

## Section I. SCOPE OF AUTHORITY

The Town of Wendell Board of Health adopts the following Aquifer Protection Regulation pursuant to authority granted by MGL c. 111, s. 31 and 122. This regulation shall apply, as specified in Section III, to all applicable facilities within the Town of Wendell.

## Section II. PURPOSE OF REGULATION

Whereas:

- ~~siting of~~ certain uses and activities have the potential to release hazardous waste, petroleum products and other pollutants into drinking water supply areas; and
- discharges of leachate, pathogens, and other pollutants have repeatedly threatened surface water quality and groundwater quality throughout Massachusetts; and
- surface water and groundwater resources contribute to the Town's private and potential public drinking water supplies;

The purpose of this regulation is to:

1. **Protect and preserve the aquifer's viability of the aquifer within the Town** as a potential future municipal water supply source by limiting ~~land~~certain uses and ~~activities~~practices within the Aquifer Protection Area (APA)~~District~~ that create a risk of groundwater contamination, including by pollution from hazardous materials, waste, and industrial processes.
2. **Promote sustainable development** by ensuring that future growth does not compromise the Town's future water security.
3. **Foster public awareness** about the importance of the aquifer as the Town's most significant water resource.

**Background:** The aquifer within the designated Aquifer Protection Area~~District~~ is a critical, potential future groundwater resource for the Town. Scientific assessments and hydrological studies have identified it as a sustainable and reliable source of drinking water, critical for the Town's health and welfare, potential growth, and long-term water needs.

### Rationale for Protection:

1. **Critical Water Source:** The aquifer is a non-renewable resource that, if compromised, could affect the health and safety of the entire ~~ti~~own. Contamination or depletion of the aquifer could lead to significant public health risks and place an undue burden on future generations who will rely on it for drinking water.

**Commented [DD1]:** This language is based on there being only one aquifer. If there is more than one, this language will need to be revised.

**Commented [DD2]:** It would be good to reference at least some of the studies, or include them in a footnote to the regulations. This will identify the technical/scientific basis for regulation 'up front,' which could be important in the event of any challenge to the regulation, a scenario in which an 'after the fact' justification could likely be less effective.

2. **Preventing Contamination:** Industrial [processes](#) and commercial activities have the potential to introduce pollutants into the aquifer. These contaminants could include hazardous chemicals, waste byproducts, and other materials that, once introduced into the groundwater system, are difficult, expensive, or impossible to remove or treat. By restricting such activities in the APAD, the Town can significantly reduce the risk of contamination and preserve the aquifer's ability to provide clean water.
3. **Ensuring Future Water Security:** Safeguarding this aquifer now will help ensure that it remains viable and uncontaminated for future generations. By limiting potentially hazardous [activities and development](#) and monitoring activities [that do take place](#) within the APAD, the Town can mitigate the risk of contamination and secure a reliable source of drinking water.
4. **Alignment with Long-Term Planning:** This regulation aligns with the Town's future goals for sustainable development. Protecting the aquifer now will safeguard against future events that might threaten the Town's water supply.
5. **Public Health and Safety:** The Town's primary responsibility is to protect the health, welfare, and well-being of its residents. By preventing [potentially harmful industrial](#) activities in the APAD, the Town can protect its residents from potential water contamination, which is crucial for both public health and economic sustainability. The financial and social costs of addressing water contamination once it occurs far exceed the proactive costs of prevention.

**Finding and Conclusion:** This Aquifer Protection Regulation is a necessary measure to ensure that the Town's most critical water resource is preserved for future generations. By proactively restricting [industrial contamination risk activities development](#) within the designated Aquifer Protection Area District, the Town is safeguarding its future water supply and promoting the health, welfare, and well-being of its residents. This regulation is an essential part of the Town's commitment to sustainable growth, environmental stewardship, and the long-term security of its drinking water resources.

The Wendell Board of Health adopts the [following](#) regulation, under its authority as specified in Section I, as a preventative measure for the purpose of preserving and protecting public drinking water quality and ~~to minimize the risks~~ to public health and the environment.

### Section III. APPLICABILITY

The regulation shall apply to [all applicable facilities activities](#) within ~~an~~ the Aquifer Protection Area District ~~located within the Town of Wendell~~. The ~~is~~ APAD ~~drinking water supply area~~ is delineated as Draft Aquifer Protection Area District on the ~~following~~ map entitled "Town of Wendell Board of Health Water Resources Map," dated 2025, [incorporated in this regulation](#) and attached here ~~to~~ as [Exhibit Appendix A](#).

### Section IV. DEFINITIONS

**Commented [DD3]:** The designation on the map should be changed.

Automobile Graveyard: An establishment that is maintained, used, or operated for storing, keeping, buying, or selling wrecked, scrapped, ruined, or [dismantled motor vehicles or](#) motor vehicle parts, (as defined in MGL c.140B, s.1).

Aquifer: A geologic formation composed of rock, sand or gravel that contains significant amounts of potentially recoverable water.

Aquifer Protection Area~~District~~: The area delineated as [Draft Aquifer Protection Area](#)~~an overlay district~~ on the Town of Wendell Board of Health Water Resources Map.

Battery Energy Storage Facility: A facility designed to store large quantities of energy using [rechargeable](#) batteries or similar technologies, including but not limited to lithium-ion, sodium-sulfur, ~~or~~[and](#) other energy storage technologies. This term includes any associated infrastructure, such as charging equipment, management systems, and emergency containment systems.

CMR: Code of Massachusetts Regulations.

Commercial/Industrial Activity~~Facility~~: ~~A public or private establishment where the principal use is the supply, sale, and/or manufacture of services, products, or information, including but not limited to: manufacturing, processing, and/or other industrial and industrial-type operations; service or retail establishments; printing or publishing establishments; research and development facilities; small or large quantity generators of hazardous waste; laboratories; hospitals.~~

Commercial Fertilizer: Any substance containing one or more recognized plant nutrients which is used for its plant nutrient content, and which is designed for use, or claimed to have value in promoting plant growth, except un-manipulated animal and vegetable manures, marl, lime, limestone, wood ashes, and gypsum, and other products exempted [from regulation as fertilizer](#) by [the Commonwealth of Massachusetts](#)~~state regulation~~.

Discharge: The accidental or intentional disposal, deposit, injection, dumping, spilling, leaking, pouring, or placing of toxic or hazardous material or hazardous waste upon or into any land or water such that it may enter the surface water or groundwater.

Dry Well: A subsurface pit with open-jointed lining or holes through which stormwater drainage from roofs, basement floors, foundations or other areas [is allowed to flow and](#) seeps into the surrounding soil.

Fire or Explosion Hazard: The risk of a fire or explosion that could result from thermal runaway events, malfunctioning equipment, or other accidents at battery energy storage facilities, ~~with~~[which have the](#) potential to release hazardous chemicals or substances into the environment.

Groundwater Protection Area: The [aquifer and](#) drinking water supply area protected by this regulation.

**Hazardous Material:** Any substance in any form which because of its quantity, concentration, or its chemical, corrosive, flammable, reactive, toxic, infectious or radioactive characteristics, either separately or in combination with one or more substances, constitutes a present or potential threat to human health, safety, welfare, or to the environment, when improperly stored, treated, transported, disposed of, used, or otherwise managed. Hazardous materials include, without limitation, synthetic organic chemicals, petroleum products, heavy metals, radioactive ~~or~~and infectious materials, flammable electrolytes, and all substances defined as toxic or hazardous under MGL c. 21E. This term shall not include hazardous waste or oil.

**Hazardous Waste:** A [substancewaste](#) or combination of [substanceswastes](#), which because of quantity, concentration, or physical, chemical or infectious characteristics may cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible illness or pose a substantial present or potential hazard to human health, safety, or welfare or to the environment when improperly treated, stored, transported, used or disposed of, or otherwise managed. This term shall include all [substanceswastes](#) identified as hazardous pursuant to the Hazardous Waste Regulations [of the MassDEP](#), 310 CMR 30.000.

**Historical High Groundwater Table:** A groundwater elevation determined from monitoring wells and historical water table fluctuation data compiled by the United States Geological Survey.

**Impervious Surface:** Material or structure on, above, or below the ground that does not allow precipitation or surface water runoff to penetrate into the soil.

**Interim Wellhead Protection Area (IWPA):** The MassDEP designated protection radius around a public water well that lacks an [aquifer](#) Zone II.

**Junkyard:** An establishment [or place of business](#) that is maintained, operated, or used for storing, keeping, buying, or selling junk, or for the maintenance or operation of an automobile graveyard, [including garbage dumps and sanitary fills](#) (as defined in MGL c.140B, s.1).

**Landfill:** A facility established in accordance with a valid site assignment for the purposes of disposing solid waste into or on the land, pursuant to the Solid Waste Regulations, 310 CMR 19.006.

**MassDEP:** Massachusetts Department of Environmental Protection.

**MGL:** Massachusetts General Laws.

**Non-Sanitary Wastewater:** [Wastewater](#) ~~Discharges~~ [resulting](#) from industrial and commercial [facilitiesactivities](#) containing waste from any activity other than collection of sanitary sewage.

**Petroleum Product:** Includes but is not limited to fuel oil; gasoline; diesel; kerosene; aviation jet fuel; aviation gasoline; lubricating oils; oily sludge; oil refuse; oil mixed with other wastes; crude oils; or other liquid hydrocarbons regardless of specific gravity. Petroleum product shall not include liquefied petroleum gas including, but not limited to, liquefied natural gas, propane, or butane.

Open Dump: A facility operated or maintained in violation of the Resource Conservation and Recovery Act, 42 USC 4004(a)(b), or state regulations and criteria for solid waste disposal.

Recharge Areas: Land areas, such as Zone II of an aquifer and Interim Wellhead Protection Areas, where precipitation and surface water infiltrates into the ground to replenish groundwater and aquifers used for public drinking water supplies.

Septage: The liquid, solid, and semi-solid contents of privies, chemical toilets, cesspools, holding tanks, or other sewage waste receptacles. This term shall not include any material that is hazardous waste, as defined by the MassDEP Hazardous Waste Regulations at 310 CMR 30.000.

Sludge: The solid, semi-solid, and liquid residue that results from a process of wastewater treatment or drinking water treatment including wastewater residuals. This term shall not include grit, screening, or grease and oil which are removed at the headworks of a treatment facility.

Thermal Runaway Event: A chain reaction within a battery where heat generated during charging or discharging causes an uncontrolled increase in temperature, which can potentially leading to the release of hazardous materials, fire, or explosion.

Treatment Works: All devices, processes and properties, real or personal, used in the collection, pumping, transmission, storage, treatment, disposal, recycling, reclamation, or reuse of waterborne pollutants, but not including any works receiving hazardous waste from the site of the works for the purpose of treatment, storage, or disposal.

Utility Works: State or locally Regulated activities providing public infrastructure services, including roads, water, sewer, electricity, gas, telephone, transportation, and their associated maintenance activities. This term shall include the installation of detention and retention basins for the purpose of controlling stormwater.

Very Small Quantity Generator (VSQG): Any person or public or private entity, other than a residential occupant, which produces less than 27 gallons (100 kilograms) a month of hazardous waste or waste oil but not including any acutely hazardous waste as defined in 310 CMR 30.136.

Waste Oil Retention Facility: A waste oil collection facility for automobile service stations, retail outlets, and marinas which is sheltered and has adequate protection to contain a spill, seepage, or discharge of petroleum waste products in accordance with MGL c.21, s.52A.

Zone II: The delineated recharge area to of a public drinking water well as approved by MassDEP and defined under the Massachusetts Drinking Water Regulations, 310 CMR 22.00.

## **Section V. PROHIBITIONS**

A. The following ~~land uses and~~ activities and uses are prohibited in the Groundwater Protection Area:

1. Landfills and open dumps;

2. Landfills (monofills) receiving only wastewater residuals and/or septage, including those approved by MassDEP pursuant to MGL c. 21, s.26 through s.53, MGL c.111, s.17, and MGL c.83, s.6 and s.7;

3. Automobile graveyards and junkyards;

4. Disposal or stockpiling of chemically treated snow and ice that have been removed from highways and roadways from outside the Groundwater Protection Area;

5. Petroleum, fuel oil, and heating oil bulk stations and terminals including, but not limited to, those listed under North American Industry Classification System (NAICS) Codes 424710 and 454311, except for liquefied petroleum gas;

6. Treatment [works](#) or disposal works, subject to 314 CMR 5.00, for non-sanitary wastewater, including those activities listed under 310 CMR 15.004(6), except for:

a. replacement or repair of existing treatment works that will not result in a design capacity greater than the design capacity of the existing treatment works;

b. treatment works approved by MassDEP designed for the treatment of contaminated ground or surface water and operating in compliance with 314 CMR 5.05(3) or 5.05(13); and

c. publicly owned treatment works.

7. Facilities that generate, treat, store, or dispose of hazardous waste subject to MGL c. 21C and 310 CMR 30.000, except for:

a. very small quantity generators (VSQGs);

b. household hazardous waste collection centers or collection events;

c. waste oil retention facilities; and

d. treatment works for the restoration of contaminated groundwater or surface water in compliance with MGL c.21E and 310 CMR 40.000.

8. Existing floor drain systems located in a hazardous material or hazardous waste process area or storage area within a commercial or industrial facility and which discharges to the ground without a MassDEP permit or authorization. Any ~~existing facility with~~ such a ~~drainage~~ system [in existence as of the date of adoption of this regulation](#) shall be required to either seal the floor drain in accordance with the state plumbing code, 248 CMR 10.00, connect the drain to a municipal sewer system (with all appropriate permits and pre-treatment), or connect the drain to a holding tank meeting the requirements of all appropriate MassDEP regulations and policies.

9. ~~Facilities~~[Activities](#), including [operation of](#) ~~large-scale~~ battery energy storage facilities, that have the potential to release toxic chemicals, flammable electrolytes, or other hazardous materials into the environment in the event of a thermal runaway event or fire. This includes [activities at](#) any facility using or storing batteries or materials that may pose a risk of contamination of groundwater resources due to failure or hazardous release during such ~~events~~[incidents](#).

**Commented [DD4]:** The term "large-scale" is not defined. If any such battery facility is a source of a toxic or hazardous release, it may be better to delete these words. If there is an 'acceptable' level of risk for certain sized facilities, size qualification language should be used. We can discuss coordination of this language with the provisions in the BESS regulation.

B. The following ~~land-uses and~~ activities and uses are prohibited unless designed in accordance with the specified performance standards:

1. Storage of liquid hazardous materials and/or liquid petroleum products, unless such materials are stored above ground and on an impervious surface, and in containers (or above ground tanks) within a building, or outdoors in covered containers (or above ground tanks) designed and operated to hold either 10% of the total possible storage capacity of all containers, or 110% of the largest container's storage capacity, whichever is greater. However, these storage requirements shall not apply to the replacement of existing tanks or systems for the keeping, dispensing, or storing of gasoline provided the replacement is performed in a manner consistent with state and local laws and regulations~~requirements~~;

2. Rendering impervious more than 15% or 2,500 square feet of any lot or parcel, whichever is greater, unless artificial recharge, that will not degrade water quality, is provided using methods demonstrated to be capable of removing contaminants from stormwater and which are consistent with methods and best management practices described in MassDEP's 'Stormwater Handbook', Volumes I,II,III, as amended;

3. Removal of soil, loam, sand, gravel, or any other mineral substances within four feet of the historical high groundwater table, unless the substances removed are re-deposited within 45 days of removal on site to achieve a final grading greater than four feet above the historical high water mark, and except for excavations for the construction of building foundations, the installation of utility works, or wetland restoration work conducted in accordance with a valid Order of Conditions s issued pursuant to MGL. c. 131, s.40;

4. Storage of sludge and septage, unless such storage is in compliance with 310 CMR 32.30 and 310 CMR 32.31;

5. Storage of de-icing chemicals including sodium chloride and chemically treated abrasives, unless such storage is within a structure designed to prevent the generation and release of contaminated leachate and runoff;

6. Storage of animal manure, unless such storage is within a structure designed to prevent the generation and release of contaminated leachate and runoff; and

7. Storage of commercial fertilizers, unless such storage is within a structure designed to prevent the generation and release of contaminated leachate and runoff.

#### **Section VI. EFFECTIVE DATES FOR ALL FACILITIES**

A. The effective date of this regulation is the date posted on the ~~front~~first page of the regulation, which shall be identical to the date of adoption of the regulation; and the regulation shall apply to all activities within the Groundwater Protection Area as of that date.

~~B. Certification of conformance with the provisions of this regulation by the Board of Health shall be required prior to issuance of construction and occupancy permits.~~

**Commented [DD5]:** These clauses are in the nature of zoning provisions, The first clause is amended to reflect the intended scope and time of effect.

~~C. As of the effective date all new construction and/or applicable change of use within the Town of Wendell shall comply with the provisions of this regulation.~~

#### Section VII. PENALTIES

Any person who violates any provision of this regulation, or who fails to comply with any ~~Order issued~~ by the Board of Health under this regulation, for which a penalty is not otherwise provided by law or in the Town's bylaws~~in any of the general laws~~, shall be subject to a fine of not less than \$200.00 but no more than \$1000.00. For enforcement pursuant to the non-criminal disposition method under MGL c. 40, s.21D the penalty shall be \$200.00 Each day's failure to comply with an Order may constitute a separate violation.

#### Section VIII. SEVERABILITY

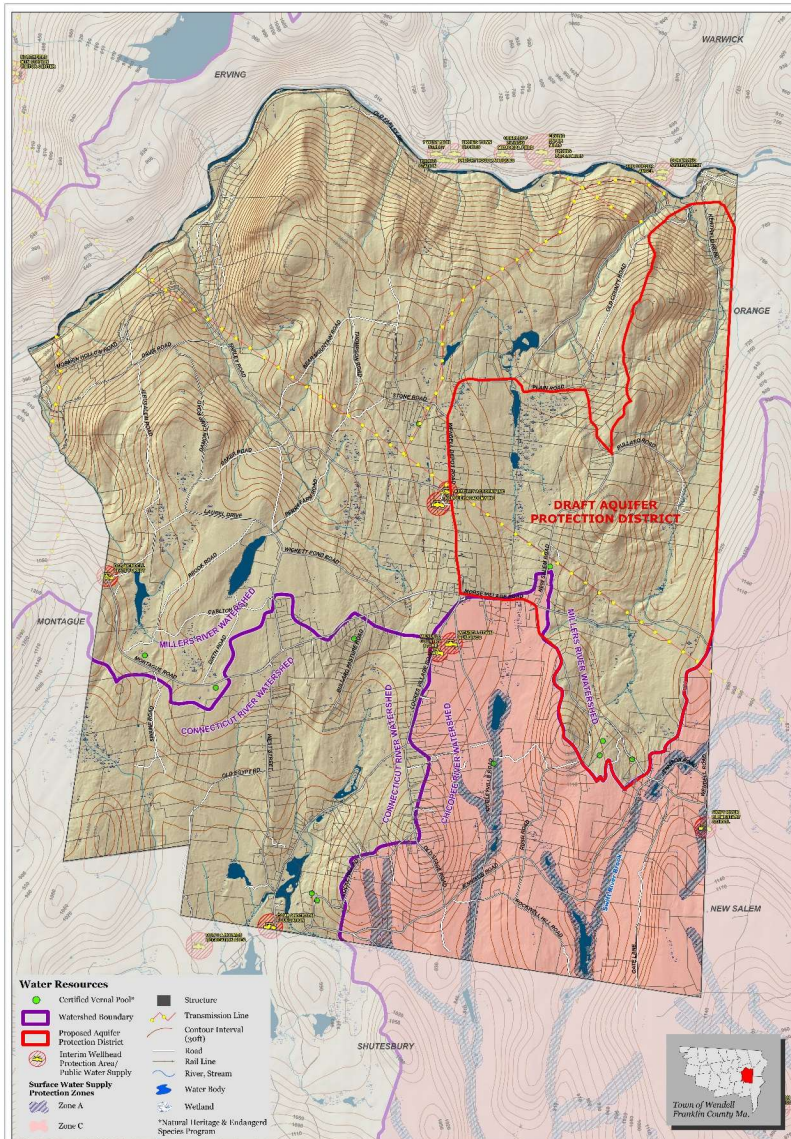
If any provision of this regulation is declared invalid by a court of competent jurisdiction, such invalidity shall not affect any remaining provisions of this regulation. Any part of this regulation subsequently invalidated by a new state law or modification of an existing state law shall automatically be brought into conformity with the new or amended law and shall be deemed to be effective immediately.

#### Exhibit A. Town of Wendell Board of Health Water Resources Map

**Commented [DD6]:** This will allow for non-criminal enforcement, if authorized under the Town's general bylaws. Recovery of a "fine," per the usual method of enforcement, requires a criminal complaint in the District Court.

**Commented [DD7]:** In my view, if there is a conflict with state law, an 'automatic' amendment of the regulation would likely not be recognized if challenged in a legal proceeding. Rather, the Board of Health would need to vote an amendment to the regulation.





Town of Wendell  
Board of Health 2025

# Water Resources

