

### Municipal Aquifer Protection Area Registration Processing SOP

This Standard Operating Procedure (SOP) is relevant for both initial registrations and renewals. Registrations are issued for 5 years and must be renewed <u>prior</u> to expiration. Typically, the Municipal Aquifer Protection Agent follows the SOP, reviewing the applications, following up with the applicants, and making recommendations to the Agency regarding issuance.

- 1. Confirm receipt of the application and fee (if applicable).
- 2. Conduct a sufficiency review of the submittal. Important items to look for include:
  - a. Completeness of application
    - i. Registration type (i.e., new, renewal, modification)
      - If this is a renewal, check that license history is consistent with what is on record, confirm the regulated activities checked off in the application are consistent with the previous registration (and see if there are differences with the original registration)
    - ii. Receipt of registration fee (if applicable)
    - iii. Registrant name, company name, telephone number, street address, mailing address
    - iv. Primary contact information
    - v. Facility manager or operator overseeing facility operations (if different from registrant)
    - vi. Facility owner (if different from registrant)
    - vii. Facility information and identification of the regulated activities conducted on site
    - viii. Certification of Best Management Practices (BMPs)
      - All boxes for BMP certification must be checked and N/A indicated as necessary (i.e., if a site does not have an underground storage tank (UST), they still must check the box certifying that they follow BMPs related to USTs).
    - ix. All required attachments are provided
      - 1. Proof of notification to DEEP, DPH, and affected water company
      - 2. Make sure that the notices are sent to the correct people. Important to note that water utilities can be bought out by other companies, which can change the contact that the notice is sent to:
        - a. DEEP.AquiferProtection@ct.gov
        - b. <u>DPH.SourceProtection@ct.gov</u>
        - c. <u>Water-Utility-Directory.pdf</u>
      - 3. Also distribute to any other affected municipality when the property crosses town boundary lines.
        - a. aquifer-protection-agency-directory.pdf
    - x. Facility boundary map

Note that Attachment A1 is the facility boundary map required by §22a-354i-7c(2) of the Regulations of Connecticut State Agencies. This map requirement was created before current GIS mapping technology was available. Today's



maps including Attachments A2 and A3, are not required but recommended, and provide more detailed and accurate facility boundary maps to assist the Agent with registering a facility.

- 1. A map showing the property boundaries of the facility on a 1:24,000 scale United States Geological Survey (USGS) topographic quadrangle base (see **Attachment A1**).
- 2. A map showing property boundaries of the facility on a 1:6,000 scale on a USGS topographic quadrangle base (see **Attachment A2**).
- 3. A parcel map showing the parcel ID and clearly defined parcel boundaries of the facility (see **Attachment A3**).
- 4. Make sure that there are no changes to the facility boundary map with the previous registration (or the original registration).
- xi. Materials Management Plan (MMP) (see Attachment B)
  - Make sure that these are up to date. If the applicant submits the same documents as with previous registrations, make sure they verify that there have been no changes to the process flow or layout of the facility. Verification can be accepted in a document stating such and signed by the operator.
  - 2. The MMP is required to be prepared and kept on site at all times, available for inspection, and submitted to the agency upon request.
- xii. Stormwater Management Plan (SWMP) (see Attachment C and Appendix 1)
  - 1. The SWMP may be developed and may be requested by the agency (i.e., when the site is close to a surface water body).
- b. Incomplete applications
  - If any of the above need to be addressed, send a Letter of Incompleteness (see Appendix 2) to the Applicant and have them resubmit documentation as needed.
- 3. Once the application is considered complete, move forward with a more detailed review of the application and develop a staff report or memo.
  - a. Include basic information about the facility, aquifer protection area, affected municipality, and affected water utility.
  - b. Review the applicant's history and see if there are any instances of non-compliance with:
    - i. Zoning
    - ii. Inland wetlands
  - c. Review the material management plan (if submitted)
    - i. From this, their material management process flow should be clear. If not, let the applicant know and look out for this at the site inspection.
    - ii. Make note of quantities of hazardous materials and storage locations (this will be verified during the site inspection).
    - iii. Make note if it seems like there are other regulated activities occurring based on the processes described at the site.



- iv. Make note of the employee training logs and ensure it includes APA topics.
- d. Review the stormwater management plan (if requested)
  - i. Make note of drainage areas and stormwater flow across the site (this will be verified during the site inspection).
  - ii. The development and implementation of a storm water management plan required for regulated activities in accordance with Sections 8(c) and 9(d) of the APA Regulations, shall be as follows: 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 §22a-430b of the Connecticut General Statutes.
- e. From the material management plan and stormwater management plan, it should be clear where Best Management Practices (BMPs) are being applied. If not, let the applicant know and look out for this at the site inspection to ensure compliance.
- f. Address any concerns you have from your review with the applicant (send them a memo or an email). Concurrently, begin coordinating a site inspection (invite staff from DEEP, DPH, and/or affected water utility if necessary).
- g. At the end of the staff report, include language stating that more information will be compiled into a site inspection report following the site inspection (and specify date of visit).
- 4. Conduct a site inspection using the Site Inspection Form.
  - a. See Site Inspection Form (Appendix 3) which includes:
    - i. General site information
    - ii. Site checklist of potential pollution sources
    - iii. BMP checklist
    - iv. Up to date Materials Management Plan on site (electronically or hard copy)
    - v. Stormwater Management Plan (if required electronically or hard copy)
    - vi. Note any violations/problems and recommendations
- 5. Write a site inspection report and provide it to the applicant (also send to DEEP, DPH, affected water company, and anyone else who accompanied you at the site).
  - a. This report should include overview of the site and purpose of the visit, statement of the regulated activities, site findings/details (with reference to photos), compliance violations (if any), requirements for approval, and recommendations to maintain compliance.
  - b. Once this report is sent to the Applicant, there will likely be some back-and-forth correspondence until a schedule for compliance is reached.
  - c. If there are conditions to be met for approval, a schedule to meet the conditions must be provided to move forward.
    - i. Note that the conditions don't need to be met and completed during this time, they just must have a plan in place for a conditional approval.



- 6. Once you have reached a point where the Applicant and you agree with the conditions for approval, prepare registration approval documentation for signature.
  - a. This includes:
    - i. Registration Cover Letter (see Appendix 4)
    - ii. Registration Certificate (see **Appendix 5**)
  - b. Once the registration is approved by the Agency at a meeting and recorded as part of the record, distribute to the Applicant (now Registrant), DEEP, DPH, affected water company, applicable Council of Government executive director, the Aquifer Protection Agency, and the town clerk.
    - i. Also distribute to any other affected municipality when the parcel boundary crosses municipal boundaries (two different towns).
  - c. Update Registration record/tracking sheet to include information regarding the recently approved registration.
    - i. This updated tracking sheet should be shared with DEEP at least once per year
  - d. Registrations are issued for 5 years and must be renewed prior to expiration.
    - i. It is recommended that you notify a registrant at least 60 days prior to registration expiration to give sufficient time for registration processing.

Also note that DPH or the water company might have comments throughout this process, and that it is important to look out for those and incorporate them as appropriate.

For additional resources, please visit the Municipal APA website at <u>https://portal.ct.gov/deep/aquifer-protection-and-groundwater/aquifer-protection/municipalities</u>.

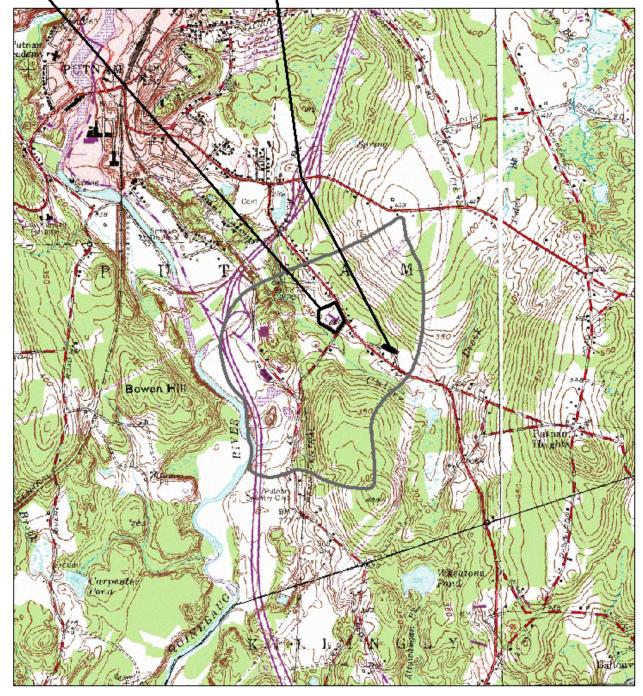


# Attachment A1: Aquifer Protection Area Facility Boundary Map

1. Facility Boundary clearly shows at scale 1:24,000.

USGS Quadrangle Map: Putnam Map Scale: 1:24,000 (1"=2,000') APA Boundary — Facility Boundary

2. Facility Boundary where site boundary is too small to show on map at scale 1: 24,000. Please attach a detailed map at a scale which clearly shows facility boundary. See Figure B for example.





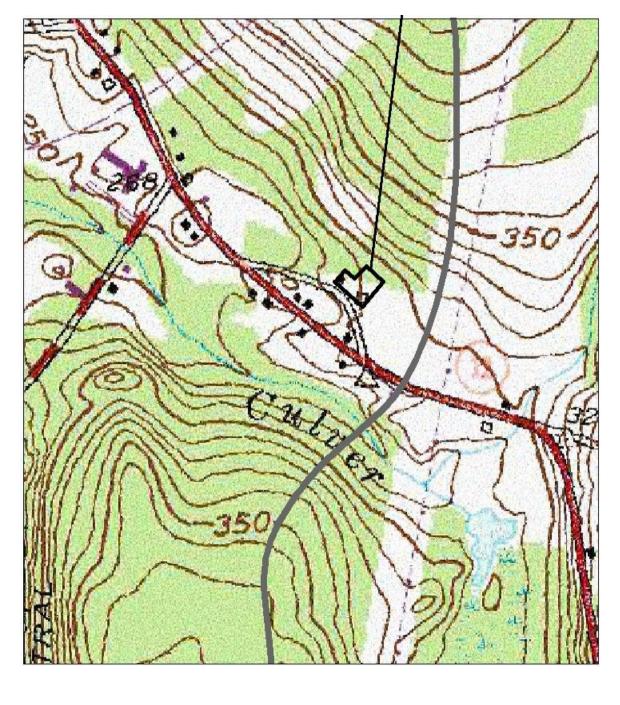
# Attachment A2: Aquifer Protection Area

Example of a detailed map at a scale which clearly shows facility boundary where site boundary is too small to show on map at scale 1: 24,000. In this example the scale chosen to show detail is 1: 6,000.

USGS Quadrangle Map: Putnam Map Scale: 1:6,000 (1" = 500')

\_\_\_\_ APA Boundary

\_\_\_ Facility Boundary

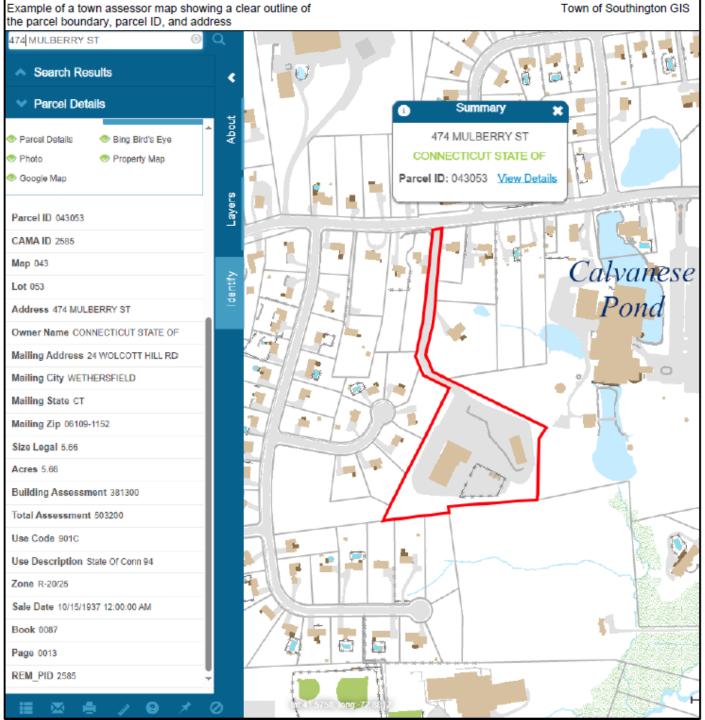




### **Attachment A3: Aquifer Protection Area**

#### **Town Assessor Map**

Example of a town assessor map showing a clear outline of



**Attachment B** 

# A MODEL FORM FOR DEVELOPING A MATERIALS MANAGEMENT PLAN FOR REGULATED ACTIVITIES IN AQUIFER PROTECTION AREAS

August 2011



DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION BUREAU OF WATER PROTECTION AND LAND REUSE PLANNING AND STANDARDS DIVISION AQUIFER PROTECTION AREA PROGRAM 79 ELM STREET, HARTFORD, CT 06106

Printed on recycled paper

#### INSTRUCTIONS

This model document was prepared by the Department of Energy and Environmental Protection to assist you in complying with the requirements of the Aquifer Protection Area Program. The document provides a general form for developing and implementing a site-specific Materials Management Plan (MMP) for regulated activities conducted at facilities in aquifer protection areas.

This document is an example of what a Plan might look like. Depending on the business or industry you are in, your own plan may be different. The Plan has eight sections including:

Section 1 – Facility and Site Information Section 2 – Tables Section 3 – Emergency Response Plan Section 4 – Employee Training Section 5 – Record Keeping System Section 6 – Individual Responsible for Implementing MMP Section 7 – Additional Protection Actions Section 8 – Certification

Please keep in the following in mind when completing the Plan:

- 1. If any section does not apply to your facility, state that it is not applicable. Do not skip it or leave it blank.
- 2. You do not need to type your forms as long as they are legible.
- 3. If other similar information has already been prepared for the site for other purposes (i.e. site plans, emergency response procedures, spill plans, etc) and meets the MMP requirement, it may be submitted as an attachment instead of the MMP form.

Once the Plan is complete, you are required by the Aquifer Protection Area Program to keep your Materials Management Plan on file at your facility and use it to assist you in controlling inventory of hazardous materials, monitoring and inspecting your site operations, responding to an emergency and training employees.

Keep the Plan up to date! By using common sense, good housekeeping and by following your Plan, pollutants that could potentially contaminate ground water can be managed or eliminated without significant cost. Remember, it costs less to keep pollutants out of the ground water than to remediate later!

Below are some phone numbers you may find useful in assembling your Plan.

<u>Aquifer Protection Area Program</u>: 860-424-3020 (for any questions specific to completing the Plan, its format or its contents)

<u>Pollution Prevention</u>: 860-424-3297 (for any question about pollution prevention or best management practices)

<u>Bureau of Materials Management and Compliance Assistance</u>: 860-424-3023 (for any questions about spills, hazardous materials, waste engineering and enforcement)

<u>Wastewater Permitting and Enforcement</u>: 860-424-3018 (for any questions about floor drains or waste water discharges)

Emergency Response and Spill Prevention

Emergency Line: 860-424-3333 OR 860-424-3338 (to report spills) General Information: 860-424-3024 (for questions on underground storage tanks or spill preparedness)

### SECTION 1 – FACILITY AND SITE INFORMATION

#### FACILITY INFORMATION

Facility Name:	Date of Plan:
Facility Address:	
Contact Name:	· · · · · · · · · · · · · · · · · · ·
Title:	Phone:
Type of Business:	
Standard Industrial Code (SIC) (if known):	
Products and Services Produced:	
SITE INFORMATION	
Property size:	
Number and size of buildings/ storage areas:	
Number and size of paved surfaces:	
	· · · · · · · · · · · · · · · · · · ·
Number of employees:	

#### SECTION 1 (CONT.)

#### SITE MAP

Attach a site map of the facility and label it "Figure 1".

The following is a list of items that if applicable to your facility should be included on your site map:

- Site boundary
- Outline of buildings, sheds or other storage structures, pavement
- Stormwater structures, controls, and drainage flow direction
- Location of fueling stations
- Location of loading/unloading areas
- Location of wastewater disposal systems- sewer line or septic system
- Location of waste storage and disposal areas including- dumpsters, used oil storage tanks, and other waste storage
- Location of liquid storage areas including- underground and above ground storage tanks, and their filling and discharging or distribution lines
- Location of any other outdoor structures or processing service areas that may impact groundwater or have materials exposed to precipitation

#### SECTION 1 (CONT.)

#### PROCESS FLOW DIAGRAM

Attach a building plan or diagram showing the site operations and label it "Figure 2".

Identify the following on your building floor plan or diagram:

- Hazardous materials and hazardous waste storage areas
- Hazardous materials and hazardous waste transfer, handling, and processing areas
- Waste water generation areas, collection lines, and disposal areas including floor drains, sinks, sewer line or septic system connections
- Hazardous materials delivery routes, and hazardous waste transport through the site
- Designated loading and unloading areas, tank filling operations, and holding areas
- Location of vehicle and equipment maintenance and cleaning areas
- Location of roof areas that may be subject to chemical exhaust or drippage (do not include heating/ventilation/air conditioning (HVAC) condensate)

Note: For small or simple sites, information for site map and process flow diagram may be combined into one figure.

#### SECTION 2 – TABLES

#### Table 1. HAZARDOUS MATERIAL INVENTORY

Date of Inventory \_\_\_\_\_

Provide an inventory of all hazardous materials that could potentially pollute ground water. List hazardous materials that are handled or stored on site including: raw materials, intermediate products, final products and other materials.

Hazardous Material Type	Purpose / Description	Location	Container Type	Container Size	Maximum Quantity Stored

#### SECTION 2 (CONT.)

#### Table 2. WASTE AND WASTEWATER INVENTORY

Date of Inventory \_\_\_\_\_

Provide a description of all types and volumes of hazardous and solid wastes and wastewaters generated, and a description of how wastes are handled, stored and disposed.

Waste and Wastewater	Purpose / Description	Location	Quantity Stored / Generated	Disposal Method

#### SECTION 2 (CONT.)

#### Table 3. POTENTIAL POLLUTION SOURCES AND PROTECTION MEASURES

Date \_\_\_\_\_

Provide a description of measures and controls used to prevent and abate any releases or spills which could cause pollution of the aquifer including design structures and controls, procedures, good housekeeping and preventive maintenance.

Potential Pollution Source	Control/Protection Measures	Future Preventive Practices

#### SECTION 2 (CONT.)

#### Table 4. POLLUTION PREVENTION ASSESSMENT

Date of Assessment

Provide an assessment of ways you have examined to use less hazardous types of material, reduce the amount of hazardous materials and wastes, and the potential to implement such actions.

Material	Substitute Less Hazardous or Non- Hazardous Material	Process or Practice to Reduce Hazardous Materials or Hazardous Waste Generation	Action Implemented or Reason Not Implemented

#### **SECTION 2 (CONT.)**

#### Table 5. LIST OF SIGNIFICANT (> 5 GALLONS) SPILLS AND LEAKS

Document any significant spills or leaks and any response and correction measures taken. Call DEEP Waste Management Bureau at 860-424-3372 for questions about pollution potential of spilled materials and proper disposal of spilled materials or wastes.

Date	Spill	Leak	Location	Description	Description			Response Procedures	Corrective Measures Taken
(MM/DD/YY)	(check o	one)		Type of Material	Quantity	Source	Reason	1	
						T	T	Τ	
	<u>.                                    </u>	<b></b>				<u>+</u>	<u> </u>	_	
Date	Spill	Leak	Location	Description	Description			Response Procedures	Corrective Measures Taken
(MM/DD/YY)	(check o	one)		Type of Material	Quantity	Source	Reason	]	
Date	Spill	Leak	Location	Description	Description			Response Procedures	Corrective Measures Taken
(MM/DD/YY)	(check o	one)		Type of Material	Quantity	Source	Reason	<u>]</u>	

#### SECTION 2 (CONT.)

#### Table 6. INSPECTIONS

Identify high-risk activities and critical areas of the facility that could pollute the aquifer and require regular or special inspection including: storage areas, loading areas, drains, containment areas, waste areas, and any other area of concern. The areas identified should be inspected for evidence of leaks/spills, integrity/condition, and maintenance and housekeeping. Inspection reports must be kept on file with the Plan.

Area to be Inspected	Inspection Schedule	Checked for leaks, conditions, maintenance	Probl	ems?	If yes, describe action taken	Date of Last Inspection
			Y	Ν		

#### SECTION 3

#### EMERGENCY RESPONSE PLAN

Provide an emergency spill prevention and response plan. You may reference any Spill Prevention Countermeasure Control Plan or other Spill Plan that you have as long as the plan includes the items below. Your Plan must include, at a minimum, the following:

#### **Response Procedures**

Identify where spill response equipment or materials are located and appropriate personnel who are instructed in its use:

Identify the spill coordinator who will be advised immediately of all spills, regardless of quantity:

Indicate how the spill will be evaluated to determine the necessary response. (If there is a health hazard, fire, or explosion potential, 911 will be called. If the spill is large or threatens ground water, the DEP Oil and Chemical Spills Unit will be called at 860-424-3338. Any questions on pollution potential of spilled materials and proper disposal of spilled materials or wastes should be directed to DEEP Waste Management Bureau at 860-424-3372.)

Indicate how the spill will be contained as close to the source as possible with a dike of absorbent materials from the emergency spill kit (such as socks, pads, pillows or "pigs"), how additional dikes will be constructed to protect swales, catch basins or other conveyances:

#### **SECTION 3 (CONT.)**

#### **EMERGENCY RESPONSE PLAN**

#### **Response Procedures (continued)**

Indicate how all waste material will be disposed of properly, including used absorbent materials. (The DEEP will be called at 860-424-3372 for any questions about proper disposal of hazardous or regulated wastes.)

Indicate how spill response kit(s) will be kept up to date and fully stocked at all times:

#### **SECTION 4**

#### EMPLOYEE TRAINING

It is the responsibility of the facility operator to ensure that employees are trained in materials management. All employees will be trained annually and new hires will be trained within 30 days of starting. Training logs will be kept.

Training Date: \_\_\_\_\_

Trainer Name/Title:

Topics Covered: ( $\checkmark$  all applicable)

- Purpose and requirements of the Materials Management Plan
- □ Employees responsibilities
- □ Facility site plan and location of all hazardous materials
- Proper waste collection and disposal procedures of materials
- □ Spill prevention and response procedures and equipment
- Good housekeeping practices and preventive maintenance
- Reporting procedures
- Other measures and controls

Employees in attendance:

PRINT NAME	SIGN NAME

Comments:\_\_

#### **RECORD KEEPING SYSTEM - ACCOUNTING AND TRACKING OF MATERIALS**

Identify how you will track materials and account for any abnormal losses.

Maintain product Material Safety Data Sheets (MSDS): \_\_\_\_\_

Maintain hazardous waste manifests:

Ensure materials and waste containers are properly labeled:

Mark purchase date on materials: \_\_\_\_\_

Control access to materials that are hazardous:

Maintenance of Spill Logs: \_\_\_\_\_

Other:

### INDIVIDUAL RESPONSIBLE FOR IMPLEMENTING MMP

Identify the person who will be responsible for implementing the plan.

#### **Contact Information**

Name:		Title:
Phone:		
Street Address:		
City:	State:	Zip Code:
Mailing Address:		
City:	State:	Zip Code:
Mailing Address:		
City:	State:	Zip Code:

#### **Emergency Contact Information**

Identify the emergency contact person who will be advised immediately of all spills, regardless of quantity.

Name:			

Phone: \_\_\_\_\_

List additional emergency contact numbers.

Water Utility: \_\_\_\_\_

Other:

# Aquifer Protection Area Materials Management Plan (MMP) <u>SECTION 7</u>

#### ADDITIONAL PROTECTION ACTIONS

Use this section to list any other current measures, improvements, or modifications in practices, procedures, or structures that are needed to ensure compliance or to ease registration/permit requirements.



#### **SECTION 8**

#### CERTIFICATION

You must certify your plan by signing and dating it. A Connecticut licensed Professional Engineer or Certified Hazardous Materials Manager may have to certify your Plan if the DEEP or the local Aquifer Protection Agency requires certification. You may obtain a list of consultants registered with the State of Connecticut by contacting the Bureau of Water Protection and Land Reuse at 860-424-3018 and asking for the Engineer of the Day.

Your Plan must be re-certified when there are substantial changes to the facility that would cause significant revisions to the plan and potential impacts. An example of a substantial change would be an addition to the facility that included an additional process or change in the activity at the facility. If you have any questions as to whether or not a change is "substantial", please contact the DEEP Aquifer Protection Area Program at 860-424-3020.

#### Certification by owner/operator

"I certify that the materials management plan prepared for this site meets the criteria set forth in Sections 22a-354i-8(c) or 7(d) of the Aquifer Protection Area Regulations. This certification is based on my review of the materials management plan for the site and an inspection of the site. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

**Owner/Operator Signature** 

Date

Owner/Operator Name (printed or typed)

#### Certification by professional engineer

"I certify that, in my professional judgment, the materials management plan prepared for this site meets the criteria set forth in Sections 22a-354i-8(c) or 7(d) of the Aquifer Protection Area Regulations. This certification is based on my review of the materials management plan for the site and an inspection of the site. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

P.E. Signature

P.E. Number and Seal

P.E. Name (printed or typed)

Date

**Attachment C** 

# INSTRUCTIONS FOR DEVELOPING A STORMWATER MANAGEMENT PLAN FOR REGULATED ACTIVITES IN AQUIFER PROTECTION AREAS

August 2011



DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION BUREAU OF WATER PROTECTION AND LAND REUSE PLANNING AND STANDARDS DIVISION AQUIFER PROTECTION AREA PROGRAM 79 ELM STREET, HARTFORD, CT 06106

Printed on recycled paper

#### INSTRUCTIONS

This document was prepared by the Department of Energy and Environmental Protection to assist you with the stormwater management requirements of the Aquifer Protection Area Program. Because many of the facilities in Aquifer Protection Areas have already registered for the General Permit Associated with Commercial Activity (GP-Commercial) or the General Permit for the Discharge of Stormwater Associated with Industrial Activity (GP-Industrial), those forms and the accompanying Stormwater Management Plan or Pollution Prevention Plan serve as the basis for the Aquifer Protection Stormwater Management Plan (APSWMP). Due to the sensitivity of aquifer protection areas, there are some special considerations beyond those in the general permits, so an Aquifer Protection Stormwater Supplement to the general permit stormwater plan is required. The Supplement should be used to revise your existing Stormwater management Plan or Pollution Prevention areas, and develop the associated stormwater management plan, taking into consideration the Aquifer Protection Stormwater Supplement.

The APSWMP therefore has 3 components:

- 1. The GP-Commercial **OR** GP-Industrial Registration Form. This form covers facility and site location and contact information;
- 2. The Stormwater Management Plan for the GP-Commercial **OR** A Stormwater Pollution Prevention Plan for the GP-Industrial. This plan covers basic pollution prevention considerations for stormwater, including the following (the terminology differs somewhat between the Commercial and Industrial plans, but the components are essentially):
  - a. The Pollution Prevention Team or individual responsible for implementation of the plan;
  - b. Identification of discharge points or potential pollution sources;
  - c. Housekeeping measures;
  - d. Spill control and response measures;
  - e. Maintenance and inspection provisions and checklists;
  - f. Employee training;
  - g. Regular compliance evaluations;
  - h. Future Considerations;
  - i. Record keeping requirements;
  - j. Monitoring requirements (Industrial only); and
  - k. Plan Certification; and
- 3. The Aquifer Protection Stormwater Supplement. This Supplement covers additional components required only in Aquifer Protection Areas due to the sensitive nature of the resource.

Specifically:

- a. Certain map features
- b. Prevention of illicit discharges
- c. No outside storage of hazardous materials
- d. Attenuation of paved-surface runoff

- e. Existing subsurface infiltration devices
- f. Runoff management practices
- g. Infiltration of clean roof runoff
- h. Including aquifer protection information in employee training
- i. Aquifer protection certification

If you have an existing Stormwater Management Plan or Pollution Prevention Plan, go through each item in the Aquifer Protection Stormwater Supplement. Ensure that each item in the Supplement is addressed in the Stormwater Management Plan or Pollution Prevention Plan, and if not, modify the Plan to address each. Once modifications are made (if any are necessary), add the certification required by the Supplement and sign and date it.

Please keep in the following in mind when completing the Plan:

- 1. If any section does not apply to your facility, state that it is not applicable. Do not skip it or leave it blank.
- 2. You do not need to type your forms as long as they are legible.
- 3. If other similar information has already been prepared for the site for other purposes (i.e. site plans, emergency response procedures, spill plans, etc.) and meets the APSMP requirement, it may be submitted as an attachment instead of the APSMP form.

Once the Plan is complete, you are required by the Aquifer Protection Area Program to keep your APSWP on file at your facility and use it to assist you in maintaining your site. Keep the Plan up to date. By using common sense, good housekeeping and by following your Plan, pollutants that could potentially contaminate ground water can be managed or eliminated without significant cost. Remember, it costs less to keep pollutants out of the ground water than to remediate later.

Below are some phone numbers you may find useful in assembling your Plan.

<u>Aquifer Protection Area Program</u>: 860-424-3020 (for any questions specific to completing the Plan, its format or its contents)

<u>Pollution Prevention</u>: 860-424-3297 (for any question about pollution prevention or best management practices)

<u>Bureau of Materials Management and Compliance Assistance</u>: 860-424-3023 (for any questions about spills, hazardous materials, waste engineering and enforcement)

<u>Wastewater Permitting and Enforcement</u>: 860-424-3018 (for any questions about stormwater discharges)

Emergency Response and Spill Prevention

Emergency Line: 860-424-3333 OR 860-424-3338 (to report spills) General Information: 860-424-3024 (for questions on underground storage tanks or spill preparedness) Appendix 1

# **AQUIFER PROTECTION**

# STORMWATER MANAGEMENT PLAN

# SUPPLEMENT FORM

August 2011



DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION BUREAU OF WATER PROTECTION AND LAND REUSE PLANNING AND STANDARDS DIVISION AQUIFER PROTECTION AREA PROGRAM 79 ELM STREET, HARTFORD, CT 06106

#### INTRODUCTION

This document was prepared by the Department of Energy and Environmental Protection to assist you with the stormwater management requirements of the Aquifer Protection Area Program. When aquifer protection area regulations require a storm water management plan, the plan shall assure that storm water run-off generated by the subject regulated activity is managed in a manner so as to prevent pollution of ground water, and shall comply with all of the requirements for the DEEP General Permit of the Discharge of Storm Water associated with a Commercial Activity (Commercial GP)

The Commercial GP requires the following:

- 1. Registration Form: including facility information, type of activity, stormwater discharge information: number and type of conveyance
- 2. Stormwater Management Plan: including measures for pollution prevention, pavement sweeping, outdoor storage and washing restriction, illicit discharge control, spill control/response, and maintenance and inspection of storm water structures.

The additional stormwater measures for Aquifer Protection Areas are to prevent contaminated stormwater discharges/releases to the ground, apply stormwater discharge and treatment measures that protect groundwater quality, and encourage safe recharge of stormwater where it does not endanger groundwater quality. Additional management measures include:

- prevent illicit discharges to stormwater discharged to the ground
- provide necessary impervious pavement in high potential pollutant release areas or "storm water hot spots" such as storage and loading areas, fueling areas, intensive parking areas and roadways.
- discharge paved surface runoff to aboveground type land treatment structures- surface drains, sheet flow, surface swales, depressed grass islands, detention/retention and infiltration basins, and wet basins. These measures take advantage of natural treatment processes in soil and vegetation before discharge to the groundwater, and promote natural aquifer recharge.

The DEEP 2004 Connecticut Stormwater Quality Manual provides comprehensive stormwater guidance including potential groundwater concerns and is available on the DEEP's website at <u>www.ct.gov/deep/stormwater</u>.

While the emphasis is to minimize groundwater quality impacts of the runoff, a plan should be balanced and the extent possible include a combination of approaches to protect all water resources concerns including surface water quality, water quantity changes between pre-development and postdevelopment runoff rates and volumes where possible. Most alternative site design designs, low impact development, and green infrastructure techniques will beneficial to groundwater except for certain direct infiltration techniques.

#### INSTRUCTIONS

Many of the facilities in Aquifer Protection Areas may have already registered for under the General Permit Associated with Commercial Activity (GP-Commercial). Those forms and the accompanying Stormwater Management Plan serve as the basis for the Aquifer Protection Stormwater Management Plan (APSMP). Note: a registration under the General Permit for the Discharge of Stormwater Associated with Industrial Activity (GP-Industrial) also can serve as the basis for the APSMP. Due to the sensitivity of aquifer protection areas, there are some special considerations beyond those in the general permits, so an Aquifer Protection Stormwater Supplement to the GP-Commercial Stormwater Management Plan is required. The Supplement should be used to revise or add to your existing

stormwater management plan. For new facilities, or those without an existing stormwater general permit, complete the GP-Commercial registration form and develop the associated stormwater management plan, taking into consideration the Aquifer Protection Stormwater Supplement.

The APSMP therefore has 3 components:

- 1. The GP-Commercial Registration Form. This form covers basic facility site location and stormwater information;
- 2. The Stormwater Management Plan for the GP-Commercial. This plan covers basic pollution prevention and source controls for stormwater, including the following:
  - a. The Pollution Prevention Team or individual responsible for implementation of the plan;
  - b. Identification of discharge points or potential pollution sources;
  - c. Housekeeping measures;
  - d. Spill control and response measures;
  - e. Maintenance and inspection provisions and checklists;
  - f. Employee training;
  - g. Regular compliance evaluations;
  - h. Future Considerations;
  - i. Record keeping requirements;
  - j. Plan Certification
- 3. The Aquifer Protection Stormwater Supplement. This Supplement covers additional components required only in Aquifer Protection Areas due to areas of concern to groundwater, this includes:
  - a. Additional site features of concern to groundwater
  - b. Prevention of illicit discharges to ground
  - c. No outside storage of hazardous materials
  - d. Runoff management practices
  - e. Use of subsurface infiltration devices
  - f. Infiltration of clean roof runoff
  - g. Including aquifer protection information in employee training
  - h. Aquifer protection certification

If you have an existing Stormwater Management Plan go through each item in the Aquifer Protection Stormwater Supplement. Ensure that each item in the Supplement is addressed in the Stormwater Management Plan, if not modify the Plan to address each. Once modifications are made (if any are necessary), add the certification required by the Supplement and sign and date it.

Please keep in the following in mind when completing the Plan:

- 1. If any section does not apply to your facility, state that it is not applicable. Do not skip it or leave it blank.
- 2. You do not need to type your forms as long as they are legible.
- 3. If other similar information has already been prepared for the site for other purposes (i.e. site plans, material management plans, emergency response procedures, spill plans, etc.) and meets the APSMP requirement, it may be submitted as an attachment instead of the APSMP form information. Note: in many cases the APA Material Management Plan will have addressed many of the pollution prevention and source controls for stormwater.

Once the Plan is complete, you are required by the Aquifer Protection Area Program to keep your APSWP on file at your facility and use it to assist you in maintaining your site. Keep the Plan up to date. By using common sense, good housekeeping and by following your Plan, pollutants that could

potentially contaminate ground water can be managed or eliminated without significant cost. Remember, it costs less to keep pollutants out of the ground water than to remediate later.

Below are some phone numbers you may find useful in assembling your Plan.

<u>Aquifer Protection Area Program</u>: 860-424-3020 (for any questions specific to completing the Plan, its format or its contents)

<u>Pollution Prevention</u>: 860-424-3297 (for any question about pollution prevention or best management practices)

<u>Bureau of Materials Management and Compliance Assistance</u>: 860-424-3023 (for any questions about spills, hazardous materials, waste engineering and enforcement)

<u>Wastewater Permitting and Enforcement</u>: 860-424-3018 (for any questions about stormwater discharges)

Emergency Response and Spill Prevention

Emergency Line: 860-424-3333 OR 860-424-3338 (to report spills) General Information: 860-424-3024 (for questions on underground storage tanks or spill preparedness)

#### The Aquifer Protection Stormwater Supplement

The Aquifer Protection Stormwater Supplement is to be used in conjunction with the Commercial Stormwater General Permit Registration Forms, and the associated Stormwater Management Plan This supplement includes additional stormwater considerations to minimize the potential for stormwater to cause groundwater contamination in aquifer protection areas, where stormwater can potentially impact a public water supply well. Discussed below are special considerations for Aquifer Protection Areas. These requirements may exceed those of the Commercial Stormwater General Permit, but because groundwater from sites in Aquifer Protection Areas feed into public water supply wells, such special requirements are warranted.

Consider each of the following, and make any needed changes to the SMP. Update the SMP to reflect these changes and keep it on file at the facility. Submit the SMP to the Aquifer Protection Agency or DEEP as required.

#### A. Additional stormwater and site features of concern to groundwater (as applicable):

- Outline of buildings, sheds or other storage structures, pavement
- Stormwater structures and conveyances to the ground- drainage flow direction, infiltration areas and structures, and treatment or controls
- Location of fueling stations
- Location of loading/unloading areas
- Location of wastewater disposal systems- sewer line or septic system
- Location of waste storage and disposal areas including: dumpsters, used oil storage tanks, and other waste storage
- Location of liquid storage areas including: underground and above ground storage tanks, and their filling and discharging or distribution lines
- Location of any other outdoor structures or processing service areas that may impact groundwater or have materials exposed to precipitation

#### B. Prevention of illicit discharges to the stormwater system.

Nothing but stormwater, uncontaminated groundwater seepage or permitted discharges should be in your stormwater system, and should be evaluated to ensure that there are no unpermitted nonstormwater discharges at the facility should be documented. Methods could include visual inspections of the facility and review of site plans, dry weather inspection of storm drains to ensure that there is no dry-weather flow, and dye or smoke testing if necessary.

Ensure that <u>no washing</u> of equipment or vehicles takes place outside where it can flow to the storm drain system, and include a statement to that effect in the SMP. Any washing must take place indoors, in an area where a permit has been obtained to discharge washwater through an approved oil/water/grit separator to a municipal sewage treatment facility, or in an area where all washwater discharges to a holding tank.

#### C. Ensure that no outside storage of hazardous materials is taking place.

Outside storage of hazardous materials (including salt storage) is prohibited in Aquifer Protection Areas. All hazardous materials much be stored in a building or under a roof, on an impermeable surface that is protected from stormwater run-on. Verify that no outside storage of materials is taking place, and include this as an item in the regular inspection schedule.

#### D. Runoff management practices

List any runoff management practices used at the facility. Note appropriate descriptions or qualifications to the practices listed, such as the portion of the site affected. Runoff management practices might include catch basins, drainage swales, riprap channels or pools, detention/ retention basins, infiltration basins or structures, impervious areas, sheet flow, biofilters or other measures used to manage/treat runoff. Management practices to be followed include:

- Runoff from paved surfaces should be directed to above-ground land treatment structuressurface drains, sheet flow, surface swales, depressed grass islands, detention/retention and infiltration basins, and wet basins. These provide an opportunity for volatilization of volatile organic compounds to the extent possible before the stormwater can infiltrate into the ground.
- Direct infiltration structures such as galleries, drywells, and leaching trenches, do not allow for attenuation of salt or other soluble compounds that may be contained in parking lot runoff. New direct infiltration structures should not be installed and existing ones should be considered for replacement. If clean roof runoff can be segregated from stormwater, it is a good source of recharge to the aquifer. In this case, subsurface infiltration structures such as dry wells, galleries, or leaching trenches are appropriate and encouraged.
- While the emphasis is to minimize groundwater quality impacts of the runoff, a plan should be balanced and the extent possible include a combination of approaches to protect all water resources concerns including surface water quality, water quantity changes between predevelopment and post-development runoff rates and volumes where possible. Most alternative site designs, low impact development, and green infrastructure techniques will be beneficial to groundwater except for certain direct infiltration techniques.
- Non-structural measures to dissipate and treat runoff are encouraged, including sheetflow from uncurbed pavement and vegetated swales/basins. These provide an opportunity for volatilization of volatile organic compounds to the extent possible before the stormwater can infiltrate into the ground.
- If a stormwater collection system must be installed, it should discharge to an above-ground outlet point (swales, basins, channels, etc.).
- prevent illicit discharges to storm water, including fuel/chemical pollution releases to the ground.
- provide necessary impervious pavement in high potential pollutant release areas. These "storm water hot spots" include certain lands use types or storage and loading areas, fueling areas, intensive parking areas and roadways.
- direct paved surface runoff to aboveground type land treatment structures- sheet flow, surface swales, depressed grass islands, detention/retention and infiltration basins, and wet basins. These provide an opportunity for volatilization of volatile organic compounds to the extent possible before the stormwater can infiltrate into the ground.
- only use subsurface recharge structures such as dry wells, galleries, or leaching trenches, to directly infiltrate clean runoff such as rooftops, or other clean surfaces. These structures do not adequately allow for attenuation of salts, solvents, fuels or other soluble compounds in groundwater that may be contained in runoff.

- Minimize impervious coverage, disconnect large impervious areas with natural or landscape areas, and use other low impact development techniques where possible.
- Minimize pavement deicing chemicals, or use an environmentally suitable substitute.
- Other measures to protect groundwater.

#### E. Identify and address existing subsurface infiltration devices in stormwater hot spots.

Stormwater "hot spots" are areas or activities on the site with greater potential for high pollutant loads that may threaten groundwater quality. Examples of these include salvage areas, fueling facilities, dumpster or chemical storage areas, loading docks and large parking lots. In these areas, existing direct infiltration structures (galleries, dry wells, leaching trenches) are of particular concern as they can serve as a direct conduit for chemical pollutants to enter the groundwater and do not allow for attenuation of those chemical pollutants. Management of these stormwater hot spots should include measures to reduce potential impacts to groundwater such as the following:

- Isolate the "hot spot" by separating the activity or moving the activity to another location on the site. For example, a berm may be placed surrounding the activity to isolate it and redirect the stormwater runoff away from the infiltration device; a swale may be used to take the drainage from the hot spot away from the infiltration device; or the activity, such as storage of vehicles, may be moved or confined to an area that does not drain to the infiltration structures.
- Pre-treat the stormwater by modifying the infiltration device to include: a grass or stone filter strip area around entrance, an oil-water separator, or a media filters or inserts.
- Regular monitoring and inspection of the area by employees, temporary spill control devices such as speedy dry and absorbent pads, regular maintenance and cleaning of the drainage area and infiltration structure should be included in the SMP
- In some high-risk areas, if the above measures are not adequate it may be necessary to remove the infiltration device and use other above-ground stormwater measures such as sheet flow, swales and basins keeping the stormwater above ground to allow time for any volatile compounds to volatize off before the stormwater enters the ground.

#### F. Include information on aquifer protection in the employee training program.

Ensure that the employee training required under the SMP includes basic information about the aquifer protection area. Include that the facility is within an APA, what that means and why it is important. Summary information on the program, including a fact sheet, can be found at <a href="http://www.ct.gov/deep/aquiferprotection">www.ct.gov/deep/aquiferprotection</a>.

#### **Aquifer Protection Certification**

Remember that when you develop or modify your SMP you must certify the Plan by signing and dating it. To show that you have considered the items discussed above, add the following certification to the Plan, as appropriate:

#### Certification by owner/operator

"I certify that the [SMP or P2P] prepared for this site meets the criteria set forth in Sections 22a-354i-9(b) of the Aquifer Protection Area Regulations. This certification is based on my review of the [SMP or P2P] for the site and an inspection of the site. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

Owner/Operator Signature

Date

Owner/Operator Name (printed or typed)

#### Certification by professional engineer

"I certify that, in my professional judgment, the [SMP or P2P] prepared for this site meets the criteria set forth in Sections 22a-354i-9(b) of the Aquifer Protection Area Regulations. This certification is based on my review of the [SMP or P2P] for the site and an inspection of the site. I am aware that there are significant penalties for false statements in this certification, including the possibility of fine and imprisonment for knowingly making false statements."

P.E. Signature

P.E. Number and Seal

P.E. Name (printed or typed)

Date

#### J. Questions

Any questions regarding this supplement can be directed to the Aquifer Protection Area Program at (860) 424-3720 or <u>deep.aquiferprotection@ct.gov</u>.

Appendix 2 Letter of Incompleteness

### LETTER OF INCOMPLETENESS On letterhead if available

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[DATE]

[APPLICANT'S NAME and ADDRESS]

RE: Application No. [NUMBER] Town of [TOWN NAME]

Dear [APPLICANT'S NAME]:

The [NAME OF AGENCY] has reviewed your registration/permit application, and has determined that it is incomplete. Please submit the following information and answer the following questions in writing by the agency's meeting to be held on [DATE] to complete the registration/permit application.

1.

2.

3.

[ETC.]

Failure to submit this information may result in the denial of your registration/permit application because it is incomplete. If you have any questions please contact [NAME OF CHAIRMAN OR AGENT OR OTHER AGENCY CONTACT] at [PHONE NUMBER].

Sincerely,

[NAME OF CHAIRMAN] [NAME OF AGENCY] [TOWN NAME]

cc: [Other Commissions] [PARTIES] Appendix 3 Site Inspection Form

Site Background Information				
Address:				
Property Owner:				
Type of Business:				
Facility Representative(s):				
Phone:				
<b>Purpose of visit:</b> Compliance assistance/site visit to determine if the site is in compliance with all requirements of their Aquifer Protection Area Registration.				
Others on the site visit:				
Main Inspector:				
Other Inspectors:				
Date:	Arrival Time:	Depart Time:		
Weather Conditions:				
Attachments: Photos of the si	te			
Inspection Report Date:				
Submitted by:				
Agency/Office/Phone:				

Registered/Permitted Regulated Activities: Dy State DEEP	by Local APA Agency
Local APA Regulations effective:	
Registered Activity(s): As listed in <i>RSCA section 22a-354i-1(34):</i>	
Permitted Activity(s):	
Unregistered/unpermitted Activity:	
Activity	
Facility boundary violation	
Water and Sewage:	
on-site septic system OR public sewer	
on-site well OR public water supply	

Additional General Notes:

### Site Checklist of Potential Pollution Sources

Wastes/Wastewaters	Disposal/Handling Method
hazardous or regulated wastes	
non-domestic wastewaters	
floor drains	
dumpsters, solid wastes storage	
other areas of concern	

#### **Fuel and Chemical Storage**

Type of fuel/chemical Volume Aboveground Underground Containment

Note:

Other Potential Site Hazards			
spills/leaks	outside work	or transfer areas	
illegal dumping	pesticide or cl	nemical applications	
oil/chemical stained areas	other		
Stormwater Drainage			
Description of system:			
Potential Stormwater Pollution	n Source		
exposed materials/storage		deicing salt	large parking or pavement areas
unauthorized connections		loading/transfer area	other
discharge to drywell or subsurfac	e structure	fueling/dispensing area	3
Note:			

### **Best Management Practices (BMPs) Checklist**

Key: C – Compliance NC – Non-compliance N/A – Not applicable

(RCSA Section 22a-354i-9)

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Hazardous materials stored above ground within an aquifer protection area only in accordance with the following conditions:	
1. 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	
2. 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	
3. 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	I
4. 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	
5. hazardous material shall not be stored with other hazardous materials that are incompatible and macreate a hazard of fire, explosion or generation of toxic substances	ау
6. hazardous material shall be stored only in a container that has been certified to meet state or feder specifications for containers suitable for the transport or storage of such material	al
7. hazardous material shall be stored only in an area that is secured against un-authorized entry by the public	5
8. no person shall increase the number of underground storage tanks used to store hazardous materia	ils
9. 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 the larger replacement tank is a double-walled tank with co-axial piping, both meeting new installat 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	• •
10. 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 §22a-430 or §22a-430b of the C.G.S.	

A Materials Management Plan (MMP) shall be developed and implemented, as required by RCSA Section 22a-354i-9, in accordance with the following:
11. 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 the alternatives where possible
A description of any operations or practices which may pose a threat of pollution to the aquifer, which include the following:
12. a process flow diagram identifying where hazardous materials are stored, disposed and used, and where hazardous wastes are generated and subsequently stored and disposed
13. an inventory of all hazardous materials which are likely to be or will be manufactured, produced, stored, utilized or otherwise handled
14. a description of waste, including waste waters generated, and a description of how such wastes are handled, stored and disposed
15. 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
16. 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
17. 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
18. 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

### **Inspection Information**

Violations/Problems:

Recommendations:

Appendix 4 Registration Cover Letter

### REGISTRATION COVER LETTER On letterhead if available

-----

[DATE]

[NAME], [TITLE] [COMPANY] [STREET], [PO BOX] [TOWN/CITY], [STATE] [ZIP CODE]

Re: Aquifer Protection Area Registration

Dear Registrant:

Enclosed is a certificate of registration for the activities being conducted at your facility in the aquifer protection area.

This certificate will serve two purposes. First, this is a way for us to acknowledge to you that your registration has been processed. Second, it is a way for our inspection staff to know that you have the appropriate activities registered for your facility.

The expiration date noted on the registration certificate is the expiration date for this registration. When corresponding with our office regarding your registration, please use the "Registration Number" on the certificate. This number is unique to your activity and the location of the facility.

The following general provisions apply to the issuance of this and all registrations:

- the Agency 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 Agency are subject to and do not derogate any present or future rights or powers of the Commissioner, 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 Agency;

- (4) the registrant shall apply to the Agency to renew the registration on a form prescribed by the Agency for a facility prior to expiration of such registration; and
- (5) 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.

If you have any questions regarding this registration or the aquifer protection area program, please feel free to call [NAME] at [PHONE NUMBER].

Sincerely, Aquifer Protection Agency

Enclosure

Cc: Connecticut Department of Environmental Protection Connecticut Department of Public Health Water Utility Appendix 5 Registration Certificate TOWN/CITY LOGO

TOWN/CITY AQUIFER PROTECTION AGENCY STREET ADDRESS CITY, STATE ZIP CODE

# Certificate of Registration

Issued to:

[FACILITY NAME]

For the following activities:

### [LIST OF ACTIVITIES]

## Aquifer Protection Area Registration

In accordance with the [Town/City] Aquifer Protection Area Regulations

[NAME] [CHAIR, AQUIFER PROTECTION AGENCY]

Facility Information: [NAME] [STREET][PO BOX] [CITY][STATE][ZIP] Registration Number: [NUMBER] Application Number: [NUMBER] Issue Date: [NUMBER] Expiration Date: [NUMBER]