

BOARD ACTION

AGENDA TOPIC 3.1

SIGNIFICANT GROUNDWATER WELL PERMIT

The Board reviewed and offered final direction on the Significant Groundwater Well Permit at its meeting of December 17. I believe I have incorporated all requested changes in the Findings and Conditions. I have made one addition, reference Condition 5 on Page 15. I have added information regarding the frequency of water quality and quantity information that is in the current WRMP (information provided by Matt Reynolds). Hugh Townsend requested this information.

The Board, at its meeting of December 22, needs to take final action to adopt these Findings and Conditions. Following is suggested language for the motions that the Board should consider adopting:

SUGGESTED PLANNING BOARD MOTIONS FOR THE SIGNIFICANT GROUNDWATER WELL PERMIT APPLICATION (12-22-20)

Motion # 1: Motion to adopt the draft Findings of Fact for the Significant Groundwater Well Permit for Nordic Aquafarms, Inc. as presented (or as amended if amendments are made) at this meeting.

Motion # 2: Motion to adopt the Conditions of Approval for the Significant Groundwater Well Permit for Nordic Aquafarms, Inc. as such was presented and amended at this meeting.

Motion # 3: Motion to adopt the Significant Groundwater Well Permit for Nordic Aquafarms, Inc., subject to Nordic's compliance with Conditions of Approval established by the Board for this Permit.

**CITY OF BELFAST PLANNING BOARD
ADOPTED FINDINGS OF FACT
SIGNIFICANT GROUND WATER WELLS PERMIT**

**APPLICANT: NORDIC AQUAFARMS, INC.
PROJECT: LAND BASED SALMON FARM
LOCATION: ROUTE ONE SOUTH (BELFAST WATER DISTRICT & ADJACENT
PROPERTIES)**

1. APPLICANT:

Owner: Nordic Aquafarms, Inc.
Attn: Ed Cotter
Belfast, ME 04915

Principal Engineer: Ransom Consulting (lead engineer)
Attn: Elizabeth Ransom
Portland, ME 04101

Legal Counsel: Joanna Tourangeau
Drummond Woodson
84 Marginal Way Suite 600
Portland, ME 04011

2. OVERALL DESCRIPTION OF NORDIC PROJECT

Nordic Aquafarms, Inc (hereinafter Nordic), in June 2019, submitted an application to the Belfast Planning Board to develop a land-based salmon aquaculture facility on a 56 acre site located on the northwesterly side of Route One near the lower reservoir of the Little River. Nordic proposes to develop the project in two phases over 5 or more years. Total production capacity at build-out is estimated to be 72,732,000 pounds (33,000 metric tons) of salmon per year. Phase 1 involves the construction of about 414,450 square feet of buildings, and Phase 2 involves the construction of about 392,804 square feet of buildings; each phase involves rearing and processing a similar amount of salmon.

The facility would use a Recirculating Aquaculture System (RAS) to process water used in rearing the salmon in land-based tanks. At full build-out, the facility is projected to use up to 1,205 gallons of freshwater per minute (gpm) and about 3,925 gallons of saltwater per minute. The freshwater is proposed to be obtained from three sources: the Belfast Water District (up to 500 gpm), on-site groundwater wells (up to 455 gpm) and the extraction of surficial water from Reservoir 1 on the Little River (up to 250 gpm). Saltwater will be obtained from Belfast Bay via two new off-shore water intake pipes that extend about 6,300 feet from the High Annual Tide into the Bay. The RAS system also involves Nordic Aquafarms treating and regularly discharging the freshwater and saltwater

(wastewater/effluent) used to rear salmon back into Belfast Bay via a discharge pipe that extends offshore about 3,400 feet from the High Annual Tide.

The 56 acre site that Nordic Aquafarms, Inc. proposes to develop includes parts of all of the following properties, as such are identified on the City of Belfast Tax Assessor maps:

- Map 29, Lot 39, located at 285 Northport Avenue that is owned by the Belfast Water District (about 29 acres):
- Map 4, Lot 104, located off of Northport Avenue that is owned by Sam Cassida (about 12.5 acres):
- Map 4, Lot 12A, located at 22 Perkins Road that is owned by Goldenrod Properties, LLC; [dba Mathews Brothers] (about 14.5 acres): and
- Map 29, Lot 36, located at 282 Northport Ave, that is owned by Richard Eckrote (easement for construction of water intake/wastewater discharge pipes).

3. OVERALL DESCRIPTION OF NORDIC’S GROUNDWATER USE.

At full build-out, Nordic proposes to extract and use up to 455 gpm (gallons per minute) of freshwater supplied from 3 on-site groundwater wells that it will operate, and has indicated that it mostly will use groundwater to support the rearing of salmon. The location of proposed production wells are labeled PW-1, DRX-102 and GWW-103 on Attachment 23 in the Nordic Site Plan application. Proposed pumping rates are 250 gpm for PW-1, 175 gpm for GWW-103, and 30 GPM for DRX-102. The total maximum quantity to be extracted for all wells operated on the property will be as follows:

Well Name:	PW-1	GWW-103	DRX-102	Total
Gallons per minute	250	175	30	455
Gallons per day	360,000	252,000	43,200	655,200
Gallons per week	2,520,000	1,764,000	302,400	4,586,400
Gallons per month	10,950,000	7,665,000	1,314,000	19,929,000
Gallons per year	131,400,000	91,980,000	15,768,000	239,148,100

4. CITY PERMIT REQUIREMENTS FOR GROUNDWATER EXTRACTION.

The City of Belfast, in October 2018, adopted amendments to the City Code of Ordinances, including Chapter 102, Zoning, Chapter 82, Shoreland, and Chapter 66, General Provisions, (Definitions) to establish specific regulations for a significant groundwater well. The main provisions of the adopted amendments include the following:

- Identified a definition for a significant groundwater well, including the size of well that qualifies as a significant groundwater well;
- Identified the Zoning and Shoreland districts in which a significant groundwater well is a permitted use;
- Identified the permitting process for a significant groundwater well, including a provision that an application for a Significant Groundwater Well Permit could be considered in conjunction with other permits that an applicant may submit, such as a Site Plan, Zoning Use or Shoreland Permit, and that the public hearing process for any

of the above permits could serve as a public hearing on the Significant Groundwater Well Permit;

- Identified the required submissions for a Significant Groundwater Well Permit; and
- Identified the standards that a significant groundwater well must satisfy and that must be considered by the Belfast Planning Board in approving a Significant Groundwater Well Permit.

5. NORDIC APPLICATION FOR SIGNIFICANT GROUNDWATER WELL PERMIT AND PLANNING BOARD PROCESS ASSOCIATED WITH REVIEW OF THE GROUNDWATER PERMIT REQUIREMENTS.

Nordic Aquafarms submitted its Site Plan application to the Belfast Planning Board on June 11, 2019. The Site Plan application, as is allowed by City Ordinances, included information required by the Planning Board to consider a Significant Groundwater Well Permit; reference Attachment 23, Hydrogeologic Study and Proposed Monitoring Plan.

The Planning Board, at its meeting of June 26, 2019, initiated its review of the Nordic Site Plan application. The Site Plan process is a two-step process, Preliminary Plan and Final Plan, thus the Board's review first involved Preliminary Plan requirements. The initial meetings of the Board focused on the Board gaining a better understanding of the project and addressing certain procedural requirements identified in City Ordinances. In June – August 2019 the Board did the following:

- Conducted a site visit on July 10;
- Established the process the Board would use to review the application and conduct accompanying public hearings (July 11)
- Determined which Board members would vote on the Nordic applications (August 5);
- Determined the persons/organizations that qualified as 'Parties-in-Interest (August 5 and 19); and
- Determined that Nordic had provided sufficient evidence of Right, Title and Interest to allow the Board to consider the Nordic applications (August 5).
- Approved certain third-party reviewers for the City on the Nordic application, including William Kelly, City Attorney, Mandy Olver, Olver Associates (City Engineer), and Matt Reynolds, Drumlin Environmental, who specifically was engaged to review Nordic's groundwater and water use proposals.

Beginning in August 2019 and continuing through January 2020, the Planning Board heard presentations from Nordic representatives on individual elements of its Site Plan application, including information relevant to other Permits that the Board had to consider, heard testimony from Parties-in-Interest and the general public at the numerous public hearings that the Board conducted on the specific issues presented by Nordic, and heard testimony from third-party experts engaged by the City and from the City Code and Planning Department staff. The Board also conducted initial deliberations on many of the issues considered at the respective meetings, and provided direction to Nordic and City representatives regarding additional information needed on the Nordic application.

Nordic representatives, at the Planning Board meeting of September 23, 2019, made a specific presentation to the Board on Attachment 23, the Hydrogeologic Study and Proposed Monitoring Plan. The Planning Board, at this same meeting, conducted a specific public hearing on Nordic's Groundwater proposal and accepted public testimony from both Parties-in-Interest and the general public. The Board also heard testimony from Matt Reynolds, Drumlin Environmental and had an opportunity to ask questions of all parties.

The Planning Board, at its meetings of January 8, January 15 and January 22, 2020, conducted public hearings to accept public testimony from both Parties-in-Interest and the general public on all elements of the Nordic application. These hearings presented an additional opportunity for the Board to receive comment on the issues of groundwater and overall water use prior to the Board engaging in significant deliberations regarding the Preliminary Site Plan and other Permit applications.

The Board, at its meeting of May 27, 2020 (Note- All Board meetings between May 6, 2020 and December 21, 2020 were conducted via a ZOOM webinar because of COVID), conducted a specific meeting on groundwater and water use. Matt Reynolds, Drumlin Environmental, presented his assessment of Nordic's application, including his assessment of the Department of Environmental Protection's review of Nordic's groundwater proposals.

The Planning Board conducted its review of draft Findings of Fact for Nordic's Preliminary Site Plan Permit application, including standards related to groundwater, at its meetings of June 17, July 8 and July 15, 2020. The Board, at its meeting of July 15, approved Nordic's Preliminary Site Plan application and adopted Findings of Fact that describe its decision. This action allowed Nordic to submit a Final Site Plan application and also led to the process whereby the Board would review the specific requirements of the other 4 Permits the Nordic project requires from the Planning Board, including this Significant Groundwater Well Permit.

The Planning Board, prior to Nordic's submittal of its Final Site Plan application, conducted a meeting on August 5, 2020 to further discuss the issues of groundwater and overall water use. Much of this meeting focused on a monitoring program for groundwater use.

Nordic submitted its Final Site Plan application in late August. The Board initiated its review of this application on September 30, 2020, including conducting a public hearing for Parties-in-Interest on October 7, 2020, and a public hearing for the general public on October 8. The public hearing notice for the above hearings specifically referenced the Board's interest in receiving public comment on the Nordic Significant Groundwater Permit. These were the final overall hearings conducted on the Nordic application.

The Board initiated its review of specific requirements of the Significant Groundwater Well Permit at its meeting of October 21, 2020, and continued its discussion of this Permit and potential Conditions of Approval at the subsequent Board meetings of October 28, November 4, November 12, and November 19, 2020. The Board also reviewed the draft

and final Orders from the Board/Department of Environmental Protection on the Nordic project, permits that specifically addressed Nordic's use of groundwater wells, as well as overall water use concerns.

The Planning Board, through-out all stages of its review of the Nordic application, considered issues associated with Nordic's installation and operation of 3 on-site groundwater wells and how said wells may adversely impact property owners in Belfast, particularly property owners near the site that use a private well. The Board, in its deliberations, considered the following: information in the Nordic application, particularly Attachment 23; additional information provided at Planning Board meetings by Nordic and its consultants; public testimony offered by all Parties-in-Interest and by the general public (oral and written comment); information in the DEP Site Location of Development Act/Natural Resources Protection Act Permit regarding groundwater and water use; the assessment of the Nordic application provided by Matt Reynolds, Drumlin Environmental and Mandy Olver, Olver Associates (City third-party review experts); comments offered by William Kelly, City Attorney, and Wayne Marshall, Project Planner, Code and Planning Department; and comments offered by individual Board members during the public review process.

6. SPECIFIC FINDINGS OF THE BELFAST PLANNING BOARD ON OVERALL SIGNIFICANT GROUNDWATER WELL PERMIT REQUIREMENTS.

The Planning Board made the following findings regarding the applicability of certain zoning standards for the Nordic application for a Significant Groundwater Well Permit:

- a) The Board determined that all 3 groundwater wells proposed by Nordic qualify as significant groundwater wells. The City definition of a significant groundwater well is one which uses at least 75,000 gallons in any week or at least 50,000 gallons on any day. The smallest of the 3 Nordic wells is estimated to use about 302,400 gallons per week.
- b) All 3 groundwater wells proposed by Nordic are located on the main Nordic site and are in the Route One South Business Park zoning district. Although some of the Nordic site is in areas subject to Shoreland Zoning, none of the groundwater wells are located in the Shoreland Zone. Thus, the Planning Board only considered requirements of Chapter 102, Zoning in acting on Nordic's request for a Significant Groundwater Well Permit.
- c) The Board found that a significant groundwater well is a permitted use in the Route One South Business Park zoning district; reference Chapter 102, Zoning, Article V, District Regulations, Division 19, Route One South Business Park, Section 102-682, Permitted Uses Requiring Planning Board Review, (9), Significant Groundwater Well.
- d) The Board found that Nordic's Permit submission, reference Attachment 23, and subsequent information provided by Nordic to the Board satisfied the application

submission requirements identified in Chapter 102, Zoning, Article VIII, Supplementary District Regulations, Section 102-1077, Application and Information Requirements, Subsection c), Application Requirements, clauses 1) through 6). The Board particularly noted that Nordic submitted the required hydrogeologic report [clause 4)] from a licensed Maine professional geologist, and that it submitted a proposed monitoring program. Further, the City obtained the DEP Permit Orders and Findings, and these Orders identified conditions that the DEP will implement with respect to Nordic's monitoring of groundwater use.

- e) The Board determined that Nordic's use of groundwater will comply with the City Performance Standards identified in Chapter 102, Zoning, Article VIII, Supplementary District Regulations, Division 7, Significant Groundwater Well Permits, Section 102-1079, Performance Standards, subject to Nordic's compliance with the Conditions of Approval established by the Board as requirements of this Permit. The Board's Findings regarding the Section 102-1079 Performance Standards are described in Section 7 of these Findings, see below.

7. SPECIFIC FINDINGS OF THE BELFAST PLANNING BOARD ON THE SECTION 102-1079 PERFORMANCE STANDARDS FOR A SIGNIFICANT GROUNDWATER WELL PERMIT.

Chapter 102, Zoning, Article VIII, Supplementary District Regulations, Division 7, Significant Groundwater Well Permit, establishes specific Performance Standards that all applicants for a Significant Groundwater Well Permit must satisfy; reference Section 102-1079, Performance Standards. The Belfast Planning Board conducted a specific review of these standards at its meetings of October 28 and November 4, 2020, and found that Nordic satisfied all of the City requirements, subject to Nordic compliance with Conditions of Approval established by the Board. The Board made the following specific Findings regarding the respective Performance Standards.

- 1. The quantity of water to be taken from a ground water source will not substantially lower the water table beyond the property lines, cause saltwater intrusion that would affect groundwater located on a property not owned by the applicant, cause unreasonable impacts to ground water flow patterns, or cause unreasonable ground subsidence beyond the property lines.*

The Board reviewed Attachment 23, the Hydrogeologic Assessment prepared by Ransom Consulting which concluded that a system of 3 wells, drawing a combined maximum rate of 455 gallons per minutes (gpm) of groundwater, could be continually operated without unreasonable adverse impacts to the bedrock aquifer or groundwater flow patterns, surrounding private wells including from saltwater intrusion, or cause ground subsidence. Ransom Consulting's conclusion is based on the collection of data from site and neighborhood wells and surface water bodies, multiple pumping tests, and a computational model to simulate aquifer and water resource impacts under longer time intervals and varied conditions.

The main potential concern identified by the Planning Board is that Nordic's extraction of groundwater could have an adverse impact on the quality and/or quantity of groundwater on adjacent private wells. The Board addresses this issue in the Conditions of Approval it has adopted that require Nordic to implement a rigorous groundwater quality monitoring program, and to regularly report information from this program to City representatives and to area homeowners who are participating in Nordic's monitoring program. Further, the Board required Nordic to address impacts to the extent that they may arise with specific steps, including reducing the rate and amount of water withdrawal and requiring that Nordic make any property owner whose private well has been adversely impacted by Nordic's use of groundwater 'whole' by measures such as but not necessarily limited to connecting the property to public water, the installation of a water quality treatment system, or the drilling of a new well.

The Board also considered the issue of saltwater intrusion of a private well. While the Nordic hydrogeologic assessment identified saltwater intrusion as a potential concern in a limited area near Route One, the Board noted that properties in this area are connected to public water, thus, there is limited concern with potential adverse impacts to a private well from saltwater intrusion.

Matt Reynolds, Drumlin Environmental, assisted the Board in identifying the parameters of the City's groundwater quality monitoring program.

- 2. Any proposed use shall not cause unreasonable adverse diminution in water quality or quantity of the aquifer or surrounding surface/ground water. This includes any impacts to the upwelling of a natural spring, ground water source, aquifer recharge area, or wetlands.***

The Planning Board found that the Nordic Project will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of groundwater in the area or any public or private water source, provided that Nordic conducts project operations as proposed and complies with all conditions of approval established by the DEP and the City Planning Board. The Board specifically noted that the hydrogeologic assessment prepared for Nordic by Ransom Consulting dated April 18, 2019, identifies potential impacts associated with Nordic's use of on-site groundwater wells, and that Nordic has chosen to use an array of wells that minimize the likelihood of potential impacts on off-site private wells or the quantity of groundwater in the surrounding area. Further, the monitoring program that both the DEP and the City require Nordic to implement will provide an effective tool for either party to use to regulate Nordic's use of groundwater if adverse impacts are detected to the area's groundwater resources.

The Board, in conducting its review, noted that the Belfast Water District does not use or rely upon any groundwater or surface water supplies in the area as a public water source, and that many of the surrounding properties on Route 1 and on Perkins Road are served by public water. An area near the site that is served by private wells is Herrick Road. Nordic's Water Resource Monitoring Plan includes provisions to monitor, protect and/or compensate private well owners.

- 3. Safe and healthful conditions shall be maintained at all times within and about the proposed use and structures.***

The Board found that the wells will not be accessible by the public, nor will they include a surface structure that would present a health or safety issue.

- 4. The proposed use shall require the applicant to provide a storm water management plan prepared and stamped by a professional engineer registered in the State of Maine that details both construction and long-term controls associated with the groundwater wells. The Planning Board may accept a storm water management plan submitted for its review as a component of a Site Plan Permit, Shoreland Permit or Use Permit that satisfactorily addresses this requirement.***

The Board reviewed and approved Nordic's stormwater management plan as a component of the Site Plan Permit and Zoning Use Permit review. On July 15, 2020, the Board found Nordic's approach to storm water management adequate for compliance with the Chapter 98, Technical Standard requirements in City Ordinances; reference Preliminary Site Plan Permit, Finding of Facts. The Board made a similar Finding for the Final Site Plan Permit and the Zoning Use Permit. The Board found that Nordic provided a stormwater management plan that was developed and stamped by a professional engineer (Maureen McGlone) from Ransom Consulting and that this stormwater management plan includes adequate controls associated with the significant groundwater wells. Mandy Olver, Olver Associates, reviewed Ransom Consulting's stormwater management plan on behalf of the City, and stated to the Planning Board that it is consistent with requirements of the Chapter 98, Technical Standards.

- 5. The proposed extraction site is not within the defined aquifer or groundwater recharge area of a public water supply, unless public notice is provided to the operator thereof, and the Planning Board has considered any information supplied by the operator and finds that no adverse affect on a public water supply will result.***

The Board found that Nordic's extraction site is not located within a defined aquifer or groundwater recharge area for a public water supply. The Belfast Water District provides public water to property owners in both Belfast and Northport. The Belfast Water District abandoned its use of surface flows from the existing dam impoundments on the Little River about 50 years ago when it chose to use water from deep water wells in the Goose River aquifer to provide water to its Belfast and Northport customers. There is no connection between the Little River watershed and the Goose River watershed, and the District's use of water from deep water wells in the Goose River aquifer will not be impacted by Nordic's use of groundwater from its property.

- 6. The operator shall keep monthly operating records of the quantity of water extracted and shall make said operating records available to representatives of the City Code and Planning Department or a designee upon request.***

The Conditions of Approval adopted by the Planning Board for this Groundwater Well Permit and the Site Plan Permit require Nordic to provide reports on its monitoring program and the amount of water use to the City, and to provide semi-annual reports to area property owners who are participating in the monitoring program. Pursuant to Conditions of Approval established for the City Site Plan Permit, Nordic shall report on average daily flows from its groundwater wells.

7. *The City Planning Board, based on its review of all information submitted and considered as part of a permit application, shall have the authority to establish the maximum daily, weekly, monthly and annual quantity of groundwater that may be extracted; said amount shall not exceed the amount specified by the Applicant in its application. If an Applicant exceeds said amounts, the City shall have the authority to require the Applicant to reduce the volume of water it is using to the maximum amounts established in the City Permit.*

Pursuant to its authority under this subsection, the Planning Board has established a maximum daily, weekly, monthly and annual groundwater extraction rate for the Nordic project. The Board, in Condition of Approval 9 of this Permit, determined that Nordic must report on the extraction rate based on the daily amount of water extraction for the 3 combined wells, a rate of 655,200 gallons per day. As such, the City shall use this rate to determine if Nordic is in compliance with the requirements of Condition 9. This following table is identified in the Nordic Site Plan Permit application.

Well Name:	PW-1	GWW-103	DRX-102	Total
Gallons per minute	250	175	30	455
Gallons per day	360,000	252,000	43,200	655,200
Gallons per week	2,520,000	1,764,000	302,400	4,586,400
Gallons per month	10,950,000	7,665,000	1,314,000	19,929,000
Gallons per year	131,400,000	91,980,000	15,768,000	239,148,100

8. *The applicant shall demonstrate that it possesses the expertise and financial resources to construct and operate the requested significant groundwater wells and to adhere to the conditions of approval adopted by the City Planning Board.*

The Planning Board found that Nordic has both the financial ability and technical expertise to construct and operate the requested significant groundwater wells and to adhere to the Conditions of Approval adopted by the Planning Board. The Board, in the Conditions of Approval it established for the City Site Plan Permit, identified specific standards that Nordic must satisfy regarding project financing before it can commence any project construction; reference Condition 35, Evidence of Financial Capacity. Further, the Board, in Condition 12 of this Significant Groundwater Permit, established a requirement that Nordic provide a long-term performance guarantee of \$250,000 (initial amount) to pay costs associated with the restoration of good quality water service to a private property owner if Nordic’s operations adversely affects their well. Continuing, Nordic, in their Site Plan application, has provided background

information regarding their project team, demonstrating that they have the qualifications and experience to develop, construct, manage and operate a land-based salmon aquaculture farm that involves the use of groundwater extraction wells.

- 9. The City Planning Board shall consider conditions of approval established by a state or federal agency that has jurisdiction to regulate a significant groundwater well and the extraction of groundwater resources and how said permit conditions may interact with the City Significant Groundwater Well Permit. The Planning Board may choose to use conditions enacted by a state or federal agency as a method to identify and obtain applicant compliance with conditions identified by the Planning Board.***

The State Department of Environmental Protection (DEP) has adopted specific regulatory standards for the installation and operation of all significant groundwater wells in the State. The DEP, in the Site Location of Development Act/Natural Resources Protection Act (SLODA/NRPA) Permit it issued on November 19, 2020, established specific conditions of approval regarding Nordic's use of on-site groundwater wells. The Planning Board specifically notes that it decided not to take final action on the City Significant Groundwater Well Permit or other permits the Board is responsible for issuing until it had an opportunity to review and fully consider requirements established by the DEP.

The DEP conditions include a requirement for Nordic to develop and implement a monitoring program for the 3 on-site groundwater wells. Matt Reynolds, Drumlin Environmental, reviewed the DEP monitoring program and offered recommendations to the Board regarding monitoring provisions that the City should require. The Planning Board chose to identify monitoring requirements that Nordic must satisfy, and how the City program would interface with the program required by the DEP. The Board also notes that it chose to enact conditions that were not required by the DEP, such as those identified in Board Conditions 6, 11 and 12. This approach reflects the Board's position that the City should take a lead role in ensuring that the interests of local property owners who may be adversely affected by Nordic's operations are considered at the local permitting and enforcement level.

- 10. The City Planning Board shall have the authority to require an applicant to prepare and implement a monitoring program of wells located within 1,000 feet of the boundary line of the applicant property, and to require that said monitoring program be in effect for the time period that any significant groundwater well is in operation. The monitoring program shall consider the rate and total amount of groundwater being extracted, and shall monitor potential adverse impacts on private or public wells located in the above identified area. The Board, in establishing the monitoring program, shall, at a minimum, consider the following: recommendations from a hydro-geologist engaged by the City, recommendations from a hydrogeologist engaged by the applicant, recommendations identified by a state or federal permitting authority, and information provided by the public. The Planning Board may consider requiring the applicant to implement a monitoring program for private or public wells located more than 1,000 feet of the boundary line of a property on which one or***

more wells is operating, if information identified in a hydro-geologic assessment establishes the value of requiring a larger area to be subject to monitoring. All information obtained from a monitoring program shall regularly be provided to the City Code and Planning Department and all such information shall be considered public records.

The Planning Board established Condition of Approval 5 in this Permit that requires Nordic to implement and manage a groundwater monitoring program. The heart of this program involves Nordic monitoring private property owner's wells in areas identified in the Nordic application as most likely experiencing some potential impact associated with the amount and rate of Nordic's groundwater extraction. This area also includes properties that are located at distances of greater than 1,000 feet, including properties in both Belfast and Northport.

The monitoring program established by the Board reflects information in the Nordic application (Attachment 23), the review of this information by Matt Reynolds, Drumlin Environmental (City third-party peer review), requirements in the DEP SLODA/NRPA Permit, and testimony offered by both Parties-in-Interest and the general public. Nordic is required to provide regular reports on this information to the Code and Planning Department and to property owners who are participating in Nordic's private well monitoring program.

DECISIONS OF BELFAST PLANNING BOARD

The City of Belfast Planning Board, at its meeting of December 22, 2020, took the following actions on Nordic's Significant Groundwater Wells Permit application:

- a) The Board found that Nordic submitted its Significant Groundwater Wells Permit application on June 11, 2019. This application was included as part of Nordic's Site Plan Permit application, as is allowed by the City's Significant Groundwater Well(s) standards.
- b) The Board conducted several duly noticed public hearings for the purpose of accepting public testimony from both Parties-in-Interest and the general public regarding Nordic's proposal to establish groundwater wells on its property. The dates of these hearings were September 23, 2019, January 8, 15 and 22, 2020, and October 7 and 8, 2020.
- c) The Board determined that the proposed groundwater wells are permitted uses in the Route One South Business Park zoning district, and that said wells require the Planning Board to review and consider a permit for Nordic to establish and operate significant groundwater wells.
- d) The Board determined that the Nordic application satisfied all submission requirements for a Significant Groundwater Well(s) Permit, reference Section 102-1077, and that the application complied with all Performance Standards identified in Section 102-1079, subject to Nordic's compliance with Conditions of Approval for this Permit that were established by the Board.

Therefore, the Belfast Planning Board, at its meeting of December 22, 2020, voted to approve the issuance of a Significant Groundwater Well Permit to Nordic, and voted to approve the Conditions of Approval (Conditions are attached to these Findings) that Nordic must satisfy to comply with terms of the City Significant Groundwater Well Permit. Further, the Board voted to adopt these Findings of Fact that describe why the Board determined that the Nordic project complies with requirements identified in Chapter 102, Zoning, Article VIII, Supplementary District Regulations, Division 7, Significant Groundwater Well Permit.

The Board authorized Declan O'Connor, its Acting Chair on the Nordic project to sign these Findings and Conditions on its behalf.

On behalf of the Belfast Planning Board

Richard (Declan) O'Connor
Acting Chair on Nordic application

This decision of the Planning Board is subject to an administrative appeal to the City of Belfast Zoning Board of Appeals pursuant to standards identified in the City Code of Ordinances, Chapter 102, Zoning, Article II, Administration, Division 4, Appeals and Variances.

**CITY OF BELFAST
ADOPTED CONDITIONS OF APPROVAL
SIGNIFICANT GROUNDWATER WELLS PERMIT
ISSUED TO NORDIC AQUAFARMS, INC.**

The City of Belfast Planning Board approves the issuance of a Significant Groundwater Well Permit to Nordic Aquafarms (hereinafter Nordic) subject to Nordic's compliance with the following Conditions of Approval adopted by the Board. This Permit will allow Nordic to construct and operate the three proposed groundwater wells identified in their application to the City. All of the groundwater wells are located on property that is in the Route One South Business Park zoning district, and none of the groundwater wells are located in the Shoreland Zone.

1. Compliance with DEP Permit Requirements.

Nordic shall comply with the Conditions of Approval required by the Board of Environmental Protection in Natural Resource Protection Act Permit L-28319, and shall provide the City a copy of said permit and any amendments to said permit, as well as any

orders issued by the Department of Environmental Protection associated with the above Permit regarding the operation of the significant groundwater wells.

2. Location of Groundwater Wells.

The significant groundwater wells shall generally be established in the locations identified in the Nordic Site Plan application. Any proposal from Nordic to change the location of any of the wells shall require the review and approval of the Planning Board as an amendment to this City Significant Groundwater Well Permit.

3. Revisions to Water Resource Monitoring Plan.

Prior to construction, Nordic shall revise the Water Resource Monitoring Plan (WRMP) dated April 16, 2019 to incorporate appropriate revisions proposed in subsequent testimony and submittals to the City and the Maine Department of Environmental Protection (MEDEP). The revised WRMP shall be submitted to the City Planning Board for review regarding consistency with City requirements by the Belfast Planning Board at the same time it is submitted to the MEDEP. Planning Board review of the revised WRMP must occur prior to the extraction of any water for facility operations from any on-site groundwater well. Any subsequent amendments to the WRMP shall similarly require the review of the Planning Board.

4. Installation and Monitoring of Well BRK-203.

Nordic shall install and monitor bedrock well BRK-203 adjacent to OVB-103 as a background well that is completed and monitored similarly to proposed bedrock monitoring wells BRK-201 and BRK-202.

5. Monitoring of Private Wells.

Nordic shall include a comprehensive inventory identifying the source of the water supply for each developed parcel along the following roads and, if there is a private well, whether it will be actively monitored in its revised WRMP:

- Perkins Road;
- Herrick Road between Perkins Road and the Northport Town line, and Rocky Road, until its intersection with Peacedale Drive (in the Town of Northport);
- Woods Road to its intersection with Lincolnville Avenue, including properties that have road frontage on Woodsville Lane, properties that have road frontage on the first 900 feet of Cobb Road, and properties that have road frontage on the first 800 feet of Bowling Green Lane;
- (Lower) Congress Street from Route One to its intersection with Perkins Road, including properties that have road frontage on Reeds Lane, and excluding properties in the Seacoast Village Park and in the Belfast Business Park; and
- US Route 1 from the intersection of Battery Rd to Fire Road 46 (which is located in the Town of Northport), including properties that have road frontage on Hazeltine Road, Seaside Drive, and Tozier Street in Belfast, and Fire Roads 46, 47 and 48 in Northport.

This information shall be provided in tabular and map form, and the overall area shall be divided into two areas, Area 1 and Area 2, as such are described below.

In Area 1, Nordic, within 180 days of issuance of a City Groundwater Permit, shall contact all owners of a developed property, and if the property has one or more private wells, request that the owner allow Nordic to install equipment to monitor their private well(s), including agricultural wells. Nordic shall install monitoring equipment on all wells on which they receive permission, unless it is impractical to install such equipment, and shall identify property owners who choose not to allow monitoring equipment. Nordic shall actively monitor these private wells **for both water quantity and quality consistent with requirements established in the WRMP (water levels in private wells shall be measured with transducers at 15 minute intervals and water quality samples shall be collected quarterly).**

Area 1 shall include the developed properties identified below:

- All developed properties located within the 5 foot drawdown area depicted on the map prepared by McDonald & Morrissey entitled "Simulated Maximum drawdown for scenario 1 within model layer 3." This map is attached to these Conditions of Approval.
- All developed properties on Perkins Road. This specifically includes the active agricultural wells for the Good Karma Farm.
- All developed properties on Reed Lane. Nordic shall take all reasonable efforts to monitor at least one of the private wells on Reeds Lane.
- Route One (from Battery Road intersection to Northport/Belfast Town), Hazeltine Road, Tozier Street and Seaside Drive.
- Any properties that are not located within this area and that are now (as of December 16, 2020) actively being monitored by Nordic.

Area 2 shall include all other developed properties that are located outside of the 5' drawdown area identified on the above referenced McDonald & Morrissey map, or that have road frontage on one of the roads identified in this Condition that are not included in Area 1. In Area 2, Nordic, within 180 days of issuance of a City Groundwater Permit, shall complete an inventory of all properties, and shall include such inventory in the revised WRMP.

6. Monitoring Information to Property Owners

During construction and operation of the facility, Nordic shall report water level and quality data collected at the individual private wells located in Area 1 and Area 2 (reference Condition #5) to the respective owners of those wells on no less than a semi-annual basis, and shall provide the Code and Planning Department a copy of all test results provided to property owners. Post establishment of the initial monitoring program, Nordic shall accept new requests from owners in the monitoring area to add their wells to the monitoring program. These practices shall be described in the revised WRMP.

7. Specific Monitoring Requirements During Project Construction.

During project construction, Nordic shall implement the monitoring program in the DEP approved revised WRMP to collect baseline data and use that baseline data to develop alert and action criteria which Nordic, in consultation with the City Code and Planning Department and compliant with DEP specifications, shall evaluate to modify its operations to preserve the baseline quality and quantity of water available to existing private wells. Nordic shall also use the collected baseline monitoring data to establish minimum flows in the Little River and to develop warning levels above the minimum flows as specified by the DEP.

8. Requirements Regarding Action Alerts.

Prior to the start of facility operations, Nordic shall submit, for review and approval by the City Planning Board, documentation that specifies alert and action criteria for private wells and proposes specific actions that Nordic will take if alert or action criteria occur to correct the condition so that domestic water is available at baseline levels for the affected properties. This documentation shall also identify minimum flow for the Little River, a warning level above this flow, a plan to determine whether Nordic operations are influencing flows in the River and if so, a plan to maintain minimum flows within the affected reach of the River. Further, if the results of this monitoring program identify the need to expand the size of the monitoring area or enhance the quality of the monitoring program, the Belfast Planning Board shall have the authority to require Nordic to submit additional documentation to address these concerns for the review and approval of the Belfast Planning Board.

9. Maximum Amount of Water Use from Groundwater Wells.

The Planning Board reviewed maximum daily, weekly, monthly and annual groundwater extraction rate for the Nordic project. The maximum rate of extraction shall be consistent with the following table identified in Attachment 23 of the Nordic Site Plan application. The Planning Board requires Nordic to provide monthly reports to the Code and Planning Department on the rate of extraction based on the daily amount of water extraction for the 3 combined wells, a maximum rate of 655,200 gallons per day. The City shall use the weekly rate of extraction to determine Nordic’s compliance with this Condition.

Well Name:	PW-1	GWW-103	DRX-102	Total
Gallons per minute	250	175	30	455
Gallons per day	360,000	252,000	43,200	655,200
Gallons per week	2,520,000	1,764,000	302,400	4,586,400
Gallons per month	10,950,000	7,665,000	1,314,000	19,929,000
Gallons per year	131,400,000	91,980,000	15,768,000	239,148,100

10. Nordic Payment to City for Independent Expert Review Services.

Nordic shall pay City costs to engage the services of an independent expert to review and assess data collected through the revised WRMP and/or pursuant to conditions to this Permit and to provide professional advice to the Code and Planning Department and Belfast Planning Board. Nordic's initial payment to the City shall occur prior to the submission of the revised WRMP identified in Condition of Approval # 3, and shall subsequently occur by January 15 of each year that the facility is in operation. The City Code and Planning Department shall determine the amount of the professional service fee that must be paid on an annual basis, and shall provide Nordic an annual report on how the City expended the fee it collected. Any unused portion of this professional service fee shall be refunded or applied to reduce the fee amount for the following year as agreed by Nordic and the City.

11. Nordic Requirement to Ensure Private Property Owners are 'Whole'.

Nordic shall be responsible for ensuring the integrity of the quantity and quality of water in private wells in the surrounding area with respect to any short-term or long-term degradation in water quantity and quality that is attributable to Nordic's operations. If the City Code and Planning Department determines that a property owner's private well has been adversely impacted by Nordic's use of its on-site groundwater wells or Nordic's extraction of surface water from the Little River, Nordic shall be responsible for making the private property owner 'whole' by measures such as but not necessarily limited to connecting the property to public water, the drilling of a new well, installation of a water quality treatment system or other measures as may be identified by the City. Nordic shall be responsible for implementing the restorative measures identified by the City within 60 days of receiving written Notice from the Code and Planning Department. If Nordic fails to comply with terms of the City Notice, the City can pursue the failure as a Notice of Violation pursuant to Chapter 102, Zoning, Article II, Administration, Division 5, Enforcement. The Code and Planning Department, working in conjunction with City Attorney, also can choose to use funds in the Performance Guarantee stipulated in Condition of Approval # 12 of this Permit to implement restorative measures if Nordic fails to act.

The terms of this Condition, however, shall not preclude a private property owner's right to pursue legal action against Nordic to resolve concerns regarding the alleged degradation of their private well.

12. Nordic Requirement to Provide Performance Guarantee.

Nordic, prior to the operation of any on-site significant groundwater well, shall post a performance guarantee with the City that the City can use to complete restorative measures to a property owner's private well if Nordic fails to complete the restorative measures identified by the City within the time period stipulated by the City. The performance

guarantee must be in a form found acceptable to the Belfast City Attorney, and may include any of the following:

- a) A certified check payable to the City or a savings account or certificate of deposit naming the City as owner for the establishment of an escrow account.
- (b) A performance bond payable to the City issued by a surety company, approved by the City attorney.
- (c) An irrevocable letter of credit from a financial institution to the City in a form satisfactory to the City attorney.

The initial amount of the performance guarantee shall be \$250,000. The Code and Planning Department shall examine the amount of the guarantee annually to determine if the amount of the guarantee is appropriate based on the amount of risk to private wells associated with Nordic's operations, and shall make recommendations to the City Attorney regarding any proposed change in the amount of the guarantee. Said performance guarantee shall remain in place for a minimum of three years after Nordic ceases to extract and use groundwater from its on-site groundwater wells.

13. Board Consideration of Information in Issuance of Permit.

In granting this permit approval, the Planning Board has relied upon the oral and written representations of Nordic, its agents, experts and officers, including representations on the record and as part of the application process, such as clarifying emails and communications to the Code and Planning Department. Material deviations or violations of the filings and representations may cause the approval to be subject to review by the Planning Board regarding compliance with its findings of fact, conclusions of law and conditions of approval.

14. City Enforcement of Permit Conditions.

Failure to comply with any Condition of Approval identified in this Permit may result in any or all of the following actions:

- a. Issuance of a Stop Work Order;
- b. Denial or revocation of any Building Permit;
- c. Review, modification or revocation, after hearing, of any permit or approval issued to this project by the Planning Board or Code Enforcement Officer;
- d. A requirement that the Applicant conform with all performance standards and review criteria of all ordinances within the Belfast Code of Ordinances within a definite time period; and/or
- e. Referral to the Belfast Code Enforcement officer, or any State of Maine or Federal permitting agency or enforcement authority.