

**Statement of Reasons Pursuant to Connecticut General Statutes Section 4-168d**

**HEARING REPORT**

**August 29, 2003**

**Amendment of the Regulations of Connecticut State Agencies  
Concerning the Adoption of Section 22a-354i – Regulations for Delineation of Aquifer  
Protection Areas on Municipal Maps, Best Management Practices, and Prohibition of  
Regulated Activities within such Areas.**

**Hearing Officer:**

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**Hearing Date:**

**June 2, 2000**

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## **I. INTRODUCTION**

On May 2, 2000, the Commissioner of Environmental Protection (“Department”) published a notice of intent to adopt the Aquifer Protection Areas - Land Use Controls Regulation (“Land Use Regulations”), sections 22a-354i-1 through 22a-354i-10 of the Regulations of Connecticut State Agencies (“R.C.S.A.”). Pursuant to such notice, a public hearing was held on June 2, 2000 in Room 1A of the Legislative Office Building in Hartford from 9:00 a.m. until approximately 2:15 p.m. Forty-three individuals provided oral comments at the hearing.

The public comment period for the proposed regulations closed on June 16, 2000 at 5:00 p.m. The comment period included a two-week extension of time in response to a written request. One hundred and twenty-five written comment letters were received.

## **II. ADMINISTRATIVE REQUIREMENTS**

As required by the Connecticut General Statutes (“C.G.S.”) section 4-168(d), this report describes: the regulation as proposed for hearing; the final wording of the proposed regulation; a statement of the principal reasons in support of the Department’s proposed action; a statement of the principal reasons in opposition of the Department’s proposed action; the response to such comments; and a summary of specific comments and responses thereto on the proposed regulation. For the benefit of the reader, a summary of the major revisions to the proposed regulation has been included in section VI. The list of individuals and organizations who submitted comments on the proposed regulation is included in Appendix I.

## **III. EXPLANATION OF DELAY IN PROMULGATION OF THE LAND USE REGULATIONS**

The Department has been diligently working on revising the proposed Land Use Regulations since the public hearing was held in June of 2000. Forty-three individuals provided oral comments at the hearing, and one hundred and twenty-five written comment letters were received. Every comment was carefully weighed and considered. Some comments required additional research, and many resulted in revisions to the regulations. The potential impact of each revision in response to comments required careful evaluation, and in many circumstances, precipitated additional changes throughout these complex regulations. This effort took considerable time, and was complicated by staffing changes. In August, 2001, the Attorney General’s Office was informally consulted for a legal sufficiency review of the modified regulations. The Attorney General’s Office identified a potentially significant inconsistency between the proposed regulation and the authorizing statutes. The Department worked closely with the Attorney General’s Office over the next year to identify an acceptable resolution to the potential problem. The result is a polished and more streamlined regulation which meets the statutory charge of protecting aquifer protection areas while allowing existing businesses in those areas to thrive and grow.

#### **IV. BACKGROUND**

Connecticut citizens have long relied on ground water for drinking water – both from private residential wells and public supply wells. Currently, over one million Connecticut residents use ground water as their source of drinking water. In the late 1970s and early 1980s many public supply wells were found to be contaminated by various pollutants. The Connecticut General Assembly passed Special Act 87-63 in 1987 which established a Legislative Aquifer Protection Task Force to evaluate the need for a regulatory framework to improve the protection of Connecticut’s ground-water resources. The Task Force held numerous meetings and public hearings, performed research over a two-year period and prepared two reports to the General Assembly concerning aquifer protection. The first Task Force report, dated March, 1988, recommended that legislation be enacted to require more comprehensive mapping of ground-water resources contributing to large public supply well fields in stratified drift aquifers. Legislation passed in 1988 required the Department to develop mapping guidance for level B (preliminary) mapping and regulations for level A (final) mapping of Aquifer Protection Areas, and authorized the Task Force to continue its work.

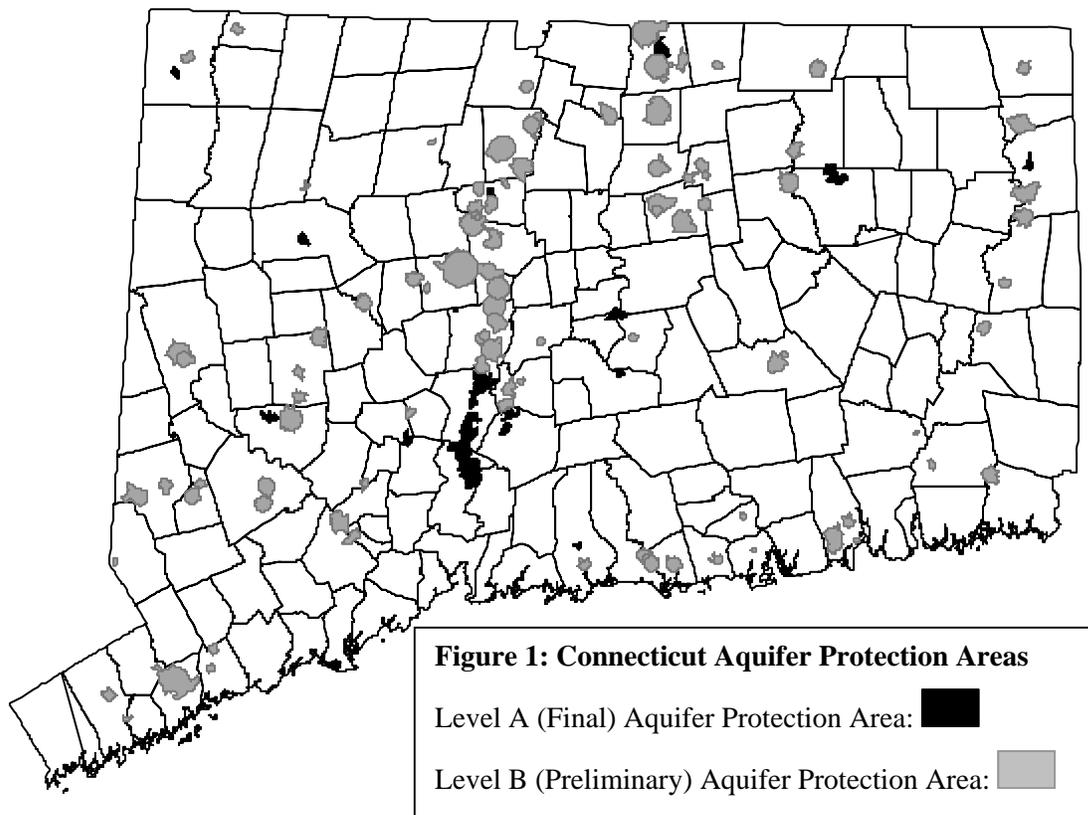
The first Task Force report also recommended that the Task Force continue to meet for another year to further consider the need for a regulatory management framework to improve the protection of aquifers. A second Task Force report was subsequently submitted to the General Assembly in February 1989. That report recommended that a comprehensive regulatory management framework be enacted to protect Connecticut’s largest public supply wells in stratified drift aquifers, including minimum state standards necessary to protect the most sensitive aquifer areas in Connecticut as defined through a scientific mapping process. The Connecticut General Assembly responded to the report in 1989 with unanimous passage of the Aquifer Protection Act (C.G.S. sections 22a-354a through 22a-354bb).

The proposed Land Use Regulations are a culmination of over 10 years of effort involving the Department, members of the Department’s Aquifer Protection Land Use Advisory Committee (“Advisory Committee”), and numerous other interested parties. The Advisory Committee included representatives of business, water companies, municipal governments, regional planning agencies and environmental groups (See Appendix II for a list of Advisory Committee members). The proposed Land Use Regulations: (1) establish a procedure for delineation of aquifer protection areas, (2) identify regulated activities, which are prohibited in aquifer protection areas unless they are registered or have a permit, (3) provide for an exemption process for regulated activities if the Commissioner determines such activities do not pose a threat to the public supply wells, (4) establish a registration process for certain regulated activities which includes a procedure for transfer of a registration, and a permit process for adding regulated activities to registered facilities, and (5) require regulated activities to comply with basic best management practices.

The proposed Land Use Regulations apply only to aquifer protection areas. These are the land areas over those portions of an aquifer that directly contribute water to public supply wells which serve more than 1000 people and are located in sand and gravel deposits. There are currently 122 active well fields in Connecticut meeting these criteria (see figure 1 below). All the aquifer protection areas have been preliminarily mapped using Department guidelines (Level B Mapping

Guidelines). These preliminary areas are in the process of being refined through a site-specific, scientific method (level A mapping) in accordance with section 22a-354b-1 of the R.C.S.A. Level A mapping has been submitted for 39 well fields, 20 of which have been approved by the Department. The proposed Land Use Regulations will apply only to regulated activities located within a final (level A) mapping boundary approved by the Department.

Out of 169 municipalities in Connecticut, 83 are likely to have aquifer protection areas. (See attached list of municipalities in Appendix III). This number may decrease depending on the final (level A) mapping of some well fields. All 83 municipalities have received preliminary (level B) mapping on 1:1000 scale base maps. Inventories of "high risk uses" within aquifer protection areas have also been completed for the 83 municipalities.



The Aquifer Protection Act set forth a schedule for implementation which starts with the adoption of the Land Use Regulations. Municipalities with aquifer protection areas must adopt land use regulations based on a model municipal ordinance to be prepared by the Department. The timing of adoption will vary depending on the approval of level A mapping for each well field and the timing of the State's adoption of the proposed regulation and the model municipal ordinance. Once the state regulations and the model municipal ordinance are adopted, deadlines are triggered for appointment of municipal aquifer protection agencies, completion of level A mapping, delineation of level A boundaries on municipal maps, and finally municipal adoption of the state's aquifer protection regulation. The schedule is detailed in the table on page 6.

Once all the program pieces are in place, implementation will be gradual. As level A mapping is completed, towns will also begin to delineate the boundaries on local maps and adopt local regulations. It is expected that approximately fifteen towns will begin implementation in the first year or so – those for which level A mapping is completed. The remaining towns will begin implementation over the next three years, until all 83 towns and 122 well fields are covered. Assuming that the aquifer protection regulations are adopted and the model municipal ordinance is completed in the year 2004, all municipalities would be required to have level A boundaries and local aquifer protection regulations adopted by 2007.

### **AQUIFER PROTECTION AREA PROGRAM IMPLEMENTATION SCHEDULE**

<b>ACTION</b>	<b>BY WHOM</b>	<b>WHEN (citation)</b>
Adoption of State Land Use Regulations	DEP	Upon approval by Regulations Review Committee and filing with Secretary of State (C.G.S. 22a-354i)
Authorize Existing Local Board or Commission	Town	Within 3 Months of Adoption of State Land Use Regulations (C.G.S. 22a-354o)
Complete Land Use Inventory	Town <sup>1</sup>	Within 1 Year of Authorization of a Local Commission (C.G.S. 22a-354e)
Publish Model Municipal Ordinance	DEP	Approx. 6 Months after Adoption of State Land Use Regulations (C.G.S. 22a-354l)
Prepare Final (Level A) Mapping	Water Utility <sup>2</sup>	Within 3 Years of Publication of Model Municipal Ordinance (C.G.S. 22a-354c and –354z)
Delineate Aquifer Protection Area Boundary on Zoning Map	Town	Within 120 days of DEP notice of Mapping Approval (Land Use Regulations)
Adopt Municipal Land Use Regulations	Town	Within 6 Months of DEP notice of Mapping Approval (C.G.S. 22a-354o)
Register Existing Regulated Activities	Town or DEP	Within 180 days of Adoption of Municipal Land Use Regulations

## **V. SUMMARY OF REGULATION AS PROPOSED FOR PUBLIC HEARING**

The regulation as proposed for hearing:

- A.** Established a procedure for delineation of aquifer protection areas on municipal zoning maps or inland wetland maps;
- B.** Defined regulated activities;
- C.** Prohibited certain new regulated activities in aquifer protection areas;

<sup>1</sup> DEP has completed inventories for towns using federal funds from the Safe Drinking Water Act Amendments

<sup>2</sup> Subject to DEP Commissioner approval

- D.** Provided a process for exempting activities from prohibition upon determination by the Department that any hazardous material released into the ground would not render the ground water unsuitable for drinking without treatment;
- E.** Established a registration process for existing regulated activities;
- F.** Allowed for certain modifications to registered regulated activities without a permit;
- G.** Established a permit process for certain modifications to regulated activities; and
- H.** Set forth best management practices for the handling and storing of hazardous materials associated with regulated activities.

The text of the regulations as proposed for public hearing are attached as Appendix IV.

## **VI. SUMMARY OF PROPOSED MAJOR REVISIONS TO THE REGULATION PROPOSED FOR HEARING AS A RESULT OF PUBLIC COMMENT**

A major focus of many comments received during the public comment period was how existing (commonly referred to as grand-fathered) businesses in the aquifer protection areas are regulated. Many perceived the proposed registration and permitting processes to be burdensome to both the existing businesses and the regulatory agencies. In response, the Department made numerous changes to the proposed regulation to limit the regulated activities to those posing the most significant threat to the public water supply, and to simplify and streamline the registration and permitting processes to the extent possible while maintaining protection. The changes include the following revisions:

- I.** Limit regulated activities:
  - 1.** Exclude six categories of minor activities from regulation, including residential activities and activities utilizing small quantities of hazardous materials;
  - 2.** Increase the “small quantity” limit on hazardous materials from 55 to 110 gallons, and conditionally exempt such uses from regulation;
  - 3.** Exclude from the definition of hazardous material solutions in which hazardous substances make up less than 1% by volume;
  - 4.** Eliminate from regulation activities utilizing lubricating oils that meet certain criteria;
  - 5.** Eliminate from regulation etching of stone and glass;
  - 6.** Limit the regulation of pulp production processes to those that use bleach;

7. Although the Department proposes to add the regulation of oil or petroleum dispensing operations for the purpose of retail, wholesale or fleet use to the list of regulated activities, such activity is not regulated if it involves above-ground storage of less than 2000 gallons total and meets other specified conditions;

**J.** Simplify the registration process:

1. Delete requirements for detailed description of the activities conducted at the facility;
2. Delete requirements for detailed inventory of hazardous materials, handling and waste management practices at the facility;

**K.** Simplify and streamline the permit process:

1. Require a permit only when adding a new regulated activity to a registered facility;
2. Clarify permit decision criteria;
3. Limit environmental compliance history information to be submitted with a permit application to the facility that is the subject of the permit application;
4. Provide for facilities that are ISO 14001 certified to self-certify to certain permit requirements;
5. Delete notification and acknowledgement requirements for modifications to a registered regulated activity which do not require a permit;
6. Allow, without a permit, the replacement of underground storage tanks with state-of-the-art tanks up to 25% larger in storage volume;
7. Delete performance bond provision as a listed potential condition when granting a permit;

**L.** Extend regulatory deadlines:

1. Extend the deadline for municipalities to delineate the aquifer protection area boundary on zoning or inland wetland maps from 90 to 120 days after they receive notification from the Department;
2. Extend the registration deadline from 90 to 180 days and provide a similar time frame of 180 days for review by the regulating agency;

**M.** In order to maintain adequate regulatory oversight, two requirements are proposed to be added:

- 1.** Add a requirement that registered regulated activities re-register every five years;
- 2.** Make the best management practice to prepare a materials management plan a requirement for registration. While each registrant would need to develop, implement, and maintain such a plan at the facility, it would only need to be submitted to the regulatory authority upon written request.

**N.** Finally, substantial portions of the regulation are proposed to be reorganized for clarity and readability.

The proposed revisions to the regulation strike the balance of protecting our public supply wells while ensuring that existing business can continue with minimal additional regulatory burden. The revisions substantially streamline the regulatory process, which reduces the time and effort expended by business, and municipal and state staff, while still achieving protection for public supply wells.

## **VII. STATEMENT OF PRINCIPAL REASONS IN SUPPORT OF THE REGULATION PROPOSED FOR PUBLIC HEARING**

Most of the people who commented on the proposed Land Use Regulations were supportive of the concept of aquifer protection and the necessity of protecting these valuable water resources. Approximately one third of those commenting supported the proposed regulations outright or wanted to make them more stringent. Another third of those commenting supported the program, but recommended revisions to the procedures to make the regulations more workable, as discussed above in Section VI. The principal reasons cited in support of the regulation proposed for public hearing are:

**O.** The regulations as proposed would preserve and protect critical drinking water supplies by restricting certain land use activities that pose a high risk of ground-water contamination in an aquifer protection area.

**P.** The vulnerability of stratified drift aquifers to contamination from hazardous materials has been well-documented. Unlike aquifers in many other parts of the country, Connecticut's major water supply aquifers are shallow, unconfined, and coarse-grained. A very small amount of a hazardous material has the potential to render a well field contaminated.

**Q.** Recovering the use of a contaminated ground-water supply is far more expensive than the proposed preventative measures. Treatment of a polluted well field, if technically feasible, is extremely expensive and costs are typically passed on to the water system customers. In addition, the goal of treatment is to meet the drinking water criteria, which for most compounds is above the detection limit. Therefore, once a well is polluted, the

public served by that well will likely continue to ingest contamination at levels below the regulatory standard. In 1999, approximately 312,000 residents were drinking water from 53 wells that required treatment; this is approximately 1/3 of the people depending on ground-water sources.

**R.** Some municipalities in Connecticut have already successfully implemented aquifer protection land use controls. The Cheshire Planning and Zoning Commission adopted in 1994 an overlay aquifer protection zone that prohibits a list of twenty-one categories of land uses. Despite initial fears that the regulation would stifle economic development, a number of major industrial users have been able to locate in the area. Simsbury has also successfully implemented a local aquifer protection program similar to these proposed regulations.

**S.** An acceptable level of protection of ground-water resources cannot be achieved through implementation of best management practices alone. Accidents and spills will happen regardless of best management practices. For example, underground gasoline storage tanks are tightly regulated, but the gasoline additive Methyl-Tertiary-Butyl-Ether (MTBE) continues to contaminate drinking water supply wells.

**T.** The regulation as proposed strikes the balance between environmental protection and economic development that the Connecticut General Assembly mandated in the Aquifer Protection Act. While the regulation prohibits a limited number of high risk activities, many other activities are not regulated, including corporate office parks, many high tech businesses and residential development. Without clean drinking water, business will not locate in a municipality and developers will not build new homes for residents.

**U.** A statewide standard level of protection for aquifer protection areas is necessary to ensure predictability and uniformity of protection of public supply wells. It would be shortsighted for Connecticut to sacrifice long term protection of public supplies for short term economic gain for a small number of businesses.

**V.** Connecticut was the first state to develop a comprehensive ground-water protection plan. In 2001, the United States Environmental Protection Agency approved the state of Connecticut's Source Water Assessment Plan. The proposed regulation is fundamental to successful implementation of Connecticut's ground-water protection plans.

**W.** The regulation has been developed through an open process with many iterations. Considerable flexibility has been added to the regulation as a result of such process. There have been many opportunities for comment and many of the concerns expressed by both the business community and local government have been addressed, while still meeting the goals set forth in the Aquifer Protection Act.

**X.** Over a decade has passed since passage of the Aquifer Protection Act. Any more compromises would render the regulation inconsistent with the Aquifer Protection Act. Now is the time to act to protect our collective ground-water supplies.

### **VIII. STATEMENT OF PRINCIPAL REASONS IN OPPOSITION OF THE REGULATION PROPOSED FOR PUBLIC HEARING AND THE DEPARTMENT'S RESPONSE TO SUCH REASONS**

Approximately one-third of the people who commented expressed opposition to the adoption of the Land Use Regulations in any form, and another one-third (as mentioned above) expressed support of the concept of the Land Use Regulations, however, they proposed changes to the specifics of the proposed regulations. The principal reasons cited in opposition to the regulation are listed below, and the Department's response is provided immediately thereafter:

**A. COMMENT:** The Department has not made a demonstration that the regulation is necessary to protect public supply wells. There have been no new cases of contamination of public supply wells serving more than 1,000 people since the late 1980's.

**RESPONSE:** The Aquifer Protection Act requires the Department to develop and propose regulations for land use controls in aquifer protection areas. The necessity of protecting public supply wells is clearly articulated by the General Assembly in the findings of the Act:

C.G.S. section 22a-354(g): "The General Assembly finds that aquifers are an essential natural resource and a major source of public drinking water; that reliance on groundwater will increase because opportunities for development of new surface water supplies are diminishing due to the rising cost of land and increasingly intense development; that numerous drinking water wells have been contaminated by certain land use activities and other wells are now threatened; that protection of existing and future groundwater supplies demands greater action by state and local government; that a groundwater protection program requires identification and delineation of present and future water supplies in stratified drift aquifers supplying drinking water wells; that a comprehensive and coordinated system of land use regulations should be established that includes state regulations protecting public drinking water wells located in stratified drift aquifers; that municipalities with existing or proposed public drinking water wells in stratified drift aquifers should designate aquifer protection agencies; and that the state should provide technical assistance and education programs on aquifer protection to ensure a plentiful supply of public drinking water for present and future generations."

While over a decade has elapsed since the General Assembly passed the Aquifer Protection Act, the findings are as applicable today as they were in 1989.

There have been numerous instances of contamination of private and public supply wells since the 1980's. Between 1996 and 2003, 392 contaminated wells were added to the Department's Contaminated Well List. Of these, 143 were contaminated with solvents, 127 with gasoline components, 81 with pesticides, 21 with fuel oil, 11 with salt, 2 with landfill leachate and 52 with manganese, lead or nitrates (some wells have multiple contaminants). The majority of these contaminated wells are private wells, as one would expect given that private wells represent approximately 99% of the over 600,000 water supply wells in Connecticut. Fortuitously, only one of the 122 well fields covered by the aquifer protection program was among these. According to reports by the Department of

Public Health, at present, 232 public water systems in the State have organic chemicals present at concentrations below legally enforceable standards, or for which no legally enforceable standards exist, and 61 public water supplies are currently treating their water to remove organic chemical contaminants.

The challenge of protecting our public supply wells is heightened by the fact that many of the aquifer protection areas throughout the state are already heavily developed, thus balancing the needs of existing business with the protection of public supply wells is critical. For new development however, the Land Use Regulations are built upon the premise that the controlled siting of potential pollution sources is a more effective pollution prevention tool than reliance on best management practices, which are fallible. This premise has also been incorporated into other state planning and policy tools, for example, the State Conservation and Development Policies Plan recommends low density development in public water supply reservoir watersheds.

**B. COMMENT:** In the ten years since passage of the Aquifer Protection Act, businesses have become much more compliant with environmental regulations. Compliance with existing laws and best management practices are sufficient to protect ground-water quality. Another layer of regulation is not necessary.

**RESPONSE:** The risk of pollution to public supply wells is certainly minimized when businesses apply best management practices, implement environmental management systems, and comply with all environmental laws. However, the mere presence of hazardous materials in an aquifer protection area poses a risk because of the potential for accidental spills and discharges. Spills and discharges happen during product delivery, storage, and usage, as a result of equipment failure, illegal dumping for economic benefit, and human error. A small amount of a chlorinated solvent or gasoline released to the ground can render a nearby public supply well unsuitable, without costly treatment, for human consumption indefinitely.

Each year during the period between 1996 and 2002, thousands of non-transportation related chemical releases were reported to the Department's Oil and Chemical Spills Division. These releases varied in size and impact to the environment, but nonetheless demonstrate that releases continue to occur despite heightened community awareness and implementation of best management practices. Recent examples of releases that have occurred include the following:

- Ansonia – March, 1995 - 50 gallons of acid cleaning wastewater discharged through a hole in a pipe;
- Ansonia, Milford and Orange – ongoing 1990-1998 – wastewater and waste containing mercury discharged to the ground at four different facilities;
- North Haven- August, 1997 - approximately 1,000 gallons of partially treated circuit board manufacturing wastewater discharged to the ground after a wastewater treatment tank ruptures;

- Farmington – continued use in the 1990s of a 1960 vintage degreaser pit which was not sealed from discharging to the underlying soil – dense non-aqueous phase liquid (DNAPL) found in soil;
- Farmington – March, 2000 – illegal dumping adjacent to a public surface water supply of waste chlorinated solvent transported from a dry cleaning facility;
- Ansonia – May, 2001 – fire burns manufacturing facility to the ground, releasing large quantities of hazardous materials to the environment.
- Willington – August, 2002 - fuel releases attributed to overfills at new, state-of-art truck stop impacts community supply well.

The examples above are from a variety of size businesses, some of which have full time environmental management teams.

It is noteworthy that most of the major pollution control laws were enacted in the 1970s and the early 1980s. The General Assembly was well aware of the degree of regulation of hazardous materials when the Aquifer Protection Act was passed in 1989. The strides that have been made in environmental protection over the last decade are admirable, but additional efforts are necessary to ensure the long-term safety of Connecticut's most prolific and important public supply wells. Best management practices should minimize human error and equipment failure, but as evidenced by thousands of non-transportation-related chemical spills that are reported to the Department each year, best management practices alone do not prevent such spills.

**C. COMMENT:** The regulation as proposed will hurt Connecticut's economy by prohibiting certain types of activities in aquifer protection areas. The regulation will severely and unnecessarily restrict the rental and sale market for facilities in the aquifer protection areas.

**RESPONSE:** While it is true that the Land Use Regulations will prohibit certain new activities from locating in aquifer protection areas, the Department does not agree that this will hurt Connecticut's economy, nor severely impact the sale and rental market. The municipalities of Cheshire and Simsbury both have land use restrictions similar to these proposed regulations in place through municipal ordinance, and have not suffered negative economic impacts.

The Land Use Regulations apply only in aquifer protection areas (i.e. the defined area of contribution and recharge area for a public supply well). Such areas comprise approximately 2% of the total land area in the state. This percentage varies considerably from municipality to municipality, as 83 of Connecticut's 169 municipalities will likely have aquifer protection areas, and some rely more heavily on ground water supplies than others. Only high risk industrial and commercial activities are prohibited by the Land Use Regulations, leaving numerous commercial and industrial activities in aquifer protection areas that are unaffected by the proposed regulations. The prohibited activities are those where significant quantities of hazardous materials (e.g. petroleum, pesticides, hazardous wastes, and hazardous substances) are utilized, stored, handled and disposed. Accidental

releases of hazardous materials from such activities in an aquifer protection area put a public supply well at risk.

Proposed changes to the Land Use Regulations have minimized the impact on the sale or rental of existing facilities in aquifer protection areas to the greatest extent possible while still protecting public supply wells. A registered or permitted regulated activity can be transferred to a new owner of a site, and there is a five year window during which an inactive regulated activity can resume at a facility. This should allow time for a new operator to take over a business and restart the regulated activity. In addition, new regulated activities may be added to a registered facility through a straight-forward permitting process.

**D. COMMENT:** The regulation will prohibit growth and expansion of existing businesses. Without being able to expand or grow, existing business will relocate, possibly out of state, or close their doors.

**RESPONSE:** Businesses have consistently expressed concern about how the regulation will impact existing facilities. Existing business which conduct regulated activities can remain, expand, and change use within an aquifer protection area with appropriate safeguards. The Department carefully re-examined the registration, modification, and permitting processes and the associated burdens on both existing business and the regulatory agencies. Opportunities to streamline procedures, eliminate potentially burdensome requirements without weakening aquifer protection, and reduce regulatory redundancies were explored. In response, the Department proposes to: exempt six categories of minor activities from regulation, including residential activities, and activities using less than 110 gallons of hazardous material; substantially simplify the registration requirements; eliminate modification notices and permits for minor changes to, or expansions of existing regulated activities; require permits only for adding new regulated activities to a registered facility; and streamline the permit application process, including the decision-making criteria. In order to ensure that businesses are minimizing the potential threats to the public water supplies, the materials management plan is now proposed to be a required best management practice, however, the plan must only be submitted and approved by the regulatory authority if requested.

These proposed changes significantly reduce the regulatory burden on existing regulated businesses, allowing them to change and expand at the “speed of business” provided best management practices are in place to minimize potential threats to the aquifer. Changes to the permit section substantially reduce the requirements and spell out the decision-making criteria so the outcome is also more predictable for businesses.

**E. COMMENT:** Communities with extensive aquifer protection areas will be disproportionately and unfairly impacted by the regulation because the regulated areas in these communities are highly developed with an existing industrial inventory and industrially zoned land for future growth. In particular, the communities of Plainville and Southington will be impacted. Over time, these communities will lose their industrial base

because they will be unable to attract new business and existing business will move when they cannot expand.

**RESPONSE:** Some communities in the central Connecticut region have extensive aquifer protection areas based on preliminary (level B) mapping. This is the result of the geology of the area and heavy reliance on ground water for drinking water. This area is also densely populated and intensely developed. The results of this intensive development over the aquifer can be seen in the impacts to the ground water. Releases of hazardous materials in these municipalities have already resulted in contamination of six out of twelve public supply wells or well fields - two wells have been inactivated, three well fields are being treated for chemical contamination, and one well field has organic chemical constituents at concentrations below action levels.

Southington has expressed concern that the aquifer protection areas in the town will render the designated Enterprise Zone ineffective. While the results of final mapping in Southington have not been submitted to the Department, based on the best information available to us, less than 5% of the level B area overlaps the Enterprise Zone. In addition, the majority of the incentives available in the Enterprise Zone apply to the entire municipality.

Due to the expansive land area that will be within aquifer protection areas in the central Connecticut region, exemption of these areas from regulation has been considered. Such exemption would require a statutory amendment to the Aquifer Protection Act and is therefore beyond the scope of the proposed regulation. However, the area's heavy reliance on ground water supplies and the contamination history of the area suggest that such an approach would not be prudent. It should be noted that the Department is separately pursuing a technical change to the Level A Mapping regulations that may result in smaller regulated areas. Improvements in the modeling techniques used to define the regulated area will allow a more accurate (and in some cases, smaller) regulated area to be defined.

**F. COMMENT:** The fiscal impact statement prepared with the regulation is insufficient. An extensive and comprehensive analysis of the impact of the proposed regulation on economic development and grand growth list in the affected communities should be performed.

**RESPONSE:** The small business impact and fiscal impact statement was prepared by the Department in accordance with the standard set out in the Uniform Administrative Procedures Act found in section 4-170 of the C.G.S. It is important to note that the regulation is required by the Aquifer Protection Act and that a fiscal impact statement was prepared by the Office of Fiscal Analysis and was available for the legislature to consider when the Act was passed.

While the Department understands the concern, an analysis of the fiscal impact to the grand list of each of the 83 communities is beyond the scope of what is required by statute. However, the impact of the proposed regulation on businesses conducting regulated activities has been minimized to the greatest extent possible while still meeting the ground-

water protection goals of the Aquifer Protection Act. Both the proposed regulation and the final regulation allow for existing regulated activities to grow and expand at that site without the stigma of a "non-conforming use". Regulated activities may be granted an exemption from prohibition in aquifer protection areas, provided the owner of such an activity can demonstrate that if any hazardous material is released into the ground from the regulated activity, treatment would not be required to render the ground water suitable for drinking. The addition of a new regulated activity to a registered facility is not prohibited as a new regulated activity, although it will require a permit. Finally, many businesses on the municipal grand lists will not be regulated. Only 28 high risk activities, all of which involve the use, storage, or disposal of hazardous materials, are subject to regulation in approximately 2% of the land area state-wide. There are many business activities conducted in aquifer protection areas which do not involve the use of hazardous materials and are not subject to the Land Use Regulations, such as industrial assembly and wholesale trade, technical services, corporate offices, and retail shopping malls. Based on recently completed inventories of high risk uses located in aquifer protection areas, it is estimated that less than 1900 existing businesses will be regulated state-wide under the program.

**G. COMMENT:** The regulation imposes substantial obligations on municipalities which may be unprepared to meet the obligations. A comprehensive program of technical assistance and training to municipalities is necessary.

**RESPONSE:** The Department is committed to providing municipalities with training and technical assistance as necessary. The Aquifer Protection Act specifies that implementation of aquifer protection land use controls be a joint effort between municipalities and the Department. Revisions to the Land Use Regulations have streamlined municipal responsibilities to the greatest extent possible while still preserving the statutory intent. The Department will regulate state agencies, public service companies, large quantity hazardous waste generators and other facilities with individual wastewater discharge permits, as well as handle all exemption applications. The Department will be developing guidance documents and a model municipal ordinance that will be consistent with the Land Use Regulations, and will be conducting municipal training. Staff will be available to assist municipalities in drafting and implementation of municipal regulations. The Department also has obtained federal funding to provide a limited amount of seed money to help get the municipal programs started.

**H. COMMENT:** The regulation does not specify a response time for the Department or the municipalities to respond to registrations and permit applications. If businesses are going to survive and grow they need to be able to make changes at the speed of business and not be impeded by a bureaucratic process.

**RESPONSE:** The Department is very sensitive to the needs of businesses. For registrations, the land use regulations specify a response time of 180 days (if the registrant does not receive notice that a registration is incomplete within 180 days, then the registration is complete). For permits, the municipal timeframes are specified in section 22a-354p of the Connecticut General Statutes. For the Department, regulations are being considered which specify processing times for all Department permits. It should be noted

that (as detailed in response D above) considerable changes have been made to minimize the circumstances under which a permit process is triggered - permits are only required to add a new regulated activity to a registered facility. Operational changes to, or expansion of, a registered regulated activity will not require a permit. In addition, the permit criteria are more clearly spelled out to reduce uncertainty in the permit process.

**I. COMMENT:** Industries which are connected to a sewer should be exempted from the regulation because there is little risk to ground water. The list of regulated activities is unfairly weighted toward the manufacturing sector without adequate justification.

**RESPONSE:** The list of 28 regulated activities was developed over the course of ten years with the assistance of the Advisory Committee. Over 50 activities were originally set out in the 1989 Task Force Report. Careful consideration was given to each of these activities, and in some instances, detailed information on how these activities are conducted was gathered. Given that many manufacturing operations utilize hazardous materials, it is reasonable for the list of regulated activities to be weighted toward the manufacturing sector.

The few activities which have been excluded from regulation if they are connected to a sewer were chosen because the main risk to ground water is from their wastewater stream. For example, an industrial laundry which does not use hazardous materials may create wastewater which poses a risk to ground water from materials on the items being washed. In this circumstance, as long as the wastewater is discharged to a publicly owned treatment works, there is little risk of pollution. In contrast, a dry cleaner typically uses tetrachloroethylene as the dry cleaning solvent. Transport, use and handling of this liquid solvent, in addition to the waste generated, results in a much greater potential for accidental release or mishandling than the prior example. Facilities that use significant quantities of hazardous materials are a potential risk to ground water even if connected to a publicly owned treatment works because the risk of accidental discharge to the ground of the hazardous material exists. The Department consistently applied this logic in drafting and revising the regulation.

It is interesting to note that a study by the United States Geological Survey found that ground water quality beneath sewered residential areas is affected to a greater degree by human activities than is ground water quality beneath unsewered areas, and that commercial and industrial areas had a much larger effect on ground water quality than residential areas, even where sewered. ("Effects of Land Use on Quality of Water in Stratified-Drift Aquifers in Connecticut", Stephen J. Grady, U.S. Geological Survey Open-file Report 91-200, 1993)

**J. COMMENT:** A majority of the businesses which would be subject to the regulation are unaware of the proposed regulation. In addition, as final aquifer protection maps have not been completed by the water companies, not all of the potentially impacted entities have been identified.

**RESPONSE:** During the development of the Land Use Regulations the Department has striven to be inclusive. Types of businesses affected by the proposed regulation were well-represented on the Advisory Committee over the last 10 years. Every major draft of the

regulation developed was shared with the Advisory Committee prior to the June, 2000, public hearing, and many recommendations made in the interest of businesses affected by the proposed regulation were incorporated in the proposed regulation. Level B mapping of aquifer protection areas (preliminary mapping of aquifer protection areas) have been available at local town/city halls and to the general public since 1994, and numerous workshops, meetings, and presentation were conducted at that time.

Department staff also conducted a comprehensive public outreach program on the proposed land use regulations several months prior to the public hearing. This effort included evening presentations to business groups that would be affected by the regulation, municipal officials, regional planning agencies, non-profit environmental groups, and other environmental professionals. Outreach efforts included preparation of press releases, fact sheets, and briefs for the Department web site. Department staff also responded to numerous requests for interviews from major newspapers that included: The Hartford Courant; The Bristol Press; The Record Journal; The Herald; and The New York Times. All of these provided extensive coverage on the proposed regulation for approximately a 5-month period prior to June 2000 public hearing.

Extensive outreach was conducted by mail as well. In March of 2000, copies of the proposed aquifer protection regulations were mailed to the Advisory Committee and every Regional Planning Agency in the state with an offer to provide presentations on the proposed regulation upon request. In April of 2000, a package of information on the program was mailed to each of the 169 chief elected officials and planning and zoning boards, and the Commissioners of the Department of Economic Development, Department of Transportation, Department of Public Health and the Department of Education. The package included the Notice of Public Hearing and Notice of Intent to Adopt Regulations; a map showing the location of aquifer protection areas in the state; an aquifer protection fact sheet; a cover letter summarizing the purpose of the proposed regulation; and an invitation to presentations scheduled for May 15, 2000, and May 24, 2000. In May of 2000, the Department issued two press releases announcing the two presentations, and the June 2, 2000 public hearing on the proposed regulation. The May 15, 2000 presentation and the June 2, 2000 public hearing were recorded and aired on the public access channel by Connecticut Network Television.

Finally, land use inventories have recently been conducted for all of the aquifer protection areas. The inventories were conducted within the final (level A) area if available, or the preliminary (level B) area if not. A reasonable estimate from these inventories is that less than 1900 businesses will be affected statewide.

**K. COMMENT:** The proposed regulations may have the unintended effect of discouraging redevelopment of urbanized and fully suburbanized areas, and encouraging development of greenfields located outside of aquifer protection areas.

**RESPONSE:** The suggestion that Land Use Regulations may have the unintended effect of discouraging redevelopment of urbanized areas and subsequently encouraging the development of greenfields, is speculative and unlikely. As discussed above, the

Department estimates that roughly 2% of the land area in the state will be regulated under the Land Use Regulations. There are many brownfield areas in Connecticut in which regulated industries can locate which are not subject to the Land Use Regulations. Very few of the regional urban centers identified in the State Conservation and Development Plan are in aquifer protection areas. Where brownfields occur in aquifer protection areas, they are likely to be given greater priority for remediation (and subsequent reuse) because their present condition likely poses risks to public water supplies. While a specific redevelopment proposal for such a site in aquifer protection areas may be impacted by these regulations, many viable land uses remain.

**L. COMMENT:** Connecticut is the only state that has proposed such stringent land-use controls in aquifer protection areas.

**RESPONSE:** Connecticut is not alone in its efforts to protect ground-water supplies for future generations. While each state has a different regulatory framework, one unifying piece is that all fifty states have a federally approved State Wellhead Protection Program (WHPP) under section 1428 of the Federal Safe Drinking Water Act. A review of other states' WHPP indicates that a number of other states have adopted new regulatory protection requirements, including land use siting restrictions and prohibitions. Of seventeen states with similar water supply aquifers and land use patterns to Connecticut, eight programs incorporate land use prohibitions<sup>3</sup>. The prohibitions are based on either specific land uses or categories of activities such as hazardous waste generators. This is similar to the approach in the Land Use Regulations. The other states use voluntary local land use controls through state guidance, of which one is continuing to pursue required statewide land use controls. Of the northeastern states, all have some form of siting control, and Massachusetts, New Hampshire, Rhode Island and New York have some statewide land use restrictions (See Chart in Appendix V).

While the Land Use Regulations may be viewed as strict in comparison with other states in terms of land use controls, there are important additional factors to consider. Specific distinctions of Connecticut's proposed approach include: the Land Use Regulations only apply to the largest, most vulnerable community wells, while other states generally include more wells; level A mapping as required by Connecticut statute is more accurate compared to the less scientific, conservatively large areas used in numerous other states; and existing land uses in Connecticut are not made non-conforming and are allowed to expand, while in some other states existing uses become non-conforming and expansions are restricted.

## **IX. SPECIFIC COMMENTS AND RESPONSE THERETO ON THE REGULATION AS PROPOSED FOR HEARING**

Numerous modifications have been made to the regulation in response to public comments. Please see section VI for a list of the major modifications. In addition, editorial changes and structural changes have been made to improve the readability of the regulation.

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<sup>3</sup> See Appendix V for a comparison of programs in other states.

The responses to broad policy comments are provided in section VIII. The comments which were of a specific nature and their responses are outlined below by section of the regulation as proposed, preceded by a section on general comments.

## A. GENERAL COMMENTS

**1. Comment:** It would be highly desirable for these or similar regulations to also be applied to potential wellhead areas and to those existing wellheads that are likely to supply an increasing number of customers in the future. The state should expand preliminary aquifer mapping to identify other high potential aquifers that merit protection. (Exhibits 67, 102)

**Response:** The Department concurs that expanding the scope of the Land Use Regulations and aquifer mapping to apply to more than the proposed aquifer protection areas would achieve a higher level of protection for our ground-water resources. However, the first priority is the largest existing supply wells, where the contributing areas can be well-defined and which serve a large majority of the customers on public supply wells.

**Recommended Change:** None.

**2. Comment:** The Department should re-evaluate the Land Use Regulations either on an annual or bi-annual basis. (Exhibits 128, 133)

**Response:** The Department will evaluate the effectiveness of the Land Use Regulations as it implements the program. A formal scheduled review appears unwarranted at this juncture.

**Recommended Change:** None.

**3. Comment:** The Department should consider an environmental management system, specifically the ISO 14001 EMS Certification, as an alternative to regulations in addressing aquifer protection. (Exhibits 29, 80, 83, 84, 85, 88, 100, 128)

**Response:** As discussed above in section VIII of this report, response B, implementation of best management practices and environmental management systems do not eliminate the possibility of a release from a facility. Therefore, establishing such practices as a substitute for the proposed prohibitions would be less protective, and would not be consistent with the enabling statutes. However, the implementation of such systems is always encouraged, as it will minimize the risk of a release.

**Recommended Change:** Recognizing the dedication to environmental management demonstrated by an ISO 14001 certification, facilities which have achieved independently verified ISO 14001 certification will be allowed to self-certify to portions of the registration and permit forms.

**4. Comment:** A provision in the regulations for citizen comment on land-use proposals in aquifer protection areas should be included. (Exhibit 65)

**Response:** While not provided for in the Land Use Regulations, various processes are in place for public comment at the state and local levels. Many facilities will be regulated directly at the local level, allowing public comment before local

commissions. State-regulated facilities also allow for municipality and water company comment, and many state-regulated facilities require local planning and zoning approvals, which allow for public comment. Major state actions also must go through the Connecticut Environmental Policy Act (C.G.S. 22a-1e) review process that provides for public comment.

**Recommended Change:** None.

**5. Comment:** The proposed regulations contain too many references to other regulations. (Exhibit 94)

**Response:** It is standard practice in regulation drafting to incorporate statutory requirements of other regulations by reference. This is done, in part, to make sure that as statutes and regulations are updated, regulations relying on them are also updated. The Department acknowledges that this complicates using the Land Use Regulations and will address this issue in a guidance document that will be updated as necessary.

**Recommended Change:** None.

**6. Comment:** Individual municipalities should be allowed the discretion to adopt different, but equally effective regulations. (Exhibit 50)

**Response:** The Aquifer Protection Act does not provide a framework in which state regulations can be applied differently in different communities. In fact, the legislative intent of the Aquifer Protection Act is to establish a minimum standard of protection that can be applied state-wide. For companies or utilities that operate in multiple municipalities, consistency in regulation from municipality to municipality facilitates compliance. However, it is important to note that municipalities may adopt regulations which are more stringent than the state regulation; the state regulation sets the minimum standard.

**Recommended Change:** None.

**7. Comment:** Confusion over the roles of the Department and municipal aquifer protection agencies in administering the regulation was expressed. Two commenters stated that the Department should be responsible for administering the aquifer protection program instead of local commissions. One commenter stated that if implementation remains a function of the municipality, the Land Use Regulations should direct local zoning boards to be the commission of cognizance on aquifer protection matters since this is a land use and public policy issue. (Exhibits 8, 53, 73, 105)

**Response:** As discussed in section VIII of this report, response G, the Aquifer Protection Act divides responsibilities between the state and the municipalities. The Land Use Regulations do not, nor can they, change that division. In addition, the Act specifies that the local municipality has the responsibility to designate a municipal aquifer protection agency. However, more specificity can be added to clarify when the Department has jurisdiction, and when the municipality does.

**Recommended Change:** Edit language to clearly identify which regulatory entity has responsibility for specific actions.

**8. Comment:** Fourteen commenters expressed concern that the volunteer boards or commissions that will be administering the aquifer protection program at the local level will not get adequate training because the Department lacks adequate staffing to provide the training. One commenter stated the training should be done before the adoption of the Land Use Regulations. The effectiveness of such training was also questioned by one commenter based on the high rate of turnover on local boards and commissions. (Exhibits 12, 14, 25, 29, 48, 50, 53, 61, 63, 67, 69, 71, 72, 95)

**Response:** Training provisions for local aquifer protection agencies are similar to that required for local Inland Wetland Agencies as required by the Aquifer Protection Act. Training will consist of a model ordinance, guidance documents, and regular training workshops to help address the turnover issue. Large water companies are also required to assist municipalities. Finally, proposed changes to the Land Use Regulations have substantially reduced the work load on municipalities by streamlining registration and permitting requirements, and clearly spelling out decision-making criteria for permits.

**Recommended Change:** None.

**9. Comment:** The Department should seek sources of funding to provide financial assistance to municipalities that may lack the resources to adequately handle the increased workload the Land Use Regulations may place on these municipalities. (Exhibits 29, 118, 123, 126)

**Response:** The Department has secured an initial \$75,000 from the Wellhead Protection Set Asides under the Federal Safe Drinking Water Act to provide seed money to municipalities to assist them in establishing municipal programs. Additional funding through this source may be available in the future. The Department will be mindful of this and other funding opportunities for the municipal programs.

**Recommended Change:** None.

**10. Comment:** The Department should develop a General Permit Program to allow the regulated community to comply with the spirit and intent of the regulations without the constraints of an uncertain permitting process. (Exhibits 50, 53)

**Response:** The Aquifer Protection Act does not authorize the issuance of a general permit for land use control in an aquifer protection area. However, the permitting requirement of the Land Use Regulations has been designed to function very much like a general permit, with clearly defined criteria for issuance which should substantially reduce uncertainty of the outcome. In addition, operational changes or expansion of the registered regulated activity will no longer require a permit, only the addition of a new regulated activity to the registered facility. (See detailed comments and proposed changes to section 8 of the Land Use Regulations, beginning on page 38 of this report.)

**Recommended Change:** None.

**11. Comment:** There is very little opportunity to appeal decisions made by either the Department or the local agency pursuant to the proposed regulations. (Exhibit 13, 37)

**Response:** The Aquifer Protection Act provides for appeals of aquifer protection decisions under C.G.S. sections 22a-354q and 22a-354r.

**Recommended Change:** None.

**12. Comment:** The regulations may place a relatively heavier burden on small companies than on large ones. Small companies are hit hardest when they are found liable for environmental clean-ups, and these regulations should help protect these companies from this kind of liability. (Exhibit 54)

**Response:** The Department has made every effort to minimize the impact of these regulations on existing businesses while still protecting the aquifer. As discussed in Section VI of this report, a number of changes were made, many reducing requirements for smaller businesses, most notably exempting six minor activities from regulation.

**Recommended Change:** None.

**13. Comment:** The regulation does not take into account certain geologic conditions that act to protect the aquifer. This is the case in large areas of Plainville where the aquifer is protected by hundreds of clay deposits. (Exhibit 50)

**Response:** Although layers of fine-grained materials (silt and clay) are present in stratified drift deposits, these are typically inter-layered with coarser materials that provide conduits for movement of contaminants and water. The fact that one of Plainville's two well fields is being treated to remove contaminants demonstrates that such clay deposits are insufficient to protect the water supply.

**Recommended Change:** None.

**14. Comment:** Few level A maps have been done. It is backwards that a regulation would be developed and only then the area that it would apply to be defined. Many municipalities have no way of knowing the number of facilities that would fall under the regulations until the level A mapping is complete and a Land Use Inventory is complete. (Exhibits 25, 42, 63)

**Response:** Level A mapping has not been completed for the majority of well fields, so the exact area to be regulated is not known. However, the level B, or preliminary, mapping was completed over ten years ago for all the well fields. These areas are an approximation of the level A areas, and that mapping has already been provided to the municipalities. In addition, land use inventories have been completed for the level B areas, providing an estimate of the number and types of facilities to be regulated under the program. In many cases, the level A area will be contained within and smaller than level B, so the number of facilities to ultimately be regulated is very likely to be lower than the current estimates.

**Recommended Change:** None.

**15. Comment:** The statutes do not contain a standard of accuracy for the preparation of zoning and inland wetland maps. The delineation of aquifer boundaries on these maps will result in inaccurate aquifer protection area boundaries. When municipalities in Connecticut attempt to use these maps, taxpayers who are aggrieved will sue. Litigation will also occur since the regulations will not allow the municipality to reduce a boundary on the aquifer map. Communities that are anti-growth could expand an aquifer boundary to the town boundary, resulting in lawsuits. (Exhibits 25, 42, 93, 94)

**Response:** The level A mapping will provide a boundary line to be added to the municipality's existing zoning or inland wetlands maps. The Department has the

ability to generate the level A mapping boundaries at whatever scale an individual municipality's zoning or wetlands maps are, thus facilitating accurate transfer of the aquifer protection boundary. While the Land Use Regulations allow the municipality to extend the boundary to the nearest property line, municipal boundary or topographic feature, the purpose is to facilitate administration of the program. Such extension requires approval by the Department to ensure that it conforms to the above standard for aquifer protection purposes.

**Recommended Change:** None.

**16. Comment:** The proposed regulations do not contain a procedure for applying to remove a parcel from the aquifer protection area. The regulations need to contain a section which addresses the procedure to reclassify a property or portion thereof especially if the initial base map is inaccurate. (Exhibits 25, 42, 93, 94)

**Response:** Because the Department will provide the level A mapping to the municipality at an appropriate scale (as discussed above), inaccuracies in transferring the boundary should not be an issue. Mistakes in the transfer, however, can be addressed through existing local administrative procedures. If the level A mapping is amended by challenge (through section 22a-354b(1) of R.C.S.A.) provisions to amend the boundary are provided in section 2 of the Land Use Regulations.

**Recommended Change:** None.

**17. Comment:** Unless the number of facilities to be regulated by this program can be significantly reduced, this program will fail because of limited resources. One of the reasons it took eleven years to produce these draft regulations was because of a shortage of staff resources. The most effective way to protect our public supplies will be to focus staff resources on the enforcement of the excellent wastewater discharge permit, storm water general permit, and hazardous waste management programs currently in existence. The Department must be given sufficient personnel and funding to do the job right. (Exhibits 26, 48)

**Response:** As discussed above, the Department does not believe that enforcement of existing laws and regulations alone are sufficient to provide the necessary level of protection. Therefore, additional enforcement will not achieve the same goals as the proposed regulations. The Department has drafted the regulation and made changes discussed above to reduce state and local responsibilities with the assumption that our staff resources will not significantly increase and that the Department can meet its responsibility under the regulation in a timely manner with limited additional resources.

**Recommended Change:** None.

## **B. SPECIFIC COMMENTS:**

### **SECTION 22a-354i-1. DEFINITIONS**

**1. Comment:** The definition of "Ancillary Activity" significantly expands the scope of the regulation (Exhibit 50).

**Response:** The use of the term “ancillary” seems to have created considerable confusion. The purpose of this was to exclude well-controlled use of small quantities of hazardous materials from the regulations. Upon further consideration, the Department recommends deleting the term “ancillary activity”. The concept of an exemption for small, well-controlled uses is retained under section 5(c)(4) of the Land Use Regulations.

**Recommended change:** Delete definition of “Ancillary Activity”.

**2. Comment:** In the definition of “Ancillary Activity”, the 55-gallon hazardous material maximum is unreasonably small. (Exhibits 94, 98)

**Response:** As discussed in the paragraph above, the term “Ancillary Activity” is to be deleted, but the concept is retained. The 55 gallons was originally used as the maximum because many bulk raw hazardous materials and hazardous waste are sold and stored in standard 55-gallon drums. A 55-gallon drum is an easily identified and managed unit amount. In addition, since this provision functions as a conditional exemption from the regulation, it is intended to be small. This limit is not intended to be linked to a specific hazardous waste generation limit or risk established under R.C.R.A. , which addresses wastes, because ground-water contamination can result from both raw and waste materials. However, since the 55-gallon limit may not reasonably allow for material in process and waste generation, a higher hazardous material limit may be appropriate. Doubling this limit to 110 gallons realistically allows for raw, in process, and waste amounts. Other larger amounts and types of hazardous materials which do not pose a risk to ground water if released can apply for an exemption under section 6 of the Land Use Regulations.

**Recommended change:** Increase the conditional exemption for small quantities under section 5(c)(4) of the Land Use Regulations to 110 gallons of total hazardous materials.

**3. Comment:** The definition of “Hazardous Material” makes reference to many known state and federal documents and regulations on the subject. These are extensive and all-inclusive and it does not appear that a review has been done as to which materials pose a threat and in what quantity. Federal regulations recognize that threshold quantities and risk be considered, and these regulations should also consider risk. (Exhibits 98 and 111)

**Response:** There is no one single existing list that adequately covers all contamination threats to ground water. Therefore, the definition of hazardous materials had to reference several existing lists or develop a new list just for the Land Use Regulations. The use of established lists is preferred. The best available list is CERCLA , 40 CFR 302.4, table 302.4. This list was developed for accidental release reporting and is based on two criteria: (1) physical, chemical, and toxicological properties; and (2) degradative properties. These criteria relate well to ground-water quality concerns. The list is less inclusive than others, which have many substances of concern due to occupational or safety issues, rather than water quality concerns. The CERCLA list, however, does not include all hazardous materials of concern to ground-water quality, particularly petroleum (and its additives) and pesticides, so these were added to the definition. Existing threshold quantities were considered, and determined not to relate well to the risk of ground-water contamination. Risk was factored in to the list of

regulated activities. Section 5(c)(4) of the Land Use Regulations now allows for the use of a reasonable threshold volume of materials in well-controlled settings, and it is proposed that the threshold be increased to 110 gallons, as discussed above. It is also reasonable to exclude very small amounts in individual containers, and such an exclusion has been added under section 5(c)(2) of the Land Use Regulations: Regulated activities that involve no more than 2.5 gallons of each type of hazardous material on-site at any one time, provided the aggregate quantity does not exceed a total of 55 gallons will not be considered a regulated activity.

**Recommended Change:** Add an exclusion for regulated activities that involve no more than 2.5 gallons of each type of hazardous material on-site at any one time, provided the aggregate quantity does not exceed a total of 55 gallons to section 5(c) of the Land Use Regulations.

**4. Comment:** The proposed regulations do not specify whether "hazardous materials" would apply to listed hazardous substances themselves, or also to any mixtures containing such hazardous substance. The issue becomes more critical when thresholds and quantities must be determined, and has the potential to drastically increase the gap between the burdens that would be imposed by the program as proposed and its intended environmental benefits. (Exhibits 98 and 111)

**Response:** It is reasonable to modify the definition to coincide with CERCLA and SARA Title III, which exclude hazardous substances in mixtures or solutions which are less than 1% hazardous materials by volume.

**Recommended Change:** Exclude mixtures with concentrations of hazardous substances of less than 1% based on volume from the definition of hazardous materials in section 1(12) of the Land Use Regulations.

**5. Comment:** Lubricants and oils used in a manufacturing plant that complies with best management practices as required by the regulations do not pose a threat to an aquifer. The Department previously indicated that lubricants and cutting oils would not be included. (Exhibits 98 and 111)

**Response:** Clean lubricating oils used in manufacturing activities were considered for exclusion in earlier drafts of the regulations: Such oils are typically used in small quantities, are generally necessary for maintenance of many types of machinery, even when other hazardous materials are not in use, and because of their chemical composition, they are not highly mobile in soils and ground water. As long as the lubricating oils do not have chlorinated solvent additives (which can pose a risk to ground water), such lubricating oils could be excluded from the land use regulations.

**Recommended Change:** Add a new conditional exclusion in section 5(c)(5) of the Land Use Regulations for the use of non-solvent based lubricating oils in limited amounts, subject to certain conditions.

**6. Comment:** Definition of "Modify a Regulated Activity". The following comments were made concerning this definition:

(a) The definition includes any increase in the size of a facility which conducts regulated activities even though that increase in size may be to perform or enhance

functions of that business which have nothing to do with the regulated activity or the storage of hazardous waste within that facility; and

(b) The definition of "modify a regulated activity" should not include the subjective language "or to alter a regulated activity in a manner which increases the risk of pollution of the affected aquifer". This standard is overly vague, and does not provide a regulated entity with sufficient guidance as to how to apply it in a practical situation.

(Exhibits 94, 105 and 111)

**Response:** These comments, along with numerous others regarding the difficulties of administration of the registration and permitting processes for existing businesses, were convincing: The requirements in the proposed regulation to report in some fashion or obtain a permit for a number of changes to the existing regulated activities would create an unnecessary burden on businesses. The Aquifer Protection Act requires a permit for adding new regulated activities, but allows for existing regulated activities to essentially be "grand-fathered" if in compliance with applicable best management practices. Therefore, as long as there are assurances that best management practices are followed, changes to registered regulated activities can be allowed without a permit. The registration requirements can then be considerably simplified (details of the registered activity operation are not needed). However, to ensure that best management practices are adhered to, renewal of the registration, which includes certification by the owner/operator that best management practices are followed, will be required every five years.

**Recommended Change:** Delete the definition of "modify a regulated activity". Simplify the information to be included in the registration. Require renewal of the registration every five years.

**7. Comment:** In the definition of "professional engineer", the language "who is qualified by reason of relevant specialized training and relevant specialized experience" is too subjective. (Exhibit 94)

**Response:** Professional engineers are bound by professional ethics to only provide professional services in an area for which they are qualified by way of experience and training. This language clarifies that not all professional engineers may be qualified to render the services required under the regulation. It should be noted that this is the same language that is used in the definition of "certified hazardous material manager" in the regulations.

**Recommended Change:** None.

## **SECTION 22a-354i-2. DELINEATION OF AQUIFER PROTECTION AREA BOUNDARIES**

**8. Comment:** The regulation will require municipalities subject to the act to revise their zoning district maps each time a water company files a new level A map. This seems an unnecessary burden. Municipalities should only have to revise their maps after all level A mapping is complete in their community. (Exhibits 29, 123)

**Response:** Water companies are allowed up to 3 years after adoption of these regulations to complete mapping, and will map well fields in an order based on their

own priorities for protection and available resources. If municipalities delay adoption of the mapping until all the well fields in the town are mapped, it could mean significant delays in providing protection for many high priority well fields. Since the Department approves level A mapping under the mapping regulations, the local burden of mapping is limited to delineating lines on the zoning maps. It may, however, be beneficial to provide additional time for the municipality to delineate the areas on zoning maps. Extending the timeframe from 90 to 120 days would make it consistent with the 120 days allowed to adopt amended maps.

**Recommended change:** Change timeframe for municipal delineation of mapping from 90 days to 120 days in section 2(a) of the Land Use Regulations.

**9. Comment:** Clarify that only the precise portion of a property located in an aquifer protection area would be covered by these proposed regulations. (Exhibit 116)

**Response:** A regulated activity is defined as being located or conducted wholly or partially within an aquifer protection area. Therefore, only the portion of the property located in an aquifer protection area is subject to the regulations. Note however, that the municipality may opt to extend the aquifer protection boundary to property lines or other features to facilitate administration of the program under section 4 of the Land Use Regulations. Such extension would be subject to a public review process and approval by the Department, as specified under section 4 of the Land Use Regulations.

**Recommended Change:** None.

### **SECTION 22a-354i-3. ADOPTION OF MUNICIPAL REGULATIONS; COMMISSIONER'S APPROVAL**

**10. Comment:** The regulations require that municipal agencies adopt local regulations within 90 days of the identification of level A mapping areas and give the Department the ability to reject those regulations. To date, the Department has not proposed any form of regulations which could be reviewed or commented on by anyone. (Exhibit 105)

**Response:** Section 3(a) of the Land Use Regulations allows municipal agencies up to 6 months to adopt local regulations. The Land Use Regulations will form the basis for the local regulations. Once the state regulations are formally adopted, a model municipal regulation will be prepared by the Department to provide municipalities with a blueprint for adopting these Land Use Regulations as a local ordinance. In addition, guidance and training will be provided to local agencies.

**Recommended Change:** None.

### **SECTION 22a-354i-4. EXTENSION OF AQUIFER PROTECTION AREA BOUNDARIES FOR ADMINISTRATIVE PURPOSES; APPROVAL**

No comments were received on this section, however, the section has been reworked for clarity.

## SECTION 22a-354i-5 REGULATED AND PROHIBITED ACTIVITIES

**11. Comment:** The regulations do not address new ancillary activities for existing regulated activities. (Exhibit 98)

**Response:** The ancillary activity definition was intended to cover secondary activities that pose little potential threat to the ground water at otherwise non-regulated facilities. However, this distinction is not necessary. Whether new or existing, if a facility can meet these conditions, the risk to ground water is very low, and it does not need to be further regulated.

**Recommended change:** As discussed previously, the definition of ancillary activity should be deleted, and activities meeting all the requirements under section 5(c)(4) of the Land Use Regulations are not regulated.

**12. Comment:** The regulations should allow wastewaters lawfully disposed of off-site through RCRA or through a NPDES permit to a private wastewater treatment works, in addition to discharges to a publicly owned treatment works, to qualify as an ancillary activity. (Exhibits 111, 128)

**Response:** Allowances for wastewater disposed of off-site through RCRA or by NPDES permit to a private wastewater treatment works are not appropriate or comparable to the proposed allowance for certain specified activities that discharge to a publicly owned treatment works. Connection to a publicly owned treatment works is allowed for certain activities because the wastewater discharge is the primary concern at the facility, and such connection reduces the potential for accidental release of hazardous materials on site to the ground via sinks or other plumbed fixtures, unlike privately owned treatment works. In addition, a connection to publicly owned treatment works removes such potentially released substances to an off-site facility where treatment occurs and treated water is then discharged to a surface water body. RCRA management of hazardous wastes is unrelated to this potential release pathway and is not a substitute.

**Recommended Change:** None.

**13. Comment:** Ancillary activities should not be subject to the best management practices listed under section 9(b) of the Land Use Regulations. (Exhibit 128)

**Response:** Since activities meeting all the conditions of this section pose little risk to ground water, they will be exempted from the regulation, as discussed above, and therefore best management practices are not necessary.

**Recommended Change:** Changes discussed above in sections IX(B)(1) and IX(B)(11) of this report.

**14. Comment:** Prohibit types of land uses or activities rather than types of industry that are new, expanded or changed. (Exhibit 50)

**Response:** The regulation does prohibit types of land use activities. The industries listed in the table were intended as examples of an industry that may fit the land use activity category. This, however, generated considerable confusion. To clarify, the list of activities should be moved into the definition of “regulated activities” in section 1 of

the Land Use Regulations. The examples should be removed from the regulations, but provided in a guidance document where they can more readily be explained.

**Recommended Change:** Delete the table format and examples of activities, and move the list of regulated activities to the definition of “regulated activity” in section 1 of the Land Use Regulations.

**15. Comment:** Need to make the distinction between permitted and prohibited uses, and concentrate on performance and design standards and annual audit procedures for permitted uses. (Exhibit 93)

**Response:** As discussed elsewhere, Section 5 of the Land Use Regulations has been revised to clearly indicate which regulated activities are prohibited or exempted, and those which require a permit. Section 5 of the Land Use Regulations also clearly specifies when best management practices are required, and section 9 of the Land Use Regulations details the best management practices required.

**Recommended Change:** No additional changes.

**16. Comment:** Because certain land use activities are regulated under other programs, there is no need to include them in the aquifer protection area program. Examples of such activities are: (1) a hazardous waste generator's container storage areas regulated under RCRA, (2) permitted solid waste facilities such as composting operations, and (3) repair and maintenance of engines, if conducted indoors and connected to a publicly owned treatment works can be managed through controls. (Exhibit 26, 125, 127)

**Response:** The aquifer protection program provides a necessary extra level of protection for areas that supply ground water to public supply wells that are highly vulnerable to contamination. While the Department strives not to duplicate regulation by other programs, in some cases the existing program does not provide the level of protection needed in aquifer protection areas. Where there is significant potential for releases to the aquifer, such new activities need to be excluded from aquifer protection areas. Accidental releases can occur despite good intentions to adhere to existing requirements and best management practices, for reasons such as human error, physical failure of equipment and fire. The legislation specifically intends that certain activities be prohibited in aquifer protection areas for pollution prevention purposes.

**Recommended Change:** None.

**17. Comment:** There should be a provision in the regulations for removing or relocating unnecessary hazardous waste in aquifer protection areas when prudent, feasible and affordable. (Exhibit 65)

**Response:** The regulations do not prevent such removal or relocation from happening and may indirectly provide an additional incentive for such removal.

**Recommended Change:** None.

**18.** A number of comments recommended adding specific land use activities to the definition of regulated activities, as follows:

**a. Comment:** Add large parking lots. (Exhibit 65)

**Response:** It is not practical or necessary to prohibit large parking lots. Department experience indicates that parking lots are not a significant source of ground-water contamination. Large parking lots are regulated under a Department stormwater general permit, and the Department will provide additional guidance regarding parking lots in aquifer protection areas.

**Recommended Change:** None.

**b. Comment:** Add golf courses. (Exhibit 11)

**Response:** Golf courses as an overall activity are not a significant problem, although certain restrictions would apply. For example, underground fuel tanks for golf course equipment will be prohibited as a new activity.

**Recommended Change:** None.

**c. Comment:** Add use of sodium chloride and de-icers. (Exhibit 40)

**Response:** Prohibiting use of de-icers within aquifer protection areas is not practical from a public safety perspective. The Land Use Regulations address the major concern, storage of de-icers, and the Department will continue to emphasize the use of best management practices to avoid over-use of de-icing chemicals.

**Recommended Change:** None.

**d. Comment:** Add airports or airport expansions. (Exhibit 40)

**Response:** Specific activities associated with airports such as vehicle maintenance and fuel dispensing and storage are already proposed for regulation under the program. The other activity that might be of concern at airports is de-icing. The Department is not aware of any airports in aquifer protection areas that conduct de-icing activities. However, modifying “pavement de-icing chemicals” to “de-icing chemicals” will eliminate new airport de-icing operations.

**Recommended Change:** Modify definition of regulated activity in section 1(35)(X) of the Land Use Regulations to include “storage of de-icing chemicals” rather than “storage of pavement de-icing chemicals”.

**e. Comment:** The expansion of transportation facilities in aquifer protection areas should be carefully regulated to limit the risk from transportation-related spills. (Exhibit 40)

**Response:** The Department reviews the expansion of transportation facilities through the Connecticut Environmental Policy Act review process and direct permitting of certain activities. The Aquifer Protection Act includes provisions for the Department and the Connecticut Department of Transportation to study methods to prevent contamination in aquifer protection areas through design, construction and maintenance of transportation routes. The collaboration of the Department and large water companies will also provide information on evaluating and dealing with transportation-related spills.

**Recommended Change:** None.

**f. Comment:** Add fuel dispensing from a container larger than can be carried by hand and above-ground storage of gasoline. (Exhibit 23)

**Response:** Fuel dispensing has always been a concern. Above-ground storage systems are becoming more common as alternatives are sought to underground storage. Although above-ground systems have the advantage that leaks can be more readily detected, the potential for releases to the ground from overfills, piping failures and dispensing is consistent with that of an underground storage tank. Adding fuel dispensing to the list of regulated activities will effectively regulate both above ground and underground storage of gasoline and other fuels. However, an allowance is recommended for small above-ground tanks, subject to conditions.

**Recommended Change:** Add “oil or petroleum dispensing for the purpose of retail, wholesale, or fleet use” to the definition of regulated activities in section 1(35)(B) of the Land Use Regulations. Add exemption for oil or petroleum dispensing from a storage tank or tanks with an aggregate volume of 2000 gallons or less, subject to conditions, to section 5(c)(6) of the Land Use Regulations.

**g. Comment:** Non-residential underground fuel storage tanks for heating purposes should be prohibited throughout the aquifer protection area. (Exhibit 23)

**Response:** An underground fuel oil tank within 500 feet of a public supply well is a regulated activity under the Land Use Regulations, and therefore prohibited as a new activity. Beyond 500 feet of a public supply well, fuel oil releases have not been a significant threat because of limited mobility of fuel oil in stratified drift aquifers.

**Recommended Change:** None.

**h. Comment:** Add hazardous waste transfer facilities. (Exhibit 65)

**Response:** The term “hazardous waste transfer facility” is not a term defined in Connecticut regulations. The comment most likely refers to temporary storage of wastes generated by Large Quantity Generators (<90 days storage to arrange for disposal). Such storage is covered by the proposed regulations. The regulated activities include many activities which involve the “the use, storage, or disposal of hazardous materials”. The regulated activities therefore encompass the entire activity, even if the “use” occurs in a separate building or portion of the property from “storage”.

**Recommended Change:** None.

**i. Comment:** The exemption for activities connected to a publicly owned treatment works should be taken out and new activities that deal with hazardous materials should be prohibited. (Exhibit 111)

**Response:** For car and truck washing, and industrial laundries that are not using hazardous materials as a cleaning solution, it is reasonable to allow them in aquifer protection areas if they are connected to a publicly owned treatment works. While hazardous materials may be washed off in the discharge stream, without the handling and storage issues of hazardous materials, the potential threat to the ground water is substantially reduced.

For funeral homes and crematory services, furniture finishing (without stripping), laboratories, and photographic finishing, the quantities of hazardous materials are

small enough that accidental releases are easily contained, and it is the waste water discharge generated in the process that is of primary concern.

**Recommended Change:** None.

**19. Comment:** Numerous comments were received, both pro and con, on the issue of allowing many of the regulated activities, specifically manufacturing activities, to be exempted if connected to a publicly owned treatment works. The justifications provided for removing these from the Land Use Regulations were that such connection requires a Spill Prevention and Control Plan, which provides sufficient controls to protect the aquifer, and that manufacturing in Connecticut has not been a significant cause of new ground water contamination of public supply wells since at least the mid-1980s. (Exhibits 13, 14, 16, 26, 42, 50, 53, 69, 71, 72, 76, 77, 95, 98, 110, 120, 122, 123, 124, 127)

**Response:** Blanket exemption of manufacturing activities from regulation if connected to a publicly owned treatment works is not appropriate. The additional categories proposed for this exemption involve the use, handling and storage of hazardous materials and/or hazardous wastes on site. These are activities where accidental releases can and do occur, and which the legislation clearly intended to prohibit from aquifer protection areas.

The Department has numerous examples of recent (within the last 10 years) releases from manufacturing facilities. These are facilities which have Spill Prevention and Control Plans in place, yet discharges to the ground still occurred. For example, a significant manufacturer had four wastewater releases during 1996, including over 100 gallons in May, 1996, and 500 gallons in September, 1996. A manufacturer had an acid cleaning wastewater discharge of over 600 gallons per day through a hole in piping for over a year in 1993-94. A plating facility had a chrome plating solution leak into a boiler system which discharged to a dry well for months before discovery in 1996-97. As a last example, a manufacturer had an on-going discharge of aqueous cleaning wastewaters and waste paints to the ground that was discovered in 1998. These are not isolated incidents.

Although none of the cited incidents resulted in contamination of a large public supply well, that was simply fortuitous. There are only 122 large well fields in stratified drift aquifers across the entire state. Of these, 17 (14%) are or have already been impacted by contamination, requiring treatment, blending, or discontinuing use of the supply. Although many of these were impacted by historic contamination problems, the impacts are long-term and persistent, with high cost implications. Through physical failure of piping, overfills, untrained employees, or accidents, releases can and do occur, regardless of connection to a publicly owned treatment works or best management practices. The recent example of the fire in Ansonia which burned a facility to the ground and exposed large quantities of hazardous materials to the environment is a dramatic, but very real demonstration of why new facilities with hazardous materials storage and handling should not be sited in aquifer protection areas.

In revisiting each of the regulated activities, the Department does think it appropriate to narrow the scope of the activities of concern in three cases: (a) pulp production is only a concern where bleaching processes are involved; (b) production or treatment of

wood veneer, plywood or reconstituted wood is too broad, it is only the production of those products and pressure-treated wood that is of concern; and (c) finishing or etching of stone, clay, concrete or glass products is not as significant a concern as other prohibited activities.

**Recommended Change:** Modify the definition of “regulated activity” in section 1(35) of the Land Use Regulations to limit pulp production to those using bleaching processes; eliminate “treatment (of wood...)”, and add “pressure-treated wood”; and eliminate the entire category for “finishing or etching of stone, clay, concrete or glass products...”.

**20. Comment:** Clarify that interstate pipelines are exempted from regulation. (Exhibit 9)

**Response:** The regulation states “... to the extent it is not pre-empted by federal law”, therefore, any federal pre-emption is noted.

**Recommended Change:** None.

**21. Comment:** The term "within 500 feet of the nearest public water supply source" is too broad. (Exhibit 129)

**Response:** Agree.

**Recommended Change:** Change language in section 1(35)(A) of the Land Use Regulations to read: “more than 500 feet from a public supply well subject to regulation under 22a-354c or 22a-354z of the Connecticut General Statutes.” Note: the definition of “public water supply well” in section 1(31) of the Land Use Regulations should be changed to “public supply well” as used in the Public Health Code for consistency with other state regulations.

**22. Comment:** Need to clarify the term "non-biodegradable" discharges to the ground, as it is undefined and may not be appropriate. (Exhibit 23)

**Response:** Agree.

**Recommended Change:** Clarify language to prohibit discharges to the ground water of waste waters other than domestic sewage.

**23. Comment:** A provision should be included to allow car and truck washing if a means of alternative wastewater treatment is provided. (Exhibit 64)

**Response:** As discussed above, a connection to publicly owned treatment works removes wastewater with minimal handling to an off-site treatment facility. There are no associated handling and disposal issues to manage, thus minimizing the potential risk. This is not the case with an alternative treatment system.

**Recommended Change:** None.

**24. Comment:** Clarify that the Department's intent is to allow on-site chemical testing of public water supplies without a sanitary sewer connection. (Exhibit 23)

**Response:** This is the intent and it will be further addressed in guidance.

**Recommended Change:** None.

**25. Comment:** Food research laboratories should be excluded from the list of regulated activities. (Exhibit 127)

**Response:** Changes discussed elsewhere in this document have been recommended to exempt activities that use very small quantities of hazardous materials and to exempt certain lubricating oils. These changes should remove lower-risk activities, such as food research laboratories, from the regulations.

**Recommended Change:** None.

**26. Comment:** Oils and lubricants properly stored should be exempted from regulation. (Exhibit 98)

**Response:** As discussed in section IX(B)(5) of this report, an activity which uses lubricating oils with less than 1% chlorinated solvents and stores less than 110 gallons of lubricating oil above ground poses limited risk. Therefore, these activities should not be regulated if they meet certain conditions.

**Recommended Change:** No further changes.

**27. Comment:** The blanket prohibition against replacing a residential No. 2 fuel oil UST within 500 feet of the nearest supply well is unnecessary, given the limited mobility of No. 2 fuel oil. With no cost-effective or reasonable way to comply with this prohibition other than to refuse to replace a residential UST, the replacement ban would discourage or prevent homeowners from replacing old tanks. (Exhibit 129)

**Response:** Agree that not allowing replacement of underground storage tanks in order to encourage aboveground fuel oil tanks may discourage tank replacement.

**Recommended Change:** Delete provision prohibiting residential underground storage tank replacement (section 5(d) of the Land Use Regulations).

**28. Comment:** Where "tanks that contain #2 fuel oil" is referenced, the prohibited substances should be expanded to refer to more generic "hazardous substances" that a residence may contain, not just #2 fuel oil. (Exhibit 99)

**Response:** It would be very unusual for a residence to have underground storage tanks other than for fuel oil, or propane which is not considered a potential ground water threat.

**Recommended Change:** None.

## **SECTION 22a-354i-6. APPLICATION FOR AN EXEMPTION FROM PROHIBITION OR REGULATION**

**29. Comment:** An exemption from prohibition should be allowed if an applicant proposes a new activity that would in effect reduce risk because the applicant would (for example) buy out, modify, or remove existing facilities. (Exhibit 126)

**Response:** This concept appears simple, but implementation would be very complicated. In order to allow a regulated activity to locate at an undeveloped site, or a site where a regulated activity does not already exist, in exchange for buying out, modifying, or removing existing facilities from a different location, a risk trading system would have to be developed. To introduce such a risk trading concept for new development would likely require a modification to the underlying statutory authority.

An attempt to use a risk trading system to allow changes in regulated uses as a substitute for the permit process was evaluated in conjunction with the Advisory Committee during the drafting process of the regulation, however, it was deemed to be unworkable.

**Recommended Change:** None.

**30. Comment:** The criteria for granting an exemption is too limiting and/or impossible for an applicant to achieve. (Exhibits 98, 105, 111)

**Response:** The purpose of the exemption is to recognize that not all “hazardous materials” pose a threat to ground-water supplies. For example, a hazardous material may be listed as hazardous because it is corrosive and harmful if a person were to come into direct contact with the material. However, if the corrosive material were accidentally released to the ground water it may not necessarily render the ground water unsuitable for drinking without treatment. There are a number of hazardous materials to which such criteria apply.

**Recommended Change:** Re-word sections 6(a) and 6(b) of the Land Use Regulations to clarify criteria and application requirements for exemptions.

**31. Comment:** The term "municipality" should be added to the list of agencies who receive a copy of an application for an exemption from prohibition and to the subsection that provides those agencies 60 days to comment on the application, to ensure that both the municipality and the municipal agency are informed. (Exhibit 62)

**Response:** The Aquifer Protection Act requires that a municipality appoint an existing board or commission to act as the municipal aquifer protection agency for the municipality. Such commission receives notice under the proposed regulation.

**Recommended Change:** None.

**32. Comment:** The regulation requires an applicant to "demonstrate that storm water discharge from the property at which the subject regulated activity takes place is managed in a manner that prevents pollution of ground water." The regulation does not contain any criteria, guidelines or standards to attain this requirement or evaluate the applicant's proposal. (Exhibits 94, 98)

**Response:** After further consideration, the Department noted that if the hazardous material utilized does not pose a threat to ground water, stormwater handling and the materials management plans are not relevant.

**Recommended Change:** Delete requirements for materials management and stormwater management plans for exemption applications in section 6(b) of the Land Use Regulations.

**33. Comment:** Definitive timelines should be established for processing exemptions. It was recommended that a time limit be placed on the Department's response that is reasonable and consistent with an applicant's need for a response. Another commenter recommended that the municipal agency be required to comment within thirty days of notification. (Exhibits 71, 72, 116)

**Response:** The Department is in the process of adopting regulations to address timeframes for processing permits and registrations and it is anticipated that subsequent

revisions of that regulation will consider the exemption and permit application requirements of the Land Use Regulations. A volunteer commission acting as the municipal aquifer protection agency will likely need a minimum of 60 days to review and comment on an application for an exemption.

**Recommended Change:** None.

**34. Comment:** A section should be added to clarify that if a regulated activity is exempted by the Department, it will still be subject to the regulations as they pertain to registration, changes in the activity, etc. (Exhibit 62)

**Response:** An exempted activity is one which has been determined not to pose a threat to a public supply well. It is therefore not necessary to subject such activities to the requirements of a regulated activity.

**Recommended Change:** None.

## **SECTION 22a-354i-7. REGISTRATION OF EXISTING REGULATED ACTIVITIES**

**35. Comment:** There are no provisions for how to deal effectively with tenant/lease situations, posing hardships for landlords and precarious financial situations for their lenders. A provision should be added to clarify that for regulated activities where the operator is different from the owner of the property and/or equipment, that the operator of the facility is the "person" whom is responsible to register the activity. (Exhibits 50, 64)

**Response:** The language states that it is the person who is engaged in a regulated activity that must register the activity, therefore, the operator would be responsible. Landlords certainly have an incentive to ensure that tenants register, as future use of the property may be impacted.

**Recommended Change:** None.

**36. Comment:** The 90-day deadline to register a regulated activity is too stringent. It was suggested that municipalities be allowed to provide for an extension of the deadline. It was also suggested that either the municipality or the Department notify any land owners within the aquifer protection areas of the potential impact of the regulations. (Exhibits 29, 97, 105, 123)

**Response:** The Department agrees that 90 days may be insufficient. Ample time is necessary to educate the public and operators of regulated activities that they must register their status and come into compliance with best management practices for storage of hazardous materials.

**Recommended Change:** Change the 90-day deadline for registration in section 7(b) of the Land Use Regulations to 180 days.

**37. Comment:** Research and development laboratories store and use thousands of different compounds, typically in quantities of 50 grams or less, and this inventory changes constantly. These regulations would require constant inventory, and permit modifications, crippling the facility's ability to stay competitive. (Exhibit 111)

**Response:** Agree. As discussed above in section VIII (B) of this report, this was one of many comments which resulted in recommendations to simplify the registration requirements and delete the inventory.

**Recommended Change:** Delete requirements for detailed descriptions and inventory of hazardous materials and operations for registration from section 7(c) of the Land Use Regulations.

**38. Comment:** There is no limit to what information can be requested by the Department or municipal agency from a registrant. All the information requested in the registrations is already on file with and available to the Department for those activities currently regulated by the Department and it is inconvenient and costly to report to both state and local authorities. (Exhibits 33, 98, 128)

**Response:** Again, the registration information requested has been significantly simplified to reduce this burden.

**Recommended Change:** No additional changes.

**39. Comment:** Definitive timelines should be established for processing registrations. (Exhibits 64, 72)

**Response:** A timeframe of 90 days was established in section 7 of the Land Use Regulations. Upon further consideration however, the Department recommends extending the 90 days to 180 days, which is parallel to the length of time the applicant has to submit the registration.

**Recommended Change:** Change 90 days to 180 days for processing registrations in section 7(h) of the Land Use Regulations. If the registrant has not been notified otherwise within 180 days, the registration shall be complete.

**40. Comment:** A commenter stated that the allowance for the Department or the municipal agency to request a new materials management plan when a registration is transferred if it is “deemed necessary” is an unreasonable grant of power inconsistent with the legislative intent. (Exhibit 105)

**Response:** As previously discussed, the Department has recommended streamlining the permitting process and requiring renewal of registrations every five years. This will allow the regulating agency to better track changes to a facility, and the provisions will be uniformly applied to all registrants. It is therefore not necessary to have this additional provision.

**Recommended Change:** Delete provision in section 7(g) of the Land Use Regulations.

## **SECTION 22a-354i-8 MODIFICATION OF A REGISTERED REGULATED ACTIVITY**

**41. Comment:** A number of comments were received on section 8 of the Land Use Regulations as being complicated, too stringent and unnecessary, including the following comments:

a. Section 8 of the Land Use Regulations requires a permit for something as routine as the addition of a new piece of production equipment, thus triggering a costly and intrusive process with no certainty of the outcome. The proposed concept is too stringent. (Exhibits 33, 97, 128, 129)

b. The provisions for modifications are particularly incompatible with the nature of laboratories, where the types of materials are in frequent flux. (Exhibit 128)

c. The modification section does not allow for any new material or any increase in use without exception. (Exhibits 37, 98)

d. The process of going from a registered regulated activity to a non-regulated activity is confusing, contradictory, or unnecessary. One commenter recommended the process be replaced with a notification process. (Exhibits 13, 64, 105)

e. Modifications to regulated activities should be granted as of right if the applicant is in compliance with these regulations and satisfies stated, clear, and reasonable requirements. (Exhibit 128)

**Response:** As discussed above, after careful consideration of the whole modification process and requirements, the Department agrees that many of the requirements were burdensome and achieved minimal environmental benefit. The Department is therefore recommending reorganization and simplification of section 8 of the Land Use Regulations such that only the addition of a new regulated activity to a registered facility would require a permit. Also, through periodic renewal of registrations, the regulating authority will be able to track businesses going from regulated to non-regulated activities. It was noted that the regulations did not provide for expiration, renewal, transfer or modification of a permit, so these provisions should be added.

**Recommended Change:** Reorganize and modify section 8 of the Land Use Regulations to limit the permit process to new regulated activities at registered facilities. Add general provisions to the permits, including a ten-year term for the permit and a renewal provision, as well as provisions for modifying and transferring a permit.

**42. Comment:** Businesses can not expand without first applying for a permit and an exemption to the regulations. (Exhibits 97)

**Response:** The proposed regulations do not require that a business conducting a regulated activity apply for both a permit and an exemption.

**Recommended Change:** None.

**43. Comment:** Two comments were received on providing standards for issuance of a permit: (a) The regulations do not provide any clear, objective standards for issuance of a permit, leaving the issuance of a permit as a matter of un-channeled discretion; and (b) while the regulations require information to be supplied in the application on compliance history, they fail to direct the Department to take this information into consideration determining whether to issue a permit pursuant to section 8 of the Land Use Regulations. (Exhibits 40 and 129)

**Response:** The Department agrees that specifically listing standards for issuance of a permit would be beneficial. These standards should be directly related to the information required in the permit application.

**Recommended change:** Add a new section 8(e) to the Land Use Regulations to clarify demonstrations that must be made by the applicant before a permit can be issued. These demonstrations should include the following:

- a. The proposed regulated activity shall take place at the registered facility;
- b. there will be no increase in the number of underground storage tanks used to store hazardous materials, and no increase in the capacity of such tanks, except for replacement under specified conditions;
- c. a materials management plan and stormwater management plan have been satisfactorily prepared;
- d. the applicant has certified that all regulated activities are in compliance with all applicable federal and state environmental laws;
- e. the applicant's compliance history at the facility does not indicate non-compliance due to indifference or obvious disregard for the legal requirements, an un-willingness to devote the resources necessary to comply, or that instances of noncompliance have led to serious environmental harm, harm to human health or safety, or a substantial risk of such harm;
- f. best management practices required under section 9 of the Land Use Regulations are followed for the proposed activity;
- g. best management practices required under section 9 of the Land Use Regulations are followed for the registered activity; and
- h. a certification that application is "true, accurate and complete ..." has been signed and submitted.

**44. Comment:** An underground storage tank that is regulated under the Connecticut Underground Storage Tank Regulations (22a-49(d)-1 and 22a-449(d) through 113 of R.C.S.A.) should be allowed to be replaced without regard to the size of the replacement tank. There should not be a prohibition on an increase in the number or capacity of underground storage tanks used for hazardous materials. The Department should allow new construction, even underground, in return for a greater offset in the number or size of the storage tanks, or for requiring new tanks to meet a higher safety standard than that required for existing tanks. (Exhibits 21, 64)

**Response:** The Department agrees that allowance for a modest increase in underground storage tank size is reasonable if the tank is upgraded to a double-walled tank with co-axial piping, both meeting new installation component standards pursuant to the Connecticut underground storage tank rules, and with interstitial monitoring.

**Recommended change:** Add provision to section 9(a)(3) of the Land Use Regulations to allow an underground storage tank to be replaced with a larger tank, provided that: (1) there is no more than a 25% increase in volume of stored product in the larger replacement tank, (2) the larger replacement tank is a double-walled tank with co-axial piping, and (3) there is interstitial monitoring. The tank and piping must meet new installation component standards specified in the Connecticut underground storage tank regulations.

**45. Comment:** The certification of a Professional Engineer or Certified Hazardous Materials Manager regarding the criteria prescribed in the regulations should not be

sufficient to allow the modification to proceed without additional agency oversight. (Exhibit 111)

**Response:** As discussed above, the majority of comments received in response to this section of the proposed regulations recommended limiting agency oversight, and modifications to registered regulated activities no longer require certification.

**Recommended Change:** None.

**46. Comment:** It is unnecessary to inquire about the legal history of the company's parent or subsidiary corporations or its principals, directors, officers or partners when asking for information about compliance history. (Exhibit 21)

**Response:** The Department agrees that limiting submission of the compliance history of the applicant to the facility is appropriate.

**Recommended Change:** Revise section 8(c) of the Land Use Regulations to limit compliance history to the applicant at the facility.

**47. Comment:** The broad discretion allowed the regulating agency to impose permit conditions such as performance bonds, ground-water monitoring, unspecified record keeping or unspecified additional best management practices is excessive. (Exhibit 94, 38, 53, 105, 128)

**Response:** It is desirable for the agency making a decision on a permit application to have some discretionary authority to grant a permit subject to conditions. The most likely conditions are additional best management practices or ground water monitoring when necessary to assure protection of the ground water. Limits cannot be determined in advance of a review of the application by the agency because each application is site-specific and activity-specific. However, the Department agrees that it is not necessary to explicitly state the provisions for requiring performance bonds or record keeping in the regulation.

**Recommended Change:** Delete the explicit provisions for performance bonds and record keeping in new section 8(f) of the Land Use Regulations.

**48. Comment:** The mere request for a permit creates the right for the Department to look for pollution even when there is no evidence to support that any pollution exists. Section 8(i)(4) of the Land Use Regulations should be revised as follows: In (4) after "has been remediated" insert "or is in the process of being remediated". (Exhibits 37, 64)

**Response:** The intent of this requirement was to ensure that modifications to a facility do not make areas of the site inaccessible for remediation (since, due to economic considerations, the Department typically does not require facilities to, for example, take down a building in order to remove contaminated soil from beneath a building). However, given other regulatory requirements for remediation, this provision is not necessary.

**Recommended Change:** Delete provision.

**49. Comment:** Revisions to section 8(j) of the Land Use Regulations concerning environmental audits were suggested: There are other qualified professionals who conduct environmental audits. Applicants in substantial compliance with

environmental laws and rules should not be delayed for minor infractions such as incorrect paperwork. The requirement to produce an audit that “demonstrates that the applicant is in compliance with all applicable environmental laws” is significantly over broad. (Exhibits 64 and 111)

**Response:** This section of the land use regulations was carefully re-evaluated and modifications are suggested. The focus of this section is materials management and ensuring that the facility is taking steps to minimize the potential for a release. These requirements more appropriately belong in the best management practices section (section 9) of the Land Use Regulations. The section should be streamlined and the intention clarified. The requirement for qualified environmental professionals to certify the plan was retained, as the types of professionals specified have relevant environmental experience, and hold a license or certification which could be revoked if the environmental professional failed to maintain the license or certification or performed unethically. However, such certification will only be required if the plan is submitted to the Department or municipal aquifer protection agency under sections 7(d) or 8(c) of the Land Use Regulations. The materials management plan is intended to be prepared specifically for the regulated activities at the registered or permitted facility.

**Recommended Change:** Combine sections 8(j) and 9(b)(1) into section 9(a)(5) of the Land Use Regulations. Consistently use the term “materials management plan”. Streamline and clarify requirements. Require certification by qualified environmental professionals only if the plan is required to be submitted to the Department or municipal aquifer protection agency under sections 7(d) or 8(c) of the Land Use Regulations, and allow ISO 14001 certified facilities to self-certify to such information.

**50. Comment:** The regulation mandates that the individual who prepares the environmental audit submit a "list of all federal and state environmental laws applicable to the registered regulated activity, indicating whether the applicant is in compliance with each such law." The state should provide this type of list for each of the undefined businesses and industries which are included in the categories of uses. (Exhibit 94)

**Response:** The list of applicable laws would be site-specific, depending upon the regulated activities conducted at an individual business. However, the intent of this requirement was to ensure compliance with applicable laws. Because the compliance check is already specified in section 8(c) of the Land Use Regulations, this requirement is redundant and can be deleted.

**Recommended Change:** Delete the requirement for submission of a list of applicable laws.

## **SECTION 22a-354i-9. BEST MANAGEMENT PRACTICES FOR REGULATED ACTIVITIES**

**51. Comment:** It needs to be clarified when or if best management practices are required for every regulated activity and if every condition is required, or if some of the conditions are grand-fathered. (Exhibit 64)

**Response:** Further clarification should be provided. The best management practices in section 9 of the Land Use Regulations are separated into two subsections: 9(a) and 9(b). Subsection 9(a) requirements must be achieved and verified by a signed certification when the applicant registers the regulated activity, as specified in section 7(c) of the Land Use Regulations. Subsection 9(b) requirements may be required upon written notice by the Commissioner or municipal aquifer protection agency if deemed necessary by that agency, as provided for in section 7(c) of the Land Use Regulations. In addition, subsection 9(b) requirements shall be required if a permit to add a new regulated activity is applied for, as provided for in section 8(c) of the Land Use Regulations. As discussed previously in this report, the materials management plan was moved from section 9(b) to section 9(a) of the Land Use Regulations (making it a requirement for registration).

**Recommended Change:** Clarify when the best management practices requirements shall or may apply in sections 7, 8 and 9 of the Land Use Regulations.

**52. Comment:** An appropriate and reasonable time period must be allowed for an existing regulated activity to come into compliance with best management practices. (Exhibit 64)

**Response:** The time periods for compliance with best management practices are listed in the appropriate sections of the regulations dealing with regulated activities, registrations, and permits. As discussed under the comments for section 22a-354i-7, the Department recommends increasing the time period for registering regulated activities (and thus certifying to compliance with mandatory best management practices) to 180 days.

**Recommended Change:** As discussed and recommended under section 22a-354i-7 of this report (section IX(B)(36)).

**53. Comment:** It should be clarified that the requirements in section 9(a)(1) of the Land Use Regulations apply only for above-ground storage of hazardous materials. (Exhibit 64)

**Response:** Agree.

**Recommended change:** Add “above-ground” to section 9(a)(1) of the Land Use Regulations.

**54. Comment:** Section 9(a)(1)(B) of the Land Use Regulations should be changed to be more flexible in how storage area floors are protected. (Exhibit 64)

**Response:** Agree that more flexibility should be given here.

**Recommended change:** Change “coated” to “constructed or treated” in section 9(a)(1)(B) of the Land Use Regulations.

**55. Comment:** The requirement for secured public entry should be deleted or specify some reasonable maximum amount of hazardous material. There are circumstances where low amounts of hazardous material are present in public areas, for example in a service bay of a service station where a 250 gallon waste oil is located. The material is secured in a tank but the public has access to the service bays on a limited basis. (Exhibit 64)

**Response:** This provision was intended to provide basic security of hazardous material storage areas against general access by the public and potential vandalism, and should be clarified to indicate such.

**Recommended change:** Change section 9(a)(1)(G) of the Land Use Regulations to indicate areas are to be secured against unauthorized access.

**56. Comment:** Several comments were received on section 9(a) suggesting that some wastewaters permitted by the Department would be appropriate in aquifer protection areas, such as permitted treated drinking water discharges (pump packing water or water from sampling taps). It was also suggested that the language “to the subsurface” be substituted for “to the ground” because floor drains, dry wells, etc. release wastewater to the subsurface, not the ground. (Exhibit 23 and 64)

**Response:** The Department agrees that certain discharges currently allowed by law, including treated drinking water and approved subsurface sewage discharges, would not impair the aquifer, and it is appropriate to make an allowance for certain discharges permitted by the Department. However, the term “to the ground” should continue to be used in this BMP because it is consistent with the term’s use in other sections of the regulations and would include discharges to any part of the ground including the subsurface.

**Recommended change:** Change section 9(a)(4) of the Land Use Regulations to indicate that the use, maintenance, or installation of floor drains, dry wells, or other infiltration devices or appurtenances, which allow the release of waste waters to the ground is prohibited unless such release is permitted by the Department in accordance with section 22a-430 or section 22a-430b of the Connecticut General Statutes.

**57. Comment:** In section 9(b)(1) of the Land Use Regulations, a provision is needed to clarify that if a Materials Management Plan or some similar document or plan is required by other state or federal environmental laws/rules, that another different materials management plan is not required here. Change “aquifer” to “aquifer protection area” in subparagraph 9(b)(1)(c) to clarify that these requirements apply to the aquifer protection area and not the entire aquifer. (Exhibit 64)

**Response:** A specific form for the materials management plan is not required. If a previously prepared document meets all the requirements of this section, it may be substituted. The use of the term “aquifer” here is consistent with the use of the term in other parts of the regulations and only applies to a regulated activity that is within the aquifer protection area.

**Recommended Change:** Delete subsection 9(b)(2) of the Land Use Regulations to allow the use of other forms or documents that cover information required in the materials management plan.

## **SECTION 22a-354i-10. OTHER STATE, FEDERAL AND LOCAL LAWS**

No comments received on this section.

## **X. FINAL WORDING OF THE PROPOSED REGULATIONS**

### **AQUIFER PROTECTION AREAS -LAND USE CONTROLS**

**SECTION 1. The Regulations of Connecticut State Agencies are amended by adding sections 22a-354i-1 to 22a-354i-10, inclusive, as follows:**

**(NEW) Sections 22a-354i-1 to 22a-354i-10. Regulations for Delineation of Aquifer Protection Areas on Municipal Maps, Best Management Practices, and Prohibition of Regulated Activities within Such Areas**

#### **Section 22a-354i-1. Definitions**

For the purpose of sections 22a-354i-1 to 22a-354i-10, inclusive, of the Regulations of Connecticut State Agencies, the following definitions apply:

- (1) "Affected water company" means "affected water company" as defined in section 22a-354h of the Connecticut General Statutes;
- (2) "Applicant" means, as appropriate in context, a person who applies for an exemption under section 22a-354i-6 of the Regulations of Connecticut State Agencies, or a permit under section 22a-354i-8 of the Regulations of Connecticut State Agencies;
- (3) "Application" means, as appropriate in context, an application for an exemption under section 22a-354i-6 of the Regulations of Connecticut State Agencies, or an application for a permit under section 22a-354i-8 of the Regulations of Connecticut State Agencies;
- (4) "Aquifer protection area" means "aquifer protection area" as defined in section 22a-354h of the Connecticut General Statutes and any extension of such area approved by the Commissioner pursuant to section 22a-354i-4 of the Regulations of Connecticut State Agencies;
- (5) "Area of contribution" means "area of contribution" as defined in section 22a-354h of the Connecticut General Statutes and as mapped in accordance with section 22a-354b-1 of the Regulations of Connecticut State Agencies;
- (6) "Bulk storage facility" means property where oil or petroleum liquids are received by tank vessel, pipeline, railroad car or tank vehicle for the purpose of storage for wholesale distribution;
- (7) "Certified Hazardous Materials Manager" means a hazardous materials manager certified by the Institute of Hazardous Materials Managers and who is qualified by reason of relevant specialized training and relevant specialized experience to conduct audits of regulated activities to ensure compliance with applicable law and identify appropriate pollution prevention practices for such activities;
- (8) "Commissioner" means the Commissioner of Environmental Protection, or his or her agent;
- (9) "Domestic sewage" means "domestic sewage" as defined in section 22a-430-3(a) of the Regulations of Connecticut State Agencies;
- (10) "Facility" means property where a regulated activity is conducted by any person, including without limitation any buildings located on the property that are owned or leased by that person; and includes contiguous land owned, leased, or for which there is an option to purchase by that person;

- (11) "Floor drain" means any opening in a floor or surface which opening or surface receives materials spilled or deposited thereon;
- (12) "Hazardous material" means (A) any hazardous substance as defined in 40 CFR 302.4 and listed therein at Table 302.4, excluding mixtures with a total concentration of less than 1% hazardous substances based on volume, (B) any hazardous waste as defined in section 22a-449(c)-101 of the Regulations of Connecticut State Agencies, (C) any pesticide as defined in section 22a-47 of the Connecticut General Statutes, or (D) any oil or petroleum as defined in section 22a-448 of the Connecticut General Statutes;
- (13) "Hazardous waste" means "hazardous waste" as defined in section 22a-449(c)-101 of the Regulations of Connecticut State Agencies;
- (14) "Industrial laundry" means a facility for washing clothes, cloth or other fabric used in industrial operations;
- (15) "Infiltration device" means any discharge device installed below or above the ground surface which device is designed to discharge liquid to the ground;
- (16) "Inland wetland map" means a map pursuant to section 22a-42a of the Connecticut General Statutes;
- (17) "ISO 14001 environmental management system certification" means a current ISO 14001 environmental management system certification issued by an ISO 14001 environmental management system registrar that is accredited by the American National Standards Institute and Registrar Accreditation Board;
- (18) "Level A mapping boundary" means the lines as shown on Level A maps approved or prepared by the Commissioner pursuant to sections 22a-354c, 22a-354d or 22a-354z of the Connecticut General Statutes encompassing the area of contribution and recharge areas;
- (19) "Lubricating oil" means oil that contains less than 1% chlorinated solvents and is used for the sole purpose of lubricating, cutting, grinding, machining, stamping or quenching metals;
- (20) "Municipal aquifer protection agency" means the board or commission authorized by the municipality under section 22a-354o of the Connecticut General Statutes;
- (21) "Municipality" means "municipality" as defined in section 22a-354h of the Connecticut General Statutes;
- (22) "Owner" means the owner or lessee of the facility in question;
- (23) "De-icing chemical" means sodium chloride, calcium chloride, or calcium magnesium acetate;
- (24) "Person" means any individual, firm, partnership, association, syndicate, company, trust, corporation, limited liability company, municipality, agency, political or administrative subdivision of the state, federal agencies as permitted by law, or other legal entity of any kind;
- (25) "Pollution" means "pollution" as defined in section 22a-423 of the Connecticut General Statutes;
- (26) "Pollution prevention" means the use of processes and materials so as to reduce or minimize the amount of hazardous materials used or the quantity and concentration of pollutants in waste generated;
- (27) "Potential well field" means "potential well field" as defined in section 22a-354a of the Connecticut General Statutes;

(28) "Professional engineer" means a professional engineer licensed in accordance with chapter 391 of the Connecticut General Statutes, and who is qualified by reason of relevant specialized training and relevant specialized experience to conduct audits of regulated activities to ensure compliance with applicable law and identify appropriate pollution prevention practices for such activities;

(29) "Publicly owned treatment works" means "publicly owned treatment works" as defined in section 22a-430-3 of the Regulations of Connecticut State Agencies;

(30) "Public service company" means "public service company" as defined in section 16-1 of the Connecticut General Statutes;

(31) "Public supply well" means "public supply well" as defined in section 19-13-B51b of the Regulations of Connecticut State Agencies;

(32) "Recharge area" means "recharge area" as defined in section 22a-354h of the Connecticut General Statutes and as mapped in accordance with section 22a-354b-1 of the Regulations of Connecticut State Agencies;

(33) "Registered regulated activity" means a regulated activity which has been registered in accordance with section 22a-354i-7 of the Regulations of Connecticut State Agencies, and is conducted at the facility identified in such registration;

(34) "Registrant" means a person, who or which, has submitted a registration for a regulated activity in accordance with section 22a-354i-7 of the Regulations of Connecticut State Agencies;

(35) "Regulated activity" means any of the following activities, which are located or conducted, wholly or partially, in an aquifer protection area, except as provided for in sections 22a-354i-5(c) and 22a-354i-6 of the Regulations of Connecticut State Agencies:

(A) underground storage or transmission of oil or petroleum, to the extent such activity is not preempted by federal law, or hazardous material, except for (i) an underground storage tank that contains number two (2) fuel oil and is located more than five hundred (500) feet from a public supply well subject to regulation under section 22a-354c or section 22a-354z of the Connecticut General Statutes, or (ii) underground electrical facilities such as transformers, breakers, or cables containing oil for cooling or insulation purposes which are owned and operated by a public service company,

(B) oil or petroleum dispensing for the purpose of retail, wholesale or fleet use,

(C) on-site storage of hazardous materials for the purpose of wholesale sale,

(D) repair or maintenance of vehicles or internal combustion engines of vehicles, involving the use, storage or disposal of hazardous materials, including solvents, lubricants, paints, brake fluids, transmission fluids or the generation of hazardous wastes,

(E) salvage operations of metal or vehicle parts,

(F) wastewater discharges to ground water other than domestic sewage and stormwater, except for discharges from the following that have received a permit issued by the Commissioner pursuant to section 22a-430 of the Connecticut General Statutes: (i) a pump and treat system for ground water remediation, (ii) a potable water treatment system, (iii) heat pump system, (iv) non-contact cooling water system, or (v) swimming pools,

(G) car or truck washing, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,

(H) production or refining of chemicals, including without limitation hazardous materials or asphalt,

(I) clothes or cloth cleaning service which involves the use, storage or disposal of hazardous materials including without limitation dry-cleaning solvents,

(J) industrial laundry service which involves the cleaning of clothes or cloth contaminated by hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,

(K) generation of electrical power by means of fossil fuels, except for (i) generation of electrical power by an emergency engine as defined by section 22a-174-22(a)(3) of the Regulations of Connecticut State Agencies, or (ii) generation of electrical power by means of natural gas or propane,

(L) production of electronic boards, electrical components, or other electrical equipment involving the use, storage or disposal of any hazardous material or involving metal plating, degreasing of parts or equipment, or etching operations,

(M) embalming or crematory services which involve the use, storage or disposal of hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,

(N) furniture stripping operations which involve the use, storage or disposal of hazardous materials,

(O) furniture finishing operations which involve the use, storage or disposal of hazardous materials, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works,

(P) storage, treatment or disposal of hazardous waste subject to a permit under sections 22a-449(c)-100 to 22a-449(c)-110, inclusive, of the Regulations of Connecticut State Agencies,

(Q) biological or chemical testing, analysis or research which involves the use, storage or disposal of hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a publicly owned treatment works, and provided that on-site testing of a public supply well by a public water utility is not a regulated activity,

(R) pest control services which involve storage, mixing or loading of pesticides or other hazardous materials,

(S) photographic finishing which involves the use, storage or disposal of hazardous materials, unless all waste water from such activity are lawfully disposed of through a connection to a publicly owned treatment works,

(T) production or fabrication of metal products which involves the use, storage or disposal of hazardous materials including (i) metal cleaning or degreasing with industrial solvents, (ii) metal plating, or (iii) metal etching,

(U) printing, plate making, lithography, photoengraving, or gravure, which involves the use, storage or disposal of hazardous materials,

(V) accumulation or storage of waste oil, anti-freeze or spent lead-acid batteries which are subject to a general permit issued under sections 22a-208(i) and 22a-454(e)(1) of the Connecticut General Statutes,

(W) production of rubber, resin cements, elastomers or plastic, which involves the use, storage or disposal of hazardous materials,

(X) storage of de-icing chemicals, unless such storage takes place within a weather-tight waterproof structure for the purpose of retail sale or for the purpose of de-icing parking areas or access roads to parking areas,

(Y) accumulation, storage, handling, recycling, disposal, reduction, processing, burning, transfer or composting of solid waste which is subject to a permit issued by the Commissioner pursuant to sections 22a-207b, 22a-208a, and 22a-208c of the Connecticut General Statutes, except for a potable water treatment sludge disposal area,

(Z) dying, coating or printing of textiles, or tanning or finishing of leather, which activity involves the use, storage or disposal of hazardous materials,

(AA) production of wood veneer, plywood, reconstituted wood or pressure-treated wood, which involves the use, storage or disposal of hazardous material, and

(BB) pulp production processes that involve bleaching;

(36) "Release" means "release" as defined in section 22a-133k-1 of the Regulations of Connecticut State Agencies;

(37) "State aquifer protection regulations" means sections 22a-354i-1 to 22a-354i-10, inclusive, of the Regulations of Connecticut State Agencies;

(38) "Storage" means the holding or possession of any hazardous material;

(39) "Storage tank" means a stationary device which is designed to store hazardous materials, and is constructed of non-earthen materials including without limitation concrete, steel, fiberglass or plastic;

(40) "Topographic feature" means an object, whether natural or man-made, located on the earth surface and of sufficient size that it appears on a 1:24,000 scale topographic quadrangle map drawn by the United States Geological Survey;

(41) "Underground" when referring to a storage tank or storage tank component means that ten percent or more of the volumetric capacity of such tank or component is below the surface of the ground and that portion which is below the surface of the ground is not fully visible for inspection;

(42) "Vehicle" or "vehicles" means a "vessel" as defined by section 15-170 of the Connecticut General Statutes, and any vehicle propelled or drawn by any non-muscular power, including without limitation an automobile, aircraft, all-terrain vehicle or snowmobile;

(43) "Waters" means "waters" as defined in section 22a-423 of the Connecticut General Statutes;

(44) "Well field" means "well field" as defined in section 22a-354h of the Connecticut General Statutes; and

(45) "Zoning district map" means any map showing zoning districts prepared in accordance with maps adopted pursuant to section 8-3 of the Connecticut General Statutes.

### **Section 22a-354i-2. Delineation of Aquifer Protection Area Boundaries**

(a) The municipal zoning, planning, or planning and zoning commission shall complete the following not later than one hundred twenty (120) days after being notified by the Commissioner that one or more level A mapping boundaries are located entirely or partially within such municipality:

(1) Delineate such boundaries on the municipal zoning map adopted pursuant to section 8-3 of the Connecticut General Statutes, or on the municipal inland wetlands and watercourses map adopted pursuant to section 22a-42a of the Connecticut General Statutes if such zoning map does not exist;

(2) designate such delineated areas as aquifer protection areas; and

(3) publish notice of such delineation in a newspaper having substantial circulation in the area of such delineation.

(b) The notice required by subsection (a)(3) of this section shall include at least the following:

(1) A map or a detailed description of the subject aquifer protection area; and

(2) the name, address, and telephone number of a representative of the municipal aquifer protection agency who may be contacted for further information.

(c) No later than one hundred twenty (120) days after receiving notification from the Commissioner that an aquifer protection area boundary has been amended in accordance with section 22a-354b-1(i) or 22a-354b-1(j) of the Regulations of Connecticut State Agencies, each municipality affected by the amended boundary shall amend such municipal zoning district map or inland wetland map to reflect such amended boundary.

### **Section 22a-354i-3. Adoption of Municipal Regulations; Commissioner's Approval**

(a) Not later than six (6) months after a municipality receives notice from the Commissioner that a level A mapping boundary is located in such municipality, the municipal aquifer protection agency thereof shall adopt regulations pursuant to section 22a-354p of the Connecticut General Statutes.

(b) The Commissioner shall submit written notification of approval or disapproval of such regulations to the municipal aquifer protection agency pursuant to section 22a-354p(f) of the Connecticut General Statutes. If the Commissioner disapproves a municipal regulation, the municipal aquifer protection agency shall, not later than ninety (90) days after such disapproval, adopt and submit a revision that corrects and addresses the deficiencies identified by the Commissioner. The Commissioner shall consider such revised regulation in the same manner he considers a regulation submitted under this section.

(c) Once a regulation becomes effective pursuant to section 22a-354p(f) of the Connecticut General Statutes, any amendments thereto shall only become effective when the Commissioner determines, in writing, that the amended regulation is reasonably related to ground water protection and is not inconsistent with the state aquifer protection regulations.

### **Section 22a-354i-4. Extension of Aquifer Protection Area Boundaries for Administrative Purposes; Approval**

(a) A municipal aquifer protection agency may submit a written request to the Commissioner to extend an aquifer protection area boundary adopted under section 22a-354i-2 of the Regulations of Connecticut State Agencies to coincide with the nearest property line, municipal boundary or topographic feature. Such proposed extension shall, at a minimum, fully encompass the aquifer protection areas bounded by the approved level A mapping but shall not exceed the distance necessary to clarify the location of the

aquifer protection area or to facilitate the administration of regulations pertaining thereto. An aquifer protection area boundary may not be extended without prior written approval of the Commissioner.

(b) Any request by a municipal aquifer protection agency to the Commissioner for extension of an aquifer protection area boundary under subsection (a) of this section shall include at least the following:

(1) A map to scale delineating (A) the level A mapping boundary proposed to be extended within such municipality, and (B) the proposed extension of the aquifer protection area boundary;

(2) a certification by the chairperson of the requesting municipal aquifer protection agency that such agency has provided notice of such request to all owners of property within the proposed extended aquifer protection area and all affected water companies in accordance with the following:

(A) Such notice shall include at least the following:

(i) A map showing the aquifer protection area boundaries and the proposed extension of such boundaries,

(ii) the name, address, and telephone number of a representative of the municipal aquifer protection agency who may be contacted for further information, and

(iii) a statement that any person may, not later than thirty (30) days after said notification, submit to the municipal aquifer protection agency written comments on such proposed boundary extension;

(B) Such notice shall be effectuated by the following:

(i) Delivery of notice by certified mail to those individuals and entities identified in subdivision (2) of this subsection, or

(ii) the publication of a notice in a newspaper having substantial circulation in the affected area; and posting of notice near the proposed boundaries of the subject aquifer protection area of at least four signs each of which must be at least four square feet in size; and

(3) a summary of all comments received by such agency regarding the proposed extension and its response to each comment.

(c) Not later than sixty (60) days after receiving the Commissioner's written approval of a request to extend an aquifer protection area boundary, the requesting municipal aquifer protection agency shall delineate such extended boundary on the municipal zoning district or inland wetland map identified in section 22a-354i-2 of the Regulations of Connecticut State Agencies and shall designate such delineated area as an aquifer protection area.

#### **Section 22a-354i-5. Prohibited And Regulated Activities**

(a) All regulated activities are prohibited in aquifer protection areas, except as specified in subsection (b) of this section.

(b) The following regulated activities are not prohibited in aquifer protection areas:

(1) A registered regulated activity which is conducted in compliance with section 22a-354i-9 of the Regulations of Connecticut State Agencies; and

(2) a regulated activity which has received a permit issued pursuant to section 22a-354i-8 of the Regulations of Connecticut State Agencies.

(c) The following are not regulated activities:

(1) Any activity conducted at a residence without compensation;

(2) any activity involving the use or storage of no more than two and one-half (2.5) gallons of each type of hazardous material on-site at any one time, provided the total of all hazardous materials on-site does not exceed fifty-five (55) gallons at any one time;

(3) any agricultural activity regulated pursuant to section 22a-354m(d) of the Connecticut General Statutes;

(4) any activity provided all the following conditions are satisfied:

(A) such activity takes place solely within an enclosed building in an area with an impermeable floor,

(B) such activity involves no more than 10% of the floor area in the building where the activity takes place,

(C) any hazardous material used in connection with such activity is stored in such building at all times,

(D) all waste waters generated by such activity are lawfully disposed through a connection to a publicly owned treatment works, and

(E) such activity does not involve (i) repair or maintenance of internal combustion engines, including without limitation, vehicles, or equipment associated with such vehicles, (ii) underground storage of any hazardous material, or (iii) above ground storage of more than one hundred and ten (110) gallons of hazardous materials;

(5) any activity solely involving the use of lubricating oil provided all the following conditions are satisfied:

(A) such activity does not involve cleaning of metals with chlorinated solvents at the facility,

(B) such activity takes place solely within an enclosed building in an area with an impermeable floor,

(C) any hazardous material used in connection with such activity is stored in such building at all times, and

(D) such activity does not involve (i) repair or maintenance of internal combustion engines, including without limitation, vehicles, or equipment associated with such vehicles, (ii) underground storage of any hazardous material, or (iii) above ground storage of more than 110 gallons of such lubricating oil and associated hazardous waste; and

(6) any activity involving the dispensing of oil or petroleum from an above-ground storage tank or tanks with an aggregate volume of 2000 gallons or less provided all the following conditions are satisfied:

(A) such dispensing activity takes place solely on a paved surface which is covered by a roof,

(B) the above-ground storage tank (or tanks) is a double-walled tank with overfill alarms, and

(C) all associated piping is either above ground, or has secondary containment.

### **Section 22a-354i-6. Application for an Exemption from Prohibition or Regulation**

(a) The Commissioner may, after the receipt of an application in accordance with the provisions of this section, exempt a regulated activity from the state aquifer protection regulations if he determines that such activity does not and will not pose a threat to any public supply well subject to regulation under section 22a-354c or 22a-354z of the Connecticut General Statutes. An exemption shall not be granted unless the owner of such activity clearly and convincingly demonstrates and the Commissioner finds that, if any hazardous material is released into the ground from the subject regulated activity, treatment would not be required to render the ground water suitable for drinking. Any exemption granted by the Commissioner shall be in writing, shall explicitly state the findings upon which the exemption was granted, and shall provide for the terms of such exemption.

(b) An applicant for an exemption under subsection (a) of this section shall submit an application therefor to the Commissioner on a form prescribed by him, and shall concurrently submit a copy of such application to the municipal aquifer protection agency, any affected water company and the Commissioner of Public Health. The application shall include at least the following:

(1) A map showing the location of the subject regulated activity plotted on a 1:24,000 scale United States Geological Survey topographic quadrangle base;

(2) a description of the purpose and nature of the subject regulated activity, and any associated processes;

(3) a description of the chemical composition of the hazardous material and means of disposal of any waste, including waste water, generated or to be generated in connection with the subject regulated activity;

(4) a map showing the location of all points of any waste water discharged or to be discharged to waters of the state, plotted on a 1:24,000 scale United States Geological Survey topographic quadrangle base, and if the discharge points are of a density such that they may not be clearly shown at the scale of 1:24,000, an enlargement of that area showing the discharge points shall be provided;

(5) a written demonstration that any hazardous material released into the ground from the subject regulated activity would not render the ground water unsuitable for drinking without treatment;

(6) any other information that the Commissioner reasonably deems necessary to determine whether the subject regulated activity poses or may pose a threat to the ground water; and

(7) the following certification by the applicant and a certified hazardous materials manager or a professional engineer signed after satisfying the statements set forth in the following certification:

"I have personally examined and am familiar with the information submitted in this exemption application and all attachments, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information is punishable as a criminal offense under section 53a-157b of the Connecticut General Statutes and any other applicable law."

(c) A municipal aquifer protection agency, any affected water company or the Commissioner of Public Health may, not later than sixty (60) days after receiving a copy of an application for exemption under this section, submit to the Commissioner written comments on such application. The Commissioner shall give due consideration to any such comments.

(d) The Commissioner shall send a notice by certified mail to the applicant of his approval or denial of an exemption application and a copy of the notice to the Commissioner of the Department of Public Health, the affected water company and the municipal aquifer protection agency.

(e) If the Commissioner denies an application for an exemption for a regulated activity, such regulated activity is prohibited unless such activity can be registered pursuant to section 22a-354i-7 of the Regulations of Connecticut State Agencies. Any such registration shall be made not later than thirty (30) days after receipt of the Commissioner's written disapproval of the exemption. The Commissioner shall send notice of said disapproval by certified mail.

### **Section 22a-354i-7. Registration of Regulated Activities**

(a) The Commissioner shall process registrations for those regulated activities specified in section 22a-354p(g) of the Connecticut General Statutes. The municipal aquifer protection agency shall process registrations for all other regulated activities.

(b) Any person engaged in a regulated activity which substantially commenced, or was in active operation within the past five (5) years, or with respect to which a municipal building permit was issued, either (A) before the effective date of the state aquifer protection regulations, or (B) before the date an applicable aquifer protection area is designated on a municipal zoning district map or inland wetland map, whichever occurs later, shall register the activity on a form prescribed by the Commissioner in accordance with this section unless such person has pending an application for an exemption pursuant to section 22a-354i-6 of the Regulations of Connecticut State Agencies.

(1) If the regulated activity is specified in section 22a-354p(g) of the Connecticut General Statutes, the person engaged in such activity shall submit a registration to the Commissioner not later than one hundred eighty (180) days, unless otherwise authorized in writing by the commissioner, after adoption of regulations pursuant to section 22a-354p of the Connecticut General Statutes; or the designation the aquifer protection area pursuant to section 22a-354i-2 of the Regulations of Connecticut State Agencies, whichever occurs later. Said person shall simultaneously file a copy of the registration with the municipal aquifer protection agency, Commissioner of Public Health and the affected water company.

(2) If the regulated activity is not specified in section 22a-354p(g) of the Connecticut General Statutes, the person engaged in such activity shall submit a registration to the municipal aquifer protection agency not later than one hundred eighty (180) days, unless otherwise authorized in writing by the commissioner, after adoption of regulations pursuant to section 22a-354p of the Connecticut General Statutes; or the designation the aquifer protection area pursuant to section 22a-354i-2 of the Regulations of Connecticut State Agencies; whichever occurs later. Said person shall simultaneously file a copy of the registration with the Commissioner, Commissioner of Public Health and the affected water company.

(c) A registration shall include the following:

(1) The name, business telephone number, street address and mailing address of the:

(A) Registrant; if the registrant is a corporation or limited partnership, the full name of the facility and such corporation or limited partnership as registered with the Connecticut Secretary of State, and any officer or governing or managing body of any partnership, association, firm or corporation,

(B) owner of such facility if different than the registrant, and

(C) manager or operator overseeing the operations of such facility;

(2) the location of such facility, using street address or other appropriate method of location, and a map showing the property boundaries of the facility on a 1:24,000 scale United States Geological Survey topographic quadrangle base;

(3) an identification of the regulated activity or activities conducted at the facility, as described in section 22a-354i-1(35) of the Regulations of Connecticut State Agencies, which regulated activity or activities shall consist of any regulated activity which substantially commenced, was in active operation, or with respect to which a municipal building permit was issued within the past five years; and

(4) a certification by the registrant that the subject regulated activity is in compliance with the best management practices set forth in section 22a-354i-9(a) of the Regulations of Connecticut State Agencies, as follows, signed after satisfying the statements set forth in the following certification:

"I have personally examined and am familiar with the information submitted in this registration and all attachments, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in this document or certification may be punishable as a criminal offense under section 53a-157b of the Connecticut General Statutes and any other applicable law."

(d) When deemed necessary to protect a public supply well subject to regulation under section 22a-354c or section 22a-354z of the Connecticut General Statutes, the Commissioner or the municipal aquifer protection agency, as appropriate, may:

(1) require, by written notice, any registrant to submit for review and written approval a storm water management plan in accordance with section 22a-354i-9(b) of the Regulations of Connecticut State Agencies; if so required, the storm water management plan shall be implemented immediately upon its approval; or

(2) require, by written notice, any registrant to submit for review and written approval the materials management plan prepared in accordance with 22a-354i-9(a)(5) of the Regulations of Connecticut State Agencies; if so required, the materials management plan shall be implemented immediately upon its approval.

(e) General provisions in the issuance of all registrations are as follows:

(1) The Commissioner or municipal aquifer protection agency, as appropriate, has relied in whole or in part on information provided by the registrant and if such information subsequently proves to be false, deceptive, incomplete or inaccurate, the registration may be modified, suspended or revoked;

(2) all registrations issued by the Commissioner or municipal aquifer protection agency, as appropriate, are subject to and do not derogate any present or future rights or powers of the Commissioner, municipal aquifer protection agency, or municipality, and convey no rights in real estate or material nor any exclusive privileges, and are further subject to any and all public and private rights and to any federal, state, and municipal laws or regulations pertinent to the subject land or activity;

(3) a complete registration shall expire five (5) years from the date of receipt of such registration by the Commissioner or municipal aquifer protection agency, as appropriate; and

(4) the registrant shall apply to the Commissioner or municipal aquifer protection agency, as appropriate, to renew the registration on a form prescribed by the Commissioner for a facility prior to expiration of such registration.

(A) If a registered regulated activity is out of business or inactive when registration renewal is required, a five (5) year allowance shall be in effect from the date the registration expires. If the registrant has not applied to renew the registration within five (5) years of the date the registration expires, the facility is no longer eligible for registration.

(f) If a regulated activity which is eligible for registration in accordance with subsection (b) of this section fails to be registered or if the registrant of an active registered activity fails to apply for renewal prior to expiration, the Commissioner or municipal aquifer protection agency, as appropriate, may accept a late registration at their discretion, subject to the limitations in subsection (e)(4) of this section.

(g) The registrant may apply to transfer the registration for a facility. Such application for transfer shall be made to the commissioner or municipal aquifer protection agency, as appropriate.

(1) A registration for regulated activities specified in section 22a-354p(g) of the Connecticut General Statutes, may be transferred by the Commissioner. Such transfer shall be executed in conformance with sections 22a-6o and 22a-6m of the Connecticut General Statutes using a form prescribed by the Commissioner.

(2) A registration for regulated activities not specified in section 22a-354p(g) of the Connecticut General Statutes may be transferred by the municipal aquifer protection agency. Such transfer shall be executed using a form prescribed by the Commissioner and submitted to the municipal aquifer protection agency.

(h) If the Commissioner, or the municipal aquifer protection agency, as appropriate, determines that a registration submitted in accordance with subsection (b), (e) or (f) of this section is incomplete, the Commissioner or the municipal aquifer protection agency shall reject the registration and notify the registrant of what additional information is needed and the date by which it must be submitted. If the registration submitted in accordance with subsection (b), (e) or (f) of this section is determined to be complete and the regulated activity is eligible for registration, the commissioner or municipal aquifer protection agency, as appropriate, shall send written notification of such registration to the registrant. Such registration shall be determined to be complete and eligible if the registrant has not otherwise received a notice of rejection or notice that the regulated activity is not eligible for registration from the Commissioner, or the municipal aquifer protection agency, as appropriate, not later than one hundred eighty (180) days after the date the registration is received by the Commissioner or municipal aquifer protection agency, as appropriate.

### **Section 22a-354i-8. Permit Requirements**

(a) Any person may apply for a permit to add a regulated activity to a facility where a registered regulated activity occurs.

(b) The Commissioner shall process permit applications for those regulated activities specified in section 22a-354p(g) of the Connecticut General Statutes. The municipal aquifer protection agency shall process permit applications for all other regulated activities.

(c) An application for a permit shall be made on a form prescribed by the Commissioner. Simultaneously with filing an application, the applicant shall send a copy of the application to the Commissioner or municipal aquifer protection agency, as appropriate, the Commissioner of Public Health and the affected water company. An application shall include the following information:

(1) The information as required for a registration under section 22a-354i-7(c) of the Regulations of Connecticut State Agencies shall be provided for the proposed regulated activity;

(2) a confirmation and commitment that all regulated activities at the facility shall:

(A) be and remain in compliance with section 22a-354i-9(a) of the Regulations of Connecticut State Agencies,

(B) not increase the number of underground storage tanks used for storage of hazardous materials, and

(C) be in and remain in compliance with all local, state, and federal environmental laws;

(3) a materials management plan prepared in accordance with section 22a-354i-9(a)(5) of the Regulations of Connecticut State Agencies;

(4) a storm water management plan in accordance with section 22a-354i-9(b) of the Regulations of Connecticut State Agencies;

(5) the following environmental compliance information with respect to environmental violations which occurred at the facility where the regulated activities are conducted, within the five years immediately preceding the date of the application:

(A) any criminal conviction involving a violation of any environmental protection law,

(B) any civil penalty imposed in any state or federal judicial proceeding, or any penalty exceeding five thousand dollars imposed in any administrative proceeding, and

(C) any judicial or administrative orders issued regarding any such violation together with the dates, case or docket numbers, or other information which identifies the proceeding. For any such proceeding initiated by the state or federal government, the Commissioner, or municipal aquifer protection agency as appropriate, may require submission of a copy of any official document associated with the proceeding, the final judgment or order;

(6) for regulated activities specified in section 22a-354p(g) of the Connecticut General Statutes, the compliance information required by subdivision (5) of this subsection is in addition to any information that the Commissioner may require pursuant to section 22a-6m of the Connecticut General Statutes;

(7) any additional information deemed necessary, by the Commissioner or municipal aquifer protection agency as appropriate, regarding potential threats to the ground water and proposed safeguards; and

(8) the following certification signed by the applicant and the individual responsible for preparing the application, after satisfying the statements set forth in the certification:

"I have personally examined and am familiar with the information submitted in this document and all attachments, and I certify, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information is punishable as a criminal offense under section 53a-157b of the Connecticut General Statutes and any other applicable law."

(d) A municipal aquifer protection agency, the Commissioner, any affected water company or the Commissioner of Public Health may, not later than sixty (60) days after receiving a copy of an application for a permit under this section, submit to the Commissioner or municipal aquifer protection agency, as appropriate, written comments on such application. The Commissioner or municipal aquifer protection agency, as appropriate, shall give due consideration to any such comments, and shall provide a copy of the decision to the Commissioner or municipal aquifer protection agency, as appropriate, the affected water company and the Commissioner of Public Health.

(e) The Commissioner or municipal aquifer protection agency, as appropriate, shall not issue a permit unless a complete application has been received and the applicant demonstrates, to the Commissioner's or municipal aquifer protection agency's satisfaction, as appropriate, that all applicable requirements of this section have been satisfied and all of the following standards and criteria have been met:

(1) The proposed regulated activity shall take place at a facility where a registered regulated activity occurs;

(2) the proposed regulated activity shall not increase the number or storage capacity of underground storage tanks used for hazardous materials except for the replacement of an existing underground storage tank in accordance with section 22a-354i-9(a)(3) of the Regulations of Connecticut State Agencies;

(3) the materials management plan and storm water management plan have been satisfactorily prepared in accordance with sections 22a-354i-9(a)(5) and 22a-354i-9(b), respectively, of the Regulations of Connecticut State Agencies;

(4) the applicant has submitted a confirmation and commitment that all regulated activities shall be and remain in compliance with all local, state and federal environmental laws in accordance with subsection (c)(2)(C) of this section;

(5) the applicant's compliance record shall not indicate (A) that any noncompliance resulted from indifference to or disregard for the legal requirements, (B) an unwillingness or inability to devote the resources necessary to comply and remain in compliance, or (C) that instances of noncompliance have led to serious environmental harm, harm to human health or safety, or a substantial risk of such harm;

(6) the proposed regulated activity shall be conducted in accordance with section 22a-354i-9 of the Regulations of Connecticut State Agencies;

(7) the registered regulated activity is being conducted in accordance with section 22a-354i-9 of the Regulations of Connecticut State Agencies; and

(8) the certification required under subsection (c)(8) of this section has been signed by the applicant and the individual responsible for preparing the application.

(f) The Commissioner or municipal aquifer protection agency, as appropriate, may impose reasonable conditions or limitations on any permit issued under this section to assure protection of the ground water, including but not limited to the following:

(1) Best management practices in addition to those set forth in section 22a-354i-9 of the Regulations of Connecticut State Agencies; and

(2) ground water monitoring.

(g) General provisions in the issuance of all permits are as follows:

(1) The Commissioner or municipal aquifer protection agency, as appropriate, has relied in whole or in part on information provided by the applicant and if such information subsequently proves to be false, deceptive, incomplete or inaccurate, the permit may be modified, suspended or revoked;

(2) all permits issued by the Commissioner or municipal aquifer protection agency, as appropriate, are subject to and do not derogate any present or future rights or powers of the Commissioner, municipal aquifer protection agency, or municipality, and convey no rights in real estate or material nor any exclusive privileges, and are further subject to any and all public and private rights and to any federal, state, and municipal laws or regulations pertinent to the subject land or activity; and

(3) the permit shall expire ten (10) years from the date of issuance of such permit by the Commissioner or municipal aquifer protection agency, as appropriate.

(4) A person shall apply to the Commissioner or municipal aquifer protection agency, as appropriate, to renew the permit on a form prescribed by the Commissioner prior to expiration of such permit. Such renewal shall be granted upon request by the Commissioner or municipal aquifer protection agency, as appropriate, unless a substantial change in the permitted activity has been made, or enforcement action with regard to the regulated activity has been taken, in which case, a new permit application shall be submitted and reviewed in accordance with the provisions of this section of the Regulations of Connecticut State Agencies.

(h) A person may request a modification of a permit from the Commissioner or municipal aquifer protection agency, as appropriate. Such request shall be on a form prescribed by the Commissioner, and shall include the facts and reasons supporting the request. The Commissioner or municipal aquifer protection agency, as appropriate, may require the applicant to submit a new application for a permit or renewal in lieu of a modification request.

(i) A person may apply to transfer the permit for a facility. Such application for transfer shall be made to the Commissioner or municipal aquifer protection agency, as appropriate.

(1) A permit for regulated activities specified in section 22a-354p(g) of the Connecticut General Statutes, may be transferred by the Commissioner. Such transfer shall be executed in conformance with sections 22a-6o and 22a-6m of the Connecticut General Statutes using a form prescribed by the Commissioner.

(2) A permit for regulated activities not specified in section 22a-354p(g) of the Connecticut General Statutes may be transferred by the municipal aquifer protection agency. Such transfer shall be executed using a form prescribed by the Commissioner and submitted to the municipal aquifer protection agency.

### **Section 22a-354i-9. Best Management Practices for Regulated Activities**

(a) Every regulated activity shall be conducted in accordance with the following:

(1) Hazardous materials may be stored above ground within an aquifer protection area only in accordance with the following conditions:

(A) hazardous material shall be stored in a building or under a roof that minimizes storm water entry to the hazardous material storage area, except that a roof is not required for a bulk storage facility as defined in section 22a-354i-1(6) of the Regulations of Connecticut State Agencies,

(B) floors within a building or under a roof where hazardous material may be stored shall be constructed or treated to protect the surface of the floor from deterioration due to spillage of any such material,

(C) a structure which may be used for storage or transfer of hazardous material shall be protected from storm water run-on, and ground water intrusion,

(D) hazardous material shall be stored within an impermeable containment area which is capable of containing at least the volume of the largest container of such hazardous material present in such area, or 10% of the total volume of all such containers in such area, whichever is larger, without overflow of released hazardous material from the containment area,

(E) hazardous material shall not be stored with other hazardous materials that are incompatible and may create a hazard of fire, explosion or generation of toxic substances,

(F) hazardous material shall be stored only in a container that has been certified by a state or federal agency or the American Society of Testing Materials as suitable for the transport or storage of such material,

(G) hazardous material shall be stored only in an area that is secured against un-authorized entry by the public, and

(H) the requirements of this subdivision are intended to supplement, and not to supersede, any other applicable requirements of federal, state, or local law, including applicable requirements of the Resource Conservation and Recovery Act of 1976, as amended;

(2) no person shall increase the number of underground storage tanks used to store hazardous materials;

(3) an underground storage tank used to store hazardous materials shall not be replaced with a larger tank unless (A) there is no more than a 25% increase in volume of the larger replacement tank, and (B) the larger replacement tank is a double-walled tank with co-axial piping, both meeting new installation component standards pursuant to 22a-449(d)-1(e) and 22a-449(d)-102 of the Regulations of Connecticut State Agencies, and with interstitial monitoring;

(4) no person shall use, maintain or install floor drains, dry wells or other infiltration devices or appurtenances which allow the release of waste waters to the ground, unless such release is permitted by the Commissioner in accordance with sections 22a-430 or 22a-430b of the Connecticut General Statutes; and

(5) a materials management plan shall be developed and implemented in accordance with the following:

(A) A materials management plan shall contain, at a minimum, the following information with respect to the subject regulated activity:

(i) A pollution prevention assessment consisting of a detailed evaluation of alternatives to the use of hazardous materials or processes and practices that would reduce or eliminate the use of hazardous materials, and implementation of such alternatives where possible and feasible,

(ii) a description of any operations or practices which may pose a threat of pollution to the aquifer, which shall include the following:

(a) a process flow diagram identifying where hazardous materials are stored, disposed and used, and where hazardous wastes are generated and subsequently stored and disposed,

(b) an inventory of all hazardous materials which are likely to be or will be manufactured, produced, stored, utilized or otherwise handled, and

(c) a description of waste, including waste waters generated, and a description of how such wastes are handled, stored and disposed,

(iii) the name, street address, mailing address, title and telephone number of the individual(s) responsible for implementing the materials management plan and the individual(s) who should be contacted in an emergency,

(iv) a record-keeping system to account for the types, quantities, and disposition of hazardous materials which are manufactured, produced, utilized, stored, or otherwise handled or which are discharged or emitted; such record-keeping system shall be maintained at the subject facility and shall be made available thereat for inspection during normal business hours by the Commissioner and the municipal aquifer protection agency, and

(v) an emergency response plan for responding to a release of hazardous materials. Such plan shall describe how each such release could result in pollution to the underlying aquifer and shall set forth the methods used or to be used to prevent and abate any such a release;

(B) when a materials management plan is required under either section 22a-354i-7(d) or 22a-354i-8(c), such materials management plan shall be completed and certified by a professional engineer or a certified hazardous materials manager, or, if the facility where the regulated activity is conducted has received and maintained an ISO 14001 environmental management system certification, then the registrant may complete and certify the materials management plan; and

(C) the materials management plan shall be maintained at the subject facility and shall be made available thereat for inspection during normal business hours by the Commissioner and the municipal aquifer protection agency.

(b) The development and implementation of a storm water management plan shall be required for regulated activities in accordance with sections 22a-354i-7(d) and 22a-354i-8(c) of the Regulations of Connecticut State Agencies, as follows:

(1) A storm water management plan shall assure that storm water run-off generated by the subject regulated activity is (i) managed in a manner so as to prevent pollution of ground water, and (ii) shall comply with all of the requirements for the General Permit of the Discharge of Storm Water associated with a Commercial Activity issued pursuant to section 22a-430b of the Connecticut General Statutes; and

(2) upon approval by the Commissioner or the municipal aquifer protection agency, as appropriate, the storm water management plan shall be enforceable by the Commissioner or such agency, as appropriate.

#### **Section 22a-354i-10. Other state, federal and local laws**

Nothing in any exemption issued under section 22a-354i-6 of the Regulations of Connecticut State Agencies, any registration submitted under section 22a-354i-7 of the Regulations of Connecticut State Agencies, or any regulated activity permitted under section 22a-354i-8 of the Regulations of Connecticut State Agencies shall relieve any person of any other obligations under any local, state, or federal law.

#### **STATEMENT OF PURPOSE:**

To establish aquifer protection areas and prohibitions of regulated activities proposed to be located entirely or in part within aquifer protection areas, to establish best management practices for regulated activities, provide a permit process for adding regulated activities to a facility where a registered regulated activity occurs, and provide for an application process for exempting certain regulated activities from regulation in an aquifer protection area in cases where the Commissioner determines that such regulated activity does not pose a threat to the ground water.

**X. CONCLUSION**

Based upon the comments submitted by interested parties and addressed in this Hearing Report, I recommend the proposed final regulation, as attached hereto, be submitted by the Commissioner of Environmental Protection for approval by the Attorney General and the Legislative Regulations Review Committee.

(Betsey Wingfield)

Betsey Wingfield  
Hearing Officer

August 29, 2003

Date

**APPENDIX I**  
**Exhibit List**

June 2, 2000

Public Hearing on Proposed Aquifer Protection Land Use Regulations; Room 1A Legislative Office Building, Hartford, CT

EXHIBIT	DESCRIPTION
1	Notice of Intent to Adopt Regulations and Notice of Public Hearing
2	Authorization to Hold a Public Hearing
3	Copy of Proposed Aquifer Protection Land Use Regulation with Errata
4	Agency Fiscal Estimate of Proposed Regulation
5	Notification Form Small Business Regulatory Impact
6	Report of the Aquifer Protection Task Force to the General Assembly March 11, 1988
7	Report of the Aquifer Protection Task Force February 15, 1989
8	Written comments 5/16/00 Audrey Barberet, Chairman, Mansfield Planning and Zoning Commission
9	Written comments 5/22/00 Martin Mengel, Supervisor, Environmental Affairs, Buckeye Pipeline Company, Pennsylvania
10	Written request to extend comment period, Curtis Johnson, ESQ. Connecticut Fund for the Environment, New Haven, CT
11	Written comments 5/24/00 Mildred Borden, resident, North Stonington, CT
12	Written comments 5/23/00 Gary Bouffard, Executive Vice President, Ideal Forging Corporation, Southington, CT
13	Written comments 5/31/00 Diane Whitney, LeBoeuf, Lamb, Greene & MacRae, Hartford, CT
14	Written comments 6/1/00 Gary Lee, Executive Vice President, The Fletcher-Terry Company, Farmington, CT
15	Written comments 6/2/00 William Petit, Chairman, Plainville Town Council
16	Written comments 6/2/00 Arline Whitaker, Chair, Farmington Town Council
17	Oral testimony Representative Betty Boukas, Plainville, CT
18	Written comments 6/2/00 Greg Leonard, Southeastern Connecticut Water Authority, Gales Ferry, CT
19	Oral testimony, Craig Minor, Town Planner, Cromwell, CT
20	Written comments 6/1/00 Brian Thompson, Supervisor, Water Quality and Source Protection, BHC An Aquarion Company, Easton, CT

21	Written comments 6/2/00 Mark LaVine, CT Metal Finishers Association, Cheshire, CT
22	Written comments 6/2/00 James R. McQueen, Vice President, Connecticut Water Company, Clinton, CT
23	Written comments 5/30/00 John Hudak, South Central Connecticut Regional Water Authority, New Haven, CT
24	Written comments 6/2/00 Kenneth Hedman, Chairperson, Economic Development Agency, Plainville, CT
25	Written comments 6/2/00 Robert Jackson, Town Manager, Plainville, CT
26	Written comments 6/2/00 Paul Marin, President Marin Environmental, Haddam, CT
27	Written comments 6/1/00 Bonnie Burr, Director of Government Relations, CT Farm Bureau Association, Windsor, CT
28	Oral testimony 6/2/00 John Leone, Bristol Chamber of Commerce
29	Written comments 6/2/00 Gian-Carl Casa, CT Conference of Municipalities, New Haven, CT
30	Oral testimony Jim Flood, Business owner, Cheshire, CT
31	Written comments 6/2/00 Frank Johnson, Executive Director, Manufacturing Alliance of Connecticut, Inc., Waterbury, CT
32	Oral testimony 6/2/00 Joseph Derby, Commercial Realtor
33	Written comments 6/1/00 Richard Williams, President, Templeman Co., Plainville, CT
34	Oral testimony 6/2/00 Representative Chris Murphy, 81 <sup>st</sup> District, Southington, CT
35	Oral testimony 6/2/00 Frank Nicastro, Mayor, Bristol, CT
36	Written comments 6/1/00 William DePaolo, Chairman, Town Council, Southington, CT
37	Written comments 6/2/00 Roger Klene, President, Mott Metallurgical Corporation, Farmington, CT
38	Written comments 6/2/00 David Laurie, Safety & Environmental Engineer, Mott Corporation, Farmington, CT
39	Written comments 6/2/00 Jim Posadas, Safety & Environmental Director, Carlingswitch, Inc., Plainville, CT
40	Written comments 5/31/00 Curt Johnson, Staff Attorney and Interim Program Director, CT Fund for the Environment, New Haven, CT
41	Written comments 6/2/00 Chuck Franks, U.S. Environmental Protection Agency, Boston, Massachusetts
42	Written comments 6/1/00 William Gradie, Environmental Manager for Spirol International Corporation, Danielson, CT
43	Oral testimony 6/2/00 Mike Balase, Manufacturer, Plainville, CT
44	Written comments 6/2/00 Thomas McCormick, resident, West Hartford, CT
45	Oral testimony 6/2/00 Ian McMillian, resident, Greenwich, CT

46	Oral testimony 6/2/00 James Siperly, Planner, Middeltown, CT
47	Oral testimony 6/2/00 John Russel, Northeast Utilities
48	Written comments 6/2/00 Marc Taylor M.D., Co-Chair of the Pomperaug River Watershed Coalition, Southbury, CT
49	Oral testimony 6/2/00 Representative Giannaros, Plainville, Farmington, CT
50	Written comments 5/30/00 Geoffrey Sager, President, The Metro Realty Group, LTD, Farmington, CT
51	Oral testimony 6/2/00 Eric Brown, CT Business & Industry Association, Hartford, CT
52	Oral testimony 6/2/00 Mr. Bovenia, Business owner, Southington, CT
53	Written comments 6/2/00 Brian O'Conner for Larry McHugh, President, Middlesex Chamber of Commerce, Middletown, CT
54	Written comments 6/2/00 Margaret Minor, Rivers Alliance, Collinsville, CT
55	Written comments 6/2/00 Lisa Santacroce CT Audubon Society, Environmental Affairs Office, Hartford, CT
56	Oral testimony 6/2/00 Dan Lorimier, Outreach Coordinator, CT Fund for the Environment, New Haven, CT
57	Oral testimony 6/2/00 Chet Camarata, CT Department of Economic Development, Hartford, CT
58	Oral testimony 6/2/00 Robert Edmunds, Edmunds Gages, Farmington, CT
59	Written comments 6/2/00 Linda Cavanaugh, Economic Development Coordinator, Farmington, CT
60	Written comments 5/24/00 Helen Bergenty, Lynda Prigodich, Thomas Arcari, James Stuart, Irene Furman, Christopher Wazorco, Town Council, Plainville, CT
61	Written comments 6/2/00 Patricia Pendergast, Director of Public Policy, CT Forest and Park Association, Middlefield, CT
62	Written comments 5/31/00 Elizabeth Stocker, Director of Community Development, Newtown, CT
63	Written comments 6/1/00 Michael Wrinn, Planning & Zoning, Norwalk, CT
64	Written comments 5/30/00 F.M. Anderson, ExxonMobil, Fairfax, Virginia
65	Written comments with photos attached 6/2/00 Kurt Heidinger, President Naubesatuck Watershed Council, Chaplin, CT
66	Written comments 6/2/00 David Titus, President, Mattabeseck Audubon Society, Middletown, CT
67	Written comments 6/2/00 Patty Pendergast, CRWC Trustee, CT River Watershed Council, Easthampton, CT
68	Written comments 6/2/00 Elizabeth McLaughlin, Director of Legislative Issues, Sierra Club, Hartford, CT
69	Written comments 6/1/00 John Weichsel, Town Manager, Southington, CT
70	Written comments 6/2/00 Charles Bentley, Jr., President, Colt's Plastics Company, Inc.

71	Written comments 6/2/00 Thomas Wontorek, Town Manager, Farmington, CT
72	Written comments 6/1/00 Mary Ellen Kowalewski, Director of Community Development, Capitol Region Council of Governments, Hartford, CT
73	Written comments 6/2/00 Frank Lane, Director of Real Estate & Environmental Compliance, Tilcon Connecticut Inc., North Branford, CT
74	Written comments 5/31/00 Mel Schneidermeyer, Central Connecticut Regional Planning Agency, Bristol, CT
75	Written comments 6/1/00 Representative Christopher Murphy, 81 <sup>st</sup> District, Southington, CT
76	Written comments 6/1/00 Severino Bovino, Land Planner-Vice President, kratzert, jones & associates, inc., Milldale, CT
77	Written comments 6/1/00 Susan Dean, Executive Director, Plainville Chamber of Commerce
78	Written comments 6/1/00 Steven Widger, President, Widger MFG.CO., INC. Plainville, CT
79	Written comments 5/30/00 William Millerick, Executive Director, New Britain Chamber of Commerce
80	Written comments 5/25/00 Val Dumais, Economic Development Authority, Plainville, CT
81	Written comments 5/23/00 Kristian Jensen, Jr. CEO, Jensen's Inc., Southington, CT
82	Written comments 5/19/00 Jeffrey Wells, Vice President, Hartford Fire Equipment, Plainville, CT
83	Copy of letter to Commissioner of Economic & Community Development 3/16/00 from Howard Branch III, Vice President, Gems Sensors Inc., Plainville, CT
84	Copy of letter to Commissioner of Economic & Community Development 3/1/00 from Michael Paine, President, Simsbury Chamber of Commerce
85	Copy of letter to Commissioner of Economic & Community Development 2/18/00 from Roger Klene, President, Mott Corporation, Farmington, CT
86	Copy of letter to Commissioner of Economic & Community Development 2/15/00 from Pauline Levesque, President, Southington Chamber of Commerce
87	Copy of letter to Commissioner of Economic & Community Development 2/14/00 from John Leone, Jr., Executive Director, The Greater Bristol Chamber of Commerce, Inc., Bristol, CT
88	Copy of letter to Commissioner of Economic & Community Development 2/10/00 from Susan Dean, Executive Director, Plainville Chamber of Commerce
89	Written comments 5/31/00 Anita Mielert, First Selectman, Town of Simsbury
90	Written comments 5/25/00 Ruth Malins, Resource Center Director, Housatonic Valley Association, Cornwall Bridge, CT
91	Written comments 6/2/00 Thomas R. Holahan, President, Mill River Watershed Association, Hamden, CT
92	Written comments 6/2/00 Brian Thompson, CT Water Works Association
93	Written comments 5/31/00 Mary Hughes, Town Planner, Plainville, CT

94	Copy of letter to Executive Director of Central CT Regional Planning Agency, 4/3/00 from Mary Hughes, Town Planner, Plainville, CT
95	Written comments 6/1/00 Ronald Bucchi, Chief Financial Officer, Big Buck Enterprises, Inc. Plainville, CT
96	Written comments 6/1/00 James Manafort, Jr., President, Manafort Brothers, Plainville, CT
97	Written comments 6/1/00 Mark Tulin, President, Perma-Type Rubber, Plainville, CT
98	Written comments 5/25/00 Hans Koehl, Chairman, Spirol International Corporation, Danielson, CT
99	Written comments 5/30/00 Henry Link, resident, Hartford, CT
100	Written comments 6/6/00 Jeffrey Oswald, Executive Vice President Finance Operations, EBM Industries, Inc., Farmington, CT
101	Written comments 6/6/00 David Sloane, Sloane Communication Systems, Hamden, CT
102	Written comments 6/5/00 Linda Krause, Executive Director, CT River Estuary Regional Planning Agency, Old Saybrook, CT
103	Written comments 6/3/00 Martin Mador, Vice President Quinnipiac River Watershed Association, Hamden, CT
104	Written comments 6/9/00 James Severson, resident, Storrs, CT
105	Written comments 6/6/00 Timothy Furey, Esq. Chairman, Legislative Division, Greater Bristol Chamber of Commerce.
106	Written comments 6/2/00 Representative Mary Mushinsky, 85 <sup>th</sup> District, Wallingford, CT
107	Written comments 6/12/00 Linda Giers, resident, Weston, CT
108	Written comments 6/12/00 Russell Dirienzo, Selectman, Chairman Inland Wetlands Commission, Roxbury, CT
109	Written comments 6/16/00 Nancy Alderman, President, Environment and Human Health, Inc., North Haven, CT
110	Written comments 6/12/00 Ainslie Gilligan, resident, Storrs, CT
111	Written comments 6/14/00 Arthur Slesinger, Corporate Director, Environmental Affairs and Safety, Boehringer Ingelheim Pharmaceuticals, Inc., Ridgefield, CT
112	Written comments 6/08/00 Charles Flynn, resident, Meriden, CT
113	Written comments 6/15/00 Linda Walden, Director of Planning & Development, Killingly, CT
114	Written comments 6/14/00 John Burke, Jr., Chairman, Killingly Town Council, Danielson, CT
115	Written comments 6/15/00 Curtis Johnson, Staff Attorney, CT Fund for the Environment, New Haven, CT
116	Written comments 6/15/00 Dorothy T. Hammett, Attorney for The Ensign-Bickford Company, Simsbury, CT
117	Written comments 6/15/00 Greg Brezicki, Director, Quinnipiac River Watershed Association, Southington, CT

118	Written comments 6/16/00 Kevin Case, Executive Director, Farmington River Watershed Association, Inc., Simsbury, CT
119	Written comments 6/16/00 Bonnie Therrien, Town Manager, Berlin, CT
120	Written comments 6/15/00 Peter Leibinger, CEO, Trumpf Inc., Farmington, CT
121	Written comments 6/16/00 Walter Carey, President, New Milford Farms, Inc., New Milford, CT
122	Written comments 6/16/00 Theodore Scheidel, First Selectman, Burlington, CT
123	Written comments 6/14/00 Scott Shanley, Town Manager, Enfield, CT
124	Written comments 6/15/00 William J. Buckley, Jr., Superintendent of Public Utilities, Danbury, CT
125	Written comments 6/15/00 Mark Bobman, Assistant Director, Bristol Resource Recovery Facility Operating Committee, Bristol, CT
126	Written comments 6/16/00 Karl Wagener, Executive Director, Council on Environmental Quality, Hartford, CT
127	Written comments 6/16/00 Richard Miller, Manager, Environmental Regulatory Affairs, Northeast Utilities, Hartford, CT
128	Written comments 6/16/00 Brian Freeman, Robinson & Cole, Hartford, CT on behalf of Nestle's R & D Center, Inc. in New Milford
129	Written comments 6/16/00 David Asselin, Independent Connecticut Petroleum Association, West Hartford, CT
130	Speakers List 6/2/00 Public Hearing on Proposed Aquifer Protection Land Use Regulations
131	Original Transcript of public hearing on proposed Aquifer Protection Regulations
132	Exhibit List for June 2, 2000 public hearing on proposed Aquifer Protection Regulations
133	Comments Earle Roberts, resident, Middletown, CT

**APPENDIX II**  
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**APPENDIX III**  
**List of Municipalities Likely to Have Aquifer Protection Areas**

Avon	New Hartford
Beacon Falls	New Milford
Berlin	Newtown
Bethany	North Canaan
Bethel	North Haven
Bethlehem	Norwalk
Bolton	Old Saybrook
Bristol	Oxford
Brooklyn	Plainfield
Burlington	Plainville
Canton	Plymouth
Cheshire	Portland
Clinton	Prospect
Colchester	Putnam
Coventry	Ridgefield
Cromwell	Rocky Hill
Danbury	Salisbury
Darien	Seymour
Derby	Shelton
East Lyme	Simsbury
East Windsor	Somers
Enfield	Southbury
Essex	Southington
Farmington	South Windsor
Glastonbury	Stafford
Goshen	Stamford
Granby	Stonington
Griswold	Thomaston
Guilford	Thompson
Hamden	Tolland
Killingly	Torrington
Killingworth	Vernon
Ledyard	Wallingford
Litchfield	Watertown
Madison	Westbrook
Manchester	Weston
Mansfield	Westport
Meriden	Willington
Middletown	Windsor
Montville	Windsor Locks
Naugatuck	Woodbury
New Canaan	

**APPENDIX IV**  
**Text of Land Use Regulations as Proposed for Public Hearing**  
**June 2, 2000**

**AQUIFER PROTECTION AREAS - LAND USE CONTROLS**

**SECTION 1.** The Regulations of Connecticut State Agencies are amended by adding sections 22a-354i-1 through 22a-354i-10 as follows:

**(NEW) Sections 22a-354i-1 through 22a-354i-10. Regulations For Delineation of Aquifer Protection Areas, Best Management Practices, and Prohibition of Regulated Activities Within Such Areas**

**Section 22a-354i-1. Definitions**

(a) As used in this regulation, the following definitions apply:

"Affected water company" means affected water company as defined in section 22a-354h of the general statutes.

"Ancillary activity" means a regulated activity which is subordinate to, or supportive of a non-regulated activity, and which involves the use or storage at any one time of no more than 55 gallons, or its equivalent in kilograms or pounds, of hazardous material at the facility where the subject regulated activity takes place.

"Applicant" means, as appropriate in context, a person who applies for (i) an exemption under 22a-354i-6 or (ii) a permit under 22a-354i-8 of the Regulations of Connecticut State Agencies.

"Application" means, as appropriate in context, an application for an exemption under section 22a-354i-6 or an application for a permit under section 22a-354i-8 of the Regulations of Connecticut State Agencies.

"Aquifer protection area" means aquifer protection area as defined in section 22a-354h of the general statutes and any subsequent change to such area approved by the Commissioner pursuant to section 22a-354i-4 of the aquifer protection regulations.

"Aquifer protection regulations" means sections 22a-354i-1 through 10 of the Regulations of Connecticut State Agencies.

"Area of contribution" means area of contribution as defined in section 22a-354h of the general statutes and as mapped by Level A mapping pursuant to sections 22a-354b, 22a-354c, and 22a-354z of the general statutes and section 22a-354b-1 of the Regulations of Connecticut State Agencies.

"Bulk storage facility" means any portion of property where oil or petroleum liquids are received by tank vessel, pipeline, railroad car, or tank vehicle for the purpose of storage.

"Certified Hazardous Materials Manager" or "CHMM" means a hazardous materials manager certified by the Institute of Hazardous Materials Managers and who is qualified by reason of relevant specialized training and relevant specialized experience to conduct audits of regulated activities to ensure compliance with applicable law and identify appropriate pollution prevention practices for such activities.

"CFR" means Code of Federal Regulations.

"Commissioner" means the commissioner of environmental protection, or his or her agent.

"Connecticut Building Code" means section 29-252-1b of the Regulations of Connecticut State Agencies.

"Dense non-aqueous phase liquid" or "DNAPL" means dense non-aqueous phase liquid as defined in 22a-133k-1 of the Regulations of Connecticut State Agencies.

"Domestic sewage" means domestic sewage as defined in section 22a-430-3(a) of the Regulations of Connecticut State Agencies.

"Existing regulated activity" means a regulated activity which substantially commenced, or was in active operation, or with respect to which a municipal building permit was issued, either (i) before the effective date of the aquifer protection regulations, or (ii) before the date an applicable aquifer protection area is designated on a municipal zoning district map or inland wetland map, whichever occurs later. A regulated activity is not an "existing regulated activity" if the activity was continuously out of service or operation for three consecutive years.

"Existing well field" means existing well field as defined in section 22a-354a of the general statutes.

"Floor drain" means any opening in a floor or surface which opening or surface receives materials spilled or deposited thereon.

"Hazardous material" means (i) any hazardous substance as defined in 40 CFR 302.4 and listed therein at Table 302.4, (ii) any hazardous waste as defined in section 22a-449(c)-101 of the Regulations of Connecticut State Agencies, (iii) any pesticide as defined in 22a-47 of the general statutes, or (iv) any oil or petroleum as defined in section 22a-448 of the general statutes.

"Hazardous waste" means hazardous waste as defined in section 22a-449(c)-101 of the Regulations of Connecticut State Agencies.

"Hazardous waste facility" means a hazardous waste facility as defined in section 22a-449(c)-104 of the Regulations of Connecticut State Agencies.

"Industrial laundry" means a process for washing clothes, cloth or other fabric used in industrial operations.

"Infiltration device" means any discharge device installed below or above the ground surface which device is designed to allow liquid to travel to the ground.

"Inland wetland map" means a map pursuant to section 22a-42a of the general statutes.

"Large quantity generator" means large quantity generator as defined in 22a-449(c)-100(b) of the Regulations of Connecticut State Agencies.

"Licensed Environmental Professional" means a licensed environmental professional as defined in section 22a-133v of the general statutes.

"Level A mapping boundary" means the lines as shown on Level A maps approved or prepared by the Commissioner pursuant to sections 22a-354c and 22a-354z of the general statutes, or section 22a-354i-2 of the aquifer protection regulations, encompassing the area of contribution and recharge areas.

"Modify a regulated activity" or "modification of a regulated activity" means to expand an existing regulated activity by increasing the physical size of the facility at which such regulated activity is conducted, or by increasing the storage capacity for hazardous materials; or to alter a regulated activity in a manner which may increase the risk of pollution of the affected aquifer.

"Municipal agency" or "municipal aquifer protection agency" means the board or commission authorized by municipal ordinance under section 22a-354o of the general statutes.

"Municipality" means municipality as defined in 22a-354h of the general statutes.

"Municipal sewerage system" means municipal sewerage system as defined in section 7-245 of the general statutes.

"National Discharge Pollutant Discharge Elimination System permit" or "NPDES permit " means NPDES permit as defined in 22a-430-3 of the Regulations of Connecticut State Agencies.

"New regulated activity" means a regulated activity which commences after the effective date of the aquifer protection regulation or after an applicable aquifer protection area is designated on a municipal zoning district map, or inland wetland map, whichever occurs later.

"Owner" means the owner or lessee of the business or facility in question.

"Pavement deicing chemical" means sodium chloride, calcium chloride, or calcium magnesium acetate.

"Person" means any individual, partnership, association, firm, corporation or other entity, except a municipality, and includes a federal agency as permitted by law, the state or any instrumentality of the state, and any officer or governing or managing body of any partnership, association, firm or corporation.

"Pollution" means pollution as defined in section 22a-423 of the general statutes.

"Pollution prevention" means the use of processes and materials so as to reduce or minimize the amount of hazardous materials used or the quantity and concentration of pollutants in waste generated.

"Potential well field" means potential well field as defined in section 22a-354a of the general statutes.

"Professional engineer" means a professional engineer licensed in accordance with chapter 391 of the general statutes, and who is qualified by reason of relevant specialized training and relevant specialized experience to conduct audits of regulated activities to ensure compliance with applicable law and identify appropriate pollution prevention practices for such activities.

"Publicly owned treatment works" or "POTW" means publicly owned treatment works as defined in section 22a-430-3 of the Regulations of Connecticut State Agencies.

"Public service company" means public service company as defined in section 16-1 of the general statutes.

"Public water supply" means public water supply or community water system or public water system or seasonal water system, as each such term is defined in sections 19-13-B102 of the Regulations of Connecticut State Agencies.

"Recharge area" means recharge area as defined in section 22a-354h of the general statutes and as mapped by Level A mapping pursuant to sections 22a-354b, 22a-354c , 22a-354z of the general statutes and section 22a-354b-1 of the Regulations of Connecticut State Agencies.

"Registered regulated activity" means an existing regulated activity which has been registered under section 22a-354i-7 of the aquifer protection regulation.

"Registrant" means a person who or which has submitted a registration for an existing regulated activity under 22a-354i-7 of the aquifer protection regulations.

"Regulated activity" means an activity listed in column 1 of Table 5(c) of section 22a-354i-5 of the aquifer protection regulations, if such activity is located or conducted, wholly or partially, in an aquifer protection area.

"Release" means any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing of a hazardous material.

"Resource Conservation Recovery Act Treatment, Storage, or Disposal Facility Permit" or "RCRA TSDF permit" means RCRA TSDF permit as defined in 22a-449(c)-106 of the Regulations of Connecticut State Agencies.

"Solid waste facility" means solid waste facility as defined in 22a-207 of the general statutes, except for a disposal area for potable water treatment sludge.

"State Pollutant Discharge Elimination System permit" or "SPDES permit" means state permit as defined in 22a-430-3 of the Regulations of Connecticut State Agencies.

"Storage" means the holding or possession of any hazardous material for a temporary period, at the end of which such hazardous material is treated, disposed of, utilized, abandoned or stored elsewhere.

"Storage tank" means a stationary device which is designed to store hazardous materials and is constructed of non-earthen materials including but not limited to concrete, steel, fiberglass or plastic.

"Topographic feature" means an object, whether natural or man-made, located on the earth surface and of sufficient size that it appears on a 1:24,000 scale topographic quadrangle map drawn by the United States Geologic Survey.

"Underground" when referring to a storage tank or storage tank component means that (a) ten percent or more of the volumetric capacity of such tank or component is below the surface of the ground and (b) that portion which is below the surface of the ground is not fully visible from the ground's surface.

"Vehicle" means a "vessel" as defined by section 15-170 of the general statutes, and any vehicle propelled or drawn by any non-muscular power, including without limitation an automobile, aircraft, all-terrain vehicle, or snowmobile.

"Wastewater treatment system" means any operation or process for reducing the concentration of wastes in any solution of water and wastes.

"Waters" means waters as defined in 22a-423 of the general statutes.

"Well field" means well field as defined in 22a-354h of the general statutes.

"Zoning district map" means any map showing zoning districts prepared in accordance with chapter 124 or 126 of the general statutes or any special act or planning district maps adopted pursuant to section 8-2 of the general statutes.

**Section 22a-354i-2. Delineation of Aquifer Protection Area Boundaries**

Within ninety (90) days after the Commissioner notifies a municipality that one or more Level A mapping boundaries are located entirely or in part therein, such municipality, or its zoning commission, planning commission, or planning and zoning commission shall: (a) on all municipal zoning district maps, if they exist, or on all municipal inland wetland maps in the event that zoning maps are not available, delineate such boundaries or extensions to such boundaries approved pursuant to 22a-354i-4 and (b) shall designate such delineated areas as aquifer protection areas, and (c) shall publish notice in a newspaper having a substantial circulation in the affected area of such delineation, such notice to include a map or detailed description of the subject aquifer protection area, as well as the name, address, and telephone number of a representative of such municipal commission who may be contacted for further information.

**Section 22a-354i- 3. Adoption of Municipal Regulations; Commissioner's Approval.**

- (a) No later than six months after a municipality receives notice from the Commissioner that a Level A mapping boundary is located in such municipality, the municipal agency thereof shall adopt regulations pursuant to 22a-354p of the general statutes and shall submit such regulations to the Commissioner for approval.
- (b) If the Commissioner disapproves a municipal regulation submitted pursuant to subsection (a) of this section, the municipal agency shall, within ninety days of such disapproval, adopt and submit a revision. The Commissioner shall consider such revised regulation in the same manner he considers a regulation submitted under this section.
- (c) A municipal regulation adopted pursuant to this section may be amended only with the Commissioner's approval.

**Section 22a-354i-4. Extension of Aquifer Protection Area Boundaries for Administrative Purposes; Approval**

- (a) (1) A municipal agency may, for the purpose of clarifying the location of an aquifer protection area and facilitating administration of regulations pertaining thereto, submit a written request to the Commissioner to extend an aquifer protection area boundary approved by the Commissioner under 22a-354d to coincide with the nearest property line, municipal boundary, or topographic feature. Such proposed extension shall, at a minimum, fully encompass the aquifer protection areas bounded by the approved Level A mapping but shall not exceed the distance necessary to clarify the location of the aquifer protection area. An aquifer protection area boundary may not be extended without prior written approval of the Commissioner.
- (2) Any request by a municipality to the Commissioner for extension of an aquifer protection area boundary under subdivision (1) of this subsection shall include at least the following:
  - (A) a map to scale delineating (i) all Level A mapping boundaries within such municipality; (ii) the proposed aquifer protection area boundary; and (iii) boundaries of any existing aquifer protection zone within the municipality adopted pursuant to section 8-2 of the general statutes; and
  - (B) (i) an explanation of the need for such proposed extension; (ii) a demonstration that a reasonable relationship exists between the proposed extended boundaries and the protection of existing and potential well fields; and (iii) a certification by the chairperson of the requesting municipality that all owners of property within the proposed extended aquifer protection area is located, all owners of property immediately contiguous to such properties, and all affected water companies, have been notified of such request in accordance with subdivision (3) of this subsection

and (iv) a summary of all such comments received by such municipality and its response to each comment.

- (3) Notification referred to in (2)(B) of this section shall be effected by the following:
  - (A) delivery by first class mail, or
  - (B) a publication which shows a map of the proposed aquifer protection area boundaries in a newspaper having substantial circulation in the affected area, and
  - (C) posting near the proposed boundaries of the subject aquifer protection area of at least four signs each of which must be at least four square feet in size.
- (4) Such notification shall state that any person may, within 30 days of said notification submit to the Commissioner written comments on such proposed boundaries.
- (5) No later than sixty (60) days after receiving the Commissioner's written approval of a request to extend an aquifer protection area boundary, the requesting municipality shall delineate such extended boundary on all municipal zoning district and inland wetland maps and shall designate such delineated area as an aquifer protection area.
- (6) No later than one hundred twenty (120) days after receiving notification from the Commissioner that a Level A mapping boundary has been amended, each municipality affected by the amended boundary shall amend all municipal zoning district maps, and inland wetland maps to reflect such amended boundary.

#### **Section 22a-354i-5. Regulated and Prohibited Activities**

- (a) Each regulated activity listed in Column 1 of Table 5-c of subsection (c) of this section is prohibited in an aquifer protection area, unless such activity is:
  - (1) an ancillary activity in accordance with subsection (b) of this section,
  - (2) exempted under section 22a-354i-6,
  - (3) registered as an existing regulated activity in accordance with section 22a-354i-7, or
  - (4) a modification of an existing regulated activity allowed pursuant to section 22a-354i-8.
- (b) An ancillary activity, whether existing or new, is not regulated under the provisions of the aquifer protection regulations, *provided* all the following conditions are satisfied:
  - (1) such ancillary activity takes place solely within an entirely enclosed building;
  - (2) such ancillary activity involves no more than 10% of the floor area in the building where the activity takes place;
  - (3) any hazardous material used in connection with the activity is stored in the building at all times;
  - (4) all waste waters which are generated by such activity are lawfully disposed through a connection to a publicly owned treatment works; and
  - (5) such ancillary activity does not involve (A) repair or maintenance of vehicles, or of equipment associated with such vehicles, including without limitation, internal combustion engines, (B) underground storage of any hazardous material, or (C) above ground storage of more than 55 gallons of hazardous materials.
  - (6) such ancillary activity is conducted in compliance with best management practices in section 9 of the aquifer protection regulations.

## (c) Table 5-c

- (1) identifies in column 1 every activity which is a regulated activity; and
- (2) identifies in column 2 examples of businesses or other facilities at which such a regulated activity takes place, provided that if an activity identified in column 1 actually takes place at a business or facility other than one identified in column 2, such activity at such other business or facility is a regulated activity.

**Table 5-c: Regulated activities.**

<b>Column 1 Regulated Activity</b>  <b>The following activity is prohibited if it is a new regulated activity and subject to the provisions of the aquifer protection regulation if it is an existing regulated activity.</b>	<b>Column 2 Examples</b>  <b>The following are examples of a business or facility which may conduct the regulated activity.</b>
1. Activities involving any equipment for the underground storage or transmission of oil or petroleum to the extent it is not pre-empted by federal law, or hazardous material, except for: (A) replacement of existing non-residential underground storage tanks regulated under 22a-449(d)-1 and 22a-449(d) - 101 through 113 of the Regulations of State Agencies, or (B) underground storage tanks which contain number 2 fuel oil for heating that are located more than 500 feet from the nearest public water supply source, or (C) underground electrical facilities such as transformers, breakers, or cables containing oil for cooling or insulation purposes which are owned and operated by a public service company.	Any business or facility. Some examples include automotive service station, gasoline station, or fleet garage.
2. The discharge to ground water of non-biodegradable wastes other than a discharge from: (A) a pump and treat system for ground water remediation, and (B) water treatment waste waters lawfully disposed of through a connection to a Publicly Owned Treatment Work.	Any business or facility.
3. Car or truck washing, unless all waste waters from such activity are lawfully disposed of through a connection to a Publicly Owned Treatment Works.	Car or truck wash.
4. Production or refining of chemicals, including without limitation hazardous materials or asphalt.	Chemical, petroleum, asphalt, or pesticide manufacturer .
5. Clothes or cloth cleaning service which involves the use, storage, or disposal of hazardous materials including without limitation dry-cleaning solvents.	Dry cleaner.
6. Generation of electrical power by means of fossil fuels, except for (i) generation of electrical power by an emergency engine as defined by section 22a-174-22(a)(2) RCSA or (ii) generation of electrical power by means of natural gas or propane.	Fossil-fueled electric power producer.
7. Production of electronic boards, electrical components, or other electrical equipment involving the use, storage, or	Electronic circuit board, electrical components or

<b>Column 1 Regulated Activity</b>  <b>The following activity is prohibited if it is a new regulated activity and subject to the provisions of the aquifer protection regulation if it is an existing regulated activity.</b>	<b>Column 2 Examples</b>  <b>The following are examples of a business or facility which may conduct the regulated activity.</b>
disposal of any hazardous material or involving metal plating, degreasing of parts or equipment, or etching operations.	electrical components or other electrical equipment manufacturer.
8. On-site storage of oil or petroleum for the purpose of wholesale or retail sale.	Fuel oil dealer.
9. Embalming or crematory services which involve the use, storage, or disposal of hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a Publicly Owned Treatment Works.	Funeral home or crematory.
10. Furniture stripping operations which involve the use, storage, or disposal of hazardous materials.	Furniture stripper.
11. Furniture finishing operations which involve the use, storage, or disposal of hazardous materials, unless all waste waters from such activity are lawfully disposed of through a connection to a Publicly Owned Treatment Works.	Furniture repair.
12. Storage, treatment, or disposal of hazardous waste permitted under 22a-449(c)-100 through 110 of the Regulations of Connecticut State Agencies.	Hazardous waste treatment, storage, or disposal facility.
13. Clothes or cloth cleaning service for any industrial activity that involves the cleaning of clothes or cloth contaminated by hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a Publicly Owned Treatment Works.	Industrial laundry.
14. Any biological or chemical testing, analysis or research which involve the use, storage, or disposal of hazardous material, unless all waste waters from such activity are lawfully disposed of through a connection to a Publicly Owned Treatment Work and provided that on-site testing of a public water supply by a public water utility is not a regulated activity.	Laboratory: biological, chemical, clinical, educational, product testing, or research.
15. Pest control services which involve storage, mixing, or loading of pesticides or other hazardous materials.	Lawn care or pest control service.
16. Salvage operations of metal or vehicle parts.	Metal salvage yards, vehicle parts salvage yards, or junk yards.
17. Photographic finishing which involve the use, storage, or disposal of hazardous materials, unless all waste waters from such activity are lawfully disposed of through a connection to a Publicly Owned Treatment Works.	Photographic finishing laboratory.

<b>Column 1 Regulated Activity</b>  <b>The following activity is prohibited if it is a new regulated activity and subject to the provisions of the aquifer protection regulation if it is an existing regulated activity.</b>	<b>Column 2 Examples</b>  <b>The following are examples of a business or facility which may conduct the regulated activity.</b>
18. Production, fabrication, of metal products which involves the use, storage, or disposal of hazardous materials including: (A) metal cleaning or degreasing with industrial solvents; (B) metal plating, or (C) metal etching.	Metal foundry, metal finisher, metal machinist, metal fabricator, or metal plator.
19. Printing, plate making, lithography, photoengraving, or gravure which involves the use, storage, or disposal of hazardous materials.	Printer or publisher.
20. Pulp production which involves the use, storage or disposal of any hazardous materials.	Pulp, paper , or cardboard manufacturer.
21. Accumulation or storage of waste oil, anti-freeze or spent lead-acid batteries regulated by a general permit under CGS 22a-208a (r).	Recycling facility which accepts waste oil, spent antifreeze, or spent lead-acid batteries.
22. Any activity listed in this column that is conducted at a residence for compensation.	Residential occupations.
23. Production of rubber, resin cements, elastomers, or plastic which involves the use, storage, or disposal of hazardous materials.	Rubber, plastic, fabric coating, elastomer, or resin cement manufacturer.
24. Storage of pavement de-icing chemicals unless such storage takes place within a weather -tight water-proof structure for the purpose of retail sale, or for the purpose of de-icing parking areas or access roads to parking areas.	Salt storage facility.
25. The accumulation, storage, handling, recycling, disposal, reduction, processing, burning, transfer, or composting of solid waste except for a potable water treatment sludge disposal area.	Solid waste facility, or an Intermediate Processing Center as defined in 22a-260 of the general statutes.
26. Finishing or etching of stone, clay, concrete or glass products, or painting of clay products, which activity involves the use, storage, or disposal of hazardous materials.	Stone, clay or glass products manufacturer.
27. Dying, coating, or printing of textiles, or tanning or finishing of leather, which activity involves the use, storage, or disposal of hazardous materials.	Textile mill, or tannery.
28. Repair or maintenance of automotive or marine vehicles or internal combustion engines of vehicles, involving the use, storage, or disposal of hazardous materials, including solvents, lubricants, paints, brake or transmission fluids, or the generation of hazardous wastes.	Vehicle service facilities, which may include: new or used car dealership, automobile body repair and/or paint shop, aircraft repair shop, automobile radiator, or transmission

<b>Column 1 Regulated Activity</b>  <b>The following activity is prohibited if it is a new regulated activity and subject to the provisions of the aquifer protection regulation if it is an existing regulated activity.</b>	<b>Column 2 Examples</b>  <b>The following are examples of a business or facility which may conduct the regulated activity.</b>
	repair; boat dealer; recreational vehicle dealer; motorcycle dealer, automotive service station, municipal garage, employee fleet maintenance garage, or construction equipment repair or rental.
29. On-site storage of hazardous materials for the purpose of wholesale or retail sale, except for a bulk storage facility as defined in section 22a-354i-1 of the aquifer protection regulation.	Wholesale trade, storage or warehousing of hazardous substances, hazardous wastes, pesticides or oil or petroleum.
30. Production or treatment of wood veneer, plywood, or reconstituted wood, which involves the use, storage, or disposal of any hazardous material.	Manufacturer wood veneer, plywood, re-constituted wood products.

- (d) Replacement of residential underground storage tanks that contain #2 fuel oil for heating and that are located less than 500 feet from the nearest public water supply source is prohibited.

#### **Section 22a-354i-6. New Regulated Activities: Application for an Exemption from Prohibition**

- (a) The Commissioner may, upon application in accordance with the provisions of this section, exempt a new regulated activity from the provisions of subsection 22a-354i-5(a) of the aquifer protection regulations if he finds that such activity does not or will not pose a threat to any existing or potential well field. The Commissioner shall not grant an exemption from the provisions of section 22a-354i-5 of the Regulations of Connecticut State Agencies unless the owner of such activity clearly and convincingly demonstrates that: (i) a non-hazardous material has been permanently substituted for each hazardous material normally used in such activity or (ii) any hazardous material released into the ground from the facility or business would not render the ground water unsuitable for drinking without treatment.
- (b) An applicant for an exemption under subsection (a) of this section shall submit an application therefor to the Commissioner on a form prescribed by him, and shall concurrently submit a copy of such application to the municipal agency, any affected water company, and the Commissioner of Public Health. The application shall, without limitation:
- (1) Provide a map showing the location of the new regulated activity.
  - (2) Describe the purpose and nature of the subject regulated activity, any associated processes, and the type and quantity of all materials used or produced or to be used or produced in connection therewith.
  - (3) Demonstrate that the subject regulated activity does not or will not pose a risk of pollution of the ground water.

- (4) Describe the nature, chemical composition, and means of disposal of any waste, including wastewater, generated or to be generated in connection with the subject regulated activity and, if any wastewater is or will be discharged to a water of the state identify by means of an engineering drawing all points at which such discharge occurs or will occur.
  - (5) Provide a pollution prevention plan to be implemented in connection with the subject regulated activity.
  - (6) Demonstrate that storm water discharge from the property at which the subject regulated activity takes place is managed in a manner that prevents pollution of the ground water.
  - (7) Any other information that the Commissioner reasonably deems necessary to determine whether the subject regulated activity poses or may pose a threat to the ground water.
- (c) A municipal agency, any affected water company, or the Commissioner of Public Health may, within 60 days of receiving a copy of an application for exemption under this section, submit to the Commissioner written comments on such application. The Commissioner shall give due deference to any such comments. If the Commissioner rejects any such comment, he shall provide in writing to the commenting municipal aquifer protection agency, the Commissioner of Public Health, and any affected water company a detailed explanation of the reasons for rejection, including technical analyses performed to support rejection.
- (d) If under subsection (a) of this section, the Commissioner exempts a new regulated activity from the provisions of subsection 22a-354i-5(a), he may impose such conditions on such exemption as he reasonably deems appropriate to assure that such activity does not or will not pose a threat to ground water.

#### **Section 22a-354i-7. Registration of Existing Regulated Activities**

- (a) Within 90 days after the adoption by a municipality of regulations under section 22a-354p of the general statutes, or designation of aquifer protection area, whichever occurs later, by such municipality pursuant to section 22a-354i-2 of the aquifer protection regulations, each person who is engaged in an existing regulated activity shall, on a form prescribed by the Commissioner, register such activity with the Commissioner, or municipal agency, as appropriate, and simultaneously file a copy with the Commissioner, or municipal agency and the affected water company.
- (b) The Commissioner shall process registrations for those regulated activities specified in 22a-354p(g). The municipal agencies shall process registrations for all other regulated activities.
- (c) The Commissioner or municipal agency, as appropriate, processing the registration may reasonably request information in addition to that required by this section. A registration shall include at least the following:
  - (1) The name of the registrant; if the registrant is a corporation or limited partnership, the full name of such corporation or limited partnership as registered with the Connecticut Secretary of the State.
  - (2) The business telephone number and mailing address of (A) the registrant, and if the registrant is not the owner of the subject facility or business, the name, business, telephone number and mailing address of the owner of such facility or business, and (B) the manager or other individual who oversees operations at such facility or business.
  - (3) The location of such business or facility, using street address or other appropriate method of location.

- (4) The nature of the business or facility, including any product or operations produced conducted thereat.
- (5) A description of all raw materials, wastes, fuels, and chemicals transferred, treated, stored, utilized, generated or otherwise handled at such facility, including any hazardous material or hazardous waste, and the maximum quantities of any such material, fuel, or chemicals so handled during any 12-month period in the past five years.
- (6) A description of waste management practices at such facility and of potential sources of a release to the ground, including without limitation materials handling and storage areas, fuel handling and storage areas, process operation areas, floor drains, storm drains, and waste handling and storage areas, including waste treatment or disposal areas.
- (7) A legible photocopy of each state, federal, and local authorization issued with respect to such facility or business or activities thereat.
- (8) A certification signed by the registrant that the subject regulated activity is in compliance with the best management practices set forth in section 22a-354i-9(a) as follows:

"I have personally examined and am familiar with the information submitted in this registration and all attachments, and certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in this document or certification, may be punishable as a criminal offense."
- (d) If the Commissioner, or the municipal agency, as appropriate, determines that a registration is incomplete, the Commissioner or the municipal agency shall reject the registration and notify the registrant of what additional information is needed and the date by which it must be submitted. If the registration is determined to be complete, the subject regulated activity shall be deemed registered. Such registration shall be determined to be complete if the registrant has not otherwise received a notice of rejection from the Commissioner, or the municipality, as appropriate, within ninety (90) days from the date the registration is submitted.
- (e) A registrant may transfer his or its registration to another person on a form prescribed by the commissioner.
- (f) No person to whom a registration under section 22a-354i-7 of the aquifer protection regulation has been transferred may modify the regulated activity so registered or initiate any other regulated activity on the property which is the subject of such registration except in accordance with the aquifer protection regulations.
- (g) The Commissioner or the municipal agency, as appropriate, may require that the person to whom a registration has been transferred prepare a new materials management plan under 22a-354i-9(b)(1) for the subject regulated activity if the Commissioner or the municipal agency, as appropriate, deems it necessary to protect the ground water.

#### **22a-354i- 8. Permits for Modification of Registered Activities**

- (a) Except as provided in subsection (b), (c) and (d) of this section, no person shall modify a registered regulated activity without having first received a permit therefor from the Commissioner or the municipal agency, as appropriate.
- (b) The following modifications of registered regulated activities may be made without a permit under this section:

- (1) Substitution of one hazardous material for another provided such substituted material is used for the same function and in equal or lesser amounts as the original material;
  - (2) Substitution of equipment or process for equipment or process provided that such substituted equipment or process performs the same function as the original equipment or process, without increasing the storage volume of hazardous materials stored at the subject business or facility;
  - (3) Expansion of wholesale or retail sales volume which increases the use of hazardous materials but which does not increase the storage capacity for hazardous material, or physical size of the subject facility or business, beyond that existing when the subject activity was registered;
  - (4) Initiation at the subject facility or business of an activity that is not a regulated activity.
- (c) A registrant may modify a registered regulated activity to an activity which is not a regulated activity; *provided* the registrant, before commencing such modification, receives written confirmation from the commissioner or the municipal agency, as appropriate, that the activity with respect to which modification is proposed is in fact not subject to such provisions. A request for confirmation shall be made on a form provided by the commissioner. Conversion of a modified regulated activity to its unmodified form shall be deemed a new regulated activity for the purposes of section 22a-354i-6 the aquifer protection regulation.
- (d) (1) With the written consent of the Commissioner or municipal agency, as appropriate, a registered regulated activity may be modified without a permit under this section, provided that a professional engineer or a certified hazardous materials manager certifies on a form provided by the Commissioner that:
- (A) The subject modification will not increase the registrant's capacity to store hazardous materials;
  - (B) The subject modification will not increase the registrant's number of underground storage tanks, or the capacity of underground storage tanks, used to store hazardous materials;
  - (C) The subject modification will not increase the registrant's volume of hazardous materials that, if released, may result in the creation of DNAPLs;
  - (D) The registrant has implemented the best management practices prescribed in section 22a-354i-9 of the aquifer protection regulations, including the completion of an approved materials management plan for the modified activity in accordance with subsection 9(b) of the aquifer protection regulations.
- (2) To obtain such written consent, a registrant shall, prior to commencing such modification, file a request therefor with the Commissioner or municipal agency, as appropriate, on a form provided by the Commissioner and shall concurrently submit a copy of such request to the affected water company. The Commissioner or municipal agency, as appropriate, shall give due deference to any written comments submitted by the affected water company. The Commissioner, within 90 days of receiving a complete request, or, as appropriate, the municipal agency, no later than the date of its next regularly scheduled meeting following the date of receiving a complete request, shall in writing grant or deny such request, providing the reasons therefor. If the request is denied, the registrant may not modify the subject activity without first obtaining a permit under this section. If the request is granted, the registrant may proceed with such modification only after filing a new registration for the approved modification under section 22a-354i-7 of the aquifer protection regulations.

- (e) The Commissioner shall process applications for those regulated activities specified in section 22a-354p(g) of the general statutes. The municipal agencies shall process applications for all other regulated activities.
- (f) An application shall be made on a form prescribed by the Commissioner and shall contain at a minimum the same information as required for registration under 22a-354i-7 of the aquifer protection regulations. The Commissioner or the municipal agency, as appropriate, may request from the applicant any additional information the commissioner or municipal agency, as appropriate, reasonably deems necessary. Simultaneously with filing an application, the applicant shall send a copy of the permit application and any additional information to the Commissioner or municipal agency, as appropriate, the Commissioner of Public Health, and the affected water company. Every application shall contain, on a form prescribed by the Commissioner, the following information with respect to the applicant and, if the applicant is a corporation, each of its parent corporations and subsidiary corporations, and the principals, directors, and officers thereof and, if the applicant is a partnership, each of its partners owning more than five percent of the assets thereof:
- (1) Any criminal conviction involving a violation of any environmental protection law if such violation occurred within the five years immediately preceding the date of the application,
  - (2) any civil penalty imposed in any state or federal judicial proceeding, or any civil penalty exceeding five thousand dollars imposed in any administrative proceeding, for a violation of any environmental protection law of Connecticut, any other state, or the United States, if such violation occurred within the five years immediately preceding the date of the application, and
  - (3) any judicial or administrative orders issued regarding any such violation together with the dates, case or docket numbers or other information which identifies the proceeding. For any such proceeding initiated by an agency of another state or the federal government, the commissioner may require submission of a copy of any official document which initiated the proceeding, the final judgment or order, and an official description of any violation which was found.
- (g) A municipal agency, the Commissioner, any affected water company, or the Commissioner of Public Health may, within 60 days of receiving a copy of an application for a permit under this section, submit to the Commissioner, or municipal agency, as appropriate, written comments on such application. The Commissioner, or municipal agency, as appropriate, shall give substantial deference to any such comments. If the Commissioner or municipal agency rejects any such comment, the appropriate agency shall provide in writing to the commenting municipal agency, the Commissioner of Public Health, the Commissioner, and any affected water company a detailed explanation of the reasons for rejection.
- (h) The Commissioner or municipal agency, as appropriate, may impose reasonable conditions on any permit issued under this section, including without limitation requirements relating to:
- (1) performance bonds or other financial assurance that any pollution resulting from the permitted activity will be remediated to the Commissioner's or the municipal agency's satisfaction;
  - (2) best management practices in addition to those set forth in section 22a-354i-9;
  - (3) ground water monitoring; and
  - (4) record keeping.
- (i) A permit under this section shall not be issued under this section unless the applicant demonstrates that the subject modification will not cause an increase in the registrant's number of underground storage tanks, or the capacity of underground storage tanks, used to store hazardous materials. The applicant shall provide all of the following information, with respect to both the registered activity and the proposed modification:

- (1) The volumes of hazardous materials necessary used and to be used;
  - (2) The solubility and other physical characteristics of hazardous materials used and to be used;
  - (3) The safeguards the registrant uses and proposes to use for preventing release of such hazardous materials; and
  - (4) With respect to each location at a facility at which location the modification is proposed, a signed certification by a Licensed Environmental Professional (LEP), on a form provided by the commissioner, that such LEP has investigated such location to determine whether a release of pollutants has occurred there, and, if so, whether such release has been remediated in accordance with sections 22a-133k-1 through 22a-133k-3 of the Regulations of Connecticut State Agencies.
- (j) A permit under this section shall not be issued unless an environmental audit has been satisfactorily completed by a professional engineer, or a certified hazardous materials manager, and which audit demonstrates that the applicant is in compliance with all applicable environmental laws. Such audit shall include the following information at a minimum:
- (1) A confirmation that the business or facility has implemented best management practices required in section 22a-354i-9 of the aquifer protection regulations and has completed an approved a materials management plan in accordance with section 22a-354i-9(b) of the aquifer protection regulations for both the registered activity and the proposed modified activity;
  - (2) A process flow diagram identifying where hazardous materials are stored and used on the subject property, and where on such property hazardous wastes are generated and subsequently stored and disposed for both the registered activity and the proposed modified activity;
  - (3) A list of all federal and state environmental laws applicable to the registered regulated activity, indicating whether the applicant is in compliance with each such law; and
  - (4) A pollution prevention plan for the subject facility or business for the proposed modified activity and a schedule to implement such plan.
  - (5) The following certification signed by the applicant a the professional engineer or certified hazardous materials manager responsible for preparing the application, each of whom shall certify as follows:

"I have personally examined and am familiar with the information submitted in this application and all attachments, and I certify that, based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement made in the submitted information, or this certification, may be punishable as a criminal offense."

#### **22a-354i-9. Best Management Practices for Regulated Activities**

##### **(a) Mandatory requirements.**

Every regulated activity shall be conducted in accordance with the following:

- (1) Storing hazardous material. Hazardous materials may be stored within an aquifer protection area only when in accordance with the following conditions:

- (A) Hazardous material shall be stored in an enclosed structure or under a roof which minimizes storm water entry to the containment area, except that a roof is not required for a bulk storage facility as defined in section 22a-354i-1 of the aquifer protection regulation.
  - (B) Floors within a structure where hazardous material may be stored shall be coated to protect the surface of the floor from deterioration due to spillage of any such material. A structure which may be used for storage or transfer of hazardous material shall be protected from storm water run-on and ground water intrusion.
  - (C) Hazardous material shall be stored within an impermeable containment area which is capable of containing at least the volume of the largest container of such hazardous material present in such area, or 10% of the total volume of all such containers in such area, whichever is larger, without overflow of released hazardous material from the containment area.
  - (D) Hazardous material shall be stored in a manner that will prevent the contact of chemicals with such materials so as to create a hazard of fire, explosion or generation of toxic substances.
  - (E) Hazardous material shall be stored only in a container that has been certified by a state or federal agency or the American Society of Testing Materials as suitable for the transport or storage of such material.
  - (F) Hazardous material shall be stored only in an area that is secured against entry by the public.
- (2) The requirements of subdivision (1) of this subsection are intended to supplement, and not to supersede, any other applicable requirements of federal, state, or local law, including applicable requirements of the Resource Conservation and Recovery Act of 1976, as amended.
  - (3) Use, maintenance, or installation of floor drains, dry wells, or other infiltration devices or appurtenances which allow the release to the ground of waste water is prohibited.
  - (4) Discharge of wastes. No person shall discharge any substance or material to the ground in an aquifer protection area unless such discharge is permitted by law.

**(b) Optional requirements**

- (1) Materials Management Plan. The Commissioner or the municipal agency, as appropriate, if deemed necessary to protect an existing or potential well field, may require by written notice any registrant to submit for written approval a Materials Management Plan and to implement such plan once it is approved. If required, a Materials Management Plan shall be submitted to the Commissioner, or municipal agency, as appropriate, within 180 days of such request. The plan shall contain at a minimum the following information:
  - (A) A pollution prevention plan to be implemented in connection with the subject regulated activity;
  - (B) An inventory of all hazardous materials which are or will likely be manufactured, produced, stored, utilized or otherwise handled at the subject property, a description of waste, including waste waters, generated and a description of how they are handled, stored, and disposed;
  - (C) A description of any operations or practices associated with the regulated activity which may pose a threat of pollution to the aquifer;

- (D) The name, mailing address, title and telephone number of the individual(s) responsible for implementing the Materials Management Plan and the individual(s) who should be contacted by the Department in an emergency;
  - (E) A record-keeping system to account for the types, quantities, and disposition of hazardous materials which are used, stored, or otherwise handled at the subject property or which are discharged or emitted therefrom; such description shall also identify the individual(s) responsible for maintaining such records. Records created under such system shall be maintained at the subject property and shall be made available thereat for inspection during normal business hours by the Commissioner and the municipal agency; and
  - (F) An emergency response plan used to respond to a release at the subject property due to a fire, explosion, earthquake, flood, or a storm. Such plan shall describe how each such event could result in a release to the underlying aquifer and shall set forth the methods used or to be used to prevent and abate any such a release.
- (2) A completed emergency and hazardous chemical inventory form required by section 22a-610 of the general statutes may be submitted in lieu of the Materials Management Plan described above, if the form accounts for all hazardous materials used, stored, or otherwise handled at the subject facility, and includes all the information required by subdivision (1) of this subsection.
- (3) Storm water management. The commissioner or the municipal agency, as appropriate, may, if it is deemed necessary to protect an existing or potential well field, require by written notice, that any registrant, any person who has received an exemption to conduct a new regulated activity under 22a-354i-6, or any applicant for a permit submit for written approval a storm water management plan and implement such plan once it is approved. A storm water management plan shall consist of information to assure that storm water run-off generated by the subject activity is managed in a manner so as to prevent pollution of ground water and surface water, and shall meet all the requirements for the Storm Water Management Plan for the General Permit of the Discharge of Storm water associated with Commercial Activity issued under section 22a-430b of the general statutes.

#### **Section 22a-354i-10. Other state, federal and local laws**

Nothing in any exemption issued under section 22a-354i-6, any registration submitted under 22a-354i-7, or any permit issued under section 22a-354i-8 of the aquifer protection regulation shall relieve any person of any other obligations under federal, state, or local law.

**STATEMENT OF PURPOSE:** To establish aquifer protection areas and prohibitions of new regulated activities proposed to be located entirely or in part within aquifer protection areas, to establish best management practices for existing regulated activities, provide an application process to modify existing regulated activities, and provide for an application process for exempting certain new regulated activities in an aquifer protection area in cases where the Commissioner determines that such new regulated activities do not pose a threat to the ground water.

## APPENDIX V

### **Comparison of Connecticut's Proposed Aquifer Protection Land Use Regulations with Other State's Wellhead Protection Program Requirements**

State Wellhead Protection Programs (WHPP) are required under section 1428 of the Safe Drinking Water Act and currently all fifty states have federally approved programs. The programs must meet the six basic program criteria: implementation roles and duties, delineation of protection areas, contaminant source inventories, management strategies, contingency plans, and new well siting. There was considerable flexibility allowed for in each of the elements to best suit state needs and circumstances. USEPA program guidance provided a range of regulatory and non-regulatory management options that should be considered. Regulatory options included siting restrictions (prohibitions), permitting, standards, and enforcement. The 1989 Aquifer Protection Task Force Report considered these WHPP program elements, as well as other state needs, when recommending the State Aquifer Protection Area Program framework.

A review of other state's Wellhead Protection Programs indicates that a number of other states have incorporated new regulatory protection requirements in either existing state regulations or in new regulations, including land use siting restrictions and prohibitions. A review of seventeen state programs, with similar water supply aquifers and land use patterns as Connecticut, indicates that eight incorporate statewide land use restrictions or prohibitions. The prohibitions are based either on specific land uses or categories of activities such as hazardous waste generators and hazardous materials storage, and are similar to those proposed in the APA Land Use Regulations. The other states use statewide required standards and state recommended voluntarily local land use controls through guidance, of which one is continuing to pursue required statewide land use controls. The Northeast states all have some form of siting controls with Massachusetts, New Hampshire, Rhode Island and New York having statewide land use restrictions or controls. The table below lists the 17 selected states and program requirements. While the proposed Land Use Regulations may be initially viewed as strict in comparison with other states in terms of land use controls, there are important additional factors that must be considered when making state comparisons. These include aquifer characteristics and vulnerability, contamination threats, types of wells covered, wellhead mapping accuracy, land use growth and development conditions, and treatment of existing uses. All of these issues were considered in the Task Force Report when developing program requirements. Specific issues that should be kept in mind when comparing the proposed regulations with other state's requirements include: the proposed regulations only apply to the largest most vulnerable community wells, while other states may include more types of public wells but only new or expanded ones; Level A mapping is highly accurate and well defined, compared to methods used in other states which can be conservatively large and; existing uses are not made non-conforming and are allowed to expand, while in other states existing uses become non-conforming and expansions are restricted.

## Wellhead Protection Program Comparisons for Selected States

<b>Northeast States</b>				
State	State Land Use Restrictions/Prohibitions	State Standards /BMPs	Voluntary Local Land Use Restrictions/Prohibitions	Comments
Vermont		X	X	
Maine		X	X	
Massachusetts	X	X	X	
New Hampshire	X	X	X	
New York	X	X	X	
Rhode Island	X	X	X	
New Jersey			X	
<b>Other States</b>				
Florida	X	X	X	
Minnesota		X	X	
Wisconsin		X	X	
Illinois		X	X	
Ohio		X	X	
W. Virginia	X	X	X	
Delaware			X	Seeking mandatory statewide land use restrictions /prohibitions
Georgia	X	X	X	
Kentucky	X	X	X	
Washington		X	X	