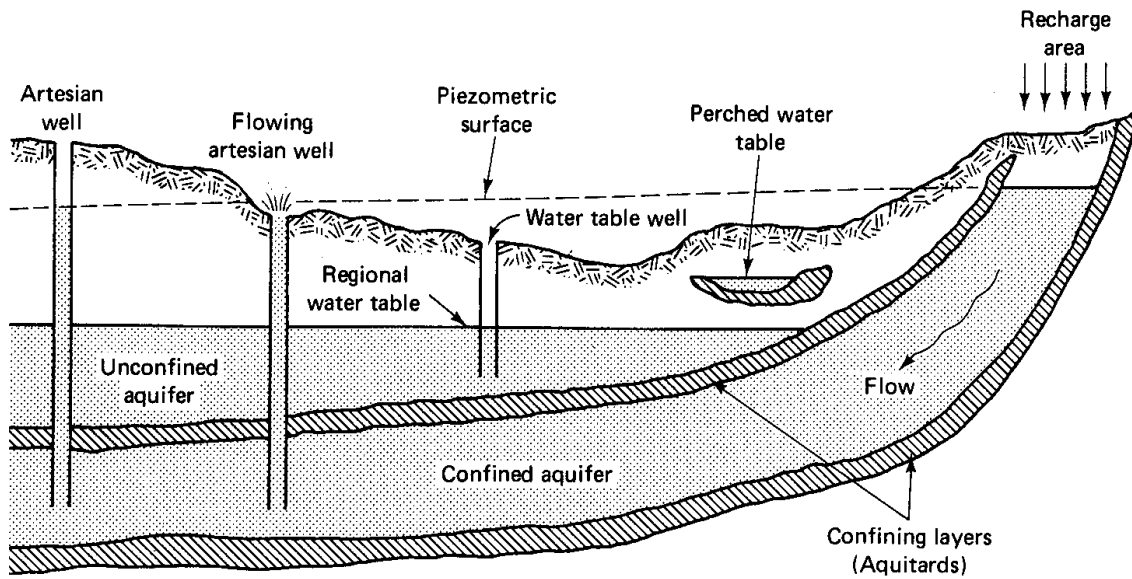


# TOWN OF NEWFIELD

## LARGE SCALE WATER EXTRACTION ORDINANCE

January 13, 2008



## **Article I. TITLE**

This ordinance shall be known and cited as the “Large Scale Water Extraction Ordinance” of the Town of Newfield, Maine.

## **Article II. PURPOSE**

The intent and purposes of this ordinance are:

- to protect the quality and quantity of groundwater, spring water and/or water in aquifers and their recharge areas as well as surface waters such as lakes, ponds, wetlands and streams located wholly or partially within the Town of Newfield;
- to insure that any large scale water extraction is subjected to prior review and approval so as to establish the ongoing sustainability and quality of said water supplies and the avoidance of any interruption or degradation of water quality and quantity to members of the general public within the Town;
- to protect all private and public property, including all structures and facilities, and to insure no degradation of existing or new roadways;
- to minimize or limit excessive pumping noise, vibration, or pollution from all water extraction and related equipment and/or vehicles used in the project;
- to insure that any water extraction does not impair vegetative growth, including forested areas, and to insure the continuing stability and health of topsoil and surface land, especially in the extraction area;
- to provide for equitable access to water extraction; and
- to generally protect the health, safety and welfare of persons dependent upon such water supplies.

Nothing in this ordinance and no decision by the Planning Board hereunder shall be deemed to create groundwater rights other than those which the applicant may already have under Maine law.

## **Article III. AUTHORITY**

This ordinance is adopted and enacted pursuant to:

- Title 38 M.R.S.A. § 401.
- Maine Constitution, Article VIII, Part Second.
- 30 A M.R.S.A. § 2101 *et seq.* (“Municipal Home Rule”).
- 30A M.R.S.A. § 3001-3006 (“Ordinance Power”).
- Title 30-A M.R.S.A. § 4311 ( Growth Management).
- Title 22 M.R.S.A., § 2611 *et seq.* ( Drinking Water Regulations).

## **Article IV. DEFINITIONS**

Words and phrases, unless their context requires otherwise, shall be defined as follows: first as set forth below, second in accordance with their generally accepted technical meaning within the involved scientific disciplines, third as defined by Maine statutes, and fourth their common dictionary definition.

**“Agriculture”** is the production, keeping or maintenance for sale or lease, of plants and/or animals, including but not limited to: forages and sod crops; grains and seed crops; dairy animals and dairy products; poultry and poultry products; livestock; fruits and vegetables; and ornamental and greenhouse products. Agriculture includes tree farms and timber harvesting.

**“Aquifer”** is a water-bearing geologic formation capable of yielding a usable amount of ground water to a well. In Maine there are two types of aquifers; loose soil materials (such as sand, gravel, and other sediments) and fractured bedrock.

**“Extraction”** or (“water extraction” or “extraction of water”) means withdrawal, removal, diversion, taking, or collection by any means of water from ground water sources, aquifers, springs, wells, pumps, pipes or similar sources.

**“Extraction point”** or “Extraction facility” means the physical location where water is extracted, whether by well, pump, pipeline, catchments, or other similar method.

**“Ground water”** is water found below the land surface in the pore spaces between sand grains and in fractures in the bedrock.

**“Isotope Hydrology”** is a scientific method to discover the age of groundwater, defined as the last time it had contact with the atmosphere.

**“Large scale water extraction”** means extraction of more than one thousand (1,000) gallons per acre per day, or more than an aggregate of ten thousand (10,000) gallons per day (from an aggregate of sites of more than ten (10) acres of ground water, spring water and/or water from aquifers or their recharge areas) by any one entity or person, or consortium or association of entities or persons acting in concert, regardless of the number of extraction facilities utilized.

**“Secchi disk”** is a device used to measure water transparency in open waters of lakes, bays, and oceans.

**“Structure”** – means a walled and roofed building or liquid storage tank.

**“Water bodies”** and “surface water(s)” are used interchangeably and include lakes, ponds, river, streams, wetlands and similar bodies of surface water.

**“Zone of Contribution (ZOC)”<sup>1</sup>** means that area of an aquifer (even if beyond Town borders) that contributes water to a well or other extraction point under the most severe pumping and recharge conditions that can be realistically anticipated, e.g. one hundred and eighty (180) days of pumping at approved yield with no recharge from precipitation. It is bounded by the groundwater divides that result from pumping the well and by the contact of the aquifer with less permeable materials such as till or bedrock. In some cases, streams or lakes may act as recharge boundaries. In all cases the Zone of Contribution shall extend up gradient to its point of intersection with prevailing hydro

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<sup>1</sup> Note that the “Zone of Contribution” can be different than a “Watershed” which is the area of land from which rainfall (and/or snow melt) drains into a single point. Watersheds are also sometimes referred to as drainage basins or drainage areas. Ridges of higher ground generally form the boundaries between watersheds. In some places a subsurface drainage divide forms the boundary. At these boundaries, rain falling on one side flows toward the low point of one watershed, while rain falling on the other side of the boundary flows toward the low point of a different watershed

geologic boundaries (a groundwater flow divide, a contact with till or bedrock, or a recharge boundary)

### **Potentiometric surfaces**

1. The level to which the water in an artesian aquifer would rise if unaffected by friction with the surrounding rocks and sediments.

2. An imaginary surface representing the total head of ground water; defined by the level to which water will rise in a well. The water table is a particular potentiometric surface.

**“Zone of Influence (ZOI)”** means the area surrounding a pumping well within which the water table or Potentiometric Surfaces change due to ground-water withdrawal.

## **Article V. PERMIT APPLICATION AND REVIEW PROCESS**

### **A. Permit Required**

Large scale water extraction shall require a Conditional Use Permit issued by the Planning Board, after a public hearing and opportunity for public comment. The amount of one thousand (1,000) gallons per acre is about one-third (1/3) of the average daily precipitation on an acre of land in Maine and in and around Newfield.

### **B. Certificate of Non Applicability**

1.This ordinance shall not apply to any person or entity who has obtained a Certificate of Non-Applicability. To obtain such Certificate, an applicant must file a written request and bears the burden of demonstrating to the reviewing authority that the proposed groundwater extraction falls within one or more of the following exemptions:

- (a) The entity extracting the water is a public company supplying drinking water and domestic water operating under regulatory authority of a state public utility commission; provided however the use of water extracted need not be limited to supplying drinking water and domestic water; or
- (b) The entity extracting the water is supplying water for its own use on adjacent or other premises in the immediate vicinity of the extraction point;or
- (c) The water extracted will be used for agricultural purposes, and utilized on the farm or other farms or agricultural uses in the immediate vicinity of the extraction point; or
- (d) The entity extracting the water was extracting water prior to the enactment of this Ordinance, and the volume to be extracted will not increase by more than 50% of its historical use.

The reviewing agency shall schedule a public hearing prior to making its determination whether the applicant qualifies for an exemption. The applicant shall pay the cost of all notification for the public hearing. In the event that the reviewing agency deems it necessary, it may obtain independent technical advice to assist with its review. The public hearing and review shall be conducted as provided in Article V.E and V.F herein.

### **C. General Requirements**

1.In addition to the requirements of this ordinance, any large scale water extraction operation must meet all applicable requirements of the Land Use and Zoning Ordinance of the Town of Newfield, Maine.

2.If at any time during its review of the application, the Newfield Planning Board decides that professional expertise and analysis are needed, expert assistance will be sought. The full cost of all experts and consultants will be borne by the applicant. Before any technical expert(s) are engaged by the Board, a written estimate of the expert's fees and costs, will be requested and will be provided to the applicant. Funds to cover the expert's estimated fees and costs shall be paid to the Town prior to any review/analysis

by the experts. Said funds shall be due in their entirety within twenty-one (21) days from the date that the Board provides the applicant with the estimate. If the applicant fails to provide the Board with the funds within twenty-one (21) days of the date of mailing of the estimate, the application will be considered withdrawn.

3. The applicant shall also be responsible for all costs associated with the application process, including, but not limited to advertising, scheduling, and holding public hearing(s). These funds shall be submitted in their entirety to the Town at least twenty-one (21) days prior to the agreed upon public hearing.

4. If the applicant notifies the Board in writing that it wishes to withdraw its application, only those funds which have not yet been expended or committed shall be returned to the applicant within 30 days of said notice.

#### D. Application Requirements

The basic application requirements, performance requirements, and application review standards for Conditional Use Permits are described in the *Newfield Zoning Ordinance*. The application requirements, performance requirements and application review standards described in this ordinance are in *addition* to those contained in the *Newfield Zoning Ordinance*.

1. The application shall be in writing and be accompanied by site plans prepared by a geologist certified by the state of Maine.
2. The application shall include:
  - (a) Evidence of applicant's right, title and interest in and to the property(ies) from which the water is to be extracted. If such evidence is other than outright ownership and title as evidenced by a deed duly recorded in the York County Registry of Deeds, the entire document/documentation (other than reference(s) to purchase price and financing terms, which may be redacted) whether by lease, option, contract or otherwise establishing right, title and interest shall be submitted with the application. Copies of all covenants, deed restrictions, easements, rights of way or other encumbrances currently affecting the property shall also be provided. Only land for which evidence of right title and interest has been provided to the Planning Board shall be considered in calculating the daily extraction limit as set forth in Article VI.A.8 applied to each extraction point.
  - (b) A statement of the total maximum daily quantity of water to be extracted, from each extraction point (as well as the aggregate) operated by the same individual or entity, or consortium or association of individuals or entities.
  - (c) The location(s) of the points of extraction.
  - (d) The method(s) of extraction, type of aquifer(s), and depth of extraction(s).
  - (e) The proposed use for which the water is to be extracted, including the identity and location of any end user of the extracted water whose facilities for use, processing, transporting, storage, bottling, shipping, piping, sales or other similar activities are located outside the Town of Newfield.
  - (f) A copy of any related application and exhibits and reports for such extraction filed or to be filed with any other municipal authority or any agency or department of the State of Maine or Federal government, including, but not limited to, as required by 22 M.R.S.A. 2660 *et seq.* (transport of water for commercial purposes) or under

- applicable Department of Health and Human Services rules and regulations.
- (g) A copy of any related permit, approval, or denial for such extraction as may have been issued by any agency referred to in (f) above. Such documents include, but are not limited to, DHHS Bulk Water Transport Permit, DHHS Public Water Supply approval, DEP Site Location License, and DEP Wetlands Alteration Permit (as appropriate).
  - (h) A written report, certified to the Newfield Planning Board, procured and paid for by the applicant, of a hydro geological investigation and study, conducted and prepared by a Maine Certified Geologist. The report shall be based on a hydro geological investigation of sufficient detail to provide, but not be limited to the following information:
    - (1) a map of the entire topographic drainage basin both up gradient of the water extraction site(s) as well as the Zone of Influence downstream of the extraction site(s). Topographic contours shall be shown at an interval of twenty (20) feet or less.
    - (2) two maps of the aquifer showing the spring(s), well(s), or excavation (s) from which water is to be extracted, wetlands, and surface water bodies within two thousand (2,000) feet of the extraction site(s). These maps shall be at a scale of one hundred (100) feet to an inch or better and include surface topographic contours as in (1), above. The two maps shall show the following information respectively: (a) Water Table contours and the range of those under ambient conditions as determined over at least a two (2) year period prior to any water extraction; and (b) Water Table contours under actual pumping conditions at the completion of a five day constant rate pumping test at a rate at or above that proposed for operation. These maps shall be based on Water Table elevation measurements from monitoring wells and surface water bodies in the vicinity of the extraction site(s), and must include surface water elevations for more distant locations. The applicant shall take reasonable measures to obtain such data from land not owned, leased, or to be leased by the applicant but the applicant is not required to include such data from land whose owners do not allow access. Graphs of precipitation flow of water in related streams, brooks, or rivers and the Water Table elevation over the two-year period prior to any water extraction shall be provided as well as explanation of the significance of the data. Similarly graphs of precipitation, flow of water in related streams, brooks, or rivers, and Water Table elevations shall be provided for the period of the pumping test and ten days afterward.
    - (3) at least two geologic cross-sections showing geologic structure, ground water, and surface water elevations for each of the maps provided in (2), above. The locations of said cross-sections to be indicated on said maps.
    - (4) a map showing the long-term Zone of Contribution and Zone of Influence of the extraction site(s) based on maximum proposed extraction rates, and a quantitative water budget analysis that includes precipitation input, evaporation losses, surface water runoff, ground water flux, and discharge-recharge relationships between surface water and ground water and their relationship to the soil types in the drainage basin. Such maps shall also indicate the areas of owned and leased lands.
    - (5) an explanation of the ability of the aquifer or other ground water source to deliver the water desired to be extracted by the applicant based on the geologic structure and material properties (e.g., conductivity and transmissivity); such

explanation to include rates of draw down and recharge, sustainable extraction rates, aquifer boundaries, recharge areas, possible changes in the Zone of Contribution and Zone of Influence over time, prediction of the affects of long-term water extraction on the water table, and impacts on any and all existing water bodies including but not limited to lakes, ponds, rivers, streams and wetland areas, Town wells, and private wells or other existing extraction locations within the Zone of Contribution.

(6) the chemical and biological characteristics of the aquifer or other groundwater source and a baseline chemical fingerprint of the water (taken for one (1) year on a monthly basis before testing for draw down) including, but not limited to those items listed in VI.A.7.

(7) possible effects on the aquifer or other ground water resources which might result in the disturbance of existing minerals such as, but not limited to iron, manganese, arsenic, or uranium, and any health hazards raised by such disturbance(s) or other impacts including issues such as drinking water turbidity, clarity and aroma.

(8) Isotope hydrology testing to be conducted to determine the age, origin, size, and flow of the water in order to determine if the water is replenishable.

- (i) A traffic impact analysis, prepared, signed, and sealed by a Professional Engineer registered in the State of Maine with experience in traffic engineering. The analysis shall indicate routes to be used, the expected average daily vehicular trips, peak-hour volumes, access conditions at the site, distribution of traffic, types and weights of vehicles expected, an assessment of the load capability of the roads/streets to be used, effect upon the level of service of the street giving access to the site and neighboring streets which may be affected, and recommended improvements to maintain the desired level of service on the affected streets.
- (j) A small-scale site plan depicting at least the following:
  - (1) the limits (outside perimeter) of the aquifer or other water source cited in the application and the bounds of the land of the applicant.
  - (2) the location of all water bodies located within 500 feet of the outside perimeter of the aquifer or other water source.
  - (3) the location(s) of the proposed extraction points.
  - (4) the existing network of public or private roads leading to or by the extraction point(s).
  - (5) any proposed new roads or driveways to be constructed for access to and egress from the extraction point(s), and the point(s) of intersection of such proposed roads or driveways with existing roads.
  - (6) any existing or proposed utility lines to be used in the extraction operation(s).
  - (7) the location and type of monitoring and test wells. Article VI.A. (Geologic and Hydrologic Standards).
  - (8) any existing or proposed pipes, pipelines, aqueducts or similar that are intended to facilitate transport of extracted water from the extraction point(s).
  - (9) any other relevant and material detail(s) bearing on the proposed extraction process, the omission of which would tend to hinder the ability of the reviewing authority, affected land owners, or the public from developing a full understanding of the scope and impact of the proposal.
- (k) A large scale site plan depicting at least the following:
  - (1) a detailed plan of the extraction point(s) including without limitation well heads, pumping facilities, monitoring or test wells, lighting, all structures (including but not limited to buildings, sheds, tanks and silos), paving, vehicular drives, parking

and turn arounds, utility lines, fencing, pipelines, access roads or driveways, elevations and contour lines.

- (2) any other relevant and material detail(s) bearing on the proposed extraction process the omission of which would tend to hinder the ability of the reviewing authority, affected landowners or the public from developing a full understanding of the scope and impact of the proposal. Examples include: impacts due to noise, times of operation, and air pollution.
  - (l) For any site development, a Storm Water Management Plan, prepared, signed, and sealed by a Professional Engineer registered in the State of Maine in accordance with the most recent revision of *Stormwater Management for Maine: Best Management Practices*, published by the Maine Department of Environmental Protection.
  - (m) For any site development, an Erosion and Sedimentation Control Plan prepared, signed, and sealed by a Professional Engineer registered in the State of Maine in accordance with the most recent revision of *Maine Erosion and Sediment BMPS* published by the Bureau of Land and Water Quality, Maine Department of Environmental Protection.
  - (n) An explanation of the benefits to the community.
  - (o) A list of the people to be notified (Article V.D.3).
3. The applicant shall provide written notification of the application, an explanation of the intent, scope and location of the proposed water extraction in terms readily understandable to a layman, and a notification of the date, time, and place of the public hearing, to be addressed and mailed, via certified mail, return receipt requested, to the following:
- (a) The owners of record of all properties abutting the property(ies) from which the water is to be extracted.
  - (b) The owners of record of all parcels of land lying within the Zone of Contribution and the Zone of Influence for the extraction points.
  - (c) The owners of record of all parcels of land having frontage on any body of water whether lake, pond, river, stream or wetland where any portion of the body of water is within the Zone of Contribution or the Zone of Influence.
  - (d) For purposes of these notification requirements an applicant is entitled to rely on information on file at the Newfield Town Office contained in its most recent assessors' maps and the mailing addresses of the owners of the affected parcels shown thereon. Actual posting of the certified mail notices is not required until the application is declared or deemed to be complete and the Planning Board has determined the date, time and place of the Public Hearing.
  - (e) for good cause shown, the above notice requirements may be modified by the Planning Board where, for example, it can be established that a body of water, a portion of which lies within the Zone of Contribution or the Zone of Influence, extends so far from the proposed extraction point (s) that actual notice to the owners of all land having frontage on that body of water is not necessary.

#### E. Application Process

1. Twelve (12) copies of the entire application, including studies, reports, site plans and all other items referred to in Article V.D, shall be submitted to the Planning Board at least twenty-one (21) days before a regular meeting of the

Planning Board. The application shall be placed on the next available spot for new applications on the Planning Board's agenda and the applicant shall be notified of the date and time. The applicant shall present the application at that meeting and the application shall then be considered as "submitted" but not "complete".

2. Fees that shall accompany the application:

- (a) The standard Application for Water Extraction fee is one hundred dollars (\$100.00), payable to the Town of Newfield.
- (b) In addition, the applicant shall pay a fee twenty-one (21) days prior to a public hearing sufficient to cover the estimated costs of advertising and other mailings associated with the application and review process except those mailings required to be sent by the applicant as notice to interested persons pursuant to Article V.D.3. The amount of this fee shall be determined by the Planning Board and will be based on previous experience.
- (c) Independent consultant fee- These funds are to be used by the Board for hiring an independent consulting service. The cost for conducting a study will be obtained by the board from the consulting firm. The applicant must then pay this fee before the study is undertaken. The board shall determine if sufficient funds have been deposited in a bank account or a special town account to cover all costs for doing this study. If the applicant does not provide the additional funds within twenty-one (21) days, the application shall be deemed in violation and will be withdrawn.

- 3. Within twenty-one days (21) of receiving an application, the Planning Board shall conduct a preliminary review of the application solely for the purpose of determining whether the application is complete as required by this ordinance. Any review by the Board for completeness is preliminary only and is not to be deemed a substantive review and confers no vested rights upon the applicant or the application. Substantive review shall not be deemed to occur until a public hearing on the application has commenced under this ordinance.
- 4. If the Planning Board deems the application incomplete in any material respect, it shall so inform the applicant in writing. After such notification, the applicant shall have a reasonable period of time, not to exceed sixty (60) days to complete its application in accordance with this ordinance, failure of which the application shall be deemed withdrawn. Additional material shall be submitted and reviewed by the Planning Board pursuant to Articles V.D.1 through V.D.3 herein.
- 5. After the Planning Board has determined that the application is complete, the Board shall have thirty-five (35) days to notify the applicant that the application is complete.
- 6. The Planning Board shall have thirty-five (35) days from the date it determines the application is complete to select independent technical evaluators and to send appropriate application materials to them. The Board shall endeavor to select qualified evaluators that can respond within ninety (90) days; however, the Board may extend that time as necessary depending on the complexity of the application and review process.
- 7. The Planning Board shall schedule a public hearing on the application to be held at a

date not later than forty-five (45) days from the date of receipt of the independent technical evaluation reports.

8. The Planning Board shall notify the applicant, the Code- Enforcement Officer, Municipal Officers, and Board of Appeals at least twenty (20) days in advance, of the time and place of the public hearing, shall publish notice of the public hearing at least ten (10) days in advance in a newspaper of general circulation in the area, and shall post a notice of said hearing at three conspicuous public places within the Town
9. Applicant's obligations of written notification via certified mail of property owners as set forth in V.D.3 above shall not accrue until the application is declared or deemed complete under this ordinance and the Planning Board schedules the date of the Public Hearing.

F. Review Process: Hearing Process

1. The completed application shall be reviewed by the Planning Board at a Public Hearing convened for that purpose, provided that:
  - (a) the applicant shows proof that certified mail notice has been sent to all affected landowners as previously set forth in this ordinance; and
  - (b) the applicant has paid all fees, technical evaluation expenses, and other expenses authorized by the Planning Board for the application.
2. The Hearing shall be conducted in the manner specified for Public Hearings as outlined in the Planning Board By-laws of the Town of Newfield.

G. Decisions:

1. Upon the adjournment of the Public Hearing the Planning Board shall schedule a public session of the Board, to occur not later than thirty-five (35) days from the final adjournment of the Public Hearing, to deliberate and render a decision
2. The Planning Board's decision may be:
  - (a) to approve the application;
  - (b) to deny the application; or
  - (c) to approve the application with conditions and/or stipulations
3. Any approval shall specify a daily extraction total not exceeding the maximum daily quantity set forth in the application, and any increase in such daily total shall require further application and review in accordance with this ordinance.
4. The Planning Board shall issue a written decision with findings of fact and rulings and conclusions not later than thirty (30) days from the date on which it votes at a public session to approve, deny, or approve with conditions, and a copy of such written decision shall thereupon promptly be provided to the applicant and be available to the public at the Town Office.
5. The Planning Board's decision to approve, deny or approve with conditions can be appealed to the York County Superior Court within thirty (30) days of the date of the Board's written decision in accordance with the Maine Rules of Civil Procedure.
6. Any extraction permit granted hereunder shall be for a period not to exceed three (3) years, but may be renewed subject to the same criteria contained herein.

#### H. Application for Permit Amendment or Renewal:

1. If there is to be any increase in extraction, change in the location or configuration of the extraction facility, change in the right of title, and interest of the property associated with the extraction point(s), or change in the amount or patterns of traffic generated, a full application shall be submitted and the timetable for a new application shall be applicable (see Article V).
2. If there are to be no changes, an abbreviated renewal application may be submitted. Such an abbreviated application for a renewal permit must be filed with the reviewing authority not less than ninety (90) days prior to the expiration of the existing permit. In this application, the applicant shall demonstrate through appropriate description, tables, and charts that:
  - (a) there has been and will be no increase in the permit holder's extraction activities in terms of the quantity of water extracted; and
  - (b) there has been and will be no change in the location or configuration of the extraction facility; and
  - (c) there has been and will be no increase in the amount of traffic from that which was originally proposed, and
  - (d) there has been no material deviation from the performance standards (Article VI).
3. In either case, the Planning Board shall schedule a public hearing (see Articles V.E and V.F) and the applicant shall provide notice pursuant to Article V.D.3. A decision on the renewal shall be provided as per Article V.G.
4. A permit may be renewed for another three (3) year period if the Planning Board finds the following:
  - (a) there has been no material failure by the permit holder to comply with any conditions of the expiring permit; and
  - (b) there has been no material failure by the permit holder to meet the Performance Standards (Article VI) applicable to the expiring permit.
  - (c) there is no significant, credible evidence that the permit holder's continuing operations would be unable to meet the Performance Standards of the ordinance during any renewal period.

## **Article VI. PERFORMANCE STANDARDS**

The Planning Board shall not grant approval for the Conditional Use Permit until it has affirmatively found that each of the following Performance Standards has been or will be met. The burden of establishing and demonstrating compliance with these Standards is solely the applicant's. The applicant must also demonstrate to the reviewing authority that it possesses the expertise and financial resources to provide continuing adherence to these standards.

### **A. Geological and Hydrologic Standards**

1. The quantity of water to be extracted will not cause significant changes in ground water flow patterns relating to the aquifer, its recharge areas, or other ground water sources within or outside the Town.
2. The quantity of water to be extracted will not negatively impact, diminish or alter any surface waters within the Town, including during any periods of drought (e.g. water levels will not be reduced below historical levels, no reduction in oxygen concentration profile, no increase in temperature profile, no increase in turbidity such as might be measured with a Secchi disk).
3. The extraction of water will not create increase erosion or sedimentation in the Zone of Influence or Zone of Contribution.
4. The quantity of water to be extracted will not cause ground subsidence thirty (30) feet before the property lines of applicant's property.
5. The quantity of water to be extracted will not adversely affect the long-term sustainability of the aquifer, its recharge areas, or other groundwater source, including during periods of drought.
6. A drop in groundwater level at monitored locations more than three (3) inches below the mean monthly level (as determined by the groundwater level measured in the test wells prior to the commencement of any extraction) shall be cause for the Town of Newfield to demand that all extractions cease until the groundwater level returns to two (2) inches below the original mean monthly level as defined above. This is to prevent the loss of future aquifer volume as hydrological data and research have proven that severe withdrawal of an aquifer causes it to lose its original capacity.
7. The quantity of water to be extracted will not adversely affect any pre-existing large scale water extraction entities.
8. Daily Extraction for each point of extraction shall be limited to thirty-three (33%) percent of the weighted average of the preceding five (5) months' precipitation rate times the area owned and/or leased (in the Zone of Contribution for each point of extraction) by the Applicant:

$$\text{Daily Extraction} = 33 * \text{Area} * (0.3 * P_{m_1} + 0.25 * P_{m_2} + 0.2 * P_{m_3} + 0.15 * P_{m_4} + 0.1 * P_{m_5})$$

gal/day

Where: "Area" = the land area (in acres) owned by the applicant *plus* that for which the applicant has a water extraction lease *less* an allowance of one-half (1/2) acre for each housing unit on the land owned or leased *less* one acre for each one thousand (1,000) gal/day extracted for other purposes within the owned and leased lands.

$Pm_i$  is the average daily rainfall (inches) in the  $i^{th}$  prior month as determined by the Maine State Climate Office for the Newfield vicinity.

The Planning Board shall reduce the percentage if the hydrological study shows the recharge of the aquifer does not support this rate of withdrawal. Withdrawal shall be no more than seventy-five (75%) percent of the anticipated recharge rate.

9. The proposed extraction will not create a health risk to humans or animals, wild or domestic, nor cause significant changes in drinking water obtained from wells in the Zone of Contribution or Zone of Influence (e.g., turbidity, clarity, aroma, etc. resulting from the disturbance of existing minerals, or from any other cause; below, for monitoring, testing and reporting requirements).

10. The establishment of an ongoing follow up monitoring system and development of a system of recording and documenting extraction and recharge data, within the Zone of Contribution and Zone of Influence, shall be reported in writing to the Newfield Code Enforcement Officer and the Newfield Board of Selectmen on a monthly basis. At least twenty-five (25%) percent of monitor locations shall be at private wells located within the Zone of Contribution and ten (10%) percent shall be at private wells located within the Zone of Influence that lies outside the Zone of Contribution.

Such monitoring and/or testing shall include the following:

- Reports of rainfall over the preceding five (5) months and a table showing the calculated limit of pumping ( VI.A.8), and the actual amount pumped for each point of extraction as well as the aggregate pumped at all extraction points.
- Water level measurements and quality testing shall be performed for all test wells.
- Water quality testing shall be performed by a Maine licensed testing laboratory approved by the Code Enforcement Officer.
- Information shall be gathered on appropriate water parameters including:
  - Water level
  - Flow rate in the aquifer
  - Turbidity
  - Transparency
  - Total phosphorus
  - Chlorophyll-a
  - Dissolved oxygen / Depth
  - Temperature / Depth
  - pH
  - Total organic carbon
  - Color
  - Pesticides / herbicides / chemical byproducts (e.g. Atrazine, Dioxin ...)
  - VOCs (Volatile Organic Compounds) (e.g. MTBE, Toluene ...)
  - Total Coliform / E. Coli

- Phytoplankton / Zooplankton
- Alkalinity
- Conductivity
- Aroma
- Mercury, Arsenic, Lead, Iron, Sulfur, Manganese, Magnesium, Copper
- Other items deemed appropriate by the Planning Board

The cost of establishing and maintaining said monitoring and reporting shall be borne exclusively by the applicant.

11. One or more representatives and/or officials of the Town of Newfield shall have immediate and unconditional access at any and all times, without prior notification, to the entire facility or facilities for oversight purposes.

12. Extraction well(s) are not permitted within one and one half (1.5) statute miles of any public well or public spring in the Town of Newfield and surrounding communities as identified by the State of Maine, Department of Health and Human Services, Maine Drinking Water Program, Public Resource Information System.

#### B. Impacts on the General Vicinity

1. Any development of the extraction sites will not cause changes in stormwater runoff, erosion, or sedimentation.
2. The Planning Board shall require the furnishing of a bond, proof of insurance, letter of credit or other performance guaranty it deems of equivalent security, made payable to the Town of Newfield, to secure the applicant's obligation under this Article should it determine that there is a substantial possibility of financial impact on the Town. Examples are: that a public water supply could be harmed by the proposed extraction, or that the Town would have to make public improvements (e.g., to avoid traffic hazards) if the applicant fails to do so.
3. The applicant assumes any and all liability for the loss, interruption, degradation or interference with the preexisting beneficial domestic use of groundwater by a landowner or lawful land occupant, or other public or private water supply, caused by the applicant's withdrawal or extraction of water. For the purposes of this section, "beneficial domestic use" and "preexisting use" shall be as defined by 38 M.R.S.A. § 404(1).
4. Liability for harmful groundwater withdrawal shall be governed by 38 MR.S.A. § 404(3)(A) which states:

The liability of applicant shall be for compensatory damages only, and shall be limited to the following:

- (a) All costs necessary to restore the landowner or lawful land occupant to a status which is reasonably equivalent in terms of

quantity and quality of groundwater, made available on a similarly accessible and economic basis;

(b)Compensatory damages for loss or damage to property, including, without limitation, the loss of habitability of residence, caused to the landowner or lawful land occupant by reason of the interference prior to restoration of the status provided for in subparagraph (a) and VI.A.9; and(c)Reasonable costs, including expert witness and attorney fees incurred in initiating and prosecuting an action when necessary to secure a judgment granting the relief provided for under 38 M.R.S.A., Article 1-B, "Groundwater Protection Program"..

5. Provision shall be made for vehicular access to extraction facilities and for circulation, loading and unloading upon the lot in such manner as to safeguard against hazards to traffic and pedestrians on adjacent streets or roads, to avoid traffic congestion and traffic safety hazards, as well as other safety risks.
6. Any driveways or access roads to the extraction facilities shall be designed to meet Maine Department of Transportation Driveway and Entrance Rules as well as with all road and driveway standards as specified in the *Newfield Zoning Ordinance* in order to withstand the weight, volume, and type of traffic expected.
7. Any vehicular demand on existing Town roads or public easements occasioned by the operation of the extraction and related storage and transfer facilities shall not exceed the capacity of those roads, as determined by the Newfield Road Commissioner or an independent technical evaluator, or cause the premature failure, aging or diminished utility of those roads. If the capacities of the roads to and from the extraction point(s) are inadequate, then before permitted extraction may begin, the applicant shall either upgrade the roads so that they are adequate for the traffic anticipated or provide an alternate means of moving the water (e.g. pipelines).
8. To the extent the extraction facilities will be served by pipes, pipelines, aqueducts or similar installations, such installations shall be sited and constructed in a manner which shall not:
  - (a) interrupt the public's use of any existing roadway,
  - (b) interrupt the public's access to any private facility, great pond or similar waterbody,
  - (c) interrupt private access to private property, or
  - (d) pose the risk of damage to any property along or through which such installation traverses as a result of any failure or malfunction which might cause ponding, erosion, run off or similar damage.
9. The proposed extraction and activities incident to such extraction (such as increased traffic [volume and type], parking, noise, glare from lights, or similar potential for nuisances) shall not cause an unreasonable negative impact on adjacent properties, and the nearby vicinity as a whole.

10. Hours of operation may not be before six a.m. or after nine p.m.. The Planning Board may add additional restrictions on time periods of truck traffic depending on the roads used (e.g. for safety at school opening/closing times; location relative to residential areas) or on hours of operation depending on the potential impact on neighboring properties. "Hours of Operation" refers to hours when employees or trucks are at the facility.
11. All water extraction meters must be calibrated, certified and sealed annually by the Maine State Department of Weights and Measures with all costs to be born by the applicant or the extractor.

C. Extraction for Commercial Purposes and/or Bulk Water Transport Out of Newfield

In addition to the foregoing performance standards, any application for an extraction permit, which includes or contemplates the transport of water out of the Town of Newfield, must also meet the following standards and requirements:

1. the Town must have received a copy of any related application filed with any state agency, under the provisions of 22 M.R.S.A. § 2660-A, or the Bulk Water Transport Rules of the Department of Human Services, contemporaneous with its filing with the State and a copy of any decision pertaining thereto which will be forwarded to the Planning Board; and
2. transport of the water will not constitute a threat to public health, safety or welfare; and
3. the water withdrawal will not adversely affect existing uses of groundwater or surface water resources, including private wells.

**Article VII. ONGOING MONITORING**

If a conditional permit requires ongoing and/or periodical monitoring by the Town, the applicant shall be required to pay to the Town of Newfield the amount needed to cover the costs of such monitoring plus any miscellaneous costs. If the applicant does not provide these, the permit shall be deemed to be in violation of this ordinance and shall be subject to suspension or revocation.

**Article VIII. CONCURRENT JURISDICTION**

As applicable, jurisdiction of the Planning Board under this ordinance is concurrent with such jurisdiction as may presently be vested in the Newfield Board of Appeals (under the *Newfield Zoning Ordinance*) and the Newfield Code Enforcement Officer/Local Plumbing Inspector (under the *Newfield Zoning Ordinance/State Plumbing Code*) and is not intended to divest them of existing jurisdiction as applicable, but rather establishes and imposes additional requirements and procedures as set forth herein.

## **Article IX. ENFORCEMENT,**

### A. Enforcement

1. It shall be the duty of the Code Enforcement Officer to enforce the provisions of this ordinance. If the Code Enforcement officer shall find that any provision of the ordinance is being violated, he or she shall notify in writing the person(s) responsible for such violation, indicating the nature of the violation and ordering the action necessary to correct it. Such notice shall be mailed by certified mail, with return receipt requested, or served in person by the Code Enforcement Officer. A copy of such notice shall be submitted to the municipal officers.
2. In the event that the violation is not corrected as directed, the Code Enforcement Officer is hereby authorized to institute or cause to be instituted by the Town attorney any and all actions that may be appropriate or necessary for the enforcement of this ordinance.
3. Any person, firm, corporation, or other entity which violates any of the provisions of this ordinance shall be penalized in accordance with 30-A M.R.S.A. § 4452, with fines of not less than \$100 nor more than those amounts set forth in 30-A M.R.S.A. § 4452. Each day may constitute a separate offense and fines may be assessed on a per day basis.
4. As an additional means of enforcement, the Planning Board may suspend or revoke any permit issued hereunder if it determines, after notice and public hearing, that:
  - (a) It was issued in error or upon incomplete information (e.g. not delivered and/or not waived) or upon submission of false information;
  - (b) the applicant has failed to comply with any conditions of approval;
  - (c) the applicant has failed to comply with any applicable state and/or federal law or regulations; or
  - (d) the applicant has failed to materially comply with the performance standards specified in this ordinance or in the *Newfield Zoning Ordinance*.
5. Upon such suspension or revocation of a permit, all water extraction addressed by said permit shall cease until a new approval or permit is obtained under this ordinance by the applicant. The permit holder shall be entitled to appeal any suspension or revocation of a permit in accordance with Article VII of the *Newfield Zoning Ordinance*.

## **ARTICLE X – SEVERABILITY AND CONFLICTS**

### A. Severability

Should any Article or provision of this ordinance be declared by a court of competent jurisdiction to be invalid, such decision shall not invalidate or affect the enforcement of any other Article or provision of this ordinance.

B. Conflicts

Whenever a provision of this ordinance conflicts with that of another ordinance or any other regulation of the Town of Newfield, the stricter shall prevail.

**Article XI. EFFECTIVE DATE**

This ordinance shall become effective immediately upon its adoption and enactment by vote of the legislative body of the Town at a Town meeting.