

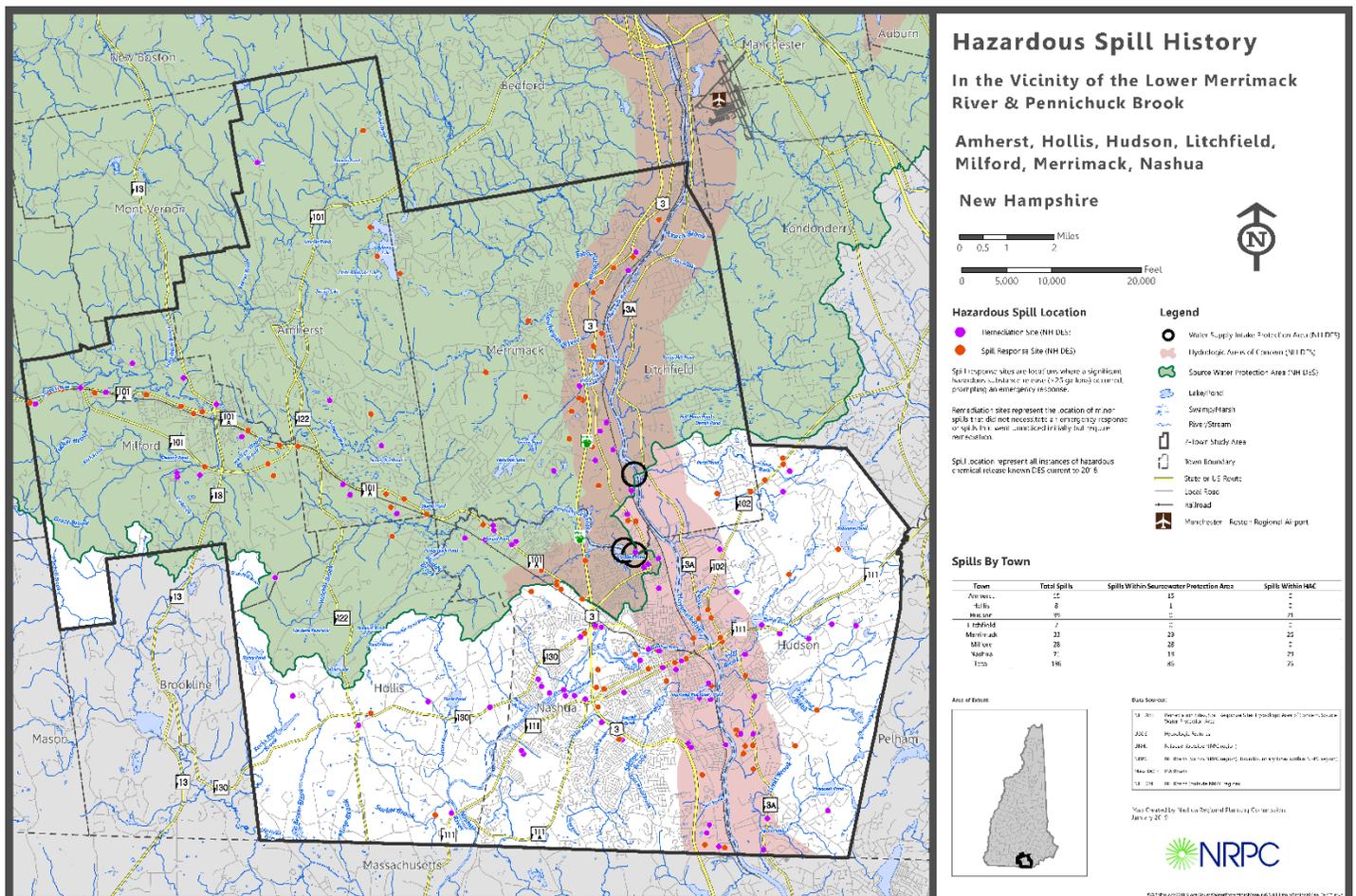
**HAZARDOUS SUBSTANCES PROTECTION OVERLAY DISTRICT
MODEL SITE PLAN REGULATIONS**

**Prepared by
Nashua Regional Planning Commission
July 2019**

**This project was funded by a grant from
the New Hampshire Department of
Environmental Services.**

Executive Summary

In the Nashua region there are hundreds of documented spills and releases of potentially harmful substances. Storage of these substances along the Lower Merrimack River and its tributaries poses a risk of discharge into the source waters for our public water supply systems. The map below shows the location of all hazardous spills known to NHDES within the seven-town study area through 2018. NHDES classifies each spill location into two categories: spill response site or remediation site. Spill response sites are locations where a significant hazardous release occurred (>25 gallons), requiring an emergency response. Remediation sites are locations where a minor spill occurred that did not require an emergency response, or the location of an undetected leak later discovered. 196 hazardous spills have occurred in 7-town study (104 spill response sites and 92 remediation sites). Of these, 76 spills occurred within the hydrologic area of concern (defined by DES as area adjacent a source waterbody), and 86 occurred within the drinking water source water protection area (watershed associated with drinking water intake points). The number of spills is greatest in Nashua with 71, and lowest in Litchfield with one.



These *Hazardous Substances Protection Overlay District Model Site Plan Regulations* are intended for adoption by local planning boards in communities that have also adopted the companion, *Hazardous Substances Protection Overlay District Model Zoning Ordinance*. The regulations are designed to describe the minimum submission requirements that an applicant to the planning board would be required to submit for any development proposal within the overlay district that is not exempt from the provisions of the ordinance. The model regulations also providing guidelines to govern the application review process, describe potential conditions of approval and post approval inspection, reporting and compliance measures.

Together, and in conjunction with appropriate spill prevention, control and countermeasure plans as well as maintenance and inspection plans, the ordinance and regulations are designed to reduce the risk of future spills of hazardous substances into the region's drinking water sources, primarily through the adoption of buffer areas adjacent to the Merrimack River and Pennichuck Brook HAC and the numerous tributary streams within the watershed.

HAZARDOUS SUBSTANCES PROTECTION OVERLAY DISTRICT

MODEL SITE PLAN REGULATIONS

XXX Purpose

The site plan review provisions set forth herein are intended to protect the public health and safety, promote the general welfare of the community and conserve the environment by assuring that nonresidential development, within the boundaries of the Hazardous Substances Protection Overlay District, is designed and developed in a manner that assures adequate provisions are made for source water protection and hazardous material spill prevention.

XXX Authority

These regulations are adopted pursuant to the authority given Planning Boards in New Hampshire Revised Statutes Annotated (RSA) 674:43, Power to Review Site Plans, and RSA 674:44, Site Plan Review Regulations.

XXX Scope

Projects to be reviewed under these regulations include the development of tracts of land for nonresidential uses, changes or expansions of use, and any additions or alterations within the Hazardous Substances Protection Overlay District, whether or not such development includes a subdivision or resubdivision of land.

XXX Severability

The invalidity of any section, subsection, paragraph, sentence, clause, phrase, or word of these Regulations shall not be held to invalidate any other section, subsection, paragraph, sentence, clause, phrase, or word of these Regulations.

XXX Definitions

Best Management Practices: measures and actions as required under N.H. Code of Administrative Rule, Env-Wq 401 Best Management Practices for Groundwater Protection to prevent the release of regulated substances.¹

Buffer: A buffer is a land surface area within which no development or alteration of the natural landscape is allowed.

¹ NH Department of Environmental Services, "Environmental Factsheet: Best Management Practices (BMPs) for Groundwater Protection."

Containment: Physical systems or operational practices that are used to prevent the release of Regulated Substances to the environment. Physical containment systems should be capable of containing 110 percent of the volume of the largest container or storage system.

New Development:

For the purposes of this Ordinance, *New Development* means any application for subdivision or site plan approval; any new construction that involves grade modification, excavation, blasting, land clearing, or the deposit of earth, rocks or other materials that places an additional load upon the soil, and any new construction that requires a building permit that involves new construction. New Development within the Hazardous Substances Protection Overlay District includes, but is not be limited to:

- A. New Buildings or building additions;
- B. Parking lots and parking structures;
- C. Roads and driveways;
- D. Utilities and associated infrastructure, either above or below ground;
- E. Irrigation water management facilities, retention ponds, and other storm water management infrastructure systems, and
- F. Individual water supplies (wells), small public/private water systems and sanitary disposal systems (septic tanks, leach fields and drain fields)²

Note: other restrictions may apply to new development within the Hazardous Substances Protection Overlay District including the provisions of Env-DW 902: Protecting the Purity of Surface Water Sources of Drinking Water.

Outdoor Storage: storage of materials where they are not protected from the elements by a roof, walls, and a floor with an impervious surface.

Petroleum Products: Fuels (gasoline, diesel fuel, kerosene, and mixtures of these products), lubricating oils, motor oils, hydraulic fluids, and other similar products, but not including liquefied petroleum gas;

Regulated Container: any device in which a regulated substance is stored, transported, treated, disposed of, or otherwise handled, with a capacity of greater than or equal to 5 gallons, other than a fuel tank attached to a motor vehicle for the sole purpose of supplying fuel to that motor vehicle for that vehicle’s normal operation.

Regulated Substance: any substance defined as a Regulated Substance under NHDES Env-Wq 401.

Reference Line: For the purposes of this ordinance, the term reference line is defined in conformity with the New Hampshire Shoreland Protection Act as being the surface elevation listed on the Consolidated List of Water Bodies subject to the Shoreland Water Quality

² Nashua Regional Planning Commission, “A Model Ordinance for a Pipeline Safety Planning Overlay District.”

Protection Act as maintained by the NH Department of Environmental Services for all Lakes, Ponds and Impoundments greater than 10 acres and as the ordinary high water mark; a line on the shore, running parallel to the main stem of the river, established by the fluctuations of water. It is indicated by physical characteristics such as a clear, natural line impressed on the immediate bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas. Where the ordinary high-water mark is not easily discernible, the ordinary high-water mark may be determined by NHDES.

Secondary containment: Physical structures such as curbing, trays, double-walled tanks, spill pallets, or other structural controls used to prevent the release of a spill of Regulated Substances to the environment. Physical containment systems should be capable of containing 110 percent of the volume of the largest container or storage system within the containment area.

Surface Waters: Those portions of waters of the state, as defined by RSA 482-A:4 and Part Env-Wt 101.99, as amended, of the New Hampshire Code of Administrative Rules which have standing or flowing water at or on the surface of the ground. This includes but is not limited to streams, lakes, ponds, and wetlands, including marshes, watercourses and other bodies of water, natural or artificial.³

Toxic or Hazardous Materials/Substances: Any substance or mixture of such physical, chemical, or infectious characteristics as to pose a significant, actual or potential hazard to water supplies, or other hazard to human health, if such substances or mixtures thereof were discharged to water supply source waters. Toxic or hazardous materials/substances include, without limitation, volatile organic compounds, petroleum products, heavy metals, radioactive or infectious wastes, acids and alkalis and include products such as pesticides, herbicides used in a non-agricultural activity, solvents and thinners, and such other substances as defined in New Hampshire Code of Administrative Rules Env-Wm 1403, 1304.5 Groundwater Management and Groundwater Release Detection Permits.

XXX Submission Requirements

In addition to the minimum submission requirements of Section XXX of the _____ Nonresidential Site Plan Regulations, the applicant shall submit ___ copies of a site plan to including the following:

- A. All regulated substances to be utilized, stored or generated on the site in reportable quantities in connection with proposed nonresidential uses clearly identified and noted on the plan;
- B. Location and maximum capacity of any tanks and containment areas in which regulated substances in reportable quantities are to be stored;

³ Town of Amherst, NH, "Ordinances, Laws, and Regulations for the Town of Amherst."

- C. Detailed plans and specifications for containment and secondary containment facilities for regulated substances in reportable quantities;
- D. Location of any outdoor storage areas for regulated substances in reportable quantities;
- E. Location of all delivery and loading areas for regulated substances;
- F. Detailed plans, profiles and specifications of impervious surface areas and associated positive limiting barriers designed to control potential spills and prevent flow to exposed soils, floor drains, and outside drains;
- G. Buffer areas required under Zoning Ordinance Section XXX - Hazardous Substances Protection Overlay District, including:
 - 1) proposed roads, driveways and utility lines;
 - 2) stormwater management facilities;
 - 3) existing vegetation and any proposed plantings;
 - 4) erosion and control measures;
- H. Location of any public water supply intakes within 200 feet of the site;
- I. A stormwater management plan that identifies pollution prevention measures necessary to avoid the release of regulated substances into stormwater including a detailed description of measures designed to ensure the complete separation of any tanks or storage areas for regulated substances from source waters or stormwater management systems discharging directly or indirectly into any surface water area;
- J. A note affirming that all containers in which regulated substances are to be stored will be clearly and visibly labeled and kept closed and sealed when material is not being transferred from one container to another.

XXX Spill Prevention, Control and Countermeasure Plan

Conditional uses described under Section XXX of the Zoning Ordinance - Hazardous Substances Protection Overlay District, using regulated substances or any uses that store Regulated Substances in excess of five (5) gallons if liquid, or fifty (50) pounds if solid shall submit a spill control and countermeasure (SPCC) plan to the Planning Board designed to prevent and contain releases from ordinary or catastrophic events such as spills, floods or fires that may cause large releases of regulated substances. The SPCC shall include:

- A. A description of the physical layout and a facility diagram, including all surrounding surface source waters;
- B. Contact lists and phone numbers for the current facility response coordinator(s), cleanup contractors, and all appropriate federal, state, and local agencies who must be contacted in case of a release to the environment;
- C. A list of all regulated substances in use and locations of use and storage;
- D. A prediction of the direction, rate of flow, and total quantity of regulated substance that could be released where experience indicates a potential for equipment failure;
- E. A description of containment and/or diversionary structures or equipment to prevent regulated substances from infiltrating into the ground;
- F. Detail inspection and preventative maintenance protocol of equipment to ensure proper operation and to check for leaks or evidence of discharge (stains);

- G. Clear procedures to ensure that needed repairs are completed and provide temporary leak containment until such repairs can be implemented;
- H. A list of positions within the facility that require training to respond to spills of regulated substances;
- I. Prevention protocols that are to be followed after an event to limit future large releases of any regulated substance;
- J. Spill prevention, control, and countermeasure plans are to be updated whenever changes occur in the types of chemicals used or stored onsite.

XXX Maintenance and Inspections

All uses permitted as a conditional use or that otherwise use, manage or store Regulated Substances in excess of five (5) gallons if liquid, or fifty (50) pounds if solid shall submit a Maintenance and Inspection Plan that provides:

- A. Internal protocols for managing the use, transport or storage of regulated substances;
- B. Maintenance and inspection protocols for containment and secondary containment facilities;
- C. Maintenance and inspection protocols for on-site stormwater management systems;
- D. Contact lists of key personnel;
- E. Emergency response and reporting protocols for any discharge or spill of a Regulated Substance;
- F. An affirmation that the [City/Town] through its designated inspectors are authorized and empowered to make inspections at normal operational hours of all facilities or activities regulated by this Ordinance in order to determine that all regulated substances are stored and managed in a manner consistent with the requirements of this ordinance including any required containment, secondary containment or to determine whether a discharge has occurred, and
- G. An Affirmation that Inspections may be conducted upon 24-hour notification except that inspection may be conducted without notice provided there is sufficient evidence that a discharge has occurred or is occurring.

XXX. Reporting

All hazardous substances that are to be utilized or generated in reportable quantities used on the site shall be updated by the property owner/occupant and reported to the [city/town] annually and made shall be available for inspection by the Planning Board or its designee;

XXX. Inspections

As a condition of approval, the planning board may require inspections on a routine or as-needed basis to verify on-going maintenance of spill prevention, stormwater management and water quality protection measures and adherence to performance standards.

XXX. Inspection Fees

The Planning Board may require reasonable fees for inspections of spill prevention, stormwater management and water quality protection measures at a rate to be determined by the Board.

References

Nashua Regional Planning Commission. "A Model Ordinance for a Pipeline Safety Planning Overlay District," n.d. https://www.nashuarpc.org/download_file/view/1862/313/.

NH Department of Environmental Services. "Environmental Factsheet: Best Management Practices (BMPs) for Groundwater Protection," 2009. <https://www.des.nh.gov/organization/commissioner/pip/factsheets/dwgb/documents/dwgb-22-4.pdf>.

Town of Amherst, NH. "Ordinances, Laws, and Regulations for the Town of Amherst," March 2017. <https://www.amherstnh.gov/community-development-office/pages/rules-regulations-ordinances>.