

TOWN OF MECHANIC FALLS

AQUIFER PROTECTION STANDARDS FOR THE WINTERBROOK AQUIFER

AQUIFER PROTECTION DISTRICT

A. PURPOSE

The purpose of this district is to protect the quality and quantity of the municipality's present and future ground water resources by regulating activities and land use practices. The protection of ground water is critical to promoting the health, safety and general welfare of the residents of the municipality.

B. DEFINITIONS FOR THIS DISTRICT

Aquifer: Geologic unit composed of rock, gravel, sand, silt, or clay, which unit contains sufficient saturated permeable materials to conduct groundwater and yield economically significant quantities of groundwater to wells, springs and streams.

Disposal: The deposit, injection, dumping, spilling, leaking, incineration, or placing of any material into or onto any land or water so that such material or any constituent thereof may enter the environment or any waters, including ground waters.

Groundwater: All of the water found beneath the surface of the ground. For purposes of aquifer protection, this term refers to the subsurface water present in aquifers and recharge areas.

Hazardous Materials: This term shall mean any gaseous, liquid or solid materials or substances designated as hazardous by the United States Environmental Protection Agency and/or the Maine Department of Environmental Protection.

Leachable Material: This terms shall mean liquid or solid materials, including but not limited to solid wastes, sludge, and agricultural wastes, that are capable of releasing contaminants into the groundwater.

Motorized Vehicle: Any vehicle powered by an internal-combustion engine.

Open Space: Land, which is not developed or altered by people for a specific use. Therefore, recreational areas such as baseball fields, golf courses, skimobile trails, etc. do not constitute open space.

Recharge Area: Area composed of porous sand and gravel, or other area that collects precipitation or surface water and carries it to aquifers.

Sludge: Residual materials produced by water or sewage treatment processes, industrial processes, or domestic septic tanks.

Solid Waste: Useless, unwanted, or discarded solid material with insufficient liquid content to be free flowing. This includes, but is not limited to, rubbish, garbage, scrap materials, junk and refuse.

Street: Public or private ways such as highways, roads, and other rights of way.

C. AQUIFER PROTECTION AREA

1. Delineation of Aquifer Protection Area

For the purposes of this Ordinance, the Aquifer Protection District shall be delineated on a map entitled "Winter Brook Aquifer Protection District Map: Town of Mechanic Falls". This map shall be deemed an integral part of this Ordinance and shall be on file at the Town Office.

2. The Aquifer Protection District shall overlay underlying districts, and its regulations shall supersede any other zoning restrictions applicable to the area within the District. Therefore, if there is any conflict between this Ordinance and sections of the Zoning & Land Use Ordinance or other municipal land use ordinances, this Ordinance shall control for all land within the Aquifer Protection District.

3. Aquifers and aquifer recharge areas are comprised of the following elements:

Zone A, as delineated on the official Aquifer Protection District map, consists of the area within 400 radial feet of the well

Zone B as delineated on the official Aquifer Protection District map, consists of the area within 3,000 radial ft. of well wherein sand, or sand and gravel soils predominate.

4. The delineation of aquifers, aquifer recharge areas, and Zones A and B may be revised by amendment to this Ordinance or to the official Aquifer Protection District maps in accordance with the procedures listed in the Mechanic Falls Zoning & Land Use Ordinance. The Planning Board shall notify the Mechanic Falls Water Department of any hearing to amend the ordinance at least 14 days prior to the date of the hearing.

Where the bounds as delineated are in doubt or dispute, the Planning Board shall hold a public hearing to receive evidence from the concerned party. The burden of proof shall be upon the owner or occupier of the land in question to show where the bounds should be properly located. The evidence shall include a report from a geologist licensed in the State of Maine with proven experience in hydrogeology. The Town may hire a hydrogeologist to review all information submitted by the owner/occupier and may charge the owner/occupier the cost of the consultant. Or, at the request of the owner, the Town may engage a licensed geologist to determine more accurately the location and extent of aquifers, aquifer recharge areas, and Zones A and B, and may charge the owner/occupier for the cost of investigation. Within 30 days of the hearing the Planning Board shall decide whether to recommend to the Council that an amendment to the official aquifer protection map be placed on the next warrant. If an amendment to the official aquifer protection map is approved by the vote of the Town's legislative body, the date of the revision and signature of the Chairman of the Planning Board certifying the revision shall be noted on the map.

5. Provisions of the Aquifer Protection District can be amended in accordance with procedures listed in the Mechanic Falls Zoning & Land Use Ordinance.

D. USES OF LAND WITHIN ZONES A AND B

1. Zone A

All uses are prohibited except the following:

Conservation of soil, water, plants, and wildlife

Outdoor recreation, including boating, fishing, nature study, and hunting where otherwise legally permitted

Foot/bicycle paths and bridges
Normal operation and maintenance of water supply facilities
Timber Harvesting
Existing uses, which are grandfathered
Use of motorized recreational vehicles is prohibited, and use of heavy machinery for timber harvesting requires a permit from the Planning Board as a Conditional Use.

2. Zone B

Prohibited Uses:

Disposal or storage of solid waste, hazardous materials, leachable materials (except subsurface disposal of domestic sewage), road salt (except as may be required for winter road maintenance), used automobiles, and sludge, except for use or storage of materials as an accessory use to an approved principal use or if permitted as a grandfathered use.
Boat and motor vehicle service and repair
Metal plating
Dry cleaning
Truck terminals
Animal feedlots
Golf courses
Furniture stripping, painting, and wood preserving
Pipelines for transmission of oil, gasoline, or hazardous materials
Aerial spraying of herbicides, insecticides
Spray irrigation of industrial sewage or wastewater
Sawmills or wood processing plants
Burning of structures or waste products, including slash
Underground storage of oil, fuel, or hazardous materials

Uses requiring a permit from the Planning Board as a Conditional Use:

Agricultural activities
Animal husbandry
Subdivisions of 20 acres or more
Power transmission lines
Use or storage of herbicides or pesticides other than for normal household use
Use or storage of fertilizer or manure other than for normal home garden care
Use or storage of oil, fuel, or petroleum in excess of 10 gallons. A person building a home in the Aquifer Protection District would need a permit for a fuel tank in excess of 10 gallons.
Use or storage of hazardous materials
Mining
Sand and gravel extraction
Normal operation and maintenance of water supply facilities

Permitted Uses:

All uses permitted in Zone A
Single-family residences
Uses of land customarily accessory to approved principal uses except those which are prohibited or require a permit from the Planning Board as a Conditional Use.

3. All uses in Zones A and B shall meet all applicable performance standards for the Aquifer Protection District.

E. PERFORMANCE STANDARDS

1. Clearing and Timber Harvesting:

- a. Harvesting activities may not create single openings greater than 14,000 square feet in the forest canopy. In such areas, single canopy openings of over 10,000 sq. ft. shall not be less than 100 feet from each other.
- b. Harvesting shall not remove, in any ten year period, more than 40 percent of the volume on each acre involved of trees 6 inches in diameter and larger measured at 4 1/2 feet above ground level. Removal of trees less than 6 inches in diameter, measured as above, is permitted if otherwise in conformance with these regulations. For the purpose of these standards, volume may be determined as being equivalent to basal area.
- c. All slash larger than 3 inches in diameter shall be disposed of in such a manner that no part thereof extends more than 4 ft. above the ground. Burning of slash is prohibited.
- d. Skid trails and skid roads shall be located and designed so as to divert water runoff from the trail or road and to prevent such runoff from entering any surface water.
- e. No clearing or harvesting of trees shall be conducted within 100 feet of Winter Brook, discharge brook for Tripp Lake, Poland, ME and/or its tributaries.
- f. No clearing or harvesting of trees shall be conducted during March, April, or May or any time when the water table is at or near the surface.

2. Lot Coverage:

No more than 45% of the total lot area shall be stripped of existing vegetation, and no more than 25% of the total lot area shall be rendered impervious.

3. Application of fertilizers and manure:

Application of nitrogen fertilizer or manure requires a permit from the Planning Board as a Conditional Use

- a. All manure spreading shall be carried out in accordance with Maine Guidelines for Manure and Manure Sludge Disposal on Land (Coop. Ext. Serv., Misc. Tech. Report 142, 1972) or the most recent update. Rate of application shall not exceed the maximum acceptable rate listed by soil type in these Guidelines.
- b. Provision shall be made to control runoff from areas where manure or fertilizer are being applied to the land.
- c. Application of fertilizer or manure to sand, or bare soil where the topsoil has been removed, is prohibited.
- d. Normal lawn maintenance and home garden care is allowed without a permit.

4. Manure storage:

Agricultural operations which generate or utilize manure must provide containment facilities for manure storage which shall be designed and operated according to the York County Soil and Water Conservation District Technical Guide, Standard and Specification Number 313 Sec. 4 (1982). Manure containment facilities must be adequate to hold one year's production and must be covered.

5. Animal husbandry:

Keeping of animals requires a permit from the Planning Board as a Conditional Use. The landowner shall develop and utilize conservation measures for managing manure generated on-site through collection, storage, or comparable measures. These measures must minimize potential impact on water quality and must be approved for effectiveness by the local soil and water conservation district.

6. Use of herbicides and pesticides:

Land application of herbicides and pesticides requires a permit from the Planning Board as a Conditional Use. Provision shall be made for control of surface runoff and erosion in areas where herbicides and pesticides are being applied. Normal lawn maintenance and home garden care are allowed without a permit.

7. Runoff and Drainage:

- a. Unless it can be shown that an increase in runoff will have no off-site impact, peak runoff from the site in the developed state shall not be increased beyond that in the undeveloped state.
- b. Provision shall be made for on-site recharge of stormwater runoff unless the Planning Board determines that recharge is infeasible because of site conditions or is undesirable because of uncontrollable risks to water quality from such recharge. Recharge shall be by surface infiltration through vegetative surfaces unless otherwise approved by the Planning Board.
- c. Dry wells shall be used for control of surface runoff only if other methods of control are infeasible. Dry wells shall not be used for disposal of any leachable materials or hazardous materials and shall not be connected to floor drains.

8. Pollution levels:

The concentration of any pollutant introduced into soil on the site will be attenuated to a contaminant concentration in the groundwater that is less than one half of the difference between the background concentration before the use or activity proposed under the provisions of the Aquifer Protection District and guideline established for that contaminant by the Safe Drinking Water Standard, EPA Health Advisory, or NAS Health Advisory. The background concentration of pollutants for a site shall be determined by obtaining water quality samples from on-site groundwater monitoring wells prior to the commencement of uses or activities proposed under the provisions of the Aquifer Protection District.

9. Safeguards:

Provision shall be made to protect against discharge or loss of toxic or hazardous materials resulting from corrosion, accidental damage, spillage or vandalism. These provisions shall include: spill control measures at hazardous material delivery, storage, and transfer points; secured storage areas for toxic or hazardous materials; and indoor storage provisions for corrodable or leachable materials. Handling and storage of toxic and hazardous materials shall meet performance standards established by the Maine Department of Environmental Protection.

10. Subsurface waste disposal system:

- a. No more than one residence shall be connected per subsurface waste disposal system, and no "engineered systems" (having a capacity in excess of 2,000 GPD as defined in State of Maine Subsurface Wastewater Disposal Rules) are permitted.
- b. Disposal of hazardous materials to subsurface waste disposal systems, including organic solvents designed for cleaning septic systems, is prohibited.
- c. Subsurface waste disposal systems in Zone A shall be pumped out at least every 3 years. Homeowners shall retain a receipt when their tank is pumped to demonstrate compliance to the Town representative during an inspection.

11. Storage tanks:

Storage of oil, fuel, and hazardous materials is allowed in Zone B only as an accessory use. All storage tanks for oil, fuel, and hazardous materials shall be above ground, protected from corrosion, and shall have a secondary containment system. All tanks shall be constructed over

an impermeable base. Outdoor tanks shall be surrounded by a berm which is roofed and which is large enough to contain the contents of the tank.

Any tank which does not meet the above-listed standards shall be non-conforming. All non-conforming above ground and indoor tanks must be equipped with a secondary containment system within one year of the effective date of this Ordinance. All underground tanks in place prior to the effective date of this Ordinance shall be non-conforming and shall be precision-tested annually. Tanks failing to pass the precision test shall be excavated and examined for leaks. If found to be leaking, any material discharged from the tank shall be removed at the expense of the owner in accordance with Title 38 M.R.S.A. sections 543 through 551. Any underground tank which is 20 years or older shall be excavated and permanently removed from service. If the age of a tank cannot be determined, it shall be assumed to be older than 20 years, excavated and removed from service.

12. Sand and gravel extraction:
 - a. Excavation shall not be allowed below 2 feet above the average seasonal high water table. Artificial lowering of the water table is prohibited.
 - b. Access roads into and around the pit shall not be oiled, salted, or paved.
 - c. The excavation area shall not be used for disposal of solid or hazardous wastes at any time, including the period following closure of the pit.
 - d. No fuel storage shall be allowed on site.

F. DIMENSIONAL STANDARDS

The dimensional standards of the underlying district shall be applied in the Aquifer Protection District, but the minimum lot size shall not be less than 3 acres.

G. ADMINISTRATION AND ENFORCEMENT

1. No activity or land use may be conducted in Zone A or B except in accordance with these provisions. Failure to conform to these provisions shall constitute a violation and shall be subject to the penalties set forth in the Mechanic Falls Zoning & Land Use Ordinance.
2. If any portion of a lot is located in Zone A, it shall be governed by the regulations for Zone A, and all land located in Zone B shall be governed by the regulations for Zone B.
3. Review of uses proposed in Zone B as Conditional Uses shall be conducted by the Planning Board. Conditional Use shall be granted if the Planning Board determines that the purpose of this District as well as its specific criteria are met. In making such determination, the Planning Board shall give consideration to: existing water quality; the proposed use or activity's potential impact on water quality; the simplicity, reliability, and feasibility of control measures proposed to limit this impact; and the degree of threat to water quality which would result if the control measures failed. To enable this determination, the Planning Board may require an applicant to submit a hydrogeological study of the impact of a proposed use or activity on water quality. The Planning Board may hire an expert to review all information submitted by the applicant and may charge the applicant the cost of the consultant. No activity or land use requiring a permit as a Conditional Use may be conducted in Zone B until such activity or use has been approved by the Planning Board.
4. The Code Enforcement Officer shall enforce the provisions of the Aquifer Protection District. The Code Enforcement Officer and/or a representative of the Town may, at reasonable hours, with the consent of the property owner, occupant, or agent, enter on any property or in any building within the District to inspect the property for compliance. Upon the request of the occupant of the premises, the CEO or Town representative shall present credentials prior to

entering the premises. If permission to enter property is not granted, an administrative warrant shall be secured from District Court prior to conducting the inspection.

5. A permit is required annually for the use of herbicides and pesticides. The applicant shall submit to the Planning Board: a site plan meeting the specifications set forth in Section H, a list of all the chemicals or natural products proposed for application, quantities to be applied, a detailed description of the application program, and water quality information gathered from monitoring wells on the site.

6. Monitoring wells can be required for any use requiring a permit as a Conditional Use or any other use deemed by the Planning Board to be an actual or potential source of pollution. The number, location, and depth of monitoring wells shall be determined by a hydrogeologist chosen or approved by the Town and shall be installed and sampled in accordance with "Guidelines for Monitoring Wells Installation and Sampling" (Tolman, Maine Geologic Survey, 1983). Monitoring wells shall be installed on the property, at the expense of the owner or occupier, within 500 feet of actual or potential pollution sources. The Planning Board shall determine, in consultation with the Town and/or a hydrogeologist, when monitoring wells shall be sampled. Result from monitoring well samples shall be submitted to the Town.

H. PLAN REVIEW SUBMISSIONS

Applications for permission to carry out any activity in Zone B shall be accompanied by a fee of \$100.00 and the following information:

1. A site plan drawn to a scale no smaller than 1 inch equals 100 feet showing:
 - a. Aquifer Protection District boundaries if they cross the parcel;
 - b. Boundaries of the site and abutting streets;
 - c. Outlines of all buildings;
 - d. Layout and location of access drives, parking areas, and vehicular maneuvering areas;
 - e. Location of all storage tanks;
 - f. Location of buffers, landscaping, and existing vegetation which will be retained;
 - g. Location and description of storage areas and types of materials to be stored;
 - h. Location, size, capacity and design of subsurface waste disposal systems, sewage lift stations, force mains, and grease traps;
 - i. Location of nearby wells or surface waterbodies which are part of a public drinking water supply;
 - j. Location of existing or proposed monitoring wells, where applicable. The Board may require additional information, including, but not limited to;
 - k. Groundwater contours of the seasonal high water table;
 - l. Location and design of stormwater drainage system, including runoff control measures;
 - m. Calculations of pre- and post-development runoff. Calculations must be prepared by a licensed engineer or hydrologist;
 - n. Background water quality data from on-site monitoring wells.
2. A complete list of all chemicals, pesticides, fuels, and other potentially toxic or hazardous materials to be used or stored on the premises in quantities greater than those associated with normal household use, accompanied by a description of measures proposed to protect all storage containers/facilities from vandalism, corrosion, and leakage, and measures proposed to provide for control of spills.
3. A description of potentially toxic or hazardous wastes to be generated on site, indicating storage and disposal methods.

4. For any storage of toxic or hazardous materials, evidence of qualified professional supervision of system design and installation.
5. A completed site evaluation form (HHE-200), where applicable.
6. Evidence of SCS approval of water quality control measures used in agricultural and animal husbandry operations, where applicable.
7. A hydrogeological study of the impact on groundwater quality of a use or activity proposed as a Conditional Use, if required by the Planning Board.
8. The method by which all applicable Performance Standards contained in Section E shall be complied with.

I. NONCONFORMITIES

1. Non-conforming uses shall not be extended or expanded.
 - a. In the case of dwellings, the buildings may be maintained, repaired, or renovated, but the addition of new bedrooms is prohibited unless the landowner can show that the expansion will not exceed the design capacity of the subsurface waste disposal system.
 - b. In the case of earth removal operations, the removal of earth may not be extended as a non-conforming use beyond the required setback lines of the specific parcel upon which such operations were in progress when such use became non-conforming. Adjacent parcels in the same or different ownership shall not be eligible for exemption under the non-conforming uses provisions unless earth removal operations were in progress on these parcels before these provisions were enacted.
2. A non-conforming use of a structure, building, or property may be changed to another non-conforming use by appeal to the Board of Appeals if the applicant presents the testimony of an expert witness that the proposed new use will be less detrimental to the Aquifer Protection District than the prior use is, and if the Board accepts that testimony as reliable.
3. A non-conforming single lot in Zone B of record prior to the effective date of this Ordinance may be built upon if it complies with this Ordinance and meets one of the following criteria:
 - a. lot size of 3 acres or larger
 - b. subsurface waste disposal system designed by a licensed engineer.
4. If any non-conforming uses ceases for any reason for a period of one year or more, such land and buildings shall thereafter be used and developed only in accordance with the terms of this Ordinance.
5. Wherever a non-conforming use is changed to a permitted use, such use shall not thereafter revert to non-conforming status.

J. VALIDITY AND SEVERABILITY

Should any section or provision of this Ordinance be declared by the courts to be invalid, such decision does not invalidate any other section or provision of the Ordinance.

Adopted by Mechanic Falls Town Council: March 9, 1998