observed and documented drainages and streams identified by the applicant as D2, D3, D4, and S3. D3 was sampled in two locations, and macroinvertebrates were observed in both

locations. Species at the first location at D3 include organisms from the Chironomidae family (midges), Limnephilidae family (caddisfly), and Dytiscidae family (water beetle) and also include a snail and mosquito larvae. Species at the second location at D3 include several midges, a caddisfly, and an organism from the Leuctridae family (stonefly). S3 was sampled at the location of where D2 drains into S3. Macroinvertebrates of similar species were observed at this location. An existing forestry crossing was also observed in S3.

Cullen/Dorr:
DEP staff observed and documented drainages and streams identified by the applicant as W15, D6, S6, S5, and D7. D6 was sampled in two recorded locations. Aquatic macroinvertebrates and a mineral channel bottom were observed in both locations in D6. Macroinvertebrates at the first location at D6 include organisms from the Chironomidae family (midges) and Order Coleoptera (water beetle). Species at the second location at D6 included several midges and organisms from the Order Ephemeroptera (mayflies) and Order Plecoptera (stoneflies). S5 and S6 were sampled at several locations and macroinvertebrates of similar species were observed at these locations. D7 was sampled, but no macroinvertebrates were discovered at the time of inspection. An existing forestry crossing was also observed in S5 and in D6/S6. These forestry crossings were unstable and provided little to no ability for water to flow through the previously existing channels.

Please see the attached site visit pictures and an aerial map of the surveyed locations at the proposed project site. Feel free to contact me with any questions about this information.

1. 1_Pipe_route_to_cw

2. 2_Pipe_route_to_rt1

3. 3_Eckrote_access_to_culverts

4. 4_Eckrote_existing_culverts

5. 5_Eckrote_culverts_downstream

6. 6_Eckrote_culverts_upstream

7. 7_Eckrote_onsite_stream

8. 8_S9_west

9. 9_S9_east

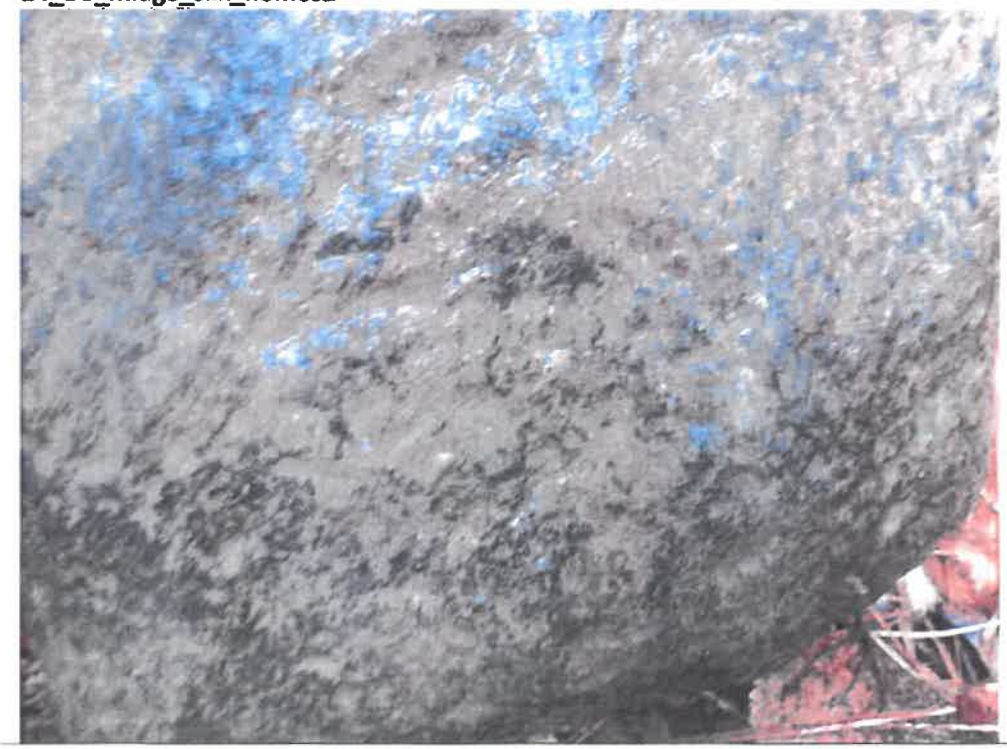
10. 10_S9_south

11. 11_D4_at_W1

12. 12_D3_sample_point_1

13. 13_D3_midge_silk_homes

14. 14_D3_midge_silk_homes2



15. 15_D3_sample_point_2

16. 16_D3_midge

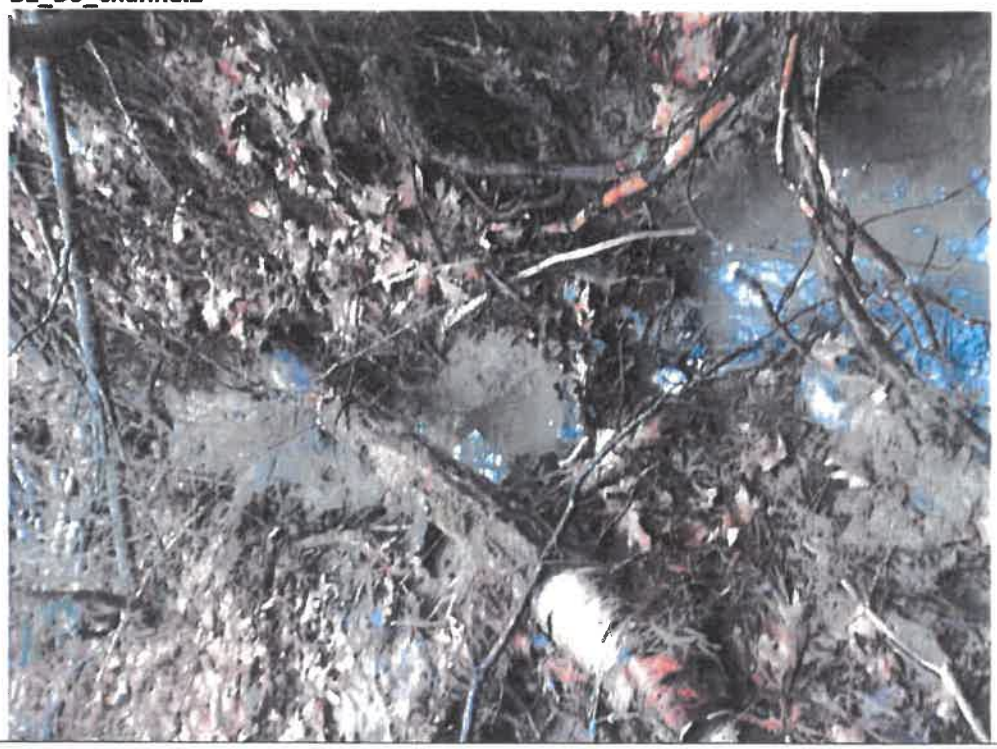
17. 17_D3_caddisfly

18. 18_D3_stonefly

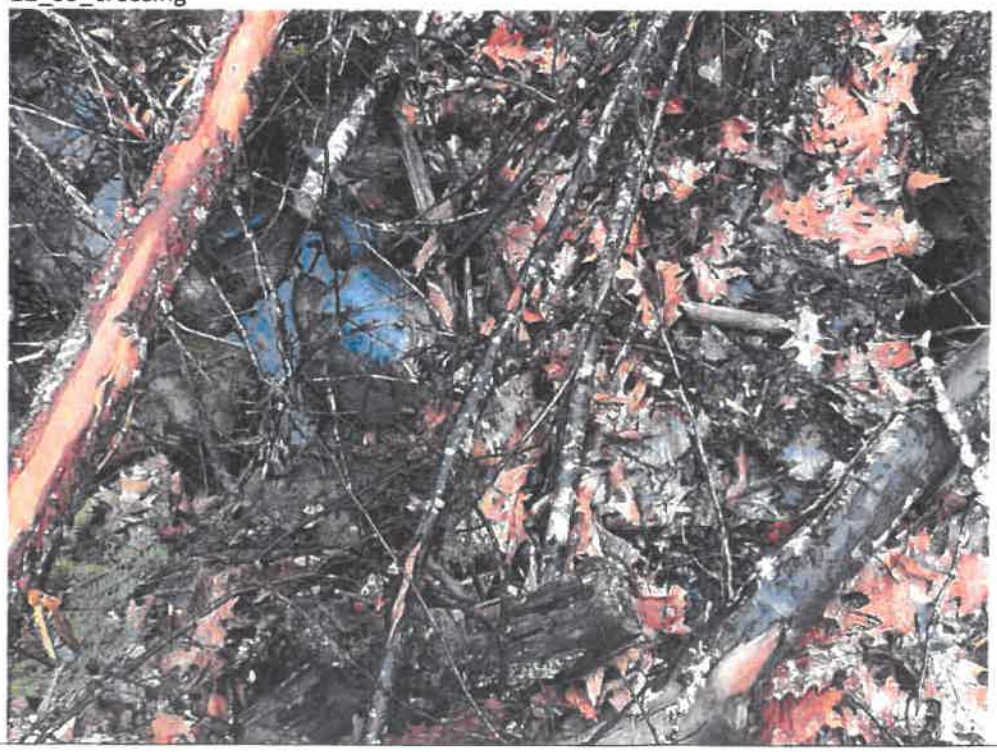
19. 19_D3_stonefly2

20. 20_D3_channel

21. 21_D3_channel2



22. 22_S3_crossing



23. 23_S3_crossing2

24. 24_S3_crossing3

25. 25_S3_at_reservoir

26. 26_D2

27. 27_S3_macroinvertes_at_D2

28. 28_eckrote_culverts

29. 29_S8_downstream_EckroteProperty

30. 30_CoastalWetland

31. 31_CoastalWetland_2

32. 32_S8_mouth

33. 33_S6_Timber Crossing

34. 34_S6_Timber Crossing_2

35. 35_Timber Crossing

36. 36_S5_Timber Crossing

37. 37-S5_Timber Crossing 2

38. 38_W15_North

39. 39_W15_South

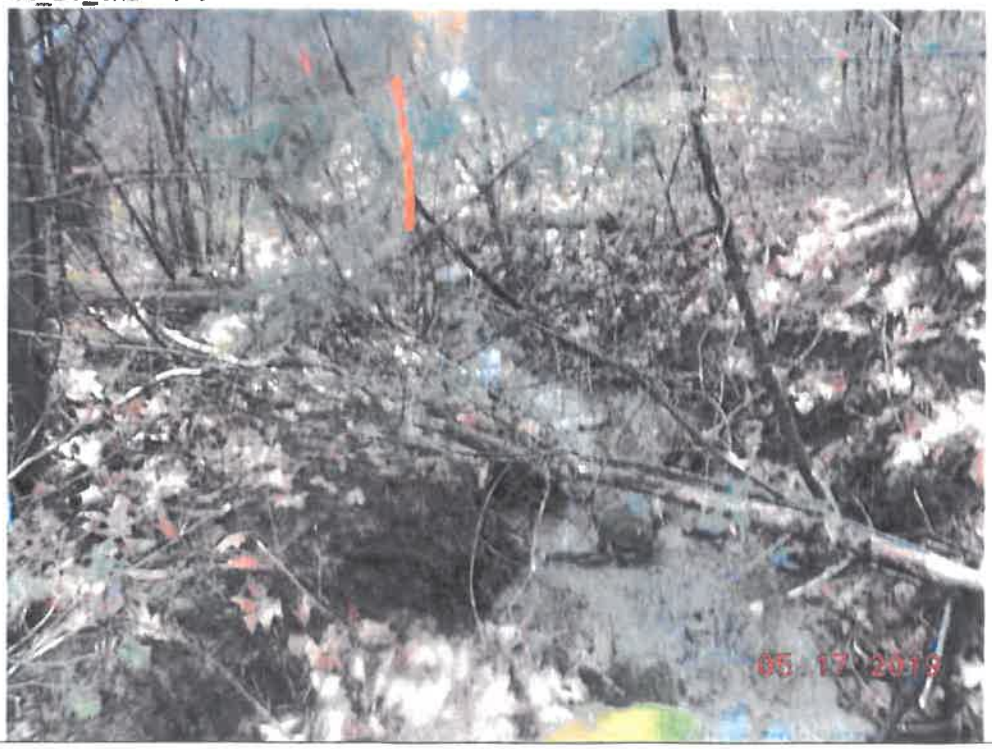
40. 40_D6_North_Channel

41. **41_D6_Channel**

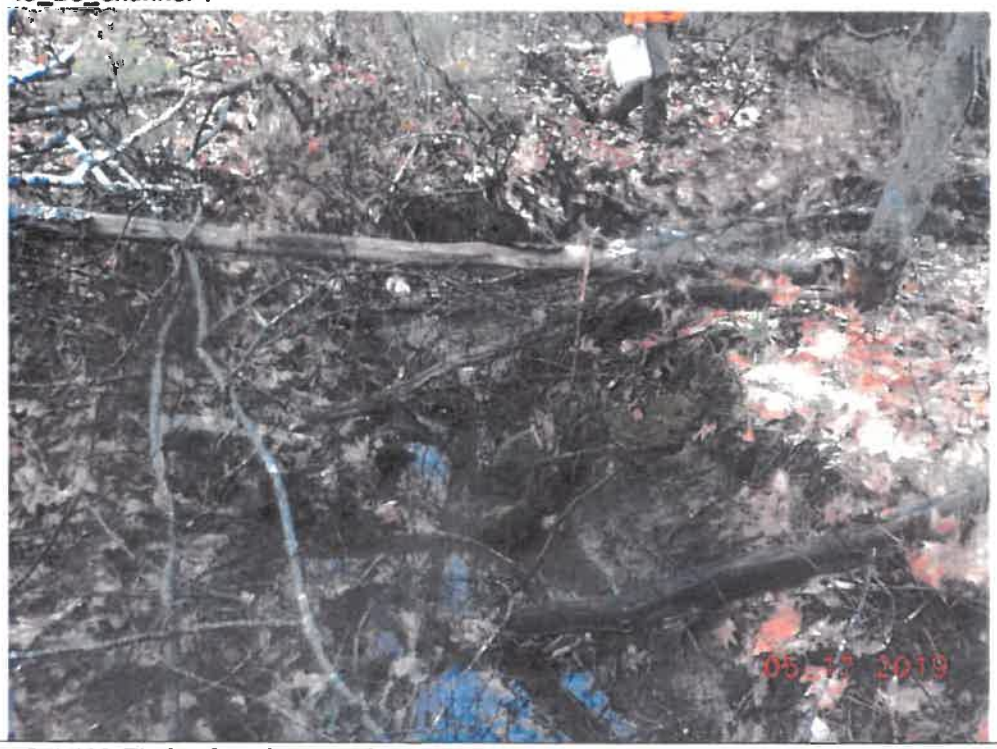
42. **42_D6_channel**

43. 243_D6_macro

44. 44_D6_Channel 3



45. 45_D6_Channel 4



46. 46_D6S6_TimberCrossing_North

47. 47_SamplePoint_Macro

48. 48_SamplePoint_Macro2

49. 49_S6_Channel

50. 50_S6_Stream Crossing_Trail_North

51. 51_S6_StreamCrossing__Trail_South

52. 52_S6_Mouth

53. 53_S5_StreamCrossing_Trail_North

54. 54_S5_StreamCrossing_Trail_South

55. 55_S5_Channel

56. 56_S5_Channel2

57. 57_S5_Macro

58. 58_S5_Channel

59. 59_S5_Channel2

60. 60_S5_Channel_SlashCover

61. 61_S5_Channel_SlashCover2

62. 62_S5_Channel_SlashCover3

63. 63_S5_SlashCover4

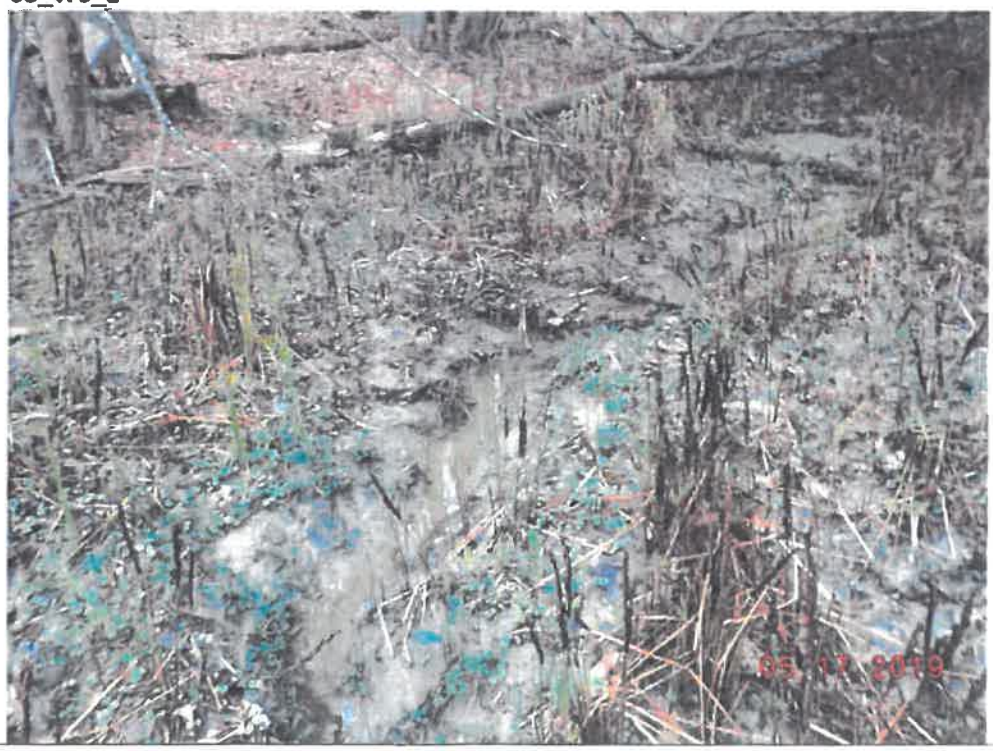
64. 64_S5_Slashcover5

65. 65_S5_TimberCrossing

66. 66_S5_TimberCrossing2

67. 67_W6

68. 68_W6_2



69. 69_D7

70. 70_D7_2

71. 71_D7_3

72. 72_D7_4

Legend

- SAMPLE LOCATION
- REFERENCE POINT
- Stream

250 125 0 250 Feet

Map Notes:
-Background hydrologic, topographic and political features
are from MEGIS data layers with an accuracy if +/- 40 meters
-All spatial data is projected to NAD 1983 UTM Zone 19
-The map is to be used for reference purposes only and does
not represent authoritative locations displayed features.

Map Prepared By: Dustin Dorr, Maine DEP, BLR

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TECHNICAL REVIEW MEMORANDUM

Bureau of Land Resources

TO:	**Beth Callahan, Project Manager – Bureau of Land Resources**
FROM:	**Kerem Gungor, Environmental Engineer -- Bureau of Land Resources**
DATE:	**June 25, 2019**
RE:	**Nordic Aquafarms Inc., Land-based Aquaculture Facility, Belfast, L-28319-26-A-N**

I have reviewed the stormwater management plan prepared by *Ransom Consulting* for the land-based aquaculture facility of *Nordic Aquafarms Inc* in Belfast. A new Site Location of Development Act (SLODA) permit application was received by the Department on 5/17/19.

APPLICANT: Nordic Aquafarms Inc.
DEP#: L-28319-26-A-N
City: Belfast
Agent who prepared the application: Elizabeth Ransom
Project description: Land-based Aquaculture Facility
Watershed (HUC12): Belfast Reservoir Number One-Little River & Goose Pond-Frontal Penobscot Bay
Resultant Impervious Area: 27.4 acres
Resultant Developed Area: 37.9 acres
Parcel area: 54 acres
Standards applicable to the project: Basic, general, flooding

PROJECT SUMMARY

The applicant proposes to build a land-based aquaculture facility north of Belfast Reservoir Number 1 and west of Route 1. The project area is partially developed with the Belfast Water District facilities. Remaining portion of the project area is mostly undeveloped and covered with woods and pasture. The project's non-linear components mainly consist of ten buildings which will be constructed in two phases. The project's linear component is an intake/discharge pipeline that will extend into the Belfast Bay.

A. Electronic Submittals:
The project's application materials are available from the Department's file transfer protocol webpage: https://www.maine.gov/dep/ftp/projects/nordic/applications/

Sections 1, 12, and 14 electronically available from the aforementioned webpage have been reviewed for the preparation of this technical review memorandum.

STORMWATER MANAGEMENT

A. Basic Standards

Note: As always, the applicant's erosion control plan is a good starting point for providing protection during construction. However, based on site and weather conditions during construction, additional erosion and sediment control measures may necessary to stop soil from leaving the site. In addition, other measures may be necessary for winter construction. All areas of instability and erosion must be repaired immediately during construction and need to be maintained until the site is fully stabilized or vegetation is established. Approval of this plan does not authorize discharges from the site.

Atlantic Resource Consultants (Andrew Johnston, P.E.) has developed an erosion and sedimentation control (ESC) plan for the proposed project (see Appendix 14-A: *Appendix 14-A. Soil Erosion and Sedimentation Control Plan.pdf*). Related information is provided in the following plan sheets:

- ***Erosion control locations*** – Sheets CE110 thru CE118
- ***Erosion and sedimentation control notes*** – Sheet CE001
- ***Construction and installation details*** – Sheets CE501 thru CE504

The applicant has provided detailed information on the ESC practices in each construction phase (Sheets CE110 thru CE118). Important elements of the ESC plan are: (a) two-phased tree clearing, (b) diversion of the northerly upgradient runoff away from the active work area, (c) stabilized laydown pad, (c) underdrain system for the building pads, (d) temporary sediment basins. The temporary sediment basins are designed as wetponds with gravel underdrain benches and risers.

Comments:

1. Building 1, 2, and 3 constitute most of the development footprint. The applicant proposes to over-excavate some of building areas for replacing the unsuitable native soil with imported common borrow. What are the anticipated excavation depths for the buildings? According to the plans, approximately 80,000-sf of building area can be excavated/disturbed at a given time. Depending on the elevation of the seasonal groundwater table, significant volume of water may need to be removed from the foundation trenches. Considering the site-specific soil/groundwater information, please discuss the adequacy of the proposed edge drain system (Detail A15 in Sheet CE502) for dewatering the foundation trenches.
2. Please provide information on the material stockpiling areas. Will the stabilized area southeast (Building 2 footprint) used for material (soil, aggregate) stockpiling?
3. The phasing plans show a network of excavation drains which uses the existing drainageways and daylights into plunge pools. My understanding is that this proposed drain system will be permanent. However, other plans (e.g. grading plans) do not show the excavation drain outfalls. Why?
4. Please state which best management practices will be used to minimize the risk of turbid water entering the perforated edge drains during their installation.
5. Will the access roadways which are expanded as the construction phases progress have gravel subbase at a minimum? Since several utility trenches will be excavated on these roads, pavement of these roads may need to be postponed towards the end of each phase.
6. How will the effective treatment areas of the proposed temporary sediment basins change over time? Once the excavation starts for the building pads and the utility trenches are excavated, conveying construction runoff to the basins can be a challenge. Please show the approximate

treatment areas of the basins on the plans and discuss how the runoff will be conveyed to these basins.

7. A slope drain can be necessary for the southern fill slopes which will be constructed during Phase 2. The drain can discharge into Sediment Basin #4.
8. Comments on the temporary sediment basins:
    a. Please show approximate drainage area of each basin and provide a narrative on how these areas will change during the construction. For instance, excavated building footprints will have a lower elevation than the basins. Will the surface runoff be diverted from these excavated areas into the basins?
    b. Will the basins be used for dewatering purposes?
    c. Please discuss the possibility of groundwater seepage into the basins. Is it possible for the seasonally high water table elevation exceed the gravel bench elevation?
    d. Please equip each basin with a staff gauge to monitor the drawdown time.
    e. The modeling results indicate that the detention times of the basins are less than 3 h for the one-yr 24-h storm. Higher detention times may be necessary to improve the sediment removal efficiency. I recommend a valve on each basin's outlet pipe to have the operational flexibility of adjusting the outflow rates.
9. Will there be designated areas for concrete washout area or other construction activities that may result in unauthorized discharges? Please discuss.
10. Challenging (e.g. silty) soils which will be disturbed during the construction need to be tested at the beginning of each construction phase for the selection of the most effective flocculant. Solid flocculant blocks can be used in tandem with the temporary sediment basins and/or powder flocculants can be applied directly on the bare soil. Please elaborate on the use of the flocculants in the ESC notes.

B. General Standards

The applicant proposes to use the following structural treatment measures to comply with the standards: (a) grassed underdrained soil filters, (b) subsurface sand filters, (c) pervious pavers, (d) green roofs.

Comments:

11. Figure 10: Was "GSF 9" mislabeled? Is it supposed to be "GSF 4"?
12. Please review the designs of the proposed stormwater detention measures: drawdown or release time of the channel protection volume needs to be no less than 24 h and no more than 48 h for each measure. This can be achieved by using flow restricting orifices or valves. For instance, the proposed grassed underdrained soil filters do not appear to have any flow restricting device on their outlets (see Sheet CQ-501).
13. More information is necessary for the proposed subsurface sand filter (SSF) systems:
    a. The applicant must demonstrate that all the conditions given in the Department's approval letter for the proposed pre-treatment row are met. The Department's proprietary system approval letters can be accessed from https://www.maine.gov/dep/land/stormwater/stormwaterbmps/

    b. A descriptive profile drawing including the SSF and associated manholes which will control the inflow to and outflow from the SSF. Weir and orifice details need to be presented.

14. Sheet CG-501:
    a. Please propose a comprehensive engineering oversight language for all the proposed structural stormwater treatment measures. An example is provided below:
    "The applicant shall retain the services of a professional engineer to inspect the construction and stabilization of the structural stormwater treatment measures to be built as part of the project. If necessary, the inspecting engineer will interpret the construction plans for the contractor. Once all stormwater treatment structures are constructed and stabilized, the inspecting engineer will notify the department in writing within 30 days to state that the structures have been completed. Accompanying the engineer's notification must be a copy of the test results for any soil fill, aggregate, rocks and the specifications of any geosynthetics used in the construction of the structural treatment measures and a log of the engineer's inspections giving the date of each inspection, the time of each inspection, and the items inspected on each visit."

C. **Flooding Standard**
The applicant has provided pre- and post-development hydrologic models for the proposed project.

Comments:

15. Pre-development Model:
Sheet CW-102: Only northwestern portion of Subcatchment 11 appears to drain into PT6 analysis point. Remaining portion of Subcatchment 11 appears to drain into the stream reach modeled as S9-2 reach. Therefore, the subcatchment can be divided into two separate subcatchments and routed as such.
16. Post-development Model:
Sheet CW-104: Only northwestern portion of Subcatchment 11 appears to drain into PT6 analysis point. Remaining portion of Subcatchment 11 appears to drain into the stream reach modeled as S9-2 reach. Therefore, the subcatchment can be divided into two separate subcatchments and routed as such.

    Please review the routing diagram:
    a. Subcatchment 43 and Pond SSF 43 appear not to be routed to an analysis point.
    b. Subcatchment 28 and Reach 28 appear not to be routed to an analysis point.

17. Please discuss the potential impact (e.g. channel erosion, incision) of the post-development flow diversion on Stream 9 at and around PT6 analysis point.
18. The applicant analyzed the proposed storm drains for their capacity to handle the 10-yr 24-h peak flows in the post-development HydroCAD (see the catch basins and manholes modeled as HydroCAD "ponds"). The analysis results need to be tabulated showing the flow capacity of each pipe and its 10-yr peak flow and submitted with a narrative summarizing the results.
19. Sheet CG201: Please demonstrate that the proposed culvert can pass the 25-yr 24-h storm.