

**DIVISION 2. GROUNDWATER AND WELLHEAD PROTECTION**

Agenda Item 2011-142

**Sec. 70-561. Purpose.**

The mapped sand and gravel aquifers should be capable of providing substantial quantities of water for existing and potential uses, both public and private. By nature, they are sensitive to pollution. The purpose of the Aquifer Protection Overlay District is to protect the town's sand and gravel aquifers and public drinking water supplies from adverse development or land use practices that have the potential to reduce the quality and quantity of groundwater that is now and in the future will be available for use by the municipalities, individuals and industries. In order to protect existing public water supply sources and provide for potential future sources, the Lisbon Water Department has mapped areas that contribute groundwater to the town's supply wells and identified aquifer areas that may serve as future supplies for private or public uses.

(Code 1983, § 15-407(10); T.M. of 5-13-1995, art. 58, § 11)

**Sec. 70-562. Establishment and delineation.**

(1). For the purposes of this Division, there is hereby established the Aquifer Protection Overlay District consisting of sand and gravel aquifers and which is divided into three zones requiring varying degrees of protection. The Aquifer Protection Overlay District and each of the zones are delineated on the official zoning map entitled "Zoning Map of Lisbon, Maine." This map shall be deemed an integral part of this Division and shall be filed at the town office. Wellheads, Aquifers and Aquifer Recharge Areas are defined by standard geologic and hydrologic investigations which may include drilling observation wells, performing pumping tests, water sampling and geologic mapping. New areas identified by any of these methods may be added to this *chapter* by amendment. Due to the limitations of hydrogeological techniques, exact boundaries of aquifers have some uncertainty. Provisions are made for applicants to provide information on the location of the district boundary as pertains to a particular parcel of land or development.

(a). Wellhead Protection Overlay Zones: There are three zones to the Aquifer Protection Overlay District as follows:

- 1) Zone 1: Immediate Wellhead Recharge Zones: Zone 1 extends from each public water supply wellhead to the 200-day groundwater Time-of-Travel boundary.
- 2) Zone 2: Primary Recharge Zones: Zone 2 extends from the outer boundary of Zone 1 to the 2500-day Time-of-Travel boundary. Zone 2 also includes *an area within the aquifer located* in the northwesterly portion of town and adjacent to the Androscoggin River. A Test well was done there and a portion of the aquifer was identified through professional hydro geologic evaluation as a potential new municipal well location. Zone 2 standards shall be applied to that area within the aquifer centered at the test wellhead and having a radius of 1500 feet.
  - a. Any Test well created in any other area of the Town that is identified by the Board of Water Commissioners as "viable for development as a source of municipal water" and certified by a qualified hydrogeologist or equivalent, may also be considered part of Zone 2 where it is located and within a circle having a radius of 1500 feet from the test well head. However, a test well may only be considered part of Zone 2 if it is identified as "viable for

development as a source of municipal water” and action to include the new wellhead area within Zone 2 is pursuant to Sec. 70-7 of this ordinance.

- 3) Zone 3: Sand and Gravel Aquifer Zones: Zone 3 includes the remainder of the Sand and Gravel Aquifers and Aquifer Recharge Areas. Zone 3 areas may provide secondary, long-term recharge to public water supply wellheads or serve as potential sources of significant quantities of groundwater for future private and public uses. Mapping of these areas coincides with Sand and Gravel Aquifer maps produced by the Maine Geological Survey and United States Geological Survey.
- (2). Pursuant to Sec. 70-7, the delineation of the Aquifer Protection Overlay District and Zones may be revised by the town council as the extent of the wellheads, aquifers and recharge areas are more accurately defined.
  - (3). Where the bounds as delineated are in doubt or in dispute, the burden of proof shall be upon the applicants-disputing the boundary of the land in question to show where the bounds should properly be located. The applicants disputing the boundary shall engage a professional geologist or a professional hydrologist to determine more accurately the location and extent of an aquifer or recharge area. The consultant to be engaged shall be approved by the Planning Board. The cost of the investigation shall be completely borne by the applicants disputing the boundary.
  - (4) Where there is conflict between the Aquifer Protection Overlay District and the underlying district, the more restrictive shall apply.  
(Code 1983, § 15-409(2); T.M. of 5-13-1995, art. 58, § 11)

**Sections 70-563 through 70-565. Reserved.**

**Sec.70-566. Permitted, Conditional and Prohibited Uses – Aquifer Protection Overlay District.**

- (1). Any use authorized as a permitted use in the underlying district and which is not either listed in the Use Table in this section or similar to the uses listed by way of use, handling or storage of chemical or petroleum based products is allowed in the Aquifer Protection Overlay Zones.
- (2). Any use authorized as a conditional use in the underlying district and which not either listed in the Use Table in this section or similar to the uses listed by way of use, handling or storage of chemical or petroleum based products is allowed in the Aquifer Protection Overlay Zones upon approval of a conditional use permit by the Planning Board.
- (3). Uses not allowed as permitted uses or conditional uses in the underlying district are prohibited.
- (4). This section applies to all uses that are listed in the Use Table in this section or uses having similar characteristics or functions that have the potential to adversely impact groundwater. **Activities marked “C” (conditional)**, shall meet the Additional Application

Requirements (Section 70-569) and require Planning Board review as a Conditional Use pursuant to Sections 70-191 and 70-570 of this ordinance. Where there is a conflict as to the need for a Conditional Use permit between the underlying district and the Aquifer Protection Overlay Zone, the more stringent shall apply.

(5). All applications for Conditional Uses in Zones 1 and 2 shall be forwarded to the Lisbon Water Department at least 14 days prior to the Planning Board meeting at which they will first appear on the Planning Board agenda or be discussed by the Planning Board. The Planning Board shall fully consider all comments provided by the Lisbon Water Department pertaining to potential impacts the use may have on the groundwater quality or quantity and shall further fully consider all comments concerning the use of Best Management Practices to prevent or mitigate potential impacts.

(6). The Planning Board shall review all listed uses in the Aquifer Protection Overlay District when such uses are newly proposed, expanded, or have been closed for a period of more than 90 days and are re-opening in accordance with the following use table.

**KEY:**

- P** = **permitted**
- NO** = **not permitted**
- C** = **Conditional Use-Wellhead Review**

Uses	Zone 1	Zone 2	Zone 3
<b>CHEMICALS APPLIED TO LAND</b>			
fertilizer, manure, or pesticide or herbicide spreading or spraying	NO	C <sup>2</sup>	C <sup>2</sup>
fertilizer, pesticide, or herbicide bulk storage	NO	C <sup>2</sup>	C <sup>2</sup>
fertilizer, pesticide or herbicide storage, on farm where used	NO	P <sup>2</sup>	P <sup>2</sup>
<b>CHEMICAL/PETROLEUM STORAGE INCLUDING STORAGE AT OTHER USES</b>			
chemical bulk storage	NO	NO <sup>5</sup>	C <sup>5</sup>
fuel oil storage for distribution (in stationary tanks/containers or vehicles/mobile tanks)	NO	NO	C
heating oil storage, consumptive use up to 275 gallons	C <sup>7,10</sup>	P <sup>7</sup>	P <sup>7</sup>
heating oil storage, consumptive use up to 550 gallons	NO	P <sup>7</sup>	P <sup>7</sup>
petroleum product storage either new or used including heating oil above 550 gallons	NO	C	C
<b>INDUSTRIAL OPERATIONS INCLUDING SMALL BUSINESSES</b>			
boat builders, refinishers	NO	C	C

Uses	Zone1	Zone 2	Zone 3
chemical reclamation	NO	NO <sup>4</sup>	C <sup>4</sup>
concrete, asphalt, tar, coal companies	NO	NO	C
food processors	NO	C	C
furniture strippers	NO	C	C
heat treaters, smelters, annealers, descalers	NO	NO	C
industrial manufacturers and demanufacturers <sup>19</sup>	NO	C	C
machine shops	NO	C	C
meat packers, slaughter houses, abattoirs	NO	C <sup>3</sup>	C <sup>3</sup>
metal plating/electroplating	NO	C	C
painters, finishers (stationary)	NO	C	C
photo processors	NO	C <sup>3</sup>	C
Printers	NO	C <sup>3</sup>	C
rust-proofers	NO	C	C
open salt or sand/salt piles	NO	NO	NO
covered salt or sand/salt piles or similar bulk chemicals	NO	C	C
sand and gravel mining; other mining	NO	NO <sup>11</sup>	C
small engine repair shops	NO	C	C
wood preserving operations (commercial)	NO	NO	C
<b>COMMERCIAL AND SERVICE OPERATIONS</b>			
auto chemical supplies wholesalers	NO	C	C
auto or vehicle repair garage	NO	C	C
auto or vehicle washes	NO	C <sup>3</sup>	C <sup>3</sup>
beauty salons	NO	C <sup>3</sup>	P <sup>3</sup> /C
Commercial and services except as otherwise listed	NO	C <sup>16</sup>	C <sup>16</sup>
dry cleaners	NO	C	C
gasoline stations	NO	NO <sup>6</sup>	C
laundromats	NO	P <sup>3</sup>	P <sup>3</sup> /C
medical, dental, vet offices	NO	C <sup>3</sup>	C
pesticide, herbicide, wholesalers or retailers	NO	C	C
<b>TRANSPORTATION RELATED OPERATIONS</b>			
pipelines for petroleum products except liquefied petroleum gas	NO	NO <sup>8</sup>	C
Pipelines – liquefied petroleum gas	NO	C	C
railroad yards	NO	C <sup>15</sup>	C <sup>15</sup>

Uses	Zone1	Zone 2	Zone 3
private transportation corridors including rail	NO	C	C
truck terminals	NO	C	C
utility corridors	NO	C	C
<b>WASTE PROCESSING/STORAGE/DISPOSAL</b>			
construction sites/demolition activities	C	P	P
demolition of uses listed in this table	C	C	C
hazardous or special waste disposal	NO	NO	NO
industrial waste disposal	NO	NO	NO
junk, salvage yards (including tire storage)	NO	NO	NO
landfills, dumps	NO	NO	NO <sup>18</sup>
transfer stations and recycling facilities	NO	C	C
sludge utilization	NO	NO	C
snow dumps	NO	NO	C
storm-water impoundment	NO	C <sup>12</sup>	C <sup>12</sup>
wastewater impoundment areas	NO	NO	C
wastewater treatment plants	NO	NO	C
<b>OTHER</b>			
abandoned wells <sup>1</sup>	NO	NO	NO
feed lots	NO	NO	C
golf courses	NO	C	C
Graveyards	NO	C	P
Mobile home parks not on town water and sewer	NO	NO	NO
nurseries (horticultural)	NO	C	C
parks <sup>9</sup>	C	C	C
research laboratories	NO	C <sup>3</sup>	C
residential homes	C <sup>10</sup>	P	P
Subdivisions	NO	C <sup>13</sup>	C <sup>13</sup>
groundwater monitoring and remediation <sup>14</sup>	C	C	C

<sup>1</sup> Wells must be filled with inert, compact natural soil material and all piping removed.

<sup>2</sup> Existing agricultural operations may continue. Use of State approved BMP's is encouraged.

<sup>3</sup> If connected to the Lisbon public sewer system

<sup>4</sup> Above ground bulk storage up to 10,000 gallons allowed as an accessory use to manufacturing in order to recover chemicals used during the manufacturing process. Manufacturers existing at the time of the adoption of this ordinance and located in Zone 2 may install reclamation processes with above ground storage of up to 10,000 gallons for reuse on site.

<sup>5</sup> Above ground Bulk Storage of 10,000 gallons or less may be allowed with appropriate management practices as an accessory use to industrial or manufacturing uses. Manufacturers existing at the time of the adoption of this ordinance and located in Zone 2 may install above ground storage of up to 10,000 gallons.

<sup>6</sup> Gasoline stations existing at the time of the adoption of this ordinance may replace storage tanks and piping in accordance with rules promulgated by the Maine Department of Environmental Protection and the State Fire Marshall's Office.

<sup>7</sup> Must be in accordance with rules promulgated by the State Fire Marshall's Office and the Maine Department of Environmental Protection and any BMP's in this ordinance as they relate to heating oil tanks and oil storage.

<sup>8</sup> Existing and approved uses may install above ground petroleum pipelines to transport petroleum products from one location to another on site or to an adjacent complimentary existing or approved use.

<sup>9</sup> Public parks where use of chemical fertilizers, herbicides and pesticides are not used and where the storage of petroleum fuel products are is less than 10 gallons do not require special submissions or review beyond a statement of purpose and noting compliance with the requirements herein.

<sup>10</sup> A single family home may be constructed in Zone 1 only on a lot existing at the time of adoption of this ordinance provided it is connected to the public sewer system and provided that the home has a single fuel tank having not more than 275 gallon storage capacity with spill storage equivalent to 110% of the tank's volume. Storage of up to 15 gallons (in 3 containers of 5 gallon capacity) of gasoline or similar fuel for home use is allowed as are tanks of gasoline in registered automobiles and yard maintenance equipment to be used on site and in boats, ATVs and snowmobiles for personal use.

<sup>11</sup> Except expansions as authorized by Section 70-5(b),(1),b. and must also comply with Sec 70-801.

<sup>12</sup> Impoundments for Storm-water Runoff control shall only be used when other low impact means of storm-water control such as buffers are found to be impractical.

<sup>13</sup> Shall be reviewed under Chapter 66, Subdivision to insure that ground water quality meets the preliminary and secondary drinking water standards at the property line.

<sup>14</sup> Includes both surface and ground water with associated soil monitoring and remediation.

- Monitoring and remediation programs existing as of the date of enactment of this ordinance and mandated by state or federal law may continue as they exist for surface and ground water as well as associated soil monitoring and remediation.
- *Plans* for any changes to existing remediation activities shall be reported to the *Board of Water Commissioners* and the Town Engineer. Changes to remediation activity may be exempt from Planning Board Review. Planning Board review will not be required if the Town Engineer, *with the concurrence of the Board of Water Commissioners* determines that the changes will have no negative material impact beyond the property boundary nor upon the water quality or quantity available to the town water supply. Proposed changes shall be submitted for review and approval.
- The following procedures shall be applied to determine if Planning Board review is required:
  - Owner/Remediator must simultaneously submit a report of planned activity changes and the expected effect prepared by qualified professional to both the

Town Engineer and to the Board of Water Commissioners. A copy shall also be sent to the Planning Board. The report must make the case for "no material impact beyond the property boundary or upon the water quality or quantity available to the town water supply."

- Within 30 days of receipt of the report the Town Engineer and the Board of Water Commissioners (two entities with one decision - vice 4 votes) must determine the potential material impact on the site and whether peer review is required. If peer review is determined to be appropriate, the Town Engineer shall immediately seek the services of a qualified professional to provide the review. Such review shall be at the total expense of the remediator/owner. Upon receipt of the peer review report, the Town Engineer shall immediately forward a copy to the Water Commissioners and to the Planning Board. Within 30 days of receipt of the peer review report; the Town Engineer shall again consult with the Board of Water Commissioners and together, those two entities will decide, whether Planning Board review and Conditional Use approval is required. The Town Engineer will then promptly notify the owner/remediator and the Planning Board of the decision.
- If no peer review is required, the Town Engineer and the Board of Water Commissioners (two entities with one decision - vice 4 votes) shall determine whether the Planning Board review and Conditional Use approval is required. The Town Engineer will then promptly notify the owner/remediator and Planning Board of the decision.
- It shall be noted herein that if the Town Engineer and the Board of Water Commissioners cannot mutually agree upon a course of action within the specified time limits of 30 days subsequent to receipt of required reports, (either before or after a peer review) then Planning Board review will be required.
- Decisions of the Town Engineer and the Board of Water Commissioners shall be formalized in a written document and signed by both entities.
- The requirements under this provision shall not prohibit emergency responses to pollution occurrences and shall not apply to treatment of private drinking water supplies.

<sup>15</sup> Does not include single track sidings where materials handled are in solid form at normal air temperatures.

<sup>16</sup> Conditional Use Permit shall apply only to the following. In Zone 2, storage of up to 220 gallons of petroleum based products, in containers having a capacity of 55 gallons or less when such products are for a permitted use and are for maintenance of equipment or vehicles. Such products shall be stored indoors on impermeable surfaces and in covered containers located to allow visual inspection for leaks. If product is for use on site, the storage area shall have containment equal to 110% the volume of the total quantity stored. In Zone 3, storage shall be in compliance with Department of Environmental Protection (Chapters 691 and 695) and State Fire Marshall's Office (FM Chapter 34) Rules. In Zones 2 and 3, products in 5 (five) gallon or smaller containers may be stored, handled or presented for retail sale. Storage, handling and presentation for wholesale sales and/or distribution of products in 5 gallon or smaller containers when the total quantity exceeds 220 gallons requires containment as described above.

<sup>18</sup> Except that stumps generated on site may be land-filled in accordance with Maine Department of Environmental Protection Rules.

<sup>19</sup> Demanufacturing must comply with applicable conditional use standards and shall be done in an enclosed building.

### **Sec. 70-567. Dimensional requirements.**

Lots in the Aquifer Protection Overlay District shall meet or exceed the following minimum requirements Where an underlying district imposes more restrictive

dimensional requirements, the more restrictive shall control.

- (1). Minimum lot size. The minimum lot size shall be as follows:
  - (a). Without public water and sewers,
    - single-family dwellings, 60,000 square feet,
    - multifamily dwelling, 60,000 square feet per dwelling unit, and
    - commercial and industrial, 60,000 square feet for each 300 gallons of wastewater disposed of on site
  - (b). With public water and sanitary sewer, all uses as in the underlying district
- (2). Minimum lot coverage Zones 1 and 2: The maximum lot coverage by impervious surface *as defined in Chapter 70 , Sec 70-1 of this ordinance, specifically including parking lots and any other compacted surface areas*, shall not exceed the percentages in the following table. In Districts 2 and 3, provisions may be provided for greater lot coverage provided the use provides for functional groundwater recharge equivalent to 50% coverage.

<u>Zone</u>	<u>Maximum Lot Coverage</u>
Zone 1	30%
Zone 2	50%
Zone 3	50%

- (3). The minimum frontage shall be as in the underlying district.  
(Code 1983, § 15-409(6); T.M. of 5-13-1995, art. 58, §§ 11, 20)

**Sec. 70-568. Performance or land use standards.**

Permitted uses and conditional uses covered by this Division shall conform to the performance standards presented in Sec 70-570 and, for Conditional Uses the application submittal requirements of Sec 70-569.

(Code 1983, § 15-409(7); T.M. of 5-13-1995, art. 58, § 11)

**Sec 70-569. Additional Application Requirements - Aquifer Protection Overlay District**

- (1). All applications for proposed development or regulated expansions of or changes to existing development shall contain the following information. The information shall be required for demolition and construction activity to be undertaken as part of the site work. Where the Planning Board finds that special circumstances of a particular project or the types of improvements proposed will meet the intent and standards of this Ordinance, they may waive certain submittal requirements when such requirements are deemed unnecessary to allow for a positive finding that the standards are met. Any waivers granted by the Planning Board must be noted in the written approvals or on the plan. (NOTE: The type and scope of information needed and required by the Planning Board will vary according to the type and size of the proposed development as well as the type, quantities, and uses of any hazardous materials, potential pollutants or hazardous wastes.)
  - (a). Written information:
    - 1) All information and materials required for Conditional Use applications by

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- 2) A statement of the type of interest the applicant has in any property abutting the parcel to be developed.
- 3) A statement on whether the development covers the entire or contiguous holdings of applicant
- 4) The location of property: map and lot (from Assessor's Office)
- 5) Written information on the following items including an assessment of potential impacts on groundwater quantity and quality
  - Soil Characteristics including their ability to contain or treat potential pollutants
  - Erosion and Sediment Control Plan
  - Storm-water Management Plan including methods to protect groundwater from infiltration of potential pollutants
  - Long term Maintenance Provisions for the facility including the Storm-water Management System
  - design of and calculations for dry wells, storage, retention or detention facilities and other surface water impoundments and outlet structures
- 6) Construction schedule
- 7) Traffic and Parking assessment to include information on traffic circulation in order to identify any potential accident locations and information on the parking with particular attention to the size of parking lots and the parking of any vehicles other than passenger cars, SUVs and pick-up trucks.
- 8) Amount of consumptive water use.
- 9) Hydro-geological assessment indicating groundwater and geological characteristics including potential for contamination, flow paths, and expected concentrations of potential pollutants such as nitrates, chemicals and petroleum products. The report shall assess the potential impacts on groundwater quality and quantity.
- 10) Provisions for solid waste handling, storage and disposal.
- 11) Provisions for sanitary facilities.
- 12) Provisions for petroleum and/or chemical product handling, storage and disposal.
- 13) Type of volume of chemical compounds or other potentially hazardous materials handled and/or stored and methods of handling and storage.

- 14) An engineering report, as needed, to further define the provisions in items 8, through 12 above including design details and calculations. The report should provide information concerning the construction and operation for handling, storage and disposal of solid waste, sanitary, and petroleum and chemical products and other potentially hazardous materials or materials that may degrade groundwater quality. It shall include provisions to segregate underground systems to insure that there are no cross connections. The report shall include any potential pollutants whether in liquid or solid form.
- 15) A report by an industrial engineer or other competent professional detailing:
  - a. steps which have been taken to reduce the use of hazardous materials; and
  - b. actions which have been taken to control the amount of wastes generated.
- 16) A spill prevention, control and countermeasure (SPCC) plan (or at the discretion of the Planning Board a similar plan to prevent and clean up spills, leaks, or other actions that have potential to cause groundwater contamination) detailing:
  - a. materials and equipment to be available
  - b. a training plan and schedule
  - c. a list of contacts (EPA/DEP/local fire officials) with phone numbers
  - d. an inspection schedule
  - e. provisions to collect chemicals should they enter the drainage system.
  - f. statement of emergency measures which can be implemented for surface drainage systems.
- 17) Plans for ice control, use of road salt, and snow removal.
- 18) A description of source of water, use of water and final water quality for impoundments proposed as a water supply for irrigation or other consumptive uses.
- 19) An evaluation of public/private sewer system capacity and integrity of sewer lines serving the development prepared by a Licensed Professional Engineer or the Lisbon Sewer Department.
- 20) A list of necessary state and/or federal permits and date of applications or permits received.
- 21) Proposed method of performance guarantee
- 22) Restrictions, Conditions, Covenants and Easements
- 23) Copies of applications and permits issued to/by Maine DEP shall be submitted to the planning board and the Board of Water Commissioners.

24) Written request for waivers or variances

(b). Maps and Plan information:

- 1) Maps showing location of site in relation to known landmarks and showing the mapped Sand and Gravel Aquifers in the vicinity of the site.
- 2) Medium intensity soils maps.
- 3) Site plan showing all storage, handling and use areas for raw materials and wastes.
- 4) For outside areas, details to contain spills including drainage and contour information to prevent the flow of runoff from entering the storage area and which keep leaks or spills from flowing off site.
- 5) Location of test pits, borings or wells keyed to site evaluator's, soil scientist's and/or geologist's report
- 6) Surface drainage/Storm-water Management Plan
- 7) Soil erosion and sedimentation control features
- 8) Landscaping details
- 9) Locations, dimensions and profiles of underground utilities
- 10) Profile and typical cross-sections of streets and other public works
- 11) For inside areas, details to contain spills including the:
  - design of dikes around rooms;
  - the location of floor drains and floor drain outlets;
  - the location of separators, holding tanks and/or drain outlets.
- 12) Exact location and design of tanks, subsurface disposal fields, piping, floor drains, traps, separators and containment structures so that inspection, detection, clean-up or other emergency measures can be accomplished in a timely efficient manner.
- 13) The location and design of piping systems for process waters, chemicals and all liquid wastes to insure that inappropriate wastes are *not* discharged and that wastes are discharged to appropriate sewers or treatment systems.
- 14) Location/identification of buffers, lots or areas to be restricted

(c). Monitoring Wells

The following information is required for all proposed monitoring or observation

wells.

- 1) location and construction specifications
- 2) intended purpose
- 3) sampling schedule
- 4) provisions for informing appropriate Town body of sampling results

**Sec 70-570. Conditional Use and Performance Standards for Applicable Uses in the Aquifer Protection Overlay District.**

- (1). All development located within the Aquifer Protection Overlay District shall comply with the appropriate Best Management Practices contained in this Section. Best Management Practices are management practices that will mitigate the impacts of the activity on groundwater quality or quantity. In some instances, there may be more than one management practice that would accomplish the same result. In other instances, depending on the site location and on-site conditions, more than one management practice may be needed to fully mitigate the potential problem.
- (2). The Planning Board may adopt, by reference, as a part of this section, additional Best Management Practices which have been published by or in conjunction with the Maine Department of Environmental Protection. In so doing, the Planning Board shall hold a public hearing that shall be posted in the Town Office and advertised in a paper of general circulation at least twice with the first notice being at least seven days prior to the date of the hearing.
- (3). All facilities handling chemicals, petroleum or other products, whether liquid or solid, that have the potential to contaminate groundwater if leaked, spilled or otherwise released from their storage containers shall maintain a Spill Prevention, Control and Countermeasure plan. Depending on the amount and type of materials, plans may vary in complexity. At a minimum the plan shall:
  - 1) provide methods to prevent spills and leaks from occurring;
  - 2) be maintained and updated annually or when materials, processes, storage or disposal processes change;
  - 3) ensure the regular collection and transport of chemicals;
  - 4) provide for inspection of containers and storage areas on a regular basis;
  - 5) ensure adequate materials and equipment are available;
  - 6) ensure that personnel are trained; and
  - 7) ensure that the local fire department is knowledgeable of clean-up

procedures and firefighting procedures to prevent/reduce groundwater contamination from firefighting operations.

- (4). Chemicals, petroleum and waste handling on construction sites.
  - (a). The collection and disposal of petroleum products, chemicals and wastes used in construction shall conform to the following:
    - 1) Collect and store in closed, clearly marked water tight containers; and
    - 2) Containers shall be removed regularly for disposal to prevent spills and leaks which can occur due to corrosion of containers. A schedule for removal should be contained in the application and in any construction specifications for the project.
  - (b). Fertilizers and landscaping chemicals such as herbicides and pesticides shall be applied following appropriate Best Management Practices developed by the Maine Department of Agriculture in conjunction with the Maine Department of Environmental Protection.
- (5). Storm Water Runoff/Snow and Ice Control
  - (a). Drainage systems, including detention basins, drainage ways, and storm sewer systems, shall be maintained in order to insure they function properly.
  - (b). Chemicals and wastes shall be stored in such a manner to prevent rainfall from contacting them.
  - (c). Runoff from parking lots should be diverted to storm-water drains where applicable.
  - (d). Snowmelt from parking lots should be diverted to storm-water drains.
  - (e). Parking lots shall be maintained by sweeping on at least an annual basis.
  - (f). Sand/salt mixtures with a reduced proportion of salt should be used.
- (6). Industrial and Maintenance Operations
  - (a). A plan detailing the reuse, recycling, or proper disposal of waste chemicals shall be maintained, and updated as needed. Provisions shall be provided for implementing the plan.
  - (b). Buildings, rooms and areas where potential chemical pollutants are used, handled or stored shall be designed to contain spills or leaks.
    - 1) Specifically, floor drains shall not be used except as required by fire regulations.
    - 2) A waterproof dike shall be placed around areas to contain accidental spills. The dike shall have a volume equal to 110% of the amount of material stored or used in the room.
  - (c). Wash waters and other dilute wastes shall be adequately treated consistent with

State law and the current pretreatment ordinances.

- 1) Wastes shall be discharged to sewer systems where possible;
- 2) Grease traps and oil separators shall be installed where necessary and shall be maintained on a regular basis.

(7). Chemical and Petroleum Handling and Storage

- (a). Nonhazardous chemicals shall be substituted for hazardous varieties whenever possible.
- (b). A detailed inventory shall be maintained.
- (c). Provisions shall be made to clean up all spills immediately with an absorbent material or other methods and dispose of them properly.
- (d). Hazardous materials and petroleum products shall be stored in secure, corrosion resistant containers in accordance with the following.
  - 1) A diked, impervious area shall be provided around tanks to contain spills. The volume of diked area shall equal 110% of the volume of product stored.
  - 2) A roof shall be provided over containment areas to prevent collection of rain water.
  - 3) Drains shall not be installed in containment areas.
  - 4) All areas of the storage facility and area shall be readily visible for inspection.
- (f). Storage areas shall be located so that all surfaces are visible to inspection.
- (g). Covered containment areas shall be vented in accordance with rules promulgated by the Office of the State Fire Marshal.
- (h). All floors where chemicals or petroleum products are stored or used shall be concrete or an impermeable, hardened material.
- (i). non-bulk storage of chemicals shall be inside. Such storage areas shall comply with the following:
  - 1) Floor drains shall not be used unless required by fire regulations;
  - 2) If floor drains are required by the fire regulations, they shall be discharged to a holding tank. Tanks shall be pumped by a licensed oil or hazardous waste hauler, as appropriate. Tanks shall be equipped with gauges to determine used capacity, shall be leak tested each year, and maintained so as to reduce the potential for overflow or leakage.
- (j). Tanks shall be equipped with automatic shutoffs or high level alarms.
- (j). Spill and leak detection programs shall be maintained and updated annually.

- (k). Oil and water separators shall not be used to remove dissolved compounds or oil and greases which had been subjected to detergents. Waste streams shall be separated to avoid such mixing.
  - (l). Loading areas shall be covered to prevent the mixing of storm-water and spilled chemicals. Concrete or other impermeable pads shall be provided under transfer and handling areas.
  - (m). Exterior transfer and handling areas shall be sloped as to prevent runoff from other areas from entering the handling area, but to contain small quantities of spilled product.
  - (n). Procedures shall be established to catch and store chemicals spilled at loading docks and other transfer areas.
  - (o). Provisions shall be made to periodically inspect and test tanks and lines for leaks.
  - (p). The facility and equipment shall be designed to:
    - 1) prevent tank overflows; and
    - 2) prevent line breakage due to collision.
  - (q). Provisions shall be made to have:
    - 1) emergency diking materials available;
    - 2) emergency spill cleanup materials available.
  - (r). Residential storage tanks for home heating fuel shall be located in cellars or on a concrete slab above the ground if outside.
  - (s). In Zone 3, bulk storage of petroleum underground shall be contained in double-walled tanks equipped with continuous electronic monitoring as defined in the Department of Environmental Protection Regulations for Registration, Installation, Operation and Abandonment of Underground Oil Storage Facilities, Chapter 691. Chemicals shall not be stored underground.
- (8). Septic/Sewage Disposal
- (a). Sewer/septic systems shall be designed by competent professionals using sound engineering practices. On-site sewage disposal shall be according to the State of Maine Subsurface Wastewater Disposal Rules.
  - (b). Construction of sewers and septic systems shall be inspected to insure proper installation.
  - (c). Septic systems and related piping shall be tested for leakage and certified by the LPI that they are water tight prior to use. Sewer systems shall be tested for leakage.
  - (d). Provisions shall be made to maintain sewer and septic systems.
  - (e). Sewers and drainage systems shall be designed to insure that storm-water does not enter sanitary sewers.
  - (f). For cluster systems, 1,000 gallon septic tank capacity shall be provided for each

300 gallons of flow. Design flows for any single leach-field shall be less than 2,500 gallons per day.

- (g). Chemicals, industrial wastes, floor drains and storm-water drains (i.e. roof drains) shall not be discharged to septic systems.

(9). Waste Disposal Handling

(a). Inert Fill

- 1) Waste disposal areas shall be setback 75 feet from wetlands as defined in the Maine Natural Resources Protection Act (NRPA). Wastes shall be placed a minimum of 2 feet above the seasonal high ground water table.
- 2) For wastes other than concrete, stone and brick, documentation from a laboratory that wastes are inert shall be provided.

(b). Transfer Station/Recycling Facilities (other than Town of Lisbon facilities)

- 1) All storage areas shall be located a minimum of 5 feet above the seasonal high ground water table;
- 2) Sanitary wastes shall be disposed into a public sewer or in accordance with the State of Maine Subsurface Disposal Rules;
- 3) If water clean-up of facilities is used, it shall be discharged to a public sanitary sewer. If no public sanitary sewer is available, dry clean-up procedures shall be used;
- 4) Gravel, asphalt, or concrete pads or steel or aluminum containers shall be used for storage facilities for white goods and tires;
- 5) Facilities shall not be located in 100 year floodplain;
- 6) An Operating Manual shall insure that only nonhazardous municipal solid waste is accepted;
- 7) For Recycling Facilities, an Operating Manual shall insure that only clean, marketable recyclables are collected; and
- 8) For Recycling Facilities, storage of residuals shall be accomplished to prevent spillage and leakage.

(c). Municipal, Commercial, Industrial and other special wastes

- 1) All handling, storage and transfer shall comply with Department of Environmental Protection rules.
- 2) Storage and transfer areas shall comply with the management practices listed in 8.b. above.

## (d). Junkyards/Metal Processing

- 1) Fluids shall be removed in a secure area and stored for appropriate disposal.
- 2) Fluids shall be disposed in accordance with state and federal laws.
- 3) Records shall be maintained to indicate the quantities of fluids handled.

## (10). Sand and Gravel Mining

## (a). Limit depth of excavation

- 1) Excavation shall be limited to 5 feet above the seasonal high water table. The limit may be waived to 24" upon approval of both the Board of Water Commissioners and the Planning Board.
- 2) If water supply wells are present within 500 feet of the proposed excavation, ground water level monitoring wells shall be installed.

## (b). Haul roads shall be watered to control dust. Salting and oiling of roads is prohibited.

## (c). Petroleum Storage

- 1) Petroleum products shall not be stored in the pit.
- 2) A spill prevention plan shall be maintained and updated.
- 3) A reclamation plan shall be provided, maintained and used.

## (11). Agriculture/Open Space/Power Lines

- (a). Soil tests shall be used to determine proper amount of nutrients and limestone (pH adjustment).
- (b). Nutrients shall be applied uniformly and only at levels required.
- (c). Split fertilizer applications should be used for new planting, where possible.
- (d). A slow release form of fertilizer should be used, where possible.
- (e). Nutrients shall not be applied to soils having depths to bedrock of less than 8 inches or to exposed bedrock.
- (f). Chemical fertilizer application equipment shall be calibrated.
- (g). Irrigation shall be scheduled to minimize leaching potential.
- (h). Limit applications of nitrogen fertilizers to the spring or fall.
- (i). Nutrients shall not be applied during winter months when ground is frozen or snow covered.
- (j). Fertilizers and manure shall be stored in properly located and constructed facilities during periods when application is not suitable.
- (k). All federal and state laws regulating pesticides shall be followed.